# Shark<sup>®</sup> 250 Modbus Protocol

Power & Energy Meter for Utility & Critical Industrial Substations



Modbus Protocol Application Guide V.1.05 September 16, 2021

**Electro Industries/GaugeTech**™ Powered by Innovation™

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Shark<sup>®</sup> 250 Meter Modbus Protocol Application Guide V. 1.05

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Our solutions are designed to deliver results in days, not years. Known for our reputation as being a dependable provider and for exemplary service and support, EIG is committed to customer satisfaction. This page intentionally left blank.

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## **1: Modbus Manual Introduction**

#### 1.1: Overview

The Modbus Map for the Shark® 250 meter gives details and information about the possible readings of the meter and its programming. The Shark® 250 meter can be programmed using software.

- For software programming instructions, see the CommunicatorPQA<sup>TM</sup>, MeterManagerPQA<sup>TM</sup>, and EnergyPQA.com<sup>TM</sup> Software User Manual.
- For additional details about the meter and its operation, see the *Shark*® 250 Meter *Installation and Operation Manual*.

#### **1.2: Organization of this Manual**

- This chapter is an introduction to the *Shark*®250 Meter Modbus Protocol Application Guide.
- Chapter 2 explains basic information about the Modbus Protocol and the Shark® 250 meter's implementation of it.
- Chapter 3 contains instructions for downloading logs from the Shark® 250 meter using the Modbus registers.
- Chapter 4 contains the meter's Modbus Map.

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### **2: Modbus Information**

This chapter gives some information about the Modbus Map for the Shark® 250 meter.

#### 2.1: Modbus Register Map Sections

Use the PDF bookmarks to navigate through the sections of the Modbus Map, contained in Chapter 4. The map includes the following sections:

Meter Info (Information) Section, Registers 1- 57, contains the meter's fixed information, e.g., meter name and serial number.

Meter Readings Section, Registers 1000 - 19134, contains the meter's Readings, including Primary Readings, Primary Energy Block, Primary Demand Block, Uncompensated Readings Block, Phase Angle Block, Status Block, Primary Energy in Interval Block, Primary Energy in Interval (pulses) Block, Short Term Primary Minimum Block, Primary Minimums and Minimum Demands Block, Primary Minimums and Minimum Demands Timestamps Block, Short Term Primary Maximum Block, Primary Maximums and Maximum Demands Block, Primary Maximum Block, Primary Maximums timestamps Block, Option Card Blocks, Accumulators Block, Uncompensated Energy in Interval Block, Uncompensated Energy in Interval (pulses) Block, Test Mode Block, THD Block.

Commands Section, Registers 20000 - 26011, contains the meter's Resets Block, Privileged Commands Block, Current Username/Password Block, and Encryption Block.

Programmable Settings Section, Registers 30000 - 37688, contains all of the meter's settings blocks.

Secondary Readings Section, Registers 40001 - 40100, contains the meter's Secondary Readings blocks.

TOU Section, Registers 41000 - 48919, contains the Time of Use Status and Accumulator blocks.

Log Retrieval Section, Registers 49997 - 51251, contains the Log Retrieval and Log Status blocks. See 3.2: Retrieving Logs Using the Shark® 250 Meter's Modbus Map, on page 3-1.



Screen Update Control Section, Registers 51950 - 51952, contains the Screen Status Block.

## 2.2: Important Note Concerning the Shark ® 250 Meter's Modbus Map

In depicting Modbus Registers, the Shark® 250 meter's Modbus map uses Holding Registers only.

#### 2.3: Decimal Representation

The Shark® 250 meter's Modbus map defines Holding Registers as (4X) registers. Many popular SCADA and HMI packages and their Modbus drivers have user interfaces that require users to enter these Registers starting at 40001. So instead of entering two separate values, one for register type and one for the actual register, they have been combined into one number.

The Shark ® 250 meter's Modbus map uses a shorthand version to depict the decimal fields, i.e., not all of the digits required for entry into the SCADA package UI are shown. For example:

You need to display the meter's serial number in your SCADA application. The Shark ® 250 meter's Modbus map shows the following information for meter serial number:

Register	Description
9	Meter Serial Number

In order to retrieve the meter's serial number, enter 40009 into the SCADA UI as the starting register, and 8 as the number of registers.

• In order to work with SCADA and Driver packages that use the 40001 to 49999 method for requesting holding registers, take 40000 and add the value of the register (Address) in the decimal column of the Modbus Map. Then enter the number (e.g., 4009) into the UI as the starting register.



• For SCADA and Driver packages that use the 400001 to 465536 method for requesting holding registers take 400000 and add the value of the register number in the Modbus Map. Then enter the number (e.g., 400009) into the UI as the starting register. The drivers for these packages strip off the leading four and subtract 1 from the remaining value. This final value is used as the starting register or register to be included when building the actual Modbus message.

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## **3: Retrieving Logs**

#### 3.1: Introduction

The Modbus Map for the Shark® 250 meter gives details and information about the possible readings of the meter and its programming. The native protocol for the Shark® 250 meter and most other EIG meters is Modbus protocol. Using this protocol, a user can get all measured and calculated data points, download stored logs and also be able to program the meter. For users that only want to program settings into the meter or view log data, the meter can be configured and manipulated using EIG's CommunicatorPQA<sup>TM</sup> software package. This software can be found at https://electroind.com/downloads/software-downloads/. For software programming instructions, see the *CommunicatorPQA<sup>TM</sup>*, *MeterManagerPQA<sup>TM</sup>*, and EnergyPQA.com<sup>TM</sup> Software User Manual.

#### 3.2: Retrieving Logs Using the Shark® 250 Meter's Modbus Map

This section describes the Shark® 250 meter's log interface system, which is the system that the meter uses to retrieve data from stored historical interval, waveform and other logs, from a programming point of view. It is intended for programmers implementing independent drivers to retrieve logs from the meter. It describes the meaning of the meter's Modbus Registers related to retrieving logs and converting retrieved logs to useful data. The following sections detail the procedure for retrieving a log's records.

#### NOTES:

- All references assume the use of Modbus function codes 0x03, 0x06, and 0x10, where each register is a 2 byte MSB (Most Significant Byte) word, except where otherwise noted. For more information on Modbus and how it works, see https:// en.wikipedia.org/wiki/Modbus.
- The carat symbol (^) notation is used to indicate mathematical "power." For example, 2^8 means 2<sup>8</sup>; which is 2 x 2 x 2 x 2 x 2 x 2 x 2 x 2 x 2 x 2. which equals 256.



#### **3.2.1: Data Formats**

Time stamp: Stores a date from 2000 to 2099. Time stamp has a Minimum resolution of 1 second.

Byte	0	1	2	3	4	5
Value	Year	Month	Day	Hour	Minute	Second
Range	0-99 (+2000)	1-12	1-31	0-23	0-59	0-59
Mask	0x7F	0x0F	0x1F	0x1F	0x3F	0x3F

The high bits of each time stamp byte are used as flags to record meter state information at the time of the time stamp. These bits should be masked out, using the Mask value in the table shown above, unless they are needed. The table below describes the time stamp flags

Field	Data Mask	Flag Mask	Flag Bits
Year	0x7F	n/a	No flag bits
Month	0x0F	n/a	No flag bits
Day	0x1F	n/a	No flag bits
Hour	0x1F	0×E0	Bit 5 = unused
			Bit 6 = Daylight savings time (All records)
			Bit 7 = unused
Minute	0x3F	0xC0	Bit 6 = Short interval (Interval data only)
			Bit 7 = Long interval (Interval data only)
Second	0x3F	0xC0	Bit 6 = Start of Log (Log data only)
			Bit 7 = Bad Log record checksum (Log data only)

• Daylight Savings Time: indicates the time stamp was generated during Daylight Savings Time.



- Start of Log: indicates that this is the placeholder record at the start of each log. Note that this record is created when the log is first created, or any time the log is reset. This record is overwritten as the log fills up and old records are discarded.
- Short interval: time stamped Interval data may use this flag. A short interval indicates that the demand interval was less than the configured time. This may be due to a clock change or a period when the meter wasn't running.
- Long Interval: a long interval indicates that the demand interval was greater than the configured time. This is generally due to a time change.
- Bad Log Record Checksum: this indicates that the record failed the checksum test upon being read from storage. This generally happens if the unit loses power or resets while the record is being written.

#### **3.2.2: Block Definitions**

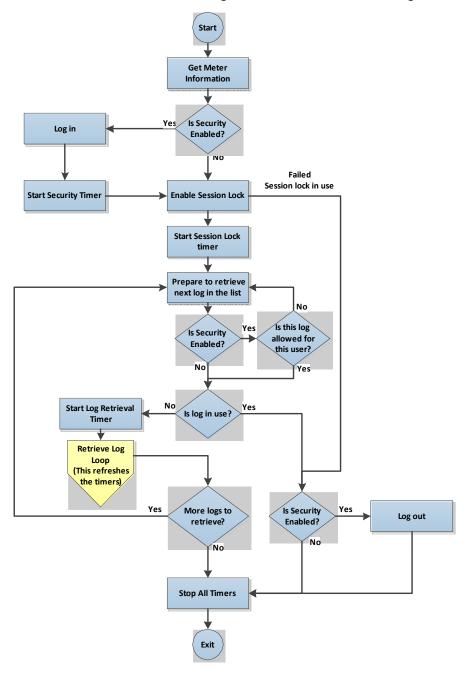
This section describes the Modbus Registers involved in retrieving and interpreting a Shark® 250 Meter Log. Other sections refer to certain 'values' contained in this section. See the corresponding value in this section for details.

#### NOTES:

- Register number (Reg#) is the absolute decimal address starting with number 1.
- Size is the number of Modbus Registers (2 bytes) in a block of data.

#### 3.3: Log Retrieval Procedure

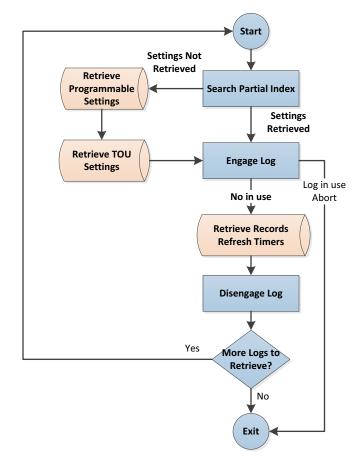
The section describes the Log Retrieval procedure. It shows the order of steps that need to be completed in order to retrieve logs. This section also shows how to retrieve a single log from the oldest record, to the newest record, using the "normal" record type (see 3.5.3.3: Log Scope, on page 3-17). All logs are retrieved using the same method. The procedure shown assumes that auto-increment is desired and Function Code 0x23 is NOT used. The following flowcharts illustrate the log retrieval process.



The flowchart on the previous page shows the log retrieval process as a whole. These steps are described in the following sub-sections. The steps are:

- 1. Get meter info read the model, meter name, and serial number.
- 2. Log in to the meter if security is enabled. Contact EIG for a security document for log retrieval.
- 3. Open the session to lock out other meters, to prevent them from interrupting the retrieval process see 3.3.2: Lock the Retrieval Session, on page 3-7.
- 4. Begin looping though each log that is being retrieved.
- 5. For the current log, if security is enabled, check the user permissions to make sure the log can be downloaded. Contact EIG for a security document for log retrieval.
- 6. Get the status of the log to make sure it is available see 3.5: Block Definitions, on page 3-12.

7. Begin retrieving the log - see the flowchart below, which details the retrieval process of an individual log.



- a. Search the partial index to determine which record to start at, and decide if the retrieval will be a partial retrieval or a full retrieval see 3.3.4: Retrieve the Records, on page 3-10, for details on searching the index.
- b. Get the programmable settings and Time of Use settings if they have not been retrieved.
- c. Engage the log. This will lock the log for retrieval see 3.3.3: Engage the Log, on page 3-9, for details on engaging logs.
- d. Retrieve each record see 3.3.4: Retrieve the Records, on page 3-10, for details on retrieving records.
- e. Disengage the log after retrieving records see 3.3.5: Disengage the Log, on page 3-11, for details on disengaging the log.



- 8. After retrieving the log, if more logs remain go to step 4.
- 9. If security is enabled, log out. Contact EIG for a security document for log retrieval.

#### 3.3.1: Log in to the Meter

- 1. First read the security status block [21202]- if security is not enabled, continue to Section 3.3.2.
- 2. If security is enabled, check the security status to be sure no one else is logged in to the meter:
  - a. If someone else is logged in to the meter, exit retrieval.
  - b. If no one else is logged in to the meter, you can log in to the meter.

**IMPORTANT!** Contact EIG for detailed log in instructions.

**NOTE:** A few possibilities can prevent the software from logging in to the meter:

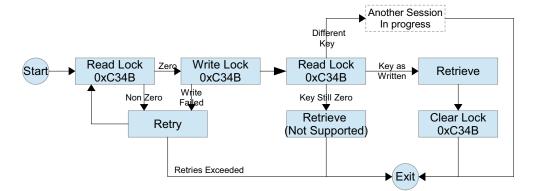
- The user does not have permission to retrieve the logs.
- An incorrect username and/or password were entered.
- Another user is already logged in to the meter.

#### 3.3.2: Lock the Retrieval Session

Log Retrieval Session Lock is a means of preventing other software from retrieving logs. When this feature is being used, only one software at a time is able to retrieve logs. This feature is optional, however it does stop potential log retrieval errors caused by more than one software trying to retrieve a log at the same time.

For example, if one software requests the 100th record of the first historical log, the meter will fill the log retrieval block with that record in order to send it to the requesting software. However, there is nothing to stop another software from requesting another block from another log, e.g., software 2 can request the 2nd record of the third historical log. If this happens, the log retrieval block will be filled with the 2nd record of the third historical log, and software 1 will get a different record than what was asked for. Log Retrieval Session Lock is useful in preventing this occurrence.





The flowchart below shows the steps for the Log Retrieval Session Lock.

- 1. Read the retrieval session block [49995]:
  - a. If the value in the register is zero, continue to step 2.
  - b. If the value in the register is not zero, this indicates another retrieval process is occurring. In this case you cannot proceed; exit retrieval.
  - c. If there is an error code or if the session is already closed, wait a second and retry reading the block, in case another retrieval process has finished. The software will try to open the session up to five times, with a second or two between each retry, based on the error code (see 3.7.3: Log Retrieval Example, on page 3-23). If the session is still not open; exit retrieval.
- 2. Write the retrieval session block [49995]: write any non-zero value to the register, in order to take control of log retrieval and prevent other software from retrieving logs. When writing to this register, if the Modbus error 3 (ILLEGAL\_DATA\_VALUE) is returned, this indicates another retrieval process is occurring (it is likely that the session was opened while reading the register, but another software locked the session before you wrote it to it.). In this case, you cannot proceed; retrieval.
- 2. Read back the retrieval session block [49995]:
  - a. If the value matches the value written to the register in step b, the retrieval session is successfully locked.
  - b. If the software successfully wrote a non-zero value to the register, and the value is still zero when reading it back, the firmware does not support this feature, so



continue with the older version of log retrieval that does not have the Session Lock.

 c. If the value read does not equal the value written to the register in step b, another software took control of the session. In this case you cannot proceed; exit retrieval.

#### 3.3.3: Engage the Log

- 1. Read the Log Status Block. This step is done to ensure that the log is available for retrieval, as well as retrieving information for later use.
  - a..Read the contents of the specific logs' status block [51000, 16 reg] (see 3.5.1: Log Status Block, on page 3-13).
  - b. Store the # of Records Used, the Record Size, and the Log Availability.
  - c. If the Log Availability is not 0, stop Log Retrieval; this log is not available at this time. If Log Availability is 0, proceed to step 3.
- 2. Check Log Permissions: this step falls under security, and should only be executed if meter security is enabled. Before the software can begin retrieving a log, you need to check if the user is allowed to retrieve the specific log. Contact EIG for detailed security procedures.
  - a. If the user has permission to retrieve this log, continue to step c.
  - b. If the log is not permitted, continue to the next log and repeat this step.
- 3. Engage the log:
  - a. Write log to engage Log Number, 1 to Enable, and the desired mode to Scope (default 0 (Normal)) [51000, 1 reg]. This is best done as a single-register write.
  - b. This step will latch the first (oldest) record to index 0, and lock the log so that only this port can retrieve the log, until it is disengaged.
  - c. If an error is returned, exit retrieval. You cannot proceed if the log is engaged, since somebody else may be downloading the same log you tried to engage. Note that only one log at a time can be engaged.

- 4. Verify the log is engaged:
  - a. Read the contents of the specific logs' status block [51000, 16 reg] again to see if the log is engaged for the current port (see Log Availability).
  - b. If the Log is not engaged for the current port, repeat step 3.
- 5. Write the retrieval information. This step tells the Shark® 250 meter what data to return in the window:
  - a. Compute the number of records per window, as follows:
     RecordsPerWindow = (246 / RecordSize)
    - If using 0x23, set the repeat count to 2-8. Otherwise, set it to 1.
    - Since we are starting from the beginning for retrieval, the first record index is 0.
  - b. Write the Records per window, the Number of repeats (1), and Record Index (0) [50001, 3 reg].

#### 3.3.4: Retrieve the Records

- 1. Read the record index and window: read the record index, and the data window [50002, 125 reg].
  - If the meter Returns a Slave Busy Exception, repeat the request.
  - If the Window Status is 0xFF, repeat the request.
  - If the Window Status is 0, go to step 4b (Verify record index).



#### NOTES:

- We read the index and window in 1 request to minimize communication time, and to ensure that the record index matches the data in the data window returned.
- Space in the window after the last specified record (RecordSize x Record-PerWindow) is padded with 0xFF, and can be safely discarded.
- 2. Verify that the record index incremented by Records Per Window. The record index of the retrieved window is the index of the first record in the window. This value will increase by Records Per Window each time the window is read, so it should be 0, N, N x 2, N x 3 . . . for each window retrieved.
  - If the record index matches the expected record index, go to step 2c (Compute next expected record index).
  - If the record index does not match the expected record index, then go to step 1d (Write the retrieval information), where the record index will be the same as the expected record index. This will tell the Shark® 250 meter to repeat the records you were expecting.
- 3. Compute next Expected Record Index.
  - If there are no remaining records after the current record window, go to step 3 (Disengage the log).
  - Compute the next expected record index by adding Records Per Window, to the current expected record index. If this value is greater than the number of records, re-size the window so it only contains the remaining records and go to step 1d (Write the retrieval information), where the Records Per Window will be the same as the remaining records.

#### 3.3.5: Disengage the Log

Write the Log Number (of log being disengaged) to the Log Index and 0 to the Enable bit [50000, 1 reg]. This unlocks the log and allows other ports to retrieve logs.



#### 3.3.6: Release the Retrieval Session

Write 0 to register 49995; once all logs are completed, release the retrieval session so that other users can retrieve logs.

#### 3.3.7: Log Out

If security is enabled, log out of the meter.

#### 3.4: Error Codes and Retry Times

For all of the steps in the previous section, if the meter returns any of the following error codes, software needs to wait a different amount of time before retrying. The chart below provides that information.

Error Code	Code	Milliseconds
ILLEGAL_FUNCTION	1	20
SLAVE_DEVICE_BUSY	6	1000-2000
SLAVE_DEVICE_FAILURE	4	1000-2000

**NOTE:** If meter security is enabled and the meter is returning ILLEGAL\_FUNCTION while trying to write a value to a register, the Security Timer has logged you out. Functions that would return this code are: Engage/ Disengage Log, Open/Close Session, Setting Record Index, etc; the error would occur when trying to write to the meter. You will need to log in to the meter again (contact EIG for detailed log in instructions).

#### 3.5: Block Definitions

This section describes the Modbus registers involved in retrieving and interpreting a Shark® 250 meter Log. Other sections refer to certain 'values'. See the corresponding value in this section for details.

Register:	Modbus Register Address in 0-based Hexadecimal
	notation. To convert to 1-based decimal notation,
	convert from hex16 to decimal10 and add 1.
	Eg: 0x03E7 = 1000.
Size:	The number of Modbus Registers (2 byte) in a block of data.



#### 3.5.1: Log Status Block

The Log Status Block describes the current status of the log in question. There is one header block for each of the logs. Each log's header starts at the following register number:

Log	Register #
Alarms:	51000
System:	51016
Historical 1:	51032
Historical 2:	51048
Historical 3:	51064
Historical 4:	51080
Historical 5:	51096
Historical 6:	51112
Diagnostic:	51128
Voltage and Temperature:	51144
I/O Change:	51160
Power Quality Event:	51176
Waveform:	51192

Bytes	Value	Туре	Range	# Bytes
0-3	Max Records	UINT32	0 to 4,294,967,294	4
4-7	Number of Records Used	UINT32	1 to 4,294,967,294	4
8-9	Record Size in Bytes	UINT16	4 to 242	2
10-11	Log Availability	UINT16		2
12-17	Timestamp, First Record	TSTAMP	1 Jan, 2000-31 Dec, 2099	6
18-23	Timestamp, Last Record	TSTAMP	1 Jan, 2000-31 Dec, 2099	6
24-31	Reserved			8



- Max Records: The maximum number of records the log can hold given the record size, and sector allocation. The data type is an unsigned integer from 0 2^32.
- Records Used: The number of records stored in the log. This number will equal the Max Records when the log has filled. This value will be set to 1 when the log is reset. The data type is an unsigned integer from 1 - 2^32.

**NOTE:** The first record in every log before it has rolled over is a "dummy" record, filled with all 0xFF's. When the log is filled and rolls over, this record is overwritten.

- Record Size: The number of bytes in this record, including the timestamp. The data type is an unsigned integer in the range of 1 2^32.
- Log Availability: A flag indicating if the log is available for retrieval, or if it is in use by another port.

0	Log Available for retrieval
1	In use by COM1 (USB)
2	In use by COM2 (RS485)
3	In use by COM3 (Communications Capable Option Card in slot 1)
4	In use by COM4 (Communications Capable Option Card in slot 2)
0xFF	Log Not Available - the log cannot be retrieved. This indicates that the log is disabled.

**NOTE:** To query the port by which you are currently connected, use the Port ID register:

Register:	4500
Size:	1 register

Description: A value from 1-4, which enumerates the port that the requester is currently connected on.



#### NOTES:

- When Log Retrieval is engaged, the Log Availability value will be set to the port that engaged the log. The Log Availability value will stay the same until either the log has been disengaged, or 5 minutes have passed with no activity. It will then reset to 0 (available).
- Each log can only be retrieved by one port at a time. When using Ethernet, the meter will only allow one session at a time.
- Only one log at a time can be retrieved.
- First Timestamp: Timestamp of the oldest record.
- Last Timestamp: Timestamp of the newest record.

#### 3.5.2: Log Retrieval Block

The Log Retrieval Block is the main interface for retrieving logs. It is comprised of 2 parts: the header and the window. The header is used to program the particular data the meter presents when a log window is requested. The window is a sliding block of data that can be used to access any record in the specified log.

• Session Com Port: The Shark® 250 meter's Com Port which is currently retrieving logs. Only one Com Port can retrieve logs at any one time.

Register:	49999
Size:	1
0	No Session Active
1	COM1 (USB)
2	COM2 (RS485)
3	COM3 (Communications Capable Option Card in slot 1)
4	COM4 (Communications Capable Option Card in slot 2)

To get the current Com Port, see the NOTE on querying the port, on the previous page.

#### **3.5.3: Log Retrieval Header**

The Log Retrieval Header is used to program the log to be retrieved, the record(s) of that log to be accessed, and other settings concerning the log retrieval.

Registers: 50000 - 50001

Size:

2

Bytes	Value	Туре	Format	Description	# Bytes
0-1	Log Number, Enable, Scope	UINT16	nnnnnnn essssss	nnnnnnn - log to retrieve, e - retrieval session enable sssssss - retrieval mode	2
2-3	Records per Window or Batch, Record Scope Selector, Number of Repeats	UINT16	wwwwwww snnnnnn	wwwwwwww - records per window; s - 'record' vs 'batch' Window Mode; nnnnnnn - repeat count	2

#### **3.5.3.1: Log Number**

The Log Number is an enumeration for each log. Write this value to set which log is being retrieved.

Log	Number
System Events	0
Alarm Log	1
Historical Log 1	2
Historical Log 2	3
Historical Log 3	4
Historical Log 4	5
Historical Log 5	6
Historical Log 6	7
Diagnostic Log	8
Voltage and Temperature Log	9
I/O Change Log	10
Power Quality Log	13
Waveform Log	14



#### 3.5.3.2: Log Enable

This value sets if a log retrieval session is engaged (locked for retrieval) or disengaged (unlocked, read for another to engage). Write this value with 1(enable) to begin log retrieval. Write this value with 0(disable) to end log retrieval.

0	Disable
1	Enable

#### 3.5.3.3: Log Scope

Scope: Sets the amount of data to be retrieved for each record. The default should be 0 (normal).

0	Normal
1	Timestamp Only
2	Image

- Normal [0]: The default record. Contains a 6-byte timestamp at the beginning, then N data bytes for the record data.
- Timestamp [1]: The record only contains the 6-byte timestamp. This is most useful to determine a range of available data for non-interval based logs, such as Alarms and System Events.
- Image [2]: The full record, as it is stored in memory. Contains a 2-byte checksum, 4-byte sequence number, 6-byte timestamp, and then N data bytes for the record data.

#### 3.5.3.4: Window Mode

Window Mode specifies if the record count is Records per Window, or Records per Batch.

0	Records per window (this should be used for all
	logs except the Waveform log).
1	Records per batch (this should be used for the
	Waveform log.



Records Per Window: The number of records that fit evenly into a window. This value is set-able, as less than a full window may be used. This number tells the retrieving program how many records to expect to find in the window.
 NOTE: This must be set to 1 for waveform retrieval.

(RecPerWindow x RecSize) = # of bytes used in the window.

This value should be  $((123 \times 2) \setminus \text{recSize})$ , rounded down.

For example, with a record size of 30, the RecPerWindow =  $((123 \times 2) \setminus 30) = 8.2 \sim = 8$ 

 Records per Batch: Similar to Records Per Window, except this must be used for the Waveform log, since a waveform recording is so large. One Waveform recording is made up of 26 records. This setting tells the meter to return the 26 records to make the recording.

#### 3.5.3.5: Number of Repeats

Specifies the number of repeats to use for the Modbus Function Code 0x23 (35). Since the meter must pre-build the response to each log window request, this value must be set once, and each request must use the same repeat count. Upon reading the last register in the specified window, the record index will increment by the number of repeats, if auto-increment is enabled. See 3.7.2: Modbus Function Code 0x23, on page 3-21, for additional information on Function Code 0x23.

**NOTE:** This must be set to 4 for waveform retrieval.

0	Disables auto-increment
1	No Repeat count, each request will only get 1 window.
2-8	2-8 windows returned for each Function Code
	0x23 request.

Bytes	Value	Туре	Format	Description	# Bytes
0-3	Offset of First Record in Window	UINT32	SSSSSSSS NNNNNNNN NNNNNNN NNNNNNN	ssssssss - window status nnnn - 24-bit record index number.	4
4-249	Log Retrieve Window	UINT16			246



#### 3.5.4: Log Retrieval Window Block

The Log Retrieval Window block is used to program the data you want to retrieve from the log. It also provides the interface used to retrieve that data.

Register:	50002
Size:	125

#### 3.5.4.1: Window Status

The status of the current window. Since the time to prepare a window may exceed an acceptable Modbus delay (1 second), this acts as a state flag, signifying when the window is ready for retrieval. When this value indicates that the window is not ready, the data in the window should be ignored. Window Status is Read-only, any writes are ignored.

Any value	Window is Ready
0xFF	Window is Not Ready

#### 3.5.4.2: Record Number

The record number of the first record in the data window. Setting this value controls which records will be available in the data window.

- When auto-increment is enabled, this value will automatically increment so that the window will "page" through the records, increasing by RecordsPerWindow each time that the last register in the window is read.
- When auto-increment is not enabled, this value must be written to, manually, for each window to be retrieved.
- When the log is engaged, the first (oldest) record is "latched." This means that record number 0 will always point to the oldest record at the time of latching, until the log is disengaged (unlocked).
- To retrieve the entire log using auto-increment, set this value to 0, and retrieve the window repeatedly, until all records have been retrieved.

#### 3.5.4.3: Log Retrieval Data Window

This is the actual data of the records, arranged according to the above settings.



#### 3.6: Log Retrieval Security

The Shark® 250 meter enables users to secure their meter's logs. An Admin user (with full capability) can create up to 8 additional users. Each of the users are assigned a unique username and password, and given permission to perform specific functions, including retrieval of specific logs. This security lets the user restrict access to log retrieval on an individual log basis, e.g., a user may be allowed to retrieve historical logs, but not the TOU logs. This security is programmed into the meter using CommunicatorPQA<sup>TM</sup> software. See Chapter 6 in the *CommunicatorPQA<sup>TM</sup>, MeterManagerPQA<sup>TM</sup>, and EnergyPQA.com<sup>TM</sup> Software User Manual* for instructions.

If security is enabled for the meter, there are security checks - involving logging in and logging out, during the log retrieval process. See 3.3: Log Retrieval Procedure, on page 3-4, to see how security fits into the log retrieval process.

**NOTE:** If the entire log retrieval process takes more then 10 hours, the meter will automatically log you out, to prevent stalled processes from blocking other actions. If this happens, secure commands, such as engaging logs, will return the Modbus error code ILLEGAL\_FUNCTION. If you read the security status block, it will report that you are logged out. You will need to begin the login process again, and then continue the retrieval process from where you left off.

## 3.7: Log Retrieval Programming Example

Log Retrieval is accomplished in 4 basic steps: engage the log; if security is enabled, check if user has permission to retrieve this log; retrieve each of the records; and disengage the log (see 3.3: Log Retrieval Procedure, on page 3-4, for the flowcharts and detailed instructions).

## 3.7.1: Auto-Increment

In EIG's traditional Modbus retrieval system, you write the index of the block of data to retrieve, then read that data from a buffer (window). To improve the speed of retrieval, the index can be automatically incremented each time the buffer is read.

In the Shark® 250 meter, when the last register in the data window is read, the record index is incremented by the Records per Window.

## 3.7.2: Modbus Function Code 0x23

### QUERY

Field Name	Example (Hex)
Slave Address	01
Function	23
Starting Address Hi	C3
Starting Address Lo	51
# Points Hi	00
# Points Lo	7D
Repeat Count	04
RESPONSE	
Field Name	Example (Hex)
Slave Address	01
Function	23
# Bytes Hi	03



# Bytes Lo E0

Data

Function Code 0x23 is a user defined Modbus function code, which has a format similar to Function Code 0x03, except for the inclusion of a "repeat count." The repeat count (RC) is used to indicate that the same N registers should be read RC number of times.

. . .

### NOTES:

- By itself this feature would not provide any advantage, as the same data will be returned RC times. However, when used with auto-incrementing, this function condenses up to 8 requests into 1 request, which decreases communication time, as fewer transactions are being made.
- Keep in mind that the contents of the response data is the block of data you requested, repeated N times. For example, when retrieving log windows, you normally request both the window index, and the window data. This means that the first couple of bytes of every repeated block will contain the index of that window.
- In the Shark® 250 meter repeat counts are limited to 8 times for Modbus RTU, and 4 times for Modbus ASCII.

The response for Function Code 0x23 is the same as for Function Code 0x03, with the data blocks in sequence.

**IMPORTANT!** Before using Function Code 0x23, always check to see if the current connection supports it. Some relay devices, such as Ethernet to Serial gateways, do not support user defined function codes; if that is the case, the message will stall. Other devices don't support 8 repeat counts.



## 3.7.3: Log Retrieval Example

The following example illustrates a log retrieval session. The example makes the following assumptions:

- Log Retrieved is Historical Log 1 (Log Index 2).
- Auto-Incrementing is used.
- Function Code 0x23 is not used (Repeat Count of 1).
- The Log contains Volts-AN, Volts-BN, Volts-CN (12 bytes).
- 100 Records are available (0-99).
- COM Port 2 (RS485) is being used (see Log Availability).
- There are no Errors.
- Retrieval is starting at Record Index 0 (oldest record).
- Protocol used is Modbus RTU. The checksum is left off for simplicity.
- The Shark® 250 meter is at device address 1.
- The log is recording slowly enough that no records are recorded during the log retrieval process.
- Meter security is disabled.
- 1. Read [51032, 16 reg], Historical Log 1 Header Block.

Send:	0103 C757 0010
Command:	
- Register#:	51032
- # Registers:	16
Receive:	010320 00000100 00000064 0012 0000
	060717101511 060718101511
	00000000000000
Data:	
- Max Records:	0x100 = 256 records maximum.



- Num Records:	0x64 = 100 records currently logged.
- Record Size:	0x12 = 18 bytes per record.
- Log Availability:	0x00 = 0, not in use, available for retrieval.
- First Timestamp:	0x060717101511 = July 23, 2006, 16:21:17
- Last Timestamp:	0x060717101511 = July 24, 2006, 16:21:17

**NOTE**: This indicates that Historical Log 1 is available for retrieval.

2. Write 0x0280 -> [0xC34F, 1 reg], Log Enable.

Send:	0106 C34F 0280
Command:	
- Register#:	50000
- # Registers:	1 (Write Single Register Command)
Data:	
- Log Number:	2 (Historical Log 1)
- Enable:	1 (Engage log)
- Scope:	0 (Normal Mode)
Receive:	0106C34F0280 (echo)

**NOTE**: This engages the log for use on this COM Port, and latches the oldest record as record index 0.

3. Read [51032, 16 reg], Availability is 0.

Send:	0103 C757 0010
Command:	
- Register#:	51032
- # Registers:	16
Receive:	010320 00000100 00000064 0012 0002
	060717101511 060718101511
	00000000000000
Data:	
- Max Records:	$0 \times 100 = 256$ records maximum.
- Num Records:	0x64 = 100 records currently logged.
- Record Size:	0x12 = 18 bytes per record.



- Log Availability:	0x02 = 2, In use by COM2, RS485 (the current
	port)
- First Timestamp:	0x060717101511 = July 23, 2006, 16:21:17
- Last Timestamp:	0x060717101511 = July 24, 2006, 16:21:17

**NOTE**: This indicates that the log has been engaged properly in step 2. Proceed to retrieve the log.

Compute #RecPerWin as (246\18)=13. Write 0x0D01 0000 0000 -> [0xC350, 3 reg] Write Retrieval Info. Set Current Index as 0.

Send:	0110 C350 0003 06 0D01 00 000000
Command:	
- Register#:	50001
- # of Registers:	3 (6 bytes)
Data:	
- Records per Window:	13. Since the window is 246 bytes, and the record
	is 18 bytes, $246/18 = 13.66$ , which means that
	13 records evenly fit into a single window. This is
	234 bytes, which means later on, we only need to
	read 234 bytes (117 registers) of the window to
	retrieve the records.
- # of Repeats:	1. We are using auto-increment (so not 0), but
	not function code 0x23.
- Window Status:	0 (ignore)
- Record Index:	0, start at the first record.
Receive:	0110C3500003 (command OK)

### NOTES:

- This sets up the window for retrieval; now we can start retrieving the records.
- As noted above, we compute the records per window as 246/18 = 13.66, which is rounded to 13 records per window. This allows the minimum number of requests to be made to the meter, which increases retrieval speed.
- 5. Read [50002, 125 reg], first 2 reg is status/index, last 123 reg is window data. Status OK.



Send:	0103 C351 007D
Command:	
- Register#:	50002
- # Registers:	125
Receive:	0103FA 0000000
	060717101511FFFFFFFFFFFFFFFFFFFFFFFFFFFFFF
	06071710160042FAAACF42FAAD1842FAA9A8
Data:	
- Window Status:	0x00 = the window is ready.
- Index:	0x00 = 0, The window starts with the 0'th record, which is the oldest record.
- Record 0:	The next 18 bytes is the 0'th record (filler).
- Timestamp:	0x060717101511, = July 23, 2006, 16:21:17
- Data:	This record is the "filler" record. It is used by the meter so that there is never 0 records. It should be ignored. It can be identified by the data being all 0xFF.
	<b>NOTE:</b> Once a log has rolled over, the 0'th record will be a valid record, and the filler record will disappear.
- Record 1:	The next 18 bytes is the 1'st record.
- Timestamp:	0x060717101600 July 23, 2006, 16:22:00
- Data:	
- Volts AN:	0x42FAAACF, float = 125.33~
- Volts BN:	0x42FAAD18, float = 125.33~
- Volts CN:	0x42FAA9A8, float = 125.33~
13 records	



### NOTES:

- This retrieves the actual window. Repeat this command as many times as necessary to retrieve all of the records when auto-increment is enabled.
- Note the filler record. When a log is reset (cleared) in the meter, the meter always adds a first "filler" record, so that there is always at least 1 record in the log. This "filler" record can be identified by the data being all 0xFF, and it being index 0. If a record has all 0xFF for data, the timestamp is valid, and the index is NOT 0, then the record is legitimate.
- When the "filler" record is logged, its timestamp may not be "on the interval." The next record taken will be on the next "proper interval," adjusted to the hour. For example, if the interval is 1 minute, the first "real" record will be taken on the next minute (no seconds). If the interval is 15 minutes, the next record will be taken at :15, :30, :45, or :00 whichever of those values is next in sequence.
- When reading the window status, software must check the status register first. If the meters returns 0xFF, this indicates that it is not ready. If this 0xFF is returned, wait 20 milliseconds and try again.
- 6. Compare the index with Current Index.

### NOTES:

- The Current Index is 0 at this point, and the record index retrieved in step 5 is 0: thus we go to step 8.
- If the Current Index and the record index do not match, go to step 7. The data that was received in the window may be invalid, and should be discarded.
- 7. Write the Current Index to [50002, 2 reg].

Send:	0110 C351 0002 04 00 00000D
Command:	
- Register#:	50002
- # Registers:	2 (4 bytes)
Data:	
- Window Status:	0 (ignore)



- Record Index:	$0 \times 0D = 13$ , start at the 14th record.
-----------------	--

-----

**Receive**: 0110C3510002 (command OK)

### NOTES:

- This step manually sets the record index, and is primarily used when an out-oforder record index is returned on a read (step 6).
- The example assumes that the second window retrieval failed somehow, and we need to recover by requesting the records starting at index 13 again.
- 8. For each record in the retrieved window, copy and save the data for later interpretation.
- 9. Increment Current Index by RecordsPerWindow.

### NOTES:

- This is the step that determines how much more of the log we need to retrieve.
- On the first N passes, Records Per Window should be 13 (as computed in step 4), and the current index should be a multiple of that (0, 13, 26, . . .). This amount will decrease when we reach the end (see step 10).
- If the current index is greater than or equal to the number of records (in this case 100), then all records have been retrieved; go to step 12. Otherwise, go to step 10 to check if we are nearing the end of the records.

10. If number records - current index < RecordsPerWindow, decrease to match.

### NOTES:

• Here we bounds-check the current index, so we don't exceed the records available.



 If the number of remaining records (#records - current index) is less than the Records per Window, then the next window is the last, and contains less than a full window of records. Make records per window equal to remaining records (#records-current index). In this example, this occurs when current index is 91 (the 8'th window). There are now 9 records available (100-91), so make Records per Window equal 9.

11. Repeat steps 5 through 10.

#### NOTES:

Pass	CurIndex	FirstRecIndex	RecPerWindow
0	0	0	13
1	13	13	13
2	26	26	13
3	39	39	13
4	52	52	13
5	65	65	13
6	78	78	13
7	91	91	9
8	100		

• Go back to step 5, where a couple of values have changed.

- At pass 8, since Current Index is equal to the number of records (100), log retrieval should stop; go to step 12 (see step 9 Notes).
- 12. No more records available, clean up.

13. Write 0x0000 -> [50000, 1 reg], disengage the log.

Send:	0106 C34F 0000
Command:	
- Register#:	50000
- # Registers:	1 (Write Single Register Command)
Data:	
- Log Number:	0 (ignore)
- Enable:	0 (Disengage log)
- Scope:	0 (ignore)
Receive:	0106C34F0000 (echo)

#### NOTES:

- This disengages the log, allowing it to be retrieved by other COM ports.
- The log will automatically disengage if no log retrieval action is taken for 5 minutes.

## 3.8: Shark® 250 Meter Logs

The Shark® 250 meter has 11 logs: System Events, Alarm (Limits), 6 Historical interval logs, I/O Change, Power Quality, Waveform; and 2 internal logs: Diagnostic and Voltage Temperature. This section contains the descriptions for each log. For the log record interpretation, see 3.9: Log Record Interpretation, on page 3-41.

 System Events: The System Events log is used to store events which happen in, and to, the meter. Events include Startup, Reset Commands, Log Retrievals, etc. The System Event Log Record takes 20 bytes, 14 bytes of which are available when the log is retrieved. This log also enhances the unit's security by recording events that would cause problems in billing, such as demand resets, energy resets and programmable settings changes

Byte	0	1	2	3	4	5	6	7	8	9	10	11	12	13
Value	tin	nest	amp				Group	Event	Mod	Chan	Param1	Param2	Param3	Param4

**NOTE:** The complete Systems Events table is shown in 3.9: Log Record Interpretation, on page 3-41.

- 2. **Alarm Log:** The Alarm Log records the states of the 16 Limits programmed in the meter.
  - Whenever a limit goes out (above or below), a record with a time stamp is stored with the value that caused the limit to go out.
  - Whenever a limit returns within limit, a record is stored with the "most out of limit" value for that limit while it was out of limit.

The Alarm Log Record uses 16 bytes, 10 bytes of which are available when the log is retrieved.

Byte		0	1	2	3	4	5	6	7	8	9
Valu	e	tim	esta	mp				direction	limit#	Valu	ıe%

The limit # byte is broken into a type and an ID.

Bit	0	1	2	3	4	5	6	7
Value	type	0	0	0	L	imit	ID	



3. **Historical Log 1**: The Historical Log records interval data for a desired group of parameters as designated by a user. This may include energy values, voltage, current, frequency, or any other desired reading. This meter has up to 6 historical logs depending on the V-switch<sup>™</sup> model ordered. The basic V2 version offers the first 3 logs. Up to 64 parameters can be stored in each log. Each log can store data at different intervals.

**NOTE:** See 3.8.1: Historical Log Programmable Settings, on page 3-36 and 3.9: Log Record Interpretation, on page 3-41, for details on programming and interpreting the log.

Byte	0	1	2	3	4	5	6	-	-	Ν
Value	tim	iesta	mp				val	ues		

- 4. Historical Log 2: Same as Historical Log 1.
- 5. Historical Log 3: Same as Historical Log 1.
- 6. Historical Log 4: Same as Historical Log 1.
- 7. Historical Log 5: Same as Historical Log 1.
- 8. Historical Log 6: Same as Historical Log 1.
- 9. Diagnostic Log:
  - The Diagnostic Log is an internal log which records all information that can be used for the diagnosis of an issue. The log is generally used by developers/Tech support to diagnose field issues if they occur, and not usually by users.
  - The Diagnostic Log record uses 44 bytes, 32 of which are available when the log is retrieved. The remaining 12 bytes are the record header.
  - The Diagnostic Log works just like the System Event Log in that it uses the bytes as codes to build the event. Aside from the event types, the main difference is that the log is not saved to the database - it is written to a CSV file.

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### 10. Voltage and Temperature Log:

 The Voltage and Temperature Log records maximum and minimum values for every 24 hours. This is also a diagnostic log used to make sure that the instrument is maintained according to its operating specifications. Using the meter outside of its operating specifications may cause unintended results, which may need to be investigated differently.

**NOTE**: The date retrieval process is the same as for all the historical logs. The only differences are that the data is fixed for voltage and temperature, and the logging interval is always 24 hours. Data is logged at midnight daily; the log size is fixed. The table below shows the data that is logged in the voltage and temperature log. Note that these voltage are secondary values, i.e., the raw voltages.

Parameter	Description	Format	Number of Bytes
1	Volts A-N (Maximum)	Float	4
2	Volts B-N (Maximum)	Float	4
3	Volts C-N (Maximum)	Float	4
4	Volts A-B (Maximum)	Float	4
5	Volts B-C (Maximum)	Float	4
6	Volts C-A (Maximum)	Float	4
7	Volts A-N (Minimum)	Float	4
8	Volts B-N (Minimum)	Float	4
9	Volts C-N (Minimum)	Float	4
10	Volts A-B (Minimum)	Float	4
11	Volts B-C (Minimum)	Float	4
12	Volts C-A (Minimum)	Float	4
13	Temperature (Maximum)	Float	4
14	Temperature (Minimum)	Float	4



11. I/O Change Log: The I/O Change Log records changes in the input and output of Digital I/O Type Option Cards (Relay and Pulse). If digital inputs are enabled, every time an input changes, the meter will make a record showing that the change occurred, what state the change went to, and a time stamp of the occurrence. Digital relays work the same way, except that they can be tied to limits 1-16: each time a limit changes state and that triggers a relay to operate, the meter makes a record of the changed state, along with a time stamp. See 3.8.2: Digital I/O Option Cards Programmable Settings, on page 3-38, for additional information.

### I/O Change Log tables:

Byte	0	1	2	3	4	5	6	7	8	9
Value	Tin	Timestamp		Card 1 Changes	Card 1 States	Card 2 Changes	Card 2 States			

#### **Card Change Flags:**

Bit	7	6	5	4	3	2	1	0
Value			Out 2 Change	Out 1 Change	In 4 Change	In 3 Change	In 2 Change	In 1 Change

#### **Card Current States:**

Bit	7	6	5	4	3	2	1	0
Value	Out 4 State				In 4 State			In 1 State

The chart below is a break down of bytes 6-9.

Byte(s)	1	2	3	4	5	6	7	8
1	of4	of3	of2	of1	if4	is3	if2	if1
2	os4	os3	os2	os1	is4	is3	is2	is1
3						otion C	Card 2.	
4	(San	ie as t	Bytes :	L and	2)			



of1	Output 1 Change flag
of2	Output 2 Change flag
of3	Output 3 Change flag
of4	Output 4 Change flag
os1	Output 1 State
os2	Output 2 State
os3	Output 3 State
os4	Output 4 State
if1	Input 1 Change flag
if2	Input 2 Change flag
if3	Input 3 Change flag
if4	Input 4 Change flag
is1	Input 1 State
is2	Input 2 State
is3	Input 3 State
is4	Input 4 State

The chart below is a break down of one option card.

- 12. **PQ Event Log**: The Power Quality Event log records the information regarding Shark® 250 meter waveform recording trigger conditions, including the cause of the trigger, conditions at the time of the trigger, and duration of the event.
- 13. **Waveform Log**: The waveform log records the waveform samples of a captured waveform event, such as a voltage surge or sag, or a current fault, along with information about the captured event. Due to the large amount of data involved in a waveform capture (approximately 24kb), a single waveform recording is split over 26 log records. All 26 of these records must be retrieved to build up the single capture. Every waveform record contains a: record header, capture number, record number and record payload.

## 3.8.1: Historical Log Programmable Settings

The Historical Logs are programmed using a list of Modbus Registers that will be copied into the Historical Log record. In other words, Historical Log uses a direct copy of the Modbus Registers to control what is recorded at the time of record capture.

To supplement this, the Historical Logs also contain a list of descriptors, which group registers into items. Each item descriptor lists the data type of the item, and the number of bytes for that item. By combining these two lists, the Historical Log record can be interpreted.

For example, registers 1000 and 1001 are programmed to be recorded by the historical log. The matching descriptor gives the type float, and the size 4 bytes. This describes "Primary Readings Volts A-N".

An interesting side effect of this recording format is that non-readings values may be recorded, such as timestamps, labels, and programmable settings.

#### Historical Log Blocks:

Register number:	34000 (Historical Log 1)
	34192 (Historical Log 2)
	34384 (Historical Log 3)
	34576 (Historical Log 4)
	34768 (Historical Log 5)
	34960 (Historical Log 6)
Max Block Size:	192 registers per log (384 bytes)

The Historical Log programmable settings are comprised of 6 blocks, one for each log. Each is identical to the others, so only Historical Log 1 is described here. All register addresses in this section are given as the Historical Log 1, starting at register 34000.

Each Historical Log Block is composed of the header and the list of registers to log.

Header:

Registers:

34000 and 34001



Doc# E169711

Size:

2 registers

Byte	0	1	2	3
Value	# Registers	# Sectors		Interval

- # Registers: The number of registers to log in the record. The size of the record in memory is [12 + (# Registers x 2)]. The size during normal log retrieval is [6 + (# Registers x 2)]. If this value is 0, the log is disabled. Valid values are {0-117}.
- # Sectors: The number of Flash Sectors allocated to this log. Each sector is 256 kb, minus a sector header of 20 bytes. The number of sectors available is determined by the V-Switch<sup>™</sup> key of the meter: for V2 V4, each log can have a maximum of 8 sectors; for V5, each log can have a maximum of 24 sectors.
- Interval: The interval at which the Historical Log's Records are captured. This value is an enumeration:

0x01	1 minute
0x02	3 minute
0x04	5 minute
0x08	10 minute
0x10	15 minute
0x20	30 minute
0x40	60 minute
0x80	End of Interval (EOI) Pulse*

\* Setting the interval to EOI causes a record to be logged whenever an EOI pulse event is generated. This is most commonly used in conjunction with the Digital I/O Option Cards.

**NOTE:** The interval between records will not be even (fixed), and thus should not be used with programs that expect a fixed interval.

Register List:

Registers:

34002 - 34118



Size: 1 register per list item, 117 list items

The Register List controls what Modbus Registers are recorded in each record of the Historical Log. Since many items, such as voltage, energy, etc., take up more than 1 register, multiple registers need to be listed to record those items.

For example: Registers 34002 and 34003 are programmed to be recorded by the historical log. Volts A-N at registers 1000 and 1001 can be mapped to registers 34002 and 34003, so that they will be recorded in the Historical log.

- Each unused register item should be set to 0x0000 or 0xFFFF to indicate that it should be ignored.
- The actual size of the record, and the number of items in the register list which are used, is determined by the # registers in the header.
- Each register item is the Modbus Address in the range of 0x0000 to 0xFFFF.

## 3.8.2: Digital I/O Option Cards Programmable Settings

The Modbus address for these settings depends on the slot the card is in. The offset will be the same, but the base address will be different:

- For option card slot 1, the base address is 32000.
- For option card slot 2, the base address is 33000.

The address for each label will use the base address plus the offset.

Label	Offset
Input 1 Name Label	0x00
Input 1 Low State Label	0x08
Input 1 High State Label	0x10
Input 1 Accumulator Label	0xC0
Input 2 Name Label	0x18
Input 2 Low State Label	0x20
Input 2 High State Label	0x28
Input 2 Accumulator Label	0xC8

#### **Digital Input Card**



Relay 1 Name Label	0x60
Relay 1 Open State Label	0x68
Relay 1 Closed State Label	0x88
Relay 2 Name Label	0x78
Relay 2 Open State Label	0x80
Relay 2 Closed State Label	0x70

## **Pulse Output Card**

Label	Offset
Input 1 Name Label	0x00
Input 1 Low State Label	0x08
Input 1 High State Label	0x10
Input 1 Accumulator Label	0xC0
Input 2 Name Label	0x18
Input 2 Low State Label	0x20
Input 2 High State Label	0x28
Input 2 Accumulator Label	0xC8
Input 3 Name Label	0x30
Input 3 Low State Label	0x38
Input 3 High State Label	0x40
Input 3 Accumulator Label	0xD0
Input 4 Name Label	0x48
Input 4 Low State Label	0x50
Input 4 High State Label	0x58
Input 4 Accumulator Label	0xD8
Output 1 Name Label	0x60
Output 1 Open State Label	0x68
Output 1 Closed State Label	0x70
Output 2 Name Label	0x78
Output 2 Open State Label	0x80



Output 2 Closed State Label	0x88
Output 3 Name Label	0x90
Output 3 Open State Label	0x98
Output 3 Closed State Label	0xA0
Output 4 Name Label	0xA8
Output 4 Open State Label	0xB0
Output 4 Closed State Label	0xB8

# **3.9: Log Record Interpretation**

The records of each log are composed of a 6 byte timestamp, and N data. The content of the data portion depends on the log.

### **System Event Record:**

Byte	0	1	2	3	4	5	6	7	8	9	10	11	12	13
Value	tin	nesta	amp				Group	Event	Mod	Chan	Param1	Param2	Param3	Param4

Size: 14 bytes (20 bytes image).

**Data**: The System Event data is 8 bytes; each byte is an enumerated value.

- Group: Group of the event.
- Event: Event within a group.
- Modifier: Additional information about the event, such as number of sectors or log number.
- Channel: The port of the Shark® 250 meter that caused the event.

0	Firmware
1	COM 1 (USB)
2	COM 2 (RS485)
3	COM 3 (Optional Communication Card in slot 1)
4	COM 4 (Optional Communication Card in slot 2)
7	User (Face Plate)

• Param 1-4: These are defined for each event (see following table).

**NOTE**: The System Log Record is 20 bytes, consisting of the Record Header (12 bytes) and Payload (8 bytes). The Timestamp (6 bytes) is in the header. Typically, software will retrieve only the timestamp and payload, yielding a 14-byte record. The table below shows all defined payloads.

Group	Event	Event modifier	Channel (1-4 for COMs, 7 for USER, 0 for FW)	Parm1	Parm2	Parm3	Parm4	Description
0								Startup
	0	0	0	Firmware ve	rsion	I		Meter Startup
	1	Slot#	0	Class ID	Card Status	0xFF	0xFF	Option Card Using Default Settings
1								Log Activity
	1	Log#	1-4	0xFF	0xFF	0xFF	0xFF	Reset
	2	Log#	1-4	0xFF	0xFF	0xFF	0xFF	Log Retrieval Begin
	3	Log#	0-4	0xFF	0xFF	0xFF	0xFF	Log Retrieval End
		·					·	
2								Clock Activity
	1	Old Year	1-4	Old Month, D	ay, Hour, Mir	nute, Second		Clock Changed
	2	0	0	0xFF	0xFF	0xFF	0xFF	Daylight Time On
	3	0	0	0xFF	0xFF	0xFF	0xFF	Daylight Time Off
	4	Sync Method 1=NTP 4=Line sync	0	0×FF	0xFF	0xFF	0×FF	Auto Clock Sync Failed
	5	Sync Method 1=NTP 4=Line sync	0	0xFF	0×FF	0xFF	0xFF	Auto Clock Sync Resumed
		·					·	
3								Reset Activity
	1	0	0-4, 7	0xFF	0xFF	0xFF	0xFF	Max & Min Reset
	2	0	0-4, 7	0xFF	0xFF	0xFF	0xFF	Energy Reset
	3	Slot#	0-4	1 (Inputs) or 2 (Out- puts)	0xFF	0xFF	0×FF	Accumulators Reset
	4							File System Reset
	5	0	0-4, 7	0×FF	0xFF	0×FF	0xFF	Reset Cumulative Demand
	6	1-Monthly Demand Reset	0	0xFF	0xFF	0xFF	0xFF	Reset TOU Energy (Mpnthly Demand)



	6	2-Season Demand Reset	0	0xFF	0xFF	0xFF	0xFF	Reset TOU energy (Season Demand)
			1					
4								Settings Activity
	1	0	1-4, 7	0xFF	0xFF	0xFF	0xFF	Password Changed
	2	0	1-4	0xFF	0xFF	0xFF	0xFF	V-switch Changed
	3	0	1-4, 7	0xFF	0xFF	0xFF	0xFF	Programmable Set- tings Changed
	4	0	1-4, 7	0xFF	0xFF	0xFF	0xFF	Measurement Stopped
	5	0	1-4	Info changed	l	Related us	er	Change security reg- ister
5								Boot Activity
	1	0	1-4	FW version	·			Exit to Boot
	·	·						·
6								Error Reporting & Recovery
	4	Log #	0	0xFF	0xFF	0xFF	0xFF	Log Babbling Detected
	5	Log #	0	# Records Discarded	·	Time in Seconds		Babbling Log Periodic Summary
	6	Log #	0	# Records Discarded		Time in Seconds		Log Babbling End Detected
	7	Sector#	0	Error Count		Stimulus	0xFF	Flash Sector Error
	8	0	0	0xFF	0xFF	0xFF	0xFF	Flash Error Counters Reset
	9	0	0	0xFF	0xFF	0xFF	0xFF	Flash Job Queue Overflow
	10	1	0	0xFF	0Xff	0xFF	0xFF	Bad NTP Configuration
	12	0	0	0xFF	0xFF	0xFF	0xFF	Clock queue full erro
7			Note: (0 for but- ton press, 1-4 for COMs)					Test Mode Activity
	1	0	0-4	0xFF	0xFF	0xFF	0×FF	Enter Test Mode
	2	0	0-4	0xFF	0xFF	0xFF	0xFF	Exit Test Mode



	3	0	0-4	0xFF	0xFF	0xFF	0×FF	Saving Energy to File Successful
	4	0	0-4	0xFF	0xFF	0xFF	0×FF	Saving Energy to File Unsuccessful
	5	0	0-4	0xFF	0xFF	0xFF	0×FF	Preset Energy from File Successful
	6	0	0-4	0xFF	0xFF	0xFF	0×FF	Preset Energy from File Unsuccessful
8								File System Activity
	1	0	0-4	File#	0xFF	0xFF	0xFF	File Write Successful
	2	0	0-4	File#	0xFF	0xFF	0×FF	File Write Unsuccess- ful
	3	0	0-4	From File#	To File#	0xFF	0xFF	File Copy Successful
	4	0	0-4	From File#	To File#	0xFF	0×FF	File Copy Unsuccess- ful
	•	•	•			1		
9								Demand Deferral
	0	0	0×FF	0xFF	0×FF	0xFF	0×FF	Demand Deferral Inactive
	1	0	0×FF	0xFF	0×FF	0xFF	0×FF	Demand Deferral Active
	1	1				1		
10		Not Used						Security
	0	Source ID	Source Port	Session Port	Logged User ID	0	0	Login Success
	1	Source ID	Source Port	Session Port	Logged User ID	0	0	Closed by User
	2	0	0	Session Port	Logged User ID	0	0	Closed by Timer
	3	Source ID	Source Port	0	0	0	0	Blocked/Closed by Login Fail
	4	Source ID	Source Port	0	0	Reqst Privilege	0	Denied None Logged
	5	Source ID	Source Port	Session Port	Logged User ID	Reqst Privilege	0	Denied Cross-Port
	6	Source ID	Source Port	Session Port	Logged User ID	Reqst Privilege	0	Privilege Denied Not Granted
	7	Source ID	Source Port	Session Port	Logged User ID	Reqst Privilege	0	Granted
	8	Source ID	Source	0	0	0	0	Security Enabled
			Port					



	10	Source ID	Source Port	Session Port	Logged User ID	Changed Flags	Index of Edited User	Security Info Changed
	11	Source ID	Source Port	0	0	Failed Attempts	0	Failed Login Attempts Last 15 Mins
	12	Source ID	Source Port	Session Port	Logged User ID	Reqst Privilege #1	Regst Privi- lege #2	Denied Due to Lack of Privilege
	·	÷					·	
0x88								Sector Activity
	1	Sector# (low byte)	Sector# (high byte)	Log #	0×FF	Error Coun	t	Acquire Sector
	2	Sector# (low byte)	Sector# (high byte)	Log #	0xFF	0×FF	0xFF	Release Sector
	3	Sector# (low byte)	Sector# (high byte)	Erase Count				Erase Sector
	4	Log#	0	0xFF	0xFF	0xFF	0xFF	Write Log Start Record

- log# values: 0 = system log, 1 = alarms log, 2-7 = historical logs 1-6, 8 = diagnostic log, 9 = voltage and Temperature log, 10 = I/O change log, 11 = programmable setting, 12 = programmable setting copy, 13 = PQ log, 14 = waveform log, 15 = max/min log, 16 = TOU programmable setting, 17 = TOU programmable setting copy, 18 = TOU month data, 19 = TOU season data, 20 = TOU activity log, 21 = TOU snapshot
- sector# values: 0-511
- slot# values: 1-2

### NOTES:

- The clock changed event shows the clock value just before the change in the Mod and Parm bytes. Parms are bit-mapped:
  - b31 b28 month
  - b27 b23 day
  - b22 daylight savings time flag



- b20 b16 hour
- b13 b8 minute
- b5 b0 second
- unused bits are always 0
- Sync method: 1 = NTP
- Stimulus for a flash sector error indicates what the flash was doing when the error occurred: 1 = acquire sector, 2 = startup, 3 = empty sector, 4 = release sector, 5 = write data
- File #:
- •0 = Fonts file 1
- •1 = Screen file
- •2 = DNP XML Profile
- •3 = ANSI file
- •4 7 = Reserved
- •8 11 = User file 1 to 4
- •12 = Programmable settings file 1
- •13 = Programmable settings file 2
- •14 = TOU programmable settings file 1
- •15 = TOU programmable settings file 2
- •16 = Energy file
- •17 = Default screens file
- •18 = Last known good screens
- •19 = Default firmware



- •20 = Current firmware
- •21 = Last known good firmware
- •22 = Reserved 1
- •23 = Reserved 2
- •24 = Fonts file 2
- Below is the bitmap for the Clock Change Event Params:

Bits	Value
0-5	Second
8-13	Minute
16-20	Hour
22	Daylight Savings time flag
23-27	Day
28-31	Month

- Flash error counters are reset to zero in the unlikely event that both copies in EEPROM are corrupted
- The flash job queue is flushed (and log records are lost) in the unlikely event that the queue runs out of space
- A "babbling log" is one that is saving records faster than the meter can handle long term. When babbling is detected, the log is frozen and no records are appended for five minutes. Onset of babbling occurs when a log fills a flash sector in less than one minute, or creates greater than 100 records in one minute. Note that this applies only to Power Quality and Waveform logs, since all other logs have limits that prevent babbling. After five minutes, the log will be able to record, again.
- Logging of diagnostic records may be suppressed via flash programmable settings
- Info changed is bit-mapped; these are the definitions:
   0x0100 User changed

•0x0200 User privileges changed



- •0x0400 Password changed
- •0x0800 Auto logoff timer changed (for all users)
- •0x1000 Inactivity timer changed (for all users)
- •0x2000 Security enabled (global)
- •0x4000 Security disabled (global)
- •0x8000 Backdoor reset (global)
- Related user is the user logged in: 0 = Admin, 1-8 = User 1-8, respectively

#### Alarm Record:

Byte	0	1	2	3	4	5	6	7	8	9
Value	tim	iesta	mp	<u>ון</u> וף			direction	limit#	Value%	

Size: 10 bytes (16 bytes image)

**Data**: The Alarm record data is 4 bytes, and specifies which limit the event occurred on, and the direction of the event (going out of limit, or coming back into limit).

- Direction: The direction of the alarm event: whether this record indicates the limit going out, or coming back into limit.
  - 1 Going out of limit
  - 2

Coming back into limit

Bit	0	1	2	3	4	5	6	7
Value	type	0	0	0	l	imit	ID	

• Limit Type: Each limit (1-16) has both an above condition and a below condition. Limit Type indicates which of those the record represents.

0	High Limit
1	Low Limit



• Limit ID: The specific limit this record represents. The Limit ID is stored in bits 5-7, as shown in the table, below. The specific details for the limit (what data channel the limit is set up for and the specific limit settings) are stored in the meter's programmable settings.

Limit ID	Value	Limit
0000	0	1
0001	1	2
0010	2	3
0011	3	4
0100	4	5
0101	5	6
0110	6	7
0111	7	8
1000	8	9
1001	9	10
1010	10	11
1011	11	12
1100	12	13
1101	13	14
1110	14	15
1111	15	16

A value in the range 0-7 represents limits 1-8. In order to see if the byte is representing limits 8-16, you must check bit 4. If bit 4 is set, i.e., it is "1", add 8 to the limit ID.

For example, in the chart above Limit ID 0111 has a value of 7, which indicates Limit 8; and Limit ID 1111 has a value of 15, which indicates Limit 16.

- Value: Depends on the Direction:
  - If the record is "Going out of limit," this is the value of the limit when the "Out" condition occurred.

 If the record is "Coming back into limit," this is the "worst" value of the limit during the period of being "out": for High (above) limits, this is the highest value during the "out" period; for Low (below) limits, this is the lowest value during the "out" period.

Byte	0	1	2	3	4	5	6	7	8	9	
Value	Identifie	r	Above S	etpoint	Above H	yst.	Below Se	etpoint	Below Hyst.		

#### **Interpretation of Alarm Data:**

To interpret the data from the alarm records, you need the limit data from the Programmable Settings [30345, 80 registers].

There are 16 limits, each with an Above Setpoint, and a Below Setpoint. Each setpoint also has a threshold (hysteresis), which is the value at which the limit returns "into" limit after the setpoint has been exceeded. This prevents "babbling" limits, which can be caused by the limit value fluttering over the setpoint, causing it to go in and out of limit continuously.

- Identifier: The first modbus register of the value that is being watched by this limit. While any modbus register is valid, only values that can have a Full Scale will be used by the Shark® 250 meter.
- Above Setpoint: The percent of the Full Scale above which the value for this limit will be considered "out."
  - Valid in the range of -200.0% to +200.0%
  - Stored as an integer with 0.1 resolution. (Multiply % by 10 to get the integer, divide integer by 10 to get %. For example, 105.2% = 1052.)
- Above Hysteresis: The percent of the Full Scale below which the limit will return "into" limit, if it is out. If this value is above the Above Setpoint, this Above limit will be disabled.
  - Valid in the range of -200.0% to +200.0%.
  - Stored as an integer with 0.1 resolution. (Multiply % by 10 to get the integer, divide integer by 10 to get %. For example, 104.1% = 1041.)



- Below Setpoint: The percent of the Full Scale below which the value for this limit will be considered "out."
  - Valid in the range of -200.0% to +200.0%.
  - Stored as an integer with 0.1 resolution. (Multiply % by 10 to get the integer, divide integer by 10 to get %. For example, 93.5% = 935.)
- Below Hysteresis: The percent of the Full Scale above which the limit will return "into" limit, if it is out. If this value is below the Below Setpoint, this Below limit will be disabled.
  - Valid in the range of -200.0% to +200.0%.
  - Stored as an integer with 0.1 resolution. (Multiply % by 10 to get the integer, divide integer by 10 to get %. For example, 94.9% = 949.)
- The Full Scale is the "nominal" value for each of the different types of readings. To compute the Full Scale, use the following formulas:

Current	CT Numerator
Voltage	PT Numerator
Power 3-Phase (WYE)	[CT Numerator] x [PT Numerator] x 3
Power 3-Phase (Delta)	[CT Numerator] x [PT Numerator] x 3 x sqrt(3)
Power Single Phase (WYE)	[CT Numerator] x [PT Numerator]
Power Single Phase (Delta)	[CT Numerator] x [PT Numerator] x sqrt(3)
Frequency (Calibrated at 60 Hz)	60
Frequency (Calibrated at 50 Hz)	50
Power Factor	1.0
THD, Harmonics	100.0%
Angles	180°

• To interpret a limit alarm fully, you need both the start and end record (for duration).



- There are a few special conditions related to limits:
  - When the meter powers up, it detects limits from scratch. This means that multiple "out of limit" records can be in sequence with no "into limit" records. Cross- reference the System Events for Power Up events.
    - This also means that if a limit is "out," and it goes back in during the power off condition, no "into limit" record will be recorded.
    - The "worst" value of the "into limit" record follows the above restrictions; it only represents the values since power up. Any values before the power up condition are lost.

#### **Historical Log Record:**

Byte	0	1	2	3	4	5	6	-	-	Ν
Value	tim	iesta	mp				val	ues		

**Size**:  $6+2 \times N$  bytes ( $12+2 \times N$  bytes), where N is the number of registers stored.

**Data**: The Historical Log Record data is 2 x N bytes, which contains snapshots of the values of the associated registers at the time the record was taken. Since the meter uses specific registers to log, with no knowledge of the data it contains, the Programmable Settings need to be used to interpret the data in the record. See Historical Logs Programmable Settings for details.

## I/O Change Log Record:

I/O Change Log tables:

Byte	0	1	2	3	4	5	6	7	8	9
Value	Timestamp						Card 1 Changes	Card 1 States	Card 2 Changes	Card 2 States

Card Change Flags:

Bit	7	6	5	4	3	2	1	0
Value	Out 4 Change	Out 3 Change			In 4 Change	In 3 Change	In 2 Change	In 1 Change

Card Current States:

	Bit	7	6	5	4	3	2	1	0
ſ	Value	Out 4 State		Out 2 State		In 4 State		In 2 State	

Size: 10 bytes (16 bytes)

**Data**: The states of the relay and digital inputs at the time of capture for both Option cards 1 and 2. If the option card does not support I/O Change Records (no card or not a Digital Option Card), the value will be 0.

### NOTES:

- An I/O Change log record will be taken for each Relay and Digital Input that has been configured in the Programmable Settings to record when its state changes.
- When any one configured Relay or Digital Input changes, the values of all Relays and Digital Inputs are recorded, even if they are not so configured.



### Waveform Log Record:

Byte	0	1	2	3	4	5	6	7	8	-	-	969
Value	Tin	nesta	mp				Capture #	Record #	Record P	ayload		

Size: 970 bytes

**Data:** Each waveform record is 970 bytes, which contains the timestamp, the capture number it is associated with (all 26 will have the same capture #), its own record number (numbered 0-25) and the payload.

**NOTE:** The waveform records must be in sequential order. Verify that the record numbers are sequential, and if they are not, the retrieval of that capture must be restarted.

## **PQ Event Record:**

Byte	0	1	2	3	4	56	6	7	8	9	10	11	12	13	14		31	32		43	44		50	51		57
Value	Ti	me	star	np		e	Pres ent State		Ever Chai nels	n-	Cap- ture #	Flags	Event Tag	Cycle	Wors Excu	st irsion	RMS	Sam Calit	ple pration	าร		secono estam		Not (0X0	Used ))	

### Size: 58 bytes

**Data:** See the first table in the PQ Event Log Retrieval section for detailed information about the data.

**NOTE:** The "not used" section of the PQ Event record byte-map is simply 0.



# 3.10: Waveform Log Retrieval

The waveform log is unique among the logs in that each capture is composed of 26 waveform records, and each record requires 4 windows to retrieve. For more information on record retrieval, see 3.3.4: Retrieve the Records, on page 3-10. The 26 waveform records adhere to the following byte-map.

SIZE	CONTENT	NOTES	OFFSET
6 bytes	Timestamp	All 26 records have the same time- stamp	0
1 byte	Capture Number	All 26 records have the same capture number	6
1 byte	Record Number	Records are num- bered 0-25	7
962 bytes	Record Payload	Waveform Record payload. All 26 Waveform Record Payloads com- bined create a Waveform Capture	8



A single waveform capture is the aggregation of all 26 waveform record payloads, thus totaling 25,012 bytes in size. The resulting waveform capture contains the following byte structure:

Bytes	Block	
36	Header	
380	Reserved (0xFF)	
2	Channel ID for V AN or V AB = AN or AB	
4096	Channel AN (Wye) or AB (Delta) samples	
2	Channel ID for Ia = IA	
4096	Channel IA samples	
2	Channel ID for V BN or V BC = BN or BC	
4096	Channel BN (Wye) or BC (Delta) samples	
2 Channel ID for Ib = IB		
4096	Channel IB samples	
2	Channel ID for V CN or V CA = CN or CA	
4096	Channel CN (Wye) or CA (Delta) samples	
2	Channel ID for Ic = IC	
4096	Channel IC samples	

**NOTE:** The order of the channels is not fixed. The channel ID must be used to determine which channel block is being presented.



Breaking the waveform capture down further, the specific blocks (Header and Channel Blocks) are as follows:

(**NOTE**: 1b = 1 byte, 2b = 2 bytes.)

Trigger So	ource (2b)	SmpRate (1b)	Flags (1b)				
TriggerType	TrigCap#	Trigger C	Cycle Tag (2b)				
First Sar	nple Tag	Last S	ample Tag				
Trigger Cyc	cle RMS Va	Trigger Cycle RMS Ia					
Trigger Cyc	cle RMS Vb	Trigger	Trigger Cycle RMS Ib				
Trigger Cyc	cle RMS Vc	Trigger	Cycle RMS Ic				
Sample Ca	ibration Va	Sample Calibration Ia					
Sample Cal	ibration Vb	Sample Calibration Ib					
Sample Ca	ibration Vc	Sample Calibration Ic					

### **Channel Sample Block Definition (4098 bytes)**

Channel ID (2b)	Sample 1 (2b)
Sample 2 (2b)	Sample 3 (2b)
Sample 4 (2b)	Sample 5 (2b)
Sample 2046 (2b)	Sample 2047 (2b)
Sample 2048 (2b)	

Following is a detailed breakdown of the Waveform Payload Record byte-map (see 3.8: Shark® 250 Meter Logs, on page 3-31):

SIZE	CONTENT	NOTES	OFFSET
2 bytes	Trigger Source	All bit mapped per trigger events.	0
1 byte	Sample Rate	From programmable settings.	2
1 byte	Flags	Bit map. 0 indicates the cap- ture is contiguous with the pre- vious capture. Other bits not used.	3
1 byte	Trigger Type	0 = Normal RMS; 1 = Adaptive RMS; 2 = wave shape; 3-255 not used.	4
1 byte	Trigger Capture Num- ber	Usually same as current capture number. May differ if this is a re-trigger.	5
2 byte	Trigger Cycle Tag	0-2047.	6
2 bytes	First Sample Tag	0-2047.	8
2 bytes	Last Sample Tag	0-2047.	10
2 bytes	Trigger Cycle RMS for V AN/V AB Channel	0-32767.	12
10 bytes	Trigger Cycle RMS for Remaining Channels	Channels in order: Ia, Vb, Ib, Vc, Ic.	14
2 bytes	Va Sample Calibration	Value 0-32767. Apply to each Va sample to obtain secondary voltage sampled: volts (or amps) = (RMS*cali- bration)/1,000,000	24
2 bytes	Ia Sample Calibration	Same as above, except there are no hookup issues.	26
3 bytes	Vb & Ib Calibrations	Same as Va & Ia, above.	28
3 bytes	Vc & Ic Calibrations	Same as Va & Ia, above.	32
8 bytes	Millisecond Timestamp	Same timestamp as the record header, but with the ms included.	36

## Waveform Non-Sample Capture Summary Record Information



## **Parsing a Waveform Capture**

To parse the waveform capture, follow this procedure:

 Download the entire capture. When engaging the log for retrieval, the number of records will always be 1, and the repeat count will always be 4. Because of the large records (970 bytes), you must use Function Code 0x23, with 4 repeat counts. An example request message would be: 0123C351007C04. See 3.3: Log Retrieval Procedure, on page 3-4, for details.

It may take a while to get a response, so if you get a Slave Busy Modbus exception, try again.

2. The data that comes back will be the window index and window data, repeated 4 times. For each block, you must check that the window status and window index are correct.

If the window status is 0xFF, then the data is not ready, and you should request that record again. See 3.7.3: Log Retrieval Example, on page 3-23, for an example of this point.

3. Once you know you have the right data, check the waveform record header to make sure you have received the correct record and then parse the data by copying out the window data and skipping the window indices.

You should be receiving waveform records sequentially, from 0 to 25. If the number is out of order, or invalid, then the waveform may be corrupt, and you should retrieve the waveform capture from the beginning by manually setting the record index to start at.

Once you know you have the right record, from window index 0 the first 8 bytes (the timestamp and record info) must be skipped. This will result in a stripping of the Record Header, Capture and Record Numbers which will leave only the Wave-form Record Payload (see the table on C-43). You only need to store the timestamp from the first record, as each of the 26 records have the same timestamp.



4. Copy the record data (record payload) to the output (e.g., an array of byte arrays - each byte array representing a waveform record) and repeat this stripping process for all 26 waveform records. Once done, combine all 26 header-stripped records into a single byte array thus creating the waveform capture:

```
const uint RECORD_PAYLOAD_SIZE = 962;
const uint MAX_WAVEFORM_CAPTURE_SIZE = 25012;
...
byte[] waveform_capture = new byte[MAX_WAVEFORM_CAPTURE_SIZE];
...
// combine all binary data from waveform records to create waveform cap-
ture
for (int i = 0; i < 26; ++i)
{
waveform_record[i].CopyTo(waveform_capture, RECORD_PAYLOAD_SIZE * i);
}
```

Here is an example of the beginning of a waveform capture from the above instruction:

#### **Processing a Waveform Capture**

Once the waveform capture has been created, you can use the waveform capture byte-map (see tables earlier in this section) to extract the RMS and channel sample data values desired. Take note that the waveform capture byte-map is in MSB (hibyte, lo-byte) form.

The following is an example snippet in which we first parse the waveform capture header values and then each waveform capture channel block using a predefined function. (**NOTE:** We assume the channel blocks to be in order in this example, e.g. AN, IA, BN, IB, CN, IC. These channels can be in any order and it is up to you to check which channel ID values you are currently processing).

```
// HEADER BLOCK PARSING - Get Waveform Capture header values (hi-byte,
lo-byte)
trigger source = BitConverter.ToUInt16(new byte[2] { waveform cap-
ture[0], waveform capture[1] }, 0);
sample rate = waveform capture[2];
flags
          = waveform capture[3];
. . .
rms va
        = BitConverter.ToUInt16(new byte[2] { waveform capture[12],
waveform capture[13] }, 0);
         = BitConverter.ToUInt16(new byte[2] { waveform capture[14],
rms ia
waveform capture[15] }, 0);
. . .
calibration va = BitConverter.ToUInt16(new byte[2] { waveform cap-
ture[24], waveform capture[25] }, 0);
calibration ia = BitConverter.ToUInt16(new byte[2] { waveform cap-
ture[26], waveform capture[27] }, 0);
. . .
// CHANNEL BLOCK PARSING - predefined function
public static List<int> GetChannelSampleData(byte[] waveform capture,
int start byte)
{
int temp;
int begin = start byte + 2;
                                      // skip Channel ID (e.g.
"AN", "IA", etc) and get data start
int end = start byte + 4098;
List<int> list = new List<int>();
for (int i = begin; i < end; i += 2)
// hi-byte, lo-byte
temp = BitConverter.ToUInt16(new byte[2] { waveform capture[i], wave-
form capture[i+1] }, 0);
list.Add(temp);
}
return list;
}
// store the starting byte positions of the channel blocks
public enum Channel ID
{
       VOLTS AN = 424,
        CURRENT IA = 4522,
        VOLTS BN = 8620,
        CURRENT IB = 12718,
        VOLTS CN = 16816,
        CURRENT IC = 20914
// CHANNEL BLOCK PARSING - get sample values from capture
List<int> volts an
                   = GetChannelSampleData(waveform capture,
(int)Channel ID.VOLTS AN);
List<int> current ia
                     = GetChannelSampleData(waveform capture,
(int)Channel ID.CURRENT IA);
List<int> volts bn = GetChannelSampleData(waveform capture,
(int)Channel ID.VOLTS BN);
```



List<int> current\_ib = GetChannelSampleData(waveform\_capture, (int)Channel\_ID.CURRENT\_IB); List<int> volts\_cn = GetChannelSampleData(waveform\_capture, (int)Channel\_ID.VOLTS\_CN); List<int> current\_ic = GetChannelSampleData(waveform\_capture, (int)Channel ID.CURRENT IC);

To convert the acquired RMS and channel sample data values into their primary values, the following formula must be applied:

 $primary \ value = \left(\frac{ADC \ value * calibration}{1000000}\right) * ratio$ 

- ADC Value is the primary value desired to be acquired. Can refer to either:
  - RMS values (Trigger Cycle RMS, Trigger Cycle RMS, etc.)
  - Sample values (Volts AN, Current IA, Volts BN, etc.)
- Calibration is the sample calibration value for corresponding channel.
- Ratio is either PT Ratio or CT Ratio (acquired from Programmable Settings)
  - PT Ratio for voltage
  - CT Ratio for current

For example, if you are looking for the primary Trigger RMS Va value and given the following:

PT Numerator = 1200V

PT Denominator = 120V

- CT Numerator = 1000A
- CT Denominator = 5A
- Trigger Cycle RMS Va = 4505
- Trigger Cycle RMS Ia = 30133

Trigger Cycle RMS Vb = 5408

Sample Calibration Va = 42049



Sample Calibration Ia = 7329Sample Calibration Vb = 29183The desired result would be: Primary RMS Va = ((4505 \* 42049) / 1000000) \* (1200V/120V) = 1894.3V // Convert rms values to primary values public static double GetPrimaryValue(int adc value, double calibration, double ratio) { return ( (adc value \* calibration) / 1000000 ) \* ratio; } double primary rms va = GetPrimaryValue(rms va, calibration va, pt ratio); double primary rms ia = GetPrimaryValue(rms ia, calibration ia, ct ratio); double primary rms vb = GetPrimaryValue(rms vb, calibration vb, pt ratio); double primary rms ib = GetPrimaryValue(rms ib, calibration ib, ct ratio); double primary rms vc = GetPrimaryValue(rms vc, calibration vc, pt ratio); double primary rms ic = GetPrimaryValue(rms ic, calibration ic, ct ratio); // Convert raw sample data values to primary values public static List<double> GetPrimaryValues(int[] adc value, double calibration, double ratio) { double temp; List<double> list = new List<double>(); for (int i = 0; i < adc value.Length; ++i)</pre> temp = ((adc value[i] \* calibration) / 1000000) \* ratio; list.Add(temp); } return list; List<double> primary an = GetPrimaryValues(volts an.ToArray(), calibration va, pt ratio); List<double> primary ia = GetPrimaryValues(current ia.ToArray(), calibration ia, ct ratio); List<double> primary bn = GetPrimaryValues(volts bn.ToArray(), calibration vb, pt ratio); List<double> primary ib = GetPrimaryValues(current ib.ToArray(), calibration ib, ct ratio); List<double> primary cn = GetPrimaryValues(volts cn.ToArray(), calibration vc, pt ratio); List<double> primary ic = GetPrimaryValues(current ic.ToArray(), calibration ic, ct ratio);

**NOTE:** For Class 2 units, primary\_ia, primarty\_ib, and primary\_ac should be divided by 10.

#### **Additional Waveform Processing**

Waveform trigger condition information can also be collected from the waveform capture. As processed in the previous section, the following header values will be used for the trigger conditions:

```
trigger_source = BitConverter.ToUInt16(new byte[2] { waveform_cap-
ture[0], waveform_capture[1] }, 0);
sample_rate = waveform_capture[2];
trigger_type= waveform_capture[4];
trigger_capture_num = waveform_capture[5];
trigger_cycle_tag = BitConverter.ToUInt16(new byte[2] { waveform_cap-
ture[6], waveform capture[7] }, 0);
```

The trigger source value acquired from the waveform capture header must be parsed to get the specific trigger condition error string (for example, voltage surge or voltage sag).

```
bool deltaHookup; // hookup flag
. . .
int[] trigger_state = new int[16]; // to represent 16 individual "bits"
Array.Clear(trigger_state, 0, trigger state.Length);// set all "bits" to
0
// set the individual trigger_state bit flags using trigger_source from
waveform capture for (int i = 0; i < trigger state.Length; ++i)
            {
     trigger state[i] = (trigger source / (2 ^ i)) & 1; // remember hi-
byte+lo-byte order
}
. . .
String triggered str = "";
for (int i = 0; i < trigger state.Length; ++i)</pre>
{
     if (trigger state[i] > 0)
     {
         switch (i)
         {
         case 0:
             if (deltaHookup)
                 triggered str = triggered str + "Vab=Surge";
             else
                  triggered str = triggered str + "Van=Surge";
             break;
```



```
case 1:
               if (deltaHookup)
                   triggered str = triggered str + "Vab=Surge";
               else
                   triggered str = triggered str + "Van=Surge";
               break;
           case 2:
               if (deltaHookup)
                   triggered str = triggered str + "Vcb=Surge";
               else
                   triggered str = triggered str + "Vcn=Surge";
               break;
           case 3:
                   triggered str = triggered str + "Ia=Surge";
               break;
           case 4:
                   triggered str = triggered str + "Ib=Surge";
               break;
           case 5:
                   triggered str = triggered str + "Ic=Surge";
               break;
           case 6:
               if (deltaHookup)
                   triggered str = triggered str + "Vab=Sag";
               else
                   triggered str = triggered str + "Van=Sag";
               break;
           case 7:
               if (deltaHookup)
                   triggered str = triggered str + "Vbc=Sag";
               else
                   triggered str = triggered str + "Vbn=Sag";
               break;
           case 8:
               if (deltaHookup)
                   triggered str = triggered str + "Vcb=Sag";
               else
                   triggered str = triggered str + "Vcn=Sag";
               break;
           case 15:
                   triggered str = triggered str + "Manual Trigger";
               break;
           }
     }
}
```

The trigger cycle tag value from the waveform capture header provides the specific cycle within the waveform capture on which the trigger condition occurred.



To give an example of what the trigger cycle tag provides, the following is a snippet from a CSV generated output of the raw sample values (non-primary values) from a waveform capture. The index at which the samples are located within the CSV file is specified in the first column. With a trigger cycle tag of 512 and the following table:

SAMPLES								
INDEX	VOLTS AN	CURRENT IA	VOLTS BN	CURRENT IB	VOLTS CN	CURRENT IC		
27	0	0	0	0	0	0		
28	6768	6792	5840	6800	5784	6880		
29	6480	6736	5872	6816	5792	6936		
30	6280	6776	5864	6872	5816	6960		
31	6008	6784	5872	6792	5768	6904		
32	5728	6736	5864	6864	5856	6960		
536	7408	6712	5832	6808	5800	6984		
537	7248	6776	5880	6848	5848	6984		
538	7000	6776	5896	6864	5848	6928		
539	6712	6752	5864	6808	5800	6976		
540	6536	6776	5888	6848	5856	6976		
541	6280	6840	5920	6920	5880	6832		
542	5960	6752	5856	6800	5776	6912		

Seeing as the samples began being recorded at index 27 within the CSV output, that value has to be added to the trigger cycle tag value as an offset to get the exact cycle of where the trigger condition occurred, which would be at index 539.

Sample Rate is the number of samples in a single cycle at a nominal 60 Hertz. For example, at a sample rate of 512, there are 512 samples in a single nominal (time locked) cycle. Note that this means that there are 512 samples every 16.6~ms.

The sample rate also affects the duration of the capture. Since the capture records a fixed number of samples, the number of cycles recorded is dynamic based off the sampling rate. For example, at 512 samples per cycle, 4 cycles can be record. At 32 samples per cycle, 64 cycles can be recorded.

To calculate the duration of the capture, in milliseconds, the following formula must be applied:

 $duration = \left(\frac{number \ of \ samples * 1000}{sample \ rate * 60}\right)$ 

number of samples is number of samples in the capture per channel (2048 samples)

For example, given a sample rate of 1024, the duration would be:

( (2048 \* 1000) / (1024 \* 60) ) = ( 2048000 / 61440 ) = 33.333 ms

# **3.11: PQ Event Log Retrieval**

The following is a detailed breakdown of the PQ Event Record byte-map (see 3.8: Shark® 250 Meter Logs, on page 3-31):

SIZE	CONTENT	NOTES	OFFSET
6 bytes	Timestamp	Timestamp of the record	0
2 bytes	Present States	Bit mapped per trigger events. 0 indicates an untriggered state.	6
2 bytes	Event Channels	Bit mapped per trigger events. 1 indicates a channel changed state and that the change to the present state caused the event.	8
1 byte	Capture Number	0 if cycle was not cap- tured, 1-255 if all or part of the cycle was captured	10
1 byte	Flags	Always 0	11
2 bytes	Event Cycle Tag	Tag of the last sample in the event cycle	12
18 bytes	Worst Excursion RMS	For events ending a surge or sag episode (e.g. return to nor- mal), RMS of the channel is the worst excursion (highest surge, lowest sag) for the episode. 0 for other channels. Same units as Waveform Records	14
12 bytes	Sample Calibrations	Same as sample cali- brations in waveform log non-sample cap- ture summary	32
7 bytes	Millisecond Timestamp	Same timestamp as the record header, but with the ms included.	44
14 bytes	not used	Always 0	51

## **PQ Event Record Definition 1**



Here is a visual layout of the PQ Event Record definition above (with the timestamp stripped): (**NOTE**: 1b = 1 byte, 2b = 2 bytes, 6b = 6 bytes)

## PQ Event Record Definition 2

Size: 52 bytes

Timestamp (6b)							
Present S	tates (2b)	Event Channels (2b)					
Capture # (1b)	Flags (1b)	Event Cycl	e Tag (2b)				
Worst Excursion RMS -	· Va Surge	Worst Excursion RMS -	- Vb Surge				
Worst Excursion RMS -	· Vc Surge	Worst Excursion RMS -	- Ia Surge				
Worst Excursion RMS -	· Ib Surge	Worst Excursion RMS - Ic Surge					
Worst Excursion RMS -	· Va Sag	Worst Excursion RMS - Vb Sag					
Worst Excursion RMS -	- Vc Sag	Sample Calibration Va (2b)					
Sample Calibration Ia	(2b)	Sample Calibration Vb (2b)					
Sample Calibration Ib	(2b)	Sample Calibration Vc (2b)					
Sample Calibration Ic	(2b)	unused	unused				
unused	unused	unused	unused				
unused	unused	unused unused					
unused	unused	unused	unused				

**NOTE:** Byte order is in MSB.

### Parsing a PQ Event Record

Use the table above to parse the PQ Event Record values you need. The following is
an example binary snippet of a PQ Event Record (with a table map of the contents):

PQ Event Record Binary Content Mapping								
Superscript #	Content	Superscript #	Content					
1	timestamp	13	Va sag					
2	present states	14	Vb sag					
3	event channels	15	Vc sag					
4	capture number	16	Va calibration					
5	flags	17	Ia calibration					
6	event cycle tag	18	Vb calibration					
7	Va surge	19	Ib calibration					
8	Vb surge	20	Vc calibration					
9	Vc surge	21	Ic calibration					
10	Ia surge	22	not used					
11	Ib surge	23	padded zeroes					
12	Ic surge	-	-					

From the above content, the values would be as follows:

```
timestamp= 2012/04/30 11:16:36 AM
present_states = 0000 0001 1100 0000 (see table above for bit breakdown)
Volts C Sag
Volts B Sag
event_channels = 0000 0001 1100 0000 (see table above for bit breakdown)
Volts C Sag
Volts B Sag
Volts B Sag
Volts A Sag
capture_num = 0
flags= 0
event_cycle_tag = 0
we_rms_va_surge = 0
we_rms_vb_surge = 0
we_rms_vc_surge = 0
```



```
...
we_rms_va_sag = 0
we_rms_vb_sag = 0
we_rms_vc_sag = 0
calibration_va = 54049
calibration_ia = 6508
...
calibration_ic = 6899
```

## **Processing a PQ Event Record**

The worst excursion RMS values are specified as ADC values, and to convert them to primary, you use the same primary value formula provided under the "Processing a Waveform Capture" section of 3.10: Waveform Log Retrieval, on page 3-55.

PQ events come with numerous PQ records. From this numerous set, normally there exists a specific pair of PQ records (special cases will be discussed later), one that is created at the beginning of the PQ event and one created at the end of the PQ event - an Out and Return PQ record. Using these two records along with all the other PQ records in between them, you will be able to calculate the duration of the PQ event.

To further elaborate, whenever an "out" event happens (i.e., when a voltage surge or sag occurs), the "Out" PQ Record for that PQ event is created. Likewise, when this said "out" event returns (i.e., the voltage surge or sag returns to normal levels), the "Return" PQ Record for that PQ event is created. From these two particular PQ records, calculating the difference of their timestamps will provide the duration of the PQ event. However, neither of the two PQ records (i.e., the Out and Return) know of each other. In order to find a particular Out and Return PQ record pair, the present states and event channel byte arrays from all the PQ records, including and in between the Out and Return PQ records themselves, must be used (see instructions in the "Parsing a PQ Event Record" of 3.11: PQ Event Log Retrieval, on page 3-68).

Here is the bitmap for both the present states and event channel byte arrays:

bit	
0	Volts A Surge
1	Volts B Surge
2	Volts C Surge
3	Current A Surge
4	Current B Surge
5	Current C Surge
6	Volts A Sag
7	Volts B Sag
8	Volts C Sag
9	not used
10	not used
11	not used
12	not used
13	not used
14	not used
15	Manual Trigger

Present State/Event Channel Definition (2 bytes)

For example, a value of 0x0081 (00000000 10000001) in MSB indicates a Surge on Volts A, and a sag on Volts B.

Both the present states and event channels use their bits as a series of TRUE/FALSE flags to signify change. The present states byte array flags tell whether or not an out event has occurred (e.g. been triggered) on a specific channel (see table above). In normal cases, after the Out PQ record, all the succeeding PQ records up until the Return PQ record will all have triggered present states (e.g., TRUE flags) for that same channel. The Return PQ record, which represents the end of a PQ event, will end the TRUE sequence by having its flag set to FALSE for that channel.

From the event channel byte array perspective, whenever a change occurred within the present states byte array, it sets its flag for that channel to TRUE. Whenever that channel reverts back to its previous state, then the event channel flag will be triggered again (set to TRUE) for that channel. The following is a snippet of the present state and event channel byte arrays:

**NOTE:** (x = TRUE, empty = FALSE)

	Prese	nt State (	(snippet)			Event Channel (snippet)						
PQ Record	Va Surge	Vb Surge	Vc Surge	Timestamp		PQ Record	Va Surge	Vb Surge	Vc Surge	Timestamp		
0				2013/04/01 02:10:13 PM		0				2013/04/01 02:10:13 PM		
1				2013/04/01 02:10:14 PM		1				2013/04/01 02:10:14 PM		
2		×		2013/04/01 02:10:15 PM		2		x		2013/04/01 02:10:15 PM		
3	x	×		2013/04/01 02:10:16 PM		3				2013/04/01 02:10:16 PM		
4		×	×	2013/04/01 02:10:17 PM		4			×	2013/04/01 02:10:17 PM		
5		×	×	2013/04/01 02:10:18 PM		5				2013/04/01 02:10:18 PM		
6		×		2013/04/01 02:10:19 PM		6				2013/04/01 02:10:19 PM		
7		×		2013/04/01 02:10:20 PM		7				2013/04/01 02:10:20 PM		
8				2013/04/01 02:10:21 PM		8		x		2013/04/01 02:10:21 PM		
9				2013/04/01 02:10:22 PM		9				2013/04/01 02:10:22 PM		
10		×		2013/04/01 02:10:23 PM		10		x		2013/04/01 02:10:23 PM		

Only the first 3 bits are being shown for the present states and event channel byte arrays (along with their timestamps) in the example provided and from the snippet above, three different example scenarios can be observed. The following example explanations serve only to show the behavior of the two byte arrays as well as show how to calculate the duration by determining the Out and Return PQ records in the given situations.

The surge occurring on Channel Vb is an example of a normal PQ event where both the beginning (Out) and end (Return) can easily be determined. It is shown to have surged starting from PQ record 2. All the subsequent PQ records continued to surge on the same channel until reaching PQ record 8. Looking at the event channel byte array, a change had occurred on both PQ records 2 and 8. Using the information from both byte arrays, it is easy to see that PQ record 2 is the Out Record and PQ record 8 is the Return Record. Thus the PQ event duration is simply the timestamp difference between those two records (e.g., 6 seconds).

The following examples describe error conditions which may occur in the PQ records when PQ trigger conditions are missed. For example, if a surge comes back into limit while the meter is resetting, it may not record the return to normal event.

Channel Va shows an example of a special case where the surge on PQ record 3 is not recorded under the Event Channel for that same record. This shows a discrepancy where a PQ record or numerous PQ records may be missing before the entry of PQ record 3. Under these situations, it may not be possible to find the Out Record (the beginning of a PQ event). This can be detected by an Out condition in the Present states table, with no matching change in the Event Channel table.

Channel Vc shows an example of a special case where the surge on PQ records 4-5 do not show a return to normal condition in the Event Channel in record 6. This shows a discrepancy where a PQ record or numerous PQ records may be missing between records 5 and 6. Under these situations, it may not be possible to find the Return to Normal Record (the end of a PQ event). This can be detected by an Out condition in the Present states table, followed by a normal condition in the Present states table, with no matching change in the Event Channel table.

# **3.12: Additional Examples**

## Log Retrieval Section:

send:	01 (	03.	75 4	40 (	00	) 8 -	- Me	ete	r de	esid	mat	tion	n							
recv:	01 0	03	10 4	4D (	65 <sup>-</sup>	74 '	72 (	65 4	44 (	65 <sup>-</sup>	73 (	59 (	6E (	57 5	5F 2	20 2	20 2	20 2	20 (	00 00
send:	:01											-								
recv:	:01		-										-					17	51	08
	00	06	08	18	4E	39	00	00	00	00	00	00	00	00	00	00	00			
	0.4															_				
send:	:01											-				-		1	4.1	1
recv:	:01			-	-		-	-	-	-	-	-			-		-			
																	76			
																	00			
			00														00		00	
																	00			
														00	00	00	00	00	00	00
	00	00	00	00	00	00	00	00	00	00	00	00	00							
send:	:01	03	79	57	00	40	_ '													
recv:	:01								0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2007.																	00			
																	00			
			00														00		00	
																	00			
																	34			
			62																	
send:	:01	03	75	A4	00	04	- 1	Ene	rgy	PS	set	ttir	ngs							
recv:	:01	03	08	03	32	03	32	03	32	03	32									
send:	:01	03	11	93	00	01	- (	Coni	nect	ted	Роз	rt I	ID							
recv:	:01	03	02	00	02	00	00													
	0.1	0.0	~ 7		~ ~	1.0	_					_				-				
send:	:01											-						1 🗆	F 1	0.0
recv:	:01																	1/	51	08
	00	06	08	18	4 E	39	00	00	00	00	00	00	00	00	00	00	00			
send:	:01	03	C 3	4 F	00	01	_ 1	Log	Roi	Frie	evre	l he	add	r						
recv:	:01							log	1.0				Juu							
2007.	•••	00	02			00	00													
send:	:01	10	C3	4F	00	04	08	02	80	05	01	00	00	00	00	- 1	Enga	age	the	e log
recv:																	-			-
send:	:01	03	C7	57	00	10	- 1	lis	tori	ical	Lь	og 1	l st	tatı	ıs ł	010	ck			
recv:	:01	03	20	00	00	05	1E	00	00	05	1E	00	2C	00	02	06	08	17	51	08
	00	06	08	18	4E	39	00	00	00	00	00	00	00	00	00	00	00			



send: :01 10 C3 51 00 02 04 00 00 00 00 - Set the retrieval index
recv: :01 10 C3 51 00 02

 send:
 :01
 03
 C3
 51
 00
 40
 - Read first half of window

 recv:
 :01
 03
 80
 00
 00
 00
 06
 08
 17
 51
 08
 00
 19
 00
 2F
 27
 0F
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- send:
   :01
   03
   C3
   91
   00
   30
   Read
   second
   half
   of
   window

   recv:
   :01
   03
   60
   00
   05
   00
   00
   00
   00
   06
   08
   17
   51
   0B
   00
   00
   19
   00

   2F
   27
   0F
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- send:
   :01
   03
   C3
   51
   00
   40
   Read first half of last window

   recv:
   :01
   03
   80
   00
   00
   05
   19
   06
   08
   18
   4E
   35
   00
   00
   19
   02
   2F
   27
   0F
   00

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- send:
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   C3
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   of
   last
   window

   recv:
   :01
   03
   60
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   06
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   4E
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send: :01 06 C3 4F 00 00 - Disengage the log
recv: :01 06 C3 4F 00 00

#### Sample Historical Log 1 Record:

#### Historical Log 1 Record and Programmable Settings

 13|01|00
 01|23
 75|23
 76|23
 77|1F
 3F
 1F
 40|1F
 41

 1F
 42|1F
 43
 1F
 44|06
 0B
 06
 0C|06
 0D
 06
 0E|17
 75|

 17
 76|17
 77|18
 67|18
 68|18
 69|00
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 62
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 62
 34
 34
 44
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These are the Item Values:	These are the Type and Size:	These are the Descriptions:
13		- # registers
01		- # sectors
01		- interval
23 75	62	- (SINT 2 byte) Volts A THD Maximum
23 76	62	- (SINT 2 byte) Volts B THD Maximum
23 77	62	- (SINT 2 byte) Volts C THD Maximum
1F 3F 1F 40	3 4	- (Float 4 byte) Volts A Minimum
1F 41 1F 42	3 4	- (Float 4 byte) Volts B Minimum
1F 43 1F 44	3 4	- (Float 4 byte) Volts C Minimum
06 0B 06 0C	4 4	- (Energy 4 byte) VARhr Negative Phase A
06 0D 06 0E	4 4	- (Energy 4 byte) VARhr Negative Phase B
17 75	62	- (SINT 2 byte) Volts A 1 <sup>st</sup> Harmonic
		Magnitude
17 76	62	- (SINT 2 byte) Volts A 2 <sup>nd</sup> Harmonic
		Magnitude
17 77	62	- (SINT 2 byte) Volts A 3 <sup>rd</sup> Harmonic
		Magnitude
18 67	6 2	- (SINT 2 byte) Ib 3 <sup>rd</sup> Harmonic Magnitude
18 68	62	- (SINT 2 byte) Ib 4 <sup>th</sup> Harmonic Magnitude
18 69	62	- (SINT 2 byte) Ib 5 <sup>th</sup> Harmonic Magnitude

#### Sample Record

11	08 17 51 08 00	- August 23, 2011 17:08:00
00	19	- 0.25%
00	2 F	- 0.47%
27	OF	- 99.99% (indicates the value isn't valid)
00	00 00 00	- 0
00	00 00 00	- 0
00	00 00 00	- 0
00	00 00 00	- 0
00	00 00 00	- 0



27	OF	-	99.9%	(Fundamental)
00	01	-	0.01%	
00	05	-	0.05%	
00	00	-	0.0%	
00	00	-	0.0%	
00	00	-	0.0%	

Reg# S	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
Meter Inf	fo					Address Range: 00001-0099	[9]	
		tion Block						
		Meter Name	ASCII	16 char				R
9	8	Meter Serial Number	ASCII	16 char				R
		Meter Type		bitmapped		b9-b8: meter type; 0b00 panel meter, 0b01 transducer b7-b0: V-switch number 1 to 5 other bits don't care		R
		Firmware Version	ASCII	4 char				R
20	1	Map Version	UINT16	0 to 65535				R
21	1	Meter Configuration	UINT16	bitmapped		b10-b8: current class; 1 = Class 2; 5 = Class 10 b5-b0: calibration frequency; 50 or 60 other bits don't care.		R
22	1	ASIC Version	UINT16	0 to 65535				R
	2	Boot Firmware Version	ASCII	4 char				R
25	1	Option Slot 1 Usage	UINT16	bitmapped		b15-b12: card status; b15=unsupported; b14: needs configuration; b13: using default configuration; b12: card communication ok b7-b4: class of installed card b3-b0: type of card. See note 22. other bits don't care.		R
26	1	Option Slot 2 Usage	UINT16	bitmapped		b15-b12: card status; b15=unsupported; b14: needs configuration; b13: using default configuration; b12: card communication ok b7-b4: class of installed card b3-b0: type of card. See note 22. other bits don't care.		R
21	2	Built on Date	TETAMD	21st Century	1s	Unit's Build date	-	R
31	2	DSP board Version	ASCII	4 char	13			R
		VIP board Version	ASCII	4 char				R
		COM board Version	ASCII	4 char				R
42		Calibration Version	ASCII	4 char				R
		Unit Header Version	ASCII	4 char				R
		File System Version	ASCII	4 char				R
		Boot Transfer Version	ASCII	4 char				R
48	2	TOU Library Version	ASCII	4 char				R
50	2	Esnap Version	ASCII	4 char				R
	2	FRAM Map Version	ASCII	4 char				R
	2	Option Card #1 Version	ASCII	4 char	+			R
	2	Option Card #1 Version Option Card #2 Version	ASCII	4 char	+			R
	2	Screen File Version	ASCII	4 char				R
		Min/Max Version	ASCII	4 char	+			R
		Min/Max version Meter Type Name		4 char 8 char				R



		Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
		ngs (Items read as 0 until first readings are available or if the meter is not in ope	erating mo	ode).		Address Range: 01000-0999	9	
		eadings Block	T	L			-	
1000			FLOAT	0 to 9.999 E+09	V			R
1002		V B-N	FLOAT	0 to 9.999 E+09	V			R
1004		V C-N	FLOAT	0 to 9.999 E+09	V			R
1006		V A-B	FLOAT	0 to 9.999 E+09	V			R
1008		V B-C	FLOAT	0 to 9.999 E+09	V			R
1010			FLOAT	0 to 9.999 E+09	V			R
1012	2		FLOAT	0 to 9.999 E+09	A			R
1014	2			0 to 9.999 E+09 0 to 9.999 E+09	A			R
		W, Total		0 to ±9.999 E+09	A W			R
		VAR, Total		$0 to \pm 9.999 E+09$ 0 to $\pm 9.999 E+09$	w VAR			R
		VAR, Total		$0 t_0 \pm 9.999 E+09$ 0 to $\pm 9.999 E+09$	VAR			R R
		PF, Total	FLOAT	-1.00 to +1.00	VA		-	R
		Frequency	FLOAT	0 to 65.00	Hz		-	R
		l Neutral		0 to 9.999 E+09				R
		W. Phase A	FLOAT	0 to ±9.999 E+09	W	Per phase power and PF have values only for WYE hookup		R
		W, Phase B		0 to $\pm 9.999 E+09$	W	and will be zero for all other hookups.		R
		W, Phase C	FLOAT	0 to $\pm 9.999$ E+09	W			R
1034		VAR. Phase A	FLOAT	0 to ±9.999 E+09	VAR	4		R
		VAR, Phase B	FLOAT	0 to ±9.999 E+09	VAR	4		R
1030		VAR, Phase C	FLOAT	0 to ±9.999 E+09	VAR			R
		VA, Phase A	FLOAT	0 to ±9.999 E+09	VA			R
		VA. Phase B		$0 \text{ to } \pm 9.999 \text{ E} + 09$	VA	1		R
		VA. Phase C	FLOAT	$0 \text{ to } \pm 9.999 \text{ E} + 09$	VA	1		R
		PF, Phase A	FLOAT	-1.00 to +1.00				R
		PF, Phase B	FLOAT	-1.00 to +1.00				R
		PF. Phase C	FLOAT	-1.00 to +1.00				R
1054	2	Symmetrical Component Magnitude, 0 sequence component	FLOAT	0 to 9.999 E+09	V	Voltage unbalance per IEC6100-4.30		R
1056	2	Symmetrical Component Magnitude, positive sequence	FLOAT	0 to 9.999 E+09	V	Values apply only to WYE hookup and		R
1058	2	Symmetrical Component Magnitude, negative sequence component	FLOAT	0 to 9.999 E+09	V	will be zero for all other hookups.		R
	1	Symmetrical Component Phase, zero sequence component	SINT16	-1800 to +1800	0.1°	1 '		R
1061	1	Symmetrical Component Phase, positive sequence component	SINT16	-1800 to +1800	0.1°			R
1062		Symmetrical Component Phase, negative sequence component	SINT16	-1800 to +1800	0.1°	]		R
1063	1	Voltage Unbalance, zero sequence component component	UINT16	0 to 65535	0.01%	]		R
1064	1	Voltage Unbalance, negative sequence component	UINT16	0 to 65535	0.01%			R
1065	1	Current Unbalance	UINT16	0 to 20000	0.01%			R
1066	1	Quadrant indicator	UINT16	bitmapped		b0,b1,b2,b3 = 1 for quadrant 1,2,3,4 - Phase A b4,b5,b6,b7 = 1 for quadrant 1,2,3,4 - Phase B b8,b9,b10,b11 = 1 for quadrant 1,2,3,4 - Phase C b12,b13,b14,b15 = 1 for quadrant 1,2,3,4 - Total		R
1067	2	Q Total	FLOAT	0 to 9.999 E+09	0			R
1069		Q Phase A	FLOAT	0 to 9.999 E+09	0		1	R
1071		Q Phase B		0 to 9.999 E+09	<u>0</u>		1	R
		Q Phase C		0 to 9.999 E+09	<u>0</u>		1	R



Bary         Bits         Description         Found         Value Range         Unit of measure production         Comments         Found of measure production         Found of measure production<	
Proceedings         Physics	Ace
1500         2         Vin. (2): 0.43         Set Reg 2 0117         Set Reg 2 0117 <t< th=""><th></th></t<>	
1500         2 MM (22:03)         Series 2 MM (22:03)         Mode         Series 2 MM (23:04)         Series 2 MM (23:04)           1500         2 MM (21:02)         Mode         Series 2 MM (23:04)         Series	
1502         10h         Q2-Q3         10h         See Bard 2011 for formula and scalen           1503         2 Min Mar         Min D         <	R
1580         2         NM Togi         Space Registry for formating and spain           1580         2         VMM, Col-DD,         Shi12         0.0	R
1586         2         VARN. (20-02)         BRT22         D. 0. 9999999         VARN         See Rep 20118 for fromatine and scaling           1517         2         VARN. (20-02)         BRT22         D. 0. 99999999         VARN         See Rep 20118 for fromatine and scaling           1517         2         VARN. (20-02)         BRT22         D. 0. 99999999         VARN         See Rep 20118 for fromatine and scaling           1518         2         VARN. (20-02)         BRT22         D. 0. 99999999         VARN         See Rep 20117 for fromatine and scaling           1518         2         VAR. (20-04)         BRT22         D. 0. 99999999         VAR         See Rep 20117 for fromatine and scaling           1520         2         VAR. (20-04)         BRT22         D. 0. 99999999         VAR         See Rep 20117 for fromatine and scaling           1520         2         VAR. (20-02)         Brase 6         BRT22         D. 0. 99999999         VAR         See Rep 20117 for fromatine and scaling           1520         2         VAR. (20-02)         Brase 6         BRT22         D. 0. 99999999         VAR         See Rep 20117 for fromatine and scaling           1522         VAR. (20-02)         Brase 6         BRT22         D.0. 9999999         VAR         See Rep 20117 for fromatine and	R
State         VARP. (25-C4)         Sear Roy 2011 Bit for matting and scaling           S12         VARP. (031-C4)         State 2	R
1512         2         VAR. Net         SNR 12:0         0.0.99999999         VAR.         See Reg 20118 for formaling and scaling           1512         2         VAR. Indu         SNR 12:0         10.59999999         VAR.         See Reg 20118 for formaling and scaling           1512         2         VAR. Indu         SNR 12:0         10.59999999         VAR.         See Reg 20118 for formaling and scaling           1512         2         VAR. (D1:QA: Phase C         SNR 12:0         10.29999999         VAR.         See Reg 20118 for formaling and scaling           1522         2         VAR. (D1:QA: Phase C         SNR 12:0         10.299999999         VAR.         See Reg 20118 for formaling and scaling           1523         VAR. (D1:QA: Phase C         SNR 12:0         10.299999999         VAR.         See Reg 20118 for formaling and scaling           1524         VAR. (D1:QA: SPase A         SNR 12:0         10.299999999         VAR.         See Reg 20118 for formaling and scaling           1525         VAR. (D2: SPase A         SNR 12:0         10.299999999         VAR.         See Reg 20118 for formaling and scaling           1536         VAR. (D2: SPase A         SNR 12:0         10.299999999         VAR.         See Reg 20118 for formaling and scaling           1537         VAR. (D2: RPase A	R
TS1E         VARB. Total         Init 2:         VII: 0:         Dis. 39999999         VAB         See Reg 2011 for formating and scaling           TS1E         V. M. (1-01, Phase A         Shi 12:         Dis. 39999999         VAB         See Reg 2011 for formating and scaling           TS1E         V. M. (1-01, Phase A         Shi 12:         Dis. 39999999         VAB         See Reg 2011 for formating and scaling           TS1E         V. M. (1-01, Phase A         Shi 12:         Dis. 39999999         VAB         See Reg 2011 for formating and scaling           TS2E         V. M. (2-01, Phase A         Shi 12:         Dis. 39999999         VAB         See Reg 2011 for formating and scaling           TS2E         V. M. (2-01, Phase A         Shi 12:         Dis. 39999999         VAB         See Reg 2011 for formating and scaling           TS2E         V. M. (2-01, Phase A         Shi 12:         Dis. 39999999         VAB         See Reg 2011 for formating and scaling           TS3E         V. M. (See Reg 2011 for formating and scaling         Dis. 39999999         VAB         See Reg 2011 for formating and scaling           TS3E         V. M. (See Reg 2011 for formating and scaling         Dis. 39999999         VAB         See Reg 2011 for formating and scaling           TS3E         V. M. (See Reg 2011 for formating and scaling         Dis. 399999999	R
1516         2         Wh. Toki         Circ Opposed         VAA         See Rev 20117 for formating and science           1518         2         Wh. (1-04). Phase A         SHT2         Dis Appropries         See Rev 20117 for formating and science           1520         2         Wh. (1-04). Phase B         SHT2         Dis Appropries         Wh. See Rev 20117 for formating and science           1520         2         Wh. (1-04). Phase B         See Rev 20117 for formating and science           1520         2         Wh. (1-04). Phase B         See Rev 20117 for formating and science           1526         2         Wh. (2-02). Phase B         See Rev 20117 for formating and science           1526         2         Wh. (2-02). Phase B         See Rev 20117 for formating and science           1527         Wh. Rev Phase A         See Rev 20117 for formating and science           1528         Wh. (2-02). Phase B         See Rev 20117 for formating and science           1529         Wh. Rev Phase A         See Rev 20117 for formating and science           1530         Wh. Rev Phase A         See Rev 20117 for formating and science           1541         Wh. (104). Phase A         See Rev 20118 for formating and science           1542         Wh. Rev Phase A         See Rev 20118 for formating and science	R
1518         2         Wh. (Cl+G4). Phase A         SNT 20         0.b. 9999999         Wh         See Reg 3011 for formating and soling           1520         2         Wh. Cl+G4). Phase B         SNT 20         0.b. 49999999         Wh         See Reg 3011 for formating and soling           1521         2         Wh. Cl+G4). Phase C         SNT 20         0.b. 49999999         Wh         See Reg 3011 for formating and soling           1528         2         Wh. Cl+G4). Phase C         SNT 20         0.b. 49999999         Wh         See Reg 3011 for formating and soling           1528         2         Wh. Cl2G3). Phase C         SNT 20         0.b. 49999999         Wh         See Reg 3011 for formating and soling           1532         2         Wh. RL Phase R         SNT 20         0.b. 49999999         Wh         See Reg 3011 for formating and soling           1532         2         Wh. RL Phase R         SNT 20         0.b. 49999999         Wh         See Reg 3011 for formating and soling           1532         2         Wh. RL Phase R         SNT 20         0.b. 49999999         Wh         See Reg 3011 for formating and soling           1543         2         Wh. Cl-D2. Phase A         SNT 20         0.b. 49999999         Wh         See Reg 3018 for formating and soling	R
15/21         2         Wh. Clirody. Phase B         SNT12         Dis. Provement         See Read 30117 for formating and scaling           15/21         2         Wh. Clirody. Phase A         SNT12         Dis. Provement         See Read 30117 for formating and scaling           15/22         2         Wh. Clirody. Phase A         SNT12         Dis. Provement         See Read 30117 for formating and scaling           15/21         2         Wh. Clirody. Phase A         SNT12         Dis. Provement         See Read 30117 for formating and scaling           15/21         2         Wh. Clirody. Phase C         SNT12         Dis. Provement         See Read 30117 for formating and scaling           15/21         2         Wh. Rel. Phase C         SNT12         Dis. Provement         Wh. See Read 30117 for formating and scaling           15/22         2         Wh. Rel. Phase C         SNT12         Dis. Provement         Wh. See Read 30117 for formating and scaling           15/24         2         Wh. Rel. Phase C         SNT12         Dis. Provement         Wh. See Read 30117 for formating and scaling           15/24         2         Wh. See Read 30117 for formating and scaling         See Read 30117 for formating and scaling           15/24         2         Wh. See Read 30118 for formating and scaling         See Read 30118 for formating and scaling </td <td>R</td>	R
1522         Wh. Cl1-CdJ. Phase C.         SNT2>         Din .49999999         Wh         See Reg. 2017 16 formating and scaling.           1524         2. Wh. Cl2-CdJ. Phase A.         SNT2>         Din .49999990         Wh         See Reg. 2017 16 formating and scaling.           1526         2. Wh. Cl2-CdJ. Phase D.         SNT2>         Din .49999990         Wh         See Reg. 2017 16 formating and scaling.           1528         2. Wh. Cl2-CdJ. Phase D.         SNT2>         Din .49999999         Wh         See Reg. 2017 16 formating and scaling.           1532         2. Wh. Net Phase D.         SNT2>         Din .49999999         Wh         See Reg. 2017 16 formating and scaling.           1532         2. Wh. Net Phase B.         SNT2>         Din .49999999         Wh         See Reg. 2017 16 formating and scaling.           1532         2. Wh. Toled, Phase A.         SNT2>         Din .49999999         Wh         See Reg. 2017 16 formating and scaling.           1543         2. Wh. Toled, Phase A.         SNT2>         Din .49999999         Wh         See Reg. 2017 16 formating and scaling.           1544         2. Wh. Toled, Phase A.         SNT2>         Din .49999999         Wa         See Reg. 2017 16 formating and scaling.           1542         2. Wh. Role, Role A.         SNT2>         Din .49999999         WA	R
1542         Wh. C2(203), Phase A         SN12         0 b. 49999999         Wh         See Rep3 5017 foromating and scaling           1578         Z. Wh. C2(203), Phase B         SN12         0 b. 49999990         Wh         See Rep3 5017 foromating and scaling           1578         Z. Wh. C2(203), Phase C         SN12         0 b. 49999990         Wh         See Rep3 5017 for formating and scaling           1578         Z. Wh. Rel Phase A         SN12         0 b. 49999990         Wh         See Rep3 5017 for formating and scaling           1584         Z. Wh. Rel Phase A         SN12         0 b. 49999990         Wh         See Rep3 5017 for formating and scaling           1584         Z. Wh. Rel Phase A         SN12         0 b. 49999999         Wh         See Rep3 5017 for formating and scaling           1584         Z. Wh. Fold, Phase A         SN12         0 b. 49999990         Wh         See Rep3 5017 for formating and scaling           1584         Z. Wh. Fold, Phase A         SN12         0 b. 49999990         WA         See Rep3 5017 for formating and scaling           1582         Z. Wh. Fold, Phase A         SN12         0 b. 49999990         WAR         See Rep3 50118 for formating and scaling           1582         Z. WAR, O1-O2), Phase A         SN12         0 b. 499999990         WAR         See Rep3	R
1558         2         Wh. (22-03). Phase B         Set 12         0.6.49999999         Wh         Sec Reg 2 0117 for transling and scaling           1558         2         Wh. Rel. Plase A         Set 12         0.6.4999999         Wh         Sec Reg 2 0117 for transling and scaling           1550         2         Wh. Rel. Plase A         Set 12         0.6.4999999         Wh         Sec Reg 2 0117 for transling and scaling           1551         2         Wh. Rel. Plase A         Set 12         0.6.4999999         Wh         Sec Reg 2 0117 for transling and scaling           1552         2         Wh. Rel. Plase C         Set 12         0.6.4999999         Wh         Sec Reg 2 0117 for transling and scaling           1554         2         Wh. Toll, Phase C         Set 12         0.6.4999999         WA         Sec Reg 2 0117 for transling and scaling           1542         2         WAR. (01-02). Phase A         Set 12         0.6.4999999         WAR         Sec Reg 2 0118 for transling and scaling           1542         2         WAR. (01-02). Phase A         Set 12         0.6.49999999         WAR         Sec Reg 2 0118 for transling and scaling           1542         2         WAR. (01-02). Phase A         Set 12         0.6.49999999         WAR         Sec Reg 2 0118 for transling and scaling	R
1588         2         Wh. (20-03). Phase C         Sthitz         Do g. 9999999         Wh         See Regit 2011? for formating and scaling           1582         2         Wh. Net Phase A         Shitz         Do g. 9999999         Wh         See Regit 2011? for formating and scaling           1582         2         Wh. Net Phase A         Shitz         Do g. 9999999         Wh         See Regit 2011? for formating and scaling           1582         2         Mh. Net Phase A         Shitz         Do g. 9999999         Wh         See Regit 2011? for formating and scaling           1582         2         Mh. Net Phase A         Shitz         Do g. 9999999         Wh         See Regit 2011? for formating and scaling           1582         2         MAR         Noish         See Regit 2011? for formating and scaling         Scaling           1582         2         VAR         See Regit 2011? for formating and scaling         Scaling         Scaling         Scaling           1582         2         VAR         See Regit 2011? for formating and scaling	R
1530         2         Wh, Net, Phase A         SNT12         D to _9999999         Wh         See Regt 30117 for formating and scaling           1534         2         Wh, Net, Phase B         SNT12         D to _9999999         Wh         See Regt 30117 for formating and scaling           1534         2         Wh, Net, Phase C         SNT12         D to _9999999         Wh         See Regt 30117 for formating and scaling           1538         2         Wh, Told, Phase A         SNT12         D to _99999999         Wh         See Regt 30117 for formating and scaling           1541         2         Wh, Told, Phase A         SNT12         D to _99999999         Wh         See Regt 30117 for formating and scaling           1542         2         Wh, Told, Phase A         SNT12         D to _99999999         WA         See Regt 30117 for formating and scaling           1542         2         WAR, OL-CA, Phase A         SNT12         D to _99999999         WAR         See Regt 30117 for formating and scaling           1543         2         WAR         See Regt 30117 for formating and scaling         Scaling           1544         2         WAR         See Regt 30118 for formating and scaling         Scaling           1545         2         WAR         See Regt 30118 for formating and scaling	R
1552         2         Wh. Net, Phase B         SNT12         Die Je9999999         Wh         See Regr 2011 for formating and scaling           1554         2         Wh. Total, Phase A         SNT12         Die Je9999999         Wh         See Regr 2011 for formating and scaling           1556         2         Wh. Total, Phase A         SNT12         Die Je9999999         Wh         See Regr 2011 for formating and scaling           1560         2         Wh. Total, Phase A         SNT12         Die Je9999999         Wh         See Regr 2011 for formating and scaling           1561         2         Wh. Total, Phase A         SNT12         Die Je9999999         WA         See Regr 2011 for formating and scaling           1562         2         Wh. Total, Phase A         SNT12         Die Je9999999         VAR         See Regr 2011 for formating and scaling           1564         2         VAR         See Regr 2011 for formating and scaling         Immating and scaling           1555         2         VAR         See Regr 2011 for formating and scaling         Immating and scaling           1556         2         VAR         See Regr 2011 for formating and scaling         Immating and scaling           1556         2         VAR         See Regr 2011 for formating and scaling         Immating and sc	R
1534         2         Vin, Net, Phase C         SNI12         0.b.99999990         Wh         See Read 20117 for formating and scaling           1538         2         Wh, Tolal, Phase A         SNI12         0.b. 99999990         Wh         See Read 20117 for formating and scaling           1538         2         Wh, Tolal, Phase A         SNI12         0.b. 99999990         Wh         See Read 20117 for formating and scaling           1542         2         Wh, Cill Phase A         SNI12         0.b. 99999990         WA         See Read 20118 for formating and scaling           1542         2         Wh, Cill Phase A         SNI12         0.b. 99999990         VAR         See Read 20118 for formating and scaling           1546         2         WAR, Cill-O2, Phase A         SNI12         0.b. 99999990         VAR         See Read 20118 for formating and scaling           1546         2         WAR, Cill-O2, Phase A         SNI12         0.b. 99999990         VAR         See Read 20118 for formating and scaling           1545         2         WAR, Cill-O2, Phase A         SNI12         0.b. 99999990         VAR         See Read 20118 for formating and scaling           1545         2         WAR, Net, Phase A         SNI12         0.b. 99999990         VAR         See Read 20118 for formating and scaling<	R
1536         2         Wh. Total, Phase A         SN173         D to 49999999         Wh.         See Reg # 30117 for formaling and scaling           1548         2         Wh. Total, Phase B         SN173         D to 49999999         Wh.         See Reg # 30117 for formaling and scaling           1541         2         VARh, (O1-O2), Phase A         SN173         D to 499999999         WAR         See Reg # 30118 for formaling and scaling           1542         2         VARh, (O1-O2), Phase C         SN173         D to 499999999         WAR         See Reg # 30118 for formaling and scaling           1542         2         VARh, (O1-O2), Phase C         SN173         D to 499999999         VARh         See Reg # 30118 for formaling and scaling           1545         2         VARh, (O1-O2), Phase A         SN173         D to 499999999         VARh         See Reg # 30118 for formaling and scaling           1545         2         VARh, (O1-O2), Phase A         SN173         D to 499999999         VARh         See Reg # 30118 for formaling and scaling           1545         2         VARh, (O1-O2), Phase A         SN173         D to 499999999         VARh         See Reg # 30118 for formaling and scaling           1545         2         VARh, Net Phase A         SN173         D to 499999999         VARh	R
1588         2         Wh. Told, Phase B         SINT 2         D to ±9999999         Wh         See Reg 3 30117 for formating and scaling           1540         2         WAR, 101-02, Phase A         SINT 2         D to ±9999999         VAR         See Reg 3 30118 for formating and scaling           1542         2         WAR, 101-02, Phase B         SINT 2         D to ±9999999         VAR         See Reg 3 30118 for formating and scaling           1545         2         WAR, 101-02, Phase A         SINT 2         D to ±9999999         VAR         See Reg 3 30118 for formating and scaling           1552         2         WAR, 103-04, Phase A         SINT 2         D to ±9999999         VAR         See Reg 3 30118 for formating and scaling           1552         2         WAR, 103-04, Phase A         SINT 2         D to ±9999999         VAR         See Reg 3 30118 for formating and scaling           1552         2         WAR, Not Phase A         SINT 2         D to ±9999999         VAR         See Reg 3 30118 for formating and scaling           1552         2         WAR, Not Phase A         SINT 2         D to ±9999999         VAR         See Reg 3 30118 for formating and scaling           1562         2         WAR, Not Phase A         SINT 2         D to ±9999999         VAR         See Reg 3 30118 for	R
1540         2         Wh, Total, Phase C         SNT32         Dit & 99999999         Wh.         See Reaf 30117 for formating and scaling           1542         2         VARh. (01-02), Phase A         SNT32         Dit & 99999999         VARh         See Reaf 30118 for formating and scaling           1544         2         VARh. (01-02), Phase A         SNT32         Dit & 99999999         VARh         See Reaf 30118 for formating and scaling           1546         2         VARh. (03-04), Phase A         SNT32         Dit & 99999999         VARh         See Reaf 30118 for formating and scaling           1552         2         VARh. (03-04), Phase A         SNT32         Dit & 99999999         VARh         See Reaf 30118 for formating and scaling           1552         2         VARh. Net, Phase A         SNT32         Dit & 99999999         VARh         See Reaf 30118 for formating and scaling           1554         2         VARh. Net, Phase A         SNT32         Dit & 99999999         VARh         See Reaf 30118 for formating and scaling           1564         2         VARh. Net, Phase A         SNT32         Dit & 99999999         VARh         See Reaf 30118 for formating and scaling           1564         2         VARh. Total, Phase A         SNT32         Dit & 999999999         VARh         See	R
1542         2         VARh. (D1-02). Phase A         SN132         Dit a. 9999999         VARh.         See Read 30118 for formating and scaling.           1544         2         VARh. (D1-02). Phase A         SN132         Dit a. 99999999         VARh.         See Read 30118 for formating and scaling.           1548         2         VARh. (D3-02). Phase A         SN132         Dit a. 99999999         VARh.         See Read 30118 for formating and scaling.           1552         2         VARh. (D3-04). Phase A         SN132         Dit a. 99999999         VARh.         See Read 30118 for formating and scaling.           1552         2         VARN. Not. Phase A         SN132         Dit a. 99999999         VARh         See Read 30118 for formating and scaling.           1552         2         VARN. Not. Phase A         SN132         Dit a. 99999999         VARh         See Read 30118 for formating and scaling.           1552         2         VARN. Not. Phase B         SN132         Dit a. 99999999         VARh         See Read 30118 for formating and scaling.           1552         2         VARN. Not. Phase B         SN132         Dit a. 99999999         VARh         See Read 30118 for formating and scaling.           1562         2         VARN. Total, Phase A         SN132         Dita. 99999999         VARh </td <td>R</td>	R
1544         2         VARh. (10-02). Phase B         SIN132         Dit a. 99999999         VARh         See Rev2 30118 for formating and scaling.           1546         2         VARh. (03-04). Phase A         SIN132         Dit a. 99999999         VARh         See Rev2 30118 for formating and scaling.           1546         2         VARh. (03-04). Phase A         SIN132         Dit a. 99999999         VARh         See Rev2 30118 for formating and scaling.           1552         2         VARh. (03-04). Phase A         SIN132         Dit a. 99999999         VARh         See Rev2 30118 for formating and scaling.           1554         2         VARh. Net, Phase A         SIN132         Dit a. 99999999         VARh         See Rev2 30118 for formating and scaling.           1554         2         VARh. Net, Phase A         SIN132         Dit a. 99999999         VARh         See Rev2 30118 for formating and scaling.           1554         2         VARh. Total, Phase C         SIN132         Dit a. 99999999         VARh         See Rev2 30118 for formating and scaling.           1562         2         VARh. Total, Phase A         SIN132         Dit a. 99999999         VARh         See Rev2 30118 for formating and scaling.           1564         2         VARh. Total, Phase B         SIN132         Dit a. 99999999	R
1546         2         VARh. (D1-02), Phase A         SinT 2         D to 49999999         VARh         See Rey# 20118 for formating and scaling           1558         2         VARh. (D3-04), Phase A         SinT 2         D to 49999999         VARh         See Rey# 20118 for formating and scaling           1552         2         VARh. (D3-04), Phase A         SinT 2         D to 49999999         VARh         See Rey# 20118 for formating and scaling           1552         2         VARh. Not Phase A         SinT 2         D to 49999999         VARh         See Rey# 20118 for formating and scaling           1552         2         VARh. Net Phase A         SinT 2         D to 49999999         VARh         See Rey# 20118 for formating and scaling           1552         2         VARh. Net Phase A         SinT 2         D to 49999999         VARh         See Rey# 20118 for formating and scaling         D to 499999999           1562         2         VARh. India Phase A         SinT 2         D to 499999999         VARh         See Rey# 20118 for formating and scaling         D to 499999999           1562         2         VARh. Total Phase A         SinT 2         D to 499999999         VARh         See Rey# 20118 for formating and scaling         D to 499999999           1562         2         VARh. Total Phase A	R
1548         2         VARh. (23-04). Phase A         SIN132         OLe 99999999         VARh         See Red 30118 for formating and scaling           1552         VARh. (23-04). Phase B         SIN132         OLe 99999999         VARh         See Red 30118 for formating and scaling           1552         VARh. Not. Phase A         SIN132         OLe 99999999         VARh         See Red 30118 for formating and scaling           1556         VARh. Not. Phase A         SIN132         OLe 99999999         VARh         See Red 30118 for formating and scaling           1566         VARh, Idial. Phase A         SIN132         OLe 99999999         VARh         See Red 30118 for formating and scaling           1560         VARh, Idial. Phase A         SIN132         OLe 99999999         VARh         See Red 30118 for formating and scaling           1562         VARh, Idial. Phase A         SIN132         OLe 99999999         VARh         See Red 30118 for formating and scaling           1562         VARh, Idial. Phase A         SIN132         OLe 99999999         VARh         See Red 30118 for formating and scaling           1562         VARh, Idial. Phase A         SIN132         OLe 99999999         VARh         See Red 30117 for formating and scaling           1564         Z VARh, Phase B         SIN132         OLe 999999999 <td>R</td>	R
1552       2       VARh. (32-04), Phase C.       SINT32       0.0. 99999999       VARh       See Read 30118 for formating and scaling         1554       2       VARh. Net, Phase A       SINT32       0.0. 99999999       VARh       See Read 30118 for formating and scaling         1564       2       VARh. Net, Phase A       SINT32       0.0. 99999999       VARh       See Read 30118 for formating and scaling         1562       2       VARh. Total, Phase A       SINT32       0.0. 99999999       VARh       See Read 30118 for formating and scaling         1564       2       VARh. Total, Phase A       SINT32       0.0. 99999999       VARh       See Read 30118 for formating and scaling         1564       2       VARh. Total, Phase C       SINT32       0.0. 99999999       VARh       See Read 30118 for formating and scaling         1564       2       VARh. Total, Phase C       SINT32       0.0. 99999999       VAR       See Read 30117 for formating and scaling         1564       2       VARh. Total, Phase C       SINT32       0.0. 99999999       VAR       See Read 30118 for formating and scaling         1564       2       VAR. Phase B       SINT32       0.0. 99999999       VA       See Read 30117 for formating and scaling         1572       2       VAR. (O1), Total <td>R</td>	R
1156       2       VARh. Net, Phase A       SNT32       0 to 29999999       VARh       See Reg# 30118 for formating and scaling         1556       2       VARh. Net, Phase B       SNT32       0 to 29999999       VARh       See Reg# 30118 for formating and scaling         1560       2       VARh. Net, Phase B       SNT32       0 to 29999999       VARh       See Reg# 30118 for formating and scaling         1562       2       VARh. Total, Phase B       SNT32       0 to 29999999       VARh       See Reg# 30118 for formating and scaling         1564       2       VARh. Total, Phase B       SNT32       0 to 29999999       VARh       See Reg# 30118 for formating and scaling         1564       2       VARh. Total, Phase C       SNT32       0 to 29999999       VARh       See Reg# 30117 for formating and scaling         1566       2       VAn, Phase C       SNT32       0 to 99999999       VAh       See Reg# 30117 for formating and scaling         1570       2       Wh. COT, Total       SNT32       0 to 99999999       VAh       See Reg# 30117 for formating and scaling         1574       2       Wh. COT, Total       SNT32       0 to 99999999       VAh       See Reg# 30117 for formating and scaling         1576       2       Wh. (OT), Total       SNT32	R
1556       2       VARh. Net, Phase B       SMT32       0 to ±99999999       VARh       See Reg# 30118 for formating and scaling         1567       2       VARh. Total, Phase C       SMT32       0 to ±99999999       VARh       See Reg# 30118 for formating and scaling         1568       2       VARh. Total, Phase C       SMT32       0 to ±99999999       VARh       See Reg# 30118 for formating and scaling         1564       2       VARh. Total, Phase B       SMT32       0 to ±99999999       VARh       See Reg# 30118 for formating and scaling         1566       2       VAh, Phase A       SMT32       0 to ±99999999       VARh       See Reg# 30117 for formating and scaling         1566       2       VAh, Phase A       SMT32       0 to ±99999999       VAh       See Reg# 30117 for formating and scaling         1576       2       VAh, Phase A       SMT32       0 to ±99999999       VAh       See Reg# 30117 for formating and scaling         1577       2       VAh, COL, Total       SMT32       0 to ±99999999       VAh       See Reg# 30117 for formating and scaling         1576       2       VAh, COL, Total       SMT32       0 to ±99999999       VAh       See Reg# 30117 for formating and scaling         1576       2       VAh, COL, Total       SMT32	R
1582       2       VARb, Nel, Phase A       SINT 20       0 to ±99999999       VARb       See Read 30118 for formatting and scaling         1560       2       VARb, Total, Phase A       SINT 20       0 to ±99999999       VARb       See Read 30118 for formatting and scaling         1564       2       VARb, Total, Phase C       SINT 20       0 to ±99999999       VARb       See Read 30118 for formatting and scaling         1566       2       VARb, Total, Phase C       SINT 20       0 to ±99999999       VARb       See Read 30117 for formatting and scaling         1566       2       VARb, Phase A       SINT 20       0 to ±99999999       VAh       See Read 30117 for formatting and scaling         1570       2       VARb, Otal, Phase C       SINT 20       0 to ±99999999       VAh       See Read 30117 for formatting and scaling         1572       2       Wh, (O1), Total       SINT 20       0 to ±99999999       VAh       See Read 30117 for formatting and scaling         1574       2       VARb, (O1), Total       SINT 20       0 to ±99999999       VAh       See Read 30117 for formatting and scaling         1576       2       VARb, (O1), Total       SINT 20       0 to ±99999999       VAh       See Read 30117 for formatting and scaling         1576       2       VARb,	R
1560         2         VARh. Total, Phase A         SINT32         0 to ±99999999         VARh         See Req# 30118 for formating and scaling           1562         2         VARh. Total, Phase B         SINT32         0 to ±99999999         VARh         See Req# 30118 for formating and scaling           1564         2         VARh. Total, Phase C         SINT32         0 to ±99999999         VARh         See Req# 30117 for formating and scaling           1566         2         VARh. Total, Phase A         SINT32         0 to 99999999         VARh         See Req# 30117 for formating and scaling           1568         2         VARh. Total, Phase A         SINT32         0 to 99999999         VARh         See Req# 30117 for formating and scaling           1572         2         VAR. (O1), Total         SINT32         0 to 99999999         VARh         See Red# 30117 for formating and scaling           1572         2         VAR.(O1), Total         SINT32         0 to 99999999         VARh         See Red# 30117 for formating and scaling           1572         2         VAR.(O1), Total         SINT32         0 to 99999999         VARh         See Red# 30117 for formating and scaling           1576         2         VAR.(O1), Total         SINT32         0 to 999999999         VARh         See Red# 30117 for	R
1562       2       VARh. Total. Phase B       SINT32       0 to ±99999999       VARh       See Reg# 30118 for formatting and scaling         1564       2       VARh. Total. Phase C       SINT32       0 to ±99999999       VARh       See Reg# 30117 for formatting and scaling         1566       2       VAh. Phase A       SINT32       0 to 99999999       VAN       See Reg# 30117 for formatting and scaling         1570       2       VAh. Phase C       SINT32       0 to 99999999       VAN       See Reg# 30117 for formatting and scaling         1570       2       VAh. Phase C       SINT32       0 to ±99999999       VAN       See Reg# 30117 for formatting and scaling         1570       2       Wh. (D1). Total       SINT32       0 to ±99999999       WA       See Reg# 30117 for formatting and scaling         1574       2       VARh. (C1). Total       SINT32       0 to ±99999999       VAN       See Reg# 30117 for formatting and scaling         1576       2       VAh. (C1). Total       SINT32       0 to ±999999999       VAN       See Reg# 30117 for formatting and scaling         1578       2       Wh. (C1). Phase A       SINT32       0 to ±999999999       WA       See Reg# 30117 for formatting and scaling         1580       2       Wh. (C1). Phase B       SINT	R
1564         2         VARh. Total. Phase C         SINT32         0 to ±9999999         VARh         See Reg# 30118 for formating and scaling           1566         2         VAh. Phase A         SINT32         0 to 99999999         VAh         See Reg# 30117 for formating and scaling           1568         2         VAh. Phase B         SINT32         0 to 99999999         VAh         See Reg# 30117 for formating and scaling           1572         2         Wh. (O1). Total         SINT32         0 to 99999999         WAh         See Reg# 30117 for formating and scaling           1572         2         WA. (O1). Total         SINT32         0 to ±9999999         WAh         See Reg# 30117 for formating and scaling           1574         2         VAR. (O1). Total         SINT32         0 to ±9999999         VAh         See Reg# 30117 for formating and scaling           1578         2         Wh. (O1). Phase A         SINT32         0 to ±9999999         VAh         See Reg# 30117 for formating and scaling           1582         Wh. (O1). Phase A         SINT32         0 to ±9999999         VAh         See Reg# 30117 for formating and scaling           1582         VAR. (O1). Phase A         SINT32         0 to ±99999999         VAh         See Reg# 30117 for formating and scaling           1582	R
1566         2         VAn, Phase A         SINT32         0 to 99999999         VAn         See Reg# 30117 for formatting and scaling           1568         2         VAh, Phase C         SINT32         0 to 99999999         VAh         See Reg# 30117 for formatting and scaling           1570         2         VAh, Phase C         SINT32         0 to 99999999         VAh         See Reg# 30117 for formatting and scaling           1572         2         Wh, (01), Total         SINT32         0 to 499999999         WAh         See Reg# 30117 for formatting and scaling           1574         2         VAh, (01), Total         SINT32         0 to 499999999         VAh         See Reg# 30117 for formatting and scaling           1576         2         VAh, (01), Phase A         SINT32         0 to 499999999         WAh         See Reg# 30117 for formatting and scaling           1580         Wh, (01), Phase A         SINT32         0 to 499999999         Wh         See Reg# 30117 for formatting and scaling           1580         Wh, (01), Phase B         SINT32         0 to 499999999         Wh         See Reg# 30117 for formatting and scaling           1584         VARh, (01), Phase B         SINT32         0 to 499999999         WAh         See Reg# 30117 for formatting and scaling           1584 <td< td=""><td>R</td></td<>	R
1568       2       VAh, Phase B       SINT32       0 to 99999999       VAh       See Req# 30117 for formatting and scaling         1570       2       VAh, Phase C       SINT32       0 to 99999999       VAh       See Req# 30117 for formatting and scaling         1572       2       Wh, (O1), Total       SINT32       0 to 99999999       WA       See Req# 30117 for formatting and scaling         1574       2       VARh, (O1), Total       SINT32       0 to 99999999       VAR       See Req# 30117 for formatting and scaling         1576       2       VAh, (O1), Total       SINT32       0 to 99999999       VAR       See Req# 30117 for formatting and scaling         1578       2       Wh, (O1), Phase A       SINT32       0 to 99999999       WA       See Req# 30117 for formatting and scaling         1580       2       Wh, (O1), Phase B       SINT32       0 to 499999999       Wh       See Req# 30117 for formatting and scaling         1582       Wh, (O1), Phase A       SINT32       0 to 499999999       WA       See Req# 30117 for formatting and scaling         1584       VARh, (O1), Phase A       SINT32       0 to 499999999       VARh       See Req# 30118 for formatting and scaling         1584       VARh, (O1), Phase B       SINT32       0 to 499999999       VARh	R
1570       2       VAh, Phase C       SINT32       0 to 99999999       VAh       See Reg# 30117 for formatting and scaling         1572       2       Wh, (O1), Total       SINT32       0 to 49999999       VAh       See Reg# 30117 for formatting and scaling         1574       2       VARh, (O1), Total       SINT32       0 to 49999999       VAh       See Reg# 30117 for formatting and scaling         1576       2       VAh, (O1), Total       SINT32       0 to 49999999       VAh       See Reg# 30117 for formatting and scaling         1578       2       Wh, (O1), Phase A       SINT32       0 to 499999999       Wh       See Reg# 30117 for formatting and scaling         1580       2       Wh, (O1), Phase A       SINT32       0 to 499999999       Wh       See Reg# 30117 for formatting and scaling         1584       2       Wh, (O1), Phase A       SINT32       0 to 499999999       WAh       See Reg# 30117 for formatting and scaling         1584       2       VARh, (O1), Phase A       SINT32       0 to 499999999       VARh       See Reg# 30118 for formatting and scaling         1584       2       VARh, (O1), Phase B       SINT32       0 to 499999999       VARh       See Reg# 30118 for formatting and scaling         1586       2       VARh, (O1), Phase A <t< td=""><td>R</td></t<>	R
1572       2       Wh, (Q1), Total       SINT32       0 to ±99999999       Wh       See Reg# 30117 for formatting and scaling         1574       2       WAh, (Q1), Total       SINT32       0 to ±99999999       VARh       See Reg# 30118 for formatting and scaling         1576       2       Wh, (Q1), Total       SINT32       0 to ±99999999       VAh       See Reg# 30117 for formatting and scaling         1578       2       Wh, (Q1), Phase A       SINT32       0 to ±99999999       Wh       See Reg# 30117 for formatting and scaling         1580       2       Wh, (Q1), Phase B       SINT32       0 to ±99999999       Wh       See Reg# 30117 for formatting and scaling         1582       2       Wh, (Q1), Phase C       SINT32       0 to ±99999999       Wh       See Reg# 30117 for formatting and scaling         1584       2       VARh, (O1), Phase C       SINT32       0 to ±99999999       WAR       See Reg# 30118 for formatting and scaling         1588       2       VARh, (O1), Phase B       SINT32       0 to ±99999999       VARh       See Reg# 30118 for formatting and scaling         1590       2       VARh, (O1, Phase C       SINT32       0 to ±99999999       VARh       See Reg# 30118 for formatting and scaling         1592       2       VARh, (O1, Phase B	R
1574       2       VARh, (Q1), Total       SINT32       0 to ±9999999       VARh       See Reg# 30118 for formatting and scaling         1578       2       VAh, (Q1), Total       SINT32       0 to ±99999999       Wh       See Reg# 30117 for formatting and scaling         1580       2       Wh, (Q1), Phase B       SINT32       0 to ±99999999       Wh       See Reg# 30117 for formatting and scaling         1580       2       Wh, (Q1), Phase B       SINT32       0 to ±99999999       Wh       See Reg# 30117 for formatting and scaling         1580       2       Wh, (Q1), Phase C       SINT32       0 to ±99999999       Wh       See Reg# 30117 for formatting and scaling         1584       2       WARh, (Q1), Phase A       SINT32       0 to ±99999999       VARh       See Reg# 30118 for formatting and scaling         1586       2       VARh, (Q1), Phase B       SINT32       0 to ±99999999       VARh       See Reg# 30118 for formatting and scaling         1588       2       VARh, (Q1), Phase C       SINT32       0 to ±99999999       VARh       See Reg# 30118 for formatting and scaling         1589       2       VARh, (Q1), Phase C       SINT32       0 to ±99999999       VARh       See Reg# 30117 for formatting and scaling         1592       2       VAh, (Q1), Phase A	R
1576       2       VAh, (Q1), Total       SINT32       0 to 99999999       VAh       See Reg# 30117 for formatting and scaling         1578       2       Wh, (Q1), Phase A       SINT32       0 to 99999999       Wh       See Reg# 30117 for formatting and scaling         1580       2       Wh, (Q1), Phase B       SINT32       0 to 999999999       Wh       See Reg# 30117 for formatting and scaling         1582       2       Wh, (Q1), Phase C       SINT32       0 to 999999999       WAh       See Reg# 30117 for formatting and scaling         1584       2       VARh, (Q1), Phase A       SINT32       0 to 99999999       WARh       See Reg# 30118 for formatting and scaling         1586       2       VARh, (Q1), Phase B       SINT32       0 to 99999999       VARh       See Reg# 30118 for formatting and scaling         1586       2       VARh, (Q1), Phase C       SINT32       0 to 99999999       VARh       See Reg# 30118 for formatting and scaling         1580       2       VARh, (Q1), Phase A       SINT32       0 to 99999999       VARh       See Reg# 30117 for formatting and scaling         1582       2       VARh, (Q1), Phase A       SINT32       0 to 99999999       VARh       See Reg# 30117 for formatting and scaling         1592       VARh, (Q1), Phase A       SI	R
1578       2       Wh, (Q1), Phase A       SINT32       0 to ±99999999       Wh       See Reg# 30117 for formatting and scaling         1580       2       Wh, (Q1), Phase B       SINT32       0 to ±99999999       Wh       See Reg# 30117 for formatting and scaling         1582       2       Wh, (Q1), Phase C       SINT32       0 to ±99999999       Wh       See Reg# 30118 for formatting and scaling         1584       2       VARh, (Q1), Phase A       SINT32       0 to ±99999999       VARh       See Reg# 30118 for formatting and scaling         1586       2       VARh, (Q1), Phase B       SINT32       0 to ±99999999       VARh       See Reg# 30118 for formatting and scaling         1586       2       VARh, (Q1), Phase B       SINT32       0 to ±99999999       VARh       See Reg# 30118 for formatting and scaling         1586       2       VARh, (Q1), Phase C       SINT32       0 to ±99999999       VARh       See Reg# 30118 for formatting and scaling         1590       2       VAh, (Q1), Phase C       SINT32       0 to 99999999       VAh       See Reg# 30117 for formatting and scaling         1592       2       VAh, (Q1), Phase C       SINT32       0 to 99999999       VAh       See Reg# 30117 for formatting and scaling         1596       2       VAh, (Q1), Phase	R
1580       2       Wh, (O1), Phase B       SINT32       0 to ±99999999       Wh       See Reg# 30117 for formatting and scaling         1582       2       Wh, (O1), Phase C       SINT32       0 to ±99999999       Wh       See Reg# 30117 for formatting and scaling         1584       2       VARh, (O1), Phase A       SINT32       0 to ±99999999       VARh       See Reg# 30118 for formatting and scaling         1586       2       VARh, (O1), Phase B       SINT32       0 to ±999999999       VARh       See Reg# 30118 for formatting and scaling         1588       2       VARh, (O1), Phase A       SINT32       0 to ±999999999       VARh       See Reg# 30117 for formatting and scaling         1590       2       VAh, (O1), Phase A       SINT32       0 to ±999999999       VARh       See Reg# 30117 for formatting and scaling         1590       2       VAh, (O1), Phase B       SINT32       0 to 99999999       VAh       See Reg# 30117 for formatting and scaling         1594       2       VAh, (O1), Phase B       SINT32       0 to 99999999       VAh       See Reg# 30117 for formatting and scaling         1596       2       VAh, (O2), Total       SINT32       0 to ±99999999       VAh       See Reg# 30117 for formatting and scaling         1596       2       VARh, (O2), To	R
15822Wh, (Q1), Phase CSINT320 to ±99999999WhSee Reg# 30117 for formatting and scaling15842VARh, (Q1), Phase ASINT320 to ±99999999VARhSee Reg# 30118 for formatting and scaling15862VARh, (Q1), Phase BSINT320 to ±99999999VARhSee Reg# 30118 for formatting and scaling15882VARh, (Q1), Phase CSINT320 to ±99999999VARhSee Reg# 30118 for formatting and scaling15892VARh, (Q1), Phase ASINT320 to 99999999VARhSee Reg# 30117 for formatting and scaling15902VAh, (Q1), Phase BSINT320 to 99999999VAhSee Reg# 30117 for formatting and scaling15922VAh, (Q1), Phase CSINT320 to 99999999VAhSee Reg# 30117 for formatting and scaling15942VAh, (Q1), Phase CSINT320 to 99999999VAhSee Reg# 30117 for formatting and scaling15942VAh, (Q2), TotalSINT320 to ±99999999VAhSee Reg# 30117 for formatting and scaling15982VARh, (Q2), TotalSINT320 to ±99999999VAhSee Reg# 30117 for formatting and scaling16002VAh, (Q2), TotalSINT320 to ±99999999VAhSee Reg# 30117 for formatting and scaling16022Wh, (Q2), Phase ASINT320 to ±99999999VAhSee Reg# 30117 for formatting and scaling16042Wh, (Q2), Phase BSINT320 to ±99999999WAhSee Reg# 30117 for formatti	R
1584       2       VARh, (Q1), Phase A       SINT32       0 to ±99999999       VARh       See Reg# 30118 for formatting and scaling         1586       2       VARh, (Q1), Phase B       SINT32       0 to ±99999999       VARh       See Reg# 30118 for formatting and scaling         1588       2       VARh, (Q1), Phase C       SINT32       0 to ±99999999       VARh       See Reg# 30117 for formatting and scaling         1590       2       VAh, (Q1), Phase A       SINT32       0 to 999999999       VAR       See Reg# 30117 for formatting and scaling         1592       2       VAh, (Q1), Phase B       SINT32       0 to 999999999       VAh       See Reg# 30117 for formatting and scaling         1594       2       VAh, (Q1), Phase B       SINT32       0 to 99999999       VAh       See Reg# 30117 for formatting and scaling         1594       2       VAh, (Q1), Phase C       SINT32       0 to 99999999       VAh       See Reg# 30117 for formatting and scaling         1594       2       VAh, (Q2), Total       SINT32       0 to ±999999999       VAh       See Reg# 30117 for formatting and scaling         1598       2       VARh, (O2), Total       SINT32       0 to ±999999999       VAh       See Reg# 30117 for formatting and scaling         1600       2       VAh, (O2), To	R
1586       2       VARh, (Q1), Phase B       SINT32       0 to ±99999999       VARh       See Reg# 30118 for formatting and scaling         1588       2       VARh, (Q1), Phase C       SINT32       0 to ±99999999       VARh       See Reg# 30118 for formatting and scaling         1590       2       VAh, (Q1), Phase A       SINT32       0 to 99999999       VAh       See Reg# 30117 for formatting and scaling         1592       2       VAh, (Q1), Phase B       SINT32       0 to 99999999       VAh       See Reg# 30117 for formatting and scaling         1594       2       VAh, (Q1), Phase C       SINT32       0 to 99999999       VAh       See Reg# 30117 for formatting and scaling         1594       2       VAh, (Q2), Total       SINT32       0 to ±99999999       VAh       See Reg# 30117 for formatting and scaling         1596       2       Wh, (Q2), Total       SINT32       0 to ±99999999       VARh       See Reg# 30117 for formatting and scaling         1600       2       VAh, (Q2), Total       SINT32       0 to ±99999999       VAh       See Reg# 30117 for formatting and scaling         1602       2       Wh, (Q2), Total       SINT32       0 to ±99999999       VAh       See Reg# 30117 for formatting and scaling         1602       2       Wh, (Q2), Phase A	R
1588       2       VARh, (Q1), Phase C       SINT32       0 to ±99999999       VARh       See Req# 30118 for formatting and scaling         1590       2       VAh, (Q1), Phase A       SINT32       0 to 99999999       VAh       See Req# 30117 for formatting and scaling         1592       2       VAh, (Q1), Phase B       SINT32       0 to 99999999       VAh       See Req# 30117 for formatting and scaling         1594       2       VAh, (Q1), Phase C       SINT32       0 to 99999999       VAh       See Req# 30117 for formatting and scaling         1596       2       Wh, (Q2), Total       SINT32       0 to ±99999999       VAh       See Req# 30117 for formatting and scaling         1598       2       VAAh, (Q2), Total       SINT32       0 to ±99999999       VAh       See Req# 30117 for formatting and scaling         1600       2       VAh, (Q2), Total       SINT32       0 to ±99999999       VAh       See Req# 30117 for formatting and scaling         1600       2       Wh, (Q2), Total       SINT32       0 to ±99999999       VAh       See Req# 30117 for formatting and scaling         1602       2       Wh, (Q2), Phase A       SINT32       0 to ±999999999       VAh       See Req# 30117 for formatting and scaling         1604       2       Wh, (Q2), Phase B	R
1590       2       VAh, (Q1), Phase A       SINT32       0 to 99999999       VAh       See Req# 30117 for formatting and scaling         1592       2       VAh, (Q1), Phase B       SINT32       0 to 99999999       VAh       See Req# 30117 for formatting and scaling         1594       2       VAh, (Q1), Phase C       SINT32       0 to 99999999       VAh       See Req# 30117 for formatting and scaling         1596       2       Wh, (Q2), Total       SINT32       0 to 99999999       WAh       See Req# 30117 for formatting and scaling         1596       2       Wh, (Q2), Total       SINT32       0 to ±99999999       WAh       See Req# 30117 for formatting and scaling         1598       2       VARh, (Q2), Total       SINT32       0 to ±99999999       VAh       See Req# 30118 for formatting and scaling         1600       2       Wh, (Q2), Total       SINT32       0 to ±99999999       VAh       See Req# 30117 for formatting and scaling         1602       2       Wh, (Q2), Total       SINT32       0 to ±999999999       VAh       See Req# 30117 for formatting and scaling         1602       2       Wh, (Q2), Phase A       SINT32       0 to ±999999999       Wh       See Req# 30117 for formatting and scaling         1604       2       Wh, (Q2), Phase B	R
1592       2       VAh, (Q1), Phase B       SINT32       0 to 99999999       VAh       See Req# 30117 for formatting and scaling         1594       2       VAh, (Q1), Phase C       SINT32       0 to 99999999       VAh       See Req# 30117 for formatting and scaling         1596       2       Wh, (Q2), Total       SINT32       0 to ±99999999       Wh       See Req# 30117 for formatting and scaling         1598       2       VARh, (Q2), Total       SINT32       0 to ±99999999       VARh       See Req# 30118 for formatting and scaling         1600       2       VAh, (Q2), Total       SINT32       0 to ±99999999       VAh       See Req# 30117 for formatting and scaling         1602       2       Wh, (Q2), Phase A       SINT32       0 to ±99999999       VAh       See Req# 30117 for formatting and scaling         1604       2       Wh, (Q2), Phase B       SINT32       0 to ±99999999       Wh       See Req# 30117 for formatting and scaling         1604       2       Wh, (Q2), Phase C       SINT32       0 to ±999999999       Wh       See Req# 30117 for formatting and scaling         1604       2       Wh, (Q2), Phase C       SINT32       0 to ±999999999       Wh       See Req# 30117 for formatting and scaling         1606       2       Wh, (Q2), Phase C	R
1594       2       VAh, (Q1), Phase C       SINT32       0 to 99999999       VAh       See Req# 30117 for formatting and scaling         1596       2       Wh, (Q2), Total       SINT32       0 to ±99999999       Wh       See Req# 30117 for formatting and scaling         1598       2       VARh, (Q2), Total       SINT32       0 to ±99999999       VAR       See Req# 30118 for formatting and scaling         1600       2       VAh, (Q2), Total       SINT32       0 to ±99999999       VAR       See Req# 30117 for formatting and scaling         1602       2       Wh, (Q2), Total       SINT32       0 to ±99999999       WA       See Req# 30117 for formatting and scaling         1602       2       Wh, (Q2), Phase A       SINT32       0 to ±999999999       Wh       See Req# 30117 for formatting and scaling         1604       2       Wh, (Q2), Phase B       SINT32       0 to ±999999999       Wh       See Req# 30117 for formatting and scaling         1606       2       Wh, (Q2), Phase C       SINT32       0 to ±999999999       Wh       See Req# 30117 for formatting and scaling	R
1596         2         Wh, (Q2), Total         SINT32         0 to ±99999999         Wh         See Req# 30117 for formatting and scaling           1598         2         VARh, (Q2), Total         SINT32         0 to ±99999999         VARh         See Req# 30117 for formatting and scaling           1600         2         VAh, (Q2), Total         SINT32         0 to ±99999999         VARh         See Req# 30117 for formatting and scaling           1602         2         Wh, (Q2), Phase A         SINT32         0 to ±99999999         Wh         See Req# 30117 for formatting and scaling           1604         2         Wh, (Q2), Phase B         SINT32         0 to ±99999999         Wh         See Req# 30117 for formatting and scaling           1604         2         Wh, (Q2), Phase B         SINT32         0 to ±99999999         Wh         See Req# 30117 for formatting and scaling           1606         2         Wh, (Q2), Phase C         SINT32         0 to ±999999999         Wh         See Req# 30117 for formatting and scaling	R
1598         2         VARh, (Q2), Total         SINT32         0 to ±99999999         VARh         See Reg# 30118 for formatting and scaling           1600         2         VAh, (Q2), Total         SINT32         0 to 99999999         VAh         See Reg# 30117 for formatting and scaling           1602         2         Wh, (Q2), Phase A         SINT32         0 to ±99999999         Wh         See Reg# 30117 for formatting and scaling           1604         2         Wh, (Q2), Phase B         SINT32         0 to ±99999999         Wh         See Reg# 30117 for formatting and scaling           1606         2         Wh, (Q2), Phase C         SINT32         0 to ±99999999         Wh         See Reg# 30117 for formatting and scaling	R
1600         2         VAh, (Q2), Total         SINT32         0 to 99999999         VAh         See Red# 30117 for formatting and scaling           1602         2         Wh, (Q2), Phase A         SINT32         0 to ±99999999         Wh         See Red# 30117 for formatting and scaling           1604         2         Wh, (Q2), Phase B         SINT32         0 to ±99999999         Wh         See Red# 30117 for formatting and scaling           1606         2         Wh, (Q2), Phase C         SINT32         0 to ±99999999         Wh         See Red# 30117 for formatting and scaling	R
1602         2         Wh, (Q2), Phase A         SINT32         0 to ±99999999         Wh         See Reg# 30117 for formatting and scaling           1604         2         Wh, (Q2), Phase B         SINT32         0 to ±99999999         Wh         See Reg# 30117 for formatting and scaling           1606         2         Wh, (Q2), Phase C         SINT32         0 to ±99999999         Wh         See Reg# 30117 for formatting and scaling	R
1604         2         Wh, (Q2), Phase B         SINT32         0 to ±99999999         Wh         See Reg# 30117 for formatting and scaling           1606         2         Wh, (Q2), Phase C         SINT32         0 to ±99999999         Wh         See Reg# 30117 for formatting and scaling	R
1606 2 Wh, (O2), Phase C SINT 32 0 to ±99999999 Wh See Reg# 30117 for formatting and scaling	R
	R
	R
1610 2 WARh (Q2) Phase B SINT 22 0 to ±99999999 WARh See Red# 30118 for formating and scaling	R



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value Acc
		VARh, (Q2), Phase C		0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
1614		VAh, (Q2), Phase A	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
1616		VAh, (Q2), Phase B	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
1618		VAh, (Q2), Phase C	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
1620		Wh, (Q3), Total	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
1622 1624		VARh, (Q3), Total VAh, (Q3), Total	SINT32 SINT32	0 to ±99999999 0 to 99999999	VARh VAh	See Reg# 30118 for formatting and scaling See Reg# 30117 for formatting and scaling	R R
1624		Wh, (Q3), 10tal Wh, (Q3), Phase A	SINT32 SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
1628		Wh, (Q3), Phase B	SINT32 SINT32	$0 \text{ to } \pm 9999999999999999999999999999999999$	Wh	See Reg# 30117 for formatting and scaling	R
1630		Wh, (Q3), Phase C	SINT32 SINT32	$0 \text{ to } \pm 9999999999999999999999999999999999$	Wh	See Reg# 30117 for formatting and scaling	R
1632		VARh, (Q3), Phase A	SINT32	$0 \text{ to } \pm 9999999999999999999999999999999999$	VARh	See Reg# 30117 for formatting and scaling	R
1634		VARh, (Q3), Phase B	SINT32	0 to ±999999999	VARh	See Reg# 30118 for formatting and scaling	R
1636		VARh, (Q3), Phase C	SINT32	$0 \text{ to } \pm 9999999999999999999999999999999999$	VARh	See Reg# 30118 for formatting and scaling	R
1638		VAh, (Q3), Phase A	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
1640		VAh, (Q3), Phase B	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
1642		VAh, (Q3), Phase C	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
1644		Wh, (Q4), Total	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
1646		VARh, (Q4), Total	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
1648	2	VAh, (Q4), Total	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
1650	2	Wh, (Q4), Phase A	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
1652	2	Wh, (Q4), Phase B	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
1654	2	Wh, (Q4), Phase C	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
1656	2	VARh, (Q4), Phase A	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
1658	2	VARh, (Q4), Phase B	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
1660		VARh, (Q4), Phase C	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
1662		VAh, (Q4), Phase A	SINT32	0 to 9999999	VAh	See Reg# 30117 for formatting and scaling	R
1664		VAh, (Q4), Phase B	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
1666		VAh, (Q4), Phase C	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
1668		VAh (Q1+Q4), Total	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
1670		VAh (Q1+Q4), Phase A	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
1672		VAh (Q1+Q4), Phase B	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
1674		VAh (Q1+Q4), Phase C	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
1676		VAh (Q2+Q3), Total	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
1678		VAh (Q2+Q3), Phase A VAh (Q2+Q3), Phase B	SINT32 SINT32	0 to 99999999 0 to 99999999	VAh VAh	See Reg# 30117 for formatting and scaling	R
1680 1682		VAh (Q2+Q3), Phase C	SINT32 SINT32	0 to 99999999	VAN	See Reg# 30117 for formatting and scaling See Reg# 30117 for formatting and scaling	R
1684		It, Phase A	UINT32	0 to 999999999	Ah	See Reg# 30120 for formatting and scaling	R
1686		It. Phase B	UINT32 UINT32	0 to 999999999	Ah	See Reg# 30120 for formatting and scaling	R
1688		It, Phase C	UINT32	0 to 999999999	Ah	See Reg# 30120 for formatting and scaling	R
1690		It, Phase N	UINT32	0 to 99999999	Ah	See Reg# 30120 for formatting and scaling	R
1692		Vt, Phase A-N	UINT32	0 to 99999999	Vh	See Reg# 30119 for formatting and scaling	R
1694		Vt, Phase B-N	UINT32	0 to 99999999	Vh	See Reg# 30119 for formatting and scaling	R
1696		Vt, Phase C-N	UINT32	0 to 99999999	Vh	See Reg# 30119 for formatting and scaling	R
1698		Vt, Phase A-B	UINT32	0 to 99999999	Vh	See Reg# 30119 for formatting and scaling	R
1700		Vt, Phase B-C	UINT32	0 to 99999999	Vh	See Reg# 30119 for formatting and scaling	R
1702		Vt, Phase C-A	UINT32	0 to 99999999	Vh	See Reg# 30119 for formatting and scaling	R
1704		+Qh, Total	SINT32	0 to 99999999	Qh	See Reg# 30136 for formatting and scaling	R
1706	2	+Qh, Phase A	SINT32	0 to 99999999	Qh	See Reg# 30136 for formatting and scaling	R
1708	2	+Qh, Phase B	SINT32	0 to 99999999	Qh	See Reg# 30136 for formatting and scaling	R
1710	2	+Qh, Phase C	SINT32	0 to 99999999	Qh	See Reg# 30136 for formatting and scaling	R
1712	2	-Qh, Total	SINT32	0 to -99999999	Qh	See Reg# 30136 for formatting and scaling	R
1714		-Qh, Phase A	SINT32	0 to -99999999	Qh	See Reg# 30136 for formatting and scaling	R
1716		-Qh, Phase B	SINT32	0 to -99999999	Qh	See Reg# 30136 for formatting and scaling	R
1718	2	-Qh, Phase C	SINT32	0 to -99999999	Qh	See Reg# 30136 for formatting and scaling	R



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
		mand Block (averages over demand interval)						
		Demand Interval End Timestamp		21st Century	1s	Ex. Timestamp hh:mm:ss is 03:15:00 and interval size is 15 minutes.		R
		A, Average		0 to 9.999 E+09	A			R
		B, Average		0 to 9.999 E+09	A			R
		C, Average		0 to 9.999 E+09	A			R
2006		N, (Q1+Q4), Total, Average		0 to ±9.999 E+09	W			R
2008		/AR, (Q1+Q2), Total, Average			VAR			R
2010		N, (Q2+Q3), Total, Average		0 to ±9.999 E+09	W			R
2012		/AR, (Q3+Q4), Total, Average		0 to ±9.999 E+09	VAR			R
		/A, Total, Average		0 to ±9.999 E+09	VA			R
		PF, (Q1+Q4), Total, Average		-1.00 to +1.00				R
2018	2	PF, (Q2+Q3), Total, Average		-1.00 to +1.00				R
2020		Neutral, Average		0 to 9.999 E+09	A			R
2022	2	N, (Q1+Q4), Phase A, Average	FLOAT	0 to ±9.999 E+09	W			R
2024	2	N, (Q1+Q4), Phase B, Average	FLOAT	0 to ±9.999 E+09	W			R
2026	2	N, (Q1+Q4), Phase C, Average	FLOAT	0 to ±9.999 E+09	W			R
2028	2	/AR, (Q1+Q2), Phase A, Average	FLOAT	0 to ±9.999 E+09	VAR			R
2030	2	/AR, (Q1+Q2), Phase B, Average	FLOAT	0 to ±9.999 E+09	VAR			R
2032	2	/AR, (Q1+Q2), Phase C, Average	FLOAT	0 to ±9.999 E+09	VAR			R
2034		N, (Q2+Q3), Phase A, Average	FLOAT	0 to ±9.999 E+09	W			R
2036	2	N, (Q2+Q3), Phase B, Average		0 to ±9.999 E+09	W			R
2038	2	N, (Q2+Q3), Phase C, Average	FLOAT	0 to ±9.999 E+09	W			R
2040	2	/AR, (Q3+Q4), Phase A, Average	FLOAT	0 to ±9.999 E+09	VAR			R
2042	2	/AR, (Q3+Q4), Phase B, Average	FLOAT	0 to ±9.999 E+09	VAR			R
2044	2	/AR, (Q3+Q4), Phase C, Average	FLOAT	0 to ±9.999 E+09	VAR			R
2046	2	/A, Phase A, Average	FLOAT	0 to ±9.999 E+09	VA			R
2048	2	/A, Phase B, Average		0 to ±9.999 E+09	VA			R
2050	2	/A, Phase C, Average	FLOAT	0 to ±9.999 E+09	VA			R
2052	2	PF, (Q1+Q4), Phase A, Average	FLOAT	-1.00 to +1.00				R
2054		PF, (Q1+Q4), Phase B, Average		-1.00 to +1.00				R
2056		PF, (Q1+Q4), Phase C, Average		-1.00 to +1.00				R
		PF, (Q2+Q3), Phase A, Average		-1.00 to +1.00				R
		PF, (Q2+Q3), Phase B, Average		-1.00 to +1.00			İ	R
2062	2	PF. (Q2+Q3). Phase C. Average		-1.00 to +1.00				R
	2	N, (Q1), Total, Average		0 to ±9.999 E+09	W		İ	R
2066		/AR, (Q1), Total, Average		0  to  +9.999  E + 09	VAR		İ	R
2068		/A, (Q1), Total, Average		$0 \text{ to } \pm 9.999 \text{ E} + 09$	VA		İ	R
2070		N, (Q1), Phase A, Average		$0 \text{ to } \pm 9.999 \text{ E} + 09$	Ŵ			R
2072		N, (Q1), Phase B, Average		$0 \text{ to } \pm 9.999 \text{ E} + 09$	Ŵ		İ	R
2074		N, (Q1), Phase C, Average		$0 \text{ to } \pm 9.999 \text{ E} + 09$	Ŵ			R



Reg#	Size Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
2076	2 VAR, (Q1), Phase A, Average			VAR			R
2078	2 VAR, (Q1), Phase B, Average			VAR			R
2080	2 VAR, (Q1), Phase C, Average			VAR			R
2082	2 VA, (Q1), Phase A, Average		0 to ±9.999 E+09	VA			R
2084	2 VA, (Q1), Phase B, Average	FLOAT	0 to ±9.999 E+09	VA			R
2086	2 VA, (Q1), Phase C, Average		0 to ±9.999 E+09	VA			R
2088	2 W, (Q2), Total, Average	FLOAT		W			R
2090	2 VAR, (Q2), Total, Average			VAR			R
2092	2 VA, (Q2), Total, Average		0 to ±9.999 E+09	VA			R
2094	2 W, (Q2), Phase A, Average		0 to ±9.999 E+09	W			R
2096	2 W, (Q2), Phase B, Average		0 to ±9.999 E+09	W			R
2098	2 W, (Q2), Phase C, Average			W			R
2100	2 VAR, (Q2), Phase A, Average			VAR			R
2102	2 VAR, (Q2), Phase B, Average	FLOAT		VAR			R
2104	2 VAR, (Q2), Phase C, Average		0 to ±9.999 E+09	VAR			R
2106	2 VA, (Q2), Phase A, Average		0 to ±9.999 E+09	VA			R
2108	2 VA, (Q2), Phase B, Average		0 to ±9.999 E+09	VA			R
2110	2 VA, (Q2), Phase C, Average		0 to ±9.999 E+09	VA			R
2112	2 W, (Q3), Total, Average		0 to ±9.999 E+09	W			R
2114	2 VAR, (Q3), Total, Average			VAR			R
2116	2 VA, (Q3), Total, Average	FLOAT	0 to ±9.999 E+09	VA			R
2118	2 W, (Q3), Phase A, Average	FLOAT	0 to ±9.999 E+09	W			R
2120	2 W, (Q3), Phase B, Average			W			R
2122	2 W, (Q3), Phase C, Average	FLOAT	0 to ±9.999 E+09	W			R
2124	2 VAR, (Q3), Phase A, Average	FLOAT	0 to ±9.999 E+09	VAR			R
2126	2 VAR, (Q3), Phase B, Average	FLOAT	0 to ±9.999 E+09	VAR			R
2128	2 VAR, (Q3), Phase C, Average	FLOAT	0 to ±9.999 E+09	VAR			R
2130	2 VA, (Q3), Phase A, Average		0 to ±9.999 E+09	VA			R
2132	2 VA, (Q3), Phase B, Average	FLOAT	0 to ±9.999 E+09	VA			R
2134	2 VA, (Q3), Phase C, Average	FLOAT	0 to ±9.999 E+09	VA			R
2136	2 W, (Q4), Total, Average	FLOAT	0 to ±9.999 E+09	W			R
2138	2 VAR, (Q4), Total, Average	FLOAT	0 to ±9.999 E+09	VAR			R
2140	2 VA, (Q4), Total, Average	FLOAT	0 to ±9.999 E+09	VA			R
2142	2 W, (Q4), Phase A, Average	FLOAT	0 to ±9.999 E+09	W			R
2144	2 W, (Q4), Phase B, Average	FLOAT	0 to ±9.999 E+09	W			R
2146	2 W, (Q4), Phase C, Average	FLOAT	0 to ±9.999 E+09	W			R
2148	2 VAR, (Q4), Phase A, Average			VAR			R
2150	2 VAR, (Q4), Phase B, Average			VAR			R
2152	2 VAR, (Q4), Phase C, Average	FLOAT	0 to ±9.999 E+09	VAR			R



Reg# Size Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	c
2154 2 VA, (Q4), Phase A, Average	FLOAT	0 to ±9.999 E+09	VA		R	2
2156 2 VA, (Q4), Phase B, Average	FLOAT	0 to ±9.999 E+09	VA		R	2
2158 2 VA, (Q4), Phase C, Average	FLOAT	0 to ±9.999 E+09	VA		R	2
2160 2 VA (Q1+Q4) ,Total, Average	FLOAT	0 to ±9.999 E+09	VA		R	2
2162 2 VA (Q1+Q4) ,Phase A, Average	FLOAT	0 to ±9.999 E+09	VA		R	2
2164 2 VA (Q1+Q4) ,Phase B, Average	FLOAT	0 to ±9.999 E+09	VA		R	2
2166 2 VA (Q1+Q4) ,Phase C, Average	FLOAT	0 to ±9.999 E+09	VA		R	2
2168 2 VA (Q2+Q3) ,Total, Average	FLOAT	0 to ±9.999 E+09	VA		R	2
2170 2 VA (Q2+Q3) Phase A, Average	FLOAT	0 to ±9.999 E+09	VA		R	2
2172 2 VA (Q2+Q3) ,Phase B, Average		0 to ±9.999 E+09	VA		R	2
2174 2 VA (Q2+Q3) ,Phase C, Average	FLOAT	0 to ±9.999 E+09	VA		R	2
2176 2 V A-N, Average, Average	FLOAT	0 to 9.999 E+09	V		R	2
2178 2 V B-N, Average, Average	FLOAT	0 to 9.999 E+09	V		R	2
2180 2 V C-N, Average, Average	FLOAT	0 to 9.999 E+09	V		R	2
2182 2 V A-B, Average, Average	FLOAT	0 to 9.999 E+09	V		R	2
2184 2 V B-C, Average, Average	FLOAT	0 to 9.999 E+09	V		R	2
2186 2 V C-A, Average, Average	FLOAT	0 to 9.999 E+09	V		R	2
2188 2 +Q, Total, Average	FLOAT	0 to ±9.999 E+09	Q		R	2
2190 2 +Q, Phase A, Average		0 to ±9.999 E+09	Q		R	2
2192 2 +Q, Phase B, Average		0 to ±9.999 E+09	Q		R	2
2194 2 +Q, Phase C, Average	FLOAT	0 to ±9.999 E+09	Q		R	2
2196 2 -Q, Total, Average		0 to ±9.999 E+09	Q		R	2
2198 2 -Q, Phase A, Average	FLOAT	0 to ±9.999 E+09	Q		R	2
2200 2 -Q, Phase B, Average	FLOAT	0 to ±9.999 E+09	Q		R	2
2202 2 -Q, Phase C, Average		0 to ±9.999 E+09	Q		R	2
2204 2 Aggregator 1, Average		0 to ±9.999 E+09			R	
2206 2 Aggregator 2, Average	FLOAT	0 to ±9.999 E+09			R	
2208 2 Aggregator 3, Average	FLOAT	0 to ±9.999 E+09			R	
2210 2 Aggregator 4, Average		0 to ±9.999 E+09			R	
2212 2 Option card 1 input accumulator 1, Average		0 to ±9.999 E+09			R	
2214 2 Option card 1 input accumulator 2, Average		0 to ±9.999 E+09			R	
2216 2 Option card 1 input accumulator 3, Average		0 to ±9.999 E+09			R	
2218 2 Option card 1 input accumulator 4, Average		0 to ±9.999 E+09			R	
2220 2 Option card 2 input accumulator 1, Average		0 to ±9.999 E+09			R	
2222 2 Option card 2 input accumulator 2, Average		0 to ±9.999 E+09			R	
2224 2 Option card 2 input accumulator 3, Average		0 to ±9.999 E+09			R	
2226 2 Option card 2 input accumulator 4, Average	FLOAT	0 to ±9.999 E+09			R	{



Reg# Size Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
Uncompensated Readings Block						
3000 2 W, Total		0 to ±9.999 E+09	W			R
3002 2 VAR, Total		0 to ±9.999 E+09	VAR			R
3004 2 VA, Total		0 to ±9.999 E+09	VA			R
3006 2 PF, Total		-1.00 to +1.00				R
3008 2 W, Phase A		0 to ±9.999 E+09	W	For WYE mode only, reads zero in Delta and 2.5 element molde		R
3010 2 W, Phase B		0 to ±9.999 E+09	W	For WYE mode only, reads zero in Delta and 2.5 element molde		R
3012 2 W, Phase C		0 to ±9.999 E+09	W	For WYE mode only, reads zero in Delta and 2.5 element molde		R
3014 2 VAR, Phase A		0 to ±9.999 E+09	VAR	For WYE mode only, reads zero in Delta and 2.5 element molde		R
3016 2 VAR, Phase B		0 to ±9.999 E+09	VAR	For WYE mode only, reads zero in Delta and 2.5 element molde		R
3018 2 VAR, Phase C		0 to ±9.999 E+09	VAR	For WYE mode only, reads zero in Delta and 2.5 element molde		R
3020 2 VA, Phase A		0 to ±9.999 E+09	VA	For WYE mode only, reads zero in Delta and 2.5 element molde		R
3022 2 VA, Phase B		0 to ±9.999 E+09	VA	For WYE mode only, reads zero in Delta and 2.5 element molde		R
3024 2 VA, Phase C		0 to ±9.999 E+09	VA	For WYE mode only, reads zero in Delta and 2.5 element molde		R
3026 2 PF, Phase A	FLOAT	-1.00 to +1.00		For WYE mode only, reads zero in Delta and 2.5 element molde		R
3028 2 PF, Phase B		-1.00 to +1.00		For WYE mode only, reads zero in Delta and 2.5 element molde		R
3030 2 PF, Phase C	FLOAT	-1.00 to +1.00		For WYE mode only, reads zero in Delta and 2.5 element molde		R
3032 2 Wh, (Q1+Q4)	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling		R
3034 2 Wh, (Q2+Q3)	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling		R
3036 2 Wh, Net		0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling		R
3038 2 Wh, Total		0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling		R
3040 2 VARh, (Q1+Q2)	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling		R
3042 2 VARh, (Q3+Q4)	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling		R
3044 2 VARh, Net	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling		R
3046 2 VARh, Total	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling		R
3048 2 VAh, Total	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling		R
3050 2 Wh, (Q1+Q4), Phase A	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling		R
3052 2 Wh, (Q1+Q4), Phase B	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling		R
3054 2 Wh, (Q1+Q4), Phase C	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling		R
3056 2 Wh, (Q2+Q3), Phase A	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling		R
3058 2 Wh, (Q2+Q3), Phase B	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling		R
3060 2 Wh, (Q2+Q3), Phase C	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling		R
3062 2 Wh, Net, Phase A	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling		R
3064 2 Wh, Net, Phase B		0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling		R
3066 2 Wh, Net, Phase C		0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling		R
3068 2 Wh, Total, Phase A		0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling		R
3070 2 Wh, Total, Phase B		0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling		R
3072 2 Wh. Total. Phase C		$0 \text{ to } \pm 99999999$	Wh	See Reg# 30117 for formatting and scaling		R



		Description		Value Range	or resolution	Comments	Factory default value Acc
3074	2	/ARh, (Q1+Q2), Phase A	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
3076		/ARh, (Q1+Q2), Phase B	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
3078	2	/ARh, (Q1+Q2), Phase C		0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
3080	2	/ARh, (Q3+Q4), Phase A		0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
3082	2	/ARh, (Q3+Q4), Phase B	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
3084	2	/ARh, (Q3+Q4), Phase C		0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
3086	2	/ARh, Net, Phase A	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
3088		/ARh, Net, Phase B		0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
3090	2	/ARh, Net, Phase C	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
3092	2	/ARh, Total, Phase A	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
3094		/ARh, Total, Phase B		0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
3096	2	/ARh, Total, Phase C	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
3098	2	/Ah. Phase A	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
3100	2	/Ah, Phase B	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
3102	2	/Ah. Phase C	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
3104	2	Vh, (Q1), Total	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
3106		/ARh. (Q1), Total		0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
3108	2	/Ah. (Q1), Total	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
3110	2	Nh, (Q1), Phase A	SINT32	0 to +99999999	Wh	See Reg# 30117 for formatting and scaling	R
3112		Vh, (Q1), Phase B	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
3114		Vh. (Q1), Phase C		0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
3116	2	ARh, (Q1), Phase A	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
3118		/ARh, (Q1), Phase B		0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
3120		/ARh. (Q1), Phase C		0  to  +99999999	VARh	See Reg# 30118 for formatting and scaling	R
3122		/Ah, (Q1), Phase A		0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
3124		/Ah. (Q1), Phase B		0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
3126		/Ah. (Q1), Phase C		0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
3128		Vh. (Q2), Total		$0 \text{ to } \pm 999999999$	Wh	See Reg# 30117 for formatting and scaling	R
3130		/ARh, (Q2), Total		$0 \text{ to } \pm 9999999999999999999999999999999999$	VARh	See Reg# 30118 for formatting and scaling	R
3132		/Ah. (Q2), Total		0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
3134		Vh. (Q2), Phase A		0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
3136	2	Vh, (Q2), Phase B		0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
3138		Nh, (Q2), Phase C		$0 \text{ to } \pm 999999999$	Wh	See Reg# 30117 for formatting and scaling	R
3140		/ARh, (Q2), Phase A		$0 \text{ to } \pm 9999999999999999999999999999999999$	VARh	See Reg# 30118 for formatting and scaling	R
3142		/ARh, (Q2), Phase B		$0 \text{ to } \pm 9999999999999999999999999999999999$	VARh	See Reg# 30118 for formatting and scaling	R
3144		/ARh, (Q2), Phase C		0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
3146		/Ah. (Q2), Phase A		0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
3148		/Ah. (Q2), Phase B			VAh	See Reg# 30117 for formatting and scaling	R
3150		/Ah. (Q2), Phase C		0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
3152		Vh, (Q3), Total		0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
3154		/ARh, (Q3), Total		0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
3156		/Ah, (Q3), Total		0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R



		Description		Value Range	or resolution	Comments	Factory default value Act	cc
		Wh, (Q3), Phase A			Wh	See Reg# 30117 for formatting and scaling	R	
3160		Nh, (Q3), Phase B		0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R	
3162		Nh, (Q3), Phase C	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R	
3164		VARh, (Q3), Phase A		0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R	
3166		VARh, (Q3), Phase B		0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R	
3168		/ARh, (Q3), Phase C		0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R	2
3170		VAh, (Q3), Phase A		0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R	
3172		VAh, (Q3), Phase B		0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R	
3174		/Ah, (Q3), Phase C		0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R	
3176		Nh, (Q4), Total		0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R	
3178		VARh, (Q4), Total		0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R	2
3180		VAh, (Q4), Total		0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R	
3182		Nh, (Q4), Phase A		0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R	
3184		Nh, (Q4), Phase B		0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R	2
3186	2	Nh, (Q4), Phase C	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R	2
3188		VARh, (Q4), Phase A		0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R	2
3190	2	VARh, (Q4), Phase B	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R	₹
3192	2	VARh, (Q4), Phase C	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R	₹
3194	2	VAh, (Q4), Phase A	SINT32	0 to 9999999	VAh	See Reg# 30117 for formatting and scaling	R	₹
3196	2	VAh, (Q4), Phase B		0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R	₹
3198	2	VAh, (Q4), Phase C	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R	₹
3200	2	VAh (Q1+Q4), Total	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R	2
3202	2	VAh (Q1+Q4), Phase A	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R	₹
3204	2	/Ah (Q1+Q4), Phase B	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R	2
3206	2	VAh (Q1+Q4), Phase C	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R	2
3208	2	/Ah (Q2+Q3), Total	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R	2
3210	2	/Ah (Q2+Q3), Phase A	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R	
3212	2	/Ah (Q2+Q3), Phase B	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R	2
3214	2	/Ah (Q2+Q3), Phase C	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R	
3216	2	2. total	FLOAT	0 to ±9.999 E+09	Q	See Reg# 30136 for formatting and scaling	R	2
3218	2	2, Phase A	FLOAT	0 to ±9.999 E+09	Q	See Reg# 30136 for formatting and scaling	R	2
3220		2, Phase B		0 to ±9.999 E+09	0	See Reg# 30136 for formatting and scaling	R	2
3222		2, Phase C		0 to ±9.999 E+09	Q	See Reg# 30136 for formatting and scaling	R	
3224		+Qh, Total		0 to 99999999	Qh	See Reg# 30136 for formatting and scaling	R	
3226		+Qh, Phase A	SINT32	0 to 99999999	Qh	See Reg# 30136 for formatting and scaling	R	
3228		+Qh, Phase B		0 to 99999999	Qh	See Reg# 30136 for formatting and scaling	R	
3230		+Qh, Phase C		0 to 99999999	Qh	See Reg# 30136 for formatting and scaling	R	
3232		Oh, Total		0 to -99999999	Qh	See Reg# 30136 for formatting and scaling	R	
3234		Qh, Phase A		0 to -99999999	Oh	See Reg# 30136 for formatting and scaling	R	
3236		Qh, Phase B		0 to -99999999	Oh	See Reg# 30136 for formatting and scaling	R	
3238		Qh, Phase C		0 to -99999999	Qh	See Reg# 30136 for formatting and scaling	R	



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
		gle Block	1					
4100	1	Phasor Angle, I A - V A	SINT16	-1800 to +1800	0.1°	Negative when I A lags V A		R
4101	1	Phasor Angle, I B - V B	SINT16	-1800 to +1800	0.1°	Negative when I B lags V B		R
4102	1	Phasor Angle, I C - V C	SINT16	-1800 to +1800	0.1°	Negative when I C lags V C		R
4103	1	Phasor Angle, V A - VB	SINT16	-1800 to +1800	0.1°	Negative when V A lags V B (Zero in Delta mode)		R
4104	1	Phasor Angle, V B - V C	SINT16	-1800 to +1800	0.1°	Negative when V B lags V C (Zero in Delta mode)		R
4105		Phasor Angle, V C - V A	SINT16	-1800 to +1800	0.1°	Negative when V C lags V A. (V C = V BC, V A = V BA in Delta mode)		R
	er Sta	tus Block						
4500	1	Communication channel used for this request	UINT16	1 to 4		1=USB-front; 2=standard RS485-back; 3=I/O slot 1; 4=I/O slot 2		R
4501	1	Meter Status	UINT16	bitmapped		b15-b13 : meter state; 0=off, 1=running good, 2=limp mode, 3=warmup, 6,7=boot, others unused. Note 16. b12-b10: FRAM memory status bits(1=good); b12:profile, b11:calibration, b10:header b7: CT/PT comp. ; 0=disabled, 1=enabled b6-b5: FLASH memory state; 0=initializing, 1=no logging by V-switch, 2=x, 3=logging b4-b3: programming session state; 0=startup, 1=normal, 2=privileged, 3=profile change b2-b0: ongoing programming session via-; 1-4=COM1-4, 7=keypad, else=no. All other bits don't care.		R
4503	2	Elapsed time since boot-up	UINT32	0 to 4294967294	4 ms	wraps around after max count		R
4505	3	Meter On Time	TSTAMP	21st Century	1 s			R
4508	3	Current Date and Time	TSTAMP	21st Century	1s			R
4511	1	Clock Sync Status	UINT16	bitmapped		b15-b1: configuration per programmable settings at register 30011 b0: status: 1=working properly, 0=not working		R
4512	1	Current Day of Week	UINT16	1 to 7	1 day	1=Sunday, 2=Monday, etc.		R
4513	4	Current Date and Time, high resolution	LTSTAMP	21st Century	1 ms	Resolution = 1 millisecond, accuracy = +/- 10 msec		R



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
4518	2	Meter Status	UINT16	bitmapped		b30-b28 : meter state; 0=off, 1=running good, 2=limp mode, 3=warmup, 6,7=boot, others unused. Note 16. b27-b24: FRAM memory status bits(1=good); b27:profile, b26:calibration, b25:header, b24:TOU b21-b20: FLASH memory state; 0=initializing, 1=no logging by V-switch, 2=x, 3=logging b18-b16: programming session state; 0=startup, 1=normal, 2=privileged, 3=profile change, 4=TOU change b10-b9: Test Mode number; 0-3=test 1-4, valid if b8=1 b8: Test Mode status; 0=configuration, 1=running b7: CT/PT comp.; 0=disabled, 1=enabled b6: Battery status; 0=good, 1=low b5: Loss comp.; 0=disabled, 1=enabled b4: meter operating mode; 0=normal, 1=Test b3: demand deferral status; 0=not active, 1=active b2-b0: ongoing programming session via-; 1-4=COM1-4, 7=keypad, else=no.All other bits don't care.		R
4520	2	Current Temperature	FLOAT	0 to 9.999 E+09	°C	(-40 to +85)°C, 0.25°C increments		R
4523	1	imits Status for Alarms- Set Point 1	UINT16	bitmapped		FEDCAB9 87654321 setpt 2, 0=in, 1=out see notes 11, 12, 17		R
4524	1	imits Status for Alarms- Set Point 2	UINT16	bitmapped		FEDCAB9 87654321 setpt 2, 0=in, 1=out see notes 11, 12, 17		R
4525		Jnit Lifetime Data - Max Voltage A-N		0 to 9.999 E+09	V	Secondary value		R
4531		Jnit Lifetime Data - Max Voltage P-P		0 to 9.999 E+09	V	Secondary value from FW version 4		R
4537		Jnit Lifetime Data - Max Temperature		1 to 9.999 E+09	°C	(-40 to +85)°C, 0.25°C increments		R
4539		Jnit Lifetime Data - Min Temperature _ifetime Run Hours		2 to 9.999 E+09 0 to 4294967294	°C	(-40 to +85)°C, 0.25°C increments		R
4541 4543		Total Lifetime Sectors Acquired		0 to 4294967294 0 to 4294967294	1 hour	wraps around after max count	<u> </u>	R
4543		ifetime Data - Max Voltage A-N Timestamp		0 to 4294967294 21st Century	1 s	wraps around after max count	<u> </u>	R
4545		Lifetime Data - Max Voltage P-P Timestamp		21st Century 21st Century	15		+	R
4563		Lifetime Data - Max Voltage Timestamp		21st Century 21st Century	15			R
4566		lifetime Data - Min Temperature Timestamp		21st Century	15			R

		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value Acc
		inergy in Interval	OUNTRO		hau		
5000		Wh, (Q1+Q4)	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
5002		Wh, (Q2+Q3)	SINT32	0 to ±99999999 0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
5004 5006		Wh, Net Wh. Total	SINT32 SINT32	$0 to \pm 9999999999999999999999999999999999$	Wh Wh	See Reg# 30117 for formatting and scaling See Reg# 30117 for formatting and scaling	R R
5008	2	VARh, (Q1+Q2)	SINT32 SINT32	$0 \text{ to } \pm 9999999999999999999999999999999999$	VARh	See Reg# 30118 for formatting and scaling	R
5010			SINT32	$0 \text{ to } \pm 9999999999999999999999999999999999$	VARh	See Reg# 30118 for formatting and scaling	R
5010		VARh, (ds+d4)	SINT32	$0 \text{ to } \pm 9999999999999999999999999999999999$	VARh	See Reg# 30118 for formatting and scaling	R
5012		VARN, Net	SINT32	$0 \text{ to } \pm 9999999999999999999999999999999999$	VARh	See Reg# 30118 for formatting and scaling	R
5014		VAh, Total	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
5018	2	Wh, (Q1+Q4), Phase A	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
5020	2	Wh, (Q1+Q4), Phase B	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
5022	2	Wh, (Q1+Q4), Phase C	SINT32	$0 \text{ to } \pm 99999999$	Wh	See Reg# 30117 for formatting and scaling	R
5024	2	Wh, (Q2+Q3), Phase A	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
5026	2	Wh, (Q2+Q3), Phase B	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
5028		Wh, (Q2+Q3), Phase C	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
5030	2	Wh, Net, Phase A	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
5032	2	Wh, Net, Phase B	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
5034	2	Wh, Net, Phase C	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
5036	2	Wh, Total, Phase A	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
5038	2	Wh, Total, Phase B	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
5040	2	Wh, Total, Phase C	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
5042	2	VARh, (Q1+Q2), Phase A	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
5044	2	VARh, (Q1+Q2), Phase B	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
5046	2	VARh, (Q1+Q2), Phase C	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
5048	2	VARh, (Q3+Q4), Phase A	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
5050	2	VARh, (Q3+Q4), Phase B	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
5052	2	VARh, (Q3+Q4), Phase C	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
5054		VARh, Net, Phase A	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
5056 5058	2	VARh, Net, Phase B	SINT32	0 to ±99999999 0 to ±99999999	VARh VARh	See Reg# 30118 for formatting and scaling	R R
5060	2	VARh, Net, Phase C VARh, Total, Phase A	SINT32 SINT32	$0 to \pm 9999999999999999999999999999999999$	VARh	See Reg# 30118 for formatting and scaling	R
5060	2	VARI, Total, Phase B	SINT32	$0 to \pm 9999999999999999999999999999999999$	VARh	See Reg# 30118 for formatting and scaling See Reg# 30118 for formatting and scaling	R
5062	2	VARII, Total, Phase C	SINT32	$0 \text{ to } \pm 9999999999999999999999999999999999$	VARh	See Reg# 30118 for formatting and scaling	R
5066		VAN, Total, Thase C VAh, Phase A	SINT32	0 to 99999999	VAN	See Reg# 30117 for formatting and scaling	R
5068	2	VAh, Phase B	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
5070	2	VAh, Phase C	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
5072	2	Wh, (Q1), Total	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
5074	2	VARh, (Q1), Total	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
5076	2	VAh, (Q1), Total	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
5078	2	Wh, (Q1), Phase A	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
5080	2		SINT32	$0 \text{ to } \pm 99999999$	Wh	See Reg# 30117 for formatting and scaling	R
5082	2	Wh, (Q1), Phase C	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
5084	2	ARh, (Q1), Phase A	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
5086	2	VARh, (Q1), Phase B	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
5088	2	VARh, (Q1), Phase C	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
5090	2	VAh, (Q1), Phase A	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
5092	2	VAh, (Q1), Phase B	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
5094	2	VAh, (Q1), Phase C	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
5096	2	Wh, (Q2), Total	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
5098	2	VARh, (Q2), Total	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
5100	2	VAh, (Q2), Total	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
5102	2	Wh, (Q2), Phase A	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
5104	2	Wh, (Q2), Phase B	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R



					Unit of measure		
Reg#	Size	Description	Format	Value Range	or resolution	Comments	Factory default value Acc
5106	2	Wh. (O2), Phase C	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
5108	2	VARh, (Q2), Phase A	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
5110	2	VARh, (Q2), Phase B	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
5112		VARh, (Q2), Phase C	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
5114	2	VAh, (Q2), Phase A	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
5116	2	VAh, (Q2), Phase B	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
5118		VAh, (Q2), Phase C	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
5120	2	Wh, (Q3), Total	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
5122	2	VARh. (Q3). Total	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
5124	2	VAh, (Q3), Total	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
5126	2	Wh, (Q3), Phase A	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
5128	2	Wh, (Q3), Phase B	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
5130		Wh. (Q3), Phase C	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
5132		VARh, (Q3), Phase A	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
5134		VARh, (Q3), Phase B	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
5136		VARh, (Q3), Phase C	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
5138		VAh, (Q3), Phase A	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
5140	2	VAh, (Q3), Phase B	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
5142		VAh, (Q3), Phase C	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
5144		Wh, (Q4), Total	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
5146		VARh, (Q4), Total	SINT32	$0 \text{ to } \pm 9999999999999999999999999999999999$	VARh	See Reg# 30118 for formatting and scaling	R
5148		VAA, (Q4), Total	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
5150		Wh, (Q4), Phase A	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
		Wh, (Q4), Phase B	SINT32	$0 \text{ to } \pm 9999999999999999999999999999999999$	Wh	See Reg# 30117 for formatting and scaling	R
5154		Wh, (Q4), Phase C	SINT32	0 to ±999999999	Wh	See Reg# 30117 for formatting and scaling	R
5156		VARh. (Q4), Phase A	SINT32	$0 \text{ to } \pm 9999999999999999999999999999999999$	VARh	See Reg# 30118 for formatting and scaling	R
5158		VARh, (Q4), Phase B	SINT32	0 to ±999999999	VARh	See Reg# 30118 for formatting and scaling	R
5160		VARh, (Q4), Phase D	SINT32	$0 to \pm 9999999999999999999999999999999999$	VARh	See Reg# 30118 for formatting and scaling	R
5160		VARI, (Q4), Phase A	SINT32	0 to 99999999	VARI	See Reg# 30117 for formatting and scaling	R
5164	2	VAN, (Q4), Phase B	SINT32	0 to 99999999	VAn	See Reg# 30117 for formatting and scaling	R
5166	2	VAN, (Q4), Phase B VAh, (Q4), Phase C	SINT 32 SINT 32	0 to 99999999	VAn	See Reg# 30117 for formatting and scaling	R
5168		VAN, (Q4), Phase C VAh (Q1+Q4), Total	SINT 32 SINT 32	0 to 99999999	VAN	See Reg# 30117 for formatting and scaling	R
				0 to 99999999			
5170		VAh (Q1+Q4), Phase A VAh (Q1+Q4), Phase B	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R R
5172	2	VAN (Q1+Q4), Phase B VAh (Q1+Q4), Phase C	SINT32	0 to 99999999	VAh VAh	See Reg# 30117 for formatting and scaling	
5174 5176		VAN (Q1+Q4), Phase C VAh (Q2+Q3). Total	SINT32	0 to 99999999		See Reg# 30117 for formatting and scaling	R
0110			SINT32		VAh	See Reg# 30117 for formatting and scaling	R
5178		VAh (Q2+Q3), Phase A	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
5180		VAh (Q2+Q3), Phase B	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
		VAh (Q2+Q3), Phase C	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
		It, Phase A	SINT32	0 to 99999999	Ah	See Reg# 30120 for formatting and scaling	R
5186		It, Phase B	SINT32	0 to 99999999	Ah	See Reg# 30120 for formatting and scaling	R
5188		It, Phase C	SINT32	0 to 99999999	Ah	See Reg# 30120 for formatting and scaling	R
5190		It, Phase N	SINT32	0 to 99999999	Ah	See Reg# 30120 for formatting and scaling	R
5192		Vt, Phase A-N	SINT32	0 to 99999999	Ah	See Reg# 30119 for formatting and scaling	R
		Vt, Phase B-N	SINT32	0 to 99999999	Ah	See Reg# 30119 for formatting and scaling	R
		Vt, Phase C-N	SINT32	0 to 99999999	Ah	See Reg# 30119 for formatting and scaling	R
		Vt, Phase A-B	SINT32	0 to 99999999	Vh	See Reg# 30119 for formatting and scaling	R
5200		Vt, Phase B-C	SINT32	0 to 99999999	Vh	See Reg# 30119 for formatting and scaling	R
		Vt, Phase C-A	SINT32	0 to 99999999	Vh	See Reg# 30119 for formatting and scaling	R
5204		+Qh, Total	SINT32	0 to 99999999	Qh	See Reg# 30136 for formatting and scaling	R
5206		+Qh, Phase A	SINT32	0 to 99999999	Qh	See Reg# 30136 for formatting and scaling	R
5208		+Qh, Phase B	SINT32	0 to 99999999	Qh	See Reg# 30136 for formatting and scaling	R
5210		+Qh, Phase C	SINT32	0 to 99999999	Qh	See Reg# 30136 for formatting and scaling	R
5212		-Qh, Total	SINT32	0 to -99999999	Qh	See Reg# 30136 for formatting and scaling	R
		-Qh, Phase A	SINT32	0 to -99999999	Qh	See Reg# 30136 for formatting and scaling	R
5216		-Qh, Phase B	SINT32	0 to -99999999	Qh	See Reg# 30136 for formatting and scaling	R
5218	2	-Qh, Phase C	SINT32	0 to -99999999	Qh	See Reg# 30136 for formatting and scaling	R



Reg# Size Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value Acc
Primary Energy in Interval (pulses)					
5500 2 Wh, (Q1+Q4)	SINT32	0 to 99999999	Number of Pulses		R
5502 2 Wh, (Q2+Q3)	SINT32	0 to 99999999	Number of Pulses		R
5504 2 Wh, Net	SINT32	0 to 99999999	Number of Pulses		R
5506 2 Wh, Total	SINT32	0 to 99999999	Number of Pulses		R
5508 2 VARh, (Q1+Q2)	SINT32	0 to 99999999	Number of Pulses		R
5510 2 VARh, (Q3+Q4)	SINT32	0 to 99999999	Number of Pulses		R
5512 2 VARh, Net	SINT32	0 to 99999999	Number of Pulses		R
5514 2 VARh, Total	SINT32	0 to 99999999	Number of Pulses		R
5516 2 VAh, Total	SINT32	0 to 99999999	Number of Pulses		R
5518 2 Wh, (Q1+Q4), Phase A	SINT32	0 to 99999999	Number of Pulses		R
5520 2 Wh, (Q1+Q4), Phase B	SINT32	0 to 99999999	Number of Pulses		R
5522 2 Wh, (Q1+Q4), Phase C	SINT32	0 to 99999999	Number of Pulses		R
5524 2 Wh, (Q2+Q3), Phase A	SINT32	0 to 99999999	Number of Pulses		R
5526 2 Wh, (Q2+Q3), Phase B	SINT32	0 to 99999999	Number of Pulses		R
5528 2 Wh, (Q2+Q3), Phase C	SINT32	0 to 99999999	Number of Pulses		R
5530 2 Wh, Net, Phase A	SINT32	0 to 99999999	Number of Pulses		R
5532 2 Wh, Net, Phase B	SINT32	0 to 99999999	Number of Pulses		R
5534 2 Wh, Net, Phase C	SINT32	0 to 99999999	Number of Pulses		R
5536 2 Wh, Total, Phase A	SINT32	0 to 99999999	Number of Pulses		R
5538 2 Wh, Total, Phase B	SINT32	0 to 99999999	Number of Pulses		R
5540 2 Wh, Total, Phase C	SINT32	0 to 99999999	Number of Pulses		R
5542 2 VARh, (Q1+Q2), Phase A	SINT32	0 to 99999999	Number of Pulses		R
5544 2 VARh, (Q1+Q2), Phase B	SINT32	0 to 99999999	Number of Pulses		R
5546 2 VARh, (Q1+Q2), Phase C	SINT32	0 to 99999999	Number of Pulses		R
5548 2 VARh, (Q3+Q4), Phase A	SINT32	0 to 99999999	Number of Pulses		R
5550 2 VARh, (Q3+Q4), Phase B	SINT32	0 to 99999999	Number of Pulses		R
5552 2 VARh, (Q3+Q4), Phase C	SINT32	0 to 99999999	Number of Pulses		R
5554 2 VARh, Net, Phase A	SINT32	0 to 99999999	Number of Pulses		R
5556 2 VARh, Net, Phase B	SINT32	0 to 99999999	Number of Pulses		R
5558 2 VARh, Net, Phase C	SINT32	0 to 99999999	Number of Pulses		R
5560 2 VARh, Total, Phase A	SINT32	0 to 99999999	Number of Pulses		R
5562 2 VARh, Total, Phase B	SINT32	0 to 99999999	Number of Pulses		R
5564 2 VARh, Total, Phase C	SINT32	0 to 99999999	Number of Pulses		R
5566 2 VAh, Phase A	SINT32	0 to 99999999	Number of Pulses		R
5568 2 VAh, Phase B	SINT32	0 to 99999999	Number of Pulses		R
5570 2 VAh, Phase C	SINT32	0 to 99999999	Number of Pulses		R
5572 2 Wh, (Q1), Total	SINT32	0 to 99999999	Number of Pulses		R
5574 2 VARh, (Q1), Total	SINT32	0 to 99999999	Number of Pulses		R
5576 2 VAh, (Q1), Total	SINT32	0 to 99999999	Number of Pulses		R



		·		Value Range	Unit of measure or resolution	Comments	Factory default value Ac	c
5578	2				Number of Pulses		R	2
5580				0 to 99999999	Number of Pulses		R	2
5582	2		SINT32	0 to 99999999	Number of Pulses		R	
5584			SINT32	0 to 99999999	Number of Pulses		R	
5586	2		SINT32	0 to 99999999	Number of Pulses		R	
5588			SINT32	0 to 99999999	Number of Pulses		R	
5590	2		SINT32		Number of Pulses		R	
5592	2			0 to 99999999	Number of Pulses		R	
5594					Number of Pulses		R	
5596			SINT32		Number of Pulses		R	
5598			SINT32		Number of Pulses		R	2
5600			SINT32		Number of Pulses		R	
5602				0 to 99999999	Number of Pulses		R	
5604					Number of Pulses		R	2
5606	2		SINT32		Number of Pulses		R	2
5608	2	VARh, (Q2), Phase A	SINT32	0 to 99999999	Number of Pulses		R	2
5610	2	VARh, (Q2), Phase B	SINT32	0 to 99999999	Number of Pulses		R	2
5612				0 to 99999999	Number of Pulses		R	2
5614	2	VAh, (Q2), Phase A	SINT32	0 to 99999999	Number of Pulses		R	
5616	2	VAh, (Q2), Phase B	SINT32	0 to 99999999	Number of Pulses		R	2
5618	2		SINT32	0 to 99999999	Number of Pulses		R	2
5620	2	Wh, (Q3), Total	SINT32	0 to 99999999	Number of Pulses		R	
5622	2	VARh, (Q3), Total	SINT32	0 to 99999999	Number of Pulses		R	2
5624	2	VAh, (Q3), Total	SINT32	0 to 99999999	Number of Pulses		R	2
5626	2	Wh, (Q3), Phase A	SINT32	0 to 99999999	Number of Pulses		R	
5628	2		SINT32	0 to 99999999	Number of Pulses		R	
5630	2	Wh, (Q3), Phase C	SINT32	0 to 99999999	Number of Pulses		R	
5632				0 to 99999999	Number of Pulses		R	
5634			SINT32	0 to 99999999	Number of Pulses		R	ł
5636					Number of Pulses		R	
5638					Number of Pulses		R	
5640				0 to 99999999	Number of Pulses		R	
5642					Number of Pulses		R	
5644	2			0 to 99999999	Number of Pulses		R	
5646	2			0 to 99999999	Number of Pulses		R	ž
5648					Number of Pulses		R	
5650					Number of Pulses		R	
5652			SINT32	0 to 99999999	Number of Pulses		R	
5654				0 to 99999999	Number of Pulses		R	
5656					Number of Pulses		R	ž
5658					Number of Pulses		R	
5660				0 to 99999999	Number of Pulses		R	



Reg# Size Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
5662 2 VAh, (Q4), Phase A			Number of Pulses			R
5664 2 VAh, (Q4), Phase B			Number of Pulses			R
5666 2 VAh, (Q4), Phase C			Number of Pulses			R
5668 2 VAh (Q1+Q4), Total			Number of Pulses			R
5670 2 VAh (Q1+Q4), Phase A			Number of Pulses			R
5672 2 VAh (Q1+Q4), Phase B			Number of Pulses			R
5674 2 VAh (Q1+Q4), Phase C	SINT32		Number of Pulses			R
5676 2 VAh (Q2+Q3), Total			Number of Pulses			R
5678 2 VAh (Q2+Q3), Phase A			Number of Pulses			R
5680 2 VAh (Q2+Q3), Phase B	SINT32		Number of Pulses			R
5682 2 VAh (Q2+Q3), Phase C	SINT32	0 to 99999999	Number of Pulses			R
5684 2 It, Phase A			Number of Pulses			R
5686 2 It, Phase B			Number of Pulses			R
5688 2 It, Phase C	SINT32	0 to 99999999	Number of Pulses			R
5690 2 It, Phase N	SINT32	0 to 99999999	Number of Pulses			R
5692 2 Vt, Phase A-N	SINT32	0 to 99999999	Number of Pulses			R
5694 2 Vt, Phase B-N	SINT32	0 to 99999999	Number of Pulses			R
5696 2 Vt, Phase C-N	SINT32	0 to 99999999	Number of Pulses			R
5698 2 Vt, Phase A-B	SINT32	0 to 99999999	Number of Pulses			R
5700 2 Vt, Phase B-C	SINT32	0 to 99999999	Number of Pulses			R
5702 2 Vt, Phase C-A	SINT32	0 to 99999999	Number of Pulses			R
5704 2 +Qh, Total	SINT32	0 to 99999999	Number of Pulses			R
5706 2 +Qh, Phase A	SINT32	0 to 99999999	Number of Pulses			R
5708 2 +Qh, Phase B	SINT32	0 to 99999999	Number of Pulses			R
5710 2 +Qh, Phase C	SINT32	0 to 99999999	Number of Pulses			R
5712 2 -Qh, Total	SINT32	0 to 99999999	Number of Pulses			R
5714 2 -Qh, Phase A	SINT32	0 to 99999999	Number of Pulses			R
5716 2 -Qh, Phase B	SINT32	0 to 99999999	Number of Pulses			R
5718 2 -Qh, Phase C	SINT32	0 to 99999999	Number of Pulses			R
7948 2 Maximum W. (Q1+Q4), Total, prior to Demand Reset	FLOAT	0 to ±9.999 E+09	VA			R
7950 2 Maximum W, (Q2+Q3), Total, prior to Demand Reset	FLOAT	0 to ±9.999 E+09	W			R
7952 2 Maximum VAR, (Q1+Q2), Total, prior to Demand Reset	FLOAT	0 to ±9.999 E+09	Ŵ			R
7954 2 Maximum VAR, (Q3+Q4), Total, prior to Demand Reset			VAR			R
7956 2 Maximum VA, Total, prior to Demand Reset	FLOAT		VAR			R
7958 3 Maximum W, (Q1+Q4), Total, Timestamp, prior to Demand Reset	TSTAMP	21st Century	1 s			R
7961 3 Maximum W, (Q2+Q3), Total, Timestamp, prior to Demand Reset	TSTAMP	21st Century	1s			R
7964 3 Maximum VAR, (Q1+Q2), Total, Timestamp, prior to Demand Reset		21st Century	1s			R
7967 3 Maximum VAR, (Q3+Q4), Total, Timestamp, prior to Demand Reset		21st Century	1s			R
7970 3 Maximum VA, Total, Timestamp, prior to Demand Reset	TSTAMP	21st Century	1s			R
7973 3 Demand Last Reset Timestamp	TSTAMP	21st Century	1s	Time at last reset of the demands		R



Reg# Size Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
			orresolution			
Primary Voltage minimum within demand interval						
7976 2 V A-N, previous Demand interval Short Term Minimum	FLOAT	0 to 9.999 E+09	V	Minimum instantaneous value measured during		R
7978 2 V B-N, previous Demand interval Short Term Minimum	FLOAT	0 to 9.999 E+09	V	the demand interval before the one most recently completed.		R
7980 2 V C-N, previous Demand Interval Short Term Minimum	FLOAT	0 to 9.999 E+09	V			R
7982 2 V A-B, previous Demand interval Short Term Minimum	FLOAT	0 to 9.999 E+09	V	-		R
7984 2 V B-C, previous Demand interval Short Term Minimum	FLOAT	0 to 9.999 E+09	V			R
7986 2 V C-A, previous Demand interval Short Term Minimum	FLOAT	0 to 9.999 E+09	V			R
7988 2 V A-N, Short Term Minimum 7990 2 V B-N. Short Term Minimum	FLOAT	0 to 9.999 E+09 0 to 9.999 E+09	V	Minimum instantaneous value measured during		R
7990 2 V C-N, Short Term Minimum	FLOAT FLOAT	0 to 9.999 E+09 0 to 9.999 E+09	V	the demand interval before the one most recently completed.		R R
7994 2 V A-B, Short Term Minimum	FLOAT	0 to 9.999 E+09 0 to 9.999 E+09	V	4		R
7996 2 V B-C. Short Term Minimum	FLOAT	0 to 9.999 E+09	V	-		R
7998 2 V C-A, Short Term Minimum	FLOAT	0 to 9.999 E+09	V	-		R
Primary Minimums and Minimum average Demand Block since last reset	ILUAI	010 9.999 L+09	V	•	<b>_</b>	
8000 2 V A-N, Minimum	FLOAT	0 to 9.999 E+09	V			R
8002 2 V B-N, Minimum	FLOAT	0 to 9.999 E+09	V			R
8004 2 V C-N. Minimum	FLOAT	0 to 9.999 E+09	V			R
8006 2 V A-B, Minimum	FLOAT	0 to 9.999 E+09	V			R
8008 2 V B-C. Minimum	FLOAT	0 to 9.999 E+09	V			R
8010 2 V C-A, Minimum	FLOAT	0 to 9.999 E+09	V			R
8012 2 I A , Minimum Average Demand	FLOAT	0 to 9.999 E+09	Å			R
8014 2 I B, Minimum Average Demand	FLOAT	0 to 9.999 E+09	A			R
8016 2 I C, Minimum Average Demand	FLOAT	0 to 9.999 E+09	A			R
8018 2 W, (Q1+Q4), Total, Minimum Average Demand	FLOAT	0 to 9.999 E+09	W			R
8020 2 VAR, (Q1+Q2), Total, Minimum Average Demand	FLOAT	0 to 9.999 E+09	VAR			R
8022 2 W, (Q2+Q3), Total, Minimum Average Demand	FLOAT	0 to 9.999 E+09	W			R
8024 2 VAR, (Q3+Q4), Total, Minimum Average Demand	FLOAT	0 to 9.999 E+09	VAR			R
8026 2 VA, Total, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VA			R
8028 2 PF, (Q1+Q4), Total, Minimum Average Demand	FLOAT	-1.00 to +1.00				R
8030 2 PF, (Q2+Q3), Total, Minimum Average Demand	FLOAT	-1.00 to +1.00				R
8032 2 Frequency, Minimum	FLOAT	0 to 65.00	Hz			R
8034 2 Neutral Current, Minimum Average Demand	FLOAT	0 to 9.999 E+09	A			R
8036 2 W, (Q1+Q4), Phase A, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	W			R
8038 2 W, (Q1+Q4), Phase B, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	W			R
8040 2 W, (Q1+Q4), Phase C, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	W			R
8042 2 VAR, (Q1+Q2), Phase A, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VAR			R
8044 2 VAR, (Q1+Q2), Phase B, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VAR			R
8046 2 VAR, (Q1+Q2), Phase C, Minimum Average Demand 8048 2 W (Q2+Q3) Phase A Minimum Average Demand	FLOAT FLOAT	0 to ±9.999 E+09	VAR W			R
	FLOAT	0 to ±9.999 E+09				R
8050     2     W, (Q2+Q3), Phase B, Minimum Average Demand       8052     2     W, (Q2+Q3), Phase C, Minimum Average Demand	FLOAT	0 to ±9.999 E+09 0 to ±9.999 E+09	W			R R
8054 2 VAR, (Q3+Q4), Phase A, Minimum Average Demand	FLOAT	$0.10 \pm 9.999 E+09$ 0 to $\pm 9.999 E+09$	VAR			R
8056 2 VAR, (Q3+Q4), Phase B, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VAR			R
8058 2 VAR, (Q3+Q4), Phase C, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VAR			R
8060 2 VA, Phase A, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VAR			R
8062 2 VA, Phase B, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VA			R
8064 2 VA, Phase C, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VA			R
8066 2 PF, (Q1+Q4), Phase A, Minimum Average Demand	FLOAT	-1.00 to +1.00				R
8068 2 PF, (Q1+Q4), Phase B, Minimum Average Demand	FLOAT	-1.00 to +1.00				R
8070 2 PF. (Q1+Q4), Phase C, Minimum Average Demand	FLOAT	-1.00 to +1.00	1			R
8072 2 PF. (02+03), Phase A. Minimum Average Demand	FLOAT	-1.00 to +1.00	1			R
8074 2 PF, (Q2+Q3), Phase B, Minimum Average Demand	FLOAT	-1.00 to +1.00				R
8076 2 PF, (Q2+Q3), Phase C, Minimum Average Demand	FLOAT	-1.00 to +1.00	t			R



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	c
8078	1	V A-N, %THD, Minimum		0 to 9999	0.01%		R	
8079	1	V B-N, %THD, Minimum	UINT16	0 to 9999	0.01%		R	2
8080	1	V C-N, %THD, Minimum	UINT16	0 to 9999	0.01%		R	
8081	1	I A , %THD, Minimum	UINT16	0 to 9999	0.01%		R	
8082	1	I B , %THD, Minimum		0 to 9999	0.01%		R	
8083	1	I C, %THD, Minimum		0 to 9999	0.01%		R	
8084		Symmetrical Component Magnitude, 0 Seq, Minimum	FLOAT	0 to 9.999 E+09	V		R	
8086		Symmetrical Component Magnitude, + Seq, Minimum	FLOAT	0 to 9.999 E+09	V		R	
8088		Symmetrical Component Magnitude, - Seg, Minimum		0 to 9.999 E+09 -1800 to +1800	V 0.1°		R	
8090 8091		Symmetrical Component Phase, 0 Seq, Minimum Symmetrical Component Phase, + Seq, Minimum	SINT16 SINT16	-1800 to +1800	0.1°		R R	
8091	1	Symmetrical Component Phase, - Seq, Minimum	SINT 10	-1800 to +1800	0.1°		R	
8093	1	Unbalance. O sequence. Minimum	UINT16	0 to 65535	0.01%		R	
8094	1	Unbalance, -sequence, Minimum	UINT16	0 to 65535	0.01%		R	
8095	1	Current Unbalance, Minimum	UINT16	0 to 20000	0.01%		R	
8096	2	W, (Q1), Total, Minimum Average Demand	FLOAT	0 to +9.999 E+09	W		R	
8098		VAR , (Q1), Total, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VAR		R	_
8100		VA , (Q1), Total, Minimum Average Demand	FLOAT	$0 \text{ to } \pm 9.999 \text{ E} + 09$	VA		R	
8102		W, (Q1), Phase A, Minimum Average Demand	FLOAT	$0 \text{ to } \pm 9.999 \text{ E} + 09$	Ŵ		R	
8104	2	W, (Q1), Phase B, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	Ŵ		R	<u>,</u>
8106	2	W, (Q1), Phase C, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	W		R	(
8108		VAR , (Q1), Phase A, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VAR		R	(
8110		VAR , (Q1), Phase B, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VAR		R	
8112	2	VAR , (Q1), Phase C, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VAR		R	2
8114		VA, (Q1), Phase A, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VA		R	
8116		VA , (Q1), Phase B, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VA		R	
8118		VA, (Q1), Phase C, Minimum Average Demand		0 to ±9.999 E+09	VA		R	
8120		W, (Q2), Total, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	W		R	
8122		VAR , (Q2), Total, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VAR		R	
8124		VA , (Q2), Total, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VA		R	
8126		W, (Q2), Phase A, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	W		R	
8128		W, (Q2), Phase B, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	W		R	
8130		W, (Q2), Phase C, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	W		R	
8132	_	VAR , (Q2), Phase A, Minimum Average Demand VAR , (Q2), Phase B, Minimum Average Demand	FLOAT	0 to ±9.999 E+09 0 to ±9.999 E+09	VAR		R	
8134 8136		VAR , (Q2), Phase B, Minimum Average Demand	FLOAT FLOAT	$0 to \pm 9.999 E+09$ 0 to $\pm 9.999 E+09$	VAR VAR		R R	
8138		VAR, (Q2), Phase C, Minimum Average Demand	FLOAT	$0 to \pm 9.999 E+09$ 0 to $\pm 9.999 E+09$	VAR		R	
8140		VA , (Q2), Phase B, Minimum Average Demand	FLOAT	$0 to \pm 9.999 E+09$ 0 to $\pm 9.999 E+09$	VA VA		R	
8140	2	VA , (Q2), Phase C, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VA		R	
8144		W, (Q3), Total, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	W		R	
8146		VAR , (Q3), Total, Minimum Average Demand	FLOAT	$0 t_0 + 9.999 E + 09$	VAR		R	
8148		VA , (Q3), Total, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VA		R	
8150	2	W, (Q3), Phase A, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	Ŵ		R	
8152	2	W, (Q3), Phase B, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	Ŵ		R	
8154		W, (Q3), Phase C, Minimum Average Demand		0 to ±9.999 E+09	W		R	
8156		VAR , (Q3), Phase A, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VAR		R	
8158		VAR , (Q3), Phase B, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VAR		R	2
8160		VAR , (Q3), Phase C, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VAR		R	2
8162		VA, (Q3), Phase A, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VA		R	
8164		VA, (Q3), Phase B, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VA		R	
8166	2	VA , (Q3), Phase C, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VA		R	



Reg# Size Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
8168 2 W, (Q4), Total, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	W			R
8170 2 VAR, (Q4), Total, Minimum Average Demand		0 to $\pm 9.999 E+09$ 0 to $\pm 9.999 E+09$	VAR			R
8170 2 VAX, (Q4), Total, Minimum Average Demand		0 to $\pm 9.999 E+09$	VAR			R
8174 2 W, (Q4), Phase A, Minimum Average Demand		0 to ±9.999 E+09	W			R
8176 2 W, (Q4), Phase B, Minimum Average Demand		0 to ±9.999 E+09	Ŵ			R
8178 2 W, (Q4), Phase C, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	Ŵ			R
8180 2 VAR (Q4), Phase A, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VAR			R
8182 2 VAR , (Q4), Phase B, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VAR			R
8184 2 VAR , (Q4), Phase C, Minimum Average Demand		0 to ±9.999 E+09	VAR			R
8186 2 VA , (Q4), Phase A, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VA			R
8188 2 VA, (Q4), Phase B, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VA			R
8190 2 VA, (Q4), Phase C, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VA			R
8192 2 VA (Q1+Q4) ,Total ,Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VA			R
8194 2 VA (Q1+Q4) , Phase A , Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VA			R
8196 2 VA (Q1+Q4) ,Phase B ,Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VA			R
8198 2 VA (Q1+Q4) , Phase C , Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VA			R
8200 2 VA (Q2+Q3) ,Total ,Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VA			R
8202 2 VA (Q2+Q3) ,Phase A ,Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VA			R
8204 2 VA (Q2+Q3) ,Phase B ,Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VA			R
8206 2 VA (Q2+Q3) ,Phase C ,Minimum Average Demand	FLOAT	0 to ±9.999 E+09	VA			R
8208 2 V A-N, Minimum Average Demand	FLOAT	0 to 9.999 E+09	V			R
8210 2 V B-N, Minimum Average Demand	FLOAT	0 to 9.999 E+09	V			R
8212 2 V C-N, Minimum Average Demand	FLOAT	0 to 9.999 E+09	V			R
8214 2 V A-B, Minimum Average Demand	FLOAT	0 to 9.999 E+09	V			R
8216 2 V B-C, Minimum Average Demand	FLOAT	0 to 9.999 E+09	V			R
8218 2 V C-A, Minimum Average Demand	FLOAT	0 to 9.999 E+09	V			R
8220 1 I A , %TDD, Minimum	UINT16	0 to 9999	0.01%			R
8221 1 I.B., %TDD, Minimum	UINT16	0 to 9999	0.01%			R
8222 1 I C, %TDD, Minimum	UINT16	0 to 9999	0.01%			R
8223 1 I.A., K-factor, Minimum	UINT16	0 to 9999	0.01%			R
8224 1 I B , K-factor, Minimum	UINT16	0 to 9999 0 to 9999	0.01%			R
8225     1     I C, K-factor, Minimum       8226     2     +Q, Total, Minimum Average Demand	UINT16 FLOAT	0 to ±9.999 E+09	0.01% O			R R
8228 2 +Q , Phase A. Minimum Average Demand	FLOAT	0 to ±9.999 E+09	0			R
8230 2 +Q. Phase Minimum Average Demand	FLOAT	$0 to \pm 9.999 E+09$ 0 to $\pm 9.999 E+09$	0			R
8232 2 +Q , Phase C, Minimum Average Demand	FLOAT	0 to $\pm 9.999 E+09$ 0 to $\pm 9.999 E+09$	0			R
8234 2 -Q ,Total, Minimum Average Demand	FLOAT	0 to $\pm 9.999 E+09$	0			R
8236 2 -Q. Phase A. Minimum Average Demand	FLOAT	0 to $\pm 9.999 E+09$ 0 to $\pm 9.999 E+09$	0			R
8238 2 -Q, Phase Minimum Average Demand	FLOAT	0 to ±9.999 E+09	0			R
8240 2 -Q ,Phase C, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	0			R
8242 2 Aggregator 1, Minimum Average Demand	FLOAT	0 to ±9.999 E+09	Q			R
8244 2 Aggregator 2, Minimum Average Demand	FLOAT	0 to ±9.999 E+09				R
8246 2 Aggregator 3, Minimum Average Demand	FLOAT	0 to ±9.999 E+09				R
8248 2 Aggregator 4, Minimum Average Demand	FLOAT	0 to ±9.999 E+09				R
8250 2 Option card 1 input accumulator 1, Minimum Average Demand		0 to ±9.999 E+09				R
8252 2 Option card 1 input accumulator 2, Minimum Average Demand	FLOAT	0 to ±9.999 E+09				R
8254 2 Option card 1 input accumulator 3, Minimum Average Demand	FLOAT	0 to ±9.999 E+09				R
8256 2 Option card 1 input accumulator 4, Minimum Average Demand		0 to ±9.999 E+09				R
8258 2 Option card 2 input accumulator 1, Minimum Average Demand	FLOAT	0 to ±9.999 E+09				R
8260 2 Option card 2 input accumulator 2, Minimum Average Demand	FLOAT	0 to ±9.999 E+09				R
8262 2 Option card 2 input accumulator 3, Minimum Average Demand	FLOAT	0 to ±9.999 E+09				R
8264 2 Option card 2 input accumulator 4, Minimum Average Demand	FLOAT	0 to ±9.999 E+09				R



Reg# S	Size Description Fo	ormat	Value Range	Unit of measure or resolution	Comments	Factory default value Acc
Prima	ary Minimums and Minimum average Demand since last reset - Timestamps Block					, , , , , , , , , , , , , , , , , , , ,
		STAMP	21st Century	1s		R
8403	3 V B-N, Minimum Timestamp TS	STAMP	21st Century	1s		R
8406	3 V C-N, Minimum Timestamp TS	STAMP	21st Century	1s		R
8409		STAMP	21st Century	1s		R
8412			21st Century	1s		R
8415			21st Century	1s		R
8418			21st Century	1s		R
8421			21st Century	1s		R
8424			21st Century	1s		R
8427			21st Century	1s		R
8430			21st Century	1s		R
8433			21st Century	1s		R
8436			21st Century	1s		R
8439			21st Century	1s		R
8442			21st Century	1s		R
8445			21st Century	1s		R
8448			21st Century	1s		R
8451		-	21st Century	1s		R
8454			21st Century	1s		R
8457			21st Century	1s		R
8460			21st Century	1s		R
8463			21st Century	1s		R
8466			21st Century	1s		R
8469			21st Century	1s		R
8472	3 W, (02+03), Phase A, Minimum Average Demand Timestamp		21st Century	1s		R
8475			21st Century	1s		R
8478			21st Century	1s		R
0.01			21st Century	1s		R
8484			21st Century	1s		R
8487			21st Century	1s		R
8490			21st Century	1s		R
8493			21st Century	1s		R
8496 8499			21st Century	1s		R
8499			21st Century 21st Century	1s		R
8502	$\cdot$		21st Century 21st Century	1s		
8508	$\dot{\tau}$ $(\chi = -\eta)$ $(\chi = -\eta)$		21st Century 21st Century	<u>1s</u> 1s		R R
8508			21st Century 21st Century	15		R
8514			21st Century 21st Century	15		R
			21st Century 21st Century	15		R
8517			21st Century 21st Century	1s 1s		R
8523			21st Century 21st Century	15		R
	· · · · · · · · · · · · · · · · · · ·	-	21st Century 21st Century	15		R
8520	· · · · · · · · · · · · · · · · · · ·		21st Century	15		R
8532	· · · · · · · · · · · · · · · · · · ·		21st Century 21st Century	15		R



		Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
		Symmetrical Comp Magnitude, 0 Seq, Minimum Timestamp		21st Century	1s			R
8538		Symmetrical Comp Magnitude, + Seq, Minimum Timestamp		21st Century	1 s			R
8541		Symmetrical Comp Magnitude, - Seq, Minimum Timestamp		21st Century	1 s			R
8544		Symmetrical Comp Phase, 0 Seq, Minimum Timestamp		21st Century	1 s			R
8547		Symmetrical Comp Phase, + Seq, Minimum Timestamp		21st Century	1s			R
0000		Symmetrical Comp Phase, - Seq, Minimum Timestamp		21st Century	1 s			R
0000		Jnbalance, 0 Seq, Minimum Timestamp		21st Century	1 s			R
8556		Jnbalance, - Seq, Minimum Timestamp		21st Century	1s			R
8559		Current Unbalance, Minimum Timestamp		21st Century	1s			R
8562		/A , (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1s			R
8565		/A , (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1 s			R
8568		/A , (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1s			R
8571		/A , (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1s			R
8574		/A , (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1 s			R
8577		/A , (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1 s			R
8580		/A , (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1s			R
8583		/A , (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1s			R
8586		/A , (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1s			R
8589		/A , (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1 s			R
8592		/A, (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1 s			R
8595		/A, (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1 s			R
8598		/A , (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1s			R
8601		/A , (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1 s			R
8604		/A, (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1 s			R
8607		/A, (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1 s			R
8610	3	/A, (Q4), Phase C, Minimum Average Demand Timestamp	TSTAMP	21st Century	1 s			R
8613		/A , (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1 s			R
8616		/A, (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1 s			R
8619		/A, (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1 s			R
8622	3	/A, (Q4), Phase C, Minimum Average Demand Timestamp	TSTAMP	21st Century	1 s			R
8625		/A , (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1 s			R
8628		/A , (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1 s			R
8631		/A, (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1 s			R
8634	3	/A, (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1 s			R
8637		/A , (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1 s			R
8640		/A , (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1 s			R
8643		/A , (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1s			R
8646		/A, (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1s			R
8649	3	/A , (Q4), Phase C, Minimum Average Demand Timestamp	TSTAMP	21st Century	1s			R
8652		/A , (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1 s			R
8655		/A, (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1s			R
8658	3	/A, (Q4), Phase C, Minimum Average Demand Timestamp	TSTAMP	21st Century	1s			R
8661		/A , (Q4), Phase C, Minimum Average Demand Timestamp	TSTAMP	21st Century	1s			R
8664		/A , (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1 s			R
8667	3	/A , (Q4), Phase C, Minimum Average Demand Timestamp	TSTAMP	21st Century	1 s			R



Reg# Size Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
8670 3 VA, (Q4), Phase C, Minimum Average Demand Timestamp	TSTAMP	21st Century	1 s			R
8673 3 VA, (Q4), Phase C, Minimum Average Demand Timestamp		21st Century	1 s			R
8676 3 VA, (Q4), Phase C, Minimum Average Demand Timestamp	TSTAMP	21st Century	1 s			R
8679 3 VA, (Q4), Phase C, Minimum Average Demand Timestamp	TSTAMP	21st Century	1 s		F	R
8682 3 VA, (Q4), Phase C, Minimum Average Demand Timestamp	TSTAMP	21st Century	1 s		F	R
8685 3 VA, (Q4), Phase C, Minimum Average Demand Timestamp	TSTAMP	21st Century	1s		A F	R
8688 3 VA, (Q4), Phase C, Minimum Average Demand Timestamp	TSTAMP	21st Century	1s		A F	R
8691 3 VA , (Q4), Phase C, Minimum Average Demand Timestamp	TSTAMP	21st Century	1s			R
8694 3 VA, (Q4), Phase C, Minimum Average Demand Timestamp	TSTAMP	21st Century	1s		F	R
8697 3 VA, (Q4), Phase C, Minimum Average Demand Timestamp	TSTAMP	21st Century	1s		A F	R
8700 3 VA, (Q4), Phase C, Minimum Average Demand Timestamp	TSTAMP	21st Century	1s		A F	R
8703 3 VA, (Q4), Phase C, Minimum Average Demand Timestamp	TSTAMP	21st Century	1s		A F	R
8706 3 VA (Q1+Q4), Total, Minimum Average Demand Timestamp	TSTAMP	21st Century	1s		F	R
8709 3 VA (Q1+Q4), Phase A, Minimum Average Demand Timestamp	TSTAMP	21st Century	1s		A F	R
8712 3 VA (Q1+Q4), Phase B, Minimum Average Demand Timestamp	TSTAMP	21st Century	1s		A F	R
8715 3 VA (Q1+Q4), Phase C, Minimum Average Demand Timestamp	TSTAMP	21st Century	1s		A F	R
8718 3 VA (Q2+Q3), Total, Minimum Average Demand Timestamp	TSTAMP	21st Century	1s		F	R
8721 3 VA (Q2+Q3), Phase A, Minimum Average Demand Timestamp	TSTAMP	21st Century	1s			R
8724 3 VA (Q2+Q3), Phase B, Minimum Average Demand Timestamp	TSTAMP	21st Century	1 s			R
8727 3 VA (Q2+Q3), Phase C, Minimum Average Demand Timestamp	TSTAMP	21st Century	1 s			R
8730 3 V A-N, Minimum Average Demand Timestamp	TSTAMP	21st Century	1s		F	R
8733 3 V B-N, Minimum Average Demand Timestamp	TSTAMP	21st Century	1s			R
8736 3 V C-N, Minimum Average Demand Timestamp	TSTAMP	21st Century	1s			R
8739 3 V A-B, Minimum Average Demand Timestamp	TSTAMP	21st Century	1s			R
8742 3 V B-C, Minimum Average Demand Timestamp	TSTAMP	21st Century	1 s		F	R
8745 3 V C-A, Minimum Average Demand Timestamp	TSTAMP	21st Century	1 s			R
8748 3 I A , %TDD, Minimum Timestamp	TSTAMP	21st Century	1s			R
8751 3 I B , %TDD, Minimum Timestamp	TSTAMP	21st Century	1 s			R
8754 3 I C, %TDD, Minimum Timestamp	TSTAMP	21st Century	1s			R
8757 3 I A , K-factor, Minimum Timestamp	TSTAMP	21st Century	1s			R
8760 3 I B , K-factor, Minimum Timestamp	TSTAMP	21st Century	1s			R
8763 3 I C, K-factor, Minimum Timestamp	TSTAMP	21st Century	1s			R
8766 3 +Q ,Total ,Minimum Average Demand Timestamp	TSTAMP	21st Century	1s			R
8769 3 +Q, Phase A, Minimum Average Demand Timestamp	TSTAMP	21st Century	1s			R
8772 3 +Q ,Phase Minimum Average Demand Timestamp		21st Century	1s			R
8775 3 +Q ,Phase C, Minimum Average Demand Timestamp	TSTAMP	21st Century	1s			R
8778 3 -Q ,Total, Minimum Average Demand Timestamp	TSTAMP	21st Century	1s			R
8781 3 -Q ,Phase A, Minimum Average Demand Timestamp		21st Century	1s			R
8784 3 -Q ,Phase Minimum Average Demand Timestamp	TSTAMP	21st Century	1s			R
8787 3 - Q , Phase C , Minimum Average Demand Timestamp	TSTAMP	21st Century	1s			R
8790 3 Aggregator 1, Minimum Average Demand Timestamp	FLOAT	TSTAMP	21st Century			R
8793 3 Aggregator 2, Minimum Average Demand Timestamp	FLOAT	TSTAMP	21st Century			R
8796 3 Aggregator 3, Minimum Average Demand Timestamp	FLOAT	TSTAMP	21st Century			R
8799 3 Aggregator 4, Minimum Average Demand Timestamp	FLOAT	TSTAMP	21st Century			R
8802 3 Option card 1 input accumulator 1, Minimum Average Demand Timestamp	FLOAT	TSTAMP	21st Century			R
8805 3 Option card 1 input accumulator 2, Minimum Average Demand Timestamp	FLOAT	TSTAMP	21st Century			R
8808 3 Option card 1 input accumulator 3,Minimum Average Demand Timestamp	FLOAT	TSTAMP	21st Century			R
8811 3 Option card 1 input accumulator 4 Minimum Average Demand Timestamp	FLOAT	TSTAMP	21st Century			R
8814 3 Option card 2 input accumulator 1, Minimum Average Demand Timestamp	FLOAT	TSTAMP	21st Century			R
8817 3 Option card 2 input accumulator 2,Minimum Average Demand Timestamp	FLOAT	TSTAMP	21st Century			R
8820 3 Option card 2 input accumulator 3,Minimum Average Demand Timestamp	FLOAT	TSTAMP	21st Century			R
8823 3 Option card 2 input accumulator 4, Minimum Average Demand Timestamp	FLOAT	TSTAMP	21st Century	1	ł	R



					Unit of measure			
Reg#	Size	Description	Format	Value Range	or resolution	Comments	Factory default value	Acc
		oltage Maximum within demand interval	EL O A T		h.,	Γ	1	
8976		V A-N, previous Demand interval Short Term Maximum	FLOAT	0 to 9.999 E+09	V	4		R
8978 8980		V B-N, previous Demand interval Short Term Maximum V C-N, previous Demand interval Short Term Maximum	FLOAT FLOAT	0 to 9.999 E+09 0 to 9.999 E+09	V	Maximum instantaneous value measured during the demand interval		R
8982		V C-N, previous Demand interval Short Term Maximum	FLOAT	0 to 9.999 E+09	V	before the one most recently completed.		R
8984		V B-C, previous Demand interval Short Term Maximum	FLOAT	0 to 9.999 E+09	V	belore the one most recently completed.		R
8986	2	V C-A, previous Demand interval Short Term Maximum	FLOAT	0 to 9.999 E+09	V			R
8988		V A-N, Short Term Maximum	FLOAT	0 to 9.999 E+09	V			R
8990	2	V B-N, Short Term Maximum	FLOAT	0 to 9.999 E+09	V			R
8992	2	V C-N, Short Term Maximum	FLOAT	0 to 9.999 E+09	V	Maximum instantaneous value measured during the most recently		R
8994	2	V A-B, Short Term Maximum	FLOAT	0 to 9.999 E+09	V	completed demand interval.		R
8996		V B-C, Short Term Maximum	FLOAT	0 to 9.999 E+09	V			R
8998		V C-A, Short Term Maximum	FLOAT	0 to 9.999 E+09	V			R
		aximums and Maximum average demand since last reset	-		T	1		
9000		V A-N, Maximum	FLOAT	0 to 9.999 E+09	V			R
9002		V B-N, Maximum	FLOAT	0 to 9.999 E+09	V			R
9004		V C-N, Maximum	FLOAT	0 to 9.999 E+09	V			R
9006		V A-B, Maximum	FLOAT	0 to 9.999 E+09	V			R
9008 9010		V B-C, Maximum V C-A, Maximum	FLOAT FLOAT	0 to 9.999 E+09 0 to 9.999 E+09	V			R R
9010		I A , Maximum Average Demand	FLOAT	0 to 9.999 E+09	V			R
9012		I B , Maximum Average Demand	FLOAT	0 to 9.999 E+09	Λ			R
9014		I C, Maximum Average Demand	FLOAT	0 to 9.999 E+09	Δ			R
9018		W, (Q1+Q4), Total, Maximum Average Demand	FLOAT	0 to 9.999 E+09	Ŵ			R
9020		VAR, (Q1+Q2), Total, Maximum Average Demand	FLOAT	0 to 9.999 E+09	VAR			R
9022		W, (Q2+Q3), Total, Maximum Average Demand	FLOAT	0 to 9.999 E+09	W			R
9024		VAR, (Q3+Q4), Total, Maximum Average Demand	FLOAT	0 to 9.999 E+09	VAR			R
9026	2	VA, Total, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	VA			R
9028	2	PF, (Q1+Q4), Total, Maximum Average Demand	FLOAT	-1.00 to +1.00				R
9030	2	PF, (Q2+Q3), Total, Maximum Average Demand	FLOAT	-1.00 to +1.00				R
9032		Frequency, Maximum	FLOAT	0 to 65.00	Hz			R
9034		Neutral Current, Maximum Average Demand	FLOAT	0 to 9.999 E+09	A			R
9036		W, (Q1+Q4), Phase A, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	W			R
9038		W, (Q1+Q4), Phase B, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	W			R
9040		W, (Q1+Q4), Phase C, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	W			R
9042		VAR, (Q1+Q2), Phase A, Maximum Average Demand VAR, (Q1+Q2), Phase B, Maximum Average Demand	FLOAT FLOAT	0 to ±9.999 E+09 0 to ±9.999 E+09	VAR VAR			R
9044 9046		VAR, (Q1+Q2), Phase C, Maximum Average Demand	FLOAT	$0 to \pm 9.999 E+09$ 0 to $\pm 9.999 E+09$	VAR			R
9040		W, (Q2+Q3), Phase A, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	W			R
9050	2	W, (Q2+Q3), Phase B, Maximum Average Demand		0 to ±9.999 E+09	W			R
9052		W, (Q2+Q3), Phase C, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	Ŵ			R
9054		VAR, (Q3+Q4), Phase A, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	VAR			R
9056	2	VAR, (Q3+Q4), Phase B, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	VAR			R
9058	2	VAR, (Q3+Q4), Phase C, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	VAR			R
9060	2	VA, Phase A, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	VA			R
9062		VA, Phase B, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	VA			R
9064		VA, Phase C, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	VA			R
9066	2	PF, (Q1+Q4), Phase A, Maximum Average Demand	FLOAT	-1.00 to +1.00			ļ	R
9068		PF, (Q1+Q4), Phase B, Maximum Average Demand	FLOAT	-1.00 to +1.00				R
9070	2	PF, (Q1+Q4), Phase C, Maximum Average Demand	FLOAT	-1.00 to +1.00	ł			R
9072 9074		PF, (Q2+Q3), Phase A, Maximum Average Demand PF, (Q2+Q3), Phase B, Maximum Average Demand	FLOAT FLOAT	-1.00 to +1.00				R
9074		PF, (Q2+Q3), Phase B, Maximum Average Demand PF, (Q2+Q3), Phase C, Maximum Average Demand	FLOAT	-1.00 to +1.00 -1.00 to +1.00				R R
9076		V A-N. %THD. Maximum	UINT16	-1.00 to +1.00 0 to 9999	0.01%		+	R
9078		V A-N, %THD, Maximum V B-N, %THD, Maximum	UINT 16 UINT 16	0 to 9999	0.01%			R
9080		V C-N, %THD, Maximum	UINT16	0 to 9999	0.01%			R
7000			511110	0 10 / / / /	0.0170		1	<u>, iv</u>



		Description		Value Range	Unit of measure or resolution	Comments	Factory default value Acc
		I A , %THD, Maximum			0.01%		R
9082		I B , %THD, Maximum	UINT16	0 to 9999	0.01%		R
9083	1	I C, %THD, Maximum		0 to 9999	0.01%		R
9084	2	Symmetrical Component Magnitude, 0 Seq, Maximum		0 to 9.999 E+09	V		R
9086		Symmetrical Component Magnitude, + Seq, Maximum			V		R
9088		Symmetrical Component Magnitude, - Seq, Maximum			V		R
9090		Symmetrical Component Phase, 0 Seq, Maximum	SINT16		0.1°		R
9091		Symmetrical Component Phase, + Seq, Maximum	SINT16		0.1°		R
9092		Symmetrical Component Phase, - Seq, Maximum	SINT16		0.1°		R
9093		Unbalance, O Seq, Maximum	UINT16		0.01%		R
9094		Unbalance, - Seq, Maximum	UINT16	0 to 65535	0.01%		R
9095		Current Unbalance, Maximum	UINT16	0 to 20000	0.01%		R
9096		W, (Q1), Total, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	W		R
9098		VAR , (Q1), Total, Maximum Average Demand			VAR		R
9100					VA		R
9102					W		R
9104			FLOAT		W		R
9106		W, (Q1), Phase C, Maximum Average Demand		0 to ±9.999 E+09	W		R
9108			FLOAT		VAR		R
9110			FLOAT		VAR		R
9112		VAR , (Q1), Phase C, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	VAR		R
9114	2	VA , (Q1), Phase A, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	VA		R
9116		VA , (Q1), Phase B, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	VA		R
9118	2	VA , (Q1), Phase C, Maximum Average Demand	FLOAT		VA		R
9120			FLOAT		W		R
9122					VAR		R
9124		VA , (Q2), Total, Maximum Average Demand			VA		R
9126					W		R
9128		W, (Q2), Phase B, Maximum Average Demand			W		R
9130		W, (Q2), Phase C, Maximum Average Demand			W		R
9132			FLOAT		VAR		R
9134	2		FLOAT	0 to ±9.999 E+09	VAR		R
9136		VAR , (Q2), Phase C, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	VAR		R
9138					VA		R
9140		VA , (Q2), Phase B, Maximum Average Demand	FLOAT		VA		R
9142	2		FLOAT	0 to ±9.999 E+09	VA		R
9144	2	W, (Q3), Total, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	W		R
9146	2	VAR, (Q3), Total, Maximum Average Demand	FLOAT		VAR		R
9148	2	VA, (Q3), Total, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	VA		R
9150		W, (Q3), Phase A, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	W		R
9152	2	W, (Q3), Phase B, Maximum Average Demand	FLOAT		W		R
9154			FLOAT	0 to ±9.999 E+09	W		R
9156	2	VAR, (Q3), Phase A, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	VAR		R
9158					VAR		R
9160			FLOAT	0 to ±9.999 E+09	VAR		R
9162		VA, (Q3), Phase A, Maximum Average Demand		0 to ±9.999 E+09	VA		R
9164		VA , (Q3), Phase B, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	VA		R
9166		VA , (Q3), Phase C, Maximum Average Demand			VA		R



Reg# Size Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
9168 2 W, (Q4), Total, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	W			R
9170 2 VAR , (Q4), Total, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	VAR			R
9172 2 VA, (Q4), Total, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	VA			R
9174 2 W, (Q4), Phase A, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	W			R
9176 2 W, (Q4), Phase B, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	W			R
9178 2 W, (Q4), Phase C, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	W			R
9180 2 VAR, (Q4), Phase A, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	VAR			R
9182 2 VAR , (Q4), Phase B, Maximum Average Demand 9184 2 VAR , (Q4), Phase C, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	VAR			R R
9184 2 VAR, (Q4), Phase C, Maximum Average Demand 9186 2 VA, (Q4), Phase A, Maximum Average Demand	FLOAT FLOAT	0 to ±9.999 E+09 0 to ±9.999 E+09	VAR VA			R
9188 2 VA , (Q4), Phase A, Maximum Average Demand	FLOAT	$0 t_0 \pm 9.999 E \pm 09$ 0 t_ +9.999 E \pm 09	VA			
9190 2 VA , (Q4), Phase B, Maximum Average Demand	FLOAT	$0 to \pm 9.999 E+09$ 0 to $\pm 9.999 E+09$	VA			R R
9190 2 VA (Q4), Phase C, Maximum Average Demand 9192 2 VA (Q1+Q4), Total ,Maximum Average Demand	FLOAT	$0 to \pm 9.999 E+09$ 0 to $\pm 9.999 E+09$	VA			R
9194 2 VA (Q1+Q4), Phase A Maximum Average Demand	FLOAT	0 to ±9.999 E+09	VA			R
9196 2 VA (Q1+Q4), Phase B Maximum Average Demand	FLOAT	0 to $\pm 9.999$ E+09	VA			R
9198 2 VA (Q1+Q4), Phase C Maximum Average Demand	FLOAT	0 to $\pm 9.999$ E+09	VA			R
9200 2 VA (Q2+Q3), Total Maximum Average Demand	FLOAT	0 to $\pm 9.999$ E+09	VA			R
9202 2 VA (Q2+Q3) , Phase A , Maximum Average Demand	FLOAT	0 to ±9.999 E+09	VA			R
9204 2 VA (Q2+Q3) , Phase B , Maximum Average Demand	FLOAT	0 to ±9.999 E+09	VA			R
9206 2 VA (Q2+Q3) Phase C Maximum Average Demand	FLOAT	0 to ±9.999 E+09	VA			R
9208 2 V A-N, Average, Maximum Average Demand	FLOAT	0 to 9.999 E+09	V			R
9210 2 V B-N, Maximum Average Demand	FLOAT	0 to 9.999 E+09	V			R
9212 2 V C-N, Maximum Average Demand	FLOAT	0 to 9.999 E+09	V			R
9214 2 V A-B, Maximum Average Demand	FLOAT	0 to 9.999 E+09	V			R
9216 2 V B-C, Maximum Average Demand	FLOAT	0 to 9.999 E+09	V			R
9218 2 V C-A, Maximum Average Demand	FLOAT	0 to 9.999 E+09	V			R
9220 1 I.A., %TDD, Maximum	UINT16	0 to 9999	0.01%			R
9221 1 I B , %TDD, Maximum	UINT16	0 to 9999	0.01%			R
9222 1 I C, %TDD, Maximum	UINT16	0 to 9999	0.01%			R
9223 1 I.A. K-factor, Maximum	UINT16	0 to 9999	0.01%			R
9224 1 I B , K-factor, Maximum	UINT16	0 to 9999	0.01%			R
9225 1 I.C. K-factor, Maximum	UINT16	0 to 9999	0.01%			R
9226 2 +Q Total Maximum Average Demand	FLOAT	0 to ±9.999 E+09	Q			R
9228 2 +Q Phase A Maximum Average Demand	FLOAT	0 to ±9.999 E+09	Q			R
9230 2 +Q ,Phase B ,Maximum Average Demand	FLOAT	0 to ±9.999 E+09	Q			R
9232 2 +Q ,Phase C, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	Q			R
9234 2 -Q ,Total ,Maximum Average Demand	FLOAT	0 to ±9.999 E+09	Q			R
9236 2 -Q ,Phase A ,Maximum Average Demand	FLOAT	0 to ±9.999 E+09	Q			R
9238 2 -Q ,Phase B ,Maximum Average Demand	FLOAT	0 to ±9.999 E+09	Q			R
9240 2 -Q , Phase C, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	Q			R
9242 2 Aggregator 1, Maximum Average Demand	FLOAT	0 to ±9.999 E+09				R
9244 2 Aggregator 2, Maximum Average Demand	FLOAT	0 to ±9.999 E+09				R
9246 2 Aggregator 3, Maximum Average Demand	FLOAT	0 to ±9.999 E+09				R
9248 2 Aggregator 4, Maximum Average Demand	FLOAT	0 to ±9.999 E+09			4	R
9250 2 Option card 1 input accumulator 1, Maximum Average Demand	FLOAT	0 to ±9.999 E+09				R
9252 2 Option card 1 input accumulator 2, Maximum Average Demand	FLOAT	0 to ±9.999 E+09				R
9254 2 Option card 1 input accumulator 3, Maximum Average Demand	FLOAT	0 to ±9.999 E+09				R
9256 2 Option card 1 input accumulator 4, Maximum Average Demand	FLOAT	0 to ±9.999 E+09				R
9258 2 Option card 2 input accumulator 1, Maximum Average Demand	FLOAT	0 to ±9.999 E+09				R
9260 2 Option card 2 input accumulator 2, Maximum Average Demand	FLOAT	0 to ±9.999 E+09				R
9262 2 Option card 2 input accumulator 3, Maximum Average Demand	FLOAT	0 to ±9.999 E+09				R
9264 2 Option card 2 input accumulator 4, Maximum Average Demand	FLOAT	0 to ±9.999 E+09	L			R



Reg# Siz	e Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
Primary	Maximum and Maximum Average Demand - Timestamp Block					•	
9400 3	V A-N, Maximum Timestamp		21st Century	1s			R
9403 3			21st Century	1s			R
9406 3	V C-N, Maximum Timestamp		21st Century	1s			R
9409 3	V A-B, Maximum Timestamp		21st Century	1s			R
9412 3	V B-C, Maximum Timestamp		21st Century	1s			R
9415 3	V C-A, Maximum Timestamp		21st Century	1s			R
9418 3	I A , Maximum Average Demand Timestamp		21st Century	1 s			R
9421 3	I B, Maximum Average Demand Timestamp		21st Century	1s			R
9424 3			21st Century	1s			R
9427 3			21st Century	1s			R
9430 3			21st Century	1s			R
9433 3	W, (Q2+Q3), Total, Maximum Average Demand Timestamp		21st Century	1s			R
9436 3	VAR, (Q3+Q4), Total, Maximum Average Demand Timestamp		21st Century	1s			R
9439 3	VA, Total, Maximum Average Demand Timestamp		21st Century	1s			R
9442 3	PF, (Q1+Q4), Total, Maximum Average Demand Timestamp		21st Century	1s			R
	PF, (Q2+Q3), Total, Maximum Average Demand Timestamp		21st Century	1 s			R
9448 3	Frequency, Maximum Timestamp		21st Century	1s			R
9451 3	Neutral Current, Maximum Average Demand Timestamp		21st Century	1s			R
9454 3	W, (Q1+Q4), Phase A, Maximum Average Demand Timestamp		21st Century	1s			R
9457 3	W, (Q1+Q4), Phase B, Maximum Average Demand Timestamp		21st Century	1s			R
9460 3	W, (Q1+Q4), Phase C, Maximum Average Demand Timestamp		21st Century	1s			R
9463 3	VAR, (Q1+Q2), Phase A, Maximum Average Demand Timestamp		21st Century	1s			R
9466 3	VAR, (Q1+Q2), Phase B, Maximum Average Demand Timestamp		21st Century	1s			R
9469 3	VAR, (Q1+Q2), Phase C, Maximum Average Demand Timestamp		21st Century	1s			R
9472 3	W, (Q2+Q3), Phase A, Maximum Average Demand Timestamp		21st Century	1s			R
9475 3	W, (Q2+Q3), Phase B, Maximum Average Demand Timestamp		21st Century	1s			R
9478 3	W, (Q2+Q3), Phase C, Maximum Average Demand Timestamp		21st Century	1s			R
9481 3	tritti (de de i) i naseri i nasanan riterage Bernana i intestano		21st Century	1s			R
9484 3	VAR, (Q3+Q4), Phase B, Maximum Average Demand Timestamp		21st Century	1s			R
9487 3	VAR, (Q3+Q4), Phase C, Maximum Average Demand Timestamp		21st Century	1s			R
9490 3	VA, Phase A, Maximum Average Demand Timestamp		21st Century	1s			R
9493 3	VA, Phase B, Maximum Average Demand Timestamp		21st Century	1s			R
9496 3	VA, Phase C, Maximum Average Demand Timestamp		21st Century	1s			R
9499 3	PF, (Q1+Q4), Phase A, Maximum Average Demand Timestamp		21st Century	1s			R
9502 3	PF, (Q1+Q4), Phase B, Maximum Average Demand Timestamp	TSTAMP	21st Century	1s			R
9505 3	PF, (Q1+Q4), Phase C, Maximum Average Demand Timestamp		21st Century	1s			R
9508 3	PF, (Q2+Q3), Phase A, Maximum Average Demand Timestamp		21st Century	1s			R
9511 3	PF, (Q2+Q3), Phase B, Maximum Average Demand Timestamp		21st Century	1s			R
9514 3	PF, (Q2+Q3), Phase C, Maximum Average Demand Timestamp	TSTAMP	21st Century	1s			R
9517 3	V A-N, %THD, Maximum Timestamp	TSTAMP	21st Century	1s			R
9520 3	V B-N, %THD, Maximum Timestamp	TSTAMP	21st Century	1s			R
9523 3	V C-N, %THD, Maximum Timestamp	TSTAMP	21st Century	1s			R



		Description		Value Range	Unit of measure or resolution	Comments	Factory default value Acc
9526		A , %THD, Maximum Timestamp		21st Century	1s		R
9529		B, %THD, Maximum Timestamp		21st Century	1 s		R
9532		C, %THD, Maximum Timestamp		21st Century	1 s		R
9535	3	Symmetrical Comp Magnitude, 0 Seq, Maximum Timestamp	TSTAMP	21st Century	1 s		R
9538		Symmetrical Comp Magnitude, + Seq, Maximum Timestamp		21st Century	1 s		R
9541		Symmetrical Comp Magnitude, - Seq, Maximum Timestamp	TSTAMP	21st Century	1 s		R
9544	3	Symmetrical Comp Phase, 0 Seq, Maximum Timestamp	TSTAMP	21st Century	1s		R
9547	3	Symmetrical Comp Phase, + Seq, Maximum Timestamp	TSTAMP	21st Century	1s		R
9550	3	Symmetrical Comp Phase, - Seg, Maximum Timestamp	TSTAMP	21st Century	1 s		R
9553	3	Unbalance, 0 Seq, Maximum Timestamp	TSTAMP	21st Century	1 s		R
9556	3	Unbalance, - Seq. Maximum Timestamp	TSTAMP	21st Century	1 s		R
9559	3	Current Unbalance, Maximum Timestamp	TSTAMP	21st Century	1 s		R
9562	3	W, (Q1), Total, Maximum Average Demand Timestamp	TSTAMP	21st Century	1s		R
9565		VAR, (Q1), Total, Maximum Average Demand Timestamp		21st Century	1s		R
9568		VA , (Q1), Total, Maximum Average Demand Timestamp		21st Century	1s		R
9571				21st Century	15		R
9574		W. (Q1), Phase B. Maximum Average Demand Timestamp		21st Century	1s		R
9577		W, (Q1), Phase C, Maximum Average Demand Timestamp		21st Century	15		R
9580		VAR, (Q1), Phase A, Maximum Average Demand Timestamp		21st Century	1s		R
9583				21st Century	1s		R
9586		VAR , (Q1), Phase C, Maximum Average Demand Timestamp		21st Century	15		R
9589		VA , (Q1), Phase A. Maximum Average Demand Timestamp		21st Century	1s		R
9509		VA , (Q1), Phase B, Maximum Average Demand Timestamp		21st Century 21st Century	1s		R
		VA , (Q1), Phase C, Maximum Average Demand Timestamp		21st Century 21st Century	1s		R
9595							
9598		W, (Q2), Total, Maximum Average Demand Timestamp		21st Century	1s		R
9601		VAR, (Q2), Total, Maximum Average Demand Timestamp		21st Century	1s		R
9604		VA, (Q2), Total, Maximum Average Demand Timestamp		21st Century	1s		R
9607		W, (Q2), Phase A, Maximum Average Demand Timestamp		21st Century	<u>1s</u>		R
9610				21st Century	1s		R
9613		W, (Q2), Phase C, Maximum Average Demand Timestamp		21st Century	1s		R
9616		VAR , (Q2), Phase A, Maximum Average Demand Timestamp		21st Century	1s		R
9619	0	VAR, (Q2), Phase B, Maximum Average Demand Timestamp		21st Century	1s		R
9622		VAR , (Q2), Phase C, Maximum Average Demand Timestamp		21st Century	1s		R
9625		VA, (Q2), Phase A, Maximum Average Demand Timestamp		21st Century	1s		R
9628		VA, (Q2), Phase B, Maximum Average Demand Timestamp		21st Century	1 s		R
9631		VA , (Q2), Phase C, Maximum Average Demand Timestamp		21st Century	1s		R
9634		W, (Q3), Total, Maximum Average Demand Timestamp		21st Century	1s		R
9637		VAR , (Q3), Total, Maximum Average Demand Timestamp		21st Century	1s		R
9640		VA , (Q3), Total, Maximum Average Demand Timestamp		21st Century	1s		R
9643		W, (Q3), Phase A, Maximum Average Demand Timestamp		21st Century	1 s		R
9646	3		TSTAMP	21st Century	1s		R
9649		W, (Q3), Phase C, Maximum Average Demand Timestamp	TSTAMP	21st Century	1s		R
9652		VAR , (Q3), Phase A, Maximum Average Demand Timestamp		21st Century	1s		R
9655	3	VAR , (Q3), Phase B, Maximum Average Demand Timestamp	TSTAMP	21st Century	1s		R
9658	3	VAR, (Q3), Phase C, Maximum Average Demand Timestamp		21st Century	1s		R
9661	3	VA , (Q3), Phase A, Maximum Average Demand Timestamp	TSTAMP	21st Century	1 s		R
9664	3	VA, (Q3), Phase B, Maximum Average Demand Timestamp	TSTAMP	21st Century	1s		R
9667	3	VA, (Q3), Phase C, Maximum Average Demand Timestamp	TSTAMP	21st Century	1 s		R



Reg# Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value Acc
				orresolution		
	W, (Q4), Total, Maximum Average Demand Timestamp	TSTAMP	21st Century	1 s		R
9673 3	VAR , (Q4), Total, Maximum Average Demand Timestamp	TSTAMP	21st Century	1 s		R
9676 3	VA, (Q4), Total, Maximum Average Demand Timestamp		21st Century	1 s		R
	W, (Q4), Phase A, Maximum Average Demand Timestamp		21st Century	1 s		R
	W, (Q4), Phase B, Maximum Average Demand Timestamp		21st Century	1 s		R
	W, (Q4), Phase C, Maximum Average Demand Timestamp		21st Century	1 s		R
9688 3	VAR , (Q4), Phase A, Maximum Average Demand Timestamp		21st Century	1s		R
9691 3	VAR , (Q4), Phase B, Maximum Average Demand Timestamp		21st Century	1s		R
	VAR, (Q4), Phase C, Maximum Average Demand Timestamp		21st Century	1s		R
9697 3	VA , (Q4), Phase A, Maximum Average Demand Timestamp		21st Century	1s		R
9700 3	VA , (Q4), Phase B, Maximum Average Demand Timestamp		21st Century	1s		R
9703 3	VA, (Q4), Phase C, Maximum Average Demand Timestamp		21st Century	1s		R
9706 3	VA (Q1+Q4), Total, Maximum Average Demand Timestamp		21st Century	1s		R
9709 3	VA (Q1+Q4), Phase A, Maximum Average Demand Timestamp		21st Century	1s		R
9712 3	VA (Q1+Q4), Phase B, Maximum Timestamp		21st Century	1s		R
9715 3	VA (Q1+Q4), Phase C, Maximum Average Demand Timestamp		21st Century	1s		R
	VA (Q2+Q3), Total, Maximum Average Demand Timestamp		21st Century	1s		R
	VA (Q2+Q3), Phase A, Maximum Average Demand Timestamp		21st Century	1s		R
	VA (Q2+Q3), Phase B, Maximum Average Demand Timestamp		21st Century	1s		R
	VA (Q2+Q3), Phase C, Maximum Average Demand Timestamp		21st Century	1s		R
9730 3	V A-N, Maximum Average Demand Timestamp	TSTAMP	21st Century	1s		R
	V B-N, Maximum Average Demand Timestamp		21st Century	1s		R
	V C-N, Maximum Average Demand Timestamp		21st Century	1s		R
	V A-B, Maximum Average Demand Timestamp	TSTAMP	21st Century	1s		R
	V B-C, Maximum Average Demand Timestamp		21st Century	1s		R
	V C-A, Maximum Average Demand Timestamp		21st Century	1s		R
	I A , %TDD, Maximum Timestamp		21st Century	1s		R
	I B , %TDD, Maximum Timestamp		21st Century	1s		R
	I C, %TDD, Maximum Timestamp		21st Century	<u>1s</u> 1s		R R
	I A , K-factor, Maximum Timestamp I B , K-factor, Maximum Timestamp		21st Century 21st Century	15		R
	I C. K-factor, Maximum Timestamp		21st Century 21st Century			
	+Q. Total Maximum Average Demand Timestamp		21st Century 21st Century	<u>1s</u> 1s		R R
	+Q , Phase A , Maximum Average Demand Timestamp	-	21st Century 21st Century	15		R
	+Q ,Phase B ,Maximum Average Demand Timestamp		21st Century	1s		R
9775 3	+Q ,Phase C, Maximum Average Demand Timestamp	TSTAMP	21st Century	1s		R
	-Q . Total . Maximum Average Demand Timestamp	TSTAMP	21st Century	1s		R
	-Q, Phase A, Maximum Average Demand Timestamp		21st Century	15		R
9784 3	-Q, Phase B, Maximum Average Demand Timestamp	TSTAMP	21st Century	15		R
9787 3	-Q, Phase C, Maximum Average Demand Timestamp		21st Century	1s		R
	Aggregator 1, Maximum Average Demand Timestamp		21st Century	15		R
	Aggregator 2, Maximum Average Demand Timestamp		21st Century 21st Century	1s		R
9796 3	Aggregator 3, Maximum Average Demand Timestamp	TSTAMP	21st Century	15		R
	Aggregator 4, Maximum Average Demand Timestamp		21st Century	15		R
9802 3	Option card 1 input accumulator 1, Maximum Average Demand Timestamp	TSTAMP	21st Century	15		R
9805 3	Option card 1 input accumulator 2, Maximum Average Demand Timestamp		21st Century	15		R
9808 3	Option card 1 input accumulator 2, Maximum Average Demand Timestamp	TSTAMP	21st Century	15		R
9811 3	Option card 1 input accumulator 3, Maximum Average Demand Timestamp	TSTAMP	21st Century	15		R
9814 3	Option card 2 input accumulator 1, Maximum Average Demand Timestamp	TSTAMP	21st Century	15		R
9817 3	Option card 2 input accumulator 2, Maximum Average Demand Timestamp	TSTAMP	21st Century	1s		R
9820 3	Option card 2 input accumulator 2, Maximum Average Demand Timestamp		21st Century	15		R
9823 2	Option card 2 input accumulator 4, Maximum Average Demand Timestamp	TSTAMP	21st Century	15		R



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
Option	Card	1 Configuration Section tification and Configuration Block (Note 14)				Address Rance: 10005-10071		
		Class ID and card status	UINT16	bitmapped		b15: 1, card is unsupported b14: 1, card needs configuration b13: 1, card is using default configuration. b12: 1, communication with card is ok. b11-b8: reserved. b7-b0: Class ID of the installed Card. See note 22.	0	R
10002		Card name	ASCII	16 char		ASCII name of the installed card		R
10010 10018		Serial number Version	ASCII	16 char 4 char		Serial Number in ASCII of the installed card Version in ASCII of the hardware of the installed card.		R R
10056	4	Firmware Versions		4 char each		Firmware versions for option cards. Each version is a 4 character string, left justified and padded with spaces. Interpretation depends on the specific card in the slot: Analog uses the second 2 registers for its version. The first 2 registers are zero. Network uses the first 2 registers for its RUN version, the second 2 for its BOOT version. No other cards report versions; both registers are zero.		R
Cur	rent C	ommunication Settings for Option Card 1						
10064		Current speed and format	UINT16	bitmapped		b15-b10: Speed, when 010000 = 57600 bps, 001000 = 38400 bps, 0000100 = 19200 bps, 000001 = 14400 bps 000001 = 9600 bps; others invalid. b9-b8: reserved. b7: Stop bits, 0 for one stop bit, 1 for two stop gits. b6-b4: Parity, when 100=even, 010=odd, 001=no parity; others invalid. b3-b0: Numnber of data bits, when 1000=8bits, 0100=7bits, 0010=6bits, 0001=5 bits; other combinations are invalid.	No card installed: 0b0000000000000000 Network, fiber optic, RS232/485 cards: 0b0100000000011000 Analog output cards: 0b0000010000011000	R
10066	1	Current protocol	UINT16	bitmapped		b15-b4: reserved. b3-b1: Protocol, when 100=DNP3, 010=Modbus ASCII, 001=Modbus RTU. b0: reserved	Network fiber or analog cards: 0b00000000000000000000000000000000000	R
10067	1	Current reply delay	UINT16	0 to 65535	1 ms	Delay to reply to a Modbus transaction after receiving it.		R



		Description	Format		Unit of measure or resolution	Comments	Factory default value	Acc
		1 - Expansions for Data and Control Section Control Block Digital I/O Relay Card Overlay (Note 15)				Address Range: 10072-10227		
10072		Digital Input States	UINT16	bitmapped		Two nibble fields: (2222) for input#2 and (1111) for input #1. Lsb in each nibble is the current state of the input. Msb in each nibble is the oldest registered state.		R
10073	1	Digital Relay States	UINT16	bitmapped		abcd If "a" is 1 then state of Relay#2 is unknown, otherwise state of Relay#2 is in "c": (1=tripped, 0=released). If "b" is 1 then state of Relay#1 is unknown, otherwise state of Relay#1 is in "d": (1=tripped, 0=released).		R
10074	1	Turn relay on	UINT16	bitmapped		21 Writing a 1 in bit N turns relay N+1 ON (this register is writeable only in privileged session)		W
10075	1	Turn relay off	UINT16	bitmapped		21 Writing a 1 in bit N turns relay N+1 OFF (this register is writeable only in privileged session)		W
10076	1	Trip/Release delay timer for Relay 1			0.1 s	time to trip or release		R/W
10077 10080	1	Trip/Release delay timer for Relay 2			0.1 s	time to trip or release	0 if disabled	R/W R/W
10080	1	Input 1 Accumulator, Scaled Input 2 Accumulator, Scaled		0 to 9999 0 to 9999	counts	(x) scalable value (x) scalable value	0 if disabled	R/W
10084		Relay 1 Accumulator, Scaled		0 to 9999			0 if disabled	R/W
10085	1	Relay 2 Accumulator, Scaled		0 to 9999			0 if disabled	R/W

		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
10072		Digital Input States	UINT16	bitmapped		dddd cccc bbbb aaaa Nibble "ddd" for input#4, "cccc" for input#3, "bbbb" for input#2 and "aaaa" for input#1. Within each field, rightmost bit is the current state (1=closed, 0=open), and bits at left are the older states 100ms apart. (historical states) Example: xxxx xxxx xxx 0011 Current state of input#1 is closed, before that it was closed too, before that it was open and the oldest state known is open.		R
10073	1	Digital Output States	UINT16	bitmapped		4321 One bit for each output. Bit 4 is for output #4, and bit 1 is for output #1. If a bit is set the output is closed, otherwise it is opened.		R/W
10074	1	Pulse Output Test Select	UINT16	bitmapped		4321 Write 1 to a bit to set its corresponding Pulse Output into test mode. Write 0 to restore it to normal operation. A privileged session is required to write the bits. Reading this register reports the mode for each output (1=under test, 0=normal).		R/W
10075	1	Pulse Output Test Power	UINT16	bitmapped		ddvvvvvv vvvvvv This register is Writeable in privileged session only. Simulates constant Power for the Pulse Output under test. Format is as Kt settings for Pulse Output. "V" is raw value in Wh/pulse from 0 to 9999. "dd"=decimal point position: 00=0.XXXX, 01=X.XXX, 10=XX.XX, 11= XXX.X		R/W
10080	1	Input 1 Accumulator, Scaled	UINT16	0 to 9999		(x) scalable value	0 if disabled	R/W
10081		Input 2 Accumulator, Scaled	UINT16	0 to 9999		(x) scalable value	0 if disabled	R/W
10082		Input 3 Accumulator, Scaled		0 to 9999			0 if disabled	R/W
10083 10084		Input 4 Accumulator, Scaled Output 1 Accumulator, Scaled		0 to 9999 0 to 9999			0 if disabled 0 if disabled	R/W R/W
10084		Output 1 Accumulator, Scaled		0 to 9999			0 if disabled	R/W
10085		Output 3 Accumulator, Scaled		0 to 9999			0 if disabled	R/W
10087		Output 4 Accumulator, Scaled		0 to 9999			0 if disabled	R/W



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
Data	a and	Control BlockAnalog Out 0-1mA / Analog Out 4-20mA - Overlay (Note 15)						
		Status of card	UINT16	bitmapped		cf Flag fields: c=calibration not good; f=configuration error		R
Data	a and	Control Block Network Card Overlay (Note 15)			Γ			
10072	1	Card and Network Status	UINT16	bitmapped		b15-b12: status; b15:in run mode; b14:card healthy; b13:using last good prog. settings, b12: Exclusive mode security is supported by network card. b11: DNS; 0=no status, 1=contacted b10: Gateway; 0=no status, 1=contacted b9-b8: NTP status; 0=x, 1=resolved, 2=working, 3=failed b7-b3: Server flags: b7:smtp ok; b6:ftp ok -depreciated, read always as zero-; b5:web server ok; b4:iec61850 server ok; b3:modbus tcp/ip ok. b1-b0: IP Status; 0=IP not valid yet, 01=IP from prog. settings; 10=IP from DHCP;11=using last good known IP. Other bits don't care.	Network Card INP100S: 0b1100000000101001 Network Card INP300S: 0b1100000000111001	R
10073	1	High Speed Status		bitmapped		b15: 1, DSP-Network card high speed is active. b14-b4: reserved. b3: Network card is high speed capable. b2-b1: reserved b0: This meter firmware is high speed capable (DSP).	0	R
10074	3	MAC address in use by the network card	UINT16			6 bytes. These 3 registers hold the 6 bytes of the card's ethernet MAC address		R
10077	4	Current IP Address	UINT16			These 4 registers hold the 4 numbers (1 number each register) that make the IP address used by the card.	10.0.0.2	R
10081	1	Current IP Mask Length	UINT16	0 to 32		Number of bits that are set in the IP address mask, starting from the Msb of the 32 bit word. Example 24 = 255.255.255.0; a value of 2 would mean 192.0.0.0	24	R
10082	2	Firmware Version	ASCII	4 char		Version of the BOOT firmware of the card, left justified and padded with spaces. Blank for boards without embedded firmware.		R
10084		Firmware Version	ASCII	4 char		Version of the RUN firmware of the card, left justified and padded with spaces. Blank for boards without embedded firmware.		R
		Control BlockRS232/RS485 Card (Note 15) Communication mode Status	UINT16	0 to 1		0 = RS485 mode, 1 = RS232 mode		R



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
Option	Card	2 Section tification and Configuration Block (Note 14)				Address Range: 11000-11071		
11000		Class ID and card status	UINT16	bitmapped		b15: 1, card is unsupported b14: 1, card needs configuration b13: 1, card is using default configuration. b12: 1, communication with card is ok. b11-b8: reserved. b7-b0: Class ID of the installed Card. See note 22.	0	R
11002		Card name		16 char		ASCII name of the installed card		R
<u>11010</u> 11018		Serial number Version	ASCII ASCII	16 char 4 char		Serial Number in ASCII of the installed card Version in ASCII of the hardware of the installed card.		R R
11056		Firmware Versions		4 char each		Firmware versions for option cards. Each version is a 4 character string, left justified and padded with spaces. Interpretation depends on the specific card in the slot: Analog uses the second 2 registers for its version. The first 2 registers are zero. Network uses the first 2 registers for its RUN version, the second 2 for its BOOT version. No other cards report versions; both registers are zero.		R
Cur	rent C	ommunication Settings for Option Card 2						
11064	1	Current speed and format	UINT16	bitmapped		b15-b10: Speed, when 010000 = 57600 bps, 001000 = 38400 bps, 0000100 = 19200 bps, 000001 = 14400 bps 000001 = 9600 bps; others invalid. b9-b8: reserved. b7: Stop bits, 0 for one stop bit, 1 for two stop gits. b6-b4: Parity, when 100=even, 010=odd, 001=no parity; others invalid. b3-b0: Numnber of data bits, when 1000=8bits, 0100=7bits, 0010=6bits, 0001=5 bits; other combinations are invalid.	No card installed: 0b0000000000000000 Network, fiber optic, RS232/485 cards: 0b0100000000011000 Analog output cards: 0b0000010000011000	R
11066	1	Current protocol	UINT16	bitmapped		b15-b4: reserved. b3-b1: Protocol, when 100=DNP3, 010=Modbus ASCII, 001=Modbus RTU. b0: reserved	Network fiber or analog cards: 0b00000000000000000000000000000000000	R
11067	1	Current reply delay	UINT16	0 to 65535	1 ms	Delay to reply a Modbus transaction after receiving it.		R



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
		2 - Expansions for Data and Control Section Control Block Digital I/O Relay Card Overlay (Note 15)				Addrees Renue: AUU72-10995		
11072	1	Digital Input States	UINT16	bitmapped		22221111 Two nibble fields: (2222) for input#2 and (1111) for input #1. Lsb in each nibble is the current state of the input. Msb in each nibble is the oldest registered state.		R
11073	1	Digital Relay States	UINT16	bitmapped		abcd If "a" is 1 then state of Relay#2 is unknown, otherwise state of Relay#2 is in "c": (1=tripped, 0=released). If "b" is 1 then state of Relay#1 is unknown, otherwise state of Relay#1 is in "d": (1=tripped, 0=released).		R
11074	1	Turn relay on	UINT16	bitmapped		21 Writing a 1 in bit N turns relay N+1 ON (this register is writeable only in privileged session)		W
11075	1	Turn relay off	UINT16	bitmapped		21 Writing a 1 in bit N turns relay N+1 OFF (this register is writeable only in privileged session)		W
11076	1	Trip/Release delay timer for Relay 1		0 to 9999	0.1 s	time to trip or release		R/W
11077	1	Trip/Release delay timer for Relay 2			0.1 s	time to trip or release		R/W
11080		Input 1 Accumulator, Scaled Input 2 Accumulator, Scaled		0 to 9999			0 if disabled 0 if disabled	R/W R/W
<u>11081</u> 11084	1	Relay 1 Accumulator, Scaled		0 to 9999 0 to 9999			0 if disabled	R/W
11085	1	Relay 2 Accumulator, Scaled		0 to 9999			0 if disabled	R/W



	Size Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
11072	and Control Block Digital I/O Pulse Output Card Overlay (Note 15)	UINT16	bitmapped		dddd cccc bbbb aaaa Nibble "dddd" for input#4, "cccc" for input#3, "bbbb" for input#2 and "aaaa" for input#1. Within each field, right most bit is the current state (1=closed, 0=open), and bits at left are the older states 100ms apart. (historical states) Example: xxxx xxxx xxxx 0011 Current state of input#1 is closed, before that it was closed too, before that it was open and the oldest state known is open.		R
11073	1 Digital Output States	UINT16	bitmapped		4321 One bit for each output. Bit 4 is for output #4, and bit 1 is for output #1. If a bit is set the output is closed, otherwise it is opened.		R
11074	1 Pulse Output Test Select	UINT16	bitmapped		4321 Write 1 to a bit to set its corresponding Pulse Output into test mode. Write 0 to restore it to normal operation. A privileged session is required to write the bits. Reading this register reports the mode for each output (1=under test, 0=normal).		R/W
11075	1 Pulse Output Test Power	UINT16	bitmapped		ddvvvvvv vvvvvvv This register is Writeable in privileged session only. Simulates constant Power for the Pulse Output under test. Format is as K1 settings for Pulse Output. "V" is raw value in Wh/pulse from 0 to 9999. "dd"=decimal point position: 00=0.XXXX, 01=X.XXX, 10=XX.XX, 11= XXX.X		R/W
11080	1 Input 1 Accumulator, Scaled	UINT16	0 to 9999		(x) scalable value	0 if disabled	R/W
11081	1 Input 2 Accumulator, Scaled		0 to 9999		(x) scalable value	0 if disabled	R/W
11082	1 Input 3 Accumulator, Scaled		0 to 9999		(x) scalable value	0 if disabled	R/W
11083 11084	Input 4 Accumulator, Scaled     Output 1 Accumulator, Scaled		0 to 9999 0 to 9999		(x) scalable value (x) scalable value	0 if disabled 0 if disabled	R/W R/W
11084	1 Output 1 Accumulator, Scaled		0 to 9999			0 if disabled	R/W
11085	1 Output 3 Accumulator, Scaled		0 to 9999	+		0 if disabled	R/W
			0 to 9999			0 if disabled	R/W



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
		Control BlockAnalog Out 0-1mA / Analog Out 4-20mA - Overlay (Note 15)						
11072	1	Status of card	UINT16	bitmapped		c=calibration not good; f=configuration error		R
Data	and	Control Block Network Card Overlay (Note 15)						
11072	1	Card and Network Status	UINT16	bitmapped		b15-b12: status; b15:in run mode; b14:card healthy; b13:using last good prog. settings, b12: Exclusive mode security is supported by network card. b11: DNS; 0=no status, 1=contacted b10: Gateway; 0=no status, 1=contacted b9-b8: NTP status; 0=x, 1=resolved, 2=working, 3=failed b7-b3: Server flags: b7:smtp ok; b6:ftp ok -depreciated, read always as zero-; b5:web server ok; b4:iec61850 server ok; b3:modbus tcp/ip ok. b1-b0: IP Status; 00=IP not valid yet, 01=IP from prog. settings; 10=IP from DHCP;11=using last good known IP. Other bits don't care.	Network Card INP100S: 0b1100000000101001 Network Card INP300S: 0b1100000000111001	R
11073	1	High Speed Status		bitmapped		b15: 1, DSP-Network card high speed is active. b14-b4: reserved. b3: Network card is high speed capable. b2-b1: reserved b0: This meter firmware is high speed capable (DSP)	0	R
11074	3	MAC address in use by the network card	UINT16			6 bytes. These 3 registers hold the 6 bytes of the card's Ethernet MAC address.		R
11077	4	Current IP Address	UINT16			These 4 registers hold the 4 numbers (1 number each register) that make the IP address used by the card.	10.0.0.2	R
11081	1	Current IP Mask Length	UINT16	0 to 32		Number of bits that are set in the IP address mask, starting from the Msb of the 32 bit word. Example 24 = 255.255.255.0; a value of 2 would mean 192.0.0.0	24	R
11082	2	Firmware Version	ASCII	4 char		Version of the BOOT firmware of the card, left justified and padded with spaces. Blank for boards without embedded firmware.		R
11084	2	Firmware Version	ASCII	4 char		Version of the RUN firmware of the card, left justified and padded with spaces. Blank for boards without embedded firmware.		R
		Control BlockRS232/RS485 Card (Note 15)	•		·			
		Communication mode Status	UINT16	0 to 1		0 = RS485 mode, 1 = RS232 mode		R
		ators Block Option Card 1, Input 1 Accumulator	UINT32	0 to 999999999		Transition counted. Unscaled value		R
12000		Option Card 1, Inputs 2-4 Accumulators	UINT32	0 to 999999999		Input accumulators count either or both transitions;		R
12002	2	Option Card 1. Output or Relay 1 Accumulator		0 to 999999999		output accumulators count both transitions.		R
12010	6	Option Card 1, Output or Relays 2-4 Accumulators	UINT32	0 to 999999999		Unused accumulators always read 0.		R
12016		Option Card 2 Inputs Accumulators		0 to 999999999		See option card section for scaled versions.		R
12024	8	Option Card 2 Outputs Accumulators	UINT32	0 to 999999999				R



Reg# Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value Acc
				orresolution		
Aggregat						
	Aggregator 1	SINT32	0 to ±99999999			R
12103 2	Aggregator 2	SINT32	0 to ±99999999			R
12105 2	Aggregator 3	SINT32	0 to ±99999999			R
	Aggregator 4	SINT32	0 to ±99999999			R
	nsated Energy in Interval	CINITAO	0.1 00000000	hau		
	Wh, (Q1+Q4)	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
	Wh, (Q2+Q3) Wh, Net	SINT32	0 to ±99999999 0 to ±99999999	Wh Wh	See Reg# 30117 for formatting and scaling	R R
	Wh, Net Wh, Total	SINT32 SINT32	$0 to \pm 9999999999999999999999999999999999$	Wh	See Reg# 30117 for formatting and scaling See Reg# 30117 for formatting and scaling	R
13008 2	VARh. (Q1+Q2)	SINT32	$0 to \pm 9999999999999999999999999999999999$	VARh	See Reg# 30118 for formatting and scaling	R
13008 2	VARh, (Q1+Q2)	SINT32	$0 to \pm 9999999999999999999999999999999999$	VARh	See Reg# 30118 for formatting and scaling	R
13010 2	VARh, (ds+d4)	SINT32	$0 \text{ to } \pm 9999999999999999999999999999999999$	VARh	See Reg# 30118 for formatting and scaling	R
13012 2	VARh, Net VARh, Total	SINT32	0 to ±999999999	VARh	See Reg# 30118 for formatting and scaling	R
13016 2	VAh, Total	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
	Wh, (Q1+Q4), Phase A	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
13020 2	Wh, $(Q1+Q4)$ , Phase B	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
13022 2	Wh, (Q1+Q4), Phase C	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
13024 2	Wh, (Q2+Q3), Phase A	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
13026 2	Wh, (Q2+Q3), Phase B	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
13028 2	Wh, (Q2+Q3), Phase C	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
13030 2	Wh, Net, Phase A	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
13032 2	Wh, Net, Phase B	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
13034 2	Wh, Net, Phase C	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
13036 2	Wh, Total, Phase A	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
13038 2	Wh, Total, Phase B	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
13040 2	Wh, Total, Phase C	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
13042 2	VARh, (Q1+Q2), Phase A	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
13044 2	VARh, (Q1+Q2), Phase B	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
13046 2	VARh, (Q1+Q2), Phase C	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
13048 2	VARh, (Q3+Q4), Phase A	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
13050 2	VARh, (Q3+Q4), Phase B	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
13052 2	VARh, (Q3+Q4), Phase C	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
13054 2	VARh, Net, Phase A	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
13056 2	VARh, Net, Phase B	SINT32 SINT32	0 to ±99999999 0 to +99999999	VARh	See Reg# 30118 for formatting and scaling	R
13058 2 13060 2	VARh, Net, Phase C VARh, Total, Phase A	SINT32 SINT32	$0 t_0 \pm 999999999999990 = 0 t_0 \pm 99999999999999999999999999999999999$	VARh	See Reg# 30118 for formatting and scaling	
13060 2	VARII, Total, Phase B	SINT32	$0 to \pm 9999999999999999999999999999999999$	VARh VARh	See Reg# 30118 for formatting and scaling See Reg# 30118 for formatting and scaling	R
13064 2	VARII, Total, Phase C	SINT32	$0 to \pm 9999999999999999999999999999999999$	VARh	See Reg# 30118 for formatting and scaling	R
13066 2	VAN, Total, Flase C VAh, Phase A	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
13068 2	VAh, Phase B	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
	VAh, Phase C	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
13072 2	Wh, (Q1), Total	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
13074 2	VARh, (Q1), Total	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
	VAh, (Q1), Total	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
	Wh. (Q1), Phase A	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
13080 2	Wh, (Q1), Phase B	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
13082 2	Wh, (Q1), Phase C	SINT32	0 to ±99999999	Wh	See Reg# 30117 for formatting and scaling	R
13084 2	VARh, (Q1), Phase A	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
13086 2	VARh, (Q1), Phase B	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
13088 2	VARh, (Q1), Phase C	SINT32	0 to ±99999999	VARh	See Reg# 30118 for formatting and scaling	R
13090 2	VAh, (Q1), Phase A	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
13092 2	VAh, (Q1), Phase B	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R
13094 2	VAh, (Q1), Phase C	SINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling	R



13096       2       Wh, (Q2), Total       SINT32       0 to ±99999999       Wh       See Req# 30117 for formatting and scaling         13098       2       VARh, (Q2), Total       SINT32       0 to ±99999999       VARh       See Req# 30118 for formatting and scaling         13100       2       VAh, (Q2), Total       SINT32       0 to ±99999999       VARh       See Req# 30117 for formatting and scaling         13102       2       Wh, (Q2), Phase A       SINT32       0 to ±99999999       Wh       See Req# 30117 for formatting and scaling         13104       2       Wh, (Q2), Phase A       SINT32       0 to ±99999999       Wh       See Req# 30117 for formatting and scaling         13104       2       Wh, (Q2), Phase A       SINT32       0 to ±99999999       Wh       See Req# 30117 for formatting and scaling         13104       2       Wh, (Q2), Phase A       SINT32       0 to ±99999999       Wh       See Req# 30117 for formatting and scaling         13108       2       VARh, (Q2), Phase A       SINT32       0 to ±99999999       VARh       See Req# 30118 for formatting and scaling         13112       2       VARh, (Q2), Phase B       SINT32       0 to ±99999999       VARh       See Req# 30117 for formatting and scaling         13114       2       VAh, (Q2), Phas	R R R R R R R R R R R R R R R R R R R
131002VAh, (Q2), TotalSINT320 to 9999999VAhSee Reg# 30117 for formatting and scaling131022Wh, (Q2), Phase ASINT320 to ±99999999WhSee Reg# 30117 for formatting and scaling131042Wh, (Q2), Phase BSINT320 to ±99999999WhSee Reg# 30117 for formatting and scaling131062Wh, (Q2), Phase CSINT320 to ±99999999WhSee Reg# 30117 for formatting and scaling131082VARh, (Q2), Phase ASINT320 to ±99999999VARhSee Reg# 30118 for formatting and scaling131082VARh, (Q2), Phase BSINT320 to ±99999999VARhSee Reg# 30118 for formatting and scaling131102VARh, (Q2), Phase BSINT320 to ±99999999VARhSee Reg# 30118 for formatting and scaling131122VARh, (Q2), Phase ASINT320 to ±99999999VARhSee Reg# 30117 for formatting and scaling131142VARh, (Q2), Phase ASINT320 to ±99999999VARhSee Reg# 30117 for formatting and scaling131142VAh, (Q2), Phase BSINT320 to 99999999VAhSee Reg# 30117 for formatting and scaling131182VAh, (Q2), Phase CSINT320 to 99999999VAhSee Reg# 30117 for formatting and scaling131202WA, (Q3), TotalSINT320 to ±99999999VAhSee Reg# 30117 for formatting and scaling131222VAh, (Q3), TotalSINT320 to ±99999999VAhSee Reg# 30117 f	R R R R R R R R R R R R R R R R R
131022Wh, (Q2), Phase ASINT320 to ±9999999WhSee Reg# 30117 for formatting and scaling131042Wh, (Q2), Phase BSINT320 to ±99999999WhSee Reg# 30117 for formatting and scaling131062Wh, (Q2), Phase CSINT320 to ±99999999WhSee Reg# 30117 for formatting and scaling131082VARh, (Q2), Phase ASINT320 to ±99999999VARhSee Reg# 30118 for formatting and scaling131102VARh, (Q2), Phase BSINT320 to ±99999999VARhSee Reg# 30118 for formatting and scaling131122VARh, (Q2), Phase BSINT320 to ±99999999VARhSee Reg# 30118 for formatting and scaling131122VARh, (Q2), Phase ASINT320 to ±99999999VARhSee Reg# 30117 for formatting and scaling131142VARh, (Q2), Phase ASINT320 to ±99999999VARhSee Reg# 30117 for formatting and scaling131162VARh, (Q2), Phase BSINT320 to 99999999VAhSee Reg# 30117 for formatting and scaling131182VAh, (Q2), Phase CSINT320 to 99999999VAhSee Reg# 30117 for formatting and scaling131202Wh, (Q3), TotalSINT320 to 99999999VAhSee Reg# 30117 for formatting and scaling131222VAh, (Q3), TotalSINT320 to 99999999VAhSee Reg# 30117 for formatting and scaling131242VAh, (Q3), TotalSINT320 to 99999999VAhSee Reg# 30117 fo	R R R R R R R R R R R R R R R
131042Wh, (Q2), Phase BSINT320 to ±99999999WhSee Req# 30117 for formatting and scaling131062Wh, (Q2), Phase CSINT320 to ±99999999WhSee Req# 30117 for formatting and scaling131082VARh, (Q2), Phase ASINT320 to ±99999999VARhSee Req# 30118 for formatting and scaling131102VARh, (Q2), Phase BSINT320 to ±99999999VARhSee Req# 30118 for formatting and scaling131122VARh, (Q2), Phase CSINT320 to ±99999999VARhSee Req# 30118 for formatting and scaling131122VARh, (Q2), Phase ASINT320 to ±99999999VARhSee Req# 30118 for formatting and scaling131142VAh, (Q2), Phase ASINT320 to 99999999VARhSee Req# 30117 for formatting and scaling131162VAh, (Q2), Phase ASINT320 to 99999999VAhSee Req# 30117 for formatting and scaling131182VAh, (Q2), Phase CSINT320 to 99999999VAhSee Req# 30117 for formatting and scaling131182VAh, (Q2), Phase CSINT320 to 99999999VAhSee Req# 30117 for formatting and scaling131202Wh, (Q3), TotalSINT320 to 99999999VAhSee Req# 30118 for formatting and scaling131222VARh, (Q3), TotalSINT320 to 99999999VAhSee Req# 30117 for formatting and scaling131242VAh, (Q3), TotalSINT320 to 99999999VAhSee Req# 30117 fo	R R R R R R R R R R R R R R R
131062Wh, (Q2), Phase CSINT320 to ±99999999WhSee Req# 30117 for formatting and scaling131082VARh, (Q2), Phase ASINT320 to ±99999999VARhSee Req# 30118 for formatting and scaling131012VARh, (Q2), Phase BSINT320 to ±99999999VARhSee Req# 30118 for formatting and scaling131122VARh, (Q2), Phase CSINT320 to ±99999999VARhSee Req# 30118 for formatting and scaling131142VARh, (Q2), Phase ASINT320 to ±99999999VARhSee Req# 30117 for formatting and scaling131142VAh, (Q2), Phase BSINT320 to 99999999VAhSee Req# 30117 for formatting and scaling131182VAh, (Q2), Phase CSINT320 to 99999999VAhSee Req# 30117 for formatting and scaling131202Wh, (Q3), TotalSINT320 to 99999999WAhSee Req# 30117 for formatting and scaling131222VARh, (Q3), TotalSINT320 to ±99999999WAhSee Req# 30117 for formatting and scaling131242VAh, (Q3), TotalSINT320 to ±99999999WAhSee Req# 30118 for formatting and scaling131242VAh, (Q3), TotalSINT320 to 99999999VAhSee Req# 30117 for formatting and scaling131242VAh, (Q3), TotalSINT320 to 99999999VAhSee Req# 30117 for formatting and scaling131242VAh, (Q3), TotalSINT320 to 99999999VAhSee Req# 30117 for fo	R R R R R R R R R R R R R
13108       2       VARh, (Q2), Phase A       SINT32       0 to ±99999999       VARh       See Reg# 30118 for formatting and scaling         13110       2       VARh, (Q2), Phase B       SINT32       0 to ±99999999       VARh       See Reg# 30118 for formatting and scaling         13112       2       VARh, (Q2), Phase C       SINT32       0 to ±99999999       VARh       See Reg# 30118 for formatting and scaling         13114       2       VAR, (Q2), Phase C       SINT32       0 to ±999999999       VARh       See Reg# 30117 for formatting and scaling         13114       2       VAh, (Q2), Phase A       SINT32       0 to 99999999       VAh       See Reg# 30117 for formatting and scaling         13118       2       VAh, (Q2), Phase B       SINT32       0 to 99999999       VAh       See Reg# 30117 for formatting and scaling         13118       2       VAh, (Q2), Phase C       SINT32       0 to 99999999       VAh       See Reg# 30117 for formatting and scaling         13120       2       Wh, (Q2), Phase C       SINT32       0 to 999999999       VAh       See Reg# 30117 for formatting and scaling         13121       2       VAh, (Q3), Total       SINT32       0 to 999999999       VAh       See Reg# 30117 for formatting and scaling         13122       2       VAH,	R R R R R R R R R R R
13110         2         VARh, (Q2), Phase B         SINT32         0 to ±99999999         VARh         See Reg# 30118 for formatting and scaling           13112         2         VARh, (Q2), Phase C         SINT32         0 to ±99999999         VARh         See Reg# 30118 for formatting and scaling           13114         2         VAh, (Q2), Phase A         SINT32         0 to 99999999         VARh         See Reg# 30117 for formatting and scaling           13116         2         VAh, (Q2), Phase B         SINT32         0 to 99999999         VAh         See Reg# 30117 for formatting and scaling           13118         2         VAh, (Q2), Phase C         SINT32         0 to 99999999         VAh         See Reg# 30117 for formatting and scaling           13120         2         WAh, (Q2), Phase C         SINT32         0 to 99999999         VAh         See Reg# 30117 for formatting and scaling           13120         2         WAh, (Q3), Total         SINT32         0 to 99999999         WAh         See Reg# 30117 for formatting and scaling           13122         2         VARh, (Q3), Total         SINT32         0 to 999999999         WAh         See Reg# 30117 for formatting and scaling           13124         2         VAh, (Q3), Total         SINT32         0 to 9999999999         VAh         See Reg#	R R R R R R R R
13112         2         VARh, (Q2), Phase C         SINT32         0 to ±99999999         VARh         See Reg# 30118 for formatting and scaling           13114         2         VAh, (Q2), Phase A         SINT32         0 to 99999999         VAh         See Reg# 30117 for formatting and scaling           13116         2         VAh, (Q2), Phase B         SINT32         0 to 99999999         VAh         See Reg# 30117 for formatting and scaling           13118         2         VAh, (Q2), Phase C         SINT32         0 to 99999999         VAh         See Reg# 30117 for formatting and scaling           13120         2         WAh, (Q2), Total         SINT32         0 to ±99999999         VAh         See Reg# 30117 for formatting and scaling           13120         2         WAh, (Q3), Total         SINT32         0 to ±99999999         Wh         See Reg# 30117 for formatting and scaling           13122         2         VAAh, (Q3), Total         SINT32         0 to ±99999999         Wh         See Reg# 30117 for formatting and scaling           13122         2         VAAh, (Q3), Total         SINT32         0 to ±999999999         Wh         See Reg# 30118 for formatting and scaling           13124         2         VAh, (Q3), Total         SINT32         0 to 999999999         VAh         See Reg# 30117	R R R R R R
13114         2         VAh, (Q2), Phase A         SINT32         0 to 99999999         VAh         See Reg# 30117 for formatting and scaling           13116         2         VAh, (Q2), Phase B         SINT32         0 to 99999999         VAh         See Reg# 30117 for formatting and scaling           13118         2         VAh, (Q2), Phase C         SINT32         0 to 99999999         VAh         See Reg# 30117 for formatting and scaling           13120         2         Wh, (Q3), Total         SINT32         0 to ±99999999         Wh         See Reg# 30117 for formatting and scaling           13122         2         VARh, (Q3), Total         SINT32         0 to ±99999999         Wh         See Reg# 30117 for formatting and scaling           13122         2         VARh, (Q3), Total         SINT32         0 to ±99999999         Wh         See Reg# 30118 for formatting and scaling           13124         2         VAh, (Q3), Total         SINT32         0 to 99999999         VAh         See Reg# 30117 for formatting and scaling           13124         2         VAh, (Q3), Total         SINT32         0 to 999999999         VAh         See Reg# 30117 for formatting and scaling	R R R R
13116         2         VAh, (Q2), Phase B         SINT32         0 to 99999999         VAh         See Reg# 30117 for formatting and scaling           13118         2         VAh, (Q2), Phase C         SINT32         0 to 99999999         VAh         See Reg# 30117 for formatting and scaling           13120         2         Wh, (Q3), Total         SINT32         0 to 99999999         Wh         See Reg# 30117 for formatting and scaling           13122         2         WARh, (Q3), Total         SINT32         0 to ±99999999         Wh         See Reg# 30117 for formatting and scaling           13124         2         VARh, (Q3), Total         SINT32         0 to ±99999999         VARh         See Reg# 30117 for formatting and scaling           13124         2         VAh, (Q3), Total         SINT32         0 to 999999999         VARh         See Reg# 30117 for formatting and scaling	R R R
13118         2         VAh, (Q2), Phase C         SINT32         0 to 99999999         VAh         See Reg# 30117 for formatting and scaling           13120         2         Wh, (Q3), Total         SINT32         0 to 99999999         Wh         See Reg# 30117 for formatting and scaling           13122         2         VARh, (Q3), Total         SINT32         0 to ±99999999         Wh         See Reg# 30117 for formatting and scaling           13122         2         VARh, (Q3), Total         SINT32         0 to ±99999999         VARh         See Reg# 30118 for formatting and scaling           13124         2         VAh, (Q3), Total         SINT32         0 to 99999999         VAh         See Reg# 30117 for formatting and scaling	R R
13120         2         Wh, (Q3), Total         SINT32         0 to ±99999999         Wh         See Reg# 30117 for formatting and scaling           13122         2         VARh, (Q3), Total         SINT32         0 to ±99999999         VARh         See Reg# 30118 for formatting and scaling           13124         2         VAh, (Q3), Total         SINT32         0 to 99999999         VARh         See Reg# 30117 for formatting and scaling	R
13122         2         VARh. (Q3), Total         SINT32         0 to ±99999999         VARh         See Reg# 30118 for formatting and scaling           13124         2         VAh. (Q3), Total         SINT32         0 to 99999999         VARh         See Reg# 30118 for formatting and scaling	
13124         2         VAh, (Q3), Total         SINT32         0 to 99999999         VAh         See Reg# 30117 for formatting and scaling	
	R
121012  Im 122	R
13128 2 Wh, (C3), Phase B SINT32 0 to ±99999999 Wh See Red# 30117 for formatting and scaling	R
13130 2 Wh, (Q3), Phase C SINT32 0 to ±99999999 Wh See Reg# 30117 for formatting and scaling	R
13132 2 VARh, (Q3), Phase A SINT32 0 to ±99999999 VARh See Reg# 30118 for formatting and scaling	R
13134 2 VARh, (Q3), Phase B SINT32 0 to ±99999999 VARh See Rea# 30118 for formatting and scaling	R
13136 2 VARh, (Q3), Phase C SINT32 0 to ±99999999 VARh See Reg# 30118 for formatting and scaling	R
13138 2 VAh, (Q3), Phase A SINT32 0 to 99999999 VAh See Reg# 30117 for formatting and scaling	R
13140 2 VAh, (Q3), Phase B SINT32 0 to 99999999 VAh See Reg# 30117 for formatting and scaling	R
13142 2 VAh, (Q3), Phase C SINT32 0 to 99999999 VAh See Reg# 30117 for formatting and scaling	R
13144         2         Wh, (Q4), Total         SINT32         0 to ±99999999         Wh         See Reg# 30117 for formatting and scaling	R
13146         2         VARh, (Q4), Total         SINT32         0 to ±99999999         VARh         See Reg# 30118 for formatting and scaling	R
13148         2         VAh, (Q4), Total         SINT32         0 to 99999999         VAh         See Reg# 30117 for formatting and scaling	R
13150         2         Wh, (Q4), Phase A         SINT32         0 to ±99999999         Wh         See Reg# 30117 for formatting and scaling	R
13152         2         Wh, (Q4), Phase B         SINT32         0 to ±99999999         Wh         See Reg# 30117 for formatting and scaling	R
13154         2         Wh, (O4), Phase C         SINT32         0 to ±99999999         Wh         See Reg# 30117 for formatting and scaling	R
13156         2         VARh, (Q4), Phase A         SINT32         0 to ±99999999         VARh         See Reg# 30118 for formatting and scaling	R
13158         2         VARh, (Q4), Phase B         SINT32         0 to ±99999999         VARh         See Reg# 30118 for formatting and scaling	R
13160         2         VARh, (Q4), Phase C         SINT32         0 to ±99999999         VARh         See Reg# 30118 for formatting and scaling	R
13162         2         VAh. (Q4), Phase A         SINT32         0 to 9999999         VAh         See Reg# 30117 for formatting and scaling	R
13164     2     VAh, (Q4), Phase B     SINT32     0 to 99999999     VAh     See Reg# 30117 for formatting and scaling	R
13166 2 VAh. (Q4), Phase C SINT32 0 to 99999999 VAh See Reg# 3017 for formatting and scaling	R
13168         2         VAh (Q1+Q4), Total         SINT32         0 to 99999999         VAh         See Reg# 30117 for formatting and scaling           12170         2         VAh (Q1+Q4), Total         SINT32         0 to 999999999         VAh         See Reg# 30117 for formatting and scaling	R
13170         2         VAh         See Reg# 30117 for formatting and scaling           13172         2         VAh         See Reg# 30117 for formatting and scaling	R
13172         2         VAh         See Reg# 30117 for formatting and scaling           13174         2         VAh (Q1+Q4), Phase B         SINT32         0 to 99999999         VAh         See Reg# 30117 for formatting and scaling	R
13174         2         VAh (Q1+Q4), Phase C         SINT32         0 to 99999999         VAh         See Reg# 30117 for formatting and scaling           13174         2         VAh (Q2+Q4), Phase C         SINT32         0 to 99999999         VAh         See Reg# 30117 for formatting and scaling	R
13176         2         VAh (Q2+Q3), Total         SINT32         0 to 99999999         VAh         See Reg# 30117 for formatting and scaling           13178         2         VAh (Q2+Q3), Phase A         SINT32         0 to 99999999         VAh         See Reg# 30117 for formatting and scaling	R
13178         2         VAh (Q2+Q3), Phase A         SINT32         0 to 99999999         VAh         See Reg# 30117 for formatting and scaling           13180         2         VAh (Q2+Q3), Phase B         SINT32         0 to 99999999         VAh         See Reg# 30117 for formatting and scaling	R
13180         2         VAI         See Red# 3017 for formatting and scaling           13182         2         VAI         See Red# 3017 for formatting and scaling	
13182         2         VAI         See Red# 3017 for formatting and scaling           13184         2         +Qh, Total         SINT32         0 to 99999999         Qh         See Red# 3017 for formatting and scaling	R
13184         2         FUIL         FUIL         See Req# 30136 for formatting and scaling           13186         2         +Qh, Fuil         See Req# 30136 for formatting and scaling	R
13160         2         Fdit         Stee Reg# 30130 for formatting and scaling           13188         2         I+Qh, Phase B         SINT32         0 to 99999999         Qh         See Reg# 30136 for formatting and scaling	R
13100         2         +QI, Finase D         Sin122         0 to 99999999         QI         See Reg# 30130 to formatting and scaling           13190         2         +QI, Finase D         Sin122         0 to 999999999         Qh         See Reg# 30130 to formatting and scaling	R
13190         2         -Pdi, mase c         Sint 2         0 to 99999999         Oh         See Reg# 30130 to formatting and scaling           13192         2         -Qh, Total         Sint 2         0 to -99999999         Qh         See Reg# 30136 for formatting and scaling	R
13192 2 -Qh, Phase A SINT32 0 to -99999999 Qh See Reg# 30130 to formatting and scaling	R
13196 2 -QL Phase B SINT32 D to -99999999 Qh See Red# 30136 for formating and scaling	R
13198 2 -Qh, Phase C Sint 22 0 to -99999999 Qh See Read #30136 for formatting and scaling	R



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value Acc
Unco	mpen	sated Energy in Interval (pulses)	-				
13500	2	Wh, (Q1+Q4)	SINT32	0 to 99999999	Number of Pulses		R
13502		Wh, (Q2+Q3)	SINT32		Number of Pulses		R
13504	2	Wh, Net	SINT32	0 to 99999999	Number of Pulses		R
13506		Wh, Total	SINT32	0 to 99999999	Number of Pulses		R
13508	2	/ARh, (Q1+Q2)	SINT32	0 to 99999999	Number of Pulses		R
13510	2	/ARh, (Q3+Q4)	SINT32	0 to 99999999	Number of Pulses		R
13512	2	VARh, Net	SINT32		Number of Pulses		R
13514	2	/ARh, Total	SINT32	0 to 99999999	Number of Pulses		R
13516	2	/Ah, Total	SINT32	0 to 99999999	Number of Pulses		R
13518	2	Wh, (Q1+Q4), Phase A	SINT32		Number of Pulses		R
13520	2	Nh, (Q1+Q4), Phase B	SINT32	0 to 99999999	Number of Pulses		R
13522		Wh, (Q1+Q4), Phase C	SINT32	0 to 99999999	Number of Pulses		R
13524		Wh, (Q2+Q3), Phase A	SINT32		Number of Pulses		R
13526		Wh, (Q2+Q3), Phase B	SINT32		Number of Pulses		R
13528		Wh, (Q2+Q3), Phase C			Number of Pulses		R
13530		Wh, Net, Phase A	SINT32		Number of Pulses		R
13532		Wh, Net, Phase B	SINT32	0 to 99999999	Number of Pulses		R
13534		Wh, Net, Phase C	SINT32		Number of Pulses		R
13536	2	Wh, Total, Phase A	SINT32		Number of Pulses		R
13538		Nh, Total, Phase B	SINT32	0 to 99999999	Number of Pulses		R
13540		Wh, Total, Phase C	SINT32		Number of Pulses		R
13542		/ARh, (Q1+Q2), Phase A	SINT32	0 to 99999999	Number of Pulses		R
13544		/ARh, (Q1+Q2), Phase B	SINT32		Number of Pulses		R
13546		/ARh, (Q1+Q2), Phase C	SINT32		Number of Pulses		R
13548	2	/ARh. (Q3+Q4). Phase A	SINT32	0 to 99999999	Number of Pulses		R
13550		VARh, (Q3+Q4), Phase B	SINT32		Number of Pulses		R
13552		/ARh, (Q3+Q4), Phase C			Number of Pulses		R
13554		/ARh, Net, Phase A	SINT32	0 to 99999999	Number of Pulses		R
13556		VARh, Net, Phase B	SINT32	0 to 99999999	Number of Pulses		R
13558		/ARh, Net, Phase C	SINT32	0 to 99999999	Number of Pulses		R
13560		/ARh, Total, Phase A	SINT32		Number of Pulses		R
13562		/ARh, Total, Phase B	SINT32		Number of Pulses		R
13564		VARh, Total, Phase C	SINT32	0 to 99999999	Number of Pulses		R
13566		VAN, Phase A	SINT 32	0 to 99999999	Number of Pulses		R
13568		/Ah, Phase B	SINT32		Number of Pulses		R
13508		VAI, Plase B VAh, Phase C			Number of Pulses		R
13570		Whi, Phase C Wh. (Q1). Total	SINT32 SINT32	0 to 99999999	Number of Pulses		R
13572		VARh, (Q1), Total	SINT32 SINT32		Number of Pulses		R
13574		VARI, (Q1), Total	SINT 32 SINT 32		Number of Pulses		R
		Wh, (Q1), Phase A			Number of Pulses		R
13578		Wh, (Q1), Phase A Wh, (Q1), Phase B	SINT32 SINT32				
13580		Wh, (Q1), Phase B Wh, (Q1), Phase C		0 to 99999999	Number of Pulses Number of Pulses		R
13582		VARh, (Q1), Phase C VARh, (Q1), Phase A	SINT32 SINT32				R
13584					Number of Pulses		R
13586		VARh, (Q1), Phase B	SINT32		Number of Pulses		R
13588		VARh, (Q1), Phase C	SINT32	0 to 99999999	Number of Pulses		R
13590		/Ah, (Q1), Phase A	SINT32	0 to 99999999	Number of Pulses		R
13592		/Ah, (Q1), Phase B	SINT32	0 to 99999999	Number of Pulses		R
13594	2	/Ah, (Q1), Phase C	SINT32	0 to 99999999	Number of Pulses		R



	Description		Value Range	Unit of measure or resolution	Comments	Factory default value Acc
	Wh, (Q2), Total		0 to 99999999	Number of Pulses		R
13598 2	VARh, (Q2), Total	SINT32	0 to 99999999	Number of Pulses		R
13600 2	VAh, (Q2), Total		0 to 99999999	Number of Pulses		R
13602 2	Wh, (Q2), Phase A	SINT32	0 to 99999999	Number of Pulses		R
13604 2	Wh, (Q2), Phase B	SINT32	0 to 99999999	Number of Pulses		R
13606 2	Wh, (Q2), Phase C	SINT32	0 to 99999999	Number of Pulses		R
13608 2	VARh, (Q2), Phase A	SINT32	0 to 99999999	Number of Pulses		R
13610 2	VARh, (Q2), Phase B	SINT32	0 to 99999999	Number of Pulses		R
13612 2	VARh, (Q2), Phase C		0 to 99999999	Number of Pulses		R
13614 2	VAh, (Q2), Phase A	SINT32	0 to 99999999	Number of Pulses		R
13616 2	VAh, (Q2), Phase B	SINT32	0 to 99999999	Number of Pulses		R
	VAh, (Q2), Phase C		0 to 99999999	Number of Pulses		R
13620 2	Wh, (O3), Total	SINT32	0 to 99999999	Number of Pulses		R
13622 2	VARh, (Q3), Total	SINT32	0 to 99999999	Number of Pulses		R
13624 2	VAh, (Q3), Total	SINT32	0 to 99999999	Number of Pulses		R
13626 2	Wh, (Q3), Phase A		0 to 99999999	Number of Pulses		R
13628 2	Wh, (Q3), Phase B	SINT32	0 to 99999999	Number of Pulses		R
13630 2	Wh, (Q3), Phase C	SINT32	0 to 99999999	Number of Pulses		R
13632 2	VARh, (Q3), Phase A	SINT32	0 to 99999999	Number of Pulses		R
13634 2	VARh, (Q3), Phase B		0 to 99999999	Number of Pulses		R
13636 2	VARh, (Q3), Phase C		0 to 99999999	Number of Pulses		R
<u>13638</u> 2	VAh, (Q3), Phase A	SINT32	0 to 99999999	Number of Pulses		R
13040 Z	VAh, (Q3), Phase B	SINT32	0 to 99999999	Number of Pulses		R
13642 2	VAh, (Q3), Phase C	SINT32	0 to 99999999	Number of Pulses		R
13644 2	Wh, (Q4), Total	SINT32	0 to 99999999	Number of Pulses		R
	VARh, (Q4), Total	SINT32	0 to 99999999	Number of Pulses		R
13648 2	VAh, (Q4), Total	SINT32	0 to 99999999	Number of Pulses		R
	Wh, (Q4), Phase A		0 to 99999999	Number of Pulses		R
13652 2	Wh, (Q4), Phase B		0 to 99999999	Number of Pulses		R
<u>13654</u> 13656 2	Wh, (Q4), Phase C	SINT32	0 to 99999999	Number of Pulses		R
10000 2	VARh, (Q4), Phase A	SINT32	0 to 99999999	Number of Pulses		R
13658 2	VARh, (Q4), Phase B		0 to 99999999	Number of Pulses		R
13660 2	VARh, (Q4), Phase C	SINT32	0 to 99999999	Number of Pulses		R
13662 2	VAh, (Q4), Phase A	SINT32	0 to 99999999	Number of Pulses		R
13664 2	VAh, (Q4), Phase B		0 to 99999999	Number of Pulses		R
13666 2	VAh, (Q4), Phase C	SINT32	0 to 99999999	Number of Pulses		R
13668 2	VAh (Q1+Q4), Total	SINT32	0 to 99999999	Number of Pulses		R
13670 <u>2</u> 13672 2	VAh (Q1+Q4), Phase A		0 to 99999999	Number of Pulses		R
13072 2	VAh (Q1+Q4), Phase B		0 to 99999999	Number of Pulses		R
13674 2	VAh (Q1+Q4), Phase C	SINT32	0 to 99999999	Number of Pulses		R
<u>13676</u> 2 13678 2	VAh (Q2+Q3), Total	SINT32	0 to 99999999	Number of Pulses		R
10070 2	VAh (Q2+Q3), Phase A	SINT32	0 to 99999999	Number of Pulses		R
13680 2	VAh (Q2+Q3), Phase B	SINT32	0 to 99999999 0 to 99999999	Number of Pulses		R
<u>13682</u> <u>13684</u> 2	VAh (Q2+Q3), Phase C			Number of Pulses		R
10001 2	+Qh, Total	SINT32	0 to 99999999	Number of Pulses		R
13686 2 13688 2	+Qh, Phase A	SINT32	0 to 99999999 0 to 99999999	Number of Pulses		R
10000 2	+Qh, Phase B			Number of Pulses		R
13690 2	+Oh, Phase C	SINT32	0 to 99999999	Number of Pulses		R
13692 2	-Qh, Total	SINT32	0 to 99999999	Number of Pulses		R
	-Qh, Phase A	SINT32	0 to 99999999	Number of Pulses		R
13696 2	-Qh, Phase B		0 to 99999999	Number of Pulses		R
13698 2	-Qh, Phase C	SINT32	0 to 99999999	Number of Pulses	1	R



Reg#	Size D	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
		Commands (Notes 5, 9)			-			
13983			UINT16					W
13984			UINT16					W
13985		nable/Disable TLC compensation	UINT16					W
13986			UINT16					W
13987			UINT16					W
13988			UINT16					W
13989			UINT16					W
13990		Start Test 4	UINT16					W
13991		Reset Test Mode Data	UINT16					W
13992			UINT16					W
13993		Exit Test Mode	UINT16					W
13994			UINT16					W
13995			UINT16					W
		Demand Block	FLOAT		h			
14000					W			R
14002					W			R
14004					W			R
14006	2 C		FLOAT	0 to ±9.999 E+09	W			R
14500		readings	FLOAT	0.4- 0.000 F 00	14/			
14500	2 W 2 W				W			R
14502				0 to ±9.999 E+09	W VAR			R
14504					VAR VAR			R
14506 14508				0 to ±9.999 E+09 0 to ±9.999 E+09	VAR VA			R
14508					Wh	* W/h (01, 04) $% W/h (02, 02) always have appreciate signs$		R
14510				$0 to \pm 9999999999999999999999999999999999$	Wh	* Wh (Q1+Q4) & Wh (Q2+Q3) always have opposite signs. * VARh (Q1+Q2) & VARh (Q3+Q4) always have opposite signs.		R
					VARh	xxxxx.xxx format.		
14514 14516				$0 to \pm 99999999999999990 = 0 to \pm 9999999999999999999999999999999999$	VARh	8 digits		R
								R
14518	2 V	/Ah (Q1+Q4) Total	SINT32	0 to 99999999	VAh	* resolution of digit before decimal point = units		К



Reg# Size Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
THD Block (Note 13)	0					
18000 1 V A-N or V A-B, %THD	UINT16	0 to 10000	0.01%	AN for wye hookups, AB for delta		R
18001 1 V B-N or V C-B, %THD	UINT16	0 to 10000	0.01%	BN for wye hookups, CB for delta		R
18002 1 V C-N, %THD	UINT16	0 to 10000	0.01%			R
18003 1 I.A., %THD	UINT16	0 to 10000	0.01%			R
18004 1 I B , %THD	UINT16	0 to 10000	0.01%			R
18005 1 I.C. %THD	UINT16	0 to 10000	0.01%			R
18006 1 I.A., %TDD	UINT16	0 to 10000	0.01%			R
18007 1 IB, %TDD	UINT16	0 to 10000	0.01%			R
18008 1 I C, %TDD	UINT16	0 to 10000	0.01%			R
18009 1 I A , % K factor	UINT16	0 to 10000	0.01%			R
18010 1 I B , % K factor	UINT16	0 to 10000	0.01%			R
18011 1 I C, % K factor	UINT16	0 to 10000	0.01%			R
18012 1 Wave Scope scale factor for channel Va or Vab	UINT16	0 to 65535				R
18013 1 Wave Scope scale factors for channel la	UINT16	0 to 65535				R
18014 2 Wave Scope scale factors for channels Vb (or Vcb) and Ib	UINT16	0 to 65535		Convert individual samples to V or A:		R
18016 2 Wave Scope scale factors for channels Vc and Ic	UINT16	0 to 65535				R
18018 64 Wave Scope samples for channel Va or Vab		-32768 to +32767		V or A = (sample * scale factor) / 1,000,000		R
18082 64 Wave Scope samples for channel la	SINT16	-32768 to +32767				R
18146 64 Wave Scope samples for channel Vb or Vcb	SINT16	-32768 to +32767		Samples update in conjunction with THD and harmonics; samples not		R
18210 64 Wave Scope samples for channel lb	SINT16	-32768 to +32767		available (all zeroes) if THD not available.		R
18274 64 Wave Scope samples for channel Vc	SINT16	-32768 to +32767				R
18338 64 Wave Scope samples for channel Ic	SINT16	-32768 to +32767				R
18402 40 Phase A or AB Voltage harmonic magnitudes		0 to 10000	0.01%			R
18465 40 Phase A or AB Voltage harmonic phases	SINT16	-1800 to +1800	0.1°	In each group of 40 registers, the first register represents the		R
18528 40 Phase A Current harmonic magnitudes	UINT16	0 to 10000	0.01%	fundamental frequency or first harmonic, the second represents the		R
18591 40 Phase A Current harmonic phases	SINT16	-1800 to +1800	0.1°			R
18654 40 Phase B or CB Voltage harmonic magnitudes	UINT16	0 to 10000	0.01%	second harmonic, and so on up to the 40th register Which represents		R
18717 40 Phase B or CB Voltage harmonic phases	SINT16	-1800 to +1800	0.1°	the 40th harmonic.		R
18780 40 Phase B Current harmonic magnitudes	UINT16	0 to 10000	0.01%			R
18843 40 Phase B Current harmonic phases	SINT16	-1800 to +1800	0.1°	Harmonic magnitudes are given as % of the fundamental magnitude.		R
18906 40 Phase C Voltage harmonic magnitudes	UINT16	0 to 10000	0.01%	Thus the first register in each group of 40 will typically be 9999. A		R
18969 40 Phase C Voltage harmonic phases	SINT16	-1800 to +1800	0.1°	reading of 10000 indicates invalid.		R
19032 40 Phase C Current harmonic magnitudes	UINT16	0 to 10000	0.01%			R
19095 40 Phase C Current harmonic phases	SINT16	-1800 to +1800	0.1°		L	R



Reg# Size Description	Format		Unit of measure or resolution	Comments	Factory default value	Acc
Commands Section (Note 4)				Address Range: 2000-29	999	
Resets Block (Notes 5, 9)						
20000 1 Reset Max/Min Blocks		Any Value				W
20001 1 Reset Energy Accumulators		Any Value				W
20002 1 Reset Alarm (Limits) Log (Note 21)		Any Value				W
20003 1 Reset System Log (Note 21)		Any Value				W
20004 1 Reset Historical Log 1 (Note 21)		Any Value				W
20005 1 Reset Historical Log 2 (Note 21)		Any Value				W
20006 1 Reset Historical Log 3 (Note 21)		Any Value				W
20007 1 Reset Historical Log 4 (Note 21)		Any Value				W
20008 1 Reset Historical Log 5 (Note 21)		Any Value				W
20009 1 Reset Historical Log 6 (Note 21)		Any Value				W
20010 1 Reset Diagnostic Log		Any Value				W
20011 1 Reset Voltage & Temperature Log		Any Value				W
20012 1 Reset I/O Change Log (Note 21)	UINT16	Any Value				W
20013 1 Reset Power Quality Log		Any Value				W
20014 1 Reset Waveform Capture Log		Any Value				W
20017 1 Reset Option Card 1 Input Accumulators		Any Value				W
20018 1 Reset Option Card 1 Output Accumulators		Any Value				W
20019 1 Reset Option Card 2 Input Accumulators	UINT16	Any Value				W
20020 1 Reset Option Card 2 Output Accumulators		Any Value				W
20021 1 Reset TOU Month Log (Note 21)	UINT16	Any Value				W
20022 1 Reset TOU Season Log (Note 21)	UINT16	Any Value				W
20023 1 Reset TOU Action Log (Note 21)	UINT16	Any Value				W
20024 1 Reset TOU - All Data	UINT16	0xC1EA		Write value to reset all time of use related accumulators		W
20025 1 Reset Cumulative and Continuous cumulative de	mand UINT16	Any Value				W

Reg# Siz	Size Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
Privileg	eged Commands Block. (Note 5)						
21000 1	1 Initiate Meter Firmware Reprogramming	UINT16	1 to 3		Firmware file number Forces to reboot with file code for Firmware to upload; 1 = original factory version 2 = new version 3= backup version, last used before new		W
21001 1	1 Force Meter Restart	UINT16					W
21002 1	1 Request Secure Session/Session Key	UINT16			Initiate Privileged Session (Note 5). Writing anything into here will		W
21003 1	1 Initiate Programmable Settings Update	UINT16	0000 1 0000		Meter enters to setup mode. Note 5.		W
21004 1 21005 1	Calculate Programmable Settings Checksum (Note 3)     Programmable Settings Checksum (Note 3)	UINT16 UINT16	0000 to 9999 0000 to 9999		meter calculates checksum on RAM copy of PS block read/write checksum register; PS block saved in nonvolatile memory on		W
21005 1	1 Terminate Programmable Settings Update (Note 3)	UINT 16 UINT 16	any value		meter leaves PS or TOUPS update mode via reset		W
	3 Set Meter Clock	TSTAMP		1s	saved only When 3rd register is written		W
21000 3	1 Manually Trigger Waveform Capture	UINT16	any value	13	Vswitch restrictions apply: waveform logging must be enabled		Ŵ
21012 4	4 Set Meter Clock with msec resolution		21st Century	1 ms	saved only When 4th register is written		Ŵ
21016 1	1 Initiate TOU Settings Update	UINT16			Meter enters TOLLPS undate mode		W
21017 1	1 Calculate TOU Settings Checksum	UINT16	0000 to 9999		meter calculates checksum on RAM copy of TOU PS block read/write checksum register; TOU PS block saved in nonvolatile		W
21018 1	1 TOU Settings Checksum	UINT16			read/write checksum register; TOU PS block saved in nonvolatile		W
21019 1	1 Close Secure Session	UINT16	any value		ends an open command session		W
21021 1	1 File Backup	UINT16	File number	R/W	<ul> <li>Write Operation</li> <li>High byte of the file number is the source file number.</li> <li>Low byte of the file number is the destination file.</li> <li>Source and destination files should be different and should be of same group. 3 groups are permitted.</li> <li>1. Firmware files, and User Files.</li> <li>Read Operation</li> <li>When the register is read it has the status of the operation. Below is the status description.</li> <li>0 - Ready for Backup.</li> <li>1 - Backup Command Received.</li> <li>2 - Backup inititated.</li> <li>3 - Invalid command. Source and destination same.</li> <li>4 - Invalid command. Source file invalid group.</li> <li>5 - Invalid command. Source and destination file from different group.</li> <li>7 - Error . Back up Failed.</li> <li>8 - Back up completed successfully.</li> <li>Note: A back up command should not be intiated if the status read back is 1 or 2.</li> </ul>		W
21023 1	1 Perform checksum calculation on DNP 3 datablock - command	UINT16	0 to 65535		Wirte any number to perform the calculation		W
21024 1	1 Save DNP 3, above calculated, datablock checksum in non volatile memory	UINT16	0 to 65535		Write any number to save data. Read to retrieve. Also see note 8.		R/W



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
Cur	rent U	sername/Password Block		1	1			
21200	1	PadLock	UINT16			Writing anything to this register When not in a session, will start the logging process. Reading after starting a session will return the Tunnel-Key for session. Writing/Reading at other moments will close/abort the session. (see Documentation on Session-Logging)		R/W
21201		Remaining Blocked Time	UINT16	0 to FFFF	1 s	If the unit is blocked, for the accessing Port/ld , this register will show the remaining time in second.		R
21202	1	Close Session	UINT16			Any access to this register, will close/abort the session.		W
21203	1	Security Session Status and Logged User Index Number	UINT16	bitmapped		b15: Security system; 0=disabled; 1=enabled b14: Logging in via this port; 0=not blocked; 1=blocked b13: User logged in; 0=no; 1=yes b12: User logged in via this port; 0=no; 1=yes b10: 1 = Login attemp failure detectted. 0 = No failure b9-b5: Number of non "admin" type users allowed b4-b0: Index number of logged in user Other bits reserved don't' overwrite	0600000100000000	R
21204	1	Access-Index user Number	UINT16	0 to 8	Index	Number of the user-slot to be read or written (see following registers) When 0 = Admin, only password can be changed, other writes are ingored. When 1-8 = Users, Username,Permissions and Password can be changed		R/W
21205	8	Requestor Username	UINT16			When a secure session is requested the software uses the tunnel-key, encrypts the username (Write Only)		R/W
21213	15	Requestor Password	UINT16			When a secure session is requested the software uses the Tunnel-key, encrypts the password and write it here. (Write Only)		R/W
21228	1	Requestor User Pass Checksum	UINT16			Checksum (Notes "Security Implementation") for the Username+Password Block.		R/W
21229	4	Privileges for Current Session	UINT16	bitmapped		Bitmap of the Privileges bit for the current session. If no session, reading this register returns 0		R/W
21233	8	Edited Username string	UINT16			Stored, Tunnel-Encrypted Username for the given User Index Written and Read by the ADMIN only. Upto 16 characters		R/W
21241	4	Edited Privileges	UINT16			Stored, Non-Encrypted Privileges for given User index. Written and Read by the ADMIN only. Upto 16 characters		R/W



Reg#	Size	Description	Format		Unit of measure or resolution	Comments	Factory default value	Acc
21245	15	Edited Password string	UINT16			Stored, Encrypted Password for the given User index. Written by the ADMIN only This can NOT be read (reading results in zeros) Upto 16 characters		R/W
21260	1	Edited Checksum	UINT16			Checksum (Notes "Security Implementation") for the Username+Privileges+Password Block.		R/W
21261	1	Auto Log Off Time	UINT16	0 to 1440	1 minute	Time allowed to be logged in. 0 value disables timer.		R/W
21262	1	Inactivity Timeout	UINT16	0 to 10080	1 s	Time to automatically log off since the last command or data access, Which requires privilege. Every time a protected command or restricted data is accessed, the internal timer that counts for this time, is reset.		R/W
21263		Access-Status		0 to 14		<ul> <li>Status of current Login process and security.</li> <li>0: Meter Ready to initiate a Login Procedure</li> <li>1: Meter is already in aSecure Session (Busy) from other port.</li> <li>2: Login-Started, the Pad-Key register has been successfuly written.</li> <li>3: The Pad-Key was read too late. Login aborted.</li> <li>4: The Pad-Key was read more than once. Login Aborted.</li> <li>5: The Pad-Key was read ok. Ready to accept credentials.</li> <li>6: Credentials written too late. Login aborted.</li> <li>7: Identifying Writing Credentials.</li> <li>8: The Login attempt was unsuccessful with the given credentials.</li> <li>9: The Login mas successfully. User logged in.</li> <li>10: The user index has been written with a valid user entry</li> <li>11: New credentials not accepted.</li> <li>14: The time for AutoLog or Inactive timers has been successfully changed.</li> </ul>		R
21264		Remaining time before Auto-Log-Off		0 to 60000	1 s			R
21265		Remaining time for login session before auto logoff due to inactivity	UINT16	0 to 60000	1 s		300	R
21266		Time allowed for login session before auto logoff	UINT16	0 to 60000	1 minute		0	R/W
21267	1	Inactivity time allowed within login session before auto logoff	UINT16	0 to 60000	1 s		300	R/W



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
Genera	al Pro	grammable Settings Section			·	Address Range: 30000-31999		
		tups Block	I	E =				
		CT denominator	UINT16	1 or 5		Must be 1 or 5	1 for CL2 A, 5 for CL10 A	R/W
30001		CT numerator	UINT16	1 to 65535			1 for CL2 A, 5 for CL10 A	R/W
		PT denominator	UINT16	1 to 65535			120	R/W
30003	2	PT numerator	UINT32	1 to 99999999			120	R/W
30005	1	Averaging Method	UINT16	bitmapped		iiiii bsss iiiiii = interval (5,15,30,60) b = 0-block or 1-rolling sss = # subintervals (1,2,3,4)	060000111100000001	R/W
30006	1	Power Format	UINT16	bitmapped		b15-b12: scaling; 0="no", 3=kilo, 6=mega, 8=auto b11-b10: decimals, (0-3), if b7=1 and scaling not auto b7: decimal point placement; 0=per data type; 1=per decimals count. Other bits don't' care.	0b0110010010000000	R/W
30007	1	Hook-up mode	UINT16	0 to 3		0=3 element wye, 1 = 2 element delta 2 CTs, 3 = 2.5 element wye	0	R/W
30008	1	Daylight Saving On Rule	UINT16	bitmapped		hhhhhwww -dddmmmm applies only if daylight savings in User Settings Flags = on; specifies When to make changeover hhhhh = hour, 0-23 www = week, 1-4 for 1st - 4th, 5 for last ddd = day of week, 1-7 for Sun - Sat mmmm = month, 1-12 Example: 2AM on the 4th Sunday of March hhhhh=2, www=4, ddd=1, mmm=3	060001001000010011	R/W
30009	1	Daylight Saving Off Rule	UINT16	bitmapped		hhhhhwww -dddmmmm applies only if daylight savings in User Settings Flags = on; specifies When to make changeover hhhhh = hour, 0-23 www = week, 1-4 for 1st - 4th, 5 for last ddd = day of week, 1-7 for Sun - Sat mmmm = month, 1-12 Example: 2AM on the 4th Sunday of March hhhhh=2, www=4, ddd=1, mmm=3	060001000100011011	R/W
30010	1	Time Zone UTC offset	UINT16	bitmapped		z000 0000 hhhh hhmm mm = minute/15; 00=00, 01=15, 10=30, 11=45 hhhhhh = hour; -23 to +23 z = Time Zone valid (0=no, 1=yes) i.e. register=0 indicates that time zone is not set While register=0x8000 indicates UTC offset = 0	0b1000000011101100	R/W



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
30011	1	Clock Sync Configuration	UINT16	bitmapped		0000 0000 mmmp pppe e = enable automatic clock sync (0=no, 1=yes) mmm = sync method (1=NTP, 4=Line, all other values=no sync) pppp = method-dependent paramter. NTP pppp=port performing synchronization (2-3 = COM3-COM4). Line pppp=expected frequency (0=60 Hz, 1=50 Hz)	06000000010000001	R/W
30013	1	User Settings 2	UINT16	bitmapped		<ul> <li>b10: force 6 cycle energy/power processing; 1=yes; 0=no</li> <li>b9: suppress filtering on power readings; 1=yes; 0=no</li> <li>b8: suppress filtering on current and voltage readings; 1=yes; 0=no</li> <li>b7-b1: under range voltage cutoff, 0 to 12.7 % full</li> <li>scale in 0.1% steps. Vrms below this value is reported as 0. See note 12 for full scale information.</li> <li>Other bits don't care</li> </ul>	0	R/W
30015	1	User Settings	UINT16	bitmapped		t ed ya e = enable ct pt compensation (0=Disabled, 1=Enabled). d = daylight saving time changes (0=off, 1=on) y = diagnostic events in system log (1=yes, 0=no) a = apparent power computation method (0=arithmetic sum, 1=vector sum) t = TOU Enable (0=Disabled, 1=Enabled)	060000000000000000000000000000000000000	R/W
30016	1	Value for current bar-graph-LED full scale	UINT16	0 to 9999		Enter value. Valid if not zero and user settings b12=1 in reg #30134. See Note 12.	0	R/W
30017	8	Meter Designation	ASCII	16 char			serial number of the unit	R/W
30025	1	Communication Port 1 (COM1I) setup	UINT16	bitmapped		b15,b14 = parity (must be set to 00-none), (b13,b12 = don't care) b11-b8 = reply delay (x 50 ms), (b7 = don't care) b6-b4 = reserved, must be set to 010 b3-b0 = baud rate (1-9600, 2-19200, 4-38400, 6-57600, 13=1200, 14=2400, 15=4800). Other combinations are invalid.	06000000000100001	R/W
30026	1	Communication Port 2 (COM2) setup	UINT16	bitmapped		b15,b14 = parity (0-none, 1-odd, 2-even), (b13,b12 = don't care) b11-b8 = reply delay (x 50 ms), (b7 = don't care) b6-b4 = protocol (1-Modbus RTU, 2-Modbus ASCII, 3-DNP) b3-b0 = baud rate (1-9600, 2-19200, 4-38400, 6-57600, 13=1200, 14=2400, 15=4800). Other combinations are invalid.	060000000000010110	R/W
30027	1	Meter address on COM2 for Modbus protocol	UINT16	1 to 247 (Modbus) 1 to 65519 (DNP)			1	R/W



Reg# Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
30028 1	Meter address on COM1 for Modbus protocol	UINT16	1			1	R
30108 1	W loss due to iron When W positive		0 to 9999	0.01%		0	R/W
30109 1	W loss due to copper When W positive	UINT16	0 to 99.99	0.01%		0	R/W
30110 1	VAR loss due to iron When W positive	UINT16	0 to 99.99	0.01%		0	R/W
30111 1	VAR loss due to copper When W positive	UINT16	0 to 99.99	0.01%		0	R/W
30112 1	W loss due to iron When W negative	UINT16	0 to 99.99	0.01%		0	R/W
30113 1	W loss due to copper When W negative	UINT16	0 to 99.99	0.01%		0	R/W
30114 1	VAR loss due to iron When W negative	UINT16	0 to 99.99	0.01%		0	R/W
30115 1	VAR loss due to copper When W negative	UINT16	0 to 99.99	0.01%		0	R/W
30116 1	transformer loss compensation user settings flag	UINT16	bitmapped		b15-b4: don't care 'b3: 0=disable, 1=enable compensation for losses due to copper b2: 0=disable, 1=enable compensation for losses due to iron, b1: 0=add, 1=subtract W compensation b0: 0=add, 1=subtract VAR compensation	0	R/W
30117 1	Watt and VA hour format	UINT16	bitmapped		znn -eee-ddd, z = add leading zeros(active 1) nn = number of energy digits (5-8> 0-3) eee = energy scale (0-unit, 3-kilo, 6-mega) ddd = energy digits after decimal point (0-6)	0b1000001100110000	R/W
30118 1	VAR hour format	UINT16	bitmapped		znn -eee-ddd, z = add leading zeros(active 1) nn = number of energy digits (5-8> 0-3) eee = energy scale (0-unit, 3-kilo, 6-mega) ddd = energy digits after decimal point (0-6)	0b1000001100110000	R/W
30119 1	Volt hour format	UINT16	bitmapped		znn -eee-ddd, z = add leading zeros(active 1) nn = number of energy digits (5-8> 0-3) eee = energy scale (0-unit, 3-kilo, 6-mega) ddd = energy digits after decimal point (0-6)	0b1000001100110000	R/W
30120 1	Ampere hour format	UINT16	bitmapped		znn -eee-ddd, z = add leading zeros(active 1) nn = number of energy digits (5-8> 0-3) eee = energy scale (0-unit, 3-kilo, 6-mega) ddd = energy digits after decimal point (0-6)	0b1000001100110000	R/W
30121 2	Wh pulse factor	UINT31	0.00001 to 9.99999	0.00001 kWh/p	per pulse value	1.8	R/W
30123 2	VARh pulse factor	UINT32	0.00001 to 9.99999		per pulse value	1.8	R/W
30125 2	VAh pulse factor	UINT32	0.00001 to 9.99999	0.00001 kVAh/p	per pulse value	1.8	R/W
	Volt hour pulse factor	UINT32	0.00001 to 9.99999	0.00001 kVh/p	per pulse value	1.8	R/W
30129 2	Amp hour pulse factor	UINT32	0.00001 to 9.99999	0.00001 kAh/p	per pulse value	1.8	R/W
30133 1	Readings display enables	UINT16	bitmapped		active 1, b15-b9 don't care. b0: V L-N b1: V L-L b2: Current(I); default screen when all bits are zero b3: W/VAR/PF b4: VA/Hz b5: Wh b6: VARh b7: VAh b8: no PF when b3=1.	0b0000000011111111	



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
30134	1	Display format settings	UINT16	bitmapped		b15-b14: voltage display decimals. If b13=1; 0=(0-9999V) 1=(100.0kV-999.9 kV) 2=(10.00kV-99.99 kV) 3=(0kV-9.999 kV) b13: scaling for voltage(V) display; 0=auto; 1=as per b15-b14 b12: current(I) bar-graph-LED full scale; 1=from reg. #30016; 0=from CT secondary b10: scaling for current(I) display; 0=auto; 1=no decimals b9-b8: phases for voltage(V), current(I) display; 0,3=ABC; 2=AB, 1=A b7: auto scroll; 0=on; 1=off b6: W, Wh direction labeling; 0=(Q1+Q4)delivered, (Q2+Q3)received 1=(Q1+Q4)received, (Q2+Q3)received 1=(Q1+Q2)delivered, (Q3+Q4)received 1=(Q1+Q2)received, (Q2+Q3)received 1=(Q1+Q4)received, r>1=(Q1+Q4)received 1=(Q1+Q4)received 1=(Q1+Q4)received 1=(Q1+Q4)received 1=(Q1+Q4)received 1=(Q1+Q4)receive	06000000010000000	R/W
30136	1	Q Hour format	UINT16	bitmapped		znn -eee-ddd, z = add leading zeros(active 1) nn = number of energy digits (5-8> 0-3) eee = energy scale (0-unit, 3-kilo, 6-mega) ddd = energy digits after decimal point (0-6)	0b1000001100110000	R/W
30137	2	Q hour pulse factor	UINT32	0.00001 to 9.99999	0.00001 kQh/p	per pulse value	1.8	R/W
30139	1	Cumulative and continuous cumulative demand format	UINT16	bitmapped		b15: 1=enable leading zeros b9-b8: total number of digits; values: 0-3 to digits: 5-8 b6-b4: scaling; 0=unit., 3=kilo; 6=mega b0: decimals; 0 or 1 digit b14-b10, b7, b3-b1: reserved	0b1000001100110000	R/W
30152	1	Cold Load Configuration	UINT16	bitmapped		<ul> <li>aovp</li> <li>p : Apply delay in case of Meter Aux power loss if this bit is set.</li> <li>v : Apply delay in case of Meter potential voltage dropout if this bit is set.</li> <li>o : if v is 1, apply delay if any Meter potential voltage drops out if this bit is set.</li> <li>a : if v is 1, apply delay only if all Meter potential voltages drop out if this bit is set.</li> </ul>	0	R/W
30153		Demand forgiveness (deferral) interval		0 to 65535	1 s		0	R/W
30154	1	Minimum loss of service time for cold load	UINT16	0 to 65535	1s	minimum loss of service interval for demand deferral to be activated	0	R/W



Reg# S	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
30155	1	Maximum allowed short term service-on time	UINT16	0 to 65535	1 s	maximum allowed short term service-on time interval during service loss for device to be considered as back to normal condition	0	R/W
30156	1	Voltage A-N threshold (wye/2.5ele wye) Voltage A-B threshold (Delta) (secondary)	UINT16	0 to 65535	0.01 V	voltage a-n threshold (wye/2.5ele wye) /voltage a-b threshold (delta) er Delta	0	R/W
30157		Voltage B-N threshold (wye/2.5ele wye) Voltage A-B threshold (Delta) (secondary)	UINT16	0 to 65535	0.01 V	voltage b-n threshold (wye/2.5ele wye) /voltage a-b threshold (delta) er Delta	0	R/W
30158	1	Voltage C-N threshold (wye/2.5ele wye) /Voltage A-B threshold (Delta) (secondary)	UINT16	0 to 65535	0.01 V	voltage c-n threshold (wye/2.5ele wye) /voltage a-b threshold (delta) er Delta	0	R/W
30159		Test Mode timeout	UINT16	1 to 600	minute	Test Mode auto exit time out	5	R/W
30182	1	TDD Current reference value	UINT16	1 to 65535			5	R/W
30183	1	Programmable Settings Update Counter	UINT16	0 to 65535		Increments each time programmable settings are changed; occurs When new checksum is calculated.	It is a counter	R/W
30296	1	Power and energy settings	UINT16	bitmapped		<ul> <li> dcba-pww</li> <li>Where:</li> <li>0</li> <li>0 W/Wh sign is positive in Quadrant 1,4 ,(1+4) , W/Wh sign is negative in Quadrant 2,3, (2+3)</li> <li>1 W/Wh sign is Negative in Quadrant 1,4 ,(1+4) , W/Wh sign is positive in Quadrant 2,3, (2+3)</li> <li>v:</li> <li>0 VAR/VARh sign is positive in Quadrant 1,2,(1+2) , VAR/VARh sign is negative in Quadrant 3,4,(3+4)</li> <li>1 VAR/VARh sign is negative in Quadrant 1,2,(1+2) , VAR/VARh sign is positive in Quadrant 3,4,(3+4)</li> <li>p:</li> <li>0 PF sign is positive in Quadrant 1,4 ,(1+4) , PF sign is negative in Quadrant 2,3, (2+3)</li> <li>a:</li> <li>0 current phase is lagging in Quadrant 1</li> <li>1 current phase is lagging in Quadrant 1</li> <li>b:</li> <li>0 current phase is lagging in Quadrant 2</li> <li>1 current phase is lagging in Quadrant 3</li> <li>1 current phase is lagging in Quadrant 3</li> <li>0 current phase is lagging in Quadrant 4</li> </ul>	060000 0000 0110 0000	R/W
30297		W,Wh(Q1+Q4) direction	ASCII	16 char			Delivered	R
		W,Wh(Q2+Q3) direction	ASCII	16 char			Received	R
		VAR,VARh(Q1+Q2) direction	ASCII	16 char	ļ		Delivered	R
00021		VAR,VARh(Q3+Q4) direction VA,VAh(Q1+Q4) direction	ASCII ASCII	16 char 16 char			Received	R R
		VA,VAh(Q1+Q4) direction	ASCII	16 char			Delivered Received	R
		Limit #1 Identifier	UINT16		1	use Modbus address as the identifier (see notes 7, 11, 12)	0x03E7	R/W
		Limit #1 Out High Set point		-200.0 to +200.0	0.1% of full scale	Setpoint for the "above" limit (LM1), see notes 11-12.	0x04B0	R/W



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
30347	1	Limit #1 In High Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "above" limit clears; normally less than or equal to the "above" setpoint; see notes 11-12.	0x044C	R/W
30348	1	Limit #1 Out Low Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "below" limit (LM2), see notes 11-12.	0x0320	R/W
30349	1	Limit #1 In Low Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "below" limit clears; normally greater than or equal to the "below" setpoint; see notes 11-12.	0x0384	R/W
30350	1	Limit #2 Identifier	SINT16			use Modbus address as the identifier (see notes 7, 11, 12)	0x03E9	R/W
30351	1	Limit #2 Out High Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "above" limit (LM1), see notes 11-12.	0x04B0	R/W
30352	1	Limit #2 In High Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "above" limit clears; normally less than or equal to the "above" setpoint; see notes 11-12.	0x044C	R/W
30353	1	Limit #2 Out Low Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "below" limit (LM2), see notes 11-12.	0x0320	R/W
30354	1	Limit #2 In Low Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "below" limit clears; normally greater than or equal to the "below" setpoint; see notes 11-12.	0x0384	R/W
30355	1	Limit #3 Identifier	SINT16			use Modbus address as the identifier (see notes 7, 11, 12)	0x03EB	R/W
30356	1	Limit #3 Out High Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "above" limit (LM1), see notes 11-12.	0x04B0	R/W
30357	1	Limit #3 In High Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "above" limit clears; normally less than or equal to the "above" setpoint; see notes 11-12.	0x044C	R/W
30358	1	Limit #3 Out Low Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "below" limit (LM2), see notes 11-12.	0x0320	R/W
30359	1	Limit #3 In Low Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "below" limit clears; normally greater than or equal to the "below" setpoint; see notes 11-12.	0x0384	R/W
30360	1	Limit #4 Identifier	SINT16			use Modbus address as the identifier (see notes 7, 11, 12)	0x03F3	R/W
30361	1	Limit #4 Out High Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "above" limit (LM1), see notes 11-12.	0x07D0	R/W
30362	1	Limit #4 In High Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "above" limit clears; normally less than or equal to the "above" setpoint; see notes 11-12.	0x076C	R/W
30363	1	Limit #4 Out Low Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "below" limit (LM2), see notes 11-12.	0x0320	R/W
30364	1	Limit #4 In Low Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "below" limit clears; normally greater than or equal to the "below" setpoint; see notes 11-12.	0x0384	R/W
30365	1	Limit #5 Identifier	SINT16			use Modbus address as the identifier (see notes 7, 11, 12)	0x03F5	R/W
30366	1	Limit #5 Out High Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "above" limit (LM1), see notes 11-12.	0x07D0	R/W
30367	1	Limit #5 In High Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "above" limit clears; normally less than or equal to the "above" setpoint; see notes 11-12.	0x076C	R/W
30368	1	Limit #5 Out Low Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "below" limit (LM2), see notes 11-12.	0x0320	R/W
30369	1	Limit #5 In Low Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "below" limit clears; normally greater than or equal to the "below" setpoint; see notes 11-12.	0x0384	R/W
30370	1	Limit #6 Identifier	SINT16			use Modbus address as the identifier (see notes 7, 11, 12)	0x03F7	R/W
30371	1	Limit #6 Out High Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "above" limit (LM1), see notes 11-12.	0x07D0	R/W
30372	1	Limit #6 In High Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "above" limit clears; normally less than or equal to the "above" setpoint; see notes 11-12.	0x076C	R/W



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
30373	1	Limit #6 Out Low Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "below" limit (LM2), see notes 11-12.	0x0320	R/W
30374	1	Limit #6 In Low Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "below" limit clears; normally greater than or equal to the "below" setpoint; see notes 11-12.	0x0384	R/W
30375	1	Limit #7 Identifier	SINT16			use Modbus address as the identifier (see notes 7, 11, 12)	0x0401	R/W
30376	1	Limit #7 Out High Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "above" limit (LM1), see notes 11-12.	0x03FC	R/W
30377	1	Limit #7 In High Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "above" limit clears; normally less than or equal to the "above" setpoint; see notes 11-12.	0x03FC	R/W
30378	1	Limit #7 Out Low Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "below" limit (LM2), see notes 11-12.	0x03D4	R/W
30379	1	Limit #7 In Low Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "below" limit clears; normally greater than or equal to the "below" setpoint; see notes 11-12.	0x03D4	R/W
30380	1	Limit #8 Identifier	SINT16			use Modbus address as the identifier (see notes 7, 11, 12)	0	R/W
30381	1	Limit #8 Out High Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "above" limit (LM1), see notes 11-12.	0	R/W
30382	1	Limit #8 In High Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "above" limit clears; normally less than or equal to the "above" setpoint; see notes 11-12.	0	R/W
30383	1	Limit #8 Out Low Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "below" limit (LM2), see notes 11-12.	0	R/W
30384	1	Limit #8 In Low Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "below" limit clears; normally greater than or equal to the "below" setpoint; see notes 11-12.	0	R/W
30385	1	Limit #9 Identifier	SINT16			use Modbus address as the identifier (see notes 7, 11, 12)	0	R/W
30386	1	Limit #9 Out High Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "above" limit (LM1), see notes 11-12.	0	R/W
30387	1	Limit #9 In High Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "above" limit clears; normally less than or equal to the "above" setpoint; see notes 11-12.	0	R/W
30388	1	Limit #9 Out Low Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "below" limit (LM2), see notes 11-12.	0	R/W
30389	1	Limit #9 In Low Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "below" limit clears; normally greater than or equal to the "below" setpoint; see notes 11-12.	0	R/W
30390	1	Limit #10 Identifier	SINT16			use Modbus address as the identifier (see notes 7, 11, 12)	0	R/W
30391	1	Limit #10 Out High Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "above" limit (LM1), see notes 11-12.	0	R/W
30392	1	Limit #10 In High Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "above" limit clears; normally less than or equal to the "above" setpoint; see notes 11-12.	0	R/W
30393	1	Limit #10 Out Low Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "below" limit (LM2), see notes 11-12.	0	R/W
30394	1	Limit #10 In Low Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "below" limit clears; normally greater than or equal to the "below" setpoint; see notes 11-12.	0	R/W
30395	1	Limit #11 Identifier	SINT16			use Modbus address as the identifier (see notes 7, 11, 12)	0	R/W
30396	1	Limit #11 Out High Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "above" limit (LM1), see notes 11-12.	0	R/W
30397	1	Limit #11 In High Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "above" limit clears; normally less than or equal to the "above" setpoint; see notes 11-12.	0	R/W



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
3039	81	Limit #11 Out Low Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "below" limit (LM2), see notes 11-12.	0	R/W
3039	9 1	Limit #11 In Low Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "below" limit clears; normally greater than or equal to the "below" setpoint; see notes 11-12.	0	R/W
3040	0 1	Limit #12 Identifier	SINT16			use Modbus address as the identifier (see notes 7, 11, 12)	0	R/W
3040	1 1	Limit #12 Out High Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "above" limit (LM1), see notes 11-12.	0	R/W
3040	2 1	Limit #12 In High Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "above" limit clears; normally less than or equal to the "above" setpoint; see notes 11-12.	0	R/W
3040	31	Limit #12 Out Low Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "below" limit (LM2), see notes 11-12.	0	R/W
3040	4 1	Limit #12 In Low Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "below" limit clears; normally greater than or equal to the "below" setpoint; see notes 11-12.	0	R/W
3040		Limit #13 Identifier	SINT16			use Modbus address as the identifier (see notes 7, 11, 12)	0	R/W
3040	6 1	Limit #13 Out High Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "above" limit (LM1), see notes 11-12.	0	R/W
3040	7 1	Limit #13 In High Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "above" limit clears; normally less than or equal to the "above" setpoint; see notes 11-12.	0	R/W
3040	81	Limit #13 Out Low Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "below" limit (LM2), see notes 11-12.	0	R/W
3040	9 1	Limit #13 In Low Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "below" limit clears; normally greater than or equal to the "below" setpoint; see notes 11-12.	0	R/W
3041	0 1	Limit #14 Identifier	SINT16			use Modbus address as the identifier (see notes 7, 11, 12)	0	R/W
3041	1 1	Limit #14 Out High Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "above" limit (LM1), see notes 11-12.	0	R/W
3041	2 1	Limit #14 In High Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "above" limit clears; normally less than or equal to the "above" setpoint; see notes 11-12.	0	R/W
3041	31	Limit #14 Out Low Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "below" limit (LM2), see notes 11-12.	0	R/W
3041	4 1	Limit #14 In Low Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "below" limit clears; normally greater than or equal to the "below" setpoint; see notes 11-12.	0	R/W
3041		Limit #15 Identifier	SINT16			use Modbus address as the identifier (see notes 7, 11, 12)	0	R/W
3041	61	Limit #15 Out High Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "above" limit (LM1), see notes 11-12.	0	R/W
3041	7 1	Limit #15 In High Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "above" limit clears; normally less than or equal to the "above" setpoint; see notes 11-12.	0	R/W
3041	81	Limit #15 Out Low Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "below" limit (LM2), see notes 11-12.	0	R/W
3041	9 1	Limit #15 In Low Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "below" limit clears; normally greater than or equal to the "below" setpoint; see notes 11-12.	0	R/W
3042		Limit #16 Identifier	SINT16			use Modbus address as the identifier (see notes 7, 11, 12)	0	R/W
3042	1 1	Limit #16 Out High Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "above" limit (LM1), see notes 11-12.	0	R/W
3042	2 1	Limit #16 In High Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "above" limit clears; normally less than or equal to the "above" setpoint; see notes 11-12.	0	R/W
3042	31	Limit #16 Out Low Set point	SINT16	-200.0 to +200.0	0.1% of full scale	Setpoint for the "below" limit (LM2), see notes 11-12.	0	R/W
3042	4 1	Limit #16 In Low Threshold	SINT16	-200.0 to +200.0	0.1% of full scale	Threshold at Which "below" limit clears; normally greater than or equal to the "below" setpoint; see notes 11-12.	0	R/W
3048	9 64	Memo Field	UINT16			User field to store whatever data they wish into non-volatile memory	0	R/W



Reg# Size Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
CT/PT compensation factors for computation						
30553 1 PT - A ratio compensation @ 69V	SINT16	-15 to 15	0.01%		0	R/W
30554 1 PT - A ratio compensation @ 120V	SINT16	-15 to 15	0.01%		0	R/W
30555 1 PT - A ratio compensation @ 230V	SINT16	-15 to 15	0.01%		0	R/W
30556 1 PT - A ratio compensation @ 480V	SINT16	-15 to 15	0.01%		0	R/W
30557 1 PT - B ratio compensation @ 69V	SINT16	-15 to 15	0.01%		0	R/W
30558 1 PT - B ratio compensation @ 120V	SINT16	-15 to 15	0.01%		0	R/W
30559 1 PT - B ratio compensation @ 230V	SINT16	-15 to 15	0.01%		0	R/W
30560 1 PT - B ratio compensation @ 480V	SINT16	-15 to 15	0.01%		0	R/W
30561 1 PT - C ratio compensation @ 69V	SINT16	-15 to 15	0.01%		0	R/W
30562 1 PT - C ratio compensation @ 120V	SINT16	-15 to 15	0.01%		0	R/W
30563 1 PT - C ratio compensation @ 230V	SINT16	-15 to 15	0.01%		0	R/W
30564 1 PT - C ratio compensation @ 480V	SINT16	-15 to 15	0.01%		0	R/W
30565 1 CT - A ratio compensation @ 0.025A(0.0025A)	SINT16	-15 to 15	0.01%	CL20(CL2)	0	R/W
30566 1 CT - A ratio compensation @ 0.25A(0.025A)	SINT16	-15 to 15	0.01%	CL20(CL2)	0	R/W
30567 1 CT - A ratio compensation @ 0.5A(0.05A)	SINT16	-15 to 15	0.01%	CL20(CL2)	0	R/W
30568 1 CT - A ratio compensation @ 1A(0.1A)	SINT16	-15 to 15	0.01%	CL20(CL2)	0	R/W
30569 1 CT - A ratio compensation @ 5A(0.5A)	SINT16	-15 to 15	0.01%	CL20(CL2)	0	R/W
30570 1 CT - A ratio compensation @ 10A(1A)	SINT16	-15 to 15	0.01%	CL20(CL2)	0	R/W
30571 1 CT - B ratio compensation @ 0.025A(0.0025A)	SINT16	-15 to 15	0.01%	CL20(CL2)	0	R/W
30572 1 CT - B ratio compensation @ 0.25A(0.025A)	SINT16	-15 to 15	0.01%	CL20(CL2)	0	R/W
30573 1 CT - B ratio compensation @ 0.5A(0.05A)	SINT16	-15 to 15	0.01%	CL20(CL2)	0	R/W
30574 1 CT - B ratio compensation @ 1A(0.1A)	SINT16	-15 to 15	0.01%	CL20(CL2)	0	R/W
30575 1 CT - B ratio compensation @ 5A(0.5A)	SINT16	-15 to 15	0.01%	CL20(CL2)	0	R/W
30576 1 CT - B ratio compensation @ 10A(1A)	SINT16	-15 to 15	0.01%	CL20(CL2)	0	R/W
30577 1 CT - C ratio compensation @ 0.025A(0.0025A)	SINT16	-15 to 15	0.01%	CL20(CL2)	0	R/W
30578 1 CT - C ratio compensation @ 0.25A(0.025A)	SINT16	-15 to 15	0.01%	CL20(CL2)	0	R/W
30579 1 CT - C ratio compensation @ 0.5A(0.05A)	SINT16	-15 to 15	0.01%	CL20(CL2)	0	R/W
30580 1 CT - C ratio compensation @ 1A(0.1A)	SINT16	-15 to 15	0.01%	CL20(CL2)	0	R/W
30581 1 CT - C ratio compensation @ 5A(0.5A)	SINT16	-15 to 15	0.01%	CL20(CL2)	0	R/W
30582 1 CT - C ratio compensation @ 10A(1A)	SINT16	-15 to 15	0.01%	CL20(CL2)	0	R/W



		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
30583 1 CT - A phase compensation @ 0.025A(0.0025A)			12 ns	CL20(CL2)	0	R/W
30584 1 CT - A phase compensation @ 0.25A(0.025A)	SINT16		12 ns	CL20(CL2)	0	R/W
30585 1 CT - A phase compensation @ 0.5A(0.05A)			12 ns	CL20(CL2)	0	R/W
30586 1 CT - A phase compensation @ 1A(0.1A)	SINT16	-5000 to 5000	12 ns	CL20(CL2)	0	R/W
30587 1 CT - A phase compensation @ 5A(0.5A)		-5000 to 5000	12 ns	CL20(CL2)	0	R/W
30588 1 CT - A phase compensation @ 10A(1A)	SINT16	-5000 to 5000	12 ns	CL20(CL2)	0	R/W
30589 1 CT - B phase compensation @ 0.025A(0.0025A)	SINT16	-5000 to 5000	12 ns	CL20(CL2)	0	R/W
30590 1 CT - B phase compensation @ 0.25A(0.025A)	SINT16		12 ns	CL20(CL2)	0	R/W
30591 1 CT - B phase compensation @ 0.5A(0.05A)	SINT16	-5000 to 5000	12 ns	CL20(CL2)	0	R/W
30592 1 CT - B phase compensation @ 1A(0.1A)	SINT16	-5000 to 5000	12 ns	CL20(CL2)	0	R/W
30593 1 CT - B phase compensation @ 5A(0.5A)	SINT16	-5000 to 5000	12 ns	CL20(CL2)	0	R/W
30594 1 CT - B phase compensation @ 10A(1A)	SINT16		12 ns	CL20(CL2)	0	R/W
30595 1 CT - C phase compensation @ 0.025A(0.0025A)	SINT16		12 ns	CL20(CL2)	0	R/W
30596 1 CT - C phase compensation @ 0.25A(0.025A)	SINT16		12 ns	CL20(CL2)	0	R/W
30597 1 CT - C phase compensation @ 0.5A(0.05A)			12 ns	CL20(CL2)	0	R/W
30598 1 CT - C phase compensation @ 1A(0.1A)	SINT16	-5000 to 5000	12 ns	CL20(CL2)	0	R/W
30599 1 CT - C phase compensation @ 5A(0.5A)	SINT16	-5000 to 5000	12 ns	CL20(CL2)	0	R/W
30600 1 CT - C phase compensation @ 10A(1A)	SINT16		12 ns	CL20(CL2)	0	R/W
30601 1 PT - A phase compensation @ 69V	SINT16	-5000 to 5000	12 ns	CL20(CL2)	0	R/W
30602 1 PT - A phase compensation @ 120V	SINT16	-5000 to 5000	12 ns	CL20(CL2)	0	R/W
30603 1 PT - A phase compensation @ 230V	SINT16	-5000 to 5000	12 ns	CL20(CL2)	0	R/W
30604 1 PT - A phase compensation @ 480V	SINT16		12 ns	CL20(CL2)	0	R/W
30605 1 PT - B phase compensation @ 69V	SINT16	-5000 to 5000	12 ns	CL20(CL2)	0	R/W
30606 1 PT - B phase compensation @ 120V	SINT16	-5000 to 5000	12 ns	CL20(CL2)	0	R/W
30607 1 PT - B phase compensation @ 230V	SINT16		12 ns	CL20(CL2)	0	R/W
30608 1 PT - B phase compensation @ 480V	SINT16	-5000 to 5000	12 ns	CL20(CL2)	0	R/W
30609 1 PT - C phase compensation @ 69V	SINT16	-5000 to 5000	12 ns	CL20(CL2)	0	R/W
30610 1 PT - C phase compensation @ 120V	SINT16	-5000 to 5000	12 ns	CL20(CL2)	0	R/W
30611 1 PT - C phase compensation @ 230V	SINT16	-5000 to 5000	12 ns	CL20(CL2)	0	R/W
30612 1 PT - C phase compensation @ 480V	SINT16	-5000 to 5000	12 ns	CL20(CL2)	0	R/W



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
CT/PT	comp	ensation factor storage (Note 5)						
30613	4	A phase PT compensation @V1, V2,V3, V4 (% error)	SINT16	-15 to 15	0.01%	Voltage levels V1,V2,V3,V4 can be obtained from registers 0x77DC - 0x77DF	0	R/W
30617	4	B phase PT compensation @V1, V2,V3, V4 (% error)	SINT16	-15 to 15	0.01%	Voltage levels V1,V2,V3,V4 can be obtained from registers 0x77E0 - 0x77E3	0	R/W
30621	4	C phase PT compensation@V1, V2,V3, V4 (% error)	SINT16	-15 to 15	0.01%	Voltage levels V1,V2,V3,V4 can be obtained from registers 0x77E4 - 0x77E7	0	R/W
30625	8	A phase CT compensation @ c1, c2, c3, c4,c5,c6,c7,c8 (% error)	SINT16	-15 to 15	0.01%	Current levels c1,c2,c3,c4,c5,c6,c7,c8 can be obtained from registers 0x77E8 - 0x77EF	0	R/W
30633	8	B phase CT compensation @ c1, c2, c3, c4,c5,c6,c7,c8 (% error)	SINT16	-15 to 15	0.01%	Current levels c1,c2,c3,c4,c5,c6,c7,c8 can be obtained from registers 0x77F0 - 0x77F7	0	R/W
30641	8	C phase CT compensation @ c1, c2, c3, c4,c5,c6,c7,c8 (% error)	SINT16	-15 to 15	0.01%	Current levels c1,c2,c3,c4,c5,c6,c7,c8 can be obtained from registers 0x77F8 - 0x77FF	0	R/W
30649	8	A phase PF compensation @ c1, c2, c3, c4,c5,c6,c7,c8	SINT16	-5000 to 5000	12 ns	Current levels c1,c2,c3,c4,c5,c6,c7,c8 can be obtained from registers 0x77E8 - 0x77EF	0	R/W
30657	8	B phase PF compensation @ c1, c2, c3, c4,c5,c6,c7,c8	SINT16	-5000 to 5000	12 ns	Current levels c1,c2,c3,c4,c5,c6,c7,c8 can be obtained from registers 0x77F0 - 0x77F7	0	R/W
30665	8	C phase PF compensation @ c1, c2, c3, c4,c5,c6,c7,c8	SINT16	-5000 to 5000	12 ns	Current levels c1,c2,c3,c4,c5,c6,c7,c8 can be obtained from registers 0x77F8 - 0x77FF	0	R/W
30673	4	A phase PF compensation @V1, V2,V3, V4	SINT16	-5000 to 5000	12 ns	Voltage levels V1,V2,V3,V4 can be obtained from registers 0x77DC - 0x77DF	0	R/W
30677	4	B phase PF compensation @V1, V2,V3, V4	SINT16	-5000 to 5000	12 ns	Voltage levels V1,V2,V3,V4 can be obtained from registers 0x77E0 - 0x77E3	0	R/W
30681	4	C phase PF compensation @V1, V2,V3, V4	SINT16	-5000 to 5000	12 ns	Voltage levels V1,V2,V3,V4 can be obtained from registers 0x77E4 - 0x77E7	0	R/W
30685	4	A phase Voltage Levels (V1,V2,V3,V4)	UINT16	1 to 65535	0.01%		0	R/W
30689	4	B phase Voltage Levels (V1,V2,V3,V4)	UINT16	1 to 65535	0.01%	The voltage and current levels are saved in these registers in terms of	0	R/W
30693	4	C phase Voltage Levels (V1,V2,V3,V4)	UINT16	1 to 65535	0.01%	percentage of the primary voltage Which can be obtained from the PT	0	R/W
30697	8	A phase Current Levels (c1,c2,c3,c4,c5,c6,c7,c8)	UINT16	1 to 65535	0.01%	numerator registesr(0x0752-0x0753) and primary current Which can be	0	R/W
30705	8	B phase Current Levels (c1,c2,c3,c4,c5,c6,c7,c8)	UINT16	1 to 65535	0.01%	obtained from CT numerator register(0x7530).	0	R/W
30713	8	C phase Current Levels (c1,c2,c3,c4,c5,c6,c7,c8)	UINT16	1 to 65535	0.01%		U	R/W

Reg# Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
30721 1	Aggregator 1, Identifier for Register		1 to 65535		Use Modbus address as the identifier (see note 7)		R/W
30722 1	Aggregator 2, Identifier for Register		1 to 65535		Use Modbus address as the identifier (see note 7)		R/W
30723 1	Aggregator 3, Identifier for Register	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)		R/W
30724 1	Aggregator 4, Identifier for Register	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)		R/W
30725 1	Aggregator options for energy aggregation	UINT16	bitmapped		b15-b8: not used, must be 0 b7: apply energy to aggregator 4; 0=add, 1=subtract b6: apply energy to aggregator 4; 0=no, 1=yes b5: apply energy to aggregator 3; 0=add, 1=subtract b4: apply energy to aggregator 3; 0=no, 1=yes b3: apply energy to aggregator 2; 0=add, 1=subtract b2: apply energy to aggregator 2; 0=no, 1=yes b1: apply energy to aggregator 1; 0=add, 1=subtract b0: apply energy to aggregator 1; 0=no, 1=yes	P0000000000000000000000000000000000000	R/W
30726 1	Aggregator 1 Input accumulator options	UINT16	bitmapped		Apply option card 2, input accumulator 4 to aggregator: b15: 0=add, 1=subtract; b14: 0=no, 1=yes Apply option card 2, input accumulator 3 to aggregator: b13: 0=add, 1=subtract; b12: 0=no, 1=yes Apply option card 2, input accumulator 2 to aggregator: b11: 0=add, 1=subtract; b10: 0=no, 1=yes Apply option card 2, input accumulator 1 to aggregator: b9: 0=add, 1=subtract; b8: 0=no, 1=yes Apply option card 1, input accumulator 4 to aggregator: b7: 0=add, 1=subtract; b6: 0=no, 1=yes Apply option card 1, input accumulator 3 to aggregator: b5: 0=add, 1=subtract; b4: 0=no, 1=yes Apply option card 1, input accumulator 2 to aggregator: b5: 0=add, 1=subtract; b2: 0=no, 1=yes Apply option card 1, input accumulator 1 to aggregator: b3: 0=add, 1=subtract; b2: 0=no, 1=yes Apply option card 1, input accumulator 1 to aggregator: b1: 0=add, 1=subtract; b0: 0=no, 1=yes	b00000000000000000	R/W



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
3072	7 1	Aggregator 2 Input accumulator options	UINT16	bitmapped		Apply option card 2, input accumulator 4 to aggregator: b15: 0=add, 1=subtract; b14: 0=no, 1=yes Apply option card 2, input accumulator 3 to aggregator: b13: 0=add, 1=subtract; b12: 0=no, 1=yes Apply option card 2, input accumulator 2 to aggregator: b11: 0=add, 1=subtract; b10: 0=no, 1=yes Apply option card 2, input accumulator 1 to aggregator: b9: 0=add, 1=subtract; b8: 0=no, 1=yes Apply option card 1, input accumulator 4 to aggregator: b7: 0=add, 1=subtract; b6: 0=no, 1=yes Apply option card 1, input accumulator 3 to aggregator: b5: 0=add, 1=subtract; b4: 0=no, 1=yes Apply option card 1, input accumulator 2 to aggregator: b5: 0=add, 1=subtract; b2: 0=no, 1=yes Apply option card 1, input accumulator 1 to aggregator: b3: 0=add, 1=subtract; b2: 0=no, 1=yes Apply option card 1, input accumulator 1 to aggregator: b1: 0=add, 1=subtract; b0: 0=no, 1=yes	ь000000000000000	R/W
3072	8 1	Aggregator 3 Input accumulator options	UINT16	bitmapped		Apply option card 2, input accumulator 4 to aggregator: b15: 0=add, 1=subtract; b14: 0=no, 1=yes Apply option card 2, input accumulator 3 to aggregator: b13: 0=add, 1=subtract; b12: 0=no, 1=yes Apply option card 2, input accumulator 2 to aggregator: b11: 0=add, 1=subtract; b10: 0=no, 1=yes Apply option card 2, input accumulator 1 to aggregator: b9: 0=add, 1=subtract; b8: 0=no, 1=yes Apply option card 1, input accumulator 4 to aggregator: b7: 0=add, 1=subtract; b6: 0=no, 1=yes Apply option card 1, input accumulator 3 to aggregator: b5: 0=add, 1=subtract; b4: 0=no, 1=yes Apply option card 1, input accumulator 3 to aggregator: b5: 0=add, 1=subtract; b4: 0=no, 1=yes Apply option card 1, input accumulator 2 to aggregator: b3: 0=add, 1=subtract; b2: 0=no, 1=yes Apply option card 1, input accumulator 1 to aggregator: b1: 0=add, 1=subtract; b0: 0=no, 1=yes	Ь000000000000000	R/W



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
30729	1	Aggregator 4 Input accumulator options	UINT16	bitmapped		Apply option card 2, input accumulator 4 to aggregator: b15: 0=add, 1=subtract; b14: 0=no, 1=yes Apply option card 2, input accumulator 3 to aggregator: b13: 0=add, 1=subtract; b12: 0=no, 1=yes Apply option card 2, input accumulator 2 to aggregator: b11: 0=add, 1=subtract; b10: 0=no, 1=yes Apply option card 2, input accumulator 1 to aggregator: b9: 0=add, 1=subtract; b8: 0=no, 1=yes Apply option card 1, input accumulator 4 to aggregator: b7: 0=add, 1=subtract; b6: 0=no, 1=yes Apply option card 1, input accumulator 3 to aggregator: b5: 0=add, 1=subtract; b4: 0=no, 1=yes Apply option card 1, input accumulator 2 to aggregator: b5: 0=add, 1=subtract; b4: 0=no, 1=yes Apply option card 1, input accumulator 2 to aggregator: b3: 0=add, 1=subtract; b2: 0=no, 1=yes Apply option card 1, input accumulator 1 to aggregator: b1: 0=add, 1=subtract; b0: 0=no, 1=yes	P0000000000000000000000000000000000000	R/W
30730	1	Aggregator 1 scaling and formatting	UINT16	bitmapped		b15: add leading zeros; 1=yes 0=no b9-b8: (0 to 3)=(5 to 8) energy integer digits b6-b4: 0=unit, 3=kilo, 6=mega b2-b0: (0 to 6)= energy decimal digits b14-b10,b7,b5: not used, must be 0	06000001100110001	R/W
30731	1	Aggregator 2 scaling and formatting	UINT16	bitmapped		b15: add leading zeros; 1=yes 0=no b9-b8: (0 to 3)=(5 to 8) energy integer digits b6-b4: 0=unit, 3=kilo, 6=mega b2-b0: (0 to 6)= energy decimal digits b14-b10,b7,b5: not used, must be 0	0b0000001100110001	R/W
30732	1	Aggregator 3 scaling and formatting	UINT16	bitmapped		b15: add leading zeros; 1=yes 0=no b9-b8: (0 to 3)=(5 to 8) energy integer digits b6-b4: 0=unit, 3=kilo, 6=mega b2-b0: (0 to 6)= energy decimal digits b14-b10,b7,b5: not used, must be 0	06000001100110001	R/W
30733		Aggregator 4 scaling and formatting	UINT16	bitmapped		b15: add leading zeros; 1=yes 0=no b9-b8: (0 to 3)=(5 to 8) energy integer digits b6-b4: 0=unit, 3=kilo, 6=mega b2-b0: (0 to 6)= energy decimal digits b14-b10,b7,b5: not used, must be 0	06000001100110001	R/W
30734	8	Aggregator 1 label		16 char				R/W
30742	8	Aggregator 2 label		16 char				R/W
30750		Aggregator 3 label Aggregator 4 label	ASCII ASCII	16 char 16 char				R/W R/W
		Aggregator 4 laber	ASCII	18 char		See AEP code details in the manual	filled by test software	R/W
		AEP expansion (Reserved)	ASCII	8 char			0	R/W
		Profile Name	ASCII	32 char			0	R/W



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
		le Settings for Option Card 1 rd 1 Setups Block	<u> </u>			Arkinas Ranne 32080.3288		
32000	1	Class ID of the Option Card 1 Settings		bitmapped		b15-b8: reserved, do not change b7-b0: Class ID of the installed Card. See note 22.	0	R/W
Ove	rlay #'	1 Settings Registers for any communication capable card, including network a	nd analog			1		
32001	1	Meter address for Modbus/DNP protocol	UINT16	1 to 247 (Modbus) 1 to 65519 (DNP)		Programmed to 0 when any Analog option board is installed. Not for DNP over Ethernet for meter firmware V. 0005 and above.	1	R/W
32002	1	Speed and format	UINT16	bitmapped		Bps: b14=57600; b13=38400; b12=19200; b11=14400; b10=9600 Stop bits: b7=0 one stop bit; b7=1 two stop bits Parity: b6=even; b5=odd; b4=none Data bits: b3=8; b2=7; b1=6; b0=5 b8,b9,b15 – reserved, don't change	No card installed: 0b0000000000000000 Network or fiber optic cards: 0b0100000000011000 Analog output cards: 0b0000010000011000	R/W
32004	1	Protocol	UINT16	bitmapped		ppp- ppp= 100 =DNP3; 010=Ascii Modbus; 001=Rtu Modbus Set to 0 When an analog board is installed.	0b0000000000000000000000000000000000000	R/W
32005		Reply delay	UINT16	0 to 65535	1 ms	Delay to reply to a Modbus transaction after receiving it. Set to 0 When an analog board is installed	0	R/W
Ove	rlay #'	1 Settings Registers for Digital I/O Relay Card				1		
32001	1	Input#1 - 2 bindings & logging enables	UINT16	bitmapped		2222 1111 One nibble for each input. Assuming "abcc" as the bits in each nibble: "a": select this input for EOI (End Of Interval)pulse sensing. "b": log this input When pulse is detected "cc": Input event trigger mode - Contact sensing method; 00 = '; 01 = open to close; 10 = close to open; 11 = any change. Every input has an associated internal accumulator (See input Accumulator Scaling), Which is incremented every time the input changes according with the trigger mode crieteria "cc"	0	R/W
32002		Relay #1 Delay to Operate		0 to 32767	0.1 s	Delay to operate the relay since request.	10	R/W
32003		Relay #1 Delay to Release		0 to 32767	0.1 s	Delay to release the relay since request.	10	R/W
32010	1	Relay #2 Delay to Operate		0 to 32767 0 to 32767	0.1 s	Delay to operate the relay since request.	10	R/W R/W
32011		Relay #2 Delay to Release	UINT16	U IU 32707	0.1 s	Delay to release the relay since request.	10	K/V



Reg#	Size	Description	Format		Unit of measure or resolution	Comments	Factory default value	Acc
32034	1	Input Accumulators Scaling	UINT16	bitmapped		Scaling factor for accumulation. E.g. $12345 \times 10^{-3} = 12$ $b15 \cdot b8 = don't care$ $b7 \cdot b4$ and $b3 \cdot b0 = input 2$ and 1 settings: $0b0000 = x10^{\circ}0$ $0b0001 = x10^{-1}$ $0b0011 = x10^{-2}$ $0b0010 = x10^{-4}$ $0b0101 = x10^{-5}$ $0b0110 = x10^{-6}$ Any other value disables accumulation on that channel!	0b111111111111111	R/W
32035	1	Relay Accumulators Scaling	UINT16	bitmapped		Scaling factor for accumulation. E.g. $12345 \times 10^{-3} = 12$ $b15 \cdot b8 = don't care$ $b7 \cdot b4$ and $b3 \cdot b0 = output 2$ and 1 settings: $0b0000 = x10^{0}$ $0b0001 = x10^{-1}$ $0b0010 = x10^{-2}$ $0b0011 = x10^{-3}$ $0b0100 = x10^{-4}$ $0b0110 = x10^{-6}$ Any other value disables accumulation on that channel!	0b111111111111111	R/W
32036	1	Fast pulse input selector	UINT16	bitmapped		b15: 1=open-to-close; 0=close-to-open change detected b2-b0: input number to be in fast mode	0	R/W



			Description Settings Registers for Digital I/O Pulse Output Card	Format		Unit of measure or resolution	Comments	Factory default value	Acc
3200			Input#1 - 4 bindings & logging enables	UINT16	bitmapped		44443333 22221111 One nibble for each input. Assuming "abcc" as the bits in each nibble: "a": select this input for EOI (End Of Interval)pulse sensing. "b": log this input When pulse is detected "cc": Input event trigger mode - Contact sensing method; 00 = '; 01 = open to close; 10 = close to open; 11 = any change. Every input has an associated internal accumulator (See input Accumulator Scaling), Which is incremented every time the input changes according with the trigger mode crieteria "cc"	0	R/W
3200	2 1	1 :	Source for Pulse Output#1	UINT16	enumeration		b10-b8 (Phase) : 000 = ', 001 = Phase A, 010 = Phase B, 011 = Phase C, 100 = All Phases, 101 = Pulse from EOI(End Of Interval). b3-b0 (Value): 0000= output disabled 0001 = Wh, 0010 = +Wh, 0010 = +Wh, 0100 = VARh, 0101 = +VARh, 0111 = VARh, 0111 = VARh, 1011 = (Q1+Q4) Wh, 1001 = (Q1+Q2) VARh, 1011 = (Q3+Q4) VARh. Other bits - don't care	0600001000000010	R/W



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
32003	8 1	Kt [Wh/pulse] factor for Pulse Output#1	UINT16	bitmapped		ddVVVVVV VVVVVVV "VV" = not scaled energy value per pulse, from 0 to 9999. "dd"= decimal point position: 00=0.XXXX, 01=X.XXX, 10=XX.XX, 11= X.XXX.	060100011100001000	R/W
32004	1	Source for Pulse Output#2	UINT16	enumeration		b10-b8 (Phase) : 000 = ', 001 = Phase A, 010 = Phase B, 011 = Phase C, 100 = All Phases, 101 = Pulse from EOI(End Of Interval). b3-b0 (Value): 0000= output disabled 0001 = Wh, 0010 = +Wh, 0010 = +Wh, 0100 = VARh, 0110 = -WARh, 0111 = VARh, 0111 = VARh, 0111 = VARh, 0111 = (Q1+Q2) Wh, 1001 = (Q2+Q3) Wh, 1010 = (Q1+Q2) VARh, 1011 = (Q3+Q4) VARh. Other bits - don't care	060000010000000010	R/W
32005	5 1	Kt [Wh/pulse] factor for Pulse Output#2	UINT16	bitmapped		ddVVVVVV VVVVVVVV "VV" = not scaled energy value per pulse, from 0 to 9999. "dd"= decimal point position: 00=0.XXXX, 01=X.XXX, 10=XX.XX, 11= X.XXX.	0b0100011100001000	R/W
32006	1	Source for Pulse Output#3	UINT16	enumeration		pppvvvv "ppp" (Phase) : 000 = ', 001 = Phase A, 010 = Phase B, 011 = Phase C, 100 = All Phases, 101 = Pulse from EOI(End Of Interval). "vvvv"(Value) : 0000= ', 0001 = Wh, 0010 = +Wh, 0010 = +Wh, 0101 = -VARh, 0101 = +VARh, 0111 = VARh, 0111 = VARh, 1010= (Q1+Q4) Wh, 1001= (Q1+Q4) VARh, 1011 = (Q3+Q4) VARh	0600001000000010	R/W



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
32007	1	Kt [Wh/pulse] factor for Pulse Output#3	UINT16	bitmapped		ddVVVVVV VVVVVVV "VV" = not scaled energy value per pulse, from 0 to 9999. "dd"= decimal point position: 00=0.XXXX, 01=X.XXX, 10=XX.XX, 11= X.XXX.	060100011100001000	R/W
32008	1	Source for Pulse Output#4	UINT16	enumeration		b10-b8 (Phase) : 000 = ', 001 = Phase A, 010 = Phase B, 011 = Phase C, 100 = All Phases, 101 = Pulse from EOI(End Of Interval). b3-b0 (Value): 0000 = output disabled 0001 = Wh, 0010 = +Wh, 0010 = +Wh, 0011 = -Wh, 0100 = VARh, 0110 = -VARh, 0111 = VARh, 0111 = VARh, 1010 = (Q1+Q4) Wh, 1000 = (Q1+Q4) Wh, 1010 = (Q1+Q2) VARh, 1011 = (Q3+Q4) VARh. Other bits - don't care	060000010000000010	R/W
32009	1	Kt [Wh/pulse] factor for Pulse Output#4	UINT16	bitmapped		ddVVVVVV VVVVVVVV "VV" = not scaled energy value per pulse, from 0 to 9999. "dd"= decimal point position: 00=0.XXXX, 01=X.XXX, 10=XX.XX, 11= X.XXX.	0b0100011100001000	R/W



Reg#	Size	Description	Format		Unit of measure or resolution	Comments	Factory default value	Acc
32010	1	Input Accumulators Scaling	UINT16	bitmapped		Scaling factor for accumulation. E.g. $12345 * 10^{-3} = 12$ b15-b12, $b11-b8$ , $b7-b4$ , $b3-b0 = input 4$ , 3, 2, 1 settings: $0b0000 = x10^{\circ}0$ $0b0001 = x10^{-1}$ $0b0011 = x10^{-2}$ $0b0011 = x10^{-3}$ $0b0100 = x10^{-5}$ $0b0110 = x10^{-6}$ Any other value disables accumulation on that channel!		R/W
32011	1	Output Accumulators Scaling	UINT16	bitmapped		Scaling factor for accumulation. E.g. $12345 * 10^{-3} = 12$ b15-b12, $b11-b8$ , $b7-b4$ , $b3-b0 = output 4$ , 3, 2, 1 settings: $0b0000 = x10^{0}$ $0b0001 = x10^{-1}$ $0b0010 = x10^{-2}$ $0b0111 = x10^{-3}$ $0b0100 = x10^{-4}$ $0b0101 = x10^{-6}$ Any other value disables accumulation on that channel!		R/W
32012	1	Fast pulse input selector	UINT16	bitmapped		b15: 1=open-to-close; 0=close-to-open change detected b2-b0: input number to be in fast mode	0	R/W



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
		2 Settings Registers for Digital I/O Relay Card			-			
32064		Input#1 Label	ASCII	16 char			16 spaces (char 0x20)	R/W
32072		Input#1 Low State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
32080		Input#1 High State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
32088		Input#2 Label	ASCII	16 char			16 spaces (char 0x20)	R/W
32096		Input#2 Low State Name		16 char			16 spaces (char 0x20)	R/W
32104	8	Input#2 High State Name		16 char			16 spaces (char 0x20)	R/W
32160	8	Relay#1 Label		16 char			16 spaces (char 0x20)	R/W
32168	8	Relay#1 Open State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
32176	8	Relay#1 Closed State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
32184	8	Relay#2 Label	ASCII	16 char			16 spaces (char 0x20)	R/W
32192	8	Relay#2 Open State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
32200		Relay#2 Closed State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
32256	8	Input#1 Accumulator Label	ASCII	16 char			16 spaces (char 0x20)	R/W
32264	8	Input#2 Accumulator Label	ASCII	16 char			16 spaces (char 0x20)	R/W
32288	1	Input#1 Accumulator Kt	UINT16	bitmapped		ddVVVVVV VVVVVVVV KT power factor for the Pulse Output "V" is raw power value in Wh/pulse from 0 to 9999. "dd"=decimal point position: 00=0.XXXX, 01=X.XXX, 10=XX.XX, 11= X.XXX.	0	R/W
32289	1	Input#2 Accumulator Kt	UINT16	bitmapped		ddVVVVVV VVVVVVVV KT power factor for the Pulse Output "V" is raw power value in Wh/pulse from 0 to 9999. "dd"=decimal point position: 00=0.XXXX, 01=X.XXX, 10=XX.XX, 11= X.XXX.	0	R/W



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
		2 Settings Registers for Digital I/O Pulse Output Card						
32064		Input#1 Label	ASCII	16 char			16 spaces (char 0x20)	R/W
32072		Input#1 Low State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
32080		Input#1 High State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
32088		Input#2 Label	ASCII	16 char			16 spaces (char 0x20)	R/W
32096		Input#2 Low State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
32104	8	Input#2 High State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
32112		Input#3 Label	ASCII	16 char			16 spaces (char 0x20)	R/W
32120	8	Input#3 Low State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
32128	8	Input#3 High State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
32136	8	Input#4 Label	ASCII	16 char			16 spaces (char 0x20)	R/W
32144	8	Input#4 Low State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
32152	8	Input#4 High State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
32160		Output#1 Label	ASCII	16 char			16 spaces (char 0x20)	R/W
32168	8	Output#1 Open State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
32176		Output#1 Closed State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
32184		Output#2 Label	ASCII	16 char			16 spaces (char 0x20)	R/W
32192		Output#2 Open State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
32200	8	Output#2 Closed State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
32208	8	Output#3 Label	ASCII	16 char			16 spaces (char 0x20)	R/W
32216		Output#3 Open State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
32224	8	Output#3 Closed State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
32232		Output#4 Label	ASCII	16 char			16 spaces (char 0x20)	R/W
32240		Output#4 Open State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
32248		Output#4 Closed State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
32256		Input#1 Accumulator Label	ASCII	16 char			16 spaces (char 0x20)	R/W
32264		Input#2 Accumulator Label	ASCII	16 char			16 spaces (char 0x20)	R/W
32272		Input#3 Accumulator Label	ASCII	16 char			16 spaces (char 0x20)	R/W
32272		Input#4 Accumulator Label	ASCII	16 char			16 spaces (char 0x20)	R/W
32288		Input#1 Accumulator Kt		bitmapped		ddVVVVVV VVVVVVVV KT power factor for the accumulator input "V" is raw power value in Wh/pulse from 0 to 9999. "dd"=decimal point position: 00=0.XXXX, 01=X.XXX, 10=XX.XX, 11= X.XXX.	0	R/W
32289	1	Input#2 Accumulator Kt	UINT16	bitmapped		ddVVVVVV VVVVVVVV KT power factor for the accumulator input "V" is raw power value in Wh/pulse from 0 to 9999. "dd"=decimal point position: 00=0.XXXX, 01=X.XXX, 10=XX.XX, 11= X.XXX.	0	R/W
32290	1	Input#3 Accumulator Kt	UINT16	bitmapped		ddVVVVVV VVVVVVVV KT power factor for the accumulator input "V" is raw power value in Wh/pulse from 0 to 9999. "dd"=decimal point position: 00=0.XXXX, 01=X.XXX, 10=XX.XX, 11= X.XXX.	0	R/W
32291	1	Input#4 Accumulator Kt	UINT16	bitmapped		ddVVVVVV VVVVVVVV KT power factor for the accumulator input "V" is raw power value in Wh/pulse from 0 to 9999. "dd"=decimal point position: 00=0.XXXX, 01=X.XXX, 10=XX.XX, 11= X.XXX.	0	R/W



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
<b>Ove</b> 32064	erlay #	2 Settings Registers for Analog Out 0-1mA / Analog Out 4-20mA Cards Update rate	UINT16	0 to 65535	1 ms	Fixed see specifications.	100	R/W
32065		Current source range - 1mA Card only!		0b0000 to 0b1111		Per channel: b0 to b3 as Ch1 to Ch4 0: uni-directional (0 to +1) mA 1: bi-directional (-1 to +1) mA	0b0011 ,1mA card 0b0000 ,4-20mA card	R/W
32066	1	Format parameter for output #1	UINT16	bitmapped		Format of the polled register:f=float 32; s=signed 32 bit int; u=unsigned 32 bit int; w=signed 16 bit int; b=unsigned 16 bit int.	06000000000010000	R/W
32067	1	Source register for Output#1	UINT16	0 to 65535		This register should be programmed with the address of the register Whose value is to be used for current output. In different words, the current level output of analog board will follow the value of the register addressed here.	0x03F9	R/W
32068	2	High value of source register for output#1	Note 23.			Value read from the source register at Which High nominal current will be output. Example: for the 4-20mA card, if this register is programmed with 750, then the current output will be 20mA When the value read from the source register is 750.	1800	R/W
32070	2	Low value of source register for output#1	Note 23.			Value read from the source register at Which Low nominal current will be output. Example: for the 4-20mA card, if this register is programmed with 0, then the current output will be 4mA When the value read from the source register is 0.	-1800	R/W
32072	1	Format parameter for output #2	UINT16	bitmapped		f suwb Format of the polled register:f=float 32; s=signed 32 bit int; u=unsigned 32 bit int; w=signed 16 bit int; b=unsigned 16 bit int.	06000000000010000	R/W
32073	1	Source register for Output#2	UINT16	0 to 65535		This register should be programmed with the address of the register Whose value is to be used for current output. In different words, the current level output of analog board will follow the value of the register addressed here.	0x03FB	R/W
32074	2	High value of source register for output#2	Note 23.			Value read from the source register at Which High nominal current will be output. Example: for the 4-20mA card, if this register is programmed with 750, then the current output will be 20mA When the value read from the source register is 750.	1800	R/W
32076	2	Low value of source register for output#2	Note 23.			Value read from the source register at Which Low nominal current will be output. Example: for the 4-20mA card, if this register is programmed with 0, then the current output will be 4mA When the value read from the source register is 0.	-1800	R/W



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
32078	1	Format parameter for output #3	UINT16	bitmapped		f suwb Format of the polled register:f=float 32; s=signed 32 bit int; u=unsigned 32 bit int; w=signed 16 bit int; b=unsigned 16 bit int.	0x0010 (float)	R/W
32079	1	Source register for Output#3	UINT16	0 to 65535		This register should be programmed with the address of the register Whose value is to be used for current output. In different words, the current level output of analog board will follow the value of the register addressed here.	WYE: 0x03E7 (Van), DELTA: 0x03ED (Vab)	R/W
32080	2	High value of source register for output#3	Note 23.			Value read from the source register at Which High nominal current will be output. Example: for the 4-20mA card, if this register is programmed with 750, then the current output will be 20mA When the value read from the source register is 750.	WYE: Van =300, DELTA Vab =600	R/W
32082	2	Low value of source register for output#3	Note 23.			Value read from the source register at Which Low nominal current will be output. Example: for the 4-20mA card, if this register is programmed with 0, then the current output will be 4mA When the value read from the source register is 0.	WYE: Van =0, DELTA: Vab = 0	R/W
32084	1	Format parameter for output #4	UINT16	bitmapped		f suwb Format of the polled register:f=float 32; s=signed 32 bit int; u=unsigned 32 bit int; w=signed 16 bit int; b=unsigned 16 bit int.	060000000000000000000000000000000000000	R/W
32085	1	Source register for Output#4	UINT16	0 to 65535		This register should be programmed with the address of the register Whose value is to be used for current output. In different words, the current level output of analog board will follow the value of the register addressed here.	0x03F3	R/W
32086	2	High value of source register for output#4	Note 23.			Value read from the source register at Which High nominal current will be output. Example: for the 4-20mA card, if this register is programmed with 750, then the current output will be 20mA When the value read from the source register is 750.	10	R/W
32088	2	Low value of source register for output#4	Note 23.			Value read from the source register at Which Low nominal current will be output. Example: for the 4-20mA card, if this register is programmed with 0, then the current output will be 4mA When the value read from the source register is 0.	0	R/W



		Description 2 Settings Registers for Network Cards	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
		General Options		bitmapped		<ul> <li>b15: reserved</li> <li>b14: 1 = Force IEC61860 to use Absolute Energies (unsigned)</li> <li>b13: 1 = DNP, Single Socket mode for Unsolicited messages.</li> <li>b12: 0 = email Alarm/Notification is enabled.</li> <li>b11: 0 = IEC61850 protocol is enabled.</li> <li>b10: 1 = the DNP over ethernet wrapper is enabled.</li> <li>b9: 0 = the Modbus over TCP/IP is enabled</li> <li>b8: 1 = the Tcp/Ip Silent Mode is enabled.</li> <li>b7: 0 = the Web server is enabled.</li> <li>b6: reserved. For Extended text in the diagnostics-log window</li> <li>b5-b3: reserved.</li> <li>b1: b0: reserved.</li> </ul>	06000000000001110	R/W
32065	1	DHCP enable		bitmapped		d DHCP: d=1 enabled, d=0 disabled (user must provide IP configuration).	0	R/W
32066	8	Host name label	ASCII			16 bytes (8 registers)	Meter	R/W
32074	4	IP card network address	UINT16	0 to 255		These 4 registers hold the 4 numbers (1 number each register) that make the IP address used by the card.	10.0.0.2	R/W
32078	1	IP network address mask length	UINT16	0 to 32		Number of bits that are set in the IP address mask, starting from the Msb of the 32 bit word. Example 24 = 255.255.255.0; a value of 2 would mean 192.0.0.0	255.0.0.0	R/W
32079	4	IP card network gateway address	UINT16	0 to 255		These 4 registers hold the 4 numbers that make the IP gateway address on network.	10.0.0.1	R/W
32083		DNS #1, IP address	UINT16	0 to 255		IP address of the DNS#1 on the network.	0.0.0.0	R/W
<u>32087</u> 32091		DNS #2, IP address TCP/IP Port – Modbus Gateway Service	UINT16 UINT16	0 to 255 32-65534		IP address of the DNS#2 on the network. Port for the Gateway service (modbus tcp/ip) When enabled. If this value is ZERO (0), the default address 502 will be used.	0.0.0.0 0x1F6	R/W R/W
32092	1	TCP/IP Port – WebService	UINT16	32-65534		Port for the Web service (html viewer) When enabled If this value is ZERO (0), the default address 80 will be used.	0x0050	R/W



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
32093	1	DNP Wrapper Server Port	UINT16	10 to 65534		Port number Where the DNP Server will listen for connections.	20000	R/W
32094	1	DNP Device number unit	UINT16	1 to 65519		Slave number under DNP protocol. This now works and needs to be set by software	1	R/W
32095	4	DNP Accepted IP Address Start	UINT16	0 to 255		These are 4 words representing the 4 numbers of an IPv4 address. This address defines the start address for a range of accepted address. Any client trying to connect from an address outside this range, will be rejected. To disable the start checking, use 0.0.0.	0.0.0.0	R/W
32099	4	DNP Accepted IP Address End	UINT16	0 to 255		These are 4 words representing the 4 numbers of an IPv4 address. This address defines the end address for a range of accepted address. Any client trying to connect from an address outside this range, will be rejected. To disable the end checking, use 255.255.255.255	255.255.255.255	R/W
32103	1	DNP Accepted IP Start Tcp/lp Port	UINT16	0 to 65535		DNP Safety: This number defines the start port, within a range of ports to be allowed to connect to the DNP server. Any client trying to connect from a port outside this range, will be rejected. To disable start, use 0.	0	R/W
32104	1	DNP Accepted IP End Tcp/lp Port	UINT16	0 to 65535		DNP Safety: This number defines the end port, within a range of ports to be allowed to connect to the DNP server. Any client trying to connect from a port outside this range, will be rejected. To disable enter 65535.	65535	R/W
32105	2	IP address for exclusive client access	UINT16	0 to 65535		from Ethernet card firmware version 3.43. Zero disables the feature	0 (0.0.0)	R/W
32107	3	MAC address for exclusive client access	UINT16	0 to 65535		from Ethernet card firmware version 3.43. Zero disables the feature	0 (0-0-0-0-0)	R/W
32110	32	NTP URL or IP(string)	ASCII			IP address (as string) or URL string, for the NTP server the Shark will connect to. This string must be null-terminated.	all null characters	R/W



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
		ble Settings for Option Card 2 ard 2 Setups Block				Address Hange: 33000-3399	9	
33000	1	Class ID of the Option Card 2 Settings		bitmapped		b15-b8: reserved. b7-b0: Class ID of the installed Card. See note 22.	0	R/W
Ove	erlay #	1 Settings Registers for any communication capable card, including network ar	nd analog					
33001	1	Meter address for Modbus protocol	UINT16	1 to 247 (Modbus) 1 to 65519 (DNP)		Programmed to 0 when any Analog option board is installed. Not for DNP over Ethernet for meter firmware V. 0005 and above.	1	R/W
33002	1	Speed and format	UINT16	bitmapped		Bps: b14=57600; b13=38400; b12=19200; b11=14400; b10=9600 Stop bits: b7=0 one stop bit; b7=1 two stop bits Parity: b6=even; b5=odd; b4=none Data bits: b3=8; b2=7; b1=6; b0=5 b8,b9,b15 - reserved, don't change	No card installed: 0b00000000000000000000000000000000000	R/W
33004	1	Protocol	UINT16	bitmapped		ppp- ppp= 100 =DNP3; 010=Ascii Modbus; 001=Rtu Modbus Set to 0 When an analog board is installed.	060000000000000000000000000000000000000	R/W
33005	1	Reply delay	UINT16	0 to 65535	1 ms	Delay to reply to a Modbus transaction after receiving it. Set to 0 When an analog board is installed	0	R/W

		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
Ove	rlay #	1 Settings Registers for Digital I/O Relay Card		r	1		ſ	
33001	1	Input#1 - 2 bindings & logging enables	UINT16	bitmapped		2222 1111 One nibble for each input. Assuming "abcc" as the bits in each nibble: "a": select this input for EOI (End Of Interval)pulse sensing. "b": log this input When pulse is detected "cc": Input event trigger mode - Contact sensing method; 00 = '; 01 = open to close; 10 = close to open; 11 = any change. Every input has an associated internal accumulator (See input Accumulator Scaling), Which is incremented every time the input changes according with the trigger mode criteria "cc"	0	R/W
33002	1	Relay #1 Delay to Operate	UINT16	0 to 32767	0.1 s	Delay to operate the relay since request.	10	R/W
33003		Relay #1 Delay to Release	UINT16	0 to 32767	0.1 s	Delay to release the relay since request.	10	R/W
33010	1	Relay #2 Delay to Operate	UINT16	0 to 32767	0.1 s	Delay to operate the relay since request.	10	R/W
33011	1	Relay #2 Delay to Release	UINT16	0 to 32767	0.1 s	Delay to release the relay since request.	10	R/W
33034	1	Input Accumulators Scaling	UINT16	bitmapped		Scaling factor for accumulation. E.g. $12345 * 10^{-3} = 12$ b15-b8 = don't care b7-b4 and b3-b0 = input 2 and 1 settings: $0b0000 = x10^{0}$ $0b0001 = x10^{-1}$ $0b0010 = x10^{-2}$ $0b0101 = x10^{-3}$ $0b0101 = x10^{-4}$ $0b0101 = x10^{-6}$ Any other value disables accumulation on that channel!	Ob111111111111111	R/W
33035	1	Relay Accumulators Scaling	UINT16	bitmapped		Scaling factor for accumulation. E.g. $12345 \times 10^{-3} = 12$ b15-b8 = don't care b7-b4 and $b3-b0 = output 2$ and 1 settings: $0b0000 = x10^{0}$ $0b0001 = x10^{-1}$ $0b0010 = x10^{-2}$ $0b0011 = x10^{-3}$ $0b0100 = x10^{-5}$ $0b0110 = x10^{-6}$ Any other value disables accumulation on that channel!	Ob1111111111111111	R/W
33036	1	Fast pulse input selector	UINT16	bitmapped		b15: 1=open-to-close; 0=close-to-open change detected b2-b0: input number to be in fast mode	0	R/W



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
<b>Ove</b>		1 Settings Registers for Digital I/O Pulse Output Card	UINT16	bitmapped		44443333 22221111 One nibble for each input. Assuming "abcc" as the bits in each nibble: "a": select this input for EOI (End Of Interval)pulse sensing. "b": log this input When pulse is detected "cc": Input event trigger mode - Contact sensing method; 00 = '; 01 = open to close; 10 = close to open; 11 = any change. Every input has an associated internal accumulator (See input Accumulator Scaling), Which is incremented every time the input changes according with the trigger mode crieteria "cc"	0	R/W
33002	1	Source for Pulse Output#1	UINT16	enumeration		b10-b8 (Phase) : 000 = ', 001 = Phase A, 010 = Phase B, 011 = Phase C, 100 = All Phases, 101 = Pulse from EOI(End Of Interval). b3-b0 (Value): 0000 = output disabled 0001 = Wh, 0010 = +Wh, 0010 = +Wh, 0100 = VARh, 0110 = -VARh, 0111 = VAR, 1010 = (Q1+Q4) Wh, 1000 = (Q1+Q4) Wh, 1010 = (Q2+Q3) Wh, 1010 = (Q1+Q2) VARh, 1011 = (Q3+Q4) VARh. Other bits - don't care	060000010000000010	R/W
33003	1	Kt [Wh/pulse] factor for Pulse Output#1	UINT16	bitmapped		b15-b14: decimal point position: 00=0.XXXX, 01=X.XXX, 10=XX.XX, 11= X.XXX. b13-b0: not scaled energy value per pulse, from 0 to 9999.	0b0100011100001000	R/W



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
33004	1	Source for Pulse Output#2	UINT16	enumeration		b10-b8 (Phase) : 000 = ', 001 = Phase A, 010 = Phase B, 011 = Phase C, 100 = All Phases, 101 = Pulse from EOI(End Of Interval). b3-b0 (Value): 0000= output disabled 0001 = Wh, 0010 = +Wh, 0010 = +Wh, 0100 = VARh, 0101 = +VARh, 0101 = +VARh, 0111 = VARh, 0111 = VAR, 1000 = (Q1+Q4) Wh, 1000 = (Q1+Q4) Wh, 1010 = (Q1+Q2) VARh, 1011 = (Q3+Q4) VARh. Other bits - don't care	0600001000000010	R/W
33005	1	Kt [Wh/pulse] factor for Pulse Output#2	UINT16	bitmapped		b15-b14: decimal point position: 00=0.XXXX, 01=X.XXX, 10=XX.XX, 11= X.XXX. b13-b0: not scaled energy value per pulse, from 0 to 9999.	060100011100001000	R/W
33006	1	Source for Pulse Output#3	UINT16	enumeration		b10-b8 (Phase) : 000 = ', 001 = Phase A, 010 = Phase B, 011 = Phase C, 100 = All Phases, 101 = Pulse from EOI(End Of Interval). b3-b0 (Value): 0000= output disabled 0001 = Wh, 0010 = +Wh, 0101 = -Wh, 0100 = VARh, 0110 = -VARh, 0111 = VARh, 0111 = VARh, 1010 = (Q1+Q4) Wh, 1000 = (Q1+Q4) Wh, 1010 = (Q1+Q2) VARh, 1011 = (Q3+Q4) VARh. Other bits - don't care	0600001000000010	R/W
33007	1	Kt [Wh/pulse] factor for Pulse Output#3	UINT16	bitmapped		b15-b14: decimal point position: 00=0.XXXX, 01=X.XXX, 10=XX.XX, 11= X.XXX. b13-b0: not scaled energy value per pulse, from 0 to 9999.	060100011100001000	R/W



Reg#	Size I	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
33008	1 :	Source for Pulse Output#4	UINT16	enumeration		b10-b8 (Phase) : 000 = ', 001 = Phase A, 010 = Phase B, 011 = Phase C, 100 = All Phases, 101 = Pulse from EOI(End Of Interval). b3-b0 (Value): 0000= output disabled 0001 = Wh, 0010 = +Wh, 0010 = +Wh, 0101 = -WRh, 0101 = +VARh, 0111 = VARh, 0111 = VARh, 1010 = (Q1+Q4) Wh, 1000 = (Q1+Q4) Wh, 1010 = (Q1+Q2) VARh, 1011 = (Q3+Q4) VARh. Other bits - don't care	0b0000010000000010	R/W
33009	1	Kt [Wh/pulse] factor for Pulse Output#4	UINT16	bitmapped		b15-b14: decimal point position: 00=0.XXXX, 01=X.XXX, 10=XX.XX, 11= X.XXX. b13-b0: not scaled energy value per pulse, from 0 to 9999.	0b0100011100001000	R/W
33010	1	nput Accumulators Scaling	UINT16	bitmapped		Scaling factor for accumulation. E.g. $12345 \times 10^{-3} = 12$ b15-b12, b11-b8, b7-b4, b3-b0 = input 4, 3, 2, 1 settings: 0b0000 = x10^0 0b0001 = x10^-1 0b0010 = x10^-2 0b0011 = x10^-3 0b0100 = x10^-4 0b0101 = x10^-5 0b0110 = x10^-6 Any other value disables accumulation on that channel!	Ob111111111111111	R/W
33011	1 (	Dutput Accumulators Scaling	UINT16	bitmapped		Scaling factor for accumulation. E.g. $12345 * 10^{-3} = 12$ b15-b12, b11-b8, b7-b4, b3-b0 = output 4, 3, 2, 1 settings: 0b0000 = x10^0 0b0001 = x10^{-1} 0b0010 = x10^{-2} 0b0011 = x10^{-3} 0b0100 = x10^{-4} 0b0101 = x10^{-5} 0b0110 = x10^{-6} Any other value disables accumulation on that channel!	Ob111111111111111	R/W
33012	1	Fast pulse input selector	UINT16	bitmapped		b15: 1=open-to-close; 0=close-to-open change detected b2-b0: input number to be in fast mode	0	R/W



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
		2 Settings Registers for Digital I/O Relay Card	1		1			
		Input#1 Label		16 char			16 spaces (char 0x20)	R/W
		Input#1 Low State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
		Input#1 High State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
33088	8	Input#2 Label	ASCII	16 char			16 spaces (char 0x20)	R/W
33096	8	Input#2 Low State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
33104	8	Input#2 High State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
33160	8	Relay#1 Label	ASCII	16 char			16 spaces (char 0x20)	R/W
33168	8	Relay#1 Open State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
33176	8	Relay#1 Closed State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
33184	8	Relay#2 Label and State Names	ASCII	17 char			16 spaces (char 0x20)	R/W
33192	8	Relay#2 Open State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
33200	8	Relay#2 Closed State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
33256	8	Input#1 Accumulator Label	ASCII	16 char			16 spaces (char 0x20)	R/W
33264	8	Input#2 Accumulator Label	ASCII	16 char			16 spaces (char 0x20)	R/W
33288	1	Input#1 Accumulator Kt	UINT16	bitmapped		b15-b14: format, 00=0.XXXX, 01=X.XXX, 10=XX.XX, 11= X.XXX. b13-b0: raw power value in Wh/pulse, from 0 to 9999.	0	R/W
33289	1	Input#2 Accumulator Kt	UINT16	bitmapped		b15-b14: format, 00=0.XXXX, 01=X.XXX, 10=XX.XX, 11= X.XXX. b13-b0: raw power value in Wh/pulse, from 0 to 9999.	0	R/W



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
Over	lay #2	2 Settings Registers for Digital I/O Pulse Output Card						
33064	8	Input#1 Label	ASCII	16 char			16 spaces (char 0x20)	R/W
33072	8	Input#1 Low State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
33080	8	Input#1 High State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
33088		Input#2 Label	ASCII	16 char			16 spaces (char 0x20)	R/W
33096	8	Input#2 Low State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
33104	8	Input#2 High State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
33112	8	Input#3 Label	ASCII	16 char			16 spaces (char 0x20)	R/W
33120	8	Input#3 Low State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
33128	8	Input#3 High State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
33136	8	Input#4 Label	ASCII	16 char			16 spaces (char 0x20)	R/W
33144	8	Input#4 Low State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
33152		Input#4 High State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
33160		Output#1 Label	ASCII	16 char			16 spaces (char 0x20)	R/W
33168		Output#1 Open State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
33176		Output#1 Closed State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
33184		Output#2 Label	ASCII	16 char			16 spaces (char 0x20)	R/W
33192		Output#2 Open State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
33200		Output#2 Closed State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
33208		Output#3 Label	ASCII	16 char			16 spaces (char 0x20)	R/W
33216		Output#3 Open State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
33224		Output#3 Closed State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
33232		Output#4 Label	ASCII	16 char			16 spaces (char 0x20)	R/W
33240		Output#4 Open State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
33248		Output#4 Closed State Name	ASCII	16 char			16 spaces (char 0x20)	R/W
33256		Input#1 Accumulator Label	ASCII	16 char			16 spaces (char 0x20)	R/W
33264		Input#2 Accumulator Label	ASCII	16 char			16 spaces (char 0x20)	R/W
33272		Input#3 Accumulator Label	ASCII	16 char			16 spaces (char 0x20)	R/W
33280		Input#4 Accumulator Label	ASCII	16 char			16 spaces (char 0x20)	R/W
33288		Input#1 Accumulator Kt factor value	UINT16	bitmapped		b15-b14: format, 00=0.XXXX, 01=X.XXX, 10=XX.XX, 11= X.XXX. b13-b0: raw power value in Wh/pulse, from 0 to 9999.	0	R/W
33289	1	Input#2 Accumulator Kt factor value	UINT16	bitmapped		b15-b14: format, 00=0.XXXX, 01=X.XXX, 10=XX.XX, 11= X.XXX. b13-b0: raw power value in Wh/pulse, from 0 to 9999.	0	R/W
33290	1	Input#3 Accumulator Kt factor value	UINT16	bitmapped		b15-b14: format, 00=0.XXXX, 01=X.XXX, 10=XX.XX, 11= X.XXX. b13-b0: raw power value in Wh/pulse, from 0 to 9999.	0	R/W
33291	1	Input#4 Accumulator Kt factor value	UINT16	bitmapped		b15-b14: format, 00=0.XXXX, 01=X.XXX, 10=XX.XX, 11= X.XXX. b13-b0: raw power value in Wh/pulse, from 0 to 9999.	0	R/W

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
		Settings Registers for Analog Out 0-1mA / Analog Out 4-20mA Cards     Update rate	UINT16	0 to 65535	1 ms	Fixed see specifications.	100	R/W
33065		Current source range - 1mA Card only!		0600000 to 061111		Per channel: b0 to b3 as Ch1 to Ch4 0: uni-directional (0 to +1) mA 1: bi-directional (-1 to +1) mA	0b0011 ,1mA card 0b0000 ,4-20mA card	R/W
33066	1	Format parameter for output #1	UINT16	bitmapped		Format of the polled register:f=float 32; s=signed 32 bit int; u=unsigned 32 bit int; w=signed 16 bit int; b=unsigned 16 bit int.	06000000000010000	R/W
33067	1	Source register for Output#1	UINT16	0 to 65535		This register should be programmed with the address of the register Whose value is to be used for current output. In different words, the current level output of analog board will follow the value of the register addressed here.	0x03F9	R/W
33068	2	High value of source register for output#1	Note 23.			Value read from the source register at Which High nominal current will be output. Example: for the 4-20mA card, if this register is programmed with 750, then the current output will be 20mA When the value read from the source register is 750.	1800	R/W
33070	2	Low value of source register for output#1	Note 23.			Value read from the source register at Which Low nominal current will be output. Example: for the 4-20mA card, if this register is programmed with 0, then the current output will be 4mA When the value read from the source register is 0.	-1800	R/W
33072	1	Format parameter for output #2	UINT16	bitmapped		f suwb Format of the polled register:f=float 32; s=signed 32 bit int; u=unsigned 32 bit int; w=signed 16 bit int; b=unsigned 16 bit int.	060000000000000000000000000000000000000	R/W
33073	1	Source register for Output#2	UINT16	0 to 65535		This register should be programmed with the address of the register Whose value is to be used for current output. In different words, the current level output of analog board will follow the value of the register addressed here.	0x03FB	R/W
33074	2	High value of source register for output#2	Note 23.			Value read from the source register at Which High nominal current will be output. Example: for the 4-20mA card, if this register is programmed with 750, then the current output will be 20mA When the value read from the source register is 750.	1800	R/W
33076	2	Low value of source register for output#2	Note 23.			Value read from the source register at Which Low nominal current will be output. Example: for the 4-20mA card, if this register is programmed with 0, then the current output will be 4mA When the value read from the source register is 0.	-1800	R/W



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
33078	1	Format parameter for output #3	UINT16	bitmapped		Format of the polled register:f=float 32; s=signed 32 bit int; u=unsigned 32 bit int; w=signed 16 bit int; b=unsigned 16 bit int.	0x0010 (float)	R/W
33079	1	Source register for Output#3	UINT16	0 to 65535		This register should be programmed with the address of the register Whose value is to be used for current output. In different words, the current level output of analog board will follow the value of the register addressed here.	WYE: 0x03E7 (Van), DELTA: 0x03ED (Vab)	R/W
33080	2	High value of source register for output#3	Note 23.			Value read from the source register at Which High nominal current will be output. Example: for the 4-20mA card, if this register is programmed with 750, then the current output will be 20mA When the value read from the source register is 750.	WYE: Van =300, DELTA Vab =600	R/W
33082	2	Low value of source register for output#3	Note 23.			Value read from the source register at Which Low nominal current will be output. Example: for the 4-20mA card, if this register is programmed with 0, then the current output will be 4mA When the value read from the source register is 0.	WYE: Van =0, DELTA: Vab = 0	R/W
33084	1	Format parameter for output #4	UINT16	bitmapped		f suwb Format of the polled register:f=float 32; s=signed 32 bit int; u=unsigned 32 bit int; w=signed 16 bit int; b=unsigned 16 bit int f suwbFormat of the polled register:f=float 32; s=signed 32 bit int; u=unsigned 32 bit int; w=signed 16 bit int; b=unsigned 16 bit int.	060000000000000000000000000000000000000	R/W
33085	1	Source register for Output#4	UINT16	0 to 65535		This register should be programmed with the address of the register Whose value is to be used for current output. In different words, the current level output of analog board will follow the value of the register addressed here.	0x03F3	R/W
33086	2	High value of source register for output#4	Note 23.			Value read from the source register at Which High nominal current will be output. Example: for the 4-20mA card, if this register is programmed with 750, then the current output will be 20mA When the value read from the source register is 750.	10	R/W
33088	2	Low value of source register for output#4	Note 23.			Value read from the source register at Which Low nominal current will be output. Example: for the 4-20mA card, if this register is programmed with 0, then the current output will be 4mA When the value read from the source register is 0.	0	R/W



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
Ove	rlav #	2 Settings Registers for Network Cards						
33064	1	General Options		bitmapped		<ul> <li>b15: reserved</li> <li>b14: 1 = Force IEC61860 to use Absolute Energies (unsigned)</li> <li>b13: 1 = DNP, Single Socket mode for Unsolicited messages.</li> <li>b12: 0 = email Alarm/Notification is enabled.</li> <li>b11: 0 = IEC61850 protocol is enabled.</li> <li>b10: 1 = the DNP over ethernet wrapper is enabled.</li> <li>b9: 0 = the Modbus over TCP/IP is enabled</li> <li>b8: 1 = the Tcp/Ip Silent Mode is enabled.</li> <li>b7: 0 = the Web server is enabled.</li> <li>b6: reserved. For Extended text in the diagnostics-log window</li> <li>b5-b3: reserved.</li> <li>b2: Must always be 1.</li> <li>b1-b0: reserved.</li> </ul>	060000000000000000000000000000000000000	R/W
33065	1	DHCP enable		bitmapped		d DHCP: d=1 enabled, d=0 disabled (user must provide IP configuration).	0	R/W
33066	8	Host name label	ASCII			16 bytes (8 registers)	Meter	R/W
33074	4	IP card network address	UINT16	0 to 255		These 4 registers hold the 4 numbers (1 number each register) that make the IP address used by the card.	10.0.0.2	R/W
33078	1	IP network address mask length	UINT16	0 to 32		Number of bits that are set in the IP address mask, starting from the Msb of the 32 bit word. Example 24 = 255.255.255.0; a value of 2 would mean 192.0.0.0	255.0.0.0	R/W
33079	4	IP card network gateway address	UINT16	0 to 255		These 4 registers hold the 4 numbers that make the IP gateway address on network.	10.0.0.1	R/W
33083		DNS #1, IP address	UINT16	0 to 255		IP address of the DNS#1 on the network.	0.0.0.0	R/W
33087	4	DNS #2, IP address	UINT16	0 to 255		IP address of the DNS#2 on the network.	0.0.0.0	R/W
33091	1	TCP/IP Port – Modbus Gateway Service	UINT16	32-65534		Port for the Gateway service (modbus tcp/ip) When enabled. If this value is ZERO (0), the default address 502 will be used.	0x1F6	R/W
33092	1	TCP/IP Port – WebService	UINT16	32-65534		Port for the Web service (html viewer) When enabled If this value is ZERO (0), the default address 80 will be used.	0x0050	R/W



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
33093	1	DNP Wrapper Server Port	UINT16	10 to 65534		Port number Where the DNP Server will listen for connections.	20000	R/W
33094	1	DNP Device number unit	UINT16	1 to 65519		Slave number under DNP protocol. This value is not currently used by the network card.	1	R/W
33095	4	DNP Accepted IP Address Start	UINT16	0 to 255		These are 4 words representing the 4 numbers of an IPv4 address. This address defines the start address for a range of accepted address. Any client trying to connect from an address outside this range, will be rejected. To disable the start checking, use 0.0.0.0.	0.0.0.0	R/W
33099	4	DNP Accepted IP Address End	UINT16	0 to 255		These are 4 words representing the 4 numbers of an IPv4 address. This address defines the end address for a range of accepted address. Any client trying to connect from an address outside this range, will be rejected. To disable the end checking, use 255.255.255.255	255.255.255.255	R/W
33103	1	DNP Accepted IP Start Tcp/lp Port	UINT16	0 to 65535		DNP Safety: This number defines the start port, within a range of ports to be allowed to connect to the DNP server. Any client trying to connect from a port outside this range, will be rejected. To disable start, use 0.	0	R/W
33104	1	DNP Accepted IP End Tcp/lp Port	UINT16	0 to 65535		DNP Safety: This number defines the end port, within a range of ports to be allowed to connect to the DNP server. Any client trying to connect from a port outside this range, will be rejected. To disable enter 65535.	65535	R/W
33105	2	IP address for exclusive client access	UINT16	0 to 65535		from Ethernet card firmware version 3.43. Zero disables the feature	0 (0.0.0.0)	R/W
33107	3	MAC address for exclusive client access	UINT16	0 to 65535		from Ethernet card firmware version 3.43. Zero disables the feature	0 (0-0-0-0-0)	R/W
33110	32	NTP URL or IP(string)	ASCII			IP address (as string) or URL string, for the NTP server the Shark will connect to. This string must be null-terminated.	all null characters	R/W



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
Logs S			•	•	•	Address Range: 34000-3599	19	
Hist	orical	Log #1	1	I	1	I	-	
34000	1	Historical Log #1 Sizes	UINT16	bitmapped		eeeeeeee sssssss high byte is number of registers to log in each record (0-117), low byte is number of flash sectors for the log (see note 19) 0 in either byte disables the log	060001001000000100	R/W
34001	1	Historical Log #1 Interval	UINT16	bitmapped		00000000 hgfedcba only 1 bit set: a=1 min, b=3 min, c=5 min, d=10 min, e=15 min, f=30 min, g=60 min, h=EOI pulse	060000000000000000000000000000000000000	R/W
34002	1	Historical Log #1, Identifier for Register #1	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x03E7	R/W
34003	1	Historical Log #1, Identifier for Register #2	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x03E8	R/W
34004	1	Historical Log #1, Identifier for Register #3	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x03E9	R/W
34005		Historical Log #1, Identifier for Register #4	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x03EA	R/W
34006	1	Historical Log #1, Identifier for Register #5	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x03EB	R/W
34007	1	Historical Log #1, Identifier for Register #6	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x03EC	R/W
34008	1	Historical Log #1, Identifier for Register #7	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x03F3	R/W
34009	1	Historical Log #1, Identifier for Register #8	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x03F4	R/W
34010	1	Historical Log #1, Identifier for Register #9	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x03F5	R/W
34011	1	Historical Log #1, Identifier for Register #10	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x03F6	R/W
34012	1	Historical Log #1, Identifier for Register #11	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x03F7	R/W
34013		Historical Log #1, Identifier for Register #12	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x03F8	R/W
34014	1	Historical Log #1, Identifier for Register #13	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x03F9	R/W
34015		Historical Log #1, Identifier for Register #14	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x03FA	R/W
34016		Historical Log #1, Identifier for Register #15	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x03FB	R/W
34017		Historical Log #1, Identifier for Register #16	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x03FC	R/W
34018		Historical Log #1, Identifier for Register #17	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x0401	R/W
34019		Historical Log #1, Identifier for Register #18	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x0402	R/W
34020		Historical Log #1, Identifier for Register #19	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34021		Historical Log #1, Identifier for Register #20	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34022		Historical Log #1, Identifier for Register #21	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34023		Historical Log #1, Identifier for Register #22	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34024		Historical Log #1, Identifier for Register #23	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34025		Historical Log #1, Identifier for Register #24	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34026		Historical Log #1, Identifier for Register #25	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34027		Historical Log #1, Identifier for Register #26	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34028		Historical Log #1, Identifier for Register #27	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34029		Historical Log #1, Identifier for Register #28	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34030		Historical Log #1, Identifier for Register #29	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34031		Historical Log #1, Identifier for Register #30	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34032		Historical Log #1, Identifier for Register #31	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34033		Historical Log #1, Identifier for Register #32	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34034		Historical Log #1, Identifier for Register #33	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34035		Historical Log #1, Identifier for Register #34	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34036	1	Historical Log #1, Identifier for Register #35	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W



Reg# Size	Description		Value Range	or resolution	Comments	Factory default value	Acc
34037 1	Historical Log #1, Identifier for Register #36	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34038 1	Historical Log #1, Identifier for Register #37		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34039 1	Historical Log #1, Identifier for Register #38		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34040 1	Historical Log #1, Identifier for Register #39	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34041 1	Historical Log #1, Identifier for Register #40		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34042 1	Historical Log #1, Identifier for Register #41		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34043 1	Historical Log #1, Identifier for Register #42	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34044 1	Historical Log #1, Identifier for Register #43	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34045 1	Historical Log #1, Identifier for Register #44	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34046 1	Historical Log #1, Identifier for Register #45	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34047 1	Historical Log #1, Identifier for Register #46	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34048 1	Historical Log #1, Identifier for Register #47	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34049 1	Historical Log #1, Identifier for Register #48	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34050 1	Historical Log #1, Identifier for Register #49	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34051 1	Historical Log #1, Identifier for Register #50	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34052 1	Historical Log #1, Identifier for Register #51	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34053 1	Historical Log #1, Identifier for Register #52	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34054 1	Historical Log #1, Identifier for Register #53	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34055 1	Historical Log #1, Identifier for Register #54	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34056 1	Historical Log #1, Identifier for Register #55	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34057 1	Historical Log #1, Identifier for Register #56	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34058 1	Historical Log #1, Identifier for Register #57	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34059 1	Historical Log #1, Identifier for Register #58	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34060 1	Historical Log #1, Identifier for Register #59	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34061 1	Historical Log #1, Identifier for Register #60	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34062 1	Historical Log #1, Identifier for Register #61	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34063 1	Historical Log #1, Identifier for Register #62	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34064 1	Historical Log #1, Identifier for Register #63	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34065 1	Historical Log #1, Identifier for Register #64	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34066 1	Historical Log #1, Identifier for Register #65	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34067 1	Historical Log #1, Identifier for Register #66	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34068 1	Historical Log #1, Identifier for Register #67	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34069 1	Historical Log #1, Identifier for Register #68	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34070 1	Historical Log #1, Identifier for Register #69	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34071 1	Historical Log #1, Identifier for Register #70	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34072 1	Historical Log #1, Identifier for Register #71	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34073 1	Historical Log #1, Identifier for Register #72	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34074 1	Historical Log #1, Identifier for Register #73	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34075 1	Historical Log #1, Identifier for Register #74	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34076 1	Historical Log #1, Identifier for Register #75	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W



Reg# Size Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W R/W
		1 to 65535		Use Modbus address as the identifier (see note 7)	0	
		1 to 65535 1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W R/W
	UINT16			Use Modbus address as the identifier (see note 7)	0	
		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W R/W
		1 to 65535		Use Modbus address as the identifier (see note 7)	0	
	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34119 73 Historical Log #1 Software Buffer		1		Reserved for software use.	U	R/W



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
His	torica	I Log #2						
34192	1	Historical Log #2 Sizes	UINT16	bitmapped		eeeeeeee ssssssss high byte is number of registers to log in each record (0-117), low byte is number of flash sectors for the log (see note 19) 0 in either byte disables the log	06000010000000100	R/W
34193	1	Historical Log #2 Interval	UINT16	bitmapped		00000000 hgfedcba only 1 bit set: a=1 min, b=3 min, c=5 min, d=10 min, e=15 min, f=30 min, g=60 min, h=EOI pulse	060000000000010000	R/W
34194	1	Historical Log #2, Identifier for Register #1	UINT16	0 to 65535		use Modbus address as the identifier (see note 7)	0x1387	R/W
34195		Historical Log #2, Identifier for Register #2	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x1388	R/W
34196		Historical Log #2, Identifier for Register #3	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x1389	R/W
34197		Historical Log #2, Identifier for Register #4	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x138A	R/W
34198		Historical Log #2, Identifier for Register #5	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x138F	R/W
34199		Historical Log #2, Identifier for Register #6	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x1390	R/W
34200	1	Historical Log #2, Identifier for Register #7	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x1391	R/W
34201	1	Historical Log #2, Identifier for Register #8	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x1392	R/W
34202		Historical Log #2, Identifier for Register #9	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34203		Historical Log #2, Identifier for Register #10	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34204		Historical Log #2, Identifier for Register #11	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34205		Historical Log #2, Identifier for Register #12	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34206		Historical Log #2, Identifier for Register #13	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34207		Historical Log #2, Identifier for Register #14	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34208		Historical Log #2, Identifier for Register #15	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34209		Historical Log #2, Identifier for Register #16	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34210	1	Historical Log #2, Identifier for Register #17	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34211	1	Historical Log #2, Identifier for Register #18	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34212		Historical Log #2, Identifier for Register #19	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34213		Historical Log #2, Identifier for Register #20	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34214		Historical Log #2, Identifier for Register #21	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34215		Historical Log #2, Identifier for Register #22	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34216		Historical Log #2, Identifier for Register #23	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34217		Historical Log #2, Identifier for Register #24	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34218		Historical Log #2, Identifier for Register #25	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34219		Historical Log #2, Identifier for Register #26	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34220		Historical Log #2, Identifier for Register #27	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34221		Historical Log #2, Identifier for Register #28	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34222		Historical Log #2, Identifier for Register #29	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34223		Historical Log #2, Identifier for Register #30	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34224		Historical Log #2, Identifier for Register #31	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34225		Historical Log #2, Identifier for Register #32	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	U	R/W



	ze Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
34226 1			1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34227 1	Historical Log #2, Identifier for Register #34	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34228 1	Historical Log #2, Identifier for Register #35	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34229 1	Historical Log #2, Identifier for Register #36	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34230 1	Historical Log #2, Identifier for Register #37	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34231 1	Historical Log #2, Identifier for Register #38	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34232 1	Historical Log #2, Identifier for Register #39	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34233 1	Historical Log #2, Identifier for Register #40	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34234 1	Historical Log #2, Identifier for Register #41	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34235 1	Historical Log #2, Identifier for Register #42	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34236 1	Historical Log #2, Identifier for Register #43	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34237 1	Historical Log #2, Identifier for Register #44	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34238 1	Historical Log #2, Identifier for Register #45	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34239 1	Historical Log #2, Identifier for Register #46	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34240 1	Historical Log #2, Identifier for Register #47	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34241 1	Historical Log #2, Identifier for Register #48	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34242 1	Historical Log #2, Identifier for Register #49	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34243 1	Historical Log #2, Identifier for Register #50	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34244 1	Historical Log #2, Identifier for Register #51	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34245 1	Historical Log #2, Identifier for Register #52	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34246 1	Historical Log #2, Identifier for Register #53	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34247 1	Historical Log #2, Identifier for Register #54	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34248 1	Historical Log #2, Identifier for Register #55	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34249 1	Historical Log #2, Identifier for Register #56	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34250 1	Historical Log #2, Identifier for Register #57	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34251 1	Historical Log #2, Identifier for Register #58	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34252 1	Historical Log #2, Identifier for Register #59	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34253 1	Historical Log #2, Identifier for Register #60	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34253 1	Historical Log #2, Identifier for Register #61	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34255 1	Historical Log #2, Identifier for Register #62	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34255 1	Historical Log #2, Identifier for Register #62	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34257 1	Historical Log #2, Identifier for Register #63	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34257 1	Historical Log #2, Identifier for Register #65	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34259 1		UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34259 1	Historical Log #2, Identifier for Register #66 Historical Log #2, Identifier for Register #67	UINT16 UINT16			Use Modbus address as the identifier (see note 7)	0	R/W
			1 to 65535			0	
34261 1	Historical Log #2, Identifier for Register #68	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34262 1	Historical Log #2, Identifier for Register #69	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W R/W
34263 1	Historical Log #2, Identifier for Register #70	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	
34264 1	Historical Log #2, Identifier for Register #71	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34265 1	Historical Log #2, Identifier for Register #72	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34266 1	Historical Log #2, Identifier for Register #73	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34267 1	Historical Log #2, Identifier for Register #74	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	U	R/W



Reg# Size	Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
34268 1	Historical Log #2, Identifier for Register #75		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34269 1	Historical Log #2, Identifier for Register #76	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34270 1	Historical Log #2, Identifier for Register #77	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34271 1	Historical Log #2, Identifier for Register #78	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34272 1	Historical Log #2, Identifier for Register #79	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34273 1	Historical Log #2, Identifier for Register #80	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34274 1	Historical Log #2, Identifier for Register #81	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34275 1	Historical Log #2, Identifier for Register #82	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34276 1	Historical Log #2, Identifier for Register #83	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34277 1	Historical Log #2, Identifier for Register #84	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34278 1	Historical Log #2, Identifier for Register #85		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34279 1	Historical Log #2, Identifier for Register #86		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34280 1	Historical Log #2, Identifier for Register #87		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34281 1	Historical Log #2, Identifier for Register #88	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34282 1	Historical Log #2, Identifier for Register #89	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34283 1	Historical Log #2, Identifier for Register #90	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34284 1	Historical Log #2, Identifier for Register #91	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34285 1	Historical Log #2, Identifier for Register #92	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34286 1	Historical Log #2, Identifier for Register #93	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34287 1	Historical Log #2, Identifier for Register #94	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34288 1	Historical Log #2, Identifier for Register #95	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34289 1	Historical Log #2, Identifier for Register #96	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34290 1	Historical Log #2, Identifier for Register #97	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34291 1	Historical Log #2, Identifier for Register #98	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34292 1	Historical Log #2, Identifier for Register #99	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34293 1	Historical Log #2, Identifier for Register #100	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34294 1	Historical Log #2, Identifier for Register #101	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34295 1	Historical Log #2, Identifier for Register #102	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34296 1	Historical Log #2, Identifier for Register #103	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34297 1	Historical Log #2, Identifier for Register #104	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34298 1	Historical Log #2, Identifier for Register #105	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34299 1	Historical Log #2, Identifier for Register #106	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34300 1	Historical Log #2, Identifier for Register #107	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34301 1	Historical Log #2, Identifier for Register #108	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34302 1	Historical Log #2, Identifier for Register #109	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34303 1	Historical Log #2, Identifier for Register #110	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34304 1	Historical Log #2, Identifier for Register #111	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34305 1	Historical Log #2, Identifier for Register #112	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34306 1	Historical Log #2, Identifier for Register #113	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34307 1	Historical Log #2, Identifier for Register #114	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34308 1	Historical Log #2, Identifier for Register #115	UINT16	1 to 65535	1	Use Modbus address as the identifier (see note 7)	0	R/W
34309 1	Historical Log #2, Identifier for Register #116	UINT16	1 to 65535	1	Use Modbus address as the identifier (see note 7)	0	R/W
34310 1	Historical Log #2, Identifier for Register #117	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #2 Software Buffer				Reserved for software use.	0	R/W



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
Hist	torica	I Log #3			1			
34384	1	Historical Log #3 Sizes	UINT16	bitmapped		eeeeeeee ssssssss high byte is number of registers to log in each record (0-117), low byte is number of flash sectors for the log (see note 19) 0 in either byte disables the log	0600000110000000001	R/W
34385	1	Historical Log #3 Interval	UINT16	bitmapped		00000000 hgfedcba only 1 bit set: a=1 min, b=3 min, c=5 min, d=10 min, e=15 min, f=30 min, g=60 min, h=EOI pulse	060000000000000000000000000000000000000	R/W
34386	1	Historical Log #3, Identifier for Register #1	UINT16	0 to 65535		use Modbus address as the identifier (see note 7)	0x464F	R/W
34387	1	Historical Log #3, Identifier for Register #2	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x4650	R/W
34388	1	Historical Log #3, Identifier for Register #3	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x4651	R/W
34389	1	Historical Log #3, Identifier for Register #4	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x4652	R/W
34390		Historical Log #3, Identifier for Register #5	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x4653	R/W
34391		Historical Log #3, Identifier for Register #6	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x4654	R/W
34392	1	Historical Log #3, Identifier for Register #7	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34393	1	Historical Log #3, Identifier for Register #8	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34394		Historical Log #3, Identifier for Register #9	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34395	1	Historical Log #3, Identifier for Register #10	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34396	1	Historical Log #3, Identifier for Register #11	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34397		Historical Log #3, Identifier for Register #12	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34398	1	Historical Log #3, Identifier for Register #13	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34399		Historical Log #3, Identifier for Register #14	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34400	1	Historical Log #3, Identifier for Register #15	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34401	1	Historical Log #3, Identifier for Register #16	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34402		Historical Log #3, Identifier for Register #17	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34403		Historical Log #3, Identifier for Register #18	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34404		Historical Log #3, Identifier for Register #19	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34405		Historical Log #3, Identifier for Register #20	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34406	1	Historical Log #3, Identifier for Register #21	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34407	1	Historical Log #3, Identifier for Register #22	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34408		Historical Log #3, Identifier for Register #23	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34409	1	Historical Log #3, Identifier for Register #24	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34410	1	Historical Log #3, Identifier for Register #25	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34411	1	Historical Log #3, Identifier for Register #26	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34412		Historical Log #3, Identifier for Register #27	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34413		Historical Log #3, Identifier for Register #28	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34414		Historical Log #3, Identifier for Register #29	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34415	1	Historical Log #3, Identifier for Register #30	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34416		Historical Log #3, Identifier for Register #31	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34417	1	Historical Log #3, Identifier for Register #32	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W



	ize Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
34418			1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34419	1 Historical Log #3, Identifier for Register #34		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34420	1 Historical Log #3, Identifier for Register #35		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34421	1 Historical Log #3, Identifier for Register #36	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34422	1 Historical Log #3, Identifier for Register #37		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34423	1 Historical Log #3, Identifier for Register #38	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34424	1 Historical Log #3, Identifier for Register #39	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34425	1 Historical Log #3, Identifier for Register #40	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34426	1 Historical Log #3, Identifier for Register #41	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34427	1 Historical Log #3, Identifier for Register #42	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34428	1 Historical Log #3, Identifier for Register #43	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34429	1 Historical Log #3, Identifier for Register #44		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34430	1 Historical Log #3, Identifier for Register #45		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34431	1 Historical Log #3, Identifier for Register #46		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34432	1 Historical Log #3, Identifier for Register #47		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34433	1 Historical Log #3, Identifier for Register #48		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34434	1 Historical Log #3, Identifier for Register #49	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34435	1 Historical Log #3, Identifier for Register #50	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34436	1 Historical Log #3, Identifier for Register #51	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34437	1 Historical Log #3, Identifier for Register #52	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34438	1 Historical Log #3, Identifier for Register #53	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34439	1 Historical Log #3, Identifier for Register #54	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34440	1 Historical Log #3, Identifier for Register #55	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34441	1 Historical Log #3, Identifier for Register #56	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34442	1 Historical Log #3, Identifier for Register #57	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34443	1 Historical Log #3, Identifier for Register #58	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34444	1 Historical Log #3, Identifier for Register #59	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34445	1 Historical Log #3, Identifier for Register #60	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34446	1 Historical Log #3, Identifier for Register #61	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34447	1 Historical Log #3, Identifier for Register #62	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34448	1 Historical Log #3, Identifier for Register #63	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34449	1 Historical Log #3, Identifier for Register #64	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34450	1 Historical Log #3, Identifier for Register #65	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34451	1 Historical Log #3, Identifier for Register #66	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34452	1 Historical Log #3, Identifier for Register #67	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34453	1 Historical Log #3, Identifier for Register #68	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34454	1 Historical Log #3, Identifier for Register #69	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34455	1 Historical Log #3, Identifier for Register #70	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34456	1 Historical Log #3, Identifier for Register #71	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34457	1 Historical Log #3, Identifier for Register #72	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34458	1 Historical Log #3, Identifier for Register #73	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34459	1 Historical Log #3, Identifier for Register #74	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34460	1 Historical Log #3, Identifier for Register #75	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34461	1 Historical Log #3, Identifier for Register #76	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34462	1 Historical Log #3, Identifier for Register #77	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W



Reg# Size Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
34463 1 Historical Log #3, Identifier for Register #78		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34464 1 Historical Log #3, Identifier for Register #79	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34465 1 Historical Log #3, Identifier for Register #80	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34466 1 Historical Log #3, Identifier for Register #81	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34467 1 Historical Log #3, Identifier for Register #82	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34468 1 Historical Log #3, Identifier for Register #83	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34469 1 Historical Log #3, Identifier for Register #84	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34470 1 Historical Log #3, Identifier for Register #85	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34471 1 Historical Log #3, Identifier for Register #86	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34472 1 Historical Log #3, Identifier for Register #87	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34473 1 Historical Log #3, Identifier for Register #88	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34474 1 Historical Log #3, Identifier for Register #89	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34475 1 Historical Log #3, Identifier for Register #90	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34476 1 Historical Log #3, Identifier for Register #91	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34477 1 Historical Log #3, Identifier for Register #92	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34478 1 Historical Log #3, Identifier for Register #93	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34479 1 Historical Log #3, Identifier for Register #94	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34480 1 Historical Log #3, Identifier for Register #95	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34481 1 Historical Log #3, Identifier for Register #96	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34482 1 Historical Log #3, Identifier for Register #97	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34483 1 Historical Log #3, Identifier for Register #98	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34484 1 Historical Log #3, Identifier for Register #99	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34485 1 Historical Log #3, Identifier for Register #100	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34486 1 Historical Log #3, Identifier for Register #101	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34487 1 Historical Log #3, Identifier for Register #102	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34488 1 Historical Log #3, Identifier for Register #103	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34489 1 Historical Log #3, Identifier for Register #104	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34490 1 Historical Log #3, Identifier for Register #105	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34491 1 Historical Log #3, Identifier for Register #106	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34492 1 Historical Log #3, Identifier for Register #107	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34493 1 Historical Log #3, Identifier for Register #108	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34494 1 Historical Log #3, Identifier for Register #109	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34495 1 Historical Log #3, Identifier for Register #110	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34496 1 Historical Log #3, Identifier for Register #111	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34497 1 Historical Log #3, Identifier for Register #112	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34498 1 Historical Log #3, Identifier for Register #113	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34499 1 Historical Log #3, Identifier for Register #114	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34500 1 Historical Log #3, Identifier for Register #115	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34501 1 Historical Log #3, Identifier for Register #116	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34502 1 Historical Log #3, Identifier for Register #117	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34503 73 Historical Log #3 Software Buffer				Reserved for software use.	0	R/W



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
His	torical	Log #4	1			•		
34576	1	Historical Log #4 Sizes	UINT16	bitmapped		eeeeeee sssssss high byte is number of registers to log in each record (0-117), low byte is number of flash sectors for the log (see note 19) 0 in either byte disables the log	06000101100000001	R/W
34577	1	Historical Log #4 Interval	UINT16	bitmapped		00000000 hgfedcba only 1 bit set: a=1 min, b=3 min, c=5 min, d=10 min, e=15 min, f=30 min, g=60 min, h=EOI pulse	060000000000000000000000000000000000000	R/W
34578		Historical Log #4, Identifier for Register #1	UINT16	0 to 65535		use Modbus address as the identifier (see note 7)	0x0426	R/W
34579		Historical Log #4, Identifier for Register #2	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x0427	R/W
34580		Historical Log #4, Identifier for Register #3	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x041D	R/W
34581		Historical Log #4, Identifier for Register #4	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x041E	R/W
34582		Historical Log #4, Identifier for Register #5	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x041F	R/W
34583		Historical Log #4, Identifier for Register #6	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x0420	R/W
34584		Historical Log #4, Identifier for Register #7	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x0421	R/W
34585		Historical Log #4, Identifier for Register #8	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x0422	R/W
34586		Historical Log #4, Identifier for Register #9	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x0423	R/W
34587		Historical Log #4, Identifier for Register #10	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x0424	R/W
34588		Historical Log #4, Identifier for Register #11	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0x0425	R/W
34589		Historical Log #4, Identifier for Register #12	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34590		Historical Log #4, Identifier for Register #13	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34591		Historical Log #4, Identifier for Register #14	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34592		Historical Log #4, Identifier for Register #15	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34593		Historical Log #4, Identifier for Register #16	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34594		Historical Log #4, Identifier for Register #17	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34595		Historical Log #4, Identifier for Register #18	UINT16 UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34596 34597		Historical Log #4, Identifier for Register #19	UINT 16 UINT 16	1 to 65535 1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W R/W
34597		Historical Log #4, Identifier for Register #20 Historical Log #4, Identifier for Register #21	UINT 16 UINT 16	1 to 65535		Use Modbus address as the identifier (see note 7) Use Modbus address as the identifier (see note 7)	0	R/W
34598		Historical Log #4, Identifier for Register #22	UINT 16 UINT 16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34599		Historical Log #4, Identifier for Register #23	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34600		Historical Log #4, Identifier for Register #24	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34601		Historical Log #4, Identifier for Register #25	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34602		Historical Log #4, Identifier for Register #26	UINT 16 UINT 16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34603		Historical Log #4, Identifier for Register #27	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34605		Historical Log #4, Identifier for Register #28	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34605		Historical Log #4, Identifier for Register #29	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34607		Historical Log #4, Identifier for Register #30	UINT16	1 to 65535	1	Use Modbus address as the identifier (see note 7)	0	R/W
34608		Historical Log #4, Identifier for Register #30	UINT16	1 to 65535	1	Use Modbus address as the identifier (see note 7)	0	R/W



Reg# Size Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
34609 1 Historical Log #4, Identifier for Register #32		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34610 1 Historical Log #4, Identifier for Register #33	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34611 1 Historical Log #4, Identifier for Register #34	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34612 1 Historical Log #4, Identifier for Register #35	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34613 1 Historical Log #4, Identifier for Register #36	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34614 1 Historical Log #4, Identifier for Register #37	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34615 1 Historical Log #4, Identifier for Register #38	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34616 1 Historical Log #4, Identifier for Register #39	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34617 1 Historical Log #4, Identifier for Register #40	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34618 1 Historical Log #4, Identifier for Register #41	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34619 1 Historical Log #4, Identifier for Register #42	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34620 1 Historical Log #4, Identifier for Register #43	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34621 1 Historical Log #4, Identifier for Register #44	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34622 1 Historical Log #4, Identifier for Register #45	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34623 1 Historical Log #4, Identifier for Register #46	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34624 1 Historical Log #4, Identifier for Register #47	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34625 1 Historical Log #4, Identifier for Register #48	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34626 1 Historical Log #4, Identifier for Register #49	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34627 1 Historical Log #4, Identifier for Register #50	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34628 1 Historical Log #4, Identifier for Register #51	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34629 1 Historical Log #4, Identifier for Register #52	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34630 1 Historical Log #4, Identifier for Register #53	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34631 1 Historical Log #4, Identifier for Register #54	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34632 1 Historical Log #4, Identifier for Register #55	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34633 1 Historical Log #4, Identifier for Register #56	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34634 1 Historical Log #4, Identifier for Register #57	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34635 1 Historical Log #4, Identifier for Register #58	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34636 1 Historical Log #4, Identifier for Register #59	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34637 1 Historical Log #4, Identifier for Register #60	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34638 1 Historical Log #4, Identifier for Register #61	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34639 1 Historical Log #4, Identifier for Register #62	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34640 1 Historical Log #4, Identifier for Register #63	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34641 1 Historical Log #4, Identifier for Register #64	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34642 1 Historical Log #4, Identifier for Register #65	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34643 1 Historical Log #4, Identifier for Register #66	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34644 1 Historical Log #4, Identifier for Register #67	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34645 1 Historical Log #4, Identifier for Register #68	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34646 1 Historical Log #4, Identifier for Register #69	UINT16	1 to 65535	+	Use Modbus address as the identifier (see note 7)	0	R/W
34647 1 Historical Log #4, Identifier for Register #70	UINT16	1 to 65535	+	Use Modbus address as the identifier (see note 7)	0	R/W
34648 1 Historical Log #4, Identifier for Register #71	UINT16	1 to 65535	+	Use Modbus address as the identifier (see note 7)	0	R/W
34649 1 Historical Log #4, Identifier for Register #72	UINT16	1 to 65535	+	Use Modbus address as the identifier (see note 7)	0	R/W
34650 1 Historical Log #4, Identifier for Register #73	UINT16	1 to 65535	+	Use Modbus address as the identifier (see note 7)	0	R/W
34651 1 Historical Log #4, Identifier for Register #74	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34652 1 Historical Log #4, Identifier for Register #75	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34653 1 Historical Log #4, Identifier for Register #76	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	U	R/W



4464.1         Historical Log A, Bentifier for Register 773         UNTLG         10.6535         Use Modus address as the Mentifier Gene note 7         0           6465.5         Historical Log A, Bentifier for Register 773         UNTLG         10.6535         Use Modus address as the Mentifier Gene note 7         0           6465.6         Historical Log A, Bentifier for Register 773         UNTLG         10.6535         Use Modus address as the Mentifier Gene note 7         0           6465.7         Historical Log A, Bentifier for Register 783         UNTLG         10.6535         Use Modus address as the Mentifier Gene note 7         0           6465.8         Historical Log A, Bentifier for Register 783         UNTLG         10.6535         Use Modus address as the Mentifier Gene note 7         0           6466.1         Historical Log A, Bentifier for Register 784         UNTLG         10.6535         Use Modus address as the Mentifier Gene note 7         0           6466.1         Historical Log A, Bentifier for Register 787         UNTLG         10.6535         Use Modus address as the Mentifier Gene note 7         0           6466.4         Historical Log A, Bentifier for Register 787         UNTLG         10.6535         Use Modus address as the Mentifier Gene note 7         0           6466.4         Historical Log A, Bentifier for Register 787         UNTLG         10.6535         U		Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
1         Historical Log #4, Merniller for Register #79         UNIT6         10.65535         Use Moduus address as the (dentifier (see note 7)         0           14652         Historical Log #4, Merniller for Register #80         UNIT6         10.65535         Use Moduus address as the (dentifier (see note 7)         0           14659         Historical Log #4, Merniller for Register #82         UNIT6         10.65535         Use Moduus address as the (dentifier (see note 7)         0           14640         Historical Log #4, Merniller for Register #82         UNIT6         10.65535         Use Moduus address as the (dentifier (see note 7)         0           14642         Historical Log #4, Merniller for Register #84         UNIT6         10.65535         Use Moduus address as the (dentifier (see note 7)         0           14642         Historical Log #4, Merniller for Register #84         UNIT6         10.65535         Use Moduus address as the (dentifier (see note 7)         0           14645         Historical Log #4, Merniller for Register #87         UNIT6         10.65535         Use Moduus address as the (dentifier (see note 7)         0           14645         Historical Log #4, Merniller for Register #87         UNIT6         10.65535         Use Moduus address as the (dentifier (see note 7)         0           14646         Historical Log #4, Merniller for Register #97         UNIT6 <t< td=""><td></td><td>Historical Log #4, Identifier for Register #77</td><td></td><td></td><td></td><td>Use Modbus address as the identifier (see note 7)</td><td>0</td><td>R/W</td></t<>		Historical Log #4, Identifier for Register #77				Use Modbus address as the identifier (see note 7)	0	R/W
94657         Historical Load A, Mentifier for Register #80         UNT16         10.65535         Use Modus address as the dentifier (see note 7)         0           94658         Historical Load A, Mentifier for Register #81         UNT16         10.65535         Use Modus address as the dentifier (see note 7)         0           94660         Historical Load A, Mentifier for Register #83         UNT16         10.65535         Use Modus address as the dentifier (see note 7)         0           94661         Historical Load A, Mentifier for Register #83         UNT16         10.65535         Use Modus address as the dentifier (see note 7)         0           94662         Historical Load A, Mentifier for Register #84         UNT16         10.65535         Use Modus address as the dentifier (see note 7)         0           94663         Historical Load A, Mentifier for Register #87         UNT16         10.65535         Use Modus address as the dentifier (see note 7)         0           94664         Historical Load A, Mentifier for Register #87         UNT16         10.65535         Use Modus address as the dentifier (see note 7)         0           94664         Historical Load A, Mentifier for Register #87         UNT16         10.65535         Use Modus address as the dentifier (see note 7)         0           94664         Historical Load A, Mentifier for Register #87         UNT16         10.65535 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td>Use Modbus address as the identifier (see note 7)</td> <td>0</td> <td>R/W</td>						Use Modbus address as the identifier (see note 7)	0	R/W
1         Hestorical Log 4, dentifier for Register #81         UNT16         10.05535         Use Moduus address as the identifier (see note 7)         0           14660         Historical Log 4, dentifier for Register #82         UNT16         10.05535         Use Moduus address as the identifier (see note 7)         0           14661         Historical Log 4, dentifier for Register #84         UNT16         10.05535         Use Moduus address as the identifier (see note 7)         0           14662         Historical Log 4, dentifier for Register #84         UNT16         10.05535         Use Moduus address as the identifier (see note 7)         0           14664         Historical Log 4, dentifier for Register #86         UNT16         10.05535         Use Moduus address as the identifier (see note 7)         0           14664         Historical Log 4, dentifier for Register #87         UNT16         10.05535         Use Moduus address as the identifier (see note 7)         0           14664         Historical Log 4, dentifier for Register #89         UNT16         10.05535         Use Moduus address as the identifier (see note 7)         0           14664         Historical Log 4, dentifier for Register #90         UNT16         10.05535         Use Moduus address as the identifier see note 7)         0           14664         Historical Log 4, dentifier for Register #90         UNT16         10.05535							0	R/W
94659         1         Historical Log 44, Identifier for Register #82         UNT 16         1 to 65535         Use Modus address as the identifier (see note 7)         0           94661         1         Historical Log 44, Identifier for Register #83         UNT 16         1 to 65535         Use Modus address as the identifier (see note 7)         0           94662         1         Historical Log 44, Identifier for Register #84         UNT 16         1 to 65535         Use Modus address as the identifier (see note 7)         0           94663         1         Historical Log 44, Identifier for Register #87         UNT 16         1 to 65535         Use Modus address as the identifier (see note 7)         0           94664         1         Historical Log 44, Identifier for Register #87         UNT 16         1 to 65535         Use Modus address as the identifier (see note 7)         0           94665         1         Historical Log 44, Identifier for Register #87         UNT 16         1 to 65535         Use Modus address as the identifier (see note 7)         0           94666         1         Historical Log 44, Identifier for Register #87         UNT 16         1 to 65535         Use Modus address as the identifier (see note 7)         0           94667         1         Historical Log 44, Identifier for Register #94         UNT 16         1 to 65535         Use Modus address as the identi							0	R/W
1         Historical Log 44, Identifier for Register #83         UNT16         10 65535         Use Modus address as the identifier (see note 7)         0           34661         Historical Log 44, Identifier for Register #84         UNT16         10 65535         Use Modus address as the identifier (see note 7)         0           34662         Historical Log 44, Identifier for Register #86         UNT16         10 65535         Use Modus address as the identifier (see note 7)         0           34664         Historical Log 44, Identifier for Register #86         UNT16         10 65535         Use Modus address as the identifier (see note 7)         0           34666         Historical Log 44, Identifier for Register #89         UNT16         10 65535         Use Modus address as the identifier (see note 7)         0           34666         Historical Log 44, Identifier for Register 490         UNT16         10 65535         Use Modus address as the identifier (see note 7)         0           34667         Historical Log 44, Identifier for Register 491         UNT16         10 65535         Use Modus address as the identifier (see note 7)         0           34668         Historical Log 44, Identifier for Register 492         UNT16         10 65535         Use Modus address as the identifier (see note 7)         0           34667         Historical Log 44, Identifier for Register 493         UNT16         <							0	R/W
1         Historical Log 44, Usernitier for Register #84         UNTIC         10 be Modbus address as the Identifier (see note 7)         0           24662         Historical Log 44, Usernitier for Register #86         UNTIC         10 be S535         Use Modbus address as the Identifier (see note 7)         0           24663         Historical Log 44, Usernitier for Register #87         UNTIC         10 be S535         Use Modbus address as the Identifier (see note 7)         0           24664         Historical Log 44, Usernitier for Register #87         UNTIC         10 be S535         Use Modbus address as the Identifier (see note 7)         0           24665         Historical Log 44, Usernitier for Register #87         UNTIC         10 be S535         Use Modbus address as the Identifier (see note 7)         0           24667         Historical Log 44, Usernitier for Register #90         UNTIC         10 be S535         Use Modbus address as the Identifier (see note 7)         0           24668         Historical Log 44, Usernitier for Register #91         UNTIC         10 be S535         Use Modbus address as the Identifier (see note 7)         0           24669         Historical Log 44, Usernitier for Register #93         UNTIC         10 be S535         Use Modbus address as the Identifier (see note 7)         0           24670         Historical Log 44, Usernitier for Register #93         UNTIC <td< td=""><td>34659 1</td><td>Historical Log #4, Identifier for Register #82</td><td>UINT16</td><td>1 to 65535</td><td></td><td>Use Modbus address as the identifier (see note 7)</td><td>0</td><td>R/W</td></td<>	34659 1	Historical Log #4, Identifier for Register #82	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
11         Historical Log 44, Mentifier for Resister 486         UNT16:         10:6553         Use Modbus address as the identifier Gee note 7)         0           14464         1         Historical Log 44, Mentifier for Resister 487         UNT16:         10:6553         Use Modbus address as the identifier Gee note 7)         0           14464         1         Historical Log 44, Mentifier for Resister 489         UNT16:         10:6553         Use Modbus address as the identifier Gee note 7)         0           14466         1         Historical Log 44, Mentifier for Resister 490         UNT16:         10:6553         Use Modbus address as the identifier Gee note 7)         0           14466         1         Historical Log 44, Mentifier for Resister 491         UNT16:         10:6553         Use Modbus address as the identifier Gee note 7)         0           14466         1         Historical Log 44, Mentifier for Resister 491         UNT16:         10:6553         Use Modbus address as the identifier Gee note 7)         0           14470         1         Historical Log 44, Mentifier for Resister 496         UNT16:         10:6553         Use Modbus address as the identifier Gee note 7)         0           14471         1         Historical Log 44, Mentifier for Resister 496         UNT16:         10:6553         Use Modbus address as the identifier Gee note 7)         0			UINT16			Use Modbus address as the identifier (see note 7)	0	R/W
1         Historical Log 44, identifier for Realister #65         UNIT16         The 65535         Use Modbus address as the identifier (see note 7)         0           14666         Historical Log 44, identifier for Realister #63         UNIT16         The 65535         Use Modbus address as the identifier (see note 7)         0           14666         Historical Log 44, identifier for Realister #70         UNIT16         The 65535         Use Modbus address as the identifier (see note 7)         0           14667         Historical Log 44, identifier for Realister #70         UNIT16         The 65535         Use Modbus address as the identifier (see note 7)         0           14668         Historical Log 44, identifier for Realister #79         UNIT16         The 65535         Use Modbus address as the identifier (see note 7)         0           14669         Historical Log 44, identifier for Realister #79         UNIT16         The 65535         Use Modbus address as the identifier (see note 7)         0           14670         Historical Log 44, identifier for Realister #74         UNIT16         The 65535         Use Modbus address as the identifier (see note 7)         0           14671         Historical Log 44, identifier for Realister #75         UNIT16         The 65535         Use Modbus address as the identifier (see note 7)         0           14672         Historical Log 44, identifier for Realister #70	34661 1	Historical Log #4, Identifier for Register #84	UINT16			Use Modbus address as the identifier (see note 7)	0	R/W
14646         1         Historical Log 44, identifier for Register #87         UNT16         10 65335         Use Moduus address as the identifier (see note 7)         0           44666         1         Historical Log 44, identifier for Register #89         UNT16         10 65335         Use Moduus address as the identifier (see note 7)         0           44666         1         Historical Log 44, identifier for Register #90         UNT16         10 65335         Use Moduus address as the identifier (see note 7)         0           44664         1         Historical Log 44, identifier for Register #97         UNT16         10 65355         Use Moduus address as the identifier (see note 7)         0           4467         1         Historical Log 44, identifier for Register #93         UNT16         10 65535         Use Moduus address as the identifier (see note 7)         0           4467         1         Historical Log 44, identifier for Register #95         UNT16         10 65535         Use Moduus address as the identifier (see note 7)         0           4467         1         Historical Log 44, identifier for Register #97         UNT16         10 65535         Use Moduus address as the identifier (see note 7)         0           44671         1         Historical Log 44, identifier for Register #97         UNT16         10 65535         Use Moduus address as the identifier (see note 7) </td <td>34662 1</td> <td>Historical Log #4, Identifier for Register #85</td> <td>UINT16</td> <td>1 to 65535</td> <td></td> <td>Use Modbus address as the identifier (see note 7)</td> <td>0</td> <td>R/W</td>	34662 1	Historical Log #4, Identifier for Register #85	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
94646         1         Historical Log 44, dentifier for Register #87         UNT 16         10.65535         Use Moduus address as the identifier (see note 7)         0           94666         1         Historical Log 44, dentifier for Register #89         UNT 16         10.65535         Use Moduus address as the identifier (see note 7)         0           94666         1         Historical Log 44, dentifier for Register #97         UNT 16         10.65535         Use Moduus address as the identifier (see note 7)         0           94666         1         Historical Log 44, dentifier for Register #97         UNT 16         10.65535         Use Moduus address as the identifier (see note 7)         0           9467         1         Historical Log 44, dentifier for Register #93         UNT 16         10.65535         Use Moduus address as the identifier (see note 7)         0           9467         1         Historical Log 44, dentifier for Register #93         UNT 16         10.65535         Use Moduus address as the identifier (see note 7)         0           9467         1         Historical Log 44, dentifier for Register #94         UNT 16         10.65535         Use Moduus address as the identifier (see note 7)         0           9467         1         Historical Log 44, dentifier for Register #97         UNT 16         10.65535         Use Moduus address as the identifier (see note 7) <td>34663 1</td> <td>Historical Log #4, Identifier for Register #86</td> <td>UINT16</td> <td>1 to 65535</td> <td></td> <td>Use Modbus address as the identifier (see note 7)</td> <td>0</td> <td>R/W</td>	34663 1	Historical Log #4, Identifier for Register #86	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
14666         1         Historical Log 44, Identifier for Register #99         UNT16         10.65535         Use Modbus address as the Identifier (see note 7)         0           34668         1         Historical Log 44, Identifier for Register #91         UNT16         11.065535         Use Modbus address as the Identifier (see note 7)         0           34669         1         Historical Log 44, Identifier for Register #92         UNT16         11.065535         Use Modbus address as the Identifier (see note 7)         0           34670         1         Historical Log 44, Identifier for Register #93         UNT16         11.065535         Use Modbus address as the Identifier (see note 7)         0           34671         1         Historical Log 44, Identifier for Register #93         UNT16         11.065535         Use Modbus address as the Identifier (see note 7)         0           34671         1         Historical Log 44, Identifier for Register #95         UNT16         11.065535         Use Modbus address as the Identifier (see note 7)         0           34672         1         Historical Log 44, Identifier for Register #96         UNT16         11.065535         Use Modbus address as the Identifier (see note 7)         0           34673         1         Historical Log 44, Identifier for Register #97         UNT16         11.065535         Use Modbus address as the Identifier (see	34664 1	Historical Log #4, Identifier for Register #87	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
94667         1         Historica Log 44, dentifier for Register 490         UNT16         10         65335         Use Modbus address as the identifier (see note 7)         0           94668         1         Historica Log 44, Identifier for Register 492         UNT16         10         65335         Use Modbus address as the identifier (see note 7)         0           9467         1         Historica Log 44, Identifier for Register 493         UNT16         10         65335         Use Modbus address as the identifier (see note 7)         0           9467         1         Historica Log 44, Identifier for Register 494         UNT16         10         65335         Use Modbus address as the identifier (see note 7)         0           9467         1         Historica Log 44, Identifier for Register 495         UNT16         10         65335         Use Modbus address as the identifier (see note 7)         0           94673         1         Historica Log 44, Identifier for Register 496         UNT16         10         65335         Use Modbus address as the identifier (see note 7)         0           94674         1         Historica Log 44, Identifier for Register 498         UNT16         10         65335         Use Modbus address as the identifier (see note 7)         0           94676         1         Historica Log 44, Identifier for Register 499	34665 1	Historical Log #4, Identifier for Register #88	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
94667         1         Historica Log 44, dentifier for Register 490         UNT16         10         65335         Use Modbus address as the identifier (see note 7)         0           94668         1         Historica Log 44, Identifier for Register 492         UNT16         10         65335         Use Modbus address as the identifier (see note 7)         0           9467         1         Historica Log 44, Identifier for Register 493         UNT16         10         65335         Use Modbus address as the identifier (see note 7)         0           9467         1         Historica Log 44, Identifier for Register 494         UNT16         10         65335         Use Modbus address as the identifier (see note 7)         0           9467         1         Historica Log 44, Identifier for Register 495         UNT16         10         65335         Use Modbus address as the identifier (see note 7)         0           94673         1         Historica Log 44, Identifier for Register 496         UNT16         10         65335         Use Modbus address as the identifier (see note 7)         0           94674         1         Historica Log 44, Identifier for Register 498         UNT16         10         65335         Use Modbus address as the identifier (see note 7)         0           94676         1         Historica Log 44, Identifier for Register 499	34666 1	Historical Log #4, Identifier for Register #89	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
Backop         1         Historical Log 44, Identifier for Register #92         UNT16         11 to 65535         Use Modbus address as the Identifier (see note 7)         0           34670         1         Historical Log 44, Identifier for Register #93         UNT16         11 to 65535         Use Modbus address as the Identifier (see note 7)         0           34671         Historical Log 44, Identifier for Register #95         UNT16         11 to 65535         Use Modbus address as the Identifier (see note 7)         0           34672         Historical Log 44, Identifier for Register #96         UNT16         11 to 65535         Use Modbus address as the Identifier (see note 7)         0           34673         Historical Log 44, Identifier for Register #96         UNT16         11 to 65535         Use Modbus address as the Identifier (see note 7)         0           34674         Historical Log 44, Identifier for Register #97         UNT16         11 to 65535         Use Modbus address as the Identifier (see note 7)         0           34675         Historical Log 44, Identifier for Register #98         UNT16         11 to 65535         Use Modbus address as the Identifier (see note 7)         0           34671         Historical Log 44, Identifier for Register #100         UNT16         11 to 65535         Use Modbus address as the Identifier (see note 7)         0           34678         Historic	34667 1	Historical Log #4, Identifier for Register #90	UINT16	1 to 65535			0	R/W
Backop         1         Historical Log 44, Identifier for Register #92         UNT16         11 to 65535         Use Modbus address as the Identifier (see note 7)         0           34670         1         Historical Log 44, Identifier for Register #93         UNT16         11 to 65535         Use Modbus address as the Identifier (see note 7)         0           34672         1         Historical Log 44, Identifier for Register #95         UNT16         11 to 65535         Use Modbus address as the Identifier (see note 7)         0           34672         1         Historical Log 44, Identifier for Register #96         UNT16         11 to 65535         Use Modbus address as the Identifier (see note 7)         0           34673         1         Historical Log 44, Identifier for Register #96         UNT16         11 to 65535         Use Modbus address as the Identifier (see note 7)         0           34671         1         Historical Log 44, Identifier for Register #97         UNT16         11 to 65535         Use Modbus address as the Identifier (see note 7)         0           34671         1         Historical Log 44, Identifier for Register #98         UNT16         11 to 65535         Use Modbus address as the Identifier (see note 7)         0           34671         1         Historical Log 44, Identifier for Register #100         UNT16         11 to 65535         Use Modbus address as	34668 1	Historical Log #4, Identifier for Register #91	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34670       1       Historical Log #4, identifier for Register #93       UINT16       110 65535       Use Modbus address as the identifier (see note 7)       0         34671       1       Historical Log #4, identifier for Register #95       UINT16       110 65535       Use Modbus address as the identifier (see note 7)       0         34672       1       Historical Log #4, identifier for Register #95       UINT16       110 65535       Use Modbus address as the identifier (see note 7)       0         34673       1       Historical Log #4, identifier for Register #97       UINT16       110 65535       Use Modbus address as the identifier (see note 7)       0         34674       1       Historical Log #4, identifier for Register #97       UINT16       110 65535       Use Modbus address as the identifier (see note 7)       0         34676       1       Historical Log #4, identifier for Register #97       UINT16       110 65535       Use Modbus address as the identifier (see note 7)       0         34671       1       Historical Log #4, identifier for Register #100       UINT16       110 65535       Use Modbus address as the identifier (see note 7)       0         34672       1       Historical Log #4, identifier for Register #101       UINT16       10 65535       Use Modbus address as the identifier (see note 7)       0         34680       1			UINT16			Use Modbus address as the identifier (see note 7)	0	R/W
34671       1       Historical Log #4, Identifier for Register #94       UNT16       10 65535       Use Modbus address as the Identifier (see note 7)       0         34672       1       Historical Log #4, Identifier for Register #95       UNT16       10 65535       Use Modbus address as the Identifier (see note 7)       0         34673       1       Historical Log #4, Identifier for Register #96       UNT16       10 65535       Use Modbus address as the Identifier (see note 7)       0         34674       Historical Log #4, Identifier for Register #97       UNT16       10 65535       Use Modbus address as the Identifier (see note 7)       0         34675       Historical Log #4, Identifier for Register #98       UNT16       10 65535       Use Modbus address as the Identifier (see note 7)       0         34676       Historical Log #4, Identifier for Register #09       UNT16       10 65535       Use Modbus address as the Identifier (see note 7)       0         34677       Historical Log #4, Identifier for Register #100       UNT16       10 65535       Use Modbus address as the Identifier (see note 7)       0         34678       Historical Log #4, Identifier for Register #101       UNT16       10 65535       Use Modbus address as the Identifier (see note 7)       0         34679       Historical Log #4, Identifier for Register #104       UNT16       10 65535       U			UINT16				0	R/W
34672       1       Historical Log #4, Identifier for Register #95       UNT16       10 65535       Use Modbus address as the Identifier (see note 7)       0         34673       1       Historical Log #4, Identifier for Register #97       UNT16       10 65535       Use Modbus address as the Identifier (see note 7)       0         34674       1       Historical Log #4, Identifier for Register #97       UNT16       10 65535       Use Modbus address as the Identifier (see note 7)       0         34675       1       Historical Log #4, Identifier for Register #99       UNT16       10 65535       Use Modbus address as the Identifier (see note 7)       0         34678       1       Historical Log #4, Identifier for Register #100       UNT16       11 0 65535       Use Modbus address as the Identifier (see note 7)       0         34678       1       Historical Log #4, Identifier for Register #100       UNT16       11 0 65535       Use Modbus address as the Identifier (see note 7)       0         34679       1       Historical Log #4, Identifier for Register #102       UNT16       11 0 65535       Use Modbus address as the Identifier (see note 7)       0         34681       1       Historical Log #4, Identifier for Register #102       UNT16       11 0 65535       Use Modbus address as the Identifier (see note 7)       0         34682       1       <							0	R/W
34673         1         Historical Log #4, Identifier for Register #96         UINT16         1 to 65535         Use Modbus address as the identifier (see note 7)         0           34674         1         Historical Log #4, Identifier for Register #97         UINT16         1 to 65535         Use Modbus address as the identifier (see note 7)         0           34675         1         Historical Log #4, Identifier for Register #98         UINT16         1 to 65535         Use Modbus address as the identifier (see note 7)         0           34677         1         Historical Log #4, Identifier for Register #100         UINT16         1 to 65535         Use Modbus address as the identifier (see note 7)         0           34678         1         Historical Log #4, Identifier for Register #100         UINT16         1 to 65535         Use Modbus address as the identifier (see note 7)         0           34679         1         Historical Log #4, Identifier for Register #101         UINT16         1 to 65535         Use Modbus address as the identifier (see note 7)         0           34680         1         Historical Log #4, Identifier for Register #103         UINT16         1 to 65535         Use Modbus address as the identifier (see note 7)         0           34681         1         Historical Log #4, Identifier for Register #103         UINT16         1 to 65535         Use Modbus address			UINT16				0	R/W
34674       1       Historical Log #4, Identifier for Register #97       UNT16       110 65535       Use Modbus address as the identifier (see note 7)       0         34675       1       Historical Log #4, Identifier for Register #99       UINT16       110 65535       Use Modbus address as the identifier (see note 7)       0         34676       1       Historical Log #4, Identifier for Register #100       UINT16       110 65535       Use Modbus address as the identifier (see note 7)       0         34678       1       Historical Log #4, Identifier for Register #101       UINT16       110 65535       Use Modbus address as the identifier (see note 7)       0         34679       1       Historical Log #4, Identifier for Register #102       UINT16       110 65535       Use Modbus address as the identifier (see note 7)       0         34680       1       Historical Log #4, Identifier for Register #102       UINT16       110 65535       Use Modbus address as the identifier (see note 7)       0         34681       1       Historical Log #4, Identifier for Register #103       UINT16       110 65535       Use Modbus address as the identifier (see note 7)       0         34682       1       Historical Log #4, Identifier for Register #105       UINT16       110 65535       Use Modbus address as the identifier (see note 7)       0         346843       Hist							0	R/W
34675       1       Historical Log #4, Identifier for Register #98       UINT16       1 to 65535       Use Modbus address as the Identifier (see note 7)       0         34676       1       Historical Log #4, Identifier for Register #99       UINT16       1 to 65535       Use Modbus address as the Identifier (see note 7)       0         34677       1       Historical Log #4, Identifier for Register #100       UINT16       1 to 65535       Use Modbus address as the Identifier (see note 7)       0         34678       1       Historical Log #4, Identifier for Register #101       UINT16       1 to 65535       Use Modbus address as the Identifier (see note 7)       0         34679       1       Historical Log #4, Identifier for Register #102       UINT16       1 to 65535       Use Modbus address as the Identifier (see note 7)       0         34680       1       Historical Log #4, Identifier for Register #103       UINT16       1 to 65535       Use Modbus address as the Identifier (see note 7)       0         34681       1       Historical Log #4, Identifier for Register #105       UINT16       1 to 65535       Use Modbus address as the Identifier (see note 7)       0         34682       1       Historical Log #4, Identifier for Register #105       UINT16       1 to 65535       Use Modbus address as the Identifier (see note 7)       0         34683							0	R/W
34676       1       Historical Log #4, Identifier for Register #100       UINT16       1 to 65535       Use Modbus address as the identifier (see note 7)       0         34677       1       Historical Log #4, Identifier for Register #100       UINT16       1 to 65535       Use Modbus address as the identifier (see note 7)       0         34678       1       Historical Log #4, Identifier for Register #102       UINT16       1 to 65535       Use Modbus address as the identifier (see note 7)       0         34680       1       Historical Log #4, Identifier for Register #103       UINT16       1 to 65535       Use Modbus address as the identifier (see note 7)       0         34681       1       Historical Log #4, Identifier for Register #103       UINT16       1 to 65535       Use Modbus address as the identifier (see note 7)       0         34682       1       Historical Log #4, Identifier for Register #103       UINT16       1 to 65535       Use Modbus address as the identifier (see note 7)       0         34682       1       Historical Log #4, Identifier for Register #106       UINT16       1 to 65535       Use Modbus address as the identifier (see note 7)       0         34682       1       Historical Log #4, Identifier for Register #106       UINT16       1 to 65535       Use Modbus address as the identifier (see note 7)       0         34683							0	R/W
34677         1         Historical Log #4, Identifier for Register #100         UINT16         1 to 65535         Use Modbus address as the identifier (see note 7)         0           34678         1         Historical Log #4, Identifier for Register #101         UINT16         1 to 65535         Use Modbus address as the identifier (see note 7)         0           34679         1         Historical Log #4, Identifier for Register #102         UINT16         1 to 65535         Use Modbus address as the identifier (see note 7)         0           34680         1         Historical Log #4, Identifier for Register #103         UINT16         1 to 65535         Use Modbus address as the identifier (see note 7)         0           34681         Historical Log #4, Identifier for Register #105         UINT16         1 to 65535         Use Modbus address as the identifier (see note 7)         0           34682         1         Historical Log #4, Identifier for Register #105         UINT16         1 to 65535         Use Modbus address as the identifier (see note 7)         0           34683         1         Historical Log #4, Identifier for Register #106         UINT16         1 to 65535         Use Modbus address as the identifier (see note 7)         0           34686         1         Historical Log #4, Identifier for Register #107         UINT16         1 to 65535         Use Modbus address as the identifie							0	R/W
34678       1       Historical Log #4, Identifier for Register #101       UINT16       1 to 65535       Use Modbus address as the identifier (see note 7)       0         34679       1       Historical Log #4, Identifier for Register #102       UINT16       1 to 65535       Use Modbus address as the identifier (see note 7)       0         34680       1       Historical Log #4, Identifier for Register #103       UINT16       1 to 65535       Use Modbus address as the identifier (see note 7)       0         34681       1       Historical Log #4, Identifier for Register #104       UINT16       1 to 65535       Use Modbus address as the identifier (see note 7)       0         34682       1       Historical Log #4, Identifier for Register #104       UINT16       1 to 65535       Use Modbus address as the identifier (see note 7)       0         34682       1       Historical Log #4, Identifier for Register #105       UINT16       1 to 65535       Use Modbus address as the identifier (see note 7)       0         34684       1       Historical Log #4, Identifier for Register #107       UINT16       1 to 65535       Use Modbus address as the identifier (see note 7)       0         34686       1       Historical Log #4, Identifier for Register #107       UINT16       1 to 65535       Use Modbus address as the identifier (see note 7)       0         34687							0	R/W
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34687       1       Historical Log #4, Identifier for Register #110       UINT16       1 to 65535       Use Modbus address as the identifier (see note 7)       0         34688       1       Historical Log #4, Identifier for Register #111       UINT16       1 to 65535       Use Modbus address as the identifier (see note 7)       0         34689       1       Historical Log #4, Identifier for Register #112       UINT16       1 to 65535       Use Modbus address as the identifier (see note 7)       0         34690       1       Historical Log #4, Identifier for Register #113       UINT16       1 to 65535       Use Modbus address as the identifier (see note 7)       0         34691       1       Historical Log #4, Identifier for Register #113       UINT16       1 to 65535       Use Modbus address as the identifier (see note 7)       0         34692       1       Historical Log #4, Identifier for Register #114       UINT16       1 to 65535       Use Modbus address as the identifier (see note 7)       0         34692       1       Historical Log #4, Identifier for Register #115       UINT16       1 to 65535       Use Modbus address as the identifier (see note 7)       0         34692       1       Historical Log #4, Identifier for Register #115       UINT16       1 to 65535       Use Modbus address as the identifier (see note 7)       0							0	R/W
346881Historical Log #4, Identifier for Register #111UINT161 to 65535Use Modbus address as the identifier (see note 7)0346891Historical Log #4, Identifier for Register #112UINT161 to 65535Use Modbus address as the identifier (see note 7)0346901Historical Log #4, Identifier for Register #113UINT161 to 65535Use Modbus address as the identifier (see note 7)0346911Historical Log #4, Identifier for Register #114UINT161 to 65535Use Modbus address as the identifier (see note 7)0346921Historical Log #4, Identifier for Register #115UINT161 to 65535Use Modbus address as the identifier (see note 7)0							0	R/W
34689         1         Historical Log #4, Identifier for Register #112         UINT16         1 to 65535         Use Modbus address as the identifier (see note 7)         0           34690         1         Historical Log #4, Identifier for Register #113         UINT16         1 to 65535         Use Modbus address as the identifier (see note 7)         0           34691         1         Historical Log #4, Identifier for Register #114         UINT16         1 to 65535         Use Modbus address as the identifier (see note 7)         0           34692         1         Historical Log #4, Identifier for Register #115         UINT16         1 to 65535         Use Modbus address as the identifier (see note 7)         0							0	R/W
34690         1         Historical Log #4, Identifier for Register #113         UINT16         1 to 65535         Use Modbus address as the identifier (see note 7)         0           34691         1         Historical Log #4, Identifier for Register #114         UINT16         1 to 65535         Use Modbus address as the identifier (see note 7)         0           34692         1         Historical Log #4, Identifier for Register #115         UINT16         1 to 65535         Use Modbus address as the identifier (see note 7)         0							0	R/W
34691         1         Historical Log #4, Identifier for Register #114         UINT16         1 to 65535         Use Modbus address as the identifier (see note 7)         0           34692         1         Historical Log #4, Identifier for Register #115         UINT16         1 to 65535         Use Modbus address as the identifier (see note 7)         0							0	R/W
34692 1 Historical Log #4, Identifier for Register #115 UINT16 1 to 65535 Use Modbus address as the identifier (see note 7) 0							0	R/W
							0	R/W
							0	R/W
34694 1 Historical Log #4, Identifier for Register #117 UINT16 1 to 65535 Use Modbus address as the identifier (see note 7) 0							0	R/W
Status     Status     Status     Status     Status       34695     73     Historical Log #4 Software Buffer     0				1 10 03030			0	R/W



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
His	torical	Log #5					•	
34768	1	Historical Log #5 Sizes	UINT16	bitmapped		eeeeeeee ssssssss high byte is number of registers to log in each record (0-117), low byte is number of flash sectors for the log (see note 19) 0 in either byte disables the log	060000000000000000000000000000000000000	R/W
34769	1	Historical Log #5 Interval	UINT16	bitmapped		00000000 hgfedcba only 1 bit set: a=1 min, b=3 min, c=5 min, d=10 min, e=15 min, f=30 min, g=60 min, h=EOI pulse	0b000000000010000	R/W
34770	1	Historical Log #5, Identifier for Register #1	UINT16	0 to 65535		use Modbus address as the identifier (see note 7)	0	R/W
34771		Historical Log #5, Identifier for Register #2	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34772	1	Historical Log #5, Identifier for Register #3	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34773		Historical Log #5, Identifier for Register #4	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34774	1	Historical Log #5, Identifier for Register #5	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34775	1	Historical Log #5, Identifier for Register #6	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34776	1	Historical Log #5, Identifier for Register #7	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34777		Historical Log #5, Identifier for Register #8	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34778	1	Historical Log #5, Identifier for Register #9	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34779		Historical Log #5, Identifier for Register #10	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34780		Historical Log #5, Identifier for Register #11	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34781		Historical Log #5, Identifier for Register #12	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34782	1	Historical Log #5, Identifier for Register #13	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34783	1	Historical Log #5, Identifier for Register #14	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34784	1	Historical Log #5, Identifier for Register #15	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34785	1	Historical Log #5, Identifier for Register #16	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34786	1	Historical Log #5, Identifier for Register #17	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34787	1	Historical Log #5, Identifier for Register #18	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34788	1	Historical Log #5, Identifier for Register #19	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34789	1	Historical Log #5, Identifier for Register #20	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34790	1	Historical Log #5, Identifier for Register #21	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34791		Historical Log #5, Identifier for Register #22	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34792	1	Historical Log #5, Identifier for Register #23	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34793		Historical Log #5, Identifier for Register #24	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34794		Historical Log #5, Identifier for Register #25	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34795		Historical Log #5, Identifier for Register #26	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34796		Historical Log #5, Identifier for Register #27	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34797		Historical Log #5, Identifier for Register #28	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34798	1	Historical Log #5, Identifier for Register #29	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W



	Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
	Historical Log #5, Identifier for Register #30		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34800 1	Historical Log #5, Identifier for Register #31	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34801 1	Historical Log #5, Identifier for Register #32	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34802 1	Historical Log #5, Identifier for Register #33	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34803 1	Historical Log #5, Identifier for Register #34	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34804 1	Historical Log #5, Identifier for Register #35	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34805 1	Historical Log #5, Identifier for Register #36	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34806 1	Historical Log #5, Identifier for Register #37	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34807 1	Historical Log #5, Identifier for Register #38	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34808 1	Historical Log #5, Identifier for Register #39	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34809 1	Historical Log #5, Identifier for Register #40	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34810 1	Historical Log #5, Identifier for Register #41	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34811 1	Historical Log #5, Identifier for Register #42	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34812 1	Historical Log #5, Identifier for Register #43	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34813 1	Historical Log #5, Identifier for Register #44	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34814 1	Historical Log #5, Identifier for Register #45	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34815 1	Historical Log #5, Identifier for Register #46	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34816 1	Historical Log #5, Identifier for Register #47	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34817 1	Historical Log #5, Identifier for Register #48	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34818 1	Historical Log #5, Identifier for Register #49	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34819 1	Historical Log #5, Identifier for Register #50	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34820 1	Historical Log #5, Identifier for Register #51	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34821 1	Historical Log #5, Identifier for Register #52	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34822 1	Historical Log #5, Identifier for Register #53	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34823 1	Historical Log #5, Identifier for Register #54	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34824 1	Historical Log #5, Identifier for Register #55	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34825 1	Historical Log #5, Identifier for Register #56	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34826 1	Historical Log #5, Identifier for Register #57	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34827 1	Historical Log #5, Identifier for Register #58	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34828 1	Historical Log #5, Identifier for Register #59	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34829 1	Historical Log #5, Identifier for Register #60	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34830 1	Historical Log #5, Identifier for Register #61	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34831 1	Historical Log #5, Identifier for Register #62	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34832 1	Historical Log #5, Identifier for Register #63	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34833 1	Historical Log #5, Identifier for Register #64	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34834 1	Historical Log #5, Identifier for Register #65	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34835 1	Historical Log #5, Identifier for Register #66	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34836 1	Historical Log #5, Identifier for Register #67	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34837 1	Historical Log #5, Identifier for Register #68	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34838 1	Historical Log #5, Identifier for Register #69	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34839 1	Historical Log #5, Identifier for Register #70	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34840 1	Historical Log #5, Identifier for Register #71	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34841 1	Historical Log #5, Identifier for Register #72	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34842 1	Historical Log #5, Identifier for Register #73	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34843 1	Historical Log #5, Identifier for Register #74	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W



Reg# Size			Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
	Historical Log #5, Identifier for Register #75		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #76	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #77	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #78	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #79	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #80	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #81	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #82	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #83	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #84	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #85	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #86	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #87	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #88	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #89	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #90	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34860 1	Historical Log #5, Identifier for Register #91	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34861 1	Historical Log #5, Identifier for Register #92	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #93	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #94	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #95	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #96	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #97	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #98	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #99	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #100	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #101	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #102	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #103	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #104	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #105	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #106	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #107	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #108	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #109	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #110	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #111	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #112	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #113	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #114	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #115	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #116	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #5, Identifier for Register #117	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34887 73	Historical Log #5 Software Buffer				Reserved for software use.	0	R/W



Reg# Siz	e Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
Historic	al Log #6						
34960 1	Historical Log #6 Sizes	UINT16	bitmapped		eeeeeeee sssssss high byte is number of registers to log in each record (0-117), low byte is number of flash sectors for the log (see note 19) 0 in either byte disables the log	060000000000000000000000000000000000000	R/W
34961 1	Historical Log #6 Interval	UINT16	bitmapped		00000000 hgfedcba only 1 bit set: a=1 min, b=3 min, c=5 min, d=10 min, e=15 min, f=30 min, g=60 min, h=EOI pulse	060000000000000000000000000000000000000	R/W
34962 1	Historical Log #6, Identifier for Register #1	UINT16	0 to 65535		use Modbus address as the identifier (see note 7)	0	R/W
34963 1	Historical Log #6, Identifier for Register #2	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34964 1	Historical Log #6, Identifier for Register #3	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34965 1	Historical Log #6, Identifier for Register #4	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34966 1	Historical Log #6, Identifier for Register #5	UINT16	1 to 65535	+	Use Modbus address as the identifier (see note 7)	0	R/W
34967 1	Historical Log #6, Identifier for Register #6	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W R/W
34968 1 34969 1	Historical Log #6, Identifier for Register #7	UINT16 UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34909 1 34970 1	Historical Log #6, Identifier for Register #8 Historical Log #6, Identifier for Register #9	UINT 16 UINT 16	1 to 65535 1 to 65535		Use Modbus address as the identifier (see note 7) Use Modbus address as the identifier (see note 7)	0	R/W
34971 1	Historical Log #6, Identifier for Register #10	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34972 1	Historical Log #6, Identifier for Register #11	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34973 1	Historical Log #6, Identifier for Register #12	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34974 1	Historical Log #6, Identifier for Register #13	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34975 1	Historical Log #6, Identifier for Register #14	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34976 1	Historical Log #6, Identifier for Register #15	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34977 1	Historical Log #6, Identifier for Register #16	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34978 1	Historical Log #6, Identifier for Register #17	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34979 1	Historical Log #6, Identifier for Register #18	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34980 1	Historical Log #6, Identifier for Register #19	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34981 1	Historical Log #6, Identifier for Register #20	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34982 1	Historical Log #6, Identifier for Register #21	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
84983 1	Historical Log #6, Identifier for Register #22	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
84984 1 84985 1	Historical Log #6, Identifier for Register #23 Historical Log #6, Identifier for Register #24	UINT16 UINT16	1 to 65535 1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W R/W
34986 1	Historical Log #6, Identifier for Register #24	UINT 16 UINT 16	1 to 65535		Use Modbus address as the identifier (see note 7) Use Modbus address as the identifier (see note 7)	0	R/W
34987 1	Historical Log #6, Identifier for Register #26	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34988 1	Historical Log #6, Identifier for Register #27	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34989 1	Historical Log #6, Identifier for Register #28	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34990 1	Historical Log #6, Identifier for Register #29	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34991 1	Historical Log #6, Identifier for Register #30	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34992 1	Historical Log #6, Identifier for Register #31	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34993 1	Historical Log #6, Identifier for Register #32	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34994 1	Historical Log #6, Identifier for Register #33	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34995 1	Historical Log #6, Identifier for Register #34	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34996 1	Historical Log #6, Identifier for Register #35	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34997 1	Historical Log #6, Identifier for Register #36	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34998 1	Historical Log #6, Identifier for Register #37	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
34999 1 35000 1	Historical Log #6, Identifier for Register #38 Historical Log #6, Identifier for Register #39	UINT16 UINT16	1 to 65535 1 to 65535		Use Modbus address as the identifier (see note 7) Use Modbus address as the identifier (see note 7)	0	R/W R/W
35000 1 35001 1	Historical Log #6, Identifier for Register #40	UINT 16 UINT 16	1 to 65535	+	Use Modbus address as the identifier (see note 7)	0	R/W
35001 1 35002 1	Historical Log #6, Identifier for Register #40	UINT 16 UINT 16	1 to 65535	1	Use Modbus address as the identifier (see note 7)	0	R/W
35002 1 35003 1	Historical Log #6, Identifier for Register #4	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35003 1	Historical Log #6, Identifier for Register #43	UINT16	1 to 65535	1	Use Modbus address as the identifier (see note 7)	0	R/W
35005 1	Historical Log #6, Identifier for Register #44	UINT16	1 to 65535	1	Use Modbus address as the identifier (see note 7)	0	R/W
35006 1	Historical Log #6, Identifier for Register #45	UINT16	1 to 65535	1	Use Modbus address as the identifier (see note 7)	0	R/W
35007 1	Historical Log #6, Identifier for Register #46	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W



D# 0:-	Description	<b>-</b> .	Value Dance	Unit of measure			A
Reg# Siz	e Description	Format	Value Range	or resolution	Comments	Factory default value	Acc
35008 1	Historical Log #6, Identifier for Register #47	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35009 1	Historical Log #6, Identifier for Register #48	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35010 1	Historical Log #6, Identifier for Register #49	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35010 1	Historical Log #6, Identifier for Register #50	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35012 1	Historical Log #6, Identifier for Register #51	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35012 1	Historical Log #6, Identifier for Register #52	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35014 1	Historical Log #6, Identifier for Register #53	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35015 1	Historical Log #6, Identifier for Register #54	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35016 1	Historical Log #6, Identifier for Register #55	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35017 1	Historical Log #6, Identifier for Register #56	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35018 1	Historical Log #6, Identifier for Register #57	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35019 1	Historical Log #6, Identifier for Register #58	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35020 1	Historical Log #6, Identifier for Register #59	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35021 1	Historical Log #6, Identifier for Register #60	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35022 1	Historical Log #6, Identifier for Register #61	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35023 1	Historical Log #6, Identifier for Register #62	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35024 1	Historical Log #6, Identifier for Register #63	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35025 1	Historical Log #6, Identifier for Register #64	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35026 1	Historical Log #6, Identifier for Register #65	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35027 1	Historical Log #6, Identifier for Register #66	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35028 1	Historical Log #6, Identifier for Register #67	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35029 1	Historical Log #6, Identifier for Register #68	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35030 1	Historical Log #6, Identifier for Register #69	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35031 1	Historical Log #6, Identifier for Register #70	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35032 1	Historical Log #6, Identifier for Register #71	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35033 1	Historical Log #6, Identifier for Register #72	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35034 1	Historical Log #6, Identifier for Register #73	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35035 1	Historical Log #6, Identifier for Register #74	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35036 1	Historical Log #6, Identifier for Register #75	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35037 1	Historical Log #6, Identifier for Register #76	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35038 1	Historical Log #6, Identifier for Register #77	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35039 1	Historical Log #6, Identifier for Register #78	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35040 1	Historical Log #6, Identifier for Register #79	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35041 1	Historical Log #6, Identifier for Register #80	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35042 1	Historical Log #6, Identifier for Register #81	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35043 1	Historical Log #6, Identifier for Register #82	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35044 1	Historical Log #6, Identifier for Register #83	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35045 1	Historical Log #6, Identifier for Register #84	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35046 1	Historical Log #6, Identifier for Register #85	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35047 1	Historical Log #6, Identifier for Register #86	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35048 1	Historical Log #6, Identifier for Register #87	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35049 1	Historical Log #6, Identifier for Register #88	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35050 1	Historical Log #6, Identifier for Register #89	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35051 1	Historical Log #6, Identifier for Register #90	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35052 1	Historical Log #6, Identifier for Register #91	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35053 1	Historical Log #6, Identifier for Register #92	UINT16	1 to 65535	+	Use Modbus address as the identifier (see note 7)	0	R/W
35054 1	Historical Log #6, Identifier for Register #93	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35055 1	Historical Log #6, Identifier for Register #94	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35056 1	Historical Log #6, Identifier for Register #95	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W R/W
35057 1 35058 1	Historical Log #6, Identifier for Register #96	UINT16 UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
	Historical Log #6, Identifier for Register #97	UINT 16 UINT 16	1 to 65535	+	Use Modbus address as the identifier (see note 7)	0	
35059 1 35060 1	Historical Log #6, Identifier for Register #98 Historical Log #6, Identifier for Register #99	UINT 16 UINT 16	1 to 65535 1 to 65535	+	Use Modbus address as the identifier (see note 7) Use Modbus address as the identifier (see note 7)	0	R/W R/W
35060 1	Historical Log #6, Identifier for Register #100	UINT 16 UINT 16	1 to 65535	+	Use Modbus address as the identifier (see note 7)	0	R/W
35062 1	Historical Log #6, Identifier for Register #100	UINT 16 UINT 16	1 to 65535	+	Use Modbus address as the identifier (see note 7)	0	R/W
35062 1	Historical Log #6, Identifier for Register #101	UINT 16 UINT 16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35063 1	Historical Log #6, Identifier for Register #102	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
JJUU4	ristorical Edg #0, Identifier for Register #103		1 10 00000	1	וטפר ואוטעטעט מעערבפט מס נורב ועפרונווופר (ספפ דוטנפ ד)	U	IN/ VV



		Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
35065		Historical Log #6, Identifier for Register #104		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35066	1	Historical Log #6, Identifier for Register #105		1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35067	1	Historical Log #6, Identifier for Register #106	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35068	1	Historical Log #6, Identifier for Register #107	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35069	1	Historical Log #6, Identifier for Register #108	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35070	1	Historical Log #6, Identifier for Register #109	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35071	1	Historical Log #6, Identifier for Register #110	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35072	1	Historical Log #6, Identifier for Register #111	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35073	1	Historical Log #6, Identifier for Register #112	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35074	1	Historical Log #6, Identifier for Register #113	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35075	1	Historical Log #6, Identifier for Register #114	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35076	1	Historical Log #6, Identifier for Register #115	UINT16	1 to 65535		Use Modbus address as the identifier (see note 7)	0	R/W
35077	1	Historical Log #6, Identifier for Register #116	UINT16	1 to 65535	-	Use Modbus address as the identifier (see note 7)	0	R/W
35078	70	Historical Log #6, Identifier for Register #117	UINT16	1 to 65535	-	Use Modbus address as the identifier (see note 7)	0	R/W
35079	73	Historical Log #6 Software Buffer			-	Reserved for software use.	0	R/W
35152	1	Waveform Log Sample Rate & Pretrigger	UINT16	bitmapped		ssssssss ppppppp High byte is samples/60Hz cycle = 5(32), 6(64), 7(128), 8(256), or 9(512) Low byte is number of pretrigger cycles.	0b0000011000000100	R/W
35153	1	Power Quality Log Triggers	UINT16	bitmapped		8 76543210 Set bits to enable PQ events/waveform captures. 2,1,0 = Voltage Surge, channel C,B,A 5,4,3 = Current Surge, channel C, B, A 8,7,6 = Voltage Sag, channel C, B, A	06000000111111111	R/W
35154	1	Waveform Log Triggers	UINT16	bitmapped		8 76543210 Set bits to enable PQ events/waveform captures. 2,1,0 = Voltage Surge, channel C,B,A 5,4,3 = Current Surge, channel C, B, A 8,7,6 = Voltage Sag, channel C, B, A	06000000111111111	R/W
35155	1	Waveform & PQ Log Sizes	UINT16	bitmapped		ppppppp wwwwwww High byte is number of flash sectors for PQ log, Low byte is number of flash sectors for waveform log	06000000100000110	R/W
35157	1	Channel A Voltage Surge Threshold	UINT16	0 to 3276.7	0.1% of full scale	Thresholds are % of full scale, see note 12	0x04B0	R/W
35158	1	Channel A Current Surge Threshold	UINT16	0 to 3276.7	0.1% of full scale	Thresholds are % of full scale, see note 13	0x07D0	R/W
35159	1	Channel A Voltage Sag Threshold	UINT16	0 to 3276.7	0.1% of full scale	Thresholds are % of full scale, see note 14	0x0320	R/W
35163	1	Channel B Voltage Surge Threshold	UINT16	0 to 3276.7	0.1% of full scale	Thresholds are % of full scale, see note 12	0x04B0	R/W
35164	1	Channel B Current Surge Threshold	UINT16	0 to 3276.7	0.1% of full scale	Thresholds are % of full scale, see note 13	0x07D0	R/W
35165	1	Channel B Voltage Sag Threshold	UINT16	0 to 3276.7	0.1% of full scale	Thresholds are % of full scale, see note 14	0x0320	R/W
35169	1	Channel C Voltage Surge Threshold	UINT16	0 to 3276.7	0.1% of full scale	Thresholds are % of full scale, see note 12	0x04B0	R/W
35170	1	Channel C Current Surge Threshold	UINT16	0 to 3276.7	0.1% of full scale	Thresholds are % of full scale, see note 13	0x07D0	R/W
35171	1	Channel C Voltage Sag Threshold	UINT16	0 to 3276.7	0.1% of full scale	Thresholds are % of full scale, see note 14	0x0320	R/W



		Description	Format		Unit of measure or resolution	Comments	Factory default value	Acc
		le Settings for Time of Use Section Calendar entries, 3 registers each, 150 entries total	UINT16	bitmapped		See note 6 for details		R/W
36450		Rate Change List, 50 entries total		bitmapped		hhhhhmmm mmmttt Each entry specifies the time of a Rate change and Which Rate to adopt at that time. - unused bit, always 0	regs. 1-2=0x0001 regs. 3-50=0x0000	R/W
36500	8	Schedule Index	UINT16	0 to 49		Position in the Rate change list of the first entry for each schedule. Assigning 50 for unused schedules is recommended.	reg.1=0x0001, regs. 2-8=0x3232	R/W
36508	7	Day type assignments:	UINT16	0 to 3		Assign one of the day types to each day of the week. 1st= Sun type7th=Sat type. Weekday = 1, Weekend = 2.	2,1,1,1,1,1,2	R/W
36515	16	Annual Profile	UINT16	0 to 7		4x4 table of seasons vs. day types. Data specifies the schedule to use for all days of that type in a given season. First 4 registers are Season 0, next 4 are Season 1, etc. Assigning 16 to unused cells is recommended.	0,1,0,8,8,8,8,8,8,8,8,8,8,8,8,8,8,8	R/W

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
	itored ata Se	Data Sets Definitions. Note 6.			•			
36531		Accumulator #1 Register Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register accumulator as the identifier. If this set does not include an accumulator, set this to zero and also clear bit a in the options register.	0xFFFF	R/W
36532	1	Peak Demand Register #1 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists, set this to zero and also clear bit c in the options register.	0xFFFF	R/W
36533	1	Coincident Demand Register #1 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists or there is no applicable coincident demand, set this to zero and also clear bit g in the options register.	0xFFFF	R/W
36534	1	Monitored Data Set #1 Options	UINT16	bitmapped		Flag bits, if 1: b15:b9 = don't care b8 = cumulative demand is continous, else non- b7 = coincident demand entity (1-VAR, 0-PF) b6 = enable coincident demand association b5 = enable cumulative demand b4,b3 = demand register type (00-positive power, 01-negative power, 10-positive PF, 11-negative PF) b2 = enable peak demand monitoring b1 = accumulator register sign is negative b0 = enable accumulator register monitoring	0	R/W
36535		Label for Data Set #1		16 char			null	R/W
36543		Label for Accumulator #1	ASCII	16 char			null	R/W
36551		Label for Peak Demand #1	ASCII	16 char			null	R/W
36559 36567		Label for Coincident Demand #1 Label for Cumulative Demand #1	ASCII ASCII	16 char 16 char			null	R/W R/W



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
D	ata Se	t #2						
36575	1 .	Accumulator #2 Register Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register accumulator as the identifier. If this set does not include an accumulator, set this to zero and also clear bit a in the options register.	OxFFFF	R/W
36576	1	Peak Demand Register #2 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists, set this to zero and also clear bit c in the options register.	OxFFFF	R/W
36577	1	Coincident Demand Register #2 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists or there is no applicable coincident demand, set this to zero and also clear bit g in the options register.	0xFFFF	R/W
36578	1	Monitored Data Set #2 Options	UINT16	bitmapped		Flag bits, if 1: b15:b9 = don't care b8 = cumulative demand is continous, else non- b7 = coincident demand entity (1-VAR, 0-PF) b6 = enable coincident demand association b5 = enable cumulative demand b4,b3 = demand register type (00-positive power, 10-negative power, 01-positive PF, 11-negative PF) b2 = enable peak demand monitoring b1 = accumulator register sign is negative b0 = enable accumulator register monitoring	0	R/W
36579	8	Label for Data Set #2		16 char			null	R/W
36587	8	Label for Accumulator #2		16 char			null	R/W
36595		Label for Peak Demand #2		16 char			null	R/W
36603		Label for Coincident Demand #2		16 char			null	R/W
36611	8	Label for Cumulative Demand #2	ASCII	16 char			null	R/W



	Size Data S	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
36619		Accumulator #3 Register Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register accumulator as the identifier. If this set does not include an accumulator, set this to zero and also clear bit a in the options register Use the lower Modbus address of the 2-register demand as the	0xFFFF	R/W
36620	1	Peak Demand Register #3 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists, set this to zero and also clear hit for the obtions address or the 2-register demand as the	0xFFFF	R/W
36621	1	Coincident Demand Register #3 Identifier	UINT16	0 to 65535		identifier. If no such Modbus register exists or there is no applicable coincident demand, set this to zero and also clear bit g in the options	0xFFFF	R/W
36622	1	Monitored Data Set #3 Options	UINT16	bitmapped		Flag bits, if 1: b15:b9 = don't care b8 = cumulative demand is continous, else non- b7 = coincident demand entity (1-VAR, 0-PF) b6 = enable coincident demand association b5 = enable cumulative demand b4,b3 = demand register type (00-positive power, 10-negative power, 01-positive PF, 11-negative PF) b2 = enable peak demand monitoring b1 = accumulator register sign is negative b0 = enable accumulator register monitoring	0	R/W
36623	8	Label for Data Set #3		16 char			null	R/W
36631	8	Label for Accumulator #3		16 char			null	R/W
36639	8	Label for Peak Demand #3		16 char			null	R/W
<u>36647</u> 36655	ŏ	Label for Coincident Demand #3 Label for Cumulative Demand #3		16 char 16 char			null null	R/W R/W

	Size Data S	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
36663		Accumulator #4 Register Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register accumulator as the identifier. If this set does not include an accumulator, set this to zero and also clear bit a in the options register.	OXFFFF	R/W
36664	1	Peak Demand Register #4 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists, set this to zero and also clear bit c in the options register.	0xFFFF	R/W
36665	1	Coincident Demand Register #4 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists or there is no applicable coincident demand, set this to zero and also clear bit g in the options register.	0xFFFF	R/W
36666	1	Monitored Data Set #4 Options	UINT16	bitmapped		Flag bits, if 1: b15:b9 = don't care b8 = cumulative demand is continous, else non- b7 = coincident demand entity (1-VAR, 0-PF) b6 = enable coincident demand association b5 = enable cumulative demand b4,b3 = demand register type (00-positive power, 10-negative power, 01-positive PF, 11-negative PF) b2 = enable peak demand monitoring b1 = accumulator register sign is negative b0 = enable accumulator register monitoring	0	R/W
36667		Label for Data Set #4		16 char			null	R/W
36675		Label for Accumulator #4		16 char			null	R/W
36683	8	Label for Peak Demand #4		16 char			null	R/W
36691	8	Label for Coincident Demand #4	ASCII	16 char			null	R/W
36699	8	Label for Cumulative Demand #4	ASCII	16 char			null	R/W



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
<b>D</b> 36707	ata Se	et #5 Accumulator #5 Register Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register accumulator as the identifier. If this set does not include an accumulator, set this to zero	0xFFFF	R/W
	-					and also clear bit a in the options register.		
36708	1	Peak Demand Register #5 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists, set this to zero and also clear bit c in the options register.	0xFFFF	R/W
36709	1	Coincident Demand Register #5 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists or there is no applicable coincident demand, set this to zero and also clear bit g in the options register.	0xFFFF	R/W
36710	1	Monitored Data Set #5 Options	UINT16	bitmapped		Flag bits, if 1: b15:b9 = don't care b8 = cumulative demand is continous, else non- b7 = coincident demand entity (1-VAR, 0-PF) b6 = enable coincident demand association b5 = enable cumulative demand b4,b3 = demand register type (00-positive power, 10-negative power, 01-positive PF, 11-negative PF) b2 = enable peak demand monitoring b1 = accumulator register sign is negative b0 = enable accumulator register monitoring	0	R/W
36711		Label for Data Set #5		16 char			null	R/W
36719		Label for Accumulator #5		16 char			null	R/W
36727		Label for Peak Demand #5		16 char			null	R/W
36735		Label for Coincident Demand #5		16 char			null	R/W
36743	8	Label for Cumulative Demand #5	ASCII	16 char			null	R/W



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
	ata S	et #6 Accumulator #6 Register Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register accumulator as the identifier. If this set does not include an accumulator, set this to zero and also clear bit a in the options register.	0xFFFF	R/W
36752	1	Peak Demand Register #6 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists, set this to zero and also clear bit c in the options register.	0xFFFF	R/W
36753	1	Coincident Demand Register #6 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists or there is no applicable coincident demand, set this to zero and also clear bit g in the options register.	0xFFFF	R/W
36754	1	Monitored Data Set #6 Options	UINT16	bitmapped		Flag bits, if 1: b15:b9 = don't care b8 = cumulative demand is continous, else non- b7 = coincident demand entity (1-VAR, 0-PF) b6 = enable coincident demand association b5 = enable cumulative demand b4,b3 = demand register type (00-positive power, 10-negative power, 01-positive PF, 11-negative PF) b2 = enable peak demand monitoring b1 = accumulator register sign is negative b0 = enable accumulator register monitoring	0	R/W
36755 36763		Label for Data Set #6 Label for Accumulator #6		16 char 16 char			null	R/W R/W
36771		Label for Peak Demand #6		16 char	1		null	R/W
36779		Label for Coincident Demand #6	ASCII	16 char	1		null	R/W
36787	8	Label for Cumulative Demand #6	ASCII	16 char			null	R/W



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
<u>р</u> 36795	1	et #7 Accumulator #7 Register Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register accumulator as the identifier. If this set does not include an accumulator, set this to zero and also clear bit a in the options register.	0xFFFF	R/W
36796	1	Peak Demand Register #7 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists, set this to zero and also clear bit c in the options register.	0xFFFF	R/W
36797	1	Coincident Demand Register #7 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists or there is no applicable coincident demand, set this to zero and also clear bit g in the options register.	0xFFFF	R/W
36798	1	Monitored Data Set #7 Options	UINT16	bitmapped		Flag bits, if 1: b15:b9 = don't care b8 = cumulative demand is continous, else non- b7 = coincident demand entity (1-VAR, 0-PF) b6 = enable coincident demand association b5 = enable cumulative demand b4,b3 = demand register type (00-positive power, 10-negative power, 01-positive PF, 11-negative PF) b2 = enable peak demand monitoring b1 = accumulator register sign is negative b0 = enable accumulator register monitoring	0	R/W
36799		Label for Data Set #7		16 char			null	R/W
36807		Label for Accumulator #7		16 char			null	R/W
36815		Label for Peak Demand #7		16 char			null	R/W
36823		Label for Coincident Demand #7		16 char			null	R/W R/W
36831	8	Label for Cumulative Demand #7	ASCII	16 char			null	



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
D	ata Se	et #8	1	l l l l l l l l l l l l l l l l l l l				
36839	1	Accumulator #8 Register Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register accumulator as the identifier. If this set does not include an accumulator, set this to zero and also clear bit a in the options register.	0xFFFF	R/W
36840	1	Peak Demand Register #8 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists, set this to zero and also clear bit c in the options register.	0xFFFF	R/W
36841	1	Coincident Demand Register #8 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists or there is no applicable coincident demand, set this to zero and also clear bit g in the options register.	0xFFFF	R/W
36842	1	Monitored Data Set #8 Options	UINT16	bitmapped		Flag bits, if 1: b15:b9 = don't care b8 = cumulative demand is continous, else non- b7 = coincident demand entity (1-VAR, 0-PF) b6 = enable coincident demand association b5 = enable cumulative demand b4,b3 = demand register type (00-positive power, 10-negative power, 01-positive PF, 11-negative PF) b2 = enable peak demand monitoring b1 = accumulator register sign is negative b0 = enable accumulator register monitoring	0	R/W
36843		Label for Data Set #8		16 char			null	R/W
36851		Label for Accumulator #8		16 char			null	R/W
36859		Label for Peak Demand #8		16 char			null	R/W
36867		Label for Coincident Demand #8		16 char			null	R/W
36875	8	Label for Cumulative Demand #8	ASCII	16 char			null	R/W



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
36883	Data So 1	Accumulator #9 Register Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register accumulator as the identifier. If this set does not include an accumulator, set this to zero and also clear bit a in the options register.	0xFFFF	R/W
36884	1	Peak Demand Register #9 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists, set this to zero and also clear bit c in the options register.	0xFFFF	R/W
36885	1	Coincident Demand Register #9 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists or there is no applicable coincident demand, set this to zero and also clear bit g in the options register.	0xFFFF	R/W
36886	1	Monitored Data Set #9 Options	UINT16	bitmapped		Flag bits, if 1: b15:b9 = don't care b8 = cumulative demand is continous, else non- b7 = coincident demand entity (1-VAR, 0-PF) b6 = enable coincident demand association b5 = enable cumulative demand b4,b3 = demand register type (00-positive power, 10-negative power, 01-positive PF, 11-negative PF) b2 = enable peak demand monitoring b1 = accumulator register sign is negative b0 = enable accumulator register monitoring	0	R/W
36887		Label for Data Set #9		16 char			null	R/W
36895		Label for Accumulator #9 Label for Peak Demand #9		16 char			null	R/W R/W
36903 36911	8	Label for Coincident Demand #9	ASCII	16 char 16 char			null	R/W
36911		Label for Cumulative Demand #9	ASCII	16 char	-		null	R/W



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
36927		et #10 Accumulator #10 Register Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register accumulator as the identifier. If this set does not include an accumulator, set this to zero and also clear bit a in the options register.	0xFFFF	R/W
36928	1	Peak Demand Register #10 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists, set this to zero and also clear bit c in the options register.	0xFFFF	R/W
36929	1	Coincident Demand Register #10 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists or there is no applicable coincident demand, set this to zero and also clear bit g in the options register.	0xFFFF	R/W
36930	1	Monitored Data Set #10 Options	UINT16	bitmapped		Flag bits, if 1: b15:b9 = don't care b8 = cumulative demand is continous, else non- b7 = coincident demand entity (1-VAR, 0-PF) b6 = enable coincident demand association b5 = enable cumulative demand b4,b3 = demand register type (00-positive power, 10-negative power, 01-positive PF, 11-negative PF) b2 = enable peak demand monitoring b1 = accumulator register sign is negative b0 = enable accumulator register monitoring	0	R/W
<u>36931</u> 36939		Label for Data Set #10 Label for Accumulator #10	ASCII ASCII	16 char 16 char			null null	R/W R/W
36947	8	Label for Peak Demand #10	ASCII	16 char			null	R/W
36955		Label for Coincident Demand #10	ASCII	16 char	1		null	R/W
36963		Label for Cumulative Demand #10	ASCII	16 char			null	R/W



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
		et #11 Accumulator #11 Register Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register accumulator as the identifier. If this set does not include an accumulator, set this to zero and also clear bit a in the options register.	0xFFFF	R/W
36972	1	Peak Demand Register #11 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists, set this to zero and also clear bit c in the options register.	0xFFFF	R/W
36973	1	Coincident Demand Register #11 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists or there is no applicable coincident demand, set this to zero and also clear bit g in the options register.	0xFFFF	R/W
36974	1	Monitored Data Set #11 Options	UINT16	bitmapped		Flag bits, if 1: b15:b9 = don't care b8 = cumulative demand is continous, else non- b7 = coincident demand entity (1-VAR, 0-PF) b6 = enable coincident demand association b5 = enable cumulative demand b4,b3 = demand register type (00-positive power, 10-negative power, 01-positive PF, 11-negative PF) b2 = enable peak demand monitoring b1 = accumulator register sign is negative b0 = enable accumulator register monitoring	0	R/W
36975 36983 36991	8 8 8	Label for Data Set #11 Label for Accumulator #11 Label for Peak Demand #11	ASCII ASCII	16 char 16 char 16 char			null null null	R/W R/W R/W
36999 37007	8 8	Label for Coincident Demand #11 Label for Cumulative Demand #11	ASCII ASCII	16 char 16 char			null null	R/W R/W



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
D	ata Se	t #12						
37015	1 .	Accumulator #12 Register Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register accumulator as the identifier. If this set does not include an accumulator, set this to zero and also clear bit a in the options register.	0xFFFF	R/W
37016	1	Peak Demand Register #12 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists, set this to zero and also clear bit c in the options register.	0xFFFF	R/W
37017	1	Coincident Demand Register #12 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists or there is no applicable coincident demand, set this to zero and also clear bit g in the options register.	0xFFFF	R/W
37018	1	Monitored Data Set #12 Options	UINT16	bitmapped		Flag bits, if 1: b15:b9 = don't care b8 = cumulative demand is continous, else non- b7 = coincident demand entity (1-VAR, 0-PF) b6 = enable coincident demand association b5 = enable cumulative demand b4,b3 = demand register type (00-positive power, 10-negative power, 01-positive PF, 11-negative PF) b2 = enable peak demand monitoring b1 = accumulator register sign is negative b0 = enable accumulator register monitoring	0	R/W
37019	8	Label for Data Set #12		16 char			null	R/W
37027	8	Label for Accumulator #12		16 char			null	R/W
37035	8	Label for Peak Demand #12		16 char			null	R/W
37043	8	Label for Coincident Demand #12		16 char			null	R/W
37051	8	Label for Cumulative Demand #12	ASCII	16 char			null	R/W



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
D	ata Se	et #13			1			
37059	1	Accumulator #13 Register Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register accumulator as the identifier. If this set does not include an accumulator, set this to zero and also clear bit a in the options register.	0xFFFF	R/W
37060	1	Peak Demand Register #13 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists, set this to zero and also clear bit c in the options register.	0xFFFF	R/W
37061	1	Coincident Demand Register #13 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists or there is no applicable coincident demand, set this to zero and also clear bit g in the options register.	0xFFFF	R/W
37062	1	Monitored Data Set #13 Options	UINT16	bitmapped		Flag bits, if 1: b15:b9 = don't care b8 = cumulative demand is continous, else non- b7 = coincident demand entity (1-VAR, 0-PF) b6 = enable coincident demand association b5 = enable cumulative demand b4,b3 = demand register type (00-positive power, 10-negative power, 01-positive PF, 11-negative PF) b2 = enable peak demand monitoring b1 = accumulator register sign is negative b0 = enable accumulator register monitoring	0	R/W
37063	8	Label for Data Set #13	ASCII	16 char			null	R/W
37071		Label for Accumulator #13		16 char			null	R/W
37079		Label for Peak Demand #13		16 char			null	R/W
37087		Label for Coincident Demand #13		16 char			null	R/W
37095	8	Label for Cumulative Demand #13	ASCII	16 char			null	R/W



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
D	ata Se	it #14						
37103	1,	Accumulator #14 Register Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register accumulator as the identifier. If this set does not include an accumulator, set this to zero and also clear bit a in the options register.	0xFFFF	R/W
37104	1	Peak Demand Register #14 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists, set this to zero and also clear bit c in the options register.	0xFFFF	R/W
37105	1	Coincident Demand Register #14 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists or there is no applicable coincident demand, set this to zero and also clear bit g in the options register.	0xFFFF	R/W
37106	1	Monitored Data Set #14 Options	UINT16	bitmapped		Flag bits, if 1: b15:b9 = don't care b8 = cumulative demand is continous, else non- b7 = coincident demand entity (1-VAR, 0-PF) b6 = enable coincident demand association b5 = enable cumulative demand b4,b3 = demand register type (00-positive power, 10-negative power, 01-positive PF, 11-negative PF) b2 = enable peak demand monitoring b1 = accumulator register sign is negative b0 = enable accumulator register monitoring	0	R/W
37107	8	Label for Data Set #14		16 char			null	R/W
37115	8	Label for Accumulator #14		16 char			null	R/W
37123	8	Label for Peak Demand #14		16 char			null	R/W
37131	8	Label for Coincident Demand #14		16 char			null	R/W
37139	8	Label for Cumulative Demand #14	ASCII	16 char			null	R/W



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
37147	1	et #15 Accumulator #15 Register Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register accumulator as the identifier. If this set does not include an accumulator, set this to zero and also clear bit a in the options register.	0xFFFF	R/W
37148	1	Peak Demand Register #15 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists, set this to zero and also clear bit c in the options register.	OxFFFF	R/W
37149	1	Coincident Demand Register #15 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists or there is no applicable coincident demand, set this to zero and also clear bit g in the options register.	0xFFFF	R/W
37150	1	Monitored Data Set #15 Options	UINT16	bitmapped		Flag bits, if 1: b15:b9 = don't care b8 = cumulative demand is continous, else non- b7 = coincident demand entity (1-VAR, 0-PF) b6 = enable coincident demand association b5 = enable cumulative demand b4,b3 = demand register type (00-positive power, 10-negative power, 01-positive PF, 11-negative PF) b2 = enable peak demand monitoring b1 = accumulator register sign is negative b0 = enable accumulator register monitoring	0	R/W
37151		Label for Data Set #15		16 char	<u> </u>		null	R/W
37159 37167		Label for Accumulator #15 Label for Peak Demand #15		16 char 16 char	╂─────		null	R/W R/W
37107		Label for Coincident Demand #15		16 char	+		null	R/W
	0	Label for Cumulative Demand #15	ASCII	TU UTIAI	1		null	R/W



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
D	ata Se	et #16	r		1	I		
37191	1	Accumulator #16 Register Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register accumulator as the identifier. If this set does not include an accumulator, set this to zero and also clear bit a in the options register.	0xFFFF	R/W
37192	1	Peak Demand Register #16 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists, set this to zero and also clear bit c in the options register.	0xFFFF	R/W
37193	1	Coincident Demand Register #16 Identifier	UINT16	0 to 65535		Use the lower Modbus address of the 2-register demand as the identifier. If no such Modbus register exists or there is no applicable coincident demand, set this to zero and also clear bit g in the options register.	0xFFFF	R/W
37194	1	Monitored Data Set #16 Options	UINT16	bitmapped		Flag bits, if 1: b15:b9 = don't care b8 = cumulative demand is continous, else non- b7 = coincident demand entity (1-VAR, 0-PF) b6 = enable coincident demand association b5 = enable cumulative demand b4,b3 = demand register type (00-positive power, 10-negative power, 01-positive PF, 11-negative PF) b2 = enable peak demand monitoring b1 = accumulator register sign is negative b0 = enable accumulator register monitoring	0	R/W
37195	8	Label for Data Set #16	ASCII	16 char	1		null	R/W
37203		Label for Accumulator #16		16 char			null	R/W
37211		Label for Peak Demand #16		16 char			null	R/W
37219		Label for Coincident Demand #16		16 char			null	R/W
37227	8	Label for Cumulative Demand #16	ASCII	16 char			null	R/W



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
		Label for holiday (type 0)						R/W
37243		Label for day types 1, 2, 3		16 char		Labels for the 3 non-holiday day types		R/W
37267 37275		Label for total Rate Labels for Rates 1 - 4		16 char 16 char				R/W R/W
		Labels for holidays 1 - 4	ASCII ASCII	16 char	-			R/W
37555	96	Labels for months 1 - 12		16 char				R/W
37651	32	Labels for seasons 1 - 4		16 char				R/W
37683	1	Month Self Read Time of Day	UINT16	bitmapped		high byte is hour (0-23), low byte is minute (5, 15, 30, 60); must be aligned with the demand interval	0b0000000000000000000000000000000000000	R/W
37684	1	Season Self Read Time of Day	UINT16	bitmapped		high byte is hour (0-23), low byte is minute (5, 15, 30, 60); must be aligned with the demand interval	0b0000000000000000000000000000000000000	R/W
37685	1	Number of months	UINT16	0 to 12		If number of months = 0, all month data will be month 1; similarly if number of seasons = 0, all season data will be season 1.		R/W
37686	1	Number of seasons	UINT16	0 to 4		If number of months = 0, all month data will be month 1; similarly if number of seasons = 0, all season data will be season 1.		R/W
37687	1	Number of day types	UINT16	1 to 3				R/W
37688	1	Option Bits	UINT16	bitmapped		b15-b4, b1-b0: must be set to 0. b3, b2 active 1. b3: Billing Month accumulators to restart for each billing period b2: Season accumulators to restart for each billing period		R/W
		uration Section (DCP)		1				
37956	9	User String	ASCII	16 char		User string to readable from point #4 of object 110.	0	R/W
37965	1	Class 0 assignment for points in String objects	UINT16	bitmapped		b15-b5: reserved, must be 0. b4-b0: points (#4 to #0) assigned to Class 0, bitmapped, active 1.	0b0000000000011111	R/W
37966	1	Enable digital inputs on option cards (binary inputs)	UINT16	bitmapped		b15-b8: reserved. Enable DNP accessiblity, bitmapped, active 1: b7-b4: digital inputs (4 to1) on option card 2 b3-b0: digital inputs (4 to1) on option card 1	0	R/W
37967	1	Class assignments for input points on option card 1	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: digital input 4 (point 3) b11-b8: digital input 3 (point 2) b7-b4:digital input 2 (point 1) b3-b0: digital input 1 (point 0)	0	R/W
37968	1	Class assignments for input points of option card 2	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: digital input 4 (point 3) b11-b8: digital input 3 (point 2) b7-b4:digital input 2 (point 1) b3-b0: digital input 1 (point 0)	0	R/W

		Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
<u>37969</u> 37971		Reserved Enable digital outputs on option cards (binary output relays)	UINT16 UINT16	0 bitmapped		Must be 0 b15-b8: reserved. Enable DNP accessiblity, bitmapped, active 1: b7-b4: digital inputs (4 to1) on option card 2 b3-b0: digital inputs (4 to1) on option card 1	0	R/W R/W
37972	1	Class 0 assignment for output points on option cards	UINT16	bitmapped		Active 1 b12: digital output 2 on option card 2 b8: digital output 1 on option card 2. b4: digital output 2 on option card 1 b0: digital output 1 on option card 1 Other bits reserved and must be 0	0	R/W
37973	1	Reserved	UINT16	0			0	R/W
37974	1	Max time between Select and Operate commands for outputs		40 to 2400	25 ms		200	R/W
37975	1	Reserved	UINT16	0		Must be 0	0	R/W
37976	1	Confirm Reply Timeout	UINT16	3 to 65535	25 ms		80	R/W
37977	1	Time Configuration	UINT16	bitmapped		b15-b14: Synchronization mode, 00=None, 01=from serial only, 10=from serial or network card, 11=invalid. b13: 1=send unsolicited null messages if time sync required. b12: reserved, must be 0. b11-b0: 12 bit, minute time value the clock is valid after being set	060000000000000000000000000000000000000	R/W
37978	1	Unsolicited Messages Configuration	UINT16	bitmapped	25 ms	b15: 1=Class 3 is allowed by default b14: 1=Class 2 is allowed by default, b13: 1=Class 1 is allowed by default, b12: 1=unsolicited messages are allowed b11-b0: 12bit value for unsolicited timeout in 25ms units.	0b000000001010000	R/W
37979	1	Target device address for unsolicited messages		0 to 65519 or 65535			0	R/W
37980	1	This device DNP address	UINT16	0 to 65519			1	R/W
37981	1	AutoFreeze Configuration	UINT16	bitmapped		b15: 1=Autofreeze is enabled. b14: 1=Max/Min Demand is reset when autofreeze occurs, as long as Time of Use is enabled. b13-b12: Periodicity: 00=Monthly, 01=Weekly, 10=Daily, 11=Hourly. b5-b0: Day for freezeing: When period is monthly, 0 means last day of month, or 1-31 as day of month; When periodi is weekly 1-7 is day of week (Sun - Sat). Irrelevant for Daily or Hourly periods. Other bits must be set to 0.	0	R/W
37982	1	AutoFreeze Time	UINT16	bitmapped		b12-b8: Hour of day to freeze (0-23) b5-b3: Minute of day to freeze (0-59) Other bits must be set to 0.	0	R/W
37983	6	Reserved	UINT16	0			0	R/W

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
37989	1	Settings for mapped point #1	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
37990	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
37991	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
37993	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
37995	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
37996	1	reserved	UINT16	0		Must be set to 0	0	R/W
37997	1	Settings for mapped point #2	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
37998	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
37999	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38001	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38003		Mapped Class assignments		bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38004	1	reserved	UINT16	0		Must be set to 0	0	R/W

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38005	1	Settings for mapped point #3	UINT16	bilmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38006	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38007	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38009	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38011	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38012	1	reserved	UINT16	0		Must be set to 0	0	R/W
38013	1	Settings for mapped point #4	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38014	1	Mapped Modbus register address		1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38015	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38017	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38019		Mapped Class assignments		bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38020	1	reserved	UINT16	0		Must be set to 0	0	R/W

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38021	1	Settings for mapped point #5	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38022	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38023	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38025	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38027	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38028	1	reserved	UINT16	0		Must be set to 0	0	R/W
38029	1	Settings for mapped point #6	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38030	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38031	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38033	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38035		Mapped Class assignments		bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38036	1	reserved	UINT16	0		Must be set to 0	0	R/V

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38037	1	Settings for mapped point #7	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38038	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38039	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38041	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38043	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38044	1	reserved	UINT16	0		Must be set to 0	0	R/W
38045	1	Settings for mapped point #8	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38046	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38047	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38049	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38051		Mapped Class assignments		bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38052	1	reserved	UINT16	0		Must be set to 0	0	R/W

e Acc	Factory default value	Comments	Unit of measure or resolution	Value Range	Format	Description	ize Descripti	Size	Reg#
10 R/W	050010000100000000	b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.		bitmapped	UINT16	Settings for mapped point #9	1 Settings	3 1	38053
R/W	0x05DB	Modbus reg. address to map in DNP as object 20 or 30		1 to 65535	UINT16	Mapped Modbus register address	1 Mapped N	4 1	38054
R/W	1	Settings dependent number type,. Always positive			SINT32 FLOAT	Mapped Scaling value	2 Mapped S	5 2	38055
R/W	0	Settings dependent number type,. Always positive			SINT32 FLOAT	Mapped Deadband value	2 Mapped [	7 2	38057
R/W	1	Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.		bitmapped	UINT16	Mapped Class assignments	1 Mapped (	9 1	38059
R/W	0	Must be set to 0		0	UINT16	reserved	1 reserved	0 1	38060
10 R/W	060010000100000000 1.	b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.		bitmapped	UINT16	Settings for mapped point #10	1 Settings	1 1	38061
R/W	0x05DB	Modbus req. address to map in DNP as object 20 or 30		1 to 65535	UINT16	Mapped Modbus register address	1 Mapped N	2 1	38062
R/W	1	Settings dependent number type,. Always positive			SINT32 FLOAT	Mapped Scaling value	2 Mapped S	3 2	38063
R/W	0	Settings dependent number type,. Always positive			SINT32 FLOAT	Mapped Deadband value	2 Mapped [	52	38065
R/W	1	Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.		bitmapped		Mapped Class assignments			38067
_	0	Must be set to 0		0	UINT16	reserved	1 reserved	8 1	38068

e Descripti	tion	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
Settings	s for mapped point #11	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
Mapped N	Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
Mapped S	Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
Mapped [	Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
Mapped (	Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
reserved		UINT16	0		Must be set to 0	0	R/W
Settings	s for mapped point #12	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
Mapped N	Modbus register address	UINT16	1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
Mapped S	Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
Mapped [	Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
			bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
reserved	1	UINT16	0		Must be set to 0	0	

a       a       b	Reg# Siz	ze [	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38087       2       Mapped Scaling value       SHIT32 FLOAT       settings dependent number type., Always positive       1         38088       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type., Always positive       0         38097       1       Mapped Deadband value       SINT32 FLOAT       Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 22, or 22 dass assignments b2-b4- Object 22 or 32 dass assignments b2-b4- Object 22 or 32 dass assignments       1         38097       1       reserved       UINT16       bitmapped       O         38098       1       reserved       UINT16       O       Must be set to 0       0         38097       1       settings for mapped point #14       UINT16       D       Must be set to 0       0         38097       1       Mapped Modbus register address       UINT16       bitmapped       bitmapped       bitmapped       bitmapped register 000-UINT32, 0001-SINT32, 0010-UINT16, 001-FLOAT, 10-SINT32, 010-FLOAT, 32, 010-FL	38085 1	1 5	Settings for mapped point #13	UINT16	bitmapped		b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid.	060010000100000000	R/W
33007       2       Mapped Scaling Value       FLOAT       Settings dependent number type, Always positive       1         38089       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type, Always positive       0         38091       1       Mapped Class assignments       UINT16       bitmapped       Class #G to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12. Object 20 as assignment       1         38092       1       Mapped Class assignments       UINT16       bitmapped       Matt be set to 0       0         38093       1       Settings for mapped point #14       UINT16       D       Mats be set to 0       0         38094       1       Settings for mapped point #14       UINT16       D       Mats be set to 0       0         38095       2       Mapped Modbus register address       UINT16       bitmapped       D11-bit: Type of the original mapped register: 0000-UINT32, 010-FLOAT32, others invalid.       D11-bit: Type of the original mapped register: 0000-UINT32, 010-FLOAT32, others invalid.       D11-bit: Type of the original mapped register: 0000-UINT32, 010-FLOAT32, others invalid.       D11-bit: Type of the original mapped register: 0000-UINT32, 010-FLOAT32, others invalid.       D01-SENT32, 010-UINT36, 011-FLOAT, 10-SINT32, 010-FLOAT32, 01-FLOAT3       D01-SENT32, 010-UINT36, 011-FLOAT, 10-SINT32, 01-FLOAT3, 00-FLOAT32, 01-FLOAT3       D01-SENT32, 010-UINT36, 01-FLOAT, 10-SINT32,	38086 1	1	Napped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38099     2     Mapped Deadband value     FLOAT     Settings dependent number type, Atways positive     0       38091     1     Mapped Class assignments     UINT16     bitmapped     Class if(3 to 0) assignments, bitmapped in 4xbit nibbles, aclive 1: b15-b12. Object 22, class assignment     1       38092     1     reserved     UINT16     bitmapped     Must be set to 0     0       38093     1     Settings for mapped point #14     UINT16     0     Must be set to 0     0       38094     1     Settings for mapped point #14     UINT16     bitmapped     bitmapped     0       38097     2     Mapped Modbus register address     UINT16     to 65535     Modbus register address to map in DNP as object 20 or 30     00       38097     2     Mapped Deadband value     Sitr32 FLOAT     Settings dependent number type, Atways positive     1       38099     1     Mapped Class assignments     UINT16     to 65535     Modbus register address to map in DNP as object 20 or 30     00       38097     2     Mapped Deadband value     Sitr32 FLOAT     Settings dependent number type, Atways positive     1       38099     1     Mapped Class assignments     UINT16     to 65535     Modbus register address to map in DNP as object 20 or 30     00       38097     2     Mapped Deadband value	38087 2	2	Mapped Scaling value				Settings dependent number type,. Always positive	1	R/W
38091       1       Mapped Class assignments       IIINT16       bitmapped	38089 2	2	Mapped Deadband value				Settings dependent number type,. Always positive	0	R/W
38093       1       Settings for mapped point #14       UINT16       bitmapped       bitmapped       bits: reserved, must be 0 bit+bit2: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. bit1-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 011=SINT32, 0010=UINT16, 010=FLOAT32, others invalid       bitmapped         38094       1       Mapped Modbus register address       UINT16       1 to 65535       Modbus reg. address to map in DNP as object 20 or 30       00         38095       2       Mapped Scaling value       SINT32 FLOAT       Settings dependent number type., Always positive       1         38097       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type., Always positive       0         38099       1       Mapped Class assignments       UINT16       bitmapped       Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments       1	38091 1	1	Mapped Class assignments	UINT16	bitmapped		b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment	1	R/W
380931Settings for mapped point #14UINT16Iumappedbitmapped<	38092 1	l r	reserved	UINT16	0		Must be set to 0	0	R/W
38095       2       Mapped Scaling value       SINT32 FLOAT       Settings dependent number type,. Always positive       1         38097       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type,. Always positive       0         38097       2       Mapped Class assignments       UINT16       bitmapped       Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments       1	38093 1	1 5	Settings for mapped point #14	UINT16	bitmapped		b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid.	060010000100000000	R/W
38095       2       Mapped Scaling value       FLOAT       Settings dependent number type,. Always positive       1         38097       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type,. Always positive       0         38097       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type,. Always positive       0         38097       1       Mapped Class assignments       UINT16       bitmapped       Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments       1	38094 1	1	Mapped Modbus register address		1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38097     2     Mapped Deadband value     FLOAT     Settings dependent number type,. Always positive     0       38097     1     Mapped Class assignments     UINT16     bitmapped     Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments     0       38099     1     Mapped Class assignments     UINT16     bitmapped     bitmapped     b11-b8: Object 22 or 32 class assignments     1	38095 2	2	Mapped Scaling value				Settings dependent number type,. Always positive	1	R/W
38099     1     Mapped Class assignments     UINT16     bitmapped     b15-b12: Object 23, class assignments       1     1	38097 2	2	Mapped Deadband value				Settings dependent number type,. Always positive	0	R/W
38100     1     reserved     UINT16     0     Must be set to 0     0							b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W R/W

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38101	1	Settings for mapped point #15	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38102	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38103	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38105	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38107	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38108	1	reserved	UINT16	0		Must be set to 0	0	R/W
38109	1	Settings for mapped point #16	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38110	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38111	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38113	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38115		Mapped Class assignments		bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38116	1	reserved	UINT16	0		Must be set to 0	0	R/W

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38117	1	Settings for mapped point #17	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38118	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38119	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38121	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38123	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38124	1	reserved	UINT16	0		Must be set to 0	0	R/W
38125	1	Settings for mapped point #18	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38126	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38127	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38129	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38131		Mapped Class assignments		bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38132	1	reserved	UINT16	0		Must be set to 0	0	R/W

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38133	1	Settings for mapped point #19	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38134	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38135	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38137	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38139	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38140	1	reserved	UINT16	0		Must be set to 0	0	R/W
38141	1	Settings for mapped point #20	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38142	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38143	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38145	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38147		Mapped Class assignments		bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38148	1	reserved	UINT16	0		Must be set to 0	0	R/W

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38149	1	Settings for mapped point #21	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38150	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38151	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38153	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38155	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38156	1	reserved	UINT16	0		Must be set to 0	0	R/W
38157	1	Settings for mapped point #22	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38158	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38159	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38161	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38163		Mapped Class assignments		bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38164	1	reserved	UINT16	0		Must be set to 0	0	R/W

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38165	1	Settings for mapped point #23	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38166	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38167	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38169	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38171	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38172	1	reserved	UINT16	0		Must be set to 0	0	R/W
38173	1	Settings for mapped point #24	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38174	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38175	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38177	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38179		Mapped Class assignments		bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38180	1	reserved	UINT16	0		Must be set to 0	0	R/W

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38181	1	Settings for mapped point #25	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38182	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38183	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38185	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38187	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38188	1	reserved	UINT16	0		Must be set to 0	0	R/W
38189	1	Settings for mapped point #26	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38190	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38191	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38193	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38195		Mapped Class assignments		bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38196	1	reserved	UINT16	0		Must be set to 0	0	R/W

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38197	1	Settings for mapped point #27	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38198	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38199	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38201	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38203	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38204	1	reserved	UINT16	0		Must be set to 0	0	R/W
38205	1	Settings for mapped point #28	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38206	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38207	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38209	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38211		Mapped Class assignments		bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38212	1	reserved	UINT16	0		Must be set to 0	0	R/W

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38213	1	Settings for mapped point #29	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38214	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38215	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38217	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38219	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38220	1	reserved	UINT16	0		Must be set to 0	0	R/W
38221	1	Settings for mapped point #30	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38222	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38223	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38225	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38227		Mapped Class assignments		bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38228	1	reserved	UINT16	0		Must be set to 0	0	R/W

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38229	1	Settings for mapped point #31	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38230	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38231	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38233	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38235	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38236	1	reserved	UINT16	0		Must be set to 0	0	R/W
38237	1	Settings for mapped point #32	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38238	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38239	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38241	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38243		Mapped Class assignments		bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38244	1	reserved	UINT16	0		Must be set to 0	0	R/W

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38245	1	Settings for mapped point #33	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38246	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38247	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38249	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38251	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38252	1	reserved	UINT16	0		Must be set to 0	0	R/W
38253	1	Settings for mapped point #34	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38254	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38255	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38257	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38259		Mapped Class assignments		bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38260	1	reserved	UINT16	0		Must be set to 0	0	R/W

38262         1         Mapped           38263         2         Mapped           38265         2         Mapped           38267         1         Mapped           38268         1         reserved	gs for mapped point #35 ed Modbus register address ed Scaling value ed Deadband value	UINT16 UINT16 SINT32 FLOAT	bitmapped 1 to 65535	b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38263         2         Mapped           38265         2         Mapped           38267         1         Mapped           38268         1         reserved	ed Scaling value	SINT32	1 to 65535			
38265         2         Mapped           38267         1         Mapped           38268         1         reserved				Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38267 1 Mapped	ed Deadband value			Settings dependent number type,. Always positive	1	R/W
38268 1 reserved		SINT32 FLOAT		Settings dependent number type,. Always positive	0	R/W
	ed Class assignments	UINT16	bitmapped	Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38269 1 Setting	ed	UINT16	0	Must be set to 0	0	R/W
	gs for mapped point #36	UINT16	bitmapped	b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38270 1 Mapped	ed Modbus register address	UINT16	1 to 65535	Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38271 2 Mapped	ed Scaling value	SINT32 FLOAT		Settings dependent number type,. Always positive	1	R/W
38273 2 Mapped	ed Deadband value	SINT32 FLOAT		Settings dependent number type,. Always positive	0	R/W
38275 1 Mapped		UINT16	bitmapped	Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38277	1	Settings for mapped point #37	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38278	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38279	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38281	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38283	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38284	1	reserved	UINT16	0		Must be set to 0	0	R/W
38285	1 ;	Settings for mapped point #38	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38286	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38287	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38289	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38291 38292		Mapped Class assignments	UINT16 UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W R/W

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38293	1	Settings for mapped point #39	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38294	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38295	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38297	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38299	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38300	1	reserved	UINT16	0		Must be set to 0	0	R/W
38301	1	Settings for mapped point #40	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38302	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38303	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38305	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38307		Mapped Class assignments	UINT16 UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W R/W

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38309	1	Settings for mapped point #41	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38310	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38311	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38313	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38315	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38316	1	reserved	UINT16	0		Must be set to 0	0	R/W
38317	1	Settings for mapped point #42	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38318	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38319	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38321	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38323		Mapped Class assignments		bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38324	1	reserved	UINT16	0		Must be set to 0	0	R/

38326         1         Map           38327         2         Map           38329         2         Map           38331         1         Map           38332         1         rese	ttings for mapped point #43 pped Modbus register address pped Scaling value pped Deadband value	UINT16 SINT32 FLOAT SINT32	bitmapped 1 to 65535	b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38327     2     Map       38329     2     Map       38331     1     Map       38332     1     rese	pped Scaling value	SINT32 FLOAT SINT32	1 to 65535			
38329 2 Map 38331 1 Map 38332 1 rese		FLOAT SINT32		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38331 1 Map	pped Deadband value			Settings dependent number type,. Always positive	1	R/W
38332 1 rese		FLOAT		Settings dependent number type,. Always positive	0	R/W
	pped Class assignments	UINT16	bitmapped	Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38333 1 <b>Sett</b>	erved	UINT16	0	Must be set to 0	0	R/W
	ttings for mapped point #44	UINT16	bitmapped	b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38334 1 Map	pped Modbus register address	UINT16	1 to 65535	Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38335 2 Map	pped Scaling value	SINT32 FLOAT		Settings dependent number type,. Always positive	1	R/W
38337 2 Map	pped Deadband value	SINT32 FLOAT		Settings dependent number type,. Always positive	0	R/W
38339 1 Map 38340 1 rese		UINT16	bitmapped	Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38341	1	Settings for mapped point #45	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38342	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38343	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38345	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38347	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38348	1	reserved	UINT16	0		Must be set to 0	0	R/W
38349	1	Settings for mapped point #46	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38350	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38351	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38353	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38355		Mapped Class assignments		bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38356	1	reserved	UINT16	0		Must be set to 0	0	R/W

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38357	1	Settings for mapped point #47	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38358	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38359	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38361	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38363	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38364	1	reserved	UINT16	0		Must be set to 0	0	R/W
38365	1	Settings for mapped point #48	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38366	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38367	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38369	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38371		Mapped Class assignments	UINT16 UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W R/W

Image: Section served, musite bit inserved, musit	Reg# S	ize I	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
3837       2       Mapped Scaling value       SNT32 FLOAT       Settings dependent number type. Always positive         38377       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type. Always positive         38379       1       Mapped Class assignments       UINT16       bilmapped       Class #(3 to 0) assignments, bilmapped in 4x4bit nibbles, active 1: b15-b12: Object 23; class assignments         38380       1       reserved       UINT16       bilmapped       Strates assignment, assign	38373	1	Settings for mapped point #49	UINT16	bitmapped		b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid.	060010000100000000	R/W
33.3       2       Napped Scaling Value       FLOAT       Settings dependent number type, Aways positive         383.77       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type, Aways positive         383.77       1       Mapped Class assignments       UINT16       bitmapped       Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15 b12: Object 22; dass assignments         383.87       1       mapped Class assignments       UINT16       bitmapped       Must be set to 0         383.81       1       reserved       UINT16       bitmapped       Must be set to 0         383.81       1       settings for mapped point #50       UINT16       bitmapped       bitmapped         383.82       1       settings for mapped point #50       UINT16       bitmapped       bitmapped         383.82       2       Mapped Modbus register address       UINT16       bitmapped       Settings dependent number type, Aways positive         383.83       2       Mapped Deadband value       SiNT32 FLOAT       Settings dependent number type, Must setifier, 0000-UINT16, 0010-FLOAT32, others invalid. b7-b6: Scaler number type: 00-No, 01-FLOAT, 10-SINT32, 11-invalid. b7-b6: Scaler number type: 00-No, 01-FLOAT, 10-SINT32, 010-FLOAT32, others invalid. b7-b6: Scaler number type, Aways positive         383.83       2       Mapped Deadband value	38374	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
383/7     2     Mapped Deadband value     FLOAT     Settings dependent number type,. Always positive       383/7     1     Mapped Class assignments     UINT16     bitmapped     Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments       383/7     1     Mapped Class assignments     UINT16     bitmapped     Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments       38380     1     reserved     UINT16     0     Must be set to 0       38381     1     Settings for mapped point #50     UINT16     0     Must be set to 0       38381     1     Settings for mapped point #50     UINT16     bitmapped     bitmapped       38382     1     Mapped Modbus register address     UINT16     bitmapped     Di 5535       38383     2     Mapped Deadband value     SINT32 FLOAT     Settings dependent number type, Always positive       38387     1     Mapped Modbus register address     UINT16     10 65535     Modbus register address to map in DNP as object 20 or 30       38388     2     Mapped Deadband value     SINT32 FLOAT     Settings dependent number type, Always positive       38387     1     Mapped Class assignments     UINT16     bitmapped     Settings dependent number type, Always positive       38387     1	38375	2	Mapped Scaling value				Settings dependent number type,. Always positive	1	R/W
38379     1     Mapped Class assignments     UINT16     bitmapped     bitT-bit2: Object 23, class assignments       38380     1     reserved     UINT16     0     Must be set to 0       38381     1     reserved     UINT16     0     Must be set to 0       38381     1     Settings for mapped point #50     UINT16     0     Must be set to 0       38381     1     Settings for mapped point #50     UINT16     bitmapped     bitT-bit2: Object 72, class assignments       38382     1     Mapped Modbus register address     UINT16     bitmapped     bitT-bit2: Object 72, class assignments       38383     2     Mapped Modbus register address     UINT16     1 to 65535     Modbus reg. address to map in DNP as object 20 or 30       38385     2     Mapped Deadband value     SINT32 FLOAT     Settings dependent number type., Always positive       38387     1     Mapped Class assignments     UINT16     bitmapped	38377	2	Mapped Deadband value				Settings dependent number type,. Always positive	0	R/W
38381       1       Settings for mapped point #50       UINT16       bitmapped       bitmapped<	38379	1	Mapped Class assignments	UINT16	bitmapped		b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment	1	R/W
383811Settings for mapped point #50UINT16bitmappedbitmappedbit-bit-bit 2: Object type, 000-None(empty), 010-Binary Inputs (Object 20), 011-Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register; 0000-UINT32, 0001-SINT32, 0001-SINT32, 0001-SINT32, 0001-SINT32, 0010-SINT32, 0001-SINT32, 0001-SINT32, 0001-SINT32, 0001-SINT32, 0001-SINT32, 0001-SINT32, 0001-SINT32, 0001-SINT32, 010-FLOAT, 10-SINT32, 11=invalid. b5-b0: reserved, must be 0.383821Mapped Modbus register addressUINT161 to 65535Modbus reg. address to map in DNP as object 20 or 30383832Mapped Scaling valueSINT32 FLOATSettings dependent number type,. Always positive383852Mapped Deadband valueSINT32 FLOATSettings dependent number type,. Always positive383871Mapped Class assignmentsUINT16bitmappedClass #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 22, or 32 class assignments	38380	1 1	reserved	UINT16	0		Must be set to 0	0	R/W
38383       2       Mapped Scaling value       SINT32 FLOAT       Settings dependent number type,. Always positive         38385       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type,. Always positive         38387       1       Mapped Class assignments       UINT16       bitmapped         38387       1       Mapped Class assignments       UINT16       bitmapped	38381	1	Settings for mapped point #50	UINT16	bitmapped		b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid.	060010000100000000	R/W
38383       2       Mapped Scaling value       FLOAT       Settings dependent number type,. Always positive         38385       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type,. Always positive         38387       1       Mapped Class assignments       UINT16       bitmapped       Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments	38382	1	Mapped Modbus register address		1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38385     2     Mapped Deadband Value     FLOAT     Settings dependent number type,. Always positive       38385     1     Mapped Class assignments     Image: Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments       38387     1     Mapped Class assignments     UINT16       bitmapped     bitmapped     bitmapped	38383	2	Mapped Scaling value				Settings dependent number type,. Always positive	1	R/W
38387     1     Mapped Class assignments     UINT16     bitmapped     b15-b12: Object 23, class assignments       b11-b8: Object 22 or 32 class assignments	38385	2	Mapped Deadband value				Settings dependent number type,. Always positive	0	R/W
38388     1     reserved     UINT16     0     Must be set to 0							b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38389	1	Settings for mapped point #51	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38390	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38391	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38393	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38395	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38396	1	reserved	UINT16	0		Must be set to 0	0	R/W
38397	1	Settings for mapped point #52	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38398	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38399	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38401	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38403		Mapped Class assignments		bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38404	1	reserved	UINT16	0		Must be set to 0	0	R/W

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38405	1	Settings for mapped point #53	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38406	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38407	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38409	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38411	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38412	1	reserved	UINT16	0		Must be set to 0	0	R/W
38413	1	Settings for mapped point #54	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38414	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38415	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38417	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38419		Mapped Class assignments		bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W R/W
38420	1	reserved	UINT16	0		Must be set to 0	0	

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38421	1	Settings for mapped point #55	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38422	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38423	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38425	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38427	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38428	1	reserved	UINT16	0		Must be set to 0	0	R/W
38429	1	Settings for mapped point #56	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38430	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38431	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38433	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38435		Mapped Class assignments		bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38436	1	reserved	UINT16	0		Must be set to 0	0	R/W

a     Image: Construction of the image: Construct	Reg# Siz	ze [	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
3849       2       Mapped Scaling value       SINT32 FLOAT       Settings dependent number type, Always positive       1         38441       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type, Always positive       0         38443       1       Mapped Class assignments       UINT16       bitmapped       Class #01 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 22 or 32 class assignments b7-b4: Object 22 or 32 class assignments b7-b4: Object 22 or 32 class assignment       1         38444       1       reserved       UINT16       bitmapped       Must be set to 0       0         38444       1       reserved       UINT16       0       Must be set to 0       0         38444       1       reserved       UINT16       0       Must be set to 0       0         38445       1       settings for mapped point #58       UINT16       0       Must be set to 0       0         38446       1       Mapped Modusus register address       UINT16       bitmapped       bitmapped register: 000-0100F32; 0001-SINT32; 0010-0100F120, 011-SINT32; 0100-0100F120, 0132; 0001-SINT32; 0010-0100F120, 0132; 0100-F120AT32; 0100-F120AT32; 0100-F120AT32; 0100-F120AT32; 0100-F120AT32; 0100-F120AT32; 0100-F120AT32; 0100-F120AT32; 0100-F120AT32; 0100-F120AT32; 0100-F120AT32; 0100-F120AT32; 0100-F120AT32; 0100-F120AT32; 0100-F120AT32; 0100-F120AT32; 0100-F120AT32; 0100-F120AT32; 0100-F120A	38437 1		Settings for mapped point #57	UINT16	bitmapped		b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid.	060010000100000000	R/W
344-9       2       Wapped Deadband value       FLOAT       Settings dependent number type, Aways positive         3844       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type, Aways positive       (         3844       1       Mapped Class assignments       UINT16       bitmapped       Class #3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments       The Object 23, class assignments       The Object 23, class assignments         3844       1       mapped Class assignments       UINT16       bitmapped       Must be set to 0       Class #3 to 0) assignments       The Object 23, class assignment         3844       1       reserved       UINT16       bitmapped       Must be set to 0       Class #3 to 0)       Settings for mapped point #58       UINT16       bitmapped       bits: reserved, must be 0 b1-4.812: Object 20, or 30 class assignment.       Dist reserved, must be 0 b1-4.812: Object 20, or 30	38438 1	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38441       2       Mapped Deadband value       FLOAT       Settings dependent number type, Aways positive       ()         38443       1       Mapped Class assignments       UINT16       bitmapped       Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments       b11-b6: Object 20 class assignments       b11-b6: Object 20 class assignments       b11-b6: Object 20 class assignments       b11-b6: Object 20 class assignments       class assignments       class assignment       class assignments       b11-b6: Object 20 class assignment       class	38439 2	2	Mapped Scaling value				Settings dependent number type,. Always positive	1	R/W
38443       1       Mapped Class assignments       UINT16       bitmapped       bitmapped       b15-b12-Object 22 or 32 class assignments         38443       1       reserved       UINT16       bitmapped       D1-b2:Object 22 or 32 class assignments       D1-b2:Object 22 or 32 class assignments         38444       1       reserved       UINT16       0       Must be set to 0       0         38445       1       Settings for mapped point #58       UINT16       0       Must be set to 0       0         38445       1       Settings for mapped point #58       UINT16       bitmapped       bitmapped       b15-b12:Object 23, class assignments       D1-b102:Object 24 or 30 class assignments         38445       1       Settings for mapped point #58       UINT16       bitmapped       bitmapped       b15-b12:Object 20 or 30 class assignments         38446       1       Mapped Modbus register address       UINT16       bitmapped       bitmapped       b11-b12:Object 20 or 30       class assignments         38446       1       Mapped Modbus register address       UINT16       1 to 65535       Modbus reg. address to map in DNP as object 20 or 30       class assignments         38447       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type. Always positive       class assignm	38441 2	2	Mapped Deadband value				Settings dependent number type,. Always positive	0	R/W
38445       1       Settings for mapped point #58       UINT16       bitmapped       bitmapped<	38443 1	1	Mapped Class assignments	UINT16	bitmapped		b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment	1	R/W
38445       1       Settings for mapped point #58       UINT16       bitmapped       bitmapped<	38444 1	l r	reserved	UINT16	0		Must be set to 0	0	R/W
38447       2       Mapped Scaling value       SINT32 FLOAT       Settings dependent number type,. Always positive       1         38447       2       Mapped Deadband value       SINT32 FLOAT       SINT32 FLOAT       Settings dependent number type,. Always positive       0         38451       1       Mapped Class assignments       UINT16       bitmapped       Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments       1	38445 1	1	Settings for mapped point #58	UINT16	bitmapped		b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid.	060010000100000000	R/W
38447       2       Mapped Scaling value       FLOAT       Settings dependent number type,. Always positive         38447       2       Mapped Deadband value       SINT32       Settings dependent number type,. Always positive       Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments       Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments       The set of the	38446 1	1	Mapped Modbus register address		1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38449     2     Mapped Deadband value     FLOAT     Settings dependent number type,. Always positive     C       38451     1     Mapped Class assignments     UINT16     bitmapped     bitmapped     bitmapped     bitmapped     c	38447 2	2	Mapped Scaling value				Settings dependent number type,. Always positive	1	R/W
38451     1     Mapped Class assignments     UINT16     bitmapped     b15-b12: Object 23, class assignments       1     Mapped Class assignments     1     b11-b8: Object 22 or 32 class assignments     1	38449 2	2	Mapped Deadband value				Settings dependent number type,. Always positive	0	R/W
38452     1     reserved     UINT16     0     Must be set to 0     0							b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38453	1	Settings for mapped point #59	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38454	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38455	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38457	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38459	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38460	1	reserved	UINT16	0		Must be set to 0	0	R/W
38461	1	Settings for mapped point #60	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38462	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38463	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38465	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38467		Mapped Class assignments		bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38468	1	reserved	UINT16	0		Must be set to 0	0	R/V

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38469	1	Settings for mapped point #61	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38470	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38471	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38473	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38475	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38476	1	reserved	UINT16	0		Must be set to 0	0	R/W
38477	1	Settings for mapped point #62	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38478	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38479	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38481	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38483		Mapped Class assignments		bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38484	1	reserved	UINT16	0		Must be set to 0	0	R/W

Settings for mapped point #53         UNT16         bit mapped	e Acc
38487     2     Mapped Scaling value     SNT32 FLOAT     Call     Settings dependent number type. Always positive     1       38489     2     Mapped Deadband value     SINT32 FLOAT     Image: Settings dependent number type. Always positive     0       3849     1     Mapped Class assignments     UNT16     bimapped     Class 4(3 to 0) assignments, bimapped in 4x0bt nibbles, active 1: bi-10-80 (biget 22 or 32 class assignments) bi-10-80 (biget 22 or 32 class assignments) bi-10-80 (biget 22 or 30 class assignment)     1       38492     1     reserved     UNT16     bimapped     Must be set to 0     0       38493     1     settings for mapped point #64     UNT16     0     Must be set to 0     0       38494     1     Aspeed Modbus register address     UNT16     bimapped     Dimapped     0       38494     1     Aspeed Modbus register address     UNT16     bimapped     0     0       38497     2     Mapped Class assignments     Din116     10 6555     Modbus register address to map in DNP as object 20 or 30     0.005DB       38497     2     Mapped Class assignments     SinT32 FLOAT     Settings dependent number type. Always positive     1       38497     2     Mapped Class assignments     UNT16     10 6555     Modbus register address to map in DNP as object 20 or 30     0.005DB	0 R/W
3447       2       Mapped Scaling value       FLOAT       Settings dependent number type. Always positive       1         38489       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type. Always positive       0         3849       1       Mapped Class assignments       UINT16       bitmapped       Class r(3 to 0) assignments. bitmapped in 4x4bit nibbles, active 1: b15-b12. Object 20 cr 30. class assignments       1         38491       1       Mapped Class assignments       UINT16       bitmapped       Class r(3 to 0) assignments. bitmapped in 4x4bit nibbles, active 1: b15-b12. Object 20 cr 30. class assignment.       1         38492       1       reserved       UINT16       0       Must be ast to 0       0         38493       1       Settings for mapped point #64       UINT16       bitmapped       bitmapped       b15-reserved.must b 0 b14-b12: Object 20, 01-Mitot 20, 01-FLOAT3, 00-FLOAT3,	R/W
3448       2       Mapped Leadband value       FLOAT       Settings dependent number type, Always positive       0         3849       1       Mapped Class assignments       UINT16       bitmapped       Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 22, 012xs assignments b7-40: Object 22 or 24xs assignment       1         38492       1       reserved       UINT16       0       Must be set to 0       0         38493       1       settings for mapped point #64       UINT16       0       Must be set to 0       0         38493       1       settings for mapped point #64       UINT16       0       Must be set to 0       0         38494       1       Mapped Modbus register address       UINT16       bitmapped       bit-bit: Object 29, 00-None(empty), 010-Binary Inputs (Object 20, 010-Sin Ya2, 010-	R/W
3849       1       Mapped Class assignments       UINT16       bitmapped	R/W
1       Settings for mapped point #64       UINT16       bitmapped       bitmap	R/W
384931Settings for mapped point #64UINT16bitmapped	R/W
38495       2       Mapped Scaling value       SINT32 FLOAT       And the second s	0 R/W
38495       2       Mapped Scaling value       FLOAT       Settings dependent number type,. Always positive       1         38497       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type,. Always positive       0         38497       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type,. Always positive       0         38499       1       Mapped Class assignments       UINT16       bitmapped       Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 22, class assignments       1	R/W
38497     2     Mapped Deadband value     FLOAT     Settings dependent number type,. Always positive     0       38497     1     Mapped Class assignments     FLOAT     Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments     1	R/W
38499     1     Mapped Class assignments     UINT16     bitmapped     b15-b12: Object 23, class assignments       b11-b8: Object 22 or 32 class assignments     b1-b8: Object 22 or 32 class assignments     1	R/W
38500         1         reserved         UINT16         0         Must be set to 0         0	R/W

38501 1					or resolution	Comments	Factory default value	Acc
		Settings for mapped point #65	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38502 1		Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38503 2	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38505 2	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38507 1		Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38508 1		reserved	UINT16	0		Must be set to 0	0	R/W
38509 1	;	Settings for mapped point #66	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38510 1		Mapped Modbus register address	UINT16	1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38511 2	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38513 2	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38515 1		Mapped Class assignments	UINT16 UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W R/W

Image: Section of the sectin of the section of the	Reg# Si	ize (	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
385     2     Mapped Scaling value     SNT32 FLOAT     Settings dependent number type. Always positive     1       38521     2     Mapped Deadband value     SNT32 FLOAT     Settings dependent number type. Always positive     0       38521     1     Mapped Class assignments     UINT6     bitmapped     Class 4(3) to 0) assignments, bitmapped in 4xbbit hbbits, active 1: b15-b12-CDiped 22, class assignments     1       38524     1     reserved     UINT16     0     Must be set to 0     0       38525     1     Settings for mapped point #68     UINT16     0     Must be set to 0     0       38526     1     Mapped Modbus register address     UINT16     bitmapped     bitmapped     b15-tite COlor-FLOAT32, others invalid. b11-b12 CDiped type, 000-None(empty), 010-Binary Inputs (Object 20, 010-Analog input (Object 30), others invalid. b11-b12 CDiped type, 000-None(empty), 010-Binary Inputs (Object 20, 010-FLOAT1, 10-SINT32, 11-invalid. b11-b12 CDiped type, 000-None(empty), 010-Binary Inputs (Object 20, 010-FLOAT1, 00-SINT32, 010-SINT32,	38517	1	Settings for mapped point #67	UINT16	bitmapped		b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid.	060010000100000000	R/W
365 V       2       Mapped Scaling Value       FLOAT       Settings dependent number type. Aways positive       1         38527       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type. Aways positive       0         38527       1       Mapped Class assignments       UINT16       bitmapped       Settings dependent number type. Aways positive       0         38528       1       Mapped Class assignments       UINT16       bitmapped       Class 4(3 to 0) assignments, bitmapped in 4xbit nibbles, active 1: b15b12- Object 22, class assignments       1         38524       1       Mapped Class assignments       0       O       Must be set to 0       0         38524       1       reserved       UINT16       0       Must be set to 0       0       0         38525       1       Settings for mapped point #68       UINT16       bitmapped       010715/132, close 3       0       0         38526       1       Mapped Modbus register address       UINT16       bitmapped       1       0       0         38527       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type. ON-None(empty), 010-Bitmap inputs (Object 20, o)       0       0         38526       1       Mapped Modbus register address       <	38518	1 1	Napped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
365/1     2     Mapped Deadband value     FLOAT     Settings dependent number (ype, Aways positive     0       385/2     1     Mapped Class assignments     UINT16     bimapped     Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 22 or 23 class assignments     1       385/2     1     reserved     UINT16     bimapped     Must be set to 0     0       385/2     1     reserved     UINT16     0     Must be set to 0     0       385/2     1     settings for mapped point #68     UINT16     0     Must be set to 0     0       385/2     1     Settings for mapped point #68     UINT16     bimapped     Distreserved, must be 0 b14-b12: Object 12 or 03: olass assignment.     0       385/2     1     Settings for mapped point #68     UINT16     bimapped     Must be set to 0     0       385/2     1     Mapped Modbus register address     UINT16     bimapped     Distreserved, must be 0 b14-b12: Object 12 or 03: Object 20 or 30     0       385/2     1     Mapped Modbus register address     UINT16     bimapped     Distreserved, must be 0     0       385/2     1     Mapped Modbus register address     UINT16     bimapped     Distreserved, must be 0     0       385/2     2     Mapped Scaling value     SiNT32     Mo	38519	2 1	Mapped Scaling value				Settings dependent number type,. Always positive	1	R/W
38523       1       Mapped Class assignments       UINT16       bitmapped       bit5-bit2. Object 22, dass assignments       1         38524       1       reserved       UINT16       bitmapped       Must be set to 0       0         38524       1       reserved       UINT16       0       Must be set to 0       0         38525       1       Settings for mapped point #68       UINT16       0       Must be set to 0       0         38526       1       Settings for mapped point #68       UINT16       bitmapped       bitmapped       bitmapped       0         38527       1       Settings for mapped point #68       UINT16       bitmapped       Must be set to 0       0       0         38527       2       Mapped Addbus register address       UINT16       bitmapped       Settings for mapped register: 0000-UINT32, 0010-FILOAT, 10-SINT32, 011-SINT32,	38521 2	2 1	Mapped Deadband value				Settings dependent number type,. Always positive	0	R/W
1       Settings for mapped point #68       UINT16       bitmapped       bitmap	38523	1 1	Mapped Class assignments	UINT16	bitmapped		b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment	1	R/W
1Settings for mapped point #68UINT16bitmappedbitma	38524	1 r	reserved	UINT16	0		Must be set to 0	0	R/W
385272Mapped Scaling valueSINT32 FLOATSettings dependent number type,. Always positive1385292Mapped Deadband valueSINT32 FLOATSettings dependent number type,. Always positive0385311Mapped Class assignmentsUINT16bitmappedClass #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments1	38525 1	1	Settings for mapped point #68	UINT16	bitmapped		b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid.	060010000100000000	R/W
38527       2       Mapped Scaling value       FLOAT       Settings dependent number type,. Always positive       1         38527       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type,. Always positive       0         38527       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type,. Always positive       0         38531       1       Mapped Class assignments       UINT16       bitmapped       Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments       1         38531       1       Mapped Class assignments       UINT16       bitmapped       Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments       1	38526	1	Mapped Modbus register address		1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38529     2     Mapped Deadband value     FLOAT     Settings dependent number type,. Always positive     0       38531     1     Mapped Class assignments     UINT16     bitmapped     Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments     1       38531     1     Mapped Class assignments     UINT16     bitmapped     bitmapped	38527 2	2 1	Mapped Scaling value				Settings dependent number type,. Always positive	1	R/W
38531     1     Mapped Class assignments     UINT16     bitmapped     b15-b12: Object 23, class assignments       b15-b12: Object 22 or 32 class assignments     1       b7-b4: Object 21 class assignment     1	38529 2	2	Mapped Deadband value				Settings dependent number type,. Always positive	0	R/W
38532     1     reserved     UINT16     0     Must be set to 0     0							b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W

38534         1         Mapped N           38535         2         Mapped S           38537         2         Mapped C           38539         1         Mapped C           38540         1         reserved           38541         1         Settings           38542         1         Mapped N	gs for mapped point #69 d Modbus register address d Scaling value		bitmapped	b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid	060010000100000000	R/W
38535       2       Mapped S         38537       2       Mapped I         38539       1       Mapped O         38540       1       reserved         38541       1       Settings         38542       1       Mapped N			1	b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.		1.// 44
38537         2         Mapped I           38537         2         Mapped I           38539         1         Mapped O           38540         1         reserved           38541         1         Settings           38542         1         Mapped N	d Scaling value	UINT16	1 to 65535	Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38539         1         Mapped O           38540         1         reserved           38541         1         Settings           38542         1         Mapped N	-	SINT32 FLOAT		Settings dependent number type,. Always positive	1	R/W
38540         1         reserved           38541         1         Settings           38542         1         Mapped N	d Deadband value	SINT32 FLOAT		Settings dependent number type,. Always positive	0	R/W
38541 1 Settings	d Class assignments	UINT16	bitmapped	Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38542 1 Mapped N	ed	UINT16	0	Must be set to 0	0	R/W
	gs for mapped point #70	UINT16	bitmapped	b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
20542 2 14	d Modbus register address	UINT16	1 to 65535	Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38543 2 Mapped S	d Scaling value	SINT32 FLOAT		Settings dependent number type,. Always positive	1	R/W
38545 2 Mapped E	d Deadband value	SINT32 FLOAT		Settings dependent number type,. Always positive	0	R/W
38547 1 Mapped 0			bitmapped	Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment	1	R/W

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38549	1	Settings for mapped point #71	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38550	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38551	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38553	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38555	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38556	1	reserved	UINT16	0		Must be set to 0	0	R/W
38557	1	Settings for mapped point #72	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	0b0010000100000000	R/W
38558	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38559	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38561	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38563		Mapped Class assignments		bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38564	1	reserved	UINT16	0		Must be set to 0	0	R/W

a     b <th>Reg# Size</th> <th>Description</th> <th>Format</th> <th>Value Range</th> <th>Unit of measure or resolution</th> <th>Comments</th> <th>Factory default value</th> <th>Acc</th>	Reg# Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
385/7       2       Mapped Scaling value       SNIT32 FLOAT       Settings dependent number type, Always positive       1         385/8       2       Mapped Deadband value       SNIT32 FLOAT       Settings dependent number type, Always positive       0         385/7       1       Mapped Class assignments       UINT16       bitmapped       Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12. Object 22, or 32 class assignments b11-b6. Object 22 or 32 class assignments       1         385/7       1       reserved       UINT16       bitmapped       Must be set to 0       0         385/7       1       reserved       UINT16       0       Must be set to 0       0         385/7       1       settings for mapped point #74       UINT16       0       Must be set to 0       0         385/7       1       settings for mapped point #74       UINT16       bitmapped       b15: reserved, must be 0 b14-b12: Object type: 000-None(empt), 010-Elnary inputs (Object 20), 011-Analog input (Object 20), 011-Analog input (Object 20), 011-Analog input (Object 20), 011-Analog input (Object 20), 011-Analog input (Object 20), 011-Analog input (Object 20), 011-Analog input (Object 20), 011-Analog input (Object 20), 011-Analog input (Object 20), 011-Analog input (Object 20), 011-Analog input (Object 20), 011-Analog input (Object 20), 011-Analog input (Object 20), 011-Analog input (Object 20), 011-Analog input (Object 20), 011-Analog input (Object 20), 011-Analog input (Object 20), 011-Analog i	38565 1	Settings for mapped point #73	UINT16	bitmapped		b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid.	060010000100000000	R/W
33507       2       Mapped Deadband value       FLOAT       Settings dependent number type, Always positive       1         38566       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type, Always positive       C         38571       1       Mapped Class assignments       UINT16       bitmapped       Class #3 (3 to 1) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23 class assignments       1         38571       1       Mapped Class assignments       UINT16       bitmapped       Class #3 (3 to 1) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23 class assignment       1         38572       1       reserved       UINT16       bitmapped       Must be set to 0       C         38573       1       Settings for mapped point #74       UINT16       bitmapped       bitmapped       bitmapped         38573       1       Settings for mapped point #74       UINT16       bitmapped       bitmapped       bitmapped         38573       1       Settings for mapped point #74       UINT16       bitmapped       bitmapped       bitmapped         38573       1       Settings for mapped point #74       UINT16       bitmapped       bitmapped       bitmapped       bitmapped       bitmapped       bitab2: Object 30; obtes: invalid, bitmapped	38566 1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
385-97       2       Mapped Deadband value       FLOAT       Settings dependent number type, Always positive       C         385-71       1       Mapped Class assignments       UINT16       bitmapped       Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23; class assignments       1         385-71       1       Mapped Class assignments       UINT16       bitmapped       Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23; class assignment       1         385-72       1       reserved       UINT16       0       Must be set to 0       0         38573       1       Settings for mapped point #74       UINT16       0       Must be set to 0       0         38573       1       Settings for mapped point #74       UINT16       bitmapped       bitmapped       0         38573       1       Settings for mapped point #74       UINT16       bitmapped       bitmapped       bitmapped       0         38573       1       Mapped Modbus register address       UINT16       bitmapped       with be set to 0       bitmapped register. 0000-UINT32; 000-UINT32; 001-SINT32; 01-SINT32; 01-SINT32; 01-SINT32; 01-SINT32; FLOAT       Settings dependent number type; Al	38567 2	Mapped Scaling value				Settings dependent number type,. Always positive	1	R/W
38571       1       Mapped Class assignments       UINT16       bitmapped       bitmapped       b15-b12-Object 23, class assignments       1         38571       1       reserved       UINT16       bitmapped       0       Must be set to 0       0         38573       1       settings for mapped point #74       UINT16       0       Must be set to 0       0	38569 2	Mapped Deadband value				Settings dependent number type,. Always positive	0	R/W
38573       1       Settings for mapped point #74       UINT16       bitmapped       bitmapped       bits: reserved, must be 0       bit4-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid.         38573       1       Settings for mapped point #74       UINT16       bitmapped       bitmapped         38574       1       Mapped Modbus register address       UINT16       bitmapped       bitmapped         38577       2       Mapped Scaling value       SINT32 FLOAT       Settings dependent number type. Always positive       1         38577       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type. Always positive       1         38577       1       Mapped Class assignments       UINT16       bitmapped       Settings dependent number type. Always positive       1         38579       1       Mapped Class assignments       UINT16       bitmapped       Settings dependent number type. Always positive       1         38579       1       Mapped Class assignments       UINT16       bitmapped       Settings dependent number type. Always positive       1	38571 1	Mapped Class assignments	UINT16	bitmapped		b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment	1	R/W
385731Settings for mapped point #74UINT16bitmapped	38572 1	reserved	UINT16	0		Must be set to 0	0	R/W
38575       2       Mapped Scaling value       SINT32 FLOAT       Settings dependent number type,. Always positive       1         38577       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type,. Always positive       0         38579       1       Mapped Class assignments       UINT16       bitmapped       Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments       1	38573 1	Settings for mapped point #74	UINT16	bitmapped		b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid.	060010000100000000	R/W
38575       2       Mapped Scaling value       FLOAT       Settings dependent number type,. Always positive       1         38577       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type,. Always positive       C         38577       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type,. Always positive       C         38579       1       Mapped Class assignments       UINT16       bitmapped	38574 1	Mapped Modbus register address		1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
3857/     2     Mapped Deadband value     FLOAT     Settings dependent number type,. Always positive     C       3857/     1     Mapped Class assignments     UINT16     bitmapped     Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments     1	38575 2	Mapped Scaling value				Settings dependent number type,. Always positive	1	R/W
38579     1     Mapped Class assignments     UINT16     bitmapped     b15-b12: Object 23, class assignments       1     1     bitmapped Class assignments     1	38577 2	Mapped Deadband value				Settings dependent number type,. Always positive	0	R/W
38580     1     reserved     UINT16     0     Must be set to 0     0						b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W R/W

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38581	1	Settings for mapped point #75	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38582	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38583	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38585	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38587	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38588	1	reserved	UINT16	0		Must be set to 0	0	R/W
38589	1	Settings for mapped point #76	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38590	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38591	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38593	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38595		Mapped Class assignments		bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38596	1	reserved	UINT16	0		Must be set to 0	0	R/W

Image: Section of the section of t	Reg# Siz	ze [	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
3859       2       Mapped Scaling value       SNT32 FLOAT       Call       Settings dependent number ype. Always positive       1         38601       2       Mapped Deadband value       SNT32 FLOAT       Settings dependent number ype. Always positive       0         38603       1       Mapped Class assignments       UINT16       bitmapped       Class 4(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b1-b102-Object 2, actas assignments       1         38604       1       reserved.       UINT16       0       Musped Scaling value       0         38604       1       reserved.       UINT16       0       Musped Scaling value       0         38604       1       reserved.       UINT16       0       Musped Scaling value       0         38604       1       reserved.       UINT16       0       Musped Scaling value       0         38604       1       settings for mapped point #78       UINT16       0       Musped Scaling value       0         38604       1       Mapped Modbus register address       UINT16       0       Musped Scaling value       0         38605       1       Mapped Modbus register address       UINT16       10       5535       Modbus register address       000000000000000000000000000000000000	38597 1	s	Settings for mapped point #77	UINT16	bitmapped		b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid.	060010000100000000	R/W
365%     2     Mapped Scaling Value     FLOAT     Settings dependent number type, Aways positive     1       38601     2     Mapped Deadband value     SINT32 FLOAT     Settings dependent number type, Aways positive     0       38603     1     Mapped Class assignments     UINT16     bitmapped     Class 4/3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 32, class assignments b1-b8: Object 22 or 30 class assignments     1       38604     1     reserved     UINT16     bitmapped     0       38605     1     Settings for mapped point #78     UINT16     0     Must be set to 0     0       38606     1     Mapped Class address     UINT16     bitmapped     bitmapped     bit-reserved, must be 0 b14-b12: Object 190; object	38598 1	Ν	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38601       2       Mapped Deadband value       FLOAT       Settings dependent number type, Aways positive       0         38603       1       Mapped Class assignments       UINT16       bitmapped       Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 22 or 32 class assignments       1         38603       1       Mapped Class assignments       UINT16       bitmapped       Dit Bits: Object 22 or 32 class assignments       1         38604       1       reserved       UINT16       0       Must be set to 0       0         38605       1       Reserved       UINT16       0       Must be set to 0       0         38606       1       Reserved       UINT16       bitmapped       bitmapped       Dit Bit: Type of the original mapped register: 000-UINT32, 000-UINT16, 010-EINary Inputs (Object 20), 011-SINT16, 0100-FLOAT32, 0thers invalid.       0         38606       1       Mapped Moduus register address       UINT16       bitmapped       Settings dependent number type: .00-No, 01=FLOAT, 10=SINT32, 11=invalid.       0000100         38607       2       Mapped Deadband value       SINT32       Settings dependent number type., Always positive       1         38609       2       Mapped Class assignments       SINT32       Settings dependent number type., Always positive       1	38599 2	2	Mapped Scaling value				Settings dependent number type,. Always positive	1	R/W
38603     1     Mapped Class assignments     UINT16     bitmapped     bitTs-b12: Object 23: class assignments     1       38604     1     reserved     UINT16     0     Must be Set Io 0     0       38604     1     reserved     UINT16     0     Must be set Io 0     0       38605     1     Settings for mapped point #78     UINT16     bitmapped     bitmap	38601 2	2	Mapped Deadband value				Settings dependent number type,. Always positive	0	R/W
1       Settings for mapped point #78       UINT16       bitmapped       bitmap	38603 1	Ν	Mapped Class assignments	UINT16	bitmapped		b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment	1	R/W
1Settings for mapped point #78UINT16bitmappedbitma	38604 1	r	eserved	UINT16	0		Must be set to 0	0	R/W
38607       2       Mapped Scaling value       SINT32 FLOAT       Call       Settings dependent number type,. Always positive       1         38609       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type,. Always positive       0         38607       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type,. Always positive       0         38611       1       Mapped Class assignments       UINT16       bitmapped       Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments       1	38605 1	s	Settings for mapped point #78	UINT16	bitmapped		b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid.	060010000100000000	R/W
38607       2       Mapped Scaling value       FLOAT       Settings dependent number type,. Always positive       1         38607       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type,. Always positive       0         38607       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type,. Always positive       0         38607       2       Mapped Deadband value       SINT32 FLOAT       Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments       0         38611       1       Mapped Class assignments       UINT16       bitmapped       Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments       1	38606 1	Ν	Mapped Modbus register address		1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38609     2     Mapped Deadband Value     FLOAT     Settings dependent number type,. Always positive     0       38611     1     Mapped Class assignments     UINT16     bitmapped     Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments     0       38611     1     Mapped Class assignments     UINT16     bitmapped     0	38607 2	2	Mapped Scaling value				Settings dependent number type,. Always positive	1	R/W
38611     1     Mapped Class assignments     UINT16     bitmapped     bitmapped     b15-b12: Object 23, class assignments       b11-b8: Object 22 or 32 class assignments     1       b7-b4: Object 21 class assignment     1	38609 2	2	Napped Deadband value				Settings dependent number type,. Always positive	0	R/W
38612     1     reserved     UINT16     0     Must be set to 0     0							b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W R/W

38614         1         Mapped           38615         2         Mapped           38617         2         Mapped           38619         1         Mapped           38620         1         reserver           38621         1         Setting	ngs for mapped point #79 red Modbus register address red Scaling value red Deadband value	UINT16 SINT32 FLOAT SINT32	bitmapped 1 to 65535	b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38615         2         Mapped           38617         2         Mapped           38619         1         Mapped           38620         1         reserver           38621         1         Setting	ed Scaling value	SINT32 FLOAT SINT32	1 to 65535			
38617         2         Mapped           38619         1         Mapped           38620         1         reserve           38621         1         Setting	-	FLOAT SINT32		 Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38619         1         Mapped           38620         1         reserver           38621         1         Setting	ed Deadband value			Settings dependent number type,. Always positive	1	R/W
38620 1 reserve		FLOAT		Settings dependent number type,. Always positive	0	R/W
38621 1 <b>Setting</b>	ed Class assignments	UINT16	bitmapped	Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
	ved	UINT16	0	Must be set to 0	0	R/W
38622 1 Mapped	ngs for mapped point #80	UINT16	bitmapped	b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
	ed Modbus register address	UINT16	1 to 65535	Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38623 2 Mapped	ed Scaling value	SINT32 FLOAT		Settings dependent number type,. Always positive	1	R/W
38625 2 Mapped		SINT32 FLOAT		Settings dependent number type,. Always positive	0	R/W
38627 1 Mapped	ed Deadband value		bitmapped	Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment	1	R/W

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38629	1	Settings for mapped point #81	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38630	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38631	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38633	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38635	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38636	1	reserved	UINT16	0		Must be set to 0	0	R/W
38637	1	Settings for mapped point #82	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38638	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38639	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38641	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38643		Mapped Class assignments		bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38644	1	reserved	UINT16	0		Must be set to 0	0	R/

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38645	1	Settings for mapped point #83	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38646	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38647	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38649	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38651	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38652	1	reserved	UINT16	0		Must be set to 0	0	R/W
38653	1	Settings for mapped point #84	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38654	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38655	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38657	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38659		Mapped Class assignments		bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38660	1	reserved	UINT16	0		Must be set to 0	0	R/W

Image: Section 132, 001-EUNT16, 0100-FLOAT32, 001-EUNT16, 0100-FLOAT32, 001-EUNT16, 0100-FLOAT32, 001-EUNT16, 0100-FLOAT, 10-SINT32, 11-invalid.         38662       1         38663       2         Mapped Modbus register address       UINT16         11       to 65535         Modbus register address       UINT16         38663       2         Mapped Caling value       SINT32 FLOAT         FLOAT       Settings dependent number type, Always positive         1       1         38665       2         Mapped Class assignments       UINT16         UINT16       bitmapped         UINT16       bitmapped         1       bitmapped         38667       1         Mapped Class assignments       UINT16         bitmapped       bitmapped         bitmapped       Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: bit=bit=20 ciglect 20 ass assignments         bitmapped       1         38668       1         reserved       UINT16         1       0         4       bitmapped         1       bitmapped         1       bitmapped         1       bitmapped         1 <td< th=""><th>t value Acc</th><th>Factory default value</th><th>Comments</th><th>Unit of measure or resolution</th><th>Value Range</th><th>Format</th><th>Description</th><th>ize Description</th><th>Size</th><th>eg#</th></td<>	t value Acc	Factory default value	Comments	Unit of measure or resolution	Value Range	Format	Description	ize Description	Size	eg#
386d     2     Mapped Scaling value     SNT32 FLOAT     Constrained     Settings dependent number type. Always positive     1       3866     2     Mapped Deadband value     SNT32 FLOAT     Settings dependent number type. Always positive     0       3866     1     Mapped Class assignments     UINT16     bimapped     Class 4(3 to 0) assignments, bimapped in 4x4bit nibbles, active 1: b1-b12: Object 20 rs 2 class assignments     1       38668     1     reserved     UINT16     0     Must be set to 0     0       38668     1     reserved     UINT16     0     Must be set to 0     0       38668     1     reserved     UINT16     0     Must be set to 0     0       38669     1     Settings for mapped point #86     UINT16     0     Must be set to 0     0       38669     1     Mapped Modus register address     UINT16     0     Must be set to 0     0       38670     1     Mapped Modus register address     UINT16     1     0     0     0       38671     2     Mapped Modus register address     UINT16     1     0     0     0       38671     1     Mapped Modus register address     UINT16     1     0     0     0       38677     2     Mapped Modus register addr	000000 R/W	0b0010000100000000	b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid.		bitmapped	UINT16	Settings for mapped point #85	1 Settings for	1	8661
32003       2       Mapped Scaling value       FLOAT       Settings dependent number type., Aways positive       1         38665       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type., Aways positive       0         38667       1       Mapped Class assignments       UINT16       bitmapped       Class 4(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 22 of dass assignments       1         386667       1       Mapped Class assignments       UINT16       bitmapped       Class 4(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 22 of dass assignments       1         38668       1       reserved       UINT16       bitmapped       Must be set to 0       0         38669       1       settings for mapped point #86       UINT16       bitmapped       Ditmapped       D15-reserved, must be 0 b15-reserved, must be 0 b15-reserved, must be 0.       0 </td <td>R/W</td> <td>0x05DB</td> <td>Modbus reg. address to map in DNP as object 20 or 30</td> <td></td> <td>1 to 65535</td> <td>UINT16</td> <td>Mapped Modbus register address</td> <td>1 Mapped Mod</td> <td>1</td> <td>8662</td>	R/W	0x05DB	Modbus reg. address to map in DNP as object 20 or 30		1 to 65535	UINT16	Mapped Modbus register address	1 Mapped Mod	1	8662
3865       2       Mapped Deadband value       FLOAT       Settings dependent number type, Aways positive       0         38667       1       Mapped Class assignments       UINT16       bitmapped       Class #(3 to 0) assignments, bitmapped in 4xbit nibbles, active 1: b15-b12: Object 22 or 21 class assignments       1         38668       1       reserved       UINT16       bitmapped       Must be set to 0       0         38668       1       reserved       UINT16       0       Must be set to 0       0         38669       1       settings for mapped point #86       UINT16       0       Must be set to 0       0         38667       1       settings for mapped point #86       UINT16       0       Must be set to 0       0         38668       1       reserved       UINT16       0       Must be set to 0       0         38669       1       Settings for mapped point #86       UINT16       bitmapped       bitmapped       0         38671       2       Mapped Modbus register address       UINT16       bitmapped       Settings dependent number type, Always positive       0         38673       1       Mapped Deabband value       SINT32 FLOAT       Settings dependent number type, Always positive       1         38673       <	R/W	1	Settings dependent number type,. Always positive				Mapped Scaling value	2 Mapped Sca	2	8663
38667       1       Mapped Class assignments       UINT16       bitmapped	R/W	0	Settings dependent number type,. Always positive				Mapped Deadband value	2 Mapped Dea	2	8665
38669       1       Settings for mapped point #86       UINT16       bitmapped       bitmapped<	RW	1	b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment		bitmapped	UINT16	Mapped Class assignments	1 Mapped Clas	1	8667
386691Settings for mapped point #86UINT16bitmapped	R/W	0	Must be set to 0		0	UINT16	reserved	1 reserved	1	8668
386712Mapped Scaling valueSINT32 FLOATSettings dependent number type,. Always positive1386732Mapped Deadband valueSINT32 FLOATSettings dependent number type,. Always positive0386751Mapped Class assignmentsUINT16bitmappedClass #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments1	000000 R/W	050010000100000000	b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid.		bitmapped	UINT16	Settings for mapped point #86	1 Settings for	1	8669
38671       2       Mapped Scaling value       FLOAT       Settings dependent number type,. Always positive       1         38673       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type,. Always positive       0         38673       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type,. Always positive       0         38675       1       Mapped Class assignments       UINT16       bitmapped       Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments       1	R/W	0x05DB	Modbus req. address to map in DNP as object 20 or 30		1 to 65535		Mapped Modbus register address	1 Mapped Mod	1	8670
38673       2       Mapped Deadband value       FLOAT       Settings dependent number type,. Always positive       0         38675       1       Mapped Class assignments       UINT16       bitmapped       Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments       1	R/W	1	Settings dependent number type,. Always positive				Mapped Scaling value	2 Mapped Sca	2	8671
38675     1     Mapped Class assignments     UINT16     bitmapped     bitmapped     b15-b12: Object 23, class assignments       5     b11-b8: Object 22 or 32 class assignments     1       5     b7-b4: Object 21 class assignment     1	R/W	0	Settings dependent number type,. Always positive				Mapped Deadband value	2 Mapped Dea	2	8673
38676         1         reserved         UINT16         0         Must be set to 0         0	RW	1	b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.							

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38677	1	Settings for mapped point #87	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38678	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38679	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38681	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38683	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38684	1	reserved	UINT16	0		Must be set to 0	0	R/W
38685	1	Settings for mapped point #88	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38686	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38687	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38689	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38691		Mapped Class assignments	UINT16 UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W R/W

38694       1       Mapped Modbus register address       UINT1         38695       2       Mapped Scaling value       SINT3         38697       2       Mapped Deadband value       SINT3         38699       1       Mapped Class assignments       UINT1         38700       1       reserved       UINT1	6 bitr				
38695       2       Mapped Scaling value       SINT3         38697       2       Mapped Deadband value       SINT3         38697       2       Mapped Deadband value       SINT3         38699       1       Mapped Class assignments       UINT1         38700       1       reserved       UINT1         38701       1       Settings for mapped point #90       UINT1         38702       1       Mapped Modbus register address       UINT1         38703       2       Mapped Scaling value       SINT3         38705       2       Mapped Deadband value       SINT3		tmapped	b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38695       2       Mapped Scaling Value       FLOA         38697       2       Mapped Deadband value       SINT3 FLOA         38699       1       Mapped Class assignments       UINT1         38700       1       reserved       UINT1         38701       1       Settings for mapped point #90       UINT1         38702       1       Mapped Modbus register address       UINT1         38703       2       Mapped Scaling value       SINT3 FLOA         38705       2       Mapped Deadband value       SINT3	6 1 to	to 65535	Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38697       2       Mapped Deadband value       FLOA         38699       1       Mapped Class assignments       UINT1         38700       1       reserved       UINT1         38701       1       Settings for mapped point #90       UINT1         38702       1       Mapped Modbus register address       UINT1         38703       2       Mapped Scaling value       SINT3         38705       2       Mapped Deadband value       SINT3			Settings dependent number type,. Always positive	1	R/W
38700     1     reserved     UINT1       38701     1     Settings for mapped point #90     UINT1       38702     1     Mapped Modbus register address     UINT1       38703     2     Mapped Scaling value     SINT3 FLOA       38705     2     Mapped Deardband value     SINT3			Settings dependent number type,. Always positive	0	R/W
38701     1     Settings for mapped point #90     UINT1       38702     1     Mapped Modbus register address     UINT1       38703     2     Mapped Scaling value     SINT3 FLOA       38705     2     Mapped Deadband value     SINT3	6 bitr	tmapped	Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38702     1     Mapped Modbus register address     UINT1       38703     2     Mapped Scaling value     SINT3       38705     2     Mapped Deadband value     SINT3	6 0		Must be set to 0	0	R/W
38703     2     Mapped Scaling value     SINT3 FLOA       38705     2     Mapped Deadband value     SINT3	6 bitr	tmapped	b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38/03     2     Mapped Scaling value     FLOA       38705     2     Mapped Deadband value     SINT3		to 65535	Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
138/U51 2 IMapped Deadpand Value			Settings dependent number type,. Always positive	1	R/W
			 Settings dependent number type,. Always positive	0	R/W
38707     1     Mapped Class assignments     UINT1       38708     1     reserved     UINT1	6 bitr	tmapped	Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment. Must be set to 0	1	R/W

Image: Section of the section of th	Reg# Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
3871     2     Mapped Scaling value     SINT32 FLOAT     Case     Settings dependent number type. Always positive     1       38713     2     Mapped Deadband value     SINT32 FLOAT     Settings dependent number type. Always positive     0       38715     1     Mapped Class assignments     UINT6     bimapped     Class (3 to 0) assignments, bimapped in 4xbli nbbles, active 1: bi1-bi2 Object 20 v3 2 class assignments     1       38716     1     reserved     UINT16     0     Must be set to 0     0       38717     1     Settings for mapped point #92     UINT16     0     Must be set to 0     0       38718     1     Mapped Modbus register address     UINT16     bimapped     Must be set to 0     0       38718     1     Mapped Modbus register address     UINT16     bitmapped     Must be set to 0     0       38718     1     Mapped Modbus register address     UINT16     bitmapped     Must be set to 0     0       38718     1     Mapped Modbus register address     UINT16     bitmapped     Must be set to 0     0       38718     1     Mapped Modbus register address     UINT16     bitmapped     Must be set to 0     0       38718     1     Mapped Deadband value     SiNT32 FLOAT     Settings dependent number type. Always positive     <	38709 1	Settings for mapped point #91	UINT16	bitmapped		b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid.	060010000100000000	R/W
3371     2     Mapped Scaling Value     FLOAT     Settings dependent number type, Aways positive     1       38713     2     Mapped Deadband value     SNT32 FLOAT     Settings dependent number type, Aways positive     0       38715     1     Mapped Class assignments     UINT16     bitmapped     Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12-Object 22 or 32 class assignments     1       38715     1     Mapped Class assignments     UINT16     bitmapped     Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12-Object 22 or 32 class assignment     1       38716     1     reserved     UINT16     0     Must be set to 0     0       38717     1     Settings for mapped point #92     UINT16     0     Must be set to 0     0       38717     1     Settings for mapped point #92     UINT16     bitmapped     bitmapped     0       38717     1     Settings for mapped point #92     UINT16     bitmapped     0     0       38717     1     Settings for mapped point #92     UINT16     bitmapped     0     0       38717     1     Settings for mapped point #92     UINT16     bitmapped     0     0       38717     1     Settings for mapped point #92     UINT16     bitmapped     0     0	38710 1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38/13       2       Mapped Deadband value       FLOAT       Settings dependent number type, Always positive       0         38/15       1       Mapped Class assignments       UINT16       bitmapped       Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 22 or 22 dass assignments       1         38/15       1       Mapped Class assignments       UINT16       bitmapped       Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 22 or 22 dass assignments       1         38/16       1       reserved       UINT16       0       Must be set to 0       0         38/17       1       settings for mapped point #92       UINT16       0       Must be set to 0       0         38/17       1       settings for mapped point #92       UINT16       bitmapped       015-b12: Object type, OO-None(empty), 010-Binary Inputs (Object 20 or 32 Object type, OO-None(empty), 010-Binary Inputs (Object 20 or 32 Object type, OO-None(empty), 010-Binary Inputs (Object 20 or 32 Object type, OO-None(empty), 010-Binary Inputs (Object 20 or 32 Object type, OO-None(empty), 010-Binary Inputs (Object 20 or 32 Object type, OO-None(empty), 010-Binary Inputs (Object 20 or 32 Object type, OO-None(empty), 010-Binary Inputs (Object 20 or 32 Object 10, 001-SINT32, 010-LINT16, 0101-SINT16, 0100-FLOAT32, others invalid, D1-b6: Fost are number type. ON-None(empty), 010-Binary Inputs (Object 20 or 32 Object 20 or 32 Object 20 or 32 Object 20 or 33 Object 20 or 33 Object 20 or 33 Object 20 or 30 Object 20 or 33 Object 20 or 30 Object 20 or 30	38711 2	Mapped Scaling value				Settings dependent number type,. Always positive	1	R/W
38715     1     Mapped Class assignments     UINT16     bitmapped     bitT-bit2-Object 23, class assignments     1       38715     1     reserved     UINT16     bitmapped     bitmapped     bitT-bit2-Object 23, class assignments     1       38716     1     reserved     UINT16     0     Must be set to 0     0       38717     1     Settings for mapped point #92     UINT16     bitmapped     bitT-bit2-Object 23, class assignments     1       38717     1     Settings for mapped point #92     UINT16     bitmapped     bitT-bit2-Object 23, class assignments     0       38718     1     Mapped Modbus register address     UINT16     bitmapped     bitT-bit2-Object 23, class assignments     0       38718     1     Mapped Modbus register address     UINT16     bitmapped     bitT-bit2-Object 23, class assignments     0       38718     1     Mapped Modbus register address     UINT16     bitmapped     bitT-bit2-Object 20, others invalid, bitT-bit2, Object 20, others, invalid, bitT-bit2, Object 20, others, invalid, bitT-bit2, Object 20, others, invalid, bitT-bit2, Object 20, others, invalid, bitT-bit2, Object 20, others, invalid, bitT-bit2, Object 20, others, invalid, bitT-bit2, Object 20, others, invalid, bitT-bit2, Object 20, others, invalid, bitT-bit2, Object 20, others, invalid, bitT-bit2, Object 20, others, invalid, bitT-	38713 2	Mapped Deadband value				Settings dependent number type,. Always positive	0	R/W
38717       1       Settings for mapped point #92       UINT16       bitmapped       bitmapped       bits: reserved, must be 0       bits: reserved,	38715 1	Mapped Class assignments	UINT16	bitmapped		b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment	1	R/W
387171Settings for mapped point #92UINT16bitmapped	38716 1	reserved	UINT16	0		Must be set to 0	0	R/W
387192Mapped Scaling valueSINT32 FLOATSettings dependent number type,. Always positive1387212Mapped Deadband valueSINT32 FLOATSettings dependent number type,. Always positive0387231Mapped Class assignmentsUINT16bitmappedClass #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments1	38717 1	Settings for mapped point #92	UINT16	bitmapped		b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid.	060010000100000000	R/W
38719       2       Mapped Scaling value       FLOAT       Settings dependent number type,. Always positive       1         38721       2       Mapped Deadband value       SINT32 FLOAT       Settings dependent number type,. Always positive       0         38723       1       Mapped Class assignments       UINT16       bitmapped       Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments       1	38718 1	Mapped Modbus register address		1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38721       2       Mapped Deadband value       FLOAT       Settings dependent number type,. Always positive       0         38721       2       Mapped Deadband value       FLOAT       Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment       1	38719 2	Mapped Scaling value				Settings dependent number type,. Always positive	1	R/W
38723     1     Mapped Class assignments     UINT16     bitmapped     bitmapped     b15-b12: Object 23, class assignments       57-b4: Object 22 or 32 class assignment     1	38721 2	Mapped Deadband value				Settings dependent number type,. Always positive	0	R/W
38724     1     reserved     UINT16     0     Must be set to 0     0						b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W R/W

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38725	1	Settings for mapped point #93	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38726	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38727	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38729	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38731	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38732	1	reserved	UINT16	0		Must be set to 0	0	R/W
38733	1	Settings for mapped point #94	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38734	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38735	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38737	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38739		Mapped Class assignments		bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W R/W
38740	1	reserved	UINT16	0		Must be set to 0	0	

Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
38741	1	Settings for mapped point #95	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38742	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus reg. address to map in DNP as object 20 or 30	0x05DB	R/W
38743	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38745	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38747	1	Mapped Class assignments	UINT16	bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38748	1	reserved	UINT16	0		Must be set to 0	0	R/W
38749	1	Settings for mapped point #96	UINT16	bitmapped		b15: reserved, must be 0 b14-b12: Object type, 000=None(empty), 010=Binary Inputs (Object 20), 011=Analog Input (Object 30), others invalid. b11-b8: Type of the original mapped register: 0000=UINT32, 0001=SINT32, 0010=UINT16, 0011=SINT16, 0100=FLOAT32, others invalid b7-b6: Scaler number type: 00=No, 01=FLOAT, 10=SINT32, 11=invalid. b5-b0: reserved, must be 0.	060010000100000000	R/W
38750	1	Mapped Modbus register address	UINT16	1 to 65535		Modbus req. address to map in DNP as object 20 or 30	0x05DB	R/W
38751	2	Mapped Scaling value	SINT32 FLOAT			Settings dependent number type,. Always positive	1	R/W
38753	2	Mapped Deadband value	SINT32 FLOAT			Settings dependent number type,. Always positive	0	R/W
38755		Mapped Class assignments		bitmapped		Class #(3 to 0) assignments, bitmapped in 4x4bit nibbles, active 1: b15-b12: Object 23, class assignments b11-b8: Object 22 or 32 class assignments b7-b4: Object 21 class assignment b3-b0: Object 20 or 30 class assignment.	1	R/W
38756	1	reserved	UINT16	0		Must be set to 0	0	R/W

Reg# Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
				orresolution			
Secondary F	leadings Section			•	Address Range: 40001-4020		
	y Readings Block						R
	System Sanity Indicator	UINT16			0 indicates proper meter operation		R
	V A-N V B-N	UINT16	2047 to 4095	V	2047= 0, 4095= +150 V = 150 * (register - 2047) / 2047		R
	V B-N	UINT16 UINT16	2047 to 4095 2047 to 4095	V	V = 150 (register - 2047) / 2047 V = 150 * (register - 2047) / 2047		R
40004 1	IA	UINT16	0 to 4095	V A	0 = -10, 2047 = 0, 4095 = +10		R
40005 1	IB	UINT16	0 to 4095	Δ	$I = 10^{\circ}$ (register - 2047) / 2046		R
40007 1		UINT16	0 to 4095	A	$I = 10^{\circ} (register - 2047) / 2046$		R
	W, Total	UINT16	0 to 4095	Ŵ	0= -3000, 2047= 0, 4095= +3000		R
	VAR, Total	UINT16	0 to 4095	VAR	W, VAR, VA =		R
40010 1	VA, Total	UINT16	2047 to 4095	VA	3000 * (register - 2047) / 2047		R
40011 1	PF, Total	UINT16	1047 to 3047		1047= -1, 2047= 0, 3047= +1, pf = (register - 2047) / 1000		R
					0= 45 or less, 2047= 60, 2730= 65 or more, freg = 45 + ((register /		
40012 1	Frequency	UINT16	0 to 2730	Hz			R
					4095) * 30)		
40013 1	V A-B	UINT16	2047 to 4095	V	2047= 0, 4095= +300		R
40014 1	V B-C	UINT16	2047 to 4095	V	V = 300 * (register - 2047) / 2047		R
	V C-A	UINT16	2047 to 4095	V	V = 300 * (register - 2047) / 2047		R
	CT numerator	UINT16	1 to 65535		CT = numerator / denominator		R
	CT denominator	UINT16	1 or 5		CT = numerator / denominator		R
	PT numerator	UINT32	1 to 99999999		register #40020 high-, register #40019 low word		R
	PT denominator	UINT16	1 to 65535		PT = numerator / denominator		R
	Wh, (Q1+Q4)	UINT32	0 to 99999999	Wh	See Reg# 30117 for formatting and scaling		R
	Wh, (Q2+Q3)	UINT32	0 to 99999999	Wh	See Reg# 30117 for formatting and scaling		R
	VARh, (Q1+Q2)	UINT32	0 to 99999999	VARh	See Reg# 30118 for formatting and scaling		R
	VARh, (Q3+Q4)	UINT32	0 to 99999999	VARh	See Reg# 30118 for formatting and scaling		R
40030 2 40032 2	VAh Wh, (Q1+Q4), Phase A	UINT32 UINT32	0 to 99999999 0 to 99999999	VAh Wh	See Reg# 30117 for formatting and scaling. See note 10. See Reg# 30117 for formatting and scaling		R
40032 2	Wh, (Q1+Q4), Phase B	UINT32 UINT32	0 to 99999999	Wh	See Reg# 30117 for formatting and scaling		R
	Wh, (Q1+Q4), Phase C	UINT32	0 to 99999999	Wh	See Reg# 30117 for formatting and scaling		R
	Wh, (Q2+Q3), Phase A	UINT32	0 to 99999999	Wh	See Reg# 30117 for formatting and scaling		R
	Wh, (Q2+Q3), Phase B	UINT32	0 to 99999999	Wh	See Reg# 30117 for formatting and scaling		R
	Wh, (Q2+Q3), Phase C	UINT32	0 to 99999999	Wh	See Reg# 30117 for formatting and scaling		R
	VARh, (Q1+Q2), Phase A		0 to 99999999	VARh	See Reg# 30118 for formatting and scaling		R
	VARh, (Q1+Q2), Phase B	UINT32	0 to 99999999	VARh	See Reg# 30118 for formatting and scaling		R
40048 2	VARh, (Q1+Q2), Phase C	UINT32	0 to 99999999	VARh	See Reg# 30118 for formatting and scaling		R
40050 2	VARh, (Q3+Q4), Phase A	UINT32	0 to 99999999	VARh	See Reg# 30118 for formatting and scaling		R
	VARh, (Q3+Q4), Phase B	UINT32	0 to 99999999	VARh	See Reg# 30118 for formatting and scaling		R
	VARh, (Q3+Q4), Phase C	UINT32	0 to 99999999	VARh	See Reg# 30118 for formatting and scaling		R
	VAh, Phase A	UINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling		R
	VAh, Phase B	UINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling		R
	VAh, Phase C	UINT32	0 to 99999999	VAh	See Reg# 30117 for formatting and scaling		R
	W, Phase A	UINT16	0 to 4095	W			R
	W, Phase B	UINT16	0 to 4095	W			R
	W, Phase C	UINT16	0 to 4095	W	0 0000 0017 0 1005 0000		R
	VAR, Phase A	UINT16	0 to 4095	VAR	0= -3000, 2047= 0, 4095= +3000		R
	VAR, Phase B VAR. Phase C	UINT16	0 to 4095 0 to 4095	VAR VAR	W, VAR, VA =		R
	VAR, Phase C	UINT16 UINT16	2047 to 4095	VAR	3000 * (register - 2047) / 2047	1	R
	VA, Phase B	UINT16	2047 to 4095	VA		1	R
	VA, Phase C	UINT 16 UINT 16	2047 to 4095	VA		1	R
	PF, Phase A	UINT16	1047 to 3047	V/1	1047= -1, 2047= 0, 3047= +1, pf = (register - 2047) / 1000	1	R
	PF, Phase B	UINT16	1047 to 3047	1	1047 = -1, 2047 = 0, 3047 = +1, pf = (register - 2047) / 1000		R
	PF, Phase C	UINT16	1047 to 3047	1	1047 = -1, 2047 = 0, 3047 = +1, pf = (register - 2047) / 1000		R
	Reset Energy Accumulators	UINT16			Note 5. Write only register; always reads as 0		W
	NOSOL ENGLY ACCUMULATORS		1	I	THOLE J. WHILE UTILY TEXISLEL, AIWAYS TEAUS AS U		



Reg# Size Description	Format	Unit of measure or resolution	Comments	Factory default value Acc
Secondary Energy Section			Address Range: 40203-48905	
40201 2 Wh, (Q1+Q4)	SINT32	Wh		R
40203 2 Wh, (Q2+Q3)	SINT32	Wh		R
40205 2 VARh, (Q1+Q2)	SINT32	VARh		R
40207 2 VARh, (Q3+Q4)	SINT32	VARh		R
40209 2 VAh	UINT32	VAh		R
40211 2 +Qh,Total	UINT32	Qh		R
40213 2 -Qh,Total	SINT32	Qh		R
Secondary Energy in Interval Section			Address Range: 40367-00000	
40365 2 Wh, (Q1+Q4)	SINT32	Wh		R
40367 2 Wh, (Q2+Q3)	SINT32	Wh		R
40369 2 VARh, (Q1+Q2)	SINT32	VARh		R
40371 2 VARh, (Q3+Q4)	SINT32	VARh		R
40373 2 VAh	UINT32	VAh		R
40375 2 +Qh,Total	UINT32	Qh		R
40377 2 -Qh,Total	SINT32	Qh		R
Secondary Uncompensated Energy Section			Address Range: 40531-00000	
40529 2 Wh, (Q1+Q4)	SINT32	Wh		R
40531 2 Wh, (Q2+Q3)	SINT32	Wh		R
40533 2 VARh, (Q1+Q2)	SINT32	VARh		R
40535 2 VARh, (Q3+Q4)	SINT32	VARh		R
40537 2 VAh	UINT32	 VAh		R
40539 2 +Qh,Total	UINT32	Qh		R
40541 2 -Qh,Total	SINT32	Qh		R



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
	<u>)f Use</u> tus Bl	Section				Address Range: 41000-49995		
		Time Of Use Status #1	UINT16	bitmapped		b15: don't care b14: if 1 error loading previous Billing Month b13: if 1 error loading previous Season b12: if 1 error loading previous TOU snapshot b11: if 1 the Change Rate List Indexes is big-endian. else little-endian b10: don't care b9: if 1 Season and Billmo were parsed as manual self read only. 0- Parsed as Autoread b8: if 1 Billing month has at least one auto self read entry in calendar. 0- No auto self-read found. b7: if 1 Season has at least one auto self read entry in calendar. 0 -No auto self-read found. b6: if 1 Normal season mode: 1 to 4 seasons. b5: if 1 Custom season mode: 2 to 4 seasons. b5: if 1 Custom season mode: 4 cally b4: if 1 Custom season mode: (Others invalid) 0b000=disabled; 0b001=Enabled parsing configuration 0b010=Enabled but suspended due to error in configuration 0b010=Enabled and running 0b001=Enabled and running 0b011=Stopped, due test mode, or restarting 0b011=Not initialized yet		R
41001	1	Time Of Use Status #2	UINT16	bitmapped		<ul> <li>b11: 1-Current Billmo had a bad ld or Save/Start date</li> <li>b10: 1-Current Season had a bad ld or Save/Start date</li> <li>b9: 1-Previous Billmo had a bad ld or Save/Start date</li> <li>b8: 1-Previous Season had a bad ld or Save/Start date</li> <li>b7: 1-Begin accumulator in the Season overflow.</li> <li>b6: 1-Begin accumulation increment for Season overflow.</li> <li>b5: 1-Energy accumulation increment for Season overflow.</li> <li>b4: 1-Last timestamp passed to functions was invalid (time stamp is taken from meter).</li> <li>b1: 1-The current month has changed (due to restart or new month started). Can be cleared by writing a 1 to this bit</li> <li>b0: 1-The current season has changed (due to restart or new season started). Can be cleared by writing a 1 to this bit</li> </ul>		R/W



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
41002	1	Run Time Indexes	UINT16	bitmapped		rrrd daaa ammm msss Status for TOU rrr = Current Rate : 1 to 4 dd = Current Daytype : 0(Holiday) to 3 aaaa = 0 to 15; meaning current schedule 1 to 16. mmmm=Current Billing month : 1 to 12 sss = Current Season : 1 to 4		R
41008	1	Current Month ID	UINT16	1 to 12		1 = Jan 12 = Dec, or a user-defined time period		R
41009		Prior Month ID	UINT16	1 to 12				R
41010		Last month self-read time			1s			R
41013		Next month self-read time	TSTAMP	21st Century	1 s			R
41016		Current Season ID	UINT16	1 to 4				R
41017 41018		Prior Season ID Last season self-read time	UINT16	1 to 4 21st Century	1.0			R
41018		Next season self-read time		21st Century 21st Century	1s 1s			R
41024	1	Validation Result	UINT16	bitmapped		Flags. When a flag is 1 means: b15-b13: Not used b12: Internal error detected b11: No valid schedule b10: Bad schedule number in annual profile. b9 : Bad day detected b8 : Too many seasons or billing months. b7 : Unsupported calendar format b6 : Invalid Repeat entry b5 : Invalid Built-in entry. b4 : Invalid Day of Week. b3 : Invalid Week Number. b2 : Specified day is not valid for every month. b1 : Invalid Day of MonthTooBig b0 : Invalid Month number.		R
41025		Valid Number of Datasets	UINT16	1 to 16		Number of valid dataset definitions entris in config.		R
41026	1	Number of Valid Calendar Entries	UINT16	1 to 150		Number of valid entries in the calendar		R
41027	1	Number of Self Reads in Calendar	UINT16	bitmapped		Hi Byte = Number of Selfreads for Billing Months Lo Byte = Number of Selfreads for Seasons		R
41028	2	Last Date the calendar was scanned for actions	UINT32	bitmapped		b31-25: Year, b24-21: Month, b20-16: Day, b15-0: minute	0	R
41030		Execute a billing month read. See note 5.	UINT16	0xC1EA		Reads and resets billing month accumulator and demand		W
41031	1	Execute a season read. See note 5.	UINT16	0xC1EA		Reads and resets season accumulator and demand		W



Reg# Size Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value Acc
Current Month, whole month Block, Rate 0 - Total (data accumulated over the whole mon	th)				
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
			data specific		R
41095 3 Timestamp for Monitored Data Set 1 - Rate 0 Peak & Coincident Demand		21st Century	1s		R
		0 to ±99999999	data specific		R
41101 2 Accumulator for Monitored Data Set 2 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
			data specific		R
41107 3 Timestamp for Monitored Data Set 2 - Rate 0 Peak & Coincident Demand		21st Century	1s		R
41111 2 Cumulative Demand for Monitored Data Set 2 - Rate 0		0 to ±99999999	data specific		R
41113 2 Accumulator for Monitored Data Set 3 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
41115 2 Peak Demand for Monitored Data Set 3 - Rate 0		0 to ±9.999 E+09	data specific		R
			data specific		R
41119 3 Timestamp for Monitored Data Set 3 - Rate 0 Peak & Coincident Demand		21st Century	1s		R
		0 to ±99999999	data specific		R
41125 2 Accumulator for Monitored Data Set 4 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
41127 2 Peak Demand for Monitored Data Set 4 - Rate 0		0 to ±9.999 E+09	data specific		R
		0 to ±99999999 or 0 to ±1	data specific		R
41131 3 Timestamp for Monitored Data Set 4 - Rate 0 Peak & Coincident Demand		21st Century	1s		R
		0 to ±99999999	data specific		R
41137 2 Accumulator for Monitored Data Set 5 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
			data specific		R
41143 3 Timestamp for Monitored Data Set 5 - Rate 0 Peak & Coincident Demand		21st Century	1s		R
		0 to ±99999999	data specific		R
41149 2 Accumulator for Monitored Data Set 6 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
			data specific		R
41155 3 Timestamp for Monitored Data Set 6 - Rate 0 Peak & Coincident Demand		21st Century	1s		R
		0 to ±99999999	data specific		R
41161 2 Accumulator for Monitored Data Set 7 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
			data specific		R
41167 3 Timestamp for Monitored Data Set 7 - Rate 0 Peak & Coincident Demand		21st Century	1s		R
		0 to ±99999999	data specific		R
41173 2 Accumulator for Monitored Data Set 8 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
			data specific		R
41179 3 Timestamp for Monitored Data Set 8 - Rate 0 Peak & Coincident Demand		21st Century	1 s		R
41183 2 Cumulative Demand for Monitored Data Set 8 - Rate 0	FLOAT	0 to ±99999999	data specific		R



	Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
41185 2	Accumulator for Monitored Data Set 9 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41187 2	Peak Demand for Monitored Data Set 9 - Rate 0		0 to ±9.999 E+09	data specific			R
41189 2	Coincident Demand for Monitored Data Set 9 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
41191 3	Timestamp for Monitored Data Set 9 - Rate 0 Peak & Coincident Demand		21st Century	1s			R
41195 2		FLOAT	0 to ±99999999	data specific			R
41197 2	Accumulator for Monitored Data Set 10 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41199 2	Peak Demand for Monitored Data Set 10 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
41201 2	Coincident Demand for Monitored Data Set 10 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
41203 3	Timestamp for Monitored Data Set 10 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
41207 2	Cumulative Demand for Monitored Data Set 10 - Rate 0	FLOAT	0 to ±99999999	data specific			R
41209 2	Accumulator for Monitored Data Set 11 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41211 2	Peak Demand for Monitored Data Set 11 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
41213 2	Coincident Demand for Monitored Data Set 11 - Rate 0	FLOAT		data specific			R
41215 3	Timestamp for Monitored Data Set 11 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
41219 2	Cumulative Demand for Monitored Data Set 11 - Rate 0	FLOAT	0 to ±99999999	data specific			R
41221 2	Accumulator for Monitored Data Set 12 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41223 2	Peak Demand for Monitored Data Set 12 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
41225 2	Coincident Demand for Monitored Data Set 12 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
41227 3	Timestamp for Monitored Data Set 12 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
41231 2	Cumulative Demand for Monitored Data Set 12 - Rate 0	FLOAT	0 to ±99999999	data specific			R
41233 2	Accumulator for Monitored Data Set 13 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41235 2	Peak Demand for Monitored Data Set 13 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
41237 2		FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
41239 3	Timestamp for Monitored Data Set 13 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1 s			R
41243 2	Cumulative Demand for Monitored Data Set 13 - Rate 0	FLOAT	0 to ±99999999	data specific			R
41245 2	Accumulator for Monitored Data Set 14 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41247 2	Peak Demand for Monitored Data Set 14 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
41249 2	Coincident Demand for Monitored Data Set 14 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
41251 3	Timestamp for Monitored Data Set 14 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
41255 2	Cumulative Demand for Monitored Data Set 14 - Rate 0	FLOAT	0 to ±99999999	data specific			R
41257 2	Accumulator for Monitored Data Set 15 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41259 2	Peak Demand for Monitored Data Set 15 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
41261 2	Coincident Demand for Monitored Data Set 15 - Rate 0	FLOAT		data specific			R
41263 3	Timestamp for Monitored Data Set 15 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
41267 2	Cumulative Demand for Monitored Data Set 15 - Rate 0	FLOAT	0 to ±99999999	data specific			R
41269 2	Accumulator for Monitored Data Set 16 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41271 2	Peak Demand for Monitored Data Set 16 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
41273 2	Coincident Demand for Monitored Data Set 16 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
41275 3	Timestamp for Monitored Data Set 16 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
41279 2	Cumulative Demand for Monitored Data Set 16 - Rate 0	FLOAT	0 to ±99999999	data specific			R



Reg# Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value Acc
Current	Month, whole month Block, Rate 1 (data accumulated over the whole month)	•				· · · · · · · · · · · · · · · · · · ·
41281 2	Accumulator for Monitored Data Set 1 - Rate 1	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
41283 2	Peak Demand for Monitored Data Set 1 - Rate 1		0 to ±9.999 E+09	data specific		R
41285 2	Coincident Demand for Monitored Data Set 1 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
41287 3	Timestamp for Monitored Data Set 1 - Rate 1 Peak & Coincident Demand		21st Century	1s		R
41291 2	Cumulative Demand for Monitored Data Set 1 - Rate 1		0 to ±99999999	data specific		R
41293 2	Accumulator for Monitored Data Set 2 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
41295 2	Peak Demand for Monitored Data Set 2 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific		R
41297 2	Coincident Demand for Monitored Data Set 2 - Rate 1		0 to ±99999999 or 0 to ±1	data specific		R
41299 3	Timestamp for Monitored Data Set 2 - Rate 1 Peak & Coincident Demand		21st Century	1 s		R
41303 2	Cumulative Demand for Monitored Data Set 2 - Rate 1		0 to ±99999999	data specific		R
41305 2	Accumulator for Monitored Data Set 3 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
41307 2	Peak Demand for Monitored Data Set 3 - Rate 1		0 to ±9.999 E+09	data specific		R
41309 2	Coincident Demand for Monitored Data Set 3 - Rate 1		0 to ±99999999 or 0 to ±1	data specific		R
41311 3	Timestamp for Monitored Data Set 3 - Rate 1 Peak & Coincident Demand		21st Century	1 s		R
41315 2	Cumulative Demand for Monitored Data Set 3 - Rate 1		0 to ±99999999	data specific		R
41317 2	Accumulator for Monitored Data Set 4 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
41319 2	Peak Demand for Monitored Data Set 4 - Rate 1		0 to ±9.999 E+09	data specific		R
41321 2	Coincident Demand for Monitored Data Set 4 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
41323 3	Timestamp for Monitored Data Set 4 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
41327 2	Cumulative Demand for Monitored Data Set 4 - Rate 1		0 to ±99999999	data specific		R
41329 2	Accumulator for Monitored Data Set 5 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
41331 2	Peak Demand for Monitored Data Set 5 - Rate 1		0 to ±9.999 E+09	data specific		R
41333 2	Coincident Demand for Monitored Data Set 5 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
41335 3	Timestamp for Monitored Data Set 5 - Rate 1 Peak & Coincident Demand		21st Century	1 s		R
41339 2	Cumulative Demand for Monitored Data Set 5 - Rate 1		0 to ±99999999	data specific		R
41341 2	Accumulator for Monitored Data Set 6 - Rate 1	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
41343 2	Peak Demand for Monitored Data Set 6 - Rate 1		0 to ±9.999 E+09	data specific		R
41345 2	Coincident Demand for Monitored Data Set 6 - Rate 1		0 to ±99999999 or 0 to ±1	data specific		R
41347 3	Timestamp for Monitored Data Set 6 - Rate 1 Peak & Coincident Demand		21st Century	1 s		R
41351 2	Cumulative Demand for Monitored Data Set 6 - Rate 1		0 to ±99999999	data specific		R
41353 2	Accumulator for Monitored Data Set 7 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
41355 2	Peak Demand for Monitored Data Set 7 - Rate 1		0 to ±9.999 E+09	data specific		R
41357 2	Coincident Demand for Monitored Data Set 7 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
41359 3	Timestamp for Monitored Data Set 7 - Rate 1 Peak & Coincident Demand		21st Century	1 s		R
41363 2	Cumulative Demand for Monitored Data Set 7 - Rate 1		0 to ±99999999	data specific		R
41365 2	Accumulator for Monitored Data Set 8 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
41367 2	Peak Demand for Monitored Data Set 8 - Rate 1		0 to ±9.999 E+09	data specific		R
41369 2	Coincident Demand for Monitored Data Set 8 - Rate 1			data specific		R
41371 3	Timestamp for Monitored Data Set 8 - Rate 1 Peak & Coincident Demand		21st Century	1 s		R
41375 2	Cumulative Demand for Monitored Data Set 8 - Rate 1	FLOAT	0 to ±99999999	data specific		R



Reg# Size Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
41377 2 Accumulator for Monitored Data Set 9 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41379 2 Peak Demand for Monitored Data Set 9 - Rate 1		0 to ±9.999 E+09	data specific			R
41381 2 Coincident Demand for Monitored Data Set 9 - Rate 1		0 to ±99999999 or 0 to ±1	data specific			R
41383 3 Timestamp for Monitored Data Set 9 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
41387 2 Cumulative Demand for Monitored Data Set 9 - Rate 1		0 to ±99999999	data specific			R
41389 2 Accumulator for Monitored Data Set 10 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41391 2 Peak Demand for Monitored Data Set 10 - Rate 1		0 to ±9.999 E+09	data specific			R
41393 2 Coincident Demand for Monitored Data Set 10 - Rate 1			data specific			R
41395 3 Timestamp for Monitored Data Set 10 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
41399 2 Cumulative Demand for Monitored Data Set 10 - Rate 1		0 to ±99999999	data specific			R
41401 2 Accumulator for Monitored Data Set 11 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41403 2 Peak Demand for Monitored Data Set 11 - Rate 1		0 to ±9.999 E+09	data specific			R
41405 2 Coincident Demand for Monitored Data Set 11 - Rate 1			data specific			R
41407 3 Timestamp for Monitored Data Set 11 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
41411 2 Cumulative Demand for Monitored Data Set 11 - Rate 1		0 to ±99999999	data specific			R
41413 2 Accumulator for Monitored Data Set 12 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41415 2 Peak Demand for Monitored Data Set 12 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific			R
41417 2 Coincident Demand for Monitored Data Set 12 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
41419 3 Timestamp for Monitored Data Set 12 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
41423 2 Cumulative Demand for Monitored Data Set 12 - Rate 1	FLOAT	0 to ±99999999	data specific			R
41425 2 Accumulator for Monitored Data Set 12 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41427 2 Peak Demand for Monitored Data Set 13 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific			R
41429 2 Coincident Demand for Monitored Data Set 13 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
41431 3 Timestamp for Monitored Data Set 13 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
41435 2 Cumulative Demand for Monitored Data Set 13 - Rate 1	FLOAT	0 to ±99999999	data specific			R
41437 2 Accumulator for Monitored Data Set 14 - Rate 1	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41439 2 Peak Demand for Monitored Data Set 14 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific			R
41441 2 Coincident Demand for Monitored Data Set 14 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
41443 3 Timestamp for Monitored Data Set 14 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
41447 2 Cumulative Demand for Monitored Data Set 14 - Rate 1	FLOAT	0 to ±99999999	data specific			R
41449 2 Accumulator for Monitored Data Set 15 - Rate 1	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41451 2 Peak Demand for Monitored Data Set 15 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific			R
41453 2 Coincident Demand for Monitored Data Set 15 - Rate 1		0 to ±99999999 or 0 to ±1	data specific			R
41455 3 Timestamp for Monitored Data Set 15 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
41459 2 Cumulative Demand for Monitored Data Set 15 - Rate 1	FLOAT	0 to ±99999999	data specific			R
41461 2 Accumulator for Monitored Data Set 16 - Rate 1	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41463 2 Peak Demand for Monitored Data Set 16 - Rate 1		0 to ±9.999 E+09	data specific			R
41465 2 Coincident Demand for Monitored Data Set 16 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
41467 3 Timestamp for Monitored Data Set 16 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
41471 2 Cumulative Demand for Monitored Data Set 16 - Rate 1	FLOAT	0 to ±99999999	data specific			R



Reg# Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value Ad	Acc
Current I	Nonth, whole month Block, Rate 2 (data accumulated over the whole month)	•					
41473 2	Accumulator for Monitored Data Set 1 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	F	R
41475 2	Peak Demand for Monitored Data Set 1 - Rate 2		0 to ±9.999 E+09	data specific		F	R
41477 2	Coincident Demand for Monitored Data Set 1 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific		F	R
41479 3	Timestamp for Monitored Data Set 1 - Rate 2 Peak & Coincident Demand		21st Century	1s		F	R
41483 2	Cumulative Demand for Monitored Data Set 1 - Rate 2		0 to ±99999999	data specific		F	R
41485 2	Accumulator for Monitored Data Set 2 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	F	R
41487 2	Peak Demand for Monitored Data Set 2 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific		F	R
41489 2	Coincident Demand for Monitored Data Set 2 - Rate 2		0 to ±99999999 or 0 to ±1	data specific		F	R
41491 3	Timestamp for Monitored Data Set 2 - Rate 2 Peak & Coincident Demand		21st Century	1 s			R
41495 2	Cumulative Demand for Monitored Data Set 2 - Rate 2		0 to ±99999999	data specific		F	R
41497 2	Accumulator for Monitored Data Set 3 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41499 2	Peak Demand for Monitored Data Set 3 - Rate 2		0 to ±9.999 E+09	data specific			R
41501 2	Coincident Demand for Monitored Data Set 3 - Rate 2		0 to ±99999999 or 0 to ±1	data specific			R
41503 3	Timestamp for Monitored Data Set 3 - Rate 2 Peak & Coincident Demand		21st Century	1 s		F	R
41507 2	Cumulative Demand for Monitored Data Set 3 - Rate 2		0 to ±99999999	data specific		F	R
41509 2	Accumulator for Monitored Data Set 4 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	F	R
41511 2	Peak Demand for Monitored Data Set 4 - Rate 2		0 to ±9.999 E+09	data specific			R
41513 2	Coincident Demand for Monitored Data Set 4 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific		F	R
41515 3	Timestamp for Monitored Data Set 4 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1 s		F	R
41519 2	Cumulative Demand for Monitored Data Set 4 - Rate 2		0 to ±99999999	data specific		F	R
41521 2	Accumulator for Monitored Data Set 5 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	F	R
41523 2	Peak Demand for Monitored Data Set 5 - Rate 2		0 to ±9.999 E+09	data specific		F	R
41525 2	Coincident Demand for Monitored Data Set 5 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific		F	R
41527 3	Timestamp for Monitored Data Set 5 - Rate 2 Peak & Coincident Demand		21st Century	1 s		F	R
41531 2	Cumulative Demand for Monitored Data Set 5 - Rate 2		0 to ±99999999	data specific		F	R
41533 2	Accumulator for Monitored Data Set 6 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	F	R
41535 2	Peak Demand for Monitored Data Set 6 - Rate 2		0 to ±9.999 E+09	data specific		F	R
41537 2	Coincident Demand for Monitored Data Set 6 - Rate 2		0 to ±99999999 or 0 to ±1	data specific		F	R
41539 3	Timestamp for Monitored Data Set 6 - Rate 2 Peak & Coincident Demand		21st Century	1s		F	R
41543 2	Cumulative Demand for Monitored Data Set 6 - Rate 2		0 to ±99999999	data specific		F	R
41545 2	Accumulator for Monitored Data Set 7 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	F	R
41547 2	Peak Demand for Monitored Data Set 7 - Rate 2		0 to ±9.999 E+09	data specific		F	R
41549 2	Coincident Demand for Monitored Data Set 7 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific		F	R
41551 3	Timestamp for Monitored Data Set 7 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1s		F	R
41555 2	Cumulative Demand for Monitored Data Set 7 - Rate 2		0 to ±99999999	data specific		A F	R
41557 2	Accumulator for Monitored Data Set 8 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	٦	R
41559 2	Peak Demand for Monitored Data Set 8 - Rate 2		0 to ±9.999 E+09	data specific		- F	R
41561 2	Coincident Demand for Monitored Data Set 8 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific		٦	R
41563 3	Timestamp for Monitored Data Set 8 - Rate 2 Peak & Coincident Demand		21st Century	1 s		A F	R
41567 2	Cumulative Demand for Monitored Data Set 8 - Rate 2	FLOAT	0 to ±99999999	data specific		F	R



	Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
	Accumulator for Monitored Data Set 9 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41571 2	Peak Demand for Monitored Data Set 9 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific			R
41573 2	Coincident Demand for Monitored Data Set 9 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
41575 3	Timestamp for Monitored Data Set 9 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1 s			R
41579 2	Cumulative Demand for Monitored Data Set 9 - Rate 2	FLOAT	0 to ±99999999	data specific			R
41581 2	Accumulator for Monitored Data Set 10 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41583 2	Peak Demand for Monitored Data Set 10 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific			R
				data specific			R
41587 3	Timestamp for Monitored Data Set 10 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
41591 2	Cumulative Demand for Monitored Data Set 10 - Rate 2	FLOAT	0 to ±99999999	data specific			R
	Accumulator for Monitored Data Set 11 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41595 2	Peak Demand for Monitored Data Set 11 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific			R
41597 2	Coincident Demand for Monitored Data Set 11 - Rate 2	FLOAT		data specific			R
41599 3	Timestamp for Monitored Data Set 11 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
41603 2	Cumulative Demand for Monitored Data Set 11 - Rate 2	FLOAT	0 to ±99999999	data specific			R
41605 2	Accumulator for Monitored Data Set 12 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41607 2	Peak Demand for Monitored Data Set 12 - Rate 2		0 to ±9.999 E+09	data specific			R
41609 2	Coincident Demand for Monitored Data Set 12 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
41611 3	Timestamp for Monitored Data Set 12 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
41615 2	Cumulative Demand for Monitored Data Set 12 - Rate 2	FLOAT	0 to ±99999999	data specific			R
41617 2	Accumulator for Monitored Data Set 12 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41619 2	Peak Demand for Monitored Data Set 13 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific			R
41621 2		FLOAT		data specific			R
41623 3	Timestamp for Monitored Data Set 13 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
41627 2	Cumulative Demand for Monitored Data Set 13 - Rate 2	FLOAT	0 to ±99999999	data specific			R
41629 2	Accumulator for Monitored Data Set 14 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41631 2	Peak Demand for Monitored Data Set 14 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific			R
41633 2	Coincident Demand for Monitored Data Set 14 - Rate 2	FLOAT		data specific			R
	Timestamp for Monitored Data Set 14 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
41639 2	Cumulative Demand for Monitored Data Set 14 - Rate 2	FLOAT	0 to ±99999999	data specific			R
	Accumulator for Monitored Data Set 15 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
	Peak Demand for Monitored Data Set 15 - Rate 2		0 to ±9.999 E+09	data specific			R
	Coincident Demand for Monitored Data Set 15 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
	Timestamp for Monitored Data Set 15 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1 s			R
41651 2		FLOAT	0 to ±99999999	data specific			R
41653 2	Accumulator for Monitored Data Set 16 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41655 2	Peak Demand for Monitored Data Set 16 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific			R
41657 2	Coincident Demand for Monitored Data Set 16 - Rate 2	FLOAT		data specific			R
41659 3	Timestamp for Monitored Data Set 16 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
41663 2	Cumulative Demand for Monitored Data Set 16 - Rate 2	FLOAT	0 to ±99999999	data specific			R



Reg# Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value Acc
	Month, whole month Block, Rate 3 (data accumulated over the whole month)					
41665 2	Accumulator for Monitored Data Set 1 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
41667 2	Peak Demand for Monitored Data Set 1 - Rate 3		0 to ±9.999 E+09	data specific		R
41669 2	Coincident Demand for Monitored Data Set 1 - Rate 3		0 to ±99999999 or 0 to ±1	data specific		R
41671 3	Timestamp for Monitored Data Set 1 - Rate 3 Peak & Coincident Demand		21st Century	1 s		R
41675 2	Cumulative Demand for Monitored Data Set 1 - Rate 3		0 to ±99999999	data specific		R
41677 2	Accumulator for Monitored Data Set 2 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
41679 2	Peak Demand for Monitored Data Set 2 - Rate 3		0 to ±9.999 E+09	data specific		R
41681 2	Coincident Demand for Monitored Data Set 2 - Rate 3		0 to ±99999999 or 0 to ±1	data specific		R
41683 3	Timestamp for Monitored Data Set 2 - Rate 3 Peak & Coincident Demand		21st Century	1s		R
41687 2	Cumulative Demand for Monitored Data Set 2 - Rate 3		0 to ±99999999	data specific		R
41689 2	Accumulator for Monitored Data Set 3 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
41691 2	Peak Demand for Monitored Data Set 3 - Rate 3		0 to ±9.999 E+09	data specific		R
41693 2	Coincident Demand for Monitored Data Set 3 - Rate 3		0 to ±99999999 or 0 to ±1	data specific		R
41695 3	Timestamp for Monitored Data Set 3 - Rate 3 Peak & Coincident Demand		21st Century	1 s		R
41699 2	Cumulative Demand for Monitored Data Set 3 - Rate 3		0 to ±99999999	data specific		R
41701 2	Accumulator for Monitored Data Set 4 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
41703 2	Peak Demand for Monitored Data Set 4 - Rate 3		0 to ±9.999 E+09	data specific		R
41705 2	Coincident Demand for Monitored Data Set 4 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
41707 3	Timestamp for Monitored Data Set 4 - Rate 3 Peak & Coincident Demand		21st Century	1 s		R
41711 2	Cumulative Demand for Monitored Data Set 4 - Rate 3		0 to ±99999999	data specific		R
41713 2	Accumulator for Monitored Data Set 5 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
41715 2	Peak Demand for Monitored Data Set 5 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific		R
41717 2	Coincident Demand for Monitored Data Set 5 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
41719 3	Timestamp for Monitored Data Set 5 - Rate 3 Peak & Coincident Demand		21st Century	1 s		R
41723 2	Cumulative Demand for Monitored Data Set 5 - Rate 3		0 to ±99999999	data specific		R
41725 2	Accumulator for Monitored Data Set 6 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
41727 2	Peak Demand for Monitored Data Set 6 - Rate 3		0 to ±9.999 E+09	data specific		R
41729 2	Coincident Demand for Monitored Data Set 6 - Rate 3		0 to ±99999999 or 0 to ±1	data specific		R
41731 3	Timestamp for Monitored Data Set 6 - Rate 3 Peak & Coincident Demand		21st Century	1s		R
41735 2	Cumulative Demand for Monitored Data Set 6 - Rate 3		0 to ±99999999	data specific		R
41737 2	Accumulator for Monitored Data Set 7 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
41739 2	Peak Demand for Monitored Data Set 7 - Rate 3		0 to ±9.999 E+09	data specific		R
41741 2	Coincident Demand for Monitored Data Set 7 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
41743 3	Timestamp for Monitored Data Set 7 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
41747 2	Cumulative Demand for Monitored Data Set 7 - Rate 3		0 to ±99999999	data specific		R
41749 2	Accumulator for Monitored Data Set 8 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
41751 2	Peak Demand for Monitored Data Set 8 - Rate 3		0 to ±9.999 E+09	data specific		R
41753 2	Coincident Demand for Monitored Data Set 8 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
41755 3	Timestamp for Monitored Data Set 8 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
41759 2	Cumulative Demand for Monitored Data Set 8 - Rate 3	FLOAT	0 to ±99999999	data specific		R



Reg# Si		Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
41761				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41763				0 to ±9.999 E+09	data specific			R
11100			FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
41767				21st Century	1s			R
41771			FLOAT	0 to ±99999999	data specific			R
41773			SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41775			FLOAT	0 to ±9.999 E+09	data specific			R
41777			FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
41779			TSTAMP	21st Century	1s			R
41783			FLOAT	0 to ±99999999	data specific			R
41785			SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41787			FLOAT	0 to ±9.999 E+09	data specific			R
41789			FLOAT		data specific			R
41791	3	Fimestamp for Monitored Data Set 11 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
41795	2	Cumulative Demand for Monitored Data Set 11 - Rate 3	FLOAT	0 to ±99999999	data specific			R
41797	2	Accumulator for Monitored Data Set 12 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41799	2	Peak Demand for Monitored Data Set 12 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific			R
41801	2	Coincident Demand for Monitored Data Set 12 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
41803	3	Fimestamp for Monitored Data Set 12 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1 s			R
41807	2	Cumulative Demand for Monitored Data Set 12 - Rate 3	FLOAT	0 to ±99999999	data specific			R
41809			SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41811	2	Peak Demand for Monitored Data Set 13 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific			R
41813	2	Coincident Demand for Monitored Data Set 13 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
41815	3	Fimestamp for Monitored Data Set 13 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
41819	2	Cumulative Demand for Monitored Data Set 13 - Rate 3	FLOAT	0 to ±99999999	data specific			R
41821	2	Accumulator for Monitored Data Set 14 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41823	2	Peak Demand for Monitored Data Set 14 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific			R
41825	2	Coincident Demand for Monitored Data Set 14 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
41827	3	Fimestamp for Monitored Data Set 14 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
41831	2	Cumulative Demand for Monitored Data Set 14 - Rate 3	FLOAT	0 to ±99999999	data specific			R
41833	2	Accumulator for Monitored Data Set 15 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41835	2	Peak Demand for Monitored Data Set 15 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific			R
41837	2	Coincident Demand for Monitored Data Set 15 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
41839	3	Fimestamp for Monitored Data Set 15 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
41045			FLOAT	0 to ±99999999	data specific			R
41845			SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41847			FLOAT	0 to ±9.999 E+09	data specific			R
41849			FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
41851		Fimestamp for Monitored Data Set 16 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
41855	2	Cumulative Demand for Monitored Data Set 16 - Rate 3	FLOAT	0 to ±99999999	data specific			R



Reg# Size Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value
Current Month, whole month Block, Rate 4 (data accumulated over the whole month)			•		
41857 2 Accumulator for Monitored Data Set 1 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
41859 2 Peak Demand for Monitored Data Set 1 - Rate 4		0 to ±9.999 E+09	data specific		R
41861 2 Coincident Demand for Monitored Data Set 1 - Rate 4	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
41863 3 Timestamp for Monitored Data Set 1 - Rate 4 Peak & Coincident Demand		21st Century	1s		R
41867 2 Cumulative Demand for Monitored Data Set 1 - Rate 4	FLOAT	0 to ±99999999	data specific		R
41869 2 Accumulator for Monitored Data Set 2 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
41871 2 Peak Demand for Monitored Data Set 2 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific		R
41873 2 Coincident Demand for Monitored Data Set 2 - Rate 4		0 to ±99999999 or 0 to ±1	data specific		R
41875 3 Timestamp for Monitored Data Set 2 - Rate 4 Peak & Coincident Demand		21st Century	1 s		R
41879 2 Cumulative Demand for Monitored Data Set 2 - Rate 4		0 to ±99999999	data specific		R
41881 2 Accumulator for Monitored Data Set 3 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
41883 2 Peak Demand for Monitored Data Set 3 - Rate 4		0 to ±9.999 E+09	data specific		R
41885 2 Coincident Demand for Monitored Data Set 3 - Rate 4		0 to ±99999999 or 0 to ±1	data specific		R
41887 3 Timestamp for Monitored Data Set 3 - Rate 4 Peak & Coincident Demand		21st Century	1s		R
41891 2 Cumulative Demand for Monitored Data Set 3 - Rate 4		0 to ±99999999	data specific		R
41893 2 Accumulator for Monitored Data Set 4 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
41895 2 Peak Demand for Monitored Data Set 4 - Rate 4		0 to ±9.999 E+09	data specific		R
41897 2 Coincident Demand for Monitored Data Set 4 - Rate 4		0 to ±99999999 or 0 to ±1	data specific		R
41899 3 Timestamp for Monitored Data Set 4 - Rate 4 Peak & Coincident Demand		21st Century	1s		R
41903 2 Cumulative Demand for Monitored Data Set 4 - Rate 4		0 to ±99999999	data specific		R
41905 2 Accumulator for Monitored Data Set 5 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
41907 2 Peak Demand for Monitored Data Set 5 - Rate 4		0 to ±9.999 E+09	data specific		R
41909 2 Coincident Demand for Monitored Data Set 5 - Rate 4		0 to ±99999999 or 0 to ±1	data specific		R
41911 3 Timestamp for Monitored Data Set 5 - Rate 4 Peak & Coincident Demand		21st Century	1s		R
41915 2 Cumulative Demand for Monitored Data Set 5 - Rate 4		0 to ±99999999	data specific		R
41917 2 Accumulator for Monitored Data Set 6 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
41919 2 Peak Demand for Monitored Data Set 6 - Rate 4		0 to ±9.999 E+09	data specific		R
41921 2 Coincident Demand for Monitored Data Set 6 - Rate 4		0 to ±99999999 or 0 to ±1	data specific		R
41923 3 Timestamp for Monitored Data Set 6 - Rate 4 Peak & Coincident Demand		21st Century	1s		R
41927 2 Cumulative Demand for Monitored Data Set 6 - Rate 4		0 to ±99999999	data specific		R
41929 2 Accumulator for Monitored Data Set 7 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
41931 2 Peak Demand for Monitored Data Set 7 - Rate 4		0 to ±9.999 E+09	data specific		R
41933 2 Coincident Demand for Monitored Data Set 7 - Rate 4		0 to ±99999999 or 0 to ±1	data specific		R
41935 3 Timestamp for Monitored Data Set 7 - Rate 4 Peak & Coincident Demand		21st Century	1 s		R
41939 2 Cumulative Demand for Monitored Data Set 7 - Rate 4		0 to ±99999999	data specific		R
41941 2 Accumulator for Monitored Data Set 8 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
41943 2 Peak Demand for Monitored Data Set 8 - Rate 4		0 to ±9.999 E+09	data specific		R
41945 2 Coincident Demand for Monitored Data Set 8 - Rate 4			data specific		R
41947 3 Timestamp for Monitored Data Set 8 - Rate 4 Peak & Coincident Demand		21st Century	1s		R
41951 2 Cumulative Demand for Monitored Data Set 8 - Rate 4	FLOAT	0 to ±99999999	data specific		R



	e Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
41953 2	Accumulator for Monitored Data Set 9 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41955 2	Peak Demand for Monitored Data Set 9 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific			R
41957 2	Coincident Demand for Monitored Data Set 9 - Rate 4	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
41959 3	Timestamp for Monitored Data Set 9 - Rate 4 Peak & Coincident Demand	TSTAMP	21st Century	1 s			R
41963 2	Cumulative Demand for Monitored Data Set 9 - Rate 4	FLOAT	0 to ±99999999	data specific			R
41965 2	Accumulator for Monitored Data Set 10 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41967 2	Peak Demand for Monitored Data Set 10 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific			R
41969 2				data specific			R
41971 3	Thirdestamp for monitored Bata oot for that a formation both and	TSTAMP	21st Century	1s			R
41975 2	Cumulative Demand for Monitored Data Set 10 - Rate 4	FLOAT	0 to ±99999999	data specific			R
41977 2			0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41979 2	Peak Demand for Monitored Data Set 11 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific			R
41981 2	Coincident Demand for Monitored Data Set 11 - Rate 4	FLOAT		data specific			R
41983 3			21st Century	1s			R
41987 2	Cumulative Demand for Monitored Data Set 11 - Rate 4	FLOAT	0 to ±99999999	data specific			R
41989 2	Accumulator for Monitored Data Set 12 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
41991 2	Peak Demand for Monitored Data Set 12 - Rate 4		0 to ±9.999 E+09	data specific			R
41993 2	Coincident Demand for Monitored Data Set 12 - Rate 4	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
41995 3	Timestamp for Monitored Data Set 12 - Rate 4 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
41999 2	Cumulative Demand for Monitored Data Set 12 - Rate 4	FLOAT	0 to ±99999999	data specific			R
42001 2	Accumulator for Monitored Data Set 12 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42003 2	Peak Demand for Monitored Data Set 13 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific			R
42005 2				data specific			R
42007 3	Timestamp for Monitored Data Set 13 - Rate 4 Peak & Coincident Demand	TSTAMP	21st Century	1 s			R
42011 2	Cumulative Demand for Monitored Data Set 13 - Rate 4	FLOAT	0 to ±99999999	data specific			R
42013 2	Accumulator for Monitored Data Set 14 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42015 2	Peak Demand for Monitored Data Set 14 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific			R
42017 2	Coincident Demand for Monitored Data Set 14 - Rate 4	FLOAT		data specific			R
42019 3			21st Century	1s			R
42023 2	Cumulative Demand for Monitored Data Set 14 - Rate 4	FLOAT	0 to ±99999999	data specific			R
42025 2	Accumulator for Monitored Data Set 15 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42027 2			0 to ±9.999 E+09	data specific			R
42029 2	Coincident Demand for Monitored Data Set 15 - Rate 4	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
42031 3		TSTAMP	21st Century	1s			R
42035 2		FLOAT	0 to ±99999999	data specific			R
42037 2	Accumulator for Monitored Data Set 16 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42039 2	Peak Demand for Monitored Data Set 16 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific			R
42041 2	Coincident Demand for Monitored Data Set 16 - Rate 4	FLOAT		data specific			R
42043 3	Timestamp for Monitored Data Set 16 - Rate 4 Peak & Coincident Demand	TSTAMP	21st Century	1 s			R
42047 2	Cumulative Demand for Monitored Data Set 16 - Rate 4	FLOAT	0 to ±99999999	data specific			R



Reg# Size Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value Acc
Current Month, initial season Block, Rate 0 - Total (data accumulated before a mid-month					
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
			data specific		R
42055 3 Timestamp for Monitored Data Set 1 - Rate 0 Peak & Coincident Demand		21st Century	1s		R
		0 to ±99999999	data specific		R
42061 2 Accumulator for Monitored Data Set 2 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
		0 to ±99999999 or 0 to ±1	data specific		R
42067 3 Timestamp for Monitored Data Set 2 - Rate 0 Peak & Coincident Demand		21st Century	1s		R
42071 2 Cumulative Demand for Monitored Data Set 2 - Rate 0		0 to ±99999999	data specific		R
42073 2 Accumulator for Monitored Data Set 3 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42075 2 Peak Demand for Monitored Data Set 3 - Rate 0		0 to ±9.999 E+09	data specific		R
		0 to ±99999999 or 0 to ±1	data specific		R
42079 3 Timestamp for Monitored Data Set 3 - Rate 0 Peak & Coincident Demand		21st Century	1s		R
		0 to ±99999999	data specific		R
42085 2 Accumulator for Monitored Data Set 4 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42087 2 Peak Demand for Monitored Data Set 4 - Rate 0		0 to ±9.999 E+09	data specific		R
		0 to ±99999999 or 0 to ±1	data specific		R
42091 3 Timestamp for Monitored Data Set 4 - Rate 0 Peak & Coincident Demand		21st Century	1s		R
		0 to ±99999999	data specific		R
42097 2 Accumulator for Monitored Data Set 5 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
		0 to ±99999999 or 0 to ±1	data specific		R
42103 3 Timestamp for Monitored Data Set 5 - Rate 0 Peak & Coincident Demand		21st Century	1s		R
		0 to ±99999999	data specific		R
42109 2 Accumulator for Monitored Data Set 6 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
		0 to ±99999999 or 0 to ±1	data specific		R
42115 3 Timestamp for Monitored Data Set 6 - Rate 0 Peak & Coincident Demand		21st Century	1s		R
		0 to ±99999999	data specific		R
42121 2 Accumulator for Monitored Data Set 7 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
		0 to ±99999999 or 0 to ±1	data specific		R
42127 3 Timestamp for Monitored Data Set 7 - Rate 0 Peak & Coincident Demand		21st Century	1s		R
		0 to ±99999999	data specific		R
42133 2 Accumulator for Monitored Data Set 8 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
			data specific		R
42139 3 Timestamp for Monitored Data Set 8 - Rate 0 Peak & Coincident Demand		21st Century	1s		R
42143 2 Cumulative Demand for Monitored Data Set 8 - Rate 0	FLOAT	0 to ±99999999	data specific		R



Reg# Size Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
42145 2 Accumulator for Monitored Data Set 9 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42147 2 Peak Demand for Monitored Data Set 9 - Rate 0		0 to ±9.999 E+09	data specific			R
42149 2 Coincident Demand for Monitored Data Set 9 - Rate 0		0 to ±99999999 or 0 to ±1	data specific			R
42151 3 Timestamp for Monitored Data Set 9 - Rate 0 Peak & Coincident Demand		21st Century	1s			R
42155 2 Cumulative Demand for Monitored Data Set 9 - Rate 0		0 to ±99999999	data specific			R
42157 2 Accumulator for Monitored Data Set 10 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42159 2 Peak Demand for Monitored Data Set 10 - Rate 0		0 to ±9.999 E+09	data specific			R
42161 2 Coincident Demand for Monitored Data Set 10 - Rate 0			data specific			R
42163 3 Timestamp for Monitored Data Set 10 - Rate 0 Peak & Coincident Demand		21st Century	1s			R
42167 2 Cumulative Demand for Monitored Data Set 10 - Rate 0		0 to ±99999999	data specific			R
42169 2 Accumulator for Monitored Data Set 11 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42171 2 Peak Demand for Monitored Data Set 11 - Rate 0		0 to ±9.999 E+09	data specific			R
42173 2 Coincident Demand for Monitored Data Set 11 - Rate 0			data specific			R
42175 3 Timestamp for Monitored Data Set 11 - Rate 0 Peak & Coincident Demand		21st Century	1s			R
42179 2 Cumulative Demand for Monitored Data Set 11 - Rate 0		0 to ±99999999	data specific			R
42181 2 Accumulator for Monitored Data Set 12 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42183 2 Peak Demand for Monitored Data Set 12 - Rate 0		0 to ±9.999 E+09	data specific			R
42185 2 Coincident Demand for Monitored Data Set 12 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
42187 3 Timestamp for Monitored Data Set 12 - Rate 0 Peak & Coincident Demand		21st Century	1s			R
42191 2 Cumulative Demand for Monitored Data Set 12 - Rate 0	FLOAT	0 to ±99999999	data specific			R
42193 2 Accumulator for Monitored Data Set 12 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42195 2 Peak Demand for Monitored Data Set 13 - Rate 0		0 to ±9.999 E+09	data specific			R
42197 2 Coincident Demand for Monitored Data Set 13 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
42199 3 Timestamp for Monitored Data Set 13 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
42203 2 Cumulative Demand for Monitored Data Set 13 - Rate 0	FLOAT	0 to ±99999999	data specific			R
42205 2 Accumulator for Monitored Data Set 14 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42207 2 Peak Demand for Monitored Data Set 14 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
42209 2 Coincident Demand for Monitored Data Set 14 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
42211 3 Timestamp for Monitored Data Set 14 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
42215 2 Cumulative Demand for Monitored Data Set 14 - Rate 0	FLOAT	0 to ±99999999	data specific			R
42217 2 Accumulator for Monitored Data Set 15 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42219 2 Peak Demand for Monitored Data Set 15 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
42221 2 Coincident Demand for Monitored Data Set 15 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
42223 3 Timestamp for Monitored Data Set 15 - Rate 0 Peak & Coincident Demand		21st Century	1s			R
42227 2 Cumulative Demand for Monitored Data Set 15 - Rate 0		0 to ±99999999	data specific			R
42229 2 Accumulator for Monitored Data Set 16 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42231 2 Peak Demand for Monitored Data Set 16 - Rate 0		0 to ±9.999 E+09	data specific			R
42233 2 Coincident Demand for Monitored Data Set 16 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
42235 3 Timestamp for Monitored Data Set 16 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
42239 2 Cumulative Demand for Monitored Data Set 16 - Rate 0	FLOAT	0 to ±99999999	data specific			R



	Description		Value Range	Unit of measure or resolution	Comments	Factory default value Acc
Current I	Nonth, initial season Block, Rate 1 (data accumulated before a mid-month seaso					
42241 2			0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42243 2			0 to ±9.999 E+09	data specific		R
42245 2	Coincident Demand for Monitored Data Set 1 - Rate 1	FLOAT		data specific		R
42247 3	Timestamp for Monitored Data Set 1 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
42251 2	Cumulative Demand for Monitored Data Set 1 - Rate 1	FLOAT	0 to ±99999999	data specific		R
42253 2	Accumulator for Monitored Data Set 2 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42255 2	Peak Demand for Monitored Data Set 2 - Rate 1		0 to ±9.999 E+09	data specific		R
42257 2	Coincident Demand for Monitored Data Set 2 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
42259 3	Timestamp for Monitored Data Set 2 - Rate 1 Peak & Coincident Demand		21st Century	1s		R
42263 2	Cumulative Demand for Monitored Data Set 2 - Rate 1	FLOAT	0 to ±99999999	data specific		R
42265 2	Accumulator for Monitored Data Set 3 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42267 2	Peak Demand for Monitored Data Set 3 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific		R
42269 2	Coincident Demand for Monitored Data Set 3 - Rate 1	FLOAT		data specific		R
42271 3	Timestamp for Monitored Data Set 3 - Rate 1 Peak & Coincident Demand		21st Century	1s		R
42275 2	Cumulative Demand for Monitored Data Set 3 - Rate 1	FLOAT	0 to ±99999999	data specific		R
42277 2	Accumulator for Monitored Data Set 4 - Rate 1	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42279 2	Peak Demand for Monitored Data Set 4 - Rate 1		0 to ±9.999 E+09	data specific		R
42281 2	Coincident Demand for Monitored Data Set 4 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
42283 3	Timestamp for Monitored Data Set 4 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
42287 2	Cumulative Demand for Monitored Data Set 4 - Rate 1	FLOAT	0 to ±99999999	data specific		R
42289 2	Accumulator for Monitored Data Set 5 - Rate 1	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42291 2	Peak Demand for Monitored Data Set 5 - Rate 1		0 to ±9.999 E+09	data specific		R
42293 2	Coincident Demand for Monitored Data Set 5 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
42295 3	Timestamp for Monitored Data Set 5 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
42299 2		FLOAT	0 to ±99999999	data specific		R
42301 2	Accumulator for Monitored Data Set 6 - Rate 1	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42303 2	Peak Demand for Monitored Data Set 6 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific		R
42305 2	Coincident Demand for Monitored Data Set 6 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
42307 3	Timestamp for Monitored Data Set 6 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
42311 2	Cumulative Demand for Monitored Data Set 6 - Rate 1	FLOAT	0 to ±99999999	data specific		R
42313 2	Accumulator for Monitored Data Set 7 - Rate 1	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42315 2	Peak Demand for Monitored Data Set 7 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific		R
42317 2		FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
42319 3	Timestamp for Monitored Data Set 7 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
42323 2	Cumulative Demand for Monitored Data Set 7 - Rate 1	FLOAT	0 to ±99999999	data specific		R
42325 2	Accumulator for Monitored Data Set 8 - Rate 1	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42327 2	Peak Demand for Monitored Data Set 8 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific		R
42329 2	Coincident Demand for Monitored Data Set 8 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
42331 3	Timestamp for Monitored Data Set 8 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
42335 2	Cumulative Demand for Monitored Data Set 8 - Rate 1	FLOAT	0 to ±99999999	data specific		R



Reg# Size Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
42337 2 Accumulator for Monitored Data Set 9 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42339 2 Peak Demand for Monitored Data Set 9 - Rate 1		0 to ±9.999 E+09	data specific			R
42341 2 Coincident Demand for Monitored Data Set 9 - Rate 1		0 to ±99999999 or 0 to ±1	data specific			R
42343 3 Timestamp for Monitored Data Set 9 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
42347 2 Cumulative Demand for Monitored Data Set 9 - Rate 1		0 to ±99999999	data specific			R
42349 2 Accumulator for Monitored Data Set 10 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42351 2 Peak Demand for Monitored Data Set 10 - Rate 1		0 to ±9.999 E+09	data specific			R
42353 2 Coincident Demand for Monitored Data Set 10 - Rate 1			data specific			R
42355 3 Timestamp for Monitored Data Set 10 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
42359 2 Cumulative Demand for Monitored Data Set 10 - Rate 1		0 to ±99999999	data specific			R
42361 2 Accumulator for Monitored Data Set 11 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42363 2 Peak Demand for Monitored Data Set 11 - Rate 1		0 to ±9.999 E+09	data specific			R
42365 2 Coincident Demand for Monitored Data Set 11 - Rate 1			data specific			R
42367 3 Timestamp for Monitored Data Set 11 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
42371 2 Cumulative Demand for Monitored Data Set 11 - Rate 1		0 to ±99999999	data specific			R
42373 2 Accumulator for Monitored Data Set 12 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42375 2 Peak Demand for Monitored Data Set 12 - Rate 1		0 to ±9.999 E+09	data specific			R
42377 2 Coincident Demand for Monitored Data Set 12 - Rate 1		0 to ±99999999 or 0 to ±1	data specific			R
42379 3 Timestamp for Monitored Data Set 12 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
42383 2 Cumulative Demand for Monitored Data Set 12 - Rate 1		0 to ±99999999	data specific			R
42385 2 Accumulator for Monitored Data Set 12 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42387 2 Peak Demand for Monitored Data Set 13 - Rate 1		0 to ±9.999 E+09	data specific			R
42389 2 Coincident Demand for Monitored Data Set 13 - Rate 1			data specific			R
42391 3 Timestamp for Monitored Data Set 13 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
42395 2 Cumulative Demand for Monitored Data Set 13 - Rate 1		0 to ±99999999	data specific			R
42397 2 Accumulator for Monitored Data Set 14 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42399 2 Peak Demand for Monitored Data Set 14 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific			R
42401 2 Coincident Demand for Monitored Data Set 14 - Rate 1		0 to ±99999999 or 0 to ±1	data specific			R
42403 3 Timestamp for Monitored Data Set 14 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
42407 2 Cumulative Demand for Monitored Data Set 14 - Rate 1		0 to ±99999999	data specific			R
42409 2 Accumulator for Monitored Data Set 15 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42411 2 Peak Demand for Monitored Data Set 15 - Rate 1		0 to ±9.999 E+09	data specific			R
42413 2 Coincident Demand for Monitored Data Set 15 - Rate 1		0 to ±99999999 or 0 to ±1	data specific			R
42415 3 Timestamp for Monitored Data Set 15 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
42419 2 Cumulative Demand for Monitored Data Set 15 - Rate 1		0 to ±99999999	data specific			R
42421 2 Accumulator for Monitored Data Set 16 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42423 2 Peak Demand for Monitored Data Set 16 - Rate 1		0 to ±9.999 E+09	data specific			R
42425 2 Coincident Demand for Monitored Data Set 16 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
42427 3 Timestamp for Monitored Data Set 16 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
42431 2 Cumulative Demand for Monitored Data Set 16 - Rate 1	FLOAT	0 to ±99999999	data specific			R



Reg# Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value Acc
Current I	Nonth, initial season Block, Rate 2 (data accumulated before a mid-month seaso					
42433 2			0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42435 2		FLOAT	0 to ±9.999 E+09	data specific		R
42437 2	Coincident Demand for Monitored Data Set 1 - Rate 2	FLOAT		data specific		R
42439 3	Timestamp for Monitored Data Set 1 - Rate 2 Peak & Coincident Demand		21st Century	1s		R
42443 2	Cumulative Demand for Monitored Data Set 1 - Rate 2	FLOAT	0 to ±99999999	data specific		R
42445 2	Accumulator for Monitored Data Set 2 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42447 2	Peak Demand for Monitored Data Set 2 - Rate 2		0 to ±9.999 E+09	data specific		R
42449 2	Coincident Demand for Monitored Data Set 2 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
42451 3	Timestamp for Monitored Data Set 2 - Rate 2 Peak & Coincident Demand		21st Century	1s		R
42455 2	Cumulative Demand for Monitored Data Set 2 - Rate 2	FLOAT	0 to ±99999999	data specific		R
42457 2	Accumulator for Monitored Data Set 3 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42459 2	Peak Demand for Monitored Data Set 3 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific		R
42461 2	Coincident Demand for Monitored Data Set 3 - Rate 2	FLOAT		data specific		R
42463 3	Timestamp for Monitored Data Set 3 - Rate 2 Peak & Coincident Demand		21st Century	1s		R
42467 2	Cumulative Demand for Monitored Data Set 3 - Rate 2	FLOAT	0 to ±99999999	data specific		R
42469 2	Accumulator for Monitored Data Set 4 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42471 2	Peak Demand for Monitored Data Set 4 - Rate 2		0 to ±9.999 E+09	data specific		R
42473 2	Coincident Demand for Monitored Data Set 4 - Rate 2	FLOAT		data specific		R
42475 3	Timestamp for Monitored Data Set 4 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
42479 2	Cumulative Demand for Monitored Data Set 4 - Rate 2	FLOAT	0 to ±99999999	data specific		R
42481 2	Accumulator for Monitored Data Set 5 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42483 2	Peak Demand for Monitored Data Set 5 - Rate 2		0 to ±9.999 E+09	data specific		R
42485 2	Coincident Demand for Monitored Data Set 5 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
42487 3	Timestamp for Monitored Data Set 5 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
42491 2		FLOAT	0 to ±99999999	data specific		R
42493 2	Accumulator for Monitored Data Set 6 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42495 2	Peak Demand for Monitored Data Set 6 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific		R
42497 2	Coincident Demand for Monitored Data Set 6 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
42499 3	Timestamp for Monitored Data Set 6 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
42503 2	Cumulative Demand for Monitored Data Set 6 - Rate 2	FLOAT	0 to ±99999999	data specific		R
42505 2	Accumulator for Monitored Data Set 7 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42507 2	Peak Demand for Monitored Data Set 7 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific		R
42509 2		FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
42511 3	Timestamp for Monitored Data Set 7 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
42515 2	Cumulative Demand for Monitored Data Set 7 - Rate 2	FLOAT	0 to ±99999999	data specific		R
42517 2	Accumulator for Monitored Data Set 8 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42519 2	Peak Demand for Monitored Data Set 8 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific		R
42521 2	Coincident Demand for Monitored Data Set 8 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
42523 3	Timestamp for Monitored Data Set 8 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
42527 2	Cumulative Demand for Monitored Data Set 8 - Rate 2	FLOAT	0 to ±99999999	data specific		R



Reg# Size			Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
	Accumulator for Monitored Data Set 9 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42531 2	Peak Demand for Monitored Data Set 9 - Rate 2		0 to ±9.999 E+09	data specific			R
42533 2	Coincident Demand for Monitored Data Set 9 - Rate 2		0 to ±99999999 or 0 to ±1	data specific			R
42535 3	Timestamp for Monitored Data Set 9 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
42539 2	Cumulative Demand for Monitored Data Set 9 - Rate 2		0 to ±99999999	data specific			R
42541 2	Accumulator for Monitored Data Set 10 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42543 2	Peak Demand for Monitored Data Set 10 - Rate 2		0 to ±9.999 E+09	data specific			R
42545 2	Coincident Demand for Monitored Data Set 10 - Rate 2			data specific			R
42547 3	Timestamp for Monitored Data Set 10 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
42551 2	Cumulative Demand for Monitored Data Set 10 - Rate 2		0 to ±99999999	data specific			R
42553 2	Accumulator for Monitored Data Set 11 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42555 2	Peak Demand for Monitored Data Set 11 - Rate 2		0 to ±9.999 E+09	data specific			R
42557 2	Coincident Demand for Monitored Data Set 11 - Rate 2			data specific			R
42559 3	Timestamp for Monitored Data Set 11 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
42563 2	Cumulative Demand for Monitored Data Set 11 - Rate 2		0 to ±99999999	data specific			R
42565 2	Accumulator for Monitored Data Set 12 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42567 2	Peak Demand for Monitored Data Set 12 - Rate 2		0 to ±9.999 E+09	data specific			R
42569 2	Coincident Demand for Monitored Data Set 12 - Rate 2		0 to ±99999999 or 0 to ±1	data specific			R
42571 3	Timestamp for Monitored Data Set 12 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
42575 2	Cumulative Demand for Monitored Data Set 12 - Rate 2		0 to ±99999999	data specific			R
42577 2	Accumulator for Monitored Data Set 12 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42579 2	Peak Demand for Monitored Data Set 13 - Rate 2		0 to ±9.999 E+09	data specific			R
42581 2	Coincident Demand for Monitored Data Set 13 - Rate 2			data specific			R
42583 3	Timestamp for Monitored Data Set 13 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
42587 2	Cumulative Demand for Monitored Data Set 13 - Rate 2		0 to ±99999999	data specific			R
42589 2	Accumulator for Monitored Data Set 14 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42591 2	Peak Demand for Monitored Data Set 14 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific			R
42593 2	Coincident Demand for Monitored Data Set 14 - Rate 2		0 to ±99999999 or 0 to ±1	data specific			R
42595 3	Timestamp for Monitored Data Set 14 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
42599 2	Cumulative Demand for Monitored Data Set 14 - Rate 2		0 to ±99999999	data specific			R
42601 2	Accumulator for Monitored Data Set 15 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42603 2	Peak Demand for Monitored Data Set 15 - Rate 2		0 to ±9.999 E+09	data specific			R
42605 2	Coincident Demand for Monitored Data Set 15 - Rate 2		0 to ±99999999 or 0 to ±1	data specific			R
42607 3	Timestamp for Monitored Data Set 15 - Rate 2 Peak & Coincident Demand		21st Century	1 s			R
42611 2	Cumulative Demand for Monitored Data Set 15 - Rate 2		0 to ±99999999	data specific			R
42613 2	Accumulator for Monitored Data Set 16 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42615 2	Peak Demand for Monitored Data Set 16 - Rate 2		0 to ±9.999 E+09	data specific			R
42617 2	Coincident Demand for Monitored Data Set 16 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
42619 3	Timestamp for Monitored Data Set 16 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
42623 2	Cumulative Demand for Monitored Data Set 16 - Rate 2	FLOAT	0 to ±99999999	data specific			R



	Description		Value Range	Unit of measure or resolution	Comments	Factory default value Acc
	Ionth, initial season Block, Rate 3 (data accumulated before a mid-month seaso					
			0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42627 2		FLOAT	0 to ±9.999 E+09	data specific		R
42629 2	Coincident Demand for Monitored Data Set 1 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
42631 3	Timestamp for Monitored Data Set 1 - Rate 3 Peak & Coincident Demand		21st Century	1s		R
42635 2	Cumulative Demand for Monitored Data Set 1 - Rate 3	FLOAT	0 to ±99999999	data specific		R
42637 2	Accumulator for Monitored Data Set 2 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42639 2	Peak Demand for Monitored Data Set 2 - Rate 3		0 to ±9.999 E+09	data specific		R
42641 2	Coincident Demand for Monitored Data Set 2 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
	Timestamp for Monitored Data Set 2 - Rate 3 Peak & Coincident Demand		21st Century	1s		R
42647 2	Cumulative Demand for Monitored Data Set 2 - Rate 3	FLOAT	0 to ±99999999	data specific		R
42649 2	Accumulator for Monitored Data Set 3 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42651 2	Peak Demand for Monitored Data Set 3 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific		R
42653 2	Coincident Demand for Monitored Data Set 3 - Rate 3	FLOAT		data specific		R
42655 3	Timestamp for Monitored Data Set 3 - Rate 3 Peak & Coincident Demand		21st Century	1s		R
42659 2	Cumulative Demand for Monitored Data Set 3 - Rate 3	FLOAT	0 to ±99999999	data specific		R
42661 2	Accumulator for Monitored Data Set 4 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42663 2	Peak Demand for Monitored Data Set 4 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific		R
42665 2	Coincident Demand for Monitored Data Set 4 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
42667 3	Timestamp for Monitored Data Set 4 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
42671 2	Cumulative Demand for Monitored Data Set 4 - Rate 3	FLOAT	0 to ±99999999	data specific		R
42673 2	Accumulator for Monitored Data Set 5 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42675 2	Peak Demand for Monitored Data Set 5 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific		R
42677 2	Coincident Demand for Monitored Data Set 5 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
42679 3	Timestamp for Monitored Data Set 5 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
42683 2	Cumulative Demand for Monitored Data Set 5 - Rate 3	FLOAT	0 to ±99999999	data specific		R
42685 2	Accumulator for Monitored Data Set 6 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42687 2	Peak Demand for Monitored Data Set 6 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific		R
42689 2	Coincident Demand for Monitored Data Set 6 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
42691 3	Timestamp for Monitored Data Set 6 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
42695 2	Cumulative Demand for Monitored Data Set 6 - Rate 3	FLOAT	0 to ±99999999	data specific		R
42697 2	Accumulator for Monitored Data Set 7 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42699 2	Peak Demand for Monitored Data Set 7 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific		R
42701 2	Coincident Demand for Monitored Data Set 7 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
42703 3	Timestamp for Monitored Data Set 7 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
42707 2	Cumulative Demand for Monitored Data Set 7 - Rate 3	FLOAT	0 to ±99999999	data specific		R
42709 2	Accumulator for Monitored Data Set 8 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42711 2	Peak Demand for Monitored Data Set 8 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific		R
42713 2	Coincident Demand for Monitored Data Set 8 - Rate 3	FLOAT		data specific		R
42715 3	Timestamp for Monitored Data Set 8 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
42719 2	Cumulative Demand for Monitored Data Set 8 - Rate 3	FLOAT	0 to ±99999999	data specific		R



Reg# Size			Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
	Accumulator for Monitored Data Set 9 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
	Peak Demand for Monitored Data Set 9 - Rate 3		0 to ±9.999 E+09	data specific			R
42725 2	Coincident Demand for Monitored Data Set 9 - Rate 3		0 to ±99999999 or 0 to ±1	data specific			R
	Timestamp for Monitored Data Set 9 - Rate 3 Peak & Coincident Demand		21st Century	1s			R
	Cumulative Demand for Monitored Data Set 9 - Rate 3		0 to ±99999999	data specific			R
	Accumulator for Monitored Data Set 10 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
	Peak Demand for Monitored Data Set 10 - Rate 3		0 to ±9.999 E+09	data specific			R
	Coincident Demand for Monitored Data Set 10 - Rate 3			data specific			R
	Timestamp for Monitored Data Set 10 - Rate 3 Peak & Coincident Demand		21st Century	1s			R
42743 2	Cumulative Demand for Monitored Data Set 10 - Rate 3		0 to ±99999999	data specific			R
	Accumulator for Monitored Data Set 11 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
	Peak Demand for Monitored Data Set 11 - Rate 3		0 to ±9.999 E+09	data specific			R
	Coincident Demand for Monitored Data Set 11 - Rate 3		0 to ±99999999 or 0 to ±1	data specific			R
	Timestamp for Monitored Data Set 11 - Rate 3 Peak & Coincident Demand		21st Century	1s			R
42755 2	Cumulative Demand for Monitored Data Set 11 - Rate 3		0 to ±99999999	data specific			R
	Accumulator for Monitored Data Set 12 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
	Peak Demand for Monitored Data Set 12 - Rate 3		0 to ±9.999 E+09	data specific			R
42761 2	Coincident Demand for Monitored Data Set 12 - Rate 3		0 to ±99999999 or 0 to ±1	data specific			R
42763 3	Timestamp for Monitored Data Set 12 - Rate 3 Peak & Coincident Demand		21st Century	1s			R
	Cumulative Demand for Monitored Data Set 12 - Rate 3		0 to ±99999999	data specific			R
	Accumulator for Monitored Data Set 12 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
	Peak Demand for Monitored Data Set 13 - Rate 3		0 to ±9.999 E+09	data specific			R
	Coincident Demand for Monitored Data Set 13 - Rate 3			data specific			R
42775 3	Timestamp for Monitored Data Set 13 - Rate 3 Peak & Coincident Demand		21st Century	1s			R
	Cumulative Demand for Monitored Data Set 13 - Rate 3		0 to ±99999999	data specific			R
	Accumulator for Monitored Data Set 14 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
	Peak Demand for Monitored Data Set 14 - Rate 3		0 to ±9.999 E+09	data specific			R
	Coincident Demand for Monitored Data Set 14 - Rate 3		0 to ±99999999 or 0 to ±1	data specific			R
	Timestamp for Monitored Data Set 14 - Rate 3 Peak & Coincident Demand		21st Century	1s			R
42791 2	Cumulative Demand for Monitored Data Set 14 - Rate 3		0 to ±99999999	data specific			R
	Accumulator for Monitored Data Set 15 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
	Peak Demand for Monitored Data Set 15 - Rate 3		0 to ±9.999 E+09	data specific			R
	Coincident Demand for Monitored Data Set 15 - Rate 3		0 to ±99999999 or 0 to ±1	data specific			R
	Timestamp for Monitored Data Set 15 - Rate 3 Peak & Coincident Demand		21st Century	1s			R
	Cumulative Demand for Monitored Data Set 15 - Rate 3		0 to ±99999999	data specific			R
42805 2	Accumulator for Monitored Data Set 16 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
	Peak Demand for Monitored Data Set 16 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific			R
	Coincident Demand for Monitored Data Set 16 - Rate 3		0 to ±99999999 or 0 to ±1	data specific			R
	Timestamp for Monitored Data Set 16 - Rate 3 Peak & Coincident Demand		21st Century	1s			R
42815 2	Cumulative Demand for Monitored Data Set 16 - Rate 3	FLOAT	0 to ±99999999	data specific			R



Reg# Size Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value Acc
Current Month, initial season Block, Rate 4 (data accumulated before a mid-month seaso					
42817 2 Accumulator for Monitored Data Set 1 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42819 2 Peak Demand for Monitored Data Set 1 - Rate 4		0 to ±9.999 E+09	data specific		R
42821 2 Coincident Demand for Monitored Data Set 1 - Rate 4			data specific		R
42823 3 Timestamp for Monitored Data Set 1 - Rate 4 Peak & Coincident Demand		21st Century	1s		R
42827 2 Cumulative Demand for Monitored Data Set 1 - Rate 4		0 to ±99999999	data specific		R
42829 2 Accumulator for Monitored Data Set 2 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42831 2 Peak Demand for Monitored Data Set 2 - Rate 4		0 to ±9.999 E+09	data specific		R
42833 2 Coincident Demand for Monitored Data Set 2 - Rate 4		0 to ±99999999 or 0 to ±1	data specific		R
42835 3 Timestamp for Monitored Data Set 2 - Rate 4 Peak & Coincident Demand		21st Century	1s		R
42839 2 Cumulative Demand for Monitored Data Set 2 - Rate 4		0 to ±99999999	data specific		R
42841 2 Accumulator for Monitored Data Set 3 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42843 2 Peak Demand for Monitored Data Set 3 - Rate 4		0 to ±9.999 E+09	data specific		R
42845 2 Coincident Demand for Monitored Data Set 3 - Rate 4		0 to ±99999999 or 0 to ±1	data specific		R
42847 3 Timestamp for Monitored Data Set 3 - Rate 4 Peak & Coincident Demand		21st Century	1s		R
42851 2 Cumulative Demand for Monitored Data Set 3 - Rate 4		0 to ±99999999	data specific		R
42853 2 Accumulator for Monitored Data Set 4 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42855 2 Peak Demand for Monitored Data Set 4 - Rate 4		0 to ±9.999 E+09	data specific		R
42857 2 Coincident Demand for Monitored Data Set 4 - Rate 4		0 to ±99999999 or 0 to ±1	data specific		R
42859 3 Timestamp for Monitored Data Set 4 - Rate 4 Peak & Coincident Demand		21st Century	1s		R
42863 2 Cumulative Demand for Monitored Data Set 4 - Rate 4		0 to ±99999999	data specific		R
42865 2 Accumulator for Monitored Data Set 5 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42867 2 Peak Demand for Monitored Data Set 5 - Rate 4		0 to ±9.999 E+09	data specific		R
42869 2 Coincident Demand for Monitored Data Set 5 - Rate 4	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
42871 3 Timestamp for Monitored Data Set 5 - Rate 4 Peak & Coincident Demand		21st Century	1 s		R
42875 2 Cumulative Demand for Monitored Data Set 5 - Rate 4		0 to ±99999999	data specific		R
42877 2 Accumulator for Monitored Data Set 6 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42879 2 Peak Demand for Monitored Data Set 6 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific		R
42881 2 Coincident Demand for Monitored Data Set 6 - Rate 4	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
42883 3 Timestamp for Monitored Data Set 6 - Rate 4 Peak & Coincident Demand		21st Century	1s		R
42887 2 Cumulative Demand for Monitored Data Set 6 - Rate 4	FLOAT	0 to ±99999999	data specific		R
42889 2 Accumulator for Monitored Data Set 7 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42891 2 Peak Demand for Monitored Data Set 7 - Rate 4		0 to ±9.999 E+09	data specific		R
42893 2 Coincident Demand for Monitored Data Set 7 - Rate 4	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
42895 3 Timestamp for Monitored Data Set 7 - Rate 4 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
42899 2 Cumulative Demand for Monitored Data Set 7 - Rate 4		0 to ±99999999	data specific		R
42901 2 Accumulator for Monitored Data Set 8 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
42903 2 Peak Demand for Monitored Data Set 8 - Rate 4		0 to ±9.999 E+09	data specific		R
42905 2 Coincident Demand for Monitored Data Set 8 - Rate 4	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
42907 3 Timestamp for Monitored Data Set 8 - Rate 4 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
42911 2 Cumulative Demand for Monitored Data Set 8 - Rate 4	FLOAT	0 to ±99999999	data specific		R



Reg# Size Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
42913 2 Accumulator for Monitored Data Set 9 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42915 2 Peak Demand for Monitored Data Set 9 - Rate 4		0 to ±9.999 E+09	data specific			R
42917 2 Coincident Demand for Monitored Data Set 9 - Rate 4		0 to ±99999999 or 0 to ±1	data specific			R
42919 3 Timestamp for Monitored Data Set 9 - Rate 4 Peak & Coincident Demand		21st Century	1s			R
42923 2 Cumulative Demand for Monitored Data Set 9 - Rate 4		0 to ±99999999	data specific			R
42925 2 Accumulator for Monitored Data Set 10 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42927 2 Peak Demand for Monitored Data Set 10 - Rate 4		0 to ±9.999 E+09	data specific			R
42929 2 Coincident Demand for Monitored Data Set 10 - Rate 4			data specific			R
42931 3 Timestamp for Monitored Data Set 10 - Rate 4 Peak & Coincident Demand		21st Century	1s			R
42935 2 Cumulative Demand for Monitored Data Set 10 - Rate 4		0 to ±99999999	data specific			R
42937 2 Accumulator for Monitored Data Set 11 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42939 2 Peak Demand for Monitored Data Set 11 - Rate 4		0 to ±9.999 E+09	data specific			R
42941 2 Coincident Demand for Monitored Data Set 11 - Rate 4			data specific			R
42943 3 Timestamp for Monitored Data Set 11 - Rate 4 Peak & Coincident Demand		21st Century	1s			R
42947 2 Cumulative Demand for Monitored Data Set 11 - Rate 4		0 to ±99999999	data specific			R
42949 2 Accumulator for Monitored Data Set 12 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42951 2 Peak Demand for Monitored Data Set 12 - Rate 4		0 to ±9.999 E+09	data specific			R
42953 2 Coincident Demand for Monitored Data Set 12 - Rate 4		0 to ±99999999 or 0 to ±1	data specific			R
42955 3 Timestamp for Monitored Data Set 12 - Rate 4 Peak & Coincident Demand		21st Century	1s			R
42959 2 Cumulative Demand for Monitored Data Set 12 - Rate 4		0 to ±99999999	data specific			R
42961 2 Accumulator for Monitored Data Set 12 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42963 2 Peak Demand for Monitored Data Set 13 - Rate 4		0 to ±9.999 E+09	data specific			R
42965 2 Coincident Demand for Monitored Data Set 13 - Rate 4			data specific			R
42967 3 Timestamp for Monitored Data Set 13 - Rate 4 Peak & Coincident Demand		21st Century	1s			R
42971 2 Cumulative Demand for Monitored Data Set 13 - Rate 4		0 to ±99999999	data specific			R
42973 2 Accumulator for Monitored Data Set 14 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42975 2 Peak Demand for Monitored Data Set 14 - Rate 4		0 to ±9.999 E+09	data specific			R
42977 2 Coincident Demand for Monitored Data Set 14 - Rate 4		0 to ±99999999 or 0 to ±1	data specific			R
42979 3 Timestamp for Monitored Data Set 14 - Rate 4 Peak & Coincident Demand		21st Century	1s			R
42983 2 Cumulative Demand for Monitored Data Set 14 - Rate 4		0 to ±99999999	data specific			R
42985 2 Accumulator for Monitored Data Set 15 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42987 2 Peak Demand for Monitored Data Set 15 - Rate 4		0 to ±9.999 E+09	data specific			R
42989 2 Coincident Demand for Monitored Data Set 15 - Rate 4		0 to ±99999999 or 0 to ±1	data specific			R
42991 3 Timestamp for Monitored Data Set 15 - Rate 4 Peak & Coincident Demand		21st Century	1s			R
42995 2 Cumulative Demand for Monitored Data Set 15 - Rate 4		0 to ±99999999	data specific			R
42997 2 Accumulator for Monitored Data Set 16 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
42999 2 Peak Demand for Monitored Data Set 16 - Rate 4		0 to ±9.999 E+09	data specific			R
43001 2 Coincident Demand for Monitored Data Set 16 - Rate 4		0 to ±99999999 or 0 to ±1	data specific			R
43003 3 Timestamp for Monitored Data Set 16 - Rate 4 Peak & Coincident Demand		21st Century	1s			R
43007 2 Cumulative Demand for Monitored Data Set 16 - Rate 4	FLOAT	0 to ±99999999	data specific			R



Reg# Size			Value Range	Unit of measure or resolution	Comments	Factory default value Acc
	onth, final season Block, Rate 0 - Total (data accumulated after a mid-month se					
				data specific	Energy format, scaling applies only if energy is accumulated	R
				data specific		R
				data specific		R
			21st Century	1s		R
			0 to ±99999999	data specific		R
			0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
	Peak Demand for Monitored Data Set 2 - Rate 0			data specific		R
		FLOAT		data specific		R
			21st Century	1s		R
		FLOAT	0 to ±99999999	data specific		R
			0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
43035 2		FLOAT	0 to ±9.999 E+09	data specific		R
43037 2		FLOAT		data specific		R
			21st Century	1s		R
		FLOAT	0 to ±99999999	data specific		R
			0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
			0 to ±9.999 E+09	data specific		R
				data specific		R
			21st Century	1s		R
43055 2		FLOAT	0 to ±99999999	data specific		R
			0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
	Peak Demand for Monitored Data Set 5 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific		R
43061 2	Coincident Demand for Monitored Data Set 5 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
43063 3	Timestamp for Monitored Data Set 5 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
43067 2	Cumulative Demand for Monitored Data Set 5 - Rate 0	FLOAT	0 to ±99999999	data specific		R
43069 2	Accumulator for Monitored Data Set 6 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
43071 2	Peak Demand for Monitored Data Set 6 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific		R
43073 2	Coincident Demand for Monitored Data Set 6 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
		TSTAMP	21st Century	1s		R
43079 2	Cumulative Demand for Monitored Data Set 6 - Rate 0	FLOAT	0 to ±99999999	data specific		R
43081 2	Accumulator for Monitored Data Set 7 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
43083 2	Peak Demand for Monitored Data Set 7 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific		R
43085 2	Coincident Demand for Monitored Data Set 7 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
43087 3	Timestamp for Monitored Data Set 7 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
43091 2	Cumulative Demand for Monitored Data Set 7 - Rate 0	FLOAT	0 to ±99999999	data specific		R
43093 2	Accumulator for Monitored Data Set 8 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
43095 2	Peak Demand for Monitored Data Set 8 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific		R
	Coincident Demand for Monitored Data Set 8 - Rate 0	FLOAT		data specific		R
43099 3	Timestamp for Monitored Data Set 8 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
43103 2	Cumulative Demand for Monitored Data Set 8 - Rate 0	FLOAT	0 to ±99999999	data specific		R



Reg# Size Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
43105 2 Accumulator for Monitored Data Set 9 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
43107 2 Peak Demand for Monitored Data Set 9 - Rate 0		0 to ±9.999 E+09	data specific			R
43109 2 Coincident Demand for Monitored Data Set 9 - Rate 0			data specific			R
43111 3 Timestamp for Monitored Data Set 9 - Rate 0 Peak & Coincident Demand		21st Century	1s			R
43115 2 Cumulative Demand for Monitored Data Set 9 - Rate 0		0 to ±99999999	data specific			R
43117 2 Accumulator for Monitored Data Set 10 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
43119 2 Peak Demand for Monitored Data Set 10 - Rate 0		0 to ±9.999 E+09	data specific			R
43121 2 Coincident Demand for Monitored Data Set 10 - Rate 0			data specific			R
43123 3 Timestamp for Monitored Data Set 10 - Rate 0 Peak & Coincident Demand		21st Century	1s			R
43127 2 Cumulative Demand for Monitored Data Set 10 - Rate 0		0 to ±99999999	data specific			R
43129 2 Accumulator for Monitored Data Set 11 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
43131 2 Peak Demand for Monitored Data Set 11 - Rate 0		0 to ±9.999 E+09	data specific			R
43133 2 Coincident Demand for Monitored Data Set 11 - Rate 0			data specific			R
43135 3 Timestamp for Monitored Data Set 11 - Rate 0 Peak & Coincident Demand		21st Century	1s			R
43141 2 Accumulator for Monitored Data Set 12 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
43143 2 Peak Demand for Monitored Data Set 12 - Rate 0		0 to ±9.999 E+09	data specific			R
43145 2 Coincident Demand for Monitored Data Set 12 - Rate 0		0 to ±99999999 or 0 to ±1	data specific			R
43147 3 Timestamp for Monitored Data Set 12 - Rate 0 Peak & Coincident Demand		21st Century	1s			R
43151 2 Cumulative Demand for Monitored Data Set 12 - Rate 0		0 to ±99999999	data specific			R
43153 2 Accumulator for Monitored Data Set 12 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
43155 2 Peak Demand for Monitored Data Set 13 - Rate 0		0 to ±9.999 E+09	data specific			R
43157 2 Coincident Demand for Monitored Data Set 13 - Rate 0			data specific			R
43159 3 Timestamp for Monitored Data Set 13 - Rate 0 Peak & Coincident Demand		21st Century	1s			R
43163 2 Cumulative Demand for Monitored Data Set 13 - Rate 0		0 to ±99999999	data specific			R
43165 2 Accumulator for Monitored Data Set 14 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
43167 2 Peak Demand for Monitored Data Set 14 - Rate 0		0 to ±9.999 E+09	data specific			R
43169 2 Coincident Demand for Monitored Data Set 14 - Rate 0			data specific			R
43171 3 Timestamp for Monitored Data Set 14 - Rate 0 Peak & Coincident Demand		21st Century	1s			R
43175 2 Cumulative Demand for Monitored Data Set 14 - Rate 0		0 to ±99999999	data specific			R
43177 2 Accumulator for Monitored Data Set 15 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
43179 2 Peak Demand for Monitored Data Set 15 - Rate 0		0 to ±9.999 E+09	data specific			R
43181 2 Coincident Demand for Monitored Data Set 15 - Rate 0		0 to ±99999999 or 0 to ±1	data specific			R
43183 3 Timestamp for Monitored Data Set 15 - Rate 0 Peak & Coincident Demand		21st Century	1s			R
43187 2 Cumulative Demand for Monitored Data Set 15 - Rate 0		0 to ±99999999	data specific			R
43189 2 Accumulator for Monitored Data Set 16 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
43191 2 Peak Demand for Monitored Data Set 16 - Rate 0		0 to ±9.999 E+09	data specific			R
43193 2 Coincident Demand for Monitored Data Set 16 - Rate 0			data specific			R
43195 3 Timestamp for Monitored Data Set 16 - Rate 0 Peak & Coincident Demand		21st Century	1s			R
43199 2 Cumulative Demand for Monitored Data Set 16 - Rate 0	FLOAT	0 to ±99999999	data specific			R



Reg# Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value Acc
	lonth, final season Block, Rate 1 (data accumulated after a mid-month season c			ason changes)		
				data specific	Energy format, scaling applies only if energy is accumulated	R
				data specific		R
	Coincident Demand for Monitored Data Set 1 - Rate 1			data specific		R
	Timestamp for Monitored Data Set 1 - Rate 1 Peak & Coincident Demand		21st Century	1s		R
	Cumulative Demand for Monitored Data Set 1 - Rate 1		0 to ±99999999	data specific		R
	Accumulator for Monitored Data Set 2 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
	Peak Demand for Monitored Data Set 2 - Rate 1			data specific		R
	Coincident Demand for Monitored Data Set 2 - Rate 1	FLOAT		data specific		R
	Timestamp for Monitored Data Set 2 - Rate 1 Peak & Coincident Demand		21st Century	1s		R
43223 2	Cumulative Demand for Monitored Data Set 2 - Rate 1	FLOAT	0 to ±99999999	data specific		R
	Accumulator for Monitored Data Set 3 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
	Peak Demand for Monitored Data Set 3 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific		R
43229 2	Coincident Demand for Monitored Data Set 3 - Rate 1	FLOAT		data specific		R
	Timestamp for Monitored Data Set 3 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
	Cumulative Demand for Monitored Data Set 3 - Rate 1	FLOAT	0 to ±99999999	data specific		R
	Accumulator for Monitored Data Set 4 - Rate 1	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
	Peak Demand for Monitored Data Set 4 - Rate 1		0 to ±9.999 E+09	data specific		R
	Coincident Demand for Monitored Data Set 4 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
	Timestamp for Monitored Data Set 4 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
43247 2	Cumulative Demand for Monitored Data Set 4 - Rate 1	FLOAT	0 to ±99999999	data specific		R
	Accumulator for Monitored Data Set 5 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
43251 2	Peak Demand for Monitored Data Set 5 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific		R
43253 2	Coincident Demand for Monitored Data Set 5 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
43255 3	Timestamp for Monitored Data Set 5 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
43259 2	Cumulative Demand for Monitored Data Set 5 - Rate 1	FLOAT	0 to ±99999999	data specific		R
43261 2	Accumulator for Monitored Data Set 6 - Rate 1	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
43263 2	Peak Demand for Monitored Data Set 6 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific		R
43265 2	Coincident Demand for Monitored Data Set 6 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
43267 3	Timestamp for Monitored Data Set 6 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
43271 2	Cumulative Demand for Monitored Data Set 6 - Rate 1	FLOAT	0 to ±99999999	data specific		R
43273 2	Accumulator for Monitored Data Set 7 - Rate 1	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
43275 2	Peak Demand for Monitored Data Set 7 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific		R
43277 2	Coincident Demand for Monitored Data Set 7 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
43279 3	Timestamp for Monitored Data Set 7 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
43283 2	Cumulative Demand for Monitored Data Set 7 - Rate 1	FLOAT	0 to ±99999999	data specific		R
43285 2	Accumulator for Monitored Data Set 8 - Rate 1	SINT32		data specific	Energy format, scaling applies only if energy is accumulated	R
	Peak Demand for Monitored Data Set 8 - Rate 1	FLOAT		data specific		R
	Coincident Demand for Monitored Data Set 8 - Rate 1	FLOAT		data specific		R
43291 3	Timestamp for Monitored Data Set 8 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
43295 2	Cumulative Demand for Monitored Data Set 8 - Rate 1	FLOAT	0 to ±99999999	data specific		R



Reg# Size Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
43297 2 Accumulator for Monitored Data Set 9 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
43299 2 Peak Demand for Monitored Data Set 9 - Rate 1		0 to ±9.999 E+09	data specific			R
43301 2 Coincident Demand for Monitored Data Set 9 - Rate 1		0 to ±99999999 or 0 to ±1	data specific			R
43303 3 Timestamp for Monitored Data Set 9 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
43307 2 Cumulative Demand for Monitored Data Set 9 - Rate 1		0 to ±99999999	data specific			R
43309 2 Accumulator for Monitored Data Set 10 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
43311 2 Peak Demand for Monitored Data Set 10 - Rate 1		0 to ±9.999 E+09	data specific			R
43313 2 Coincident Demand for Monitored Data Set 10 - Rate 1			data specific			R
43315 3 Timestamp for Monitored Data Set 10 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
43319 2 Cumulative Demand for Monitored Data Set 10 - Rate 1		0 to ±99999999	data specific			R
43321 2 Accumulator for Monitored Data Set 11 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
43323 2 Peak Demand for Monitored Data Set 11 - Rate 1		0 to ±9.999 E+09	data specific			R
43325 2 Coincident Demand for Monitored Data Set 11 - Rate 1			data specific			R
43327 3 Timestamp for Monitored Data Set 11 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
43331 2 Cumulative Demand for Monitored Data Set 11 - Rate 1		0 to ±99999999	data specific			R
43333 2 Accumulator for Monitored Data Set 12 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
43335 2 Peak Demand for Monitored Data Set 12 - Rate 1		0 to ±9.999 E+09	data specific			R
43337 2 Coincident Demand for Monitored Data Set 12 - Rate 1		0 to ±99999999 or 0 to ±1	data specific			R
43339 3 Timestamp for Monitored Data Set 12 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
43343 2 Cumulative Demand for Monitored Data Set 12 - Rate 1		0 to ±99999999	data specific			R
43345 2 Accumulator for Monitored Data Set 12 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
43347 2 Peak Demand for Monitored Data Set 13 - Rate 1		0 to ±9.999 E+09	data specific			R
43349 2 Coincident Demand for Monitored Data Set 13 - Rate 1			data specific			R
43351 3 Timestamp for Monitored Data Set 13 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
43355 2 Cumulative Demand for Monitored Data Set 13 - Rate 1		0 to ±99999999	data specific			R
43357 2 Accumulator for Monitored Data Set 14 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
43359 2 Peak Demand for Monitored Data Set 14 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific			R
43361 2 Coincident Demand for Monitored Data Set 14 - Rate 1		0 to ±99999999 or 0 to ±1	data specific			R
43363 3 Timestamp for Monitored Data Set 14 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
43367 2 Cumulative Demand for Monitored Data Set 14 - Rate 1		0 to ±99999999	data specific			R
43369 2 Accumulator for Monitored Data Set 15 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
43371 2 Peak Demand for Monitored Data Set 15 - Rate 1		0 to ±9.999 E+09	data specific			R
43373 2 Coincident Demand for Monitored Data Set 15 - Rate 1		0 to ±99999999 or 0 to ±1	data specific			R
43375 3 Timestamp for Monitored Data Set 15 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
43379 2 Cumulative Demand for Monitored Data Set 15 - Rate 1		0 to ±99999999	data specific			R
43381 2 Accumulator for Monitored Data Set 16 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
43383 2 Peak Demand for Monitored Data Set 16 - Rate 1		0 to ±9.999 E+09	data specific			R
43385 2 Coincident Demand for Monitored Data Set 16 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
43387 3 Timestamp for Monitored Data Set 16 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
43391 2 Cumulative Demand for Monitored Data Set 16 - Rate 1	FLOAT	0 to ±99999999	data specific			R



Reg# Size			Value Range	Unit of measure or resolution	Comments	Factory default value Acc
	onth, final season Block, Rate 2 (data accumulated after a mid-month season c					
				data specific	Energy format, scaling applies only if energy is accumulated	R
				data specific		R
				data specific		R
			21st Century	1s		R
			0 to ±99999999	data specific		R
			0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
	Peak Demand for Monitored Data Set 2 - Rate 2			data specific		R
43409 2		FLOAT		data specific		R
			21st Century	1s		R
		FLOAT	0 to ±99999999	data specific		R
			0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		FLOAT	0 to ±9.999 E+09	data specific		R
43421 2		FLOAT		data specific		R
			21st Century	1s		R
		FLOAT	0 to ±99999999	data specific		R
			0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
			0 to ±9.999 E+09	data specific		R
				data specific		R
		TSTAMP	21st Century	1s		R
43439 2		FLOAT	0 to ±99999999	data specific		R
			0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
43443 2	Peak Demand for Monitored Data Set 5 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific		R
43445 2	Coincident Demand for Monitored Data Set 5 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
43447 3	Timestamp for Monitored Data Set 5 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
43451 2	Cumulative Demand for Monitored Data Set 5 - Rate 2	FLOAT	0 to ±99999999	data specific		R
43453 2	Accumulator for Monitored Data Set 6 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
43455 2	Peak Demand for Monitored Data Set 6 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific		R
43457 2	Coincident Demand for Monitored Data Set 6 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
43459 3	Timestamp for Monitored Data Set 6 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
43463 2	Cumulative Demand for Monitored Data Set 6 - Rate 2	FLOAT	0 to ±99999999	data specific		R
43465 2	Accumulator for Monitored Data Set 7 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
43467 2	Peak Demand for Monitored Data Set 7 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific		R
43469 2	Coincident Demand for Monitored Data Set 7 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
43471 3	Timestamp for Monitored Data Set 7 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
43475 2	Cumulative Demand for Monitored Data Set 7 - Rate 2	FLOAT	0 to ±99999999	data specific		R
43477 2	Accumulator for Monitored Data Set 8 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
43479 2	Peak Demand for Monitored Data Set 8 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific		R
	Coincident Demand for Monitored Data Set 8 - Rate 2	FLOAT		data specific		R
43483 3	Timestamp for Monitored Data Set 8 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
43487 2	Cumulative Demand for Monitored Data Set 8 - Rate 2	FLOAT	0 to ±99999999	data specific		R



	Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
	Accumulator for Monitored Data Set 9 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
43491 2	Peak Demand for Monitored Data Set 9 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific			R
43493 2	Coincident Demand for Monitored Data Set 9 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
	Timestamp for Monitored Data Set 9 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1 s			R
	Cumulative Demand for Monitored Data Set 9 - Rate 2	FLOAT	0 to ±99999999	data specific			R
43501 2	Accumulator for Monitored Data Set 10 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
43503 2	Peak Demand for Monitored Data Set 10 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific			R
				data specific			R
	Timestamp for Monitored Data Set 10 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
43511 2	Cumulative Demand for Monitored Data Set 10 - Rate 2	FLOAT	0 to ±99999999	data specific			R
	Accumulator for Monitored Data Set 11 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
	Peak Demand for Monitored Data Set 11 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific			R
43517 2	Coincident Demand for Monitored Data Set 11 - Rate 2	FLOAT		data specific			R
	Timestamp for Monitored Data Set 11 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
	Cumulative Demand for Monitored Data Set 11 - Rate 2	FLOAT	0 to ±99999999	data specific			R
	Accumulator for Monitored Data Set 12 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
	Peak Demand for Monitored Data Set 12 - Rate 2		0 to ±9.999 E+09	data specific			R
43529 2	Coincident Demand for Monitored Data Set 12 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
43531 3	Timestamp for Monitored Data Set 12 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
		FLOAT	0 to ±99999999	data specific			R
	Accumulator for Monitored Data Set 12 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
	Peak Demand for Monitored Data Set 13 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific			R
				data specific			R
	Timestamp for Monitored Data Set 13 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
	Cumulative Demand for Monitored Data Set 13 - Rate 2	FLOAT	0 to ±99999999	data specific			R
	Accumulator for Monitored Data Set 14 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
43551 2	Peak Demand for Monitored Data Set 14 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific			R
	Coincident Demand for Monitored Data Set 14 - Rate 2	FLOAT		data specific			R
	Timestamp for Monitored Data Set 14 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
	Cumulative Demand for Monitored Data Set 14 - Rate 2	FLOAT	0 to ±99999999	data specific			R
	Accumulator for Monitored Data Set 15 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
	Peak Demand for Monitored Data Set 15 - Rate 2		0 to ±9.999 E+09	data specific			R
	Coincident Demand for Monitored Data Set 15 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
	Timestamp for Monitored Data Set 15 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1 s			R
		FLOAT	0 to ±99999999	data specific			R
	Accumulator for Monitored Data Set 16 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
	Peak Demand for Monitored Data Set 16 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific			R
	Coincident Demand for Monitored Data Set 16 - Rate 2	FLOAT		data specific			R
	Timestamp for Monitored Data Set 16 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1 s			R
43583 2	Cumulative Demand for Monitored Data Set 16 - Rate 2	FLOAT	0 to ±99999999	data specific			R



Reg# Size			Value Range	Unit of measure or resolution	Comments	Factory default value Acc
	onth, final season Block, Rate 3 (data accumulated after a mid-month season c					
				data specific	Energy format, scaling applies only if energy is accumulated	R
				data specific		R
				data specific		R
			21st Century	1s		R
			0 to ±99999999	data specific		R
			0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
	Peak Demand for Monitored Data Set 2 - Rate 3			data specific		R
		FLOAT		data specific		R
			21st Century	1s		R
		FLOAT	0 to ±99999999	data specific		R
			0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		FLOAT	0 to ±9.999 E+09	data specific		R
		FLOAT		data specific		R
			21st Century	1s		R
		FLOAT	0 to ±99999999	data specific		R
			0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
			0 to ±9.999 E+09	data specific		R
				data specific		R
		TSTAMP	21st Century	1s		R
43631 2		FLOAT	0 to ±99999999	data specific		R
			0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
43635 2	Peak Demand for Monitored Data Set 5 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific		R
43637 2	Coincident Demand for Monitored Data Set 5 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
43639 3	Timestamp for Monitored Data Set 5 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
43643 2	Cumulative Demand for Monitored Data Set 5 - Rate 3	FLOAT	0 to ±99999999	data specific		R
43645 2	Accumulator for Monitored Data Set 6 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
43647 2	Peak Demand for Monitored Data Set 6 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific		R
43649 2	Coincident Demand for Monitored Data Set 6 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
43651 3	Timestamp for Monitored Data Set 6 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
43655 2	Cumulative Demand for Monitored Data Set 6 - Rate 3	FLOAT	0 to ±99999999	data specific		R
43657 2	Accumulator for Monitored Data Set 7 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
43659 2	Peak Demand for Monitored Data Set 7 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific		R
		FLOAT		data specific		R
	Timestamp for Monitored Data Set 7 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
43667 2	Cumulative Demand for Monitored Data Set 7 - Rate 3	FLOAT	0 to ±99999999	data specific		R
43669 2	Accumulator for Monitored Data Set 8 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
43671 2	Peak Demand for Monitored Data Set 8 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific		R
	Coincident Demand for Monitored Data Set 8 - Rate 3	FLOAT		data specific		R
43675 3	Timestamp for Monitored Data Set 8 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
43679 2	Cumulative Demand for Monitored Data Set 8 - Rate 3	FLOAT	0 to ±99999999	data specific		R



Reg# Size			Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
	Accumulator for Monitored Data Set 9 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
43683 2	Peak Demand for Monitored Data Set 9 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific			R
43685 2	Coincident Demand for Monitored Data Set 9 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
	Timestamp for Monitored Data Set 9 - Rate 3 Peak & Coincident Demand		21st Century	1s			R
43691 2		FLOAT	0 to ±99999999	data specific			R
43693 2	Accumulator for Monitored Data Set 10 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
43695 2	Peak Demand for Monitored Data Set 10 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific			R
43697 2	Coincident Demand for Monitored Data Set 10 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
43699 3	Timestamp for Monitored Data Set 10 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
43703 2	Cumulative Demand for Monitored Data Set 10 - Rate 3	FLOAT	0 to ±99999999	data specific			R
43705 2	Accumulator for Monitored Data Set 11 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
43707 2	Peak Demand for Monitored Data Set 11 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific			R
43709 2	Coincident Demand for Monitored Data Set 11 - Rate 3	FLOAT		data specific			R
43711 3	Timestamp for Monitored Data Set 11 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
43715 2	Cumulative Demand for Monitored Data Set 11 - Rate 3	FLOAT	0 to ±99999999	data specific			R
43717 2	Accumulator for Monitored Data Set 12 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
43719 2	Peak Demand for Monitored Data Set 12 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific			R
43721 2	Coincident Demand for Monitored Data Set 12 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
43723 3	Timestamp for Monitored Data Set 12 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
43727 2	Cumulative Demand for Monitored Data Set 12 - Rate 3	FLOAT	0 to ±99999999	data specific			R
43729 2	Accumulator for Monitored Data Set 12 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
43731 2	Peak Demand for Monitored Data Set 13 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific			R
43733 2	Coincident Demand for Monitored Data Set 13 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
43735 3	Timestamp for Monitored Data Set 13 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1 s			R
43739 2	Cumulative Demand for Monitored Data Set 13 - Rate 3	FLOAT	0 to ±99999999	data specific			R
43741 2	Accumulator for Monitored Data Set 14 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
43743 2	Peak Demand for Monitored Data Set 14 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific			R
43745 2	Coincident Demand for Monitored Data Set 14 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
43747 3	Timestamp for Monitored Data Set 14 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
43751 2	Cumulative Demand for Monitored Data Set 14 - Rate 3	FLOAT	0 to ±99999999	data specific			R
43753 2	Accumulator for Monitored Data Set 15 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
43755 2	Peak Demand for Monitored Data Set 15 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific			R
	Coincident Demand for Monitored Data Set 15 - Rate 3	FLOAT		data specific			R
	Timestamp for Monitored Data Set 15 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
43763 2	Cumulative Demand for Monitored Data Set 15 - Rate 3	FLOAT	0 to ±99999999	data specific			R
43765 2	Accumulator for Monitored Data Set 16 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
43767 2	Peak Demand for Monitored Data Set 16 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific			R
43769 2	Coincident Demand for Monitored Data Set 16 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
43771 3	Timestamp for Monitored Data Set 16 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
43775 2	Cumulative Demand for Monitored Data Set 16 - Rate 3	FLOAT	0 to ±99999999	data specific			R



Reg# Size			Value Range	Unit of measure or resolution	Comments	Factory default value Acc
Current M	<u>Ionth, final season Block, Rate 4 (data accumulated after a mid-month season c</u>					
43777 2			0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
			0 to ±9.999 E+09	data specific		R
43781 2	Coincident Demand for Monitored Data Set 1 - Rate 4			data specific		R
	Timestamp for Monitored Data Set 1 - Rate 4 Peak & Coincident Demand		21st Century	1s		R
43787 2	Cumulative Demand for Monitored Data Set 1 - Rate 4		0 to ±99999999	data specific		R
43789 2	Accumulator for Monitored Data Set 2 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
43791 2	Peak Demand for Monitored Data Set 2 - Rate 4		0 to ±9.999 E+09	data specific		R
43793 2	Coincident Demand for Monitored Data Set 2 - Rate 4	FLOAT		data specific		R
	Timestamp for Monitored Data Set 2 - Rate 4 Peak & Coincident Demand		21st Century	1s		R
43799 2	Cumulative Demand for Monitored Data Set 2 - Rate 4	FLOAT	0 to ±99999999	data specific		R
43801 2	Accumulator for Monitored Data Set 3 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
43803 2	Peak Demand for Monitored Data Set 3 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific		R
43805 2	Coincident Demand for Monitored Data Set 3 - Rate 4	FLOAT		data specific		R
43807 3	Timestamp for Monitored Data Set 3 - Rate 4 Peak & Coincident Demand		21st Century	1s		R
43811 2	Cumulative Demand for Monitored Data Set 3 - Rate 4		0 to ±99999999	data specific		R
43813 2	Accumulator for Monitored Data Set 4 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
43815 2	Peak Demand for Monitored Data Set 4 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific		R
43817 2	Coincident Demand for Monitored Data Set 4 - Rate 4	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
43819 3	Timestamp for Monitored Data Set 4 - Rate 4 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
43823 2	Cumulative Demand for Monitored Data Set 4 - Rate 4	FLOAT	0 to ±99999999	data specific		R
43825 2	Accumulator for Monitored Data Set 5 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
43827 2	Peak Demand for Monitored Data Set 5 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific		R
43829 2	Coincident Demand for Monitored Data Set 5 - Rate 4	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
43831 3	Timestamp for Monitored Data Set 5 - Rate 4 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
43835 2	Cumulative Demand for Monitored Data Set 5 - Rate 4	FLOAT	0 to ±99999999	data specific		R
43837 2	Accumulator for Monitored Data Set 6 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
43839 2	Peak Demand for Monitored Data Set 6 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific		R
43841 2	Coincident Demand for Monitored Data Set 6 - Rate 4	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
43843 3	Timestamp for Monitored Data Set 6 - Rate 4 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
43847 2	Cumulative Demand for Monitored Data Set 6 - Rate 4	FLOAT	0 to ±99999999	data specific		R
43849 2	Accumulator for Monitored Data Set 7 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
43851 2	Peak Demand for Monitored Data Set 7 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific		R
43853 2		FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
43855 3	Timestamp for Monitored Data Set 7 - Rate 4 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
43859 2	Cumulative Demand for Monitored Data Set 7 - Rate 4	FLOAT	0 to ±99999999	data specific		R
43861 2	Accumulator for Monitored Data Set 8 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
43863 2	Peak Demand for Monitored Data Set 8 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific		R
43865 2	Coincident Demand for Monitored Data Set 8 - Rate 4	FLOAT		data specific		R
	Timestamp for Monitored Data Set 8 - Rate 4 Peak & Coincident Demand		21st Century	1 s		R
43871 2	Cumulative Demand for Monitored Data Set 8 - Rate 4	FLOAT	0 to ±99999999	data specific		R



Reg# Size Descriptio			value Range	Unit of measure or resolution	Comments	Factory default value	Acc
			0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
			0 to ±9.999 E+09	data specific			R
	t Demand for Monitored Data Set 9 - Rate 4	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
			21st Century	1 s			R
			0 to ±99999999	data specific			R
		SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
			0 to ±9.999 E+09	data specific			R
				data specific			R
			21st Century	1s			R
			0 to ±99999999	data specific			R
			0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
			0 to ±9.999 E+09	data specific			R
				data specific			R
			21st Century	1s			R
			0 to ±99999999	data specific			R
			0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
			0 to ±9.999 E+09	data specific			R
			0 to ±99999999 or 0 to ±1	data specific			R
			21st Century	1 s			R
			0 to ±99999999	data specific			R
			0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
			0 to ±9.999 E+09	data specific			R
				data specific			R
			21st Century	1s			R
			0 to ±99999999	data specific			R
			0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
			0 to ±9.999 E+09	data specific			R
			0 to ±99999999 or 0 to ±1	data specific			R
			21st Century	1s			R
			0 to ±99999999	data specific			R
			0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
			0 to ±9.999 E+09	data specific			R
			0 to ±99999999 or 0 to ±1	data specific			R
			21st Century	1s			R
			0 to ±99999999	data specific			R
			0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
			0 to ±9.999 E+09	data specific			R
			0 to ±99999999 or 0 to ±1	data specific			R
			21st Century	1s			R
43967 2 Cumulativ	e Demand for Monitored Data Set 16 - Rate 4	FLOAT	0 to ±99999999	data specific			R



Reg# Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value
Prior Mo	nth, whole month Block, Rate 0 - Total (data accumulated over the whole month					
43969 2	Accumulator for Monitored Data Set 1 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
43971 2	Peak Demand for Monitored Data Set 1 - Rate 0		0 to ±9.999 E+09	data specific		R
43973 2	Coincident Demand for Monitored Data Set 1 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
43975 3	Timestamp for Monitored Data Set 1 - Rate 0 Peak & Coincident Demand		21st Century	1s		R
43979 2	Cumulative Demand for Monitored Data Set 1 - Rate 0		0 to ±99999999	data specific		R
43981 2	Accumulator for Monitored Data Set 2 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
43983 2	Peak Demand for Monitored Data Set 2 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific		R
43985 2	Coincident Demand for Monitored Data Set 2 - Rate 0		0 to ±99999999 or 0 to ±1	data specific		R
43987 3	Timestamp for Monitored Data Set 2 - Rate 0 Peak & Coincident Demand		21st Century	1 s		R
43991 2	Cumulative Demand for Monitored Data Set 2 - Rate 0		0 to ±99999999	data specific		R
43993 2	Accumulator for Monitored Data Set 3 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
43995 2	Peak Demand for Monitored Data Set 3 - Rate 0		0 to ±9.999 E+09	data specific		R
43997 2	Coincident Demand for Monitored Data Set 3 - Rate 0		0 to ±99999999 or 0 to ±1	data specific		R
43999 3	Timestamp for Monitored Data Set 3 - Rate 0 Peak & Coincident Demand		21st Century	1 s		R
44003 2	Cumulative Demand for Monitored Data Set 3 - Rate 0		0 to ±99999999	data specific		R
44005 2	Accumulator for Monitored Data Set 4 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
44007 2	Peak Demand for Monitored Data Set 4 - Rate 0		0 to ±9.999 E+09	data specific		R
44009 2	Coincident Demand for Monitored Data Set 4 - Rate 0		0 to ±99999999 or 0 to ±1	data specific		R
44011 3	Timestamp for Monitored Data Set 4 - Rate 0 Peak & Coincident Demand		21st Century	1 s		R
44015 2	Cumulative Demand for Monitored Data Set 4 - Rate 0		0 to ±99999999	data specific		R
44017 2	Accumulator for Monitored Data Set 5 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
44019 2	Peak Demand for Monitored Data Set 5 - Rate 0		0 to ±9.999 E+09	data specific		R
44021 2	Coincident Demand for Monitored Data Set 5 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
44023 3	Timestamp for Monitored Data Set 5 - Rate 0 Peak & Coincident Demand		21st Century	1 s		R
44027 2	Cumulative Demand for Monitored Data Set 5 - Rate 0		0 to ±99999999	data specific		R
44029 2	Accumulator for Monitored Data Set 6 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
44031 2	Peak Demand for Monitored Data Set 6 - Rate 0		0 to ±9.999 E+09	data specific		R
44033 2	Coincident Demand for Monitored Data Set 6 - Rate 0		0 to ±99999999 or 0 to ±1	data specific		R
44035 3	Timestamp for Monitored Data Set 6 - Rate 0 Peak & Coincident Demand		21st Century	1s		R
44039 2	Cumulative Demand for Monitored Data Set 6 - Rate 0		0 to ±99999999	data specific		R
44041 2	Accumulator for Monitored Data Set 7 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
44043 2	Peak Demand for Monitored Data Set 7 - Rate 0		0 to ±9.999 E+09	data specific		R
44045 2	Coincident Demand for Monitored Data Set 7 - Rate 0		0 to ±99999999 or 0 to ±1	data specific		R
44047 3	Timestamp for Monitored Data Set 7 - Rate 0 Peak & Coincident Demand		21st Century	1 s		R
44051 2	Cumulative Demand for Monitored Data Set 7 - Rate 0		0 to ±99999999	data specific		R
44053 2	Accumulator for Monitored Data Set 8 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
44055 2	Peak Demand for Monitored Data Set 8 - Rate 0		0 to ±9.999 E+09	data specific		R
44057 2	Coincident Demand for Monitored Data Set 8 - Rate 0			data specific		R
44059 3	Timestamp for Monitored Data Set 8 - Rate 0 Peak & Coincident Demand		21st Century	1 s		R
44063 2	Cumulative Demand for Monitored Data Set 8 - Rate 0	FLOAT	0 to ±99999999	data specific		R



Reg# Size			Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
	Accumulator for Monitored Data Set 9 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
	Peak Demand for Monitored Data Set 9 - Rate 0		0 to ±9.999 E+09	data specific			R
	Coincident Demand for Monitored Data Set 9 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
	Timestamp for Monitored Data Set 9 - Rate 0 Peak & Coincident Demand		21st Century	1s			R
		FLOAT	0 to ±99999999	data specific			R
44077 2	Accumulator for Monitored Data Set 10 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44079 2	Peak Demand for Monitored Data Set 10 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
44081 2	Coincident Demand for Monitored Data Set 10 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
44083 3	Timestamp for Monitored Data Set 10 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
44087 2	Cumulative Demand for Monitored Data Set 10 - Rate 0	FLOAT	0 to ±99999999	data specific			R
44089 2	Accumulator for Monitored Data Set 11 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44091 2	Peak Demand for Monitored Data Set 11 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
44093 2	Coincident Demand for Monitored Data Set 11 - Rate 0	FLOAT		data specific			R
44095 3	Timestamp for Monitored Data Set 11 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
44099 2	Cumulative Demand for Monitored Data Set 11 - Rate 0	FLOAT	0 to ±99999999	data specific			R
44101 2	Accumulator for Monitored Data Set 12 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44103 2	Peak Demand for Monitored Data Set 12 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
44105 2	Coincident Demand for Monitored Data Set 12 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
44107 3	Timestamp for Monitored Data Set 12 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
44111 2	Cumulative Demand for Monitored Data Set 12 - Rate 0	FLOAT	0 to ±99999999	data specific			R
44113 2	Accumulator for Monitored Data Set 12 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44115 2	Peak Demand for Monitored Data Set 13 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
44117 2		FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
44119 3	Timestamp for Monitored Data Set 13 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1 s			R
44123 2	Cumulative Demand for Monitored Data Set 13 - Rate 0	FLOAT	0 to ±99999999	data specific			R
44125 2	Accumulator for Monitored Data Set 14 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44127 2	Peak Demand for Monitored Data Set 14 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
44129 2	Coincident Demand for Monitored Data Set 14 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
44131 3	Timestamp for Monitored Data Set 14 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
44135 2	Cumulative Demand for Monitored Data Set 14 - Rate 0	FLOAT	0 to ±99999999	data specific			R
44137 2	Accumulator for Monitored Data Set 15 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44139 2	Peak Demand for Monitored Data Set 15 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
44141 2	Coincident Demand for Monitored Data Set 15 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
	Timestamp for Monitored Data Set 15 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
	Cumulative Demand for Monitored Data Set 15 - Rate 0	FLOAT	0 to ±99999999	data specific			R
44149 2	Accumulator for Monitored Data Set 16 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44151 2	Peak Demand for Monitored Data Set 16 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
44153 2	Coincident Demand for Monitored Data Set 16 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
44155 3	Timestamp for Monitored Data Set 16 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
44159 2	Cumulative Demand for Monitored Data Set 16 - Rate 0	FLOAT	0 to ±99999999	data specific			R



Reg# Size Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value Acc
Prior Month, whole month Block, Rate 1 (data accumulated over the whole month)			•		
44161 2 Accumulator for Monitored Data Set 1 - Rate 1	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
44163 2 Peak Demand for Monitored Data Set 1 - Rate 1		0 to ±9.999 E+09	data specific		R
44165 2 Coincident Demand for Monitored Data Set 1 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
44167 3 Timestamp for Monitored Data Set 1 - Rate 1 Peak & Coincident Demand		21st Century	1s		R
44171 2 Cumulative Demand for Monitored Data Set 1 - Rate 1		0 to ±99999999	data specific		R
44173 2 Accumulator for Monitored Data Set 2 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
44175 2 Peak Demand for Monitored Data Set 2 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific		R
44177 2 Coincident Demand for Monitored Data Set 2 - Rate 1		0 to ±99999999 or 0 to ±1	data specific		R
44179 3 Timestamp for Monitored Data Set 2 - Rate 1 Peak & Coincident Demand		21st Century	1 s		R
44183 2 Cumulative Demand for Monitored Data Set 2 - Rate 1		0 to ±99999999	data specific		R
44185 2 Accumulator for Monitored Data Set 3 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
44187 2 Peak Demand for Monitored Data Set 3 - Rate 1		0 to ±9.999 E+09	data specific		R
44189 2 Coincident Demand for Monitored Data Set 3 - Rate 1		0 to ±99999999 or 0 to ±1	data specific		R
44191 3 Timestamp for Monitored Data Set 3 - Rate 1 Peak & Coincident Demand		21st Century	1 s		R
44195 2 Cumulative Demand for Monitored Data Set 3 - Rate 1		0 to ±99999999	data specific		R
44197 2 Accumulator for Monitored Data Set 4 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
44199 2 Peak Demand for Monitored Data Set 4 - Rate 1		0 to ±9.999 E+09	data specific		R
44201 2 Coincident Demand for Monitored Data Set 4 - Rate 1		0 to ±99999999 or 0 to ±1	data specific		R
44203 3 Timestamp for Monitored Data Set 4 - Rate 1 Peak & Coincident Demand		21st Century	1 s		R
44207 2 Cumulative Demand for Monitored Data Set 4 - Rate 1		0 to ±99999999	data specific		R
44209 2 Accumulator for Monitored Data Set 5 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
44211 2 Peak Demand for Monitored Data Set 5 - Rate 1		0 to ±9.999 E+09	data specific		R
44213 2 Coincident Demand for Monitored Data Set 5 - Rate 1		0 to ±99999999 or 0 to ±1	data specific		R
44215 3 Timestamp for Monitored Data Set 5 - Rate 1 Peak & Coincident Demand		21st Century	1 s		R
44219 2 Cumulative Demand for Monitored Data Set 5 - Rate 1		0 to ±99999999	data specific		R
44221 2 Accumulator for Monitored Data Set 6 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
44223 2 Peak Demand for Monitored Data Set 6 - Rate 1		0 to ±9.999 E+09	data specific		R
44225 2 Coincident Demand for Monitored Data Set 6 - Rate 1		0 to ±99999999 or 0 to ±1	data specific		R
44227 3 Timestamp for Monitored Data Set 6 - Rate 1 Peak & Coincident Demand		21st Century	1 s		R
44231 2 Cumulative Demand for Monitored Data Set 6 - Rate 1		0 to ±99999999	data specific		R
44233 2 Accumulator for Monitored Data Set 7 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
44235 2 Peak Demand for Monitored Data Set 7 - Rate 1		0 to ±9.999 E+09	data specific		R
44237 2 Coincident Demand for Monitored Data Set 7 - Rate 1		0 to ±99999999 or 0 to ±1	data specific		R
44239 3 Timestamp for Monitored Data Set 7 - Rate 1 Peak & Coincident Demand		21st Century	1 s		R
44243 2 Cumulative Demand for Monitored Data Set 7 - Rate 1		0 to ±99999999	data specific		R
44245 2 Accumulator for Monitored Data Set 8 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
44247 2 Peak Demand for Monitored Data Set 8 - Rate 1		0 to ±9.999 E+09	data specific		R
44249 2 Coincident Demand for Monitored Data Set 8 - Rate 1			data specific		R
44251 3 Timestamp for Monitored Data Set 8 - Rate 1 Peak & Coincident Demand		21st Century	1 s		R
44255 2 Cumulative Demand for Monitored Data Set 8 - Rate 1	FLOAT	0 to ±99999999	data specific		R



Reg# Size Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
44257 2 Accumulator for Monitored Data Set 9 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44259 2 Peak Demand for Monitored Data Set 9 - Rate 1		0 to ±9.999 E+09	data specific			R
44261 2 Coincident Demand for Monitored Data Set 9 - Rate 1		0 to ±99999999 or 0 to ±1	data specific			R
44263 3 Timestamp for Monitored Data Set 9 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
44267 2 Cumulative Demand for Monitored Data Set 9 - Rate 1		0 to ±99999999	data specific			R
44269 2 Accumulator for Monitored Data Set 10 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44271 2 Peak Demand for Monitored Data Set 10 - Rate 1		0 to ±9.999 E+09	data specific			R
44273 2 Coincident Demand for Monitored Data Set 10 - Rate 1			data specific			R
44275 3 Timestamp for Monitored Data Set 10 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
44279 2 Cumulative Demand for Monitored Data Set 10 - Rate 1		0 to ±99999999	data specific			R
44281 2 Accumulator for Monitored Data Set 11 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44283 2 Peak Demand for Monitored Data Set 11 - Rate 1		0 to ±9.999 E+09	data specific			R
44285 2 Coincident Demand for Monitored Data Set 11 - Rate 1			data specific			R
44287 3 Timestamp for Monitored Data Set 11 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
44291 2 Cumulative Demand for Monitored Data Set 11 - Rate 1		0 to ±99999999	data specific			R
44293 2 Accumulator for Monitored Data Set 12 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44295 2 Peak Demand for Monitored Data Set 12 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific			R
44297 2 Coincident Demand for Monitored Data Set 12 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
44299 3 Timestamp for Monitored Data Set 12 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
44303 2 Cumulative Demand for Monitored Data Set 12 - Rate 1	FLOAT	0 to ±99999999	data specific			R
44305 2 Accumulator for Monitored Data Set 12 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44307 2 Peak Demand for Monitored Data Set 13 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific			R
44309 2 Coincident Demand for Monitored Data Set 13 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
44311 3 Timestamp for Monitored Data Set 13 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
44315 2 Cumulative Demand for Monitored Data Set 13 - Rate 1	FLOAT	0 to ±99999999	data specific			R
44317 2 Accumulator for Monitored Data Set 14 - Rate 1	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44319 2 Peak Demand for Monitored Data Set 14 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific			R
44321 2 Coincident Demand for Monitored Data Set 14 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
44323 3 Timestamp for Monitored Data Set 14 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
44327 2 Cumulative Demand for Monitored Data Set 14 - Rate 1	FLOAT	0 to ±99999999	data specific			R
44329 2 Accumulator for Monitored Data Set 15 - Rate 1	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44331 2 Peak Demand for Monitored Data Set 15 - Rate 1		0 to ±9.999 E+09	data specific			R
44333 2 Coincident Demand for Monitored Data Set 15 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
44335 3 Timestamp for Monitored Data Set 15 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
44339 2 Cumulative Demand for Monitored Data Set 15 - Rate 1		0 to ±99999999	data specific			R
44341 2 Accumulator for Monitored Data Set 16 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44343 2 Peak Demand for Monitored Data Set 16 - Rate 1		0 to ±9.999 E+09	data specific			R
44345 2 Coincident Demand for Monitored Data Set 16 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
44347 3 Timestamp for Monitored Data Set 16 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
44351 2 Cumulative Demand for Monitored Data Set 16 - Rate 1	FLOAT	0 to ±99999999	data specific			R



Reg# Size Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value Acc				
Prior Month, whole month Block, Rate 2 (data accumulated over the whole month)									
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
		0 to ±9.999 E+09	data specific		R				
			data specific		R				
44359 3 Timestamp for Monitored Data Set 1 - Rate 2 Peak & Coincident Demand		21st Century	1s		R				
		0 to ±99999999	data specific		R				
44365 2 Accumulator for Monitored Data Set 2 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
		0 to ±9.999 E+09	data specific		R				
			data specific		R				
44371 3 Timestamp for Monitored Data Set 2 - Rate 2 Peak & Coincident Demand		21st Century	1s		R				
44375 2 Cumulative Demand for Monitored Data Set 2 - Rate 2		0 to ±99999999	data specific		R				
44377 2 Accumulator for Monitored Data Set 3 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
44379 2 Peak Demand for Monitored Data Set 3 - Rate 2		0 to ±9.999 E+09	data specific		R				
			data specific		R				
44383 3 Timestamp for Monitored Data Set 3 - Rate 2 Peak & Coincident Demand		21st Century	1s		R				
		0 to ±99999999	data specific		R				
44389 2 Accumulator for Monitored Data Set 4 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
44391 2 Peak Demand for Monitored Data Set 4 - Rate 2		0 to ±9.999 E+09	data specific		R				
		0 to ±99999999 or 0 to ±1	data specific		R				
44395 3 Timestamp for Monitored Data Set 4 - Rate 2 Peak & Coincident Demand		21st Century	1s		R				
		0 to ±99999999	data specific		R				
44401 2 Accumulator for Monitored Data Set 5 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
		0 to ±9.999 E+09	data specific		R				
			data specific		R				
44407 3 Timestamp for Monitored Data Set 5 - Rate 2 Peak & Coincident Demand		21st Century	1s		R				
		0 to ±99999999	data specific		R				
44413 2 Accumulator for Monitored Data Set 6 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
		0 to ±9.999 E+09	data specific		R				
			data specific		R				
44419 3 Timestamp for Monitored Data Set 6 - Rate 2 Peak & Coincident Demand		21st Century	1s		R				
		0 to ±99999999	data specific		R				
44425 2 Accumulator for Monitored Data Set 7 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
		0 to ±9.999 E+09	data specific		R				
			data specific		R				
44431 3 Timestamp for Monitored Data Set 7 - Rate 2 Peak & Coincident Demand		21st Century	1s		R				
		0 to ±99999999	data specific		R				
44437 2 Accumulator for Monitored Data Set 8 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
		0 to ±9.999 E+09	data specific		R				
			data specific		R				
44443 3 Timestamp for Monitored Data Set 8 - Rate 2 Peak & Coincident Demand		21st Century	1s		R				
44447 2 Cumulative Demand for Monitored Data Set 8 - Rate 2	FLOAT	0 to ±99999999	data specific		R				



Reg# Size Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
44449 2 Accumulator for Monitored Data Set 9 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44451 2 Peak Demand for Monitored Data Set 9 - Rate 2		0 to ±9.999 E+09	data specific			R
44453 2 Coincident Demand for Monitored Data Set 9 - Rate 2		0 to ±99999999 or 0 to ±1	data specific			R
44455 3 Timestamp for Monitored Data Set 9 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
44459 2 Cumulative Demand for Monitored Data Set 9 - Rate 2		0 to ±99999999	data specific			R
44461 2 Accumulator for Monitored Data Set 10 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44463 2 Peak Demand for Monitored Data Set 10 - Rate 2		0 to ±9.999 E+09	data specific			R
44465 2 Coincident Demand for Monitored Data Set 10 - Rate 2			data specific			R
44467 3 Timestamp for Monitored Data Set 10 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
44471 2 Cumulative Demand for Monitored Data Set 10 - Rate 2		0 to ±99999999	data specific			R
44473 2 Accumulator for Monitored Data Set 11 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44475 2 Peak Demand for Monitored Data Set 11 - Rate 2		0 to ±9.999 E+09	data specific			R
44477 2 Coincident Demand for Monitored Data Set 11 - Rate 2		0 to ±99999999 or 0 to ±1	data specific			R
44479 3 Timestamp for Monitored Data Set 11 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
44483 2 Cumulative Demand for Monitored Data Set 11 - Rate 2		0 to ±99999999	data specific			R
44485 2 Accumulator for Monitored Data Set 12 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44487 2 Peak Demand for Monitored Data Set 12 - Rate 2		0 to ±9.999 E+09	data specific			R
44489 2 Coincident Demand for Monitored Data Set 12 - Rate 2		0 to ±99999999 or 0 to ±1	data specific			R
44491 3 Timestamp for Monitored Data Set 12 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
44495 2 Cumulative Demand for Monitored Data Set 12 - Rate 2		0 to ±99999999	data specific			R
44497 2 Accumulator for Monitored Data Set 12 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44499 2 Peak Demand for Monitored Data Set 13 - Rate 2		0 to ±9.999 E+09	data specific			R
44501 2 Coincident Demand for Monitored Data Set 13 - Rate 2			data specific			R
44503 3 Timestamp for Monitored Data Set 13 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
44507 2 Cumulative Demand for Monitored Data Set 13 - Rate 2		0 to ±99999999	data specific			R
44509 2 Accumulator for Monitored Data Set 14 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44511 2 Peak Demand for Monitored Data Set 14 - Rate 2		0 to ±9.999 E+09	data specific			R
44513 2 Coincident Demand for Monitored Data Set 14 - Rate 2		0 to ±99999999 or 0 to ±1	data specific			R
44515 3 Timestamp for Monitored Data Set 14 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
44519 2 Cumulative Demand for Monitored Data Set 14 - Rate 2		0 to ±99999999	data specific			R
44521 2 Accumulator for Monitored Data Set 15 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44523 2 Peak Demand for Monitored Data Set 15 - Rate 2		0 to ±9.999 E+09	data specific			R
44525 2 Coincident Demand for Monitored Data Set 15 - Rate 2		0 to ±99999999 or 0 to ±1	data specific			R
44527 3 Timestamp for Monitored Data Set 15 - Rate 2 Peak & Coincident Demand		21st Century	1 s			R
44531 2 Cumulative Demand for Monitored Data Set 15 - Rate 2		0 to ±99999999	data specific			R
44533 2 Accumulator for Monitored Data Set 16 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44535 2 Peak Demand for Monitored Data Set 16 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific			R
44537 2 Coincident Demand for Monitored Data Set 16 - Rate 2		0 to ±99999999 or 0 to ±1	data specific			R
44539 3 Timestamp for Monitored Data Set 16 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
44543 2 Cumulative Demand for Monitored Data Set 16 - Rate 2	FLOAT	0 to ±99999999	data specific			R



Reg# Size Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value Acc				
Prior Month, whole month Block, Rate 3 (data accumulated over the whole month)									
44545 2 Accumulator for Monitored Data Set 1 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
		0 to ±9.999 E+09	data specific		R				
44549 2 Coincident Demand for Monitored Data Set 1 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R				
44551 3 Timestamp for Monitored Data Set 1 - Rate 3 Peak & Coincident Demand		21st Century	1s		R				
		0 to ±99999999	data specific		R				
44557 2 Accumulator for Monitored Data Set 2 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
44559 2 Peak Demand for Monitored Data Set 2 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific		R				
		0 to ±99999999 or 0 to ±1	data specific		R				
44563 3 Timestamp for Monitored Data Set 2 - Rate 3 Peak & Coincident Demand		21st Century	1s		R				
44567 2 Cumulative Demand for Monitored Data Set 2 - Rate 3		0 to ±99999999	data specific		R				
44569 2 Accumulator for Monitored Data Set 3 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
44571 2 Peak Demand for Monitored Data Set 3 - Rate 3		0 to ±9.999 E+09	data specific		R				
		0 to ±99999999 or 0 to ±1	data specific		R				
44575 3 Timestamp for Monitored Data Set 3 - Rate 3 Peak & Coincident Demand		21st Century	1s		R				
		0 to ±99999999	data specific		R				
44581 2 Accumulator for Monitored Data Set 4 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
44583 2 Peak Demand for Monitored Data Set 4 - Rate 3		0 to ±9.999 E+09	data specific		R				
		0 to ±99999999 or 0 to ±1	data specific		R				
44587 3 Timestamp for Monitored Data Set 4 - Rate 3 Peak & Coincident Demand		21st Century	1s		R				
		0 to ±99999999	data specific		R				
44593 2 Accumulator for Monitored Data Set 5 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
		0 to ±9.999 E+09	data specific		R				
		0 to ±99999999 or 0 to ±1	data specific		R				
44599 3 Timestamp for Monitored Data Set 5 - Rate 3 Peak & Coincident Demand		21st Century	1s		R				
		0 to ±99999999	data specific		R				
44605 2 Accumulator for Monitored Data Set 6 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
		0 to ±9.999 E+09	data specific		R				
		0 to ±99999999 or 0 to ±1	data specific		R				
44611 3 Timestamp for Monitored Data Set 6 - Rate 3 Peak & Coincident Demand		21st Century	1s		R				
		0 to ±99999999	data specific		R				
44617 2 Accumulator for Monitored Data Set 7 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
		0 to ±9.999 E+09	data specific		R				
		0 to ±99999999 or 0 to ±1	data specific		R				
44623 3 Timestamp for Monitored Data Set 7 - Rate 3 Peak & Coincident Demand		21st Century	1s		R				
		0 to ±99999999	data specific		R				
44629 2 Accumulator for Monitored Data Set 8 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
		0 to ±9.999 E+09	data specific		R				
			data specific		R				
44635 3 Timestamp for Monitored Data Set 8 - Rate 3 Peak & Coincident Demand		21st Century	1s		R				
44639 2 Cumulative Demand for Monitored Data Set 8 - Rate 3	FLOAT	0 to ±99999999	data specific		R				



Reg# Size	Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
44641 2	Accumulator for Monitored Data Set 9 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44643 2			0 to ±9.999 E+09	data specific			R
44645 2	Coincident Demand for Monitored Data Set 9 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
44647 3	Timestamp for Monitored Data Set 9 - Rate 3 Peak & Coincident Demand		21st Century	1s			R
44651 2		FLOAT	0 to ±99999999	data specific			R
44653 2	Accumulator for Monitored Data Set 10 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44655 2	Peak Demand for Monitored Data Set 10 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific			R
44657 2	Coincident Demand for Monitored Data Set 10 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
44659 3	Timestamp for Monitored Data Set 10 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
44663 2	Cumulative Demand for Monitored Data Set 10 - Rate 3	FLOAT	0 to ±99999999	data specific			R
44665 2	Accumulator for Monitored Data Set 11 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44667 2	Peak Demand for Monitored Data Set 11 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific			R
44669 2	Coincident Demand for Monitored Data Set 11 - Rate 3	FLOAT		data specific			R
44671 3	Timestamp for Monitored Data Set 11 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
44675 2	Cumulative Demand for Monitored Data Set 11 - Rate 3	FLOAT	0 to ±99999999	data specific			R
44677 2	Accumulator for Monitored Data Set 12 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44679 2	Peak Demand for Monitored Data Set 12 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific			R
44681 2	Coincident Demand for Monitored Data Set 12 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
44683 3	Timestamp for Monitored Data Set 12 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
44687 2	Cumulative Demand for Monitored Data Set 12 - Rate 3	FLOAT	0 to ±99999999	data specific			R
44689 2	Accumulator for Monitored Data Set 12 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44691 2	Peak Demand for Monitored Data Set 13 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific			R
44693 2	Coincident Demand for Monitored Data Set 13 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
44695 3	Timestamp for Monitored Data Set 13 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1 s			R
44699 2	Cumulative Demand for Monitored Data Set 13 - Rate 3	FLOAT	0 to ±99999999	data specific			R
44701 2	Accumulator for Monitored Data Set 14 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44703 2	Peak Demand for Monitored Data Set 14 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific			R
44705 2	Coincident Demand for Monitored Data Set 14 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
44707 3	Timestamp for Monitored Data Set 14 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
44711 2	Cumulative Demand for Monitored Data Set 14 - Rate 3	FLOAT	0 to ±99999999	data specific			R
44713 2	Accumulator for Monitored Data Set 15 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44715 2	Peak Demand for Monitored Data Set 15 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific			R
44717 2	Coincident Demand for Monitored Data Set 15 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
44719 3	Timestamp for Monitored Data Set 15 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
44723 2	Cumulative Demand for Monitored Data Set 15 - Rate 3	FLOAT	0 to ±99999999	data specific			R
44725 2	Accumulator for Monitored Data Set 16 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44727 2	Peak Demand for Monitored Data Set 16 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific			R
44729 2	Coincident Demand for Monitored Data Set 16 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
44731 3	Timestamp for Monitored Data Set 16 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
44735 2	Cumulative Demand for Monitored Data Set 16 - Rate 3	FLOAT	0 to ±99999999	data specific			R



Reg# Size Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value Acc				
Prior Month, whole month Block, Rate 4 (data accumulated over the whole month)									
44737 2 Accumulator for Monitored Data Set 1 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
44739 2 Peak Demand for Monitored Data Set 1 - Rate 4		0 to ±9.999 E+09	data specific		R				
44741 2 Coincident Demand for Monitored Data Set 1 - Rate 4	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R				
44743 3 Timestamp for Monitored Data Set 1 - Rate 4 Peak & Coincident Demand		21st Century	1s		R				
44747 2 Cumulative Demand for Monitored Data Set 1 - Rate 4	FLOAT	0 to ±99999999	data specific		R				
44749 2 Accumulator for Monitored Data Set 2 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
44751 2 Peak Demand for Monitored Data Set 2 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific		R				
44753 2 Coincident Demand for Monitored Data Set 2 - Rate 4		0 to ±99999999 or 0 to ±1	data specific		R				
44755 3 Timestamp for Monitored Data Set 2 - Rate 4 Peak & Coincident Demand		21st Century	1s		R				
44759 2 Cumulative Demand for Monitored Data Set 2 - Rate 4		0 to ±99999999	data specific		R				
44761 2 Accumulator for Monitored Data Set 3 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
44763 2 Peak Demand for Monitored Data Set 3 - Rate 4		0 to ±9.999 E+09	data specific		R				
44765 2 Coincident Demand for Monitored Data Set 3 - Rate 4		0 to ±99999999 or 0 to ±1	data specific		R				
44767 3 Timestamp for Monitored Data Set 3 - Rate 4 Peak & Coincident Demand		21st Century	1s		R				
44771 2 Cumulative Demand for Monitored Data Set 3 - Rate 4		0 to ±99999999	data specific		R				
44773 2 Accumulator for Monitored Data Set 4 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
44775 2 Peak Demand for Monitored Data Set 4 - Rate 4		0 to ±9.999 E+09	data specific		R				
44777 2 Coincident Demand for Monitored Data Set 4 - Rate 4		0 to ±99999999 or 0 to ±1	data specific		R				
44779 3 Timestamp for Monitored Data Set 4 - Rate 4 Peak & Coincident Demand		21st Century	1s		R				
44783 2 Cumulative Demand for Monitored Data Set 4 - Rate 4		0 to ±99999999	data specific		R				
44785 2 Accumulator for Monitored Data Set 5 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
44787 2 Peak Demand for Monitored Data Set 5 - Rate 4		0 to ±9.999 E+09	data specific		R				
44789 2 Coincident Demand for Monitored Data Set 5 - Rate 4		0 to ±99999999 or 0 to ±1	data specific		R				
44791 3 Timestamp for Monitored Data Set 5 - Rate 4 Peak & Coincident Demand		21st Century	1 s		R				
44795 2 Cumulative Demand for Monitored Data Set 5 - Rate 4		0 to ±99999999	data specific		R				
44797 2 Accumulator for Monitored Data Set 6 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
44799 2 Peak Demand for Monitored Data Set 6 - Rate 4		0 to ±9.999 E+09	data specific		R				
44801 2 Coincident Demand for Monitored Data Set 6 - Rate 4		0 to ±99999999 or 0 to ±1	data specific		R				
44803 3 Timestamp for Monitored Data Set 6 - Rate 4 Peak & Coincident Demand		21st Century	1s		R				
44807 2 Cumulative Demand for Monitored Data Set 6 - Rate 4		0 to ±99999999	data specific		R				
44809 2 Accumulator for Monitored Data Set 7 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
44811 2 Peak Demand for Monitored Data Set 7 - Rate 4		0 to ±9.999 E+09	data specific		R				
44813 2 Coincident Demand for Monitored Data Set 7 - Rate 4		0 to ±99999999 or 0 to ±1	data specific		R				
44815 3 Timestamp for Monitored Data Set 7 - Rate 4 Peak & Coincident Demand		21st Century	1s		R				
44819 2 Cumulative Demand for Monitored Data Set 7 - Rate 4		0 to ±99999999	data specific		R				
44821 2 Accumulator for Monitored Data Set 8 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
44823 2 Peak Demand for Monitored Data Set 8 - Rate 4		0 to ±9.999 E+09	data specific		R				
44825 2 Coincident Demand for Monitored Data Set 8 - Rate 4			data specific		R				
44827 3 Timestamp for Monitored Data Set 8 - Rate 4 Peak & Coincident Demand		21st Century	1s		R				
44831 2 Cumulative Demand for Monitored Data Set 8 - Rate 4	FLOAT	0 to ±99999999	data specific		R				



		Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
44833				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44835	2	Peak Demand for Monitored Data Set 9 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific			R
44837			FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
44839		Fimestamp for Monitored Data Set 9 - Rate 4 Peak & Coincident Demand		21st Century	1 s			R
44843				0 to ±99999999	data specific			R
44845				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44847				0 to ±9.999 E+09	data specific			R
44849					data specific			R
44851				21st Century	1s			R
44855			FLOAT	0 to ±99999999	data specific			R
44857				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44859				0 to ±9.999 E+09	data specific			R
44861					data specific			R
44863				21st Century	1s			R
44867				0 to ±99999999	data specific			R
44869				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44871				0 to ±9.999 E+09	data specific			R
44873			FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
44875				21st Century	1s			R
44879				0 to ±99999999	data specific			R
44881				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44883				0 to ±9.999 E+09	data specific			R
44885					data specific			R
44887				21st Century	1s			R
44891				0 to ±99999999	data specific			R
44893				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44895				0 to ±9.999 E+09	data specific			R
44897					data specific			R
44899				21st Century	1s			R
44903				0 to ±99999999	data specific			R
44905				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44907				0 to ±9.999 E+09	data specific			R
44909					data specific			R
44911				21st Century	1s			R
44915				0 to ±99999999	data specific			R
44917				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
44919			FLOAT	0 to ±9.999 E+09	data specific			R
44921					data specific			R
44923		Timestamp for Monitored Data Set 16 - Rate 4 Peak & Coincident Demand		21st Century	1 s			R
44927	2	Cumulative Demand for Monitored Data Set 16 - Rate 4	FLOAT	0 to ±99999999	data specific			R



Reg# Size Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value Acc				
Prior Month, initial season Block, Rate 0 - Total (data accumulated before a mid-month season change)									
	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
		0 to ±9.999 E+09	data specific		R				
			data specific		R				
		21st Century	1s		R				
		0 to ±99999999	data specific		R				
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
		0 to ±9.999 E+09	data specific		R				
			data specific		R				
		21st Century	1s		R				
		0 to ±99999999	data specific		R				
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
		0 to ±9.999 E+09	data specific		R				
			data specific		R				
		21st Century	1s		R				
		0 to ±99999999	data specific		R				
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
		0 to ±9.999 E+09	data specific		R				
		0 to ±99999999 or 0 to ±1	data specific		R				
		21st Century	1s		R				
		0 to ±99999999	data specific		R				
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
		0 to ±9.999 E+09	data specific		R				
			data specific		R				
		21st Century	1s		R				
		0 to ±99999999	data specific		R				
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
		0 to ±9.999 E+09	data specific		R				
			data specific		R				
		21st Century	1s		R				
		0 to ±99999999	data specific		R				
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
		0 to ±9.999 E+09	data specific		R				
			data specific		R				
		21st Century	1s		R				
		0 to ±99999999	data specific		R				
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R				
		0 to ±9.999 E+09	data specific		R				
			data specific		R				
		21st Century	1s		R				
45023 2 Cumulative Demand for Monitored Data Set 8 - Rate 0	FLOAT	0 to ±99999999	data specific	1	R				



Reg# Size Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
45025 2 Accumulator for Monitored Data Set 9 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
		0 to ±9.999 E+09	data specific			R
			data specific			R
45031 3 Timestamp for Monitored Data Set 9 - Rate 0 Peak & Coincident Demand		21st Century	1s			R
		0 to ±99999999	data specific			R
45037 2 Accumulator for Monitored Data Set 10 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
		0 to ±9.999 E+09	data specific			R
			data specific			R
45043 3 Timestamp for Monitored Data Set 10 - Rate 0 Peak & Coincident Demand		21st Century	1s			R
		0 to ±99999999	data specific			R
45049 2 Accumulator for Monitored Data Set 11 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
		0 to ±9.999 E+09	data specific			R
			data specific			R
45055 3 Timestamp for Monitored Data Set 11 - Rate 0 Peak & Coincident Demand		21st Century	1 s			R
		0 to ±99999999	data specific			R
45061 2 Accumulator for Monitored Data Set 12 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45063 2 Peak Demand for Monitored Data Set 12 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
45065 2 Coincident Demand for Monitored Data Set 12 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
45067 3 Timestamp for Monitored Data Set 12 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1 s			R
45071 2 Cumulative Demand for Monitored Data Set 12 - Rate 0		0 to ±99999999	data specific			R
45073 2 Accumulator for Monitored Data Set 12 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45075 2 Peak Demand for Monitored Data Set 13 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
45077 2 Coincident Demand for Monitored Data Set 13 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
45079 3 Timestamp for Monitored Data Set 13 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1 s			R
45083 2 Cumulative Demand for Monitored Data Set 13 - Rate 0	FLOAT	0 to ±99999999	data specific			R
45085 2 Accumulator for Monitored Data Set 14 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45087 2 Peak Demand for Monitored Data Set 14 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
45089 2 Coincident Demand for Monitored Data Set 14 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
45091 3 Timestamp for Monitored Data Set 14 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
		0 to ±99999999	data specific			R
45097 2 Accumulator for Monitored Data Set 15 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45099 2 Peak Demand for Monitored Data Set 15 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
			data specific			R
45103 3 Timestamp for Monitored Data Set 15 - Rate 0 Peak & Coincident Demand		21st Century	1s			R
		0 to ±99999999	data specific			R
45109 2 Accumulator for Monitored Data Set 16 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45111 2 Peak Demand for Monitored Data Set 16 - Rate 0		0 to ±9.999 E+09	data specific			R
	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
45115 3 Timestamp for Monitored Data Set 16 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1 s			R
45119 2 Cumulative Demand for Monitored Data Set 16 - Rate 0	FLOAT	0 to ±99999999	data specific			R



Reg# Size Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value Acc
Prior Month, initial season Block, Rate 1 (data accumulated before a mid-month season of					
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
			data specific		R
45127 3 Timestamp for Monitored Data Set 1 - Rate 1 Peak & Coincident Demand		21st Century	1s		R
		0 to ±99999999	data specific		R
45133 2 Accumulator for Monitored Data Set 2 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
			data specific		R
45139 3 Timestamp for Monitored Data Set 2 - Rate 1 Peak & Coincident Demand		21st Century	1s		R
45143 2 Cumulative Demand for Monitored Data Set 2 - Rate 1		0 to ±99999999	data specific		R
45145 2 Accumulator for Monitored Data Set 3 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
45147 2 Peak Demand for Monitored Data Set 3 - Rate 1		0 to ±9.999 E+09	data specific		R
			data specific		R
45151 3 Timestamp for Monitored Data Set 3 - Rate 1 Peak & Coincident Demand		21st Century	1s		R
		0 to ±99999999	data specific		R
45157 2 Accumulator for Monitored Data Set 4 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
45159 2 Peak Demand for Monitored Data Set 4 - Rate 1		0 to ±9.999 E+09	data specific		R
		0 to ±99999999 or 0 to ±1	data specific		R
45163 3 Timestamp for Monitored Data Set 4 - Rate 1 Peak & Coincident Demand		21st Century	1s		R
		0 to ±99999999	data specific		R
45169 2 Accumulator for Monitored Data Set 5 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
45173 2 Coincident Demand for Monitored Data Set 5 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
45175 3 Timestamp for Monitored Data Set 5 - Rate 1 Peak & Coincident Demand		21st Century	1 s		R
		0 to ±99999999	data specific		R
45181 2 Accumulator for Monitored Data Set 6 - Rate 1	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
45183 2 Peak Demand for Monitored Data Set 6 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific		R
45185 2 Coincident Demand for Monitored Data Set 6 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
45187 3 Timestamp for Monitored Data Set 6 - Rate 1 Peak & Coincident Demand		21st Century	1s		R
45191 2 Cumulative Demand for Monitored Data Set 6 - Rate 1	FLOAT	0 to ±99999999	data specific		R
45193 2 Accumulator for Monitored Data Set 7 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
45195 2 Peak Demand for Monitored Data Set 7 - Rate 1		0 to ±9.999 E+09	data specific		R
	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
45199 3 Timestamp for Monitored Data Set 7 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
45203 2 Cumulative Demand for Monitored Data Set 7 - Rate 1		0 to ±99999999	data specific		R
45205 2 Accumulator for Monitored Data Set 8 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
45211 3 Timestamp for Monitored Data Set 8 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
45215 2 Cumulative Demand for Monitored Data Set 8 - Rate 1	FLOAT	0 to ±99999999	data specific		R



Reg# Size Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
45217 2 Accumulator for Monitored Data Set 9 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45219 2 Peak Demand for Monitored Data Set 9 - Rate 1		0 to ±9.999 E+09	data specific			R
45221 2 Coincident Demand for Monitored Data Set 9 - Rate 1		0 to ±99999999 or 0 to ±1	data specific			R
45223 3 Timestamp for Monitored Data Set 9 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
45227 2 Cumulative Demand for Monitored Data Set 9 - Rate 1		0 to ±99999999	data specific			R
45229 2 Accumulator for Monitored Data Set 10 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45231 2 Peak Demand for Monitored Data Set 10 - Rate 1		0 to ±9.999 E+09	data specific			R
45233 2 Coincident Demand for Monitored Data Set 10 - Rate 1			data specific			R
45235 3 Timestamp for Monitored Data Set 10 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
45239 2 Cumulative Demand for Monitored Data Set 10 - Rate 1		0 to ±99999999	data specific			R
45241 2 Accumulator for Monitored Data Set 11 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45243 2 Peak Demand for Monitored Data Set 11 - Rate 1		0 to ±9.999 E+09	data specific			R
45245 2 Coincident Demand for Monitored Data Set 11 - Rate 1			data specific			R
45247 3 Timestamp for Monitored Data Set 11 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
45251 2 Cumulative Demand for Monitored Data Set 11 - Rate 1		0 to ±99999999	data specific			R
45253 2 Accumulator for Monitored Data Set 12 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45255 2 Peak Demand for Monitored Data Set 12 - Rate 1		0 to ±9.999 E+09	data specific			R
45257 2 Coincident Demand for Monitored Data Set 12 - Rate 1		0 to ±99999999 or 0 to ±1	data specific			R
45259 3 Timestamp for Monitored Data Set 12 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
45263 2 Cumulative Demand for Monitored Data Set 12 - Rate 1		0 to ±99999999	data specific			R
45265 2 Accumulator for Monitored Data Set 12 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45267 2 Peak Demand for Monitored Data Set 13 - Rate 1		0 to ±9.999 E+09	data specific			R
45269 2 Coincident Demand for Monitored Data Set 13 - Rate 1			data specific			R
45271 3 Timestamp for Monitored Data Set 13 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
45275 2 Cumulative Demand for Monitored Data Set 13 - Rate 1		0 to ±99999999	data specific			R
45277 2 Accumulator for Monitored Data Set 14 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45279 2 Peak Demand for Monitored Data Set 14 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific			R
45281 2 Coincident Demand for Monitored Data Set 14 - Rate 1		0 to ±99999999 or 0 to ±1	data specific			R
45283 3 Timestamp for Monitored Data Set 14 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
45287 2 Cumulative Demand for Monitored Data Set 14 - Rate 1		0 to ±99999999	data specific			R
45289 2 Accumulator for Monitored Data Set 15 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45291 2 Peak Demand for Monitored Data Set 15 - Rate 1		0 to ±9.999 E+09	data specific			R
45293 2 Coincident Demand for Monitored Data Set 15 - Rate 1		0 to ±99999999 or 0 to ±1	data specific			R
45295 3 Timestamp for Monitored Data Set 15 - Rate 1 Peak & Coincident Demand		21st Century	1 s			R
45299 2 Cumulative Demand for Monitored Data Set 15 - Rate 1		0 to ±99999999	data specific			R
45301 2 Accumulator for Monitored Data Set 16 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45303 2 Peak Demand for Monitored Data Set 16 - Rate 1		0 to ±9.999 E+09	data specific			R
45305 2 Coincident Demand for Monitored Data Set 16 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
45307 3 Timestamp for Monitored Data Set 16 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
45311 2 Cumulative Demand for Monitored Data Set 16 - Rate 1	FLOAT	0 to ±99999999	data specific			R



Reg# Size Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value Acc
Prior Month, initial season Block, Rate 2 (data accumulated before a mid-month season c					
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
			data specific		R
45319 3 Timestamp for Monitored Data Set 1 - Rate 2 Peak & Coincident Demand		21st Century	1 s		R
		0 to ±99999999	data specific		R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
		0 to ±99999999 or 0 to ±1	data specific		R
		21st Century	1 s		R
		0 to ±99999999	data specific		R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
		0 to ±99999999 or 0 to ±1	data specific		R
		21st Century	1s		R
		0 to ±99999999	data specific		R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
		0 to ±99999999 or 0 to ±1	data specific		R
45355 3 Timestamp for Monitored Data Set 4 - Rate 2 Peak & Coincident Demand		21st Century	1s		R
		0 to ±99999999	data specific		R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
45365 2 Coincident Demand for Monitored Data Set 5 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
		21st Century	1 s		R
		0 to ±99999999	data specific		R
45373 2 Accumulator for Monitored Data Set 6 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
45375 2 Peak Demand for Monitored Data Set 6 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific		R
	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
		21st Century	1s		R
45383 2 Cumulative Demand for Monitored Data Set 6 - Rate 2	FLOAT	0 to ±99999999	data specific		R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
45387 2 Peak Demand for Monitored Data Set 7 - Rate 2		0 to ±9.999 E+09	data specific		R
	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
45391 3 Timestamp for Monitored Data Set 7 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
		0 to ±99999999	data specific		R
45397 2 Accumulator for Monitored Data Set 8 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
45403 3 Timestamp for Monitored Data Set 8 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
45407 2 Cumulative Demand for Monitored Data Set 8 - Rate 2	FLOAT	0 to ±99999999	data specific		R



Reg# Size Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
45409 2 Accumulator for Monitored Data Set 9 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45411 2 Peak Demand for Monitored Data Set 9 - Rate 2		0 to ±9.999 E+09	data specific			R
45413 2 Coincident Demand for Monitored Data Set 9 - Rate 2		0 to ±99999999 or 0 to ±1	data specific			R
45415 3 Timestamp for Monitored Data Set 9 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
45419 2 Cumulative Demand for Monitored Data Set 9 - Rate 2		0 to ±99999999	data specific			R
45421 2 Accumulator for Monitored Data Set 10 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45423 2 Peak Demand for Monitored Data Set 10 - Rate 2		0 to ±9.999 E+09	data specific			R
45425 2 Coincident Demand for Monitored Data Set 10 - Rate 2			data specific			R
45427 3 Timestamp for Monitored Data Set 10 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
45431 2 Cumulative Demand for Monitored Data Set 10 - Rate 2		0 to ±99999999	data specific			R
45433 2 Accumulator for Monitored Data Set 11 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45435 2 Peak Demand for Monitored Data Set 11 - Rate 2		0 to ±9.999 E+09	data specific			R
45437 2 Coincident Demand for Monitored Data Set 11 - Rate 2			data specific			R
45439 3 Timestamp for Monitored Data Set 11 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
45443 2 Cumulative Demand for Monitored Data Set 11 - Rate 2		0 to ±99999999	data specific			R
45445 2 Accumulator for Monitored Data Set 12 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45447 2 Peak Demand for Monitored Data Set 12 - Rate 2		0 to ±9.999 E+09	data specific			R
45449 2 Coincident Demand for Monitored Data Set 12 - Rate 2		0 to ±99999999 or 0 to ±1	data specific			R
45451 3 Timestamp for Monitored Data Set 12 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
45455 2 Cumulative Demand for Monitored Data Set 12 - Rate 2		0 to ±99999999	data specific			R
45457 2 Accumulator for Monitored Data Set 12 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45459 2 Peak Demand for Monitored Data Set 13 - Rate 2		0 to ±9.999 E+09	data specific			R
45461 2 Coincident Demand for Monitored Data Set 13 - Rate 2			data specific			R
45463 3 Timestamp for Monitored Data Set 13 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
45467 2 Cumulative Demand for Monitored Data Set 13 - Rate 2		0 to ±99999999	data specific			R
45469 2 Accumulator for Monitored Data Set 14 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45471 2 Peak Demand for Monitored Data Set 14 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific			R
45473 2 Coincident Demand for Monitored Data Set 14 - Rate 2		0 to ±99999999 or 0 to ±1	data specific			R
45475 3 Timestamp for Monitored Data Set 14 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
45479 2 Cumulative Demand for Monitored Data Set 14 - Rate 2		0 to ±99999999	data specific			R
45481 2 Accumulator for Monitored Data Set 15 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45483 2 Peak Demand for Monitored Data Set 15 - Rate 2		0 to ±9.999 E+09	data specific			R
45485 2 Coincident Demand for Monitored Data Set 15 - Rate 2		0 to ±99999999 or 0 to ±1	data specific			R
45487 3 Timestamp for Monitored Data Set 15 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
45491 2 Cumulative Demand for Monitored Data Set 15 - Rate 2		0 to ±99999999	data specific			R
45493 2 Accumulator for Monitored Data Set 16 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45495 2 Peak Demand for Monitored Data Set 16 - Rate 2		0 to ±9.999 E+09	data specific			R
45497 2 Coincident Demand for Monitored Data Set 16 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
45499 3 Timestamp for Monitored Data Set 16 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
45503 2 Cumulative Demand for Monitored Data Set 16 - Rate 2	FLOAT	0 to ±99999999	data specific			R



Reg# Size Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value Acc
Prior Month, initial season Block, Rate 3 (data accumulated before a mid-month season c					
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
			data specific		R
45511 3 Timestamp for Monitored Data Set 1 - Rate 3 Peak & Coincident Demand		21st Century	1s		R
		0 to ±99999999	data specific		R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
			data specific		R
		21st Century	1s		R
		0 to ±99999999	data specific		R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
			data specific		R
		21st Century	1s		R
		0 to ±99999999	data specific		R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
		0 to ±99999999 or 0 to ±1	data specific		R
45547 3 Timestamp for Monitored Data Set 4 - Rate 3 Peak & Coincident Demand		21st Century	1s		R
		0 to ±99999999	data specific		R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
45557 2 Coincident Demand for Monitored Data Set 5 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
		21st Century	1 s		R
		0 to ±99999999	data specific		R
45565 2 Accumulator for Monitored Data Set 6 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
45567 2 Peak Demand for Monitored Data Set 6 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific		R
	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
		21st Century	1s		R
45575 2 Cumulative Demand for Monitored Data Set 6 - Rate 3	FLOAT	0 to ±99999999	data specific		R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
45579 2 Peak Demand for Monitored Data Set 7 - Rate 3		0 to ±9.999 E+09	data specific		R
	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
45583 3 Timestamp for Monitored Data Set 7 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
45587 2 Cumulative Demand for Monitored Data Set 7 - Rate 3		0 to ±99999999	data specific		R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
45595 3 Timestamp for Monitored Data Set 8 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
45599 2 Cumulative Demand for Monitored Data Set 8 - Rate 3	FLOAT	0 to ±99999999	data specific		R



Reg# Si		Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
45601 2				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45603 2				0 to ±9.999 E+09	data specific			R
10000				0 to ±99999999 or 0 to ±1	data specific			R
				21st Century	1s			R
45611 2				0 to ±99999999	data specific			R
45613 2				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45615 2				0 to ±9.999 E+09	data specific			R
45617 2					data specific			R
45619				21st Century	1s			R
45623 2				0 to ±99999999	data specific			R
45625 2				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45627 2				0 to ±9.999 E+09	data specific			R
45629 2					data specific			R
45631 3				21st Century	1s			R
45635 2				0 to ±99999999	data specific			R
45637 2				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45639 2				0 to ±9.999 E+09	data specific			R
45641 2	2	Coincident Demand for Monitored Data Set 12 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
45643				21st Century	1 s			R
45647 2					data specific			R
45649 2				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45651 2				0 to ±9.999 E+09	data specific			R
45653 2	2	Coincident Demand for Monitored Data Set 13 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
45655 3	3	Timestamp for Monitored Data Set 13 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
45659 2	2	Cumulative Demand for Monitored Data Set 13 - Rate 3	FLOAT	0 to ±99999999	data specific			R
45661 2	2	Accumulator for Monitored Data Set 14 - Rate 3				Energy format, scaling applies only if energy is accumulated		R
45663 2	2	Peak Demand for Monitored Data Set 14 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific			R
45665 2				0 to ±99999999 or 0 to ±1	data specific			R
45667 3	3	Timestamp for Monitored Data Set 14 - Rate 3 Peak & Coincident Demand		21st Century	1 s			R
45671 2				0 to ±99999999	data specific			R
45673 2				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45675 2	2	Peak Demand for Monitored Data Set 15 - Rate 3		0 to ±9.999 E+09	data specific			R
45677 2					data specific			R
				21st Century	1s			R
43003 2				0 to ±99999999	data specific			R
45685 2				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45687 2			FLOAT	0 to ±9.999 E+09	data specific			R
45689 2			FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
45691 3		Timestamp for Monitored Data Set 16 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
45695	2	Cumulative Demand for Monitored Data Set 16 - Rate 3	FLOAT	0 to ±99999999	data specific			R



Reg# Size Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value Acc
Prior Month, initial season Block, Rate 4 (data accumulated before a mid-month season c					
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
			data specific		R
45703 3 Timestamp for Monitored Data Set 1 - Rate 4 Peak & Coincident Demand		21st Century	1s		R
		0 to ±99999999	data specific		R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
			data specific		R
		21st Century	1s		R
		0 to ±99999999	data specific		R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
			data specific		R
		21st Century	1s		R
		0 to ±99999999	data specific		R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
		0 to ±99999999 or 0 to ±1	data specific		R
45739 3 Timestamp for Monitored Data Set 4 - Rate 4 Peak & Coincident Demand		21st Century	1s		R
		0 to ±99999999	data specific		R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
45749 2 Coincident Demand for Monitored Data Set 5 - Rate 4	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
		21st Century	1 s		R
		0 to ±99999999	data specific		R
45757 2 Accumulator for Monitored Data Set 6 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
45759 2 Peak Demand for Monitored Data Set 6 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific		R
	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
		21st Century	1s		R
45767 2 Cumulative Demand for Monitored Data Set 6 - Rate 4	FLOAT	0 to ±99999999	data specific		R
45769 2 Accumulator for Monitored Data Set 7 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
45771 2 Peak Demand for Monitored Data Set 7 - Rate 4		0 to ±9.999 E+09	data specific		R
	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
45775 3 Timestamp for Monitored Data Set 7 - Rate 4 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
45779 2 Cumulative Demand for Monitored Data Set 7 - Rate 4		0 to ±99999999	data specific		R
45781 2 Accumulator for Monitored Data Set 8 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
		0 to ±9.999 E+09	data specific		R
	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
45787 3 Timestamp for Monitored Data Set 8 - Rate 4 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
45791 2 Cumulative Demand for Monitored Data Set 8 - Rate 4	FLOAT	0 to ±99999999	data specific		R



Reg# Size Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
45793 2 Accumulator for Monitored Data Set 9 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45795 2 Peak Demand for Monitored Data Set 9 - Rate 4		0 to ±9.999 E+09	data specific			R
45797 2 Coincident Demand for Monitored Data Set 9 - Rate 4		0 to ±99999999 or 0 to ±1	data specific			R
45799 3 Timestamp for Monitored Data Set 9 - Rate 4 Peak & Coincident Demand		21st Century	1s			R
45803 2 Cumulative Demand for Monitored Data Set 9 - Rate 4		0 to ±99999999	data specific			R
45805 2 Accumulator for Monitored Data Set 10 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45807 2 Peak Demand for Monitored Data Set 10 - Rate 4		0 to ±9.999 E+09	data specific			R
45809 2 Coincident Demand for Monitored Data Set 10 - Rate 4			data specific			R
45811 3 Timestamp for Monitored Data Set 10 - Rate 4 Peak & Coincident Demand		21st Century	1s			R
45815 2 Cumulative Demand for Monitored Data Set 10 - Rate 4		0 to ±99999999	data specific			R
45817 2 Accumulator for Monitored Data Set 11 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45819 2 Peak Demand for Monitored Data Set 11 - Rate 4		0 to ±9.999 E+09	data specific			R
45821 2 Coincident Demand for Monitored Data Set 11 - Rate 4		0 to ±99999999 or 0 to ±1	data specific			R
45823 3 Timestamp for Monitored Data Set 11 - Rate 4 Peak & Coincident Demand		21st Century	1s			R
45827 2 Cumulative Demand for Monitored Data Set 11 - Rate 4		0 to ±99999999	data specific			R
45829 2 Accumulator for Monitored Data Set 12 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45831 2 Peak Demand for Monitored Data Set 12 - Rate 4		0 to ±9.999 E+09	data specific			R
45833 2 Coincident Demand for Monitored Data Set 12 - Rate 4		0 to ±99999999 or 0 to ±1	data specific			R
45835 3 Timestamp for Monitored Data Set 12 - Rate 4 Peak & Coincident Demand		21st Century	1s			R
45839 2 Cumulative Demand for Monitored Data Set 12 - Rate 4		0 to ±99999999	data specific			R
45841 2 Accumulator for Monitored Data Set 12 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45843 2 Peak Demand for Monitored Data Set 13 - Rate 4		0 to ±9.999 E+09	data specific			R
45845 2 Coincident Demand for Monitored Data Set 13 - Rate 4			data specific			R
45847 3 Timestamp for Monitored Data Set 13 - Rate 4 Peak & Coincident Demand		21st Century	1s			R
45851 2 Cumulative Demand for Monitored Data Set 13 - Rate 4		0 to ±99999999	data specific			R
45853 2 Accumulator for Monitored Data Set 14 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45855 2 Peak Demand for Monitored Data Set 14 - Rate 4		0 to ±9.999 E+09	data specific			
45857 2 Coincident Demand for Monitored Data Set 14 - Rate 4		0 to ±99999999 or 0 to ±1	data specific			R
45859 3 Timestamp for Monitored Data Set 14 - Rate 4 Peak & Coincident Demand		21st Century	1s			R
45863 2 Cumulative Demand for Monitored Data Set 14 - Rate 4		0 to ±99999999	data specific			R
45865 2 Accumulator for Monitored Data Set 15 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45867 2 Peak Demand for Monitored Data Set 15 - Rate 4		0 to ±9.999 E+09	data specific			R
45869 2 Coincident Demand for Monitored Data Set 15 - Rate 4		0 to ±99999999 or 0 to ±1	data specific			R
45871 3 Timestamp for Monitored Data Set 15 - Rate 4 Peak & Coincident Demand		21st Century	1s			R
45875 2 Cumulative Demand for Monitored Data Set 15 - Rate 4		0 to ±99999999	data specific			R
45877 2 Accumulator for Monitored Data Set 16 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
45879 2 Peak Demand for Monitored Data Set 16 - Rate 4		0 to ±9.999 E+09	data specific			R
45881 2 Coincident Demand for Monitored Data Set 16 - Rate 4		0 to ±99999999 or 0 to ±1	data specific			R
45883 3 Timestamp for Monitored Data Set 16 - Rate 4 Peak & Coincident Demand		21st Century	1s			R
45887 2 Cumulative Demand for Monitored Data Set 16 - Rate 4	FLOAT	0 to ±99999999	data specific			R



		Description		Value Range	Unit of measure or resolution	Comments	Factory default value Acc
		n, final season Block, Rate 0 - Total (data accumulated after a mid-month seas					
45889					data specific	Energy format, scaling applies only if energy is accumulated	R
10071					data specific		R
45893					data specific		R
45895				21st Century	1s		R
45899				0 to ±99999999	data specific		R
43701				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
45903					data specific		R
45905					data specific		R
10707				21st Century	1s		R
45911				0 to ±99999999	data specific		R
45913				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
45915				0 to ±9.999 E+09	data specific		R
45917					data specific		R
10717				21st Century	1 s		R
45923				0 to ±99999999	data specific		R
45925				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
				0 to ±9.999 E+09	data specific		R
45929					data specific		R
45931			TSTAMP	21st Century	1s		R
45935	2 (			0 to ±99999999	data specific		R
45937				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
45939	2 F	Peak Demand for Monitored Data Set 5 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific		R
45941	2 (	Coincident Demand for Monitored Data Set 5 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
45943	3 1	imestamp for Monitored Data Set 5 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
45947	2 (	Cumulative Demand for Monitored Data Set 5 - Rate 0	FLOAT	0 to ±99999999	data specific		R
45949	2 A	Accumulator for Monitored Data Set 6 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
45951	2 F	Peak Demand for Monitored Data Set 6 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific		R
45953	2 (	Coincident Demand for Monitored Data Set 6 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
45955	3 1	imestamp for Monitored Data Set 6 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
45959	2 (	Cumulative Demand for Monitored Data Set 6 - Rate 0	FLOAT	0 to ±99999999	data specific		R
45961	2 A	Accumulator for Monitored Data Set 7 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
45963	2 F	Peak Demand for Monitored Data Set 7 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific		R
45965	2 (	Coincident Demand for Monitored Data Set 7 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
45967	3 1	imestamp for Monitored Data Set 7 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
45971	2 (	Cumulative Demand for Monitored Data Set 7 - Rate 0	FLOAT	0 to ±99999999	data specific		R
45973	2 A	Accumulator for Monitored Data Set 8 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
45975			FLOAT	0 to ±9.999 E+09	data specific		R
45977					data specific		R
45979	3 1	imestamp for Monitored Data Set 8 - Rate 0 Peak & Coincident Demand		21st Century	1 s		R
45983					data specific		R



Reg# Size Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
45985 2 Accumulator for Monitored Data Set 9 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
		0 to ±9.999 E+09	data specific			R
			data specific			R
45991 3 Timestamp for Monitored Data Set 9 - Rate 0 Peak & Coincident Demand		21st Century	1s			R
		0 to ±99999999	data specific			R
45997 2 Accumulator for Monitored Data Set 10 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
		0 to ±9.999 E+09	data specific			R
			data specific			R
46003 3 Timestamp for Monitored Data Set 10 - Rate 0 Peak & Coincident Demand		21st Century	1s			R
		0 to ±99999999	data specific			R
46009 2 Accumulator for Monitored Data Set 11 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
		0 to ±9.999 E+09	data specific			R
			data specific			R
46015 3 Timestamp for Monitored Data Set 11 - Rate 0 Peak & Coincident Demand		21st Century	1s			R
		0 to ±99999999	data specific			R
46021 2 Accumulator for Monitored Data Set 12 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
46023 2 Peak Demand for Monitored Data Set 12 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
46025 2 Coincident Demand for Monitored Data Set 12 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
46027 3 Timestamp for Monitored Data Set 12 - Rate 0 Peak & Coincident Demand		21st Century	1s			R
46031 2 Cumulative Demand for Monitored Data Set 12 - Rate 0		0 to ±99999999	data specific			R
46033 2 Accumulator for Monitored Data Set 12 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
46035 2 Peak Demand for Monitored Data Set 13 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
46037 2 Coincident Demand for Monitored Data Set 13 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
46039 3 Timestamp for Monitored Data Set 13 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
46043 2 Cumulative Demand for Monitored Data Set 13 - Rate 0	FLOAT	0 to ±99999999	data specific			R
46045 2 Accumulator for Monitored Data Set 14 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
46047 2 Peak Demand for Monitored Data Set 14 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			
46049 2 Coincident Demand for Monitored Data Set 14 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
46051 3 Timestamp for Monitored Data Set 14 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
		0 to ±99999999	data specific			R
46057 2 Accumulator for Monitored Data Set 15 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
46059 2 Peak Demand for Monitored Data Set 15 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
46061 2 Coincident Demand for Monitored Data Set 15 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
46063 3 Timestamp for Monitored Data Set 15 - Rate 0 Peak & Coincident Demand		21st Century	1s			R
46067 2 Cumulative Demand for Monitored Data Set 15 - Rate 0	FLOAT	0 to ±99999999	data specific			R
46069 2 Accumulator for Monitored Data Set 16 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
		0 to ±9.999 E+09	data specific			R
	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
46075 3 Timestamp for Monitored Data Set 16 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
46079 2 Cumulative Demand for Monitored Data Set 16 - Rate 0	FLOAT	0 to ±99999999	data specific			R



				Value Range	Unit of measure or resolution	Comments	Factory default value Acc
		h, final season Block, Rate 1 (data accumulated after a mid-month season char					1 1
46081				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46083				0 to ±9.999 E+09	data specific		R
46085				0 to ±99999999 or 0 to ±1			R
46087				21st Century	1s		R
46091				0 to ±99999999	data specific		R
46093				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46095				0 to ±9.999 E+09	data specific		R
46097					data specific		R
46099				21st Century	1s		R
46103				0 to ±99999999	data specific		R
46105				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46107				0 to ±9.999 E+09	data specific		R
46109				0 to ±99999999 or 0 to ±1	data specific		R
46111				21st Century	1s		R
46115				0 to ±99999999	data specific		R
46117				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46119				0 to ±9.999 E+09	data specific		R
46121					data specific		R
46123				21st Century	1s		R
46127				0 to ±99999999	data specific		R
46129				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46131				0 to ±9.999 E+09	data specific		R
46133				0 to ±99999999 or 0 to ±1	data specific		R
46135				21st Century	1s		R
46139				0 to ±99999999	data specific		R
46141				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46143				0 to ±9.999 E+09	data specific		R
46145					data specific		R
46147				21st Century	1s		R
46151				0 to ±99999999	data specific		R
46153				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46155				0 to ±9.999 E+09	data specific		R
46157					data specific		R
46159				21st Century	1s		R
46163				0 to ±99999999	data specific		R
46165				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46167				0 to ±9.999 E+09	data specific		R
46169					data specific		R
46171				21st Century	1 s		R
46175	2	Cumulative Demand for Monitored Data Set 8 - Rate 1	FLOAT	0 to ±99999999	data specific		R



Reg# Size Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
46177 2 Accumulator for Monitored Data Set 9 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
46179 2 Peak Demand for Monitored Data Set 9 - Rate 1		0 to ±9.999 E+09	data specific			R
46181 2 Coincident Demand for Monitored Data Set 9 - Rate 1		0 to ±99999999 or 0 to ±1	data specific			R
46183 3 Timestamp for Monitored Data Set 9 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
46187 2 Cumulative Demand for Monitored Data Set 9 - Rate 1		0 to ±99999999	data specific			R
46189 2 Accumulator for Monitored Data Set 10 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
46191 2 Peak Demand for Monitored Data Set 10 - Rate 1		0 to ±9.999 E+09	data specific			R
46193 2 Coincident Demand for Monitored Data Set 10 - Rate 1			data specific			R
46195 3 Timestamp for Monitored Data Set 10 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
46199 2 Cumulative Demand for Monitored Data Set 10 - Rate 1		0 to ±99999999	data specific			R
46201 2 Accumulator for Monitored Data Set 11 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
46203 2 Peak Demand for Monitored Data Set 11 - Rate 1		0 to ±9.999 E+09	data specific			R
46205 2 Coincident Demand for Monitored Data Set 11 - Rate 1			data specific			R
46207 3 Timestamp for Monitored Data Set 11 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
46211 2 Cumulative Demand for Monitored Data Set 11 - Rate 1		0 to ±99999999	data specific			R
46213 2 Accumulator for Monitored Data Set 12 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
46215 2 Peak Demand for Monitored Data Set 12 - Rate 1		0 to ±9.999 E+09	data specific			R
46217 2 Coincident Demand for Monitored Data Set 12 - Rate 1		0 to ±99999999 or 0 to ±1	data specific			R
46219 3 Timestamp for Monitored Data Set 12 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
46223 2 Cumulative Demand for Monitored Data Set 12 - Rate 1		0 to ±99999999	data specific			R
46225 2 Accumulator for Monitored Data Set 12 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
46227 2 Peak Demand for Monitored Data Set 13 - Rate 1		0 to ±9.999 E+09	data specific			R
46229 2 Coincident Demand for Monitored Data Set 13 - Rate 1			data specific			R
46231 3 Timestamp for Monitored Data Set 13 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
46235 2 Cumulative Demand for Monitored Data Set 13 - Rate 1		0 to ±99999999	data specific			R
46237 2 Accumulator for Monitored Data Set 14 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
46239 2 Peak Demand for Monitored Data Set 14 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific			
46241 2 Coincident Demand for Monitored Data Set 14 - Rate 1		0 to ±99999999 or 0 to ±1	data specific			R
46243 3 Timestamp for Monitored Data Set 14 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
46247 2 Cumulative Demand for Monitored Data Set 14 - Rate 1		0 to ±99999999	data specific			R
46249 2 Accumulator for Monitored Data Set 15 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
46251 2 Peak Demand for Monitored Data Set 15 - Rate 1		0 to ±9.999 E+09	data specific			R
46253 2 Coincident Demand for Monitored Data Set 15 - Rate 1		0 to ±99999999 or 0 to ±1	data specific			R
46255 3 Timestamp for Monitored Data Set 15 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
46259 2 Cumulative Demand for Monitored Data Set 15 - Rate 1		0 to ±99999999	data specific			R
46261 2 Accumulator for Monitored Data Set 16 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
46263 2 Peak Demand for Monitored Data Set 16 - Rate 1		0 to ±9.999 E+09	data specific			R
46265 2 Coincident Demand for Monitored Data Set 16 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
46267 3 Timestamp for Monitored Data Set 16 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
46271 2 Cumulative Demand for Monitored Data Set 16 - Rate 1	FLOAT	0 to ±99999999	data specific			R



		Description		Value Range	Unit of measure or resolution	Comments	Factory default value Acc
Prior		h, final season Block, Rate 2 (data accumulated after a mid-month season cha					
46273				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46275				0 to ±9.999 E+09	data specific		R
46277					data specific		R
46279				21st Century	1s		R
46283				0 to ±99999999	data specific		R
46285				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46287				0 to ±9.999 E+09	data specific		R
46289				0 to ±99999999 or 0 to ±1	data specific		R
46291				21st Century	1s		R
46295				0 to ±99999999	data specific		R
46297				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46299		Peak Demand for Monitored Data Set 3 - Rate 2		0 to ±9.999 E+09	data specific		R
46301					data specific		R
46303				21st Century	1s		R
46307				0 to ±99999999	data specific		R
46309				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46311				0 to ±9.999 E+09	data specific		R
46313					data specific		R
46315	3	Timestamp for Monitored Data Set 4 - Rate 2 Peak & Coincident Demand		21st Century	1s		R
46319	2 (	Cumulative Demand for Monitored Data Set 4 - Rate 2		0 to ±99999999	data specific		R
46321				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46323		Peak Demand for Monitored Data Set 5 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific		R
46325	2 (	Coincident Demand for Monitored Data Set 5 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
46327	3	Timestamp for Monitored Data Set 5 - Rate 2 Peak & Coincident Demand		21st Century	1s		R
46331	2 (	Cumulative Demand for Monitored Data Set 5 - Rate 2	FLOAT	0 to ±99999999	data specific		R
46333	2	Accumulator for Monitored Data Set 6 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46335	2	Peak Demand for Monitored Data Set 6 - Rate 2		0 to ±9.999 E+09	data specific		R
46337	2 (	Coincident Demand for Monitored Data Set 6 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
46339	3	Timestamp for Monitored Data Set 6 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
46343	2 (	Cumulative Demand for Monitored Data Set 6 - Rate 2	FLOAT	0 to ±99999999	data specific		R
46345	2	Accumulator for Monitored Data Set 7 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46347	2	Peak Demand for Monitored Data Set 7 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific		R
46349	2 (	Coincident Demand for Monitored Data Set 7 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
46351	3	Timestamp for Monitored Data Set 7 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
46355				0 to ±99999999	data specific		R
46357	2	Accumulator for Monitored Data Set 8 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46359				0 to ±9.999 E+09	data specific		R
46361					data specific		R
46363				21st Century	1 s		R
46367				0 to ±99999999	data specific		R



	Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
46369 2	Accumulator for Monitored Data Set 9 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
46371 2	Peak Demand for Monitored Data Set 9 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific			R
46373 2	Coincident Demand for Monitored Data Set 9 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
46375 3	Timestamp for Monitored Data Set 9 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1 s			R
46379 2	Cumulative Demand for Monitored Data Set 9 - Rate 2	FLOAT	0 to ±99999999	data specific			R
46381 2	Accumulator for Monitored Data Set 10 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
46383 2	Peak Demand for Monitored Data Set 10 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific			R
46385 2				data specific			R
46387 3	Timestamp for Monitored Data Set 10 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
46391 2	Cumulative Demand for Monitored Data Set 10 - Rate 2	FLOAT	0 to ±99999999	data specific			R
46393 2	Accumulator for Monitored Data Set 11 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
46395 2	Peak Demand for Monitored Data Set 11 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific			R
46397 2	Coincident Demand for Monitored Data Set 11 - Rate 2	FLOAT		data specific			R
46399 3	Timestamp for Monitored Data Set 11 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
46403 2	Cumulative Demand for Monitored Data Set 11 - Rate 2	FLOAT	0 to ±99999999	data specific			R
46405 2	Accumulator for Monitored Data Set 12 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
46407 2	Peak Demand for Monitored Data Set 12 - Rate 2		0 to ±9.999 E+09	data specific			R
46409 2	Coincident Demand for Monitored Data Set 12 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
46411 3	Timestamp for Monitored Data Set 12 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
46415 2		FLOAT	0 to ±99999999	data specific			R
46417 2	Accumulator for Monitored Data Set 12 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
46419 2	Peak Demand for Monitored Data Set 13 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific			R
46421 2		FLOAT		data specific			R
46423 3	Timestamp for Monitored Data Set 13 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
46427 2	Cumulative Demand for Monitored Data Set 13 - Rate 2	FLOAT	0 to ±99999999	data specific			R
46429 2	Accumulator for Monitored Data Set 14 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
46431 2	Peak Demand for Monitored Data Set 14 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific		•	
46433 2	Coincident Demand for Monitored Data Set 14 - Rate 2	FLOAT		data specific			R
46435 3	Timestamp for Monitored Data Set 14 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
46439 2	Cumulative Demand for Monitored Data Set 14 - Rate 2	FLOAT	0 to ±99999999	data specific			R
46441 2	Accumulator for Monitored Data Set 15 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
46443 2	Peak Demand for Monitored Data Set 15 - Rate 2		0 to ±9.999 E+09	data specific			R
46445 2	Coincident Demand for Monitored Data Set 15 - Rate 2	FLOAT		data specific			R
46447 3	Timestamp for Monitored Data Set 15 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1 s			R
46451 2		FLOAT	0 to ±99999999	data specific			R
46453 2	Accumulator for Monitored Data Set 16 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
46455 2	Peak Demand for Monitored Data Set 16 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific			R
46457 2	Coincident Demand for Monitored Data Set 16 - Rate 2	FLOAT		data specific			R
46459 3	Timestamp for Monitored Data Set 16 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1 s			R
46463 2	Cumulative Demand for Monitored Data Set 16 - Rate 2	FLOAT	0 to ±99999999	data specific			R



		Description		Value Range	Unit of measure or resolution	Comments	Factory default value Acc
		h, final season Block, Rate 3 (data accumulated after a mid-month season char					
46465 2					data specific	Energy format, scaling applies only if energy is accumulated	R
46467 2					data specific		R
46469 2					data specific		R
46471 3				21st Century	1s		R
46475 2				0 to ±99999999	data specific		R
46477 2				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46479 2		Peak Demand for Monitored Data Set 2 - Rate 3			data specific		R
46481 2					data specific		R
46483 3				21st Century	1 s		R
46487 2				0 to ±99999999	data specific		R
46489 2				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46491 2				0 to ±9.999 E+09	data specific		R
46493 2					data specific		R
46495 3				21st Century	1 s		R
46499 2				0 to ±99999999	data specific		R
46501 2				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46503 2				0 to ±9.999 E+09	data specific		R
46505 2					data specific		R
46507 3			TSTAMP	21st Century	1s		R
46511 2	2 (			0 to ±99999999	data specific		R
46513 2				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46515 2	2 F	Peak Demand for Monitored Data Set 5 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific		R
46517 2	2 (	Coincident Demand for Monitored Data Set 5 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
46519 3	3 1	Fimestamp for Monitored Data Set 5 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
46523 2	2 (	Cumulative Demand for Monitored Data Set 5 - Rate 3	FLOAT	0 to ±99999999	data specific		R
46525 2	2 A	Accumulator for Monitored Data Set 6 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46527 2	2 F	Peak Demand for Monitored Data Set 6 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific		R
46529 2	2 (	Coincident Demand for Monitored Data Set 6 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
46531 3	3 1	Fimestamp for Monitored Data Set 6 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
46535 2	2 (	Cumulative Demand for Monitored Data Set 6 - Rate 3	FLOAT	0 to ±99999999	data specific		R
46537 2	2 A	Accumulator for Monitored Data Set 7 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46539 2	2 F	Peak Demand for Monitored Data Set 7 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific		R
46541 2			FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
46543 3	3 1	Timestamp for Monitored Data Set 7 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
46547 2	2 (	Cumulative Demand for Monitored Data Set 7 - Rate 3	FLOAT	0 to ±99999999	data specific		R
46549 2	2 /	Accumulator for Monitored Data Set 8 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46551 2	2 F	Peak Demand for Monitored Data Set 8 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific		R
46553 2	2 (	Coincident Demand for Monitored Data Set 8 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
46555 3	3 1	Timestamp for Monitored Data Set 8 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
46559 2	2 (	Cumulative Demand for Monitored Data Set 8 - Rate 3	FLOAT	0 to ±99999999	data specific		R



		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
46561 2 Accumulator for Monitored Data Set 9 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
		0 to ±9.999 E+09	data specific			R
			data specific			R
		21st Century	1s			R
46571 2 Cumulative Demand for Monitored Data Set 9 - Rate 3		0 to ±99999999	data specific			R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
		0 to ±9.999 E+09	data specific			R
			data specific			R
		21st Century	1s			R
		0 to ±99999999	data specific			R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
		0 to ±9.999 E+09	data specific			R
			data specific			R
		21st Century	1s			R
		0 to ±99999999	data specific			R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
		0 to ±9.999 E+09	data specific			R
			data specific			R
		21st Century	1s			R
		0 to ±99999999	data specific			R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
		0 to ±9.999 E+09	data specific			R
		0 to ±99999999 or 0 to ±1	data specific			R
		21st Century	1s			R
		0 to ±99999999	data specific			R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
		0 to ±9.999 E+09	data specific			R
		0 to ±99999999 or 0 to ±1	data specific			R
		21st Century	1s			R
		0 to ±99999999	data specific			R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
		0 to ±9.999 E+09	data specific			R
			data specific			R
		21st Century	1s			R
		0 to ±99999999	data specific			R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
		0 to ±9.999 E+09	data specific			R
			data specific			R
		21st Century	1s			R
46655 2 Cumulative Demand for Monitored Data Set 16 - Rate 3	FLOAT	0 to ±99999999	data specific			R



		Description		Value Range	Unit of measure or resolution	Comments	Factory default value Acc
Prior I		n, final season Block, Rate 4 (data accumulated after a mid-month season char					
46657					data specific	Energy format, scaling applies only if energy is accumulated	R
10007					data specific		R
46661					data specific		R
46663				21st Century	1s		R
46667				0 to ±99999999	data specific		R
40007				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46671		Peak Demand for Monitored Data Set 2 - Rate 4			data specific		R
46673					data specific		R
10010				21st Century	1 s		R
46679				0 to ±99999999	data specific		R
46681				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46683				0 to ±9.999 E+09	data specific		R
46685					data specific		R
46687	3 1	"imestamp for Monitored Data Set 3 - Rate 4 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
46691	2 (	Cumulative Demand for Monitored Data Set 3 - Rate 4	FLOAT	0 to ±99999999	data specific		R
46693				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46695			FLOAT	0 to ±9.999 E+09	data specific		R
46697	2 (	Coincident Demand for Monitored Data Set 4 - Rate 4	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
46699	3 1	imestamp for Monitored Data Set 4 - Rate 4 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
46703	2 (	Cumulative Demand for Monitored Data Set 4 - Rate 4	FLOAT	0 to ±99999999	data specific		R
46705	2 /	Accumulator for Monitored Data Set 5 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46707	2 F	Peak Demand for Monitored Data Set 5 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific		R
46709	2 (	Coincident Demand for Monitored Data Set 5 - Rate 4	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
46711	3 1	imestamp for Monitored Data Set 5 - Rate 4 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
46715	2 (	Cumulative Demand for Monitored Data Set 5 - Rate 4	FLOAT	0 to ±99999999	data specific		R
46717	2 /	Accumulator for Monitored Data Set 6 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46719	2 F	Peak Demand for Monitored Data Set 6 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific		R
46721	2 (	Coincident Demand for Monitored Data Set 6 - Rate 4	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
46723	3 1	imestamp for Monitored Data Set 6 - Rate 4 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
46727	2 (	Cumulative Demand for Monitored Data Set 6 - Rate 4	FLOAT	0 to ±99999999	data specific		R
46729	2 /	Accumulator for Monitored Data Set 7 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46731	2 F	Peak Demand for Monitored Data Set 7 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific		R
46733					data specific		R
46735		imestamp for Monitored Data Set 7 - Rate 4 Peak & Coincident Demand		21st Century	1 s		R
46739				0 to ±99999999	data specific		R
46741	2 /	Accumulator for Monitored Data Set 8 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
46743					data specific		R
		Coincident Demand for Monitored Data Set 8 - Rate 4			data specific		R
				21st Century	1 s		R
46751					data specific		R



	Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
46753 2	Accumulator for Monitored Data Set 9 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
46755 2	Peak Demand for Monitored Data Set 9 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific			R
46757 2	Coincident Demand for Monitored Data Set 9 - Rate 4	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
46759 3	Timestamp for Monitored Data Set 9 - Rate 4 Peak & Coincident Demand	TSTAMP	21st Century	1 s			R
46763 2	Cumulative Demand for Monitored Data Set 9 - Rate 4	FLOAT	0 to ±99999999	data specific			R
46765 2	Accumulator for Monitored Data Set 10 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
46767 2	Peak Demand for Monitored Data Set 10 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific			R
46769 2				data specific			R
46771 3	Timestamp for Monitored Data Set 10 - Rate 4 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
46775 2	Cumulative Demand for Monitored Data Set 10 - Rate 4	FLOAT	0 to ±99999999	data specific			R
46777 2	Accumulator for Monitored Data Set 11 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
46779 2	Peak Demand for Monitored Data Set 11 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific			R
46781 2	Coincident Demand for Monitored Data Set 11 - Rate 4	FLOAT		data specific			R
46783 3	Timestamp for Monitored Data Set 11 - Rate 4 Peak & Coincident Demand		21st Century	1s			R
46787 2	Cumulative Demand for Monitored Data Set 11 - Rate 4	FLOAT	0 to ±99999999	data specific			R
46789 2	Accumulator for Monitored Data Set 12 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
46791 2	Peak Demand for Monitored Data Set 12 - Rate 4		0 to ±9.999 E+09	data specific			R
46793 2	Coincident Demand for Monitored Data Set 12 - Rate 4	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
46795 3	Timestamp for Monitored Data Set 12 - Rate 4 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
46799 2		FLOAT	0 to ±99999999	data specific			R
46801 2	Accumulator for Monitored Data Set 12 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
46803 2	Peak Demand for Monitored Data Set 13 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific			R
46805 2				data specific			R
46807 3	Timestamp for Monitored Data Set 13 - Rate 4 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
46811 2	Cumulative Demand for Monitored Data Set 13 - Rate 4	FLOAT	0 to ±99999999	data specific			R
46813 2	Accumulator for Monitored Data Set 14 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
46815 2	Peak Demand for Monitored Data Set 14 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific			R
46817 2	Coincident Demand for Monitored Data Set 14 - Rate 4	FLOAT		data specific			R
46819 3	Timestamp for Monitored Data Set 14 - Rate 4 Peak & Coincident Demand		21st Century	1s			R
46823 2	Cumulative Demand for Monitored Data Set 14 - Rate 4	FLOAT	0 to ±99999999	data specific			R
46825 2	Accumulator for Monitored Data Set 15 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
46827 2	Peak Demand for Monitored Data Set 15 - Rate 4		0 to ±9.999 E+09	data specific			R
46829 2	Coincident Demand for Monitored Data Set 15 - Rate 4	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
46831 3	Timestamp for Monitored Data Set 15 - Rate 4 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
46835 2		FLOAT	0 to ±99999999	data specific			R
46837 2	Accumulator for Monitored Data Set 16 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
46839 2	Peak Demand for Monitored Data Set 16 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific			R
46841 2	Coincident Demand for Monitored Data Set 16 - Rate 4	FLOAT		data specific			R
46843 3	Timestamp for Monitored Data Set 16 - Rate 4 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
46847 2	Cumulative Demand for Monitored Data Set 16 - Rate 4	FLOAT	0 to ±99999999	data specific			R



Reg# Si	ize I	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
Curren	nt Se	ason Block, Rate 0 - Total	•					
47000	2	Accumulator for Monitored Data Set 1 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47002	2	Peak Demand for Monitored Data Set 1 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
47004	2 (	Coincident Demand for Monitored Data Set 1 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
47006	3	Timestamp for Monitored Data Set 1 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
47010	2 (	Cumulative Demand for Monitored Data Set 1 - Rate 0		0 to ±99999999	data specific			R
47012	2	Accumulator for Monitored Data Set 2 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47014	2	Peak Demand for Monitored Data Set 2 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
47016	2 (	Coincident Demand for Monitored Data Set 2 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
47018		Timestamp for Monitored Data Set 2 - Rate 0 Peak & Coincident Demand		21st Century	1 s			R
47022		Cumulative Demand for Monitored Data Set 2 - Rate 0		0 to ±99999999	data specific			R
47024		Accumulator for Monitored Data Set 3 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47026		Peak Demand for Monitored Data Set 3 - Rate 0		0 to ±9.999 E+09	data specific			R
47028		Coincident Demand for Monitored Data Set 3 - Rate 0		0 to ±99999999 or 0 to ±1	data specific			R
47030		Timestamp for Monitored Data Set 3 - Rate 0 Peak & Coincident Demand		21st Century	1 s			R
47034		Cumulative Demand for Monitored Data Set 3 - Rate 0		0 to ±99999999	data specific			R
47036		Accumulator for Monitored Data Set 4 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47038		Peak Demand for Monitored Data Set 4 - Rate 0		0 to ±9.999 E+09	data specific			R
47040		Coincident Demand for Monitored Data Set 4 - Rate 0		0 to ±99999999 or 0 to ±1	data specific			R
47042		Timestamp for Monitored Data Set 4 - Rate 0 Peak & Coincident Demand		21st Century	1 s			R
47046		Cumulative Demand for Monitored Data Set 4 - Rate 0		0 to ±99999999	data specific			R
47048		Accumulator for Monitored Data Set 5 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47050		Peak Demand for Monitored Data Set 5 - Rate 0		0 to ±9.999 E+09	data specific			R
47052		Coincident Demand for Monitored Data Set 5 - Rate 0		0 to ±99999999 or 0 to ±1	data specific			R
47054		Timestamp for Monitored Data Set 5 - Rate 0 Peak & Coincident Demand		21st Century	1 s			R
47058		Cumulative Demand for Monitored Data Set 5 - Rate 0		0 to ±99999999	data specific			R
47060		Accumulator for Monitored Data Set 6 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47062		Peak Demand for Monitored Data Set 6 - Rate 0		0 to ±9.999 E+09	data specific			R
47064		Coincident Demand for Monitored Data Set 6 - Rate 0		0 to ±99999999 or 0 to ±1	data specific			R
47066		Timestamp for Monitored Data Set 6 - Rate 0 Peak & Coincident Demand		21st Century	1 s			R
47070		Cumulative Demand for Monitored Data Set 6 - Rate 0		0 to ±99999999	data specific			R
47072		Accumulator for Monitored Data Set 7 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47074		Peak Demand for Monitored Data Set 7 - Rate 0		0 to ±9.999 E+09	data specific			R
47076		Coincident Demand for Monitored Data Set 7 - Rate 0		0 to ±99999999 or 0 to ±1	data specific			R
47078		Timestamp for Monitored Data Set 7 Peak & Coincident Demand		21st Century	1s			R
47082		Cumulative Demand for Monitored Data Set 7 - Rate 0		0 to ±99999999	data specific			R
47084		Accumulator for Monitored Data Set 8 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47086		Peak Demand for Monitored Data Set 8 - Rate 0		0 to ±9.999 E+09	data specific			R
47088		Coincident Demand for Monitored Data Set 8 - Rate 0		0 to ±99999999 or 0 to ±1	data specific			R
47090		Timestamp for Monitored Data Set 8 - Rate 0 Peak & Coincident Demand		21st Century	1s			R
47094	2 (	Cumulative Demand for Monitored Data Set 8 - Rate 0	FLOAT	0 to ±99999999	data specific			R



Reg# Size			Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
	Accumulator for Monitored Data Set 9 - Rate 0			data specific	Energy format, scaling applies only if energy is accumulated		R
	Peak Demand for Monitored Data Set 9 - Rate 0		0 to ±9.999 E+09	data specific			R
	Coincident Demand for Monitored Data Set 9 - Rate 0	FLOAT		data specific			R
	Timestamp for Monitored Data Set 9 - Rate 0 Peak & Coincident Demand		21st Century	1s			R
		FLOAT	0 to ±99999999	data specific			R
47108 2	Accumulator for Monitored Data Set 10 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
	Peak Demand for Monitored Data Set 10 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
	Coincident Demand for Monitored Data Set 10 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
	Timestamp for Monitored Data Set 10 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
	Cumulative Demand for Monitored Data Set 10 - Rate 0	FLOAT	0 to ±99999999	data specific			R
47120 2	Accumulator for Monitored Data Set 11 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47122 2	Peak Demand for Monitored Data Set 11 - Rate 0	FLOAT		data specific			R
	Coincident Demand for Monitored Data Set 11 - Rate 0	FLOAT		data specific			R
47126 3	Timestamp for Monitored Data Set 11 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1 s			R
47130 2	Cumulative Demand for Monitored Data Set 11 - Rate 0	FLOAT	0 to ±99999999	data specific			R
47132 2	Accumulator for Monitored Data Set 12 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47134 2	Peak Demand for Monitored Data Set 12 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
47136 2	Coincident Demand for Monitored Data Set 12 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
47138 3	Timestamp for Monitored Data Set 12 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
47142 2	Cumulative Demand for Monitored Data Set 12 - Rate 0	FLOAT	0 to ±99999999	data specific			R
	Accumulator for Monitored Data Set 13 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47146 2	Peak Demand for Monitored Data Set 13 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
		FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
47150 3	Timestamp for Monitored Data Set 13 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
47154 2	Cumulative Demand for Monitored Data Set 13 - Rate 0	FLOAT	0 to ±99999999	data specific			R
47156 2	Accumulator for Monitored Data Set 14 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47158 2	Peak Demand for Monitored Data Set 14 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
	Coincident Demand for Monitored Data Set 14 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
47162 3	Timestamp for Monitored Data Set 14 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
47166 2	Cumulative Demand for Monitored Data Set 14 - Rate 0	FLOAT	0 to ±99999999	data specific			R
47168 2	Accumulator for Monitored Data Set 15 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47170 2	Peak Demand for Monitored Data Set 15 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
	Coincident Demand for Monitored Data Set 15 - Rate 0	FLOAT		data specific			R
	Timestamp for Monitored Data Set 15 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
	Cumulative Demand for Monitored Data Set 15 - Rate 0	FLOAT		data specific			R
	Accumulator for Monitored Data Set 16 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
	Peak Demand for Monitored Data Set 16 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
	Coincident Demand for Monitored Data Set 16 - Rate 0	FLOAT		data specific			R
	Timestamp for Monitored Data Set 16 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1 s			R
47190 2	Cumulative Demand for Monitored Data Set 16 - Rate 0	FLOAT	0 to ±99999999	data specific			R



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
Curr	ent S	eason Block, Rate 1			•			
47192	2	Accumulator for Monitored Data Set 1 - Rate 1	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47194	2	Peak Demand for Monitored Data Set 1 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific			R
47196	2	Coincident Demand for Monitored Data Set 1 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
47198	3	Timestamp for Monitored Data Set 1 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
47202	2	Cumulative Demand for Monitored Data Set 1 - Rate 1		0 to ±99999999	data specific			R
47204		Accumulator for Monitored Data Set 2 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47206	2	Peak Demand for Monitored Data Set 2 - Rate 1		0 to ±9.999 E+09	data specific			R
47208	2	Coincident Demand for Monitored Data Set 2 - Rate 1			data specific			R
47210	3	Timestamp for Monitored Data Set 2 - Rate 1 Peak & Coincident Demand		21st Century	1 s			R
47214	2	Cumulative Demand for Monitored Data Set 2 - Rate 1		0 to ±99999999	data specific			R
47216	2	Accumulator for Monitored Data Set 3 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47218	2	Peak Demand for Monitored Data Set 3 - Rate 1		0 to ±9.999 E+09	data specific			R
47220	2	Coincident Demand for Monitored Data Set 3 - Rate 1		0 to ±99999999 or 0 to ±1	data specific			R
47222	3	Timestamp for Monitored Data Set 3 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
47226	2	Cumulative Demand for Monitored Data Set 3 - Rate 1		0 to ±99999999	data specific			R
47228		Accumulator for Monitored Data Set 4 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47230		Peak Demand for Monitored Data Set 4 - Rate 1		0 to ±9.999 E+09	data specific			R
47232	2	Coincident Demand for Monitored Data Set 4 - Rate 1		0 to ±99999999 or 0 to ±1	data specific			R
47234	3	Timestamp for Monitored Data Set 4 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
47238	2	Cumulative Demand for Monitored Data Set 4 - Rate 1	FLOAT	0 to ±99999999	data specific			R
47240		Accumulator for Monitored Data Set 5 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47242	2	Peak Demand for Monitored Data Set 5 - Rate 1		0 to ±9.999 E+09	data specific			R
47244	2	Coincident Demand for Monitored Data Set 5 - Rate 1		0 to ±99999999 or 0 to ±1	data specific			R
47246	3	Timestamp for Monitored Data Set 5 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
47250	2	Cumulative Demand for Monitored Data Set 5 - Rate 1		0 to ±99999999	data specific			R
47252		Accumulator for Monitored Data Set 6 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47254	2	Peak Demand for Monitored Data Set 6 - Rate 1		0 to ±9.999 E+09	data specific			R
47256	2	Coincident Demand for Monitored Data Set 6 - Rate 1		0 to ±99999999 or 0 to ±1	data specific			R
47258	3	Timestamp for Monitored Data Set 6 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
47262	2	Cumulative Demand for Monitored Data Set 6 - Rate 1		0 to ±99999999	data specific			R
47264	2	Accumulator for Monitored Data Set 7 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47266	2	Peak Demand for Monitored Data Set 7 - Rate 1		0 to ±9.999 E+09	data specific			R
47268	2	Coincident Demand for Monitored Data Set 7		0 to ±99999999 or 0 to ±1	data specific			R
47270	3	Timestamp for Monitored Data Set 7 Peak & Coincident Demand		21st Century	1s			R
47274	2	Cumulative Demand for Monitored Data Set 7- Rate 1		0 to ±99999999	data specific			R
47276		Accumulator for Monitored Data Set 8 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47278	2	Peak Demand for Monitored Data Set 8 - Rate 1		0 to ±9.999 E+09	data specific		4	R
47280	2	Coincident Demand for Monitored Data Set 8 - Rate 1			data specific		4	R
47282	3	Timestamp for Monitored Data Set 8 - Rate 1 Peak & Coincident Demand		21st Century	1s		4	R
47286	2	Cumulative Demand for Monitored Data Set 8 - Rate 1	FLOAT	0 to ±99999999	data specific			R



Reg# Size Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
47288 2 Accumulator for Monitored Data Set 9 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47290 2 Peak Demand for Monitored Data Set 9 - Rate 1		0 to ±9.999 E+09	data specific			R
47292 2 Coincident Demand for Monitored Data Set 9 - Rate 1		0 to ±99999999 or 0 to ±1	data specific			R
47294 3 Timestamp for Monitored Data Set 9 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
47298 2 Cumulative Demand for Monitored Data Set 9 - Rate 1		0 to ±99999999	data specific			R
47300 2 Accumulator for Monitored Data Set 10 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47302 2 Peak Demand for Monitored Data Set 10 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific			R
47304 2 Coincident Demand for Monitored Data Set 10 - Rate 1			data specific			R
47306 3 Timestamp for Monitored Data Set 10 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
47310 2 Cumulative Demand for Monitored Data Set 10 - Rate 1		0 to ±99999999	data specific			R
47312 2 Accumulator for Monitored Data Set 11 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47314 2 Peak Demand for Monitored Data Set 11 - Rate 1		0 to ±9.999 E+09	data specific			R
47316 2 Coincident Demand for Monitored Data Set 11 - Rate 1		0 to ±99999999 or 0 to ±1	data specific			R
47318 3 Timestamp for Monitored Data Set 11 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
47322 2 Cumulative Demand for Monitored Data Set 11 - Rate 1		0 to ±99999999	data specific			R
47324 2 Accumulator for Monitored Data Set 12 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47326 2 Peak Demand for Monitored Data Set 12 - Rate 1		0 to ±9.999 E+09	data specific			R
47328 2 Coincident Demand for Monitored Data Set 12 - Rate 1		0 to ±99999999 or 0 to ±1	data specific			R
47330 3 Timestamp for Monitored Data Set 12 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
47334 2 Cumulative Demand for Monitored Data Set 12 - Rate 1		0 to ±99999999	data specific			R
47336 2 Accumulator for Monitored Data Set 13 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47338 2 Peak Demand for Monitored Data Set 13 - Rate 1		0 to ±9.999 E+09	data specific			R
47340 2 Coincident Demand for Monitored Data Set 13 - Rate 1			data specific			R
47342 3 Timestamp for Monitored Data Set 13 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
47346 2 Cumulative Demand for Monitored Data Set 13 - Rate 1		0 to ±99999999	data specific			R
47348 2 Accumulator for Monitored Data Set 14 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47350 2 Peak Demand for Monitored Data Set 14 - Rate 1		0 to ±9.999 E+09	data specific			R
47352 2 Coincident Demand for Monitored Data Set 14 - Rate 1		0 to ±99999999 or 0 to ±1	data specific			R
47354 3 Timestamp for Monitored Data Set 14 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
47358 2 Cumulative Demand for Monitored Data Set 14 - Rate 1		0 to ±99999999	data specific			R
47360 2 Accumulator for Monitored Data Set 15 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47362 2 Peak Demand for Monitored Data Set 15 - Rate 1		0 to ±9.999 E+09	data specific			R
47364 2 Coincident Demand for Monitored Data Set 15 - Rate 1		0 to ±99999999 or 0 to ±1	data specific			R
47366 3 Timestamp for Monitored Data Set 15 - Rate 1 Peak & Coincident Demand			1s			R
47370 2 Cumulative Demand for Monitored Data Set 15 - Rate 1		0 to ±99999999	data specific			R
47372 2 Accumulator for Monitored Data Set 16 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47374 2 Peak Demand for Monitored Data Set 16 - Rate 1		0 to ±9.999 E+09	data specific			R
47376 2 Coincident Demand for Monitored Data Set 16 - Rate 1		0 to ±99999999 or 0 to ±1	data specific			R
47378 3 Timestamp for Monitored Data Set 16 - Rate 1 Peak & Coincident Demand		21st Century	1s			R
47382 2 Cumulative Demand for Monitored Data Set 16 - Rate 1	FLOAT	0 to ±99999999	data specific			R



Reg# Si	ize	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value Ad	Acc
Curren	nt Se	ason Block, Rate 2						
47384	2	Accumulator for Monitored Data Set 1 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	F	R
47386	2	Peak Demand for Monitored Data Set 1 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific		F	R
47388	2	Coincident Demand for Monitored Data Set 1 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific		F	R
47390	3	Timestamp for Monitored Data Set 1 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1s		F	R
47394	2	Cumulative Demand for Monitored Data Set 1 - Rate 2		0 to ±99999999	data specific		F	R
47396	2	Accumulator for Monitored Data Set 2 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	F	R
47398	2	Peak Demand for Monitored Data Set 2 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific		F	R
47400	2	Coincident Demand for Monitored Data Set 2 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific		F	R
47402		Timestamp for Monitored Data Set 2 - Rate 2 Peak & Coincident Demand		21st Century	1s		F	R
47406		Cumulative Demand for Monitored Data Set 2 - Rate 2		0 to ±99999999	data specific		F	R
47408		Accumulator for Monitored Data Set 3 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	F	R
47410		Peak Demand for Monitored Data Set 3 - Rate 2		0 to ±9.999 E+09	data specific		F	R
47412		Coincident Demand for Monitored Data Set 3 - Rate 2		0 to ±99999999 or 0 to ±1	data specific		F	R
47414		Timestamp for Monitored Data Set 3 - Rate 2 Peak & Coincident Demand		21st Century	1s		F	R
47418		Cumulative Demand for Monitored Data Set 3 - Rate 2		0 to ±99999999	data specific			R
47420		Accumulator for Monitored Data Set 4 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	F	R
47422		Peak Demand for Monitored Data Set 4 - Rate 2		0 to ±9.999 E+09	data specific		F	R
47424		Coincident Demand for Monitored Data Set 4 - Rate 2		0 to ±99999999 or 0 to ±1	data specific			R
47426		Timestamp for Monitored Data Set 4 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
47430		Cumulative Demand for Monitored Data Set 4 - Rate 2		0 to ±99999999	data specific			R
47432		Accumulator for Monitored Data Set 5 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47454		Peak Demand for Monitored Data Set 5 - Rate 2		0 to ±9.999 E+09	data specific		F	R
47436		Coincident Demand for Monitored Data Set 5 - Rate 2		0 to ±99999999 or 0 to ±1	data specific			R
47438		Timestamp for Monitored Data Set 5 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
47442		Cumulative Demand for Monitored Data Set 5 - Rate 2		0 to ±99999999	data specific			R
		Accumulator for Monitored Data Set 6 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47446		Peak Demand for Monitored Data Set 6 - Rate 2		0 to ±9.999 E+09	data specific			R
47448		Coincident Demand for Monitored Data Set 6 - Rate 2		0 to ±99999999 or 0 to ±1	data specific			R
47450		Timestamp for Monitored Data Set 6 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
47454		Cumulative Demand for Monitored Data Set 6 - Rate 2		0 to ±99999999	data specific			R
47456		Accumulator for Monitored Data Set 7 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47458		Peak Demand for Monitored Data Set 7 - Rate 2		0 to ±9.999 E+09	data specific			R
47460		Coincident Demand for Monitored Data Set 7 - Rate 2		0 to ±99999999 or 0 to ±1	data specific			R
47462		Timestamp for Monitored Data Set 7 Peak & Coincident Demand		21st Century	1s			R
47466		Cumulative Demand for Monitored Data Set 7 - Rate 2		0 to ±99999999	data specific			R
47468		Accumulator for Monitored Data Set 8 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47470		Peak Demand for Monitored Data Set 8 - Rate 2		0 to ±9.999 E+09	data specific			R
47472		Coincident Demand for Monitored Data Set 8 - Rate 2		0 to ±99999999 or 0 to ±1	data specific			R
47474		Timestamp for Monitored Data Set 8 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
47478	2	Cumulative Demand for Monitored Data Set 8 - Rate 2	FLOAT	0 to ±99999999	data specific		F	R



Reg# Size Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
47480 2 Accumulator for Monitored Data Set 9 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47482 2 Peak Demand for Monitored Data Set 9 - Rate 2		0 to ±9.999 E+09	data specific			R
47484 2 Coincident Demand for Monitored Data Set 9 - Rate 2		0 to ±99999999 or 0 to ±1	data specific			R
47486 3 Timestamp for Monitored Data Set 9 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
47490 2 Cumulative Demand for Monitored Data Set 9 - Rate 2		0 to ±99999999	data specific			R
47492 2 Accumulator for Monitored Data Set 10 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47494 2 Peak Demand for Monitored Data Set 10 - Rate 2		0 to ±9.999 E+09	data specific			R
47496 2 Coincident Demand for Monitored Data Set 10 - Rate 2			data specific			R
47498 3 Timestamp for Monitored Data Set 10 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
47502 2 Cumulative Demand for Monitored Data Set 10 - Rate 2		0 to ±99999999	data specific			R
47504 2 Accumulator for Monitored Data Set 11 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47506 2 Peak Demand for Monitored Data Set 11 - Rate 2		0 to ±9.999 E+09	data specific			R
47508 2 Coincident Demand for Monitored Data Set 11 - Rate 2		0 to ±99999999 or 0 to ±1	data specific			R
47510 3 Timestamp for Monitored Data Set 11 - Rate 2 Peak & Coincident Demand		21st Century	1s			R
47514 2 Cumulative Demand for Monitored Data Set 11 - Rate 2		0 to ±99999999	data specific			R
47516 2 Accumulator for Monitored Data Set 12 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47518 2 Peak Demand for Monitored Data Set 12 - Rate 2		0 to ±9.999 E+09	data specific			R
47520 2 Coincident Demand for Monitored Data Set 12 - Rate 2		0 to ±99999999 or 0 to ±1	data specific			R
47522 3 Timestamp for Monitored Data Set 12 - Rate 2 Peak & Coincident Demand		21st Century	1 s			R
47526 2 Cumulative Demand for Monitored Data Set 12 - Rate 2		0 to ±99999999	data specific			R
47528 2 Accumulator for Monitored Data Set 13 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47530 2 Peak Demand for Monitored Data Set 13 - Rate 2		0 to ±9.999 E+09	data specific			R
47532 2 Coincident Demand for Monitored Data Set 13 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
47534 3 Timestamp for Monitored Data Set 13 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
47538 2 Cumulative Demand for Monitored Data Set 13 - Rate 2	FLOAT	0 to ±99999999	data specific			R
47540 2 Accumulator for Monitored Data Set 14 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47542 2 Peak Demand for Monitored Data Set 14 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific			R
47544 2 Coincident Demand for Monitored Data Set 14 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
47546 3 Timestamp for Monitored Data Set 14 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
47550 2 Cumulative Demand for Monitored Data Set 14 - Rate 2		0 to ±99999999	data specific			R
47552 2 Accumulator for Monitored Data Set 15 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47554 2 Peak Demand for Monitored Data Set 15 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific			R
47556 2 Coincident Demand for Monitored Data Set 15 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
47558 3 Timestamp for Monitored Data Set 15 - Rate 2 Peak & Coincident Demand			1s			R
47562 2 Cumulative Demand for Monitored Data Set 15 - Rate 2		0 to ±99999999	data specific			R
47564 2 Accumulator for Monitored Data Set 16 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47566 2 Peak Demand for Monitored Data Set 16 - Rate 2		0 to ±9.999 E+09	data specific			R
47568 2 Coincident Demand for Monitored Data Set 16 - Rate 2		0 to ±99999999 or 0 to ±1	data specific			R
47570 3 Timestamp for Monitored Data Set 16 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
47574 2 Cumulative Demand for Monitored Data Set 16 - Rate 2	FLOAT	0 to ±99999999	data specific			R



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
Curr	ent S	eason Block, Rate 3	1				1	
47576	2	Accumulator for Monitored Data Set 1 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47578	2	Peak Demand for Monitored Data Set 1 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific			R
47580	2	Coincident Demand for Monitored Data Set 1 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
47582	3	Timestamp for Monitored Data Set 1 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
47586	2	Cumulative Demand for Monitored Data Set 1 - Rate 3		0 to ±99999999	data specific			R
47588		Accumulator for Monitored Data Set 2 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47590	2	Peak Demand for Monitored Data Set 2 - Rate 3		0 to ±9.999 E+09	data specific			R
47592	2	Coincident Demand for Monitored Data Set 2 - Rate 3	FLOAT		data specific			R
47594	3	Timestamp for Monitored Data Set 2 - Rate 3 Peak & Coincident Demand		21st Century	1s			R
47598	2	Cumulative Demand for Monitored Data Set 2 - Rate 3		0 to ±99999999	data specific			R
47600	2	Accumulator for Monitored Data Set 3 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47602	2	Peak Demand for Monitored Data Set 3 - Rate 3		0 to ±9.999 E+09	data specific			R
47604	2	Coincident Demand for Monitored Data Set 3 - Rate 3		0 to ±99999999 or 0 to ±1	data specific			R
47606	3	Timestamp for Monitored Data Set 3 - Rate 3 Peak & Coincident Demand		21st Century	1s			R
47610		Cumulative Demand for Monitored Data Set 3 - Rate 3		0 to ±99999999	data specific			R
47612		Accumulator for Monitored Data Set 4 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47614		Peak Demand for Monitored Data Set 4 - Rate 3		0 to ±9.999 E+09	data specific			R
47616		Coincident Demand for Monitored Data Set 4 - Rate 3		0 to ±99999999 or 0 to ±1	data specific			R
47618	3	Timestamp for Monitored Data Set 4 - Rate 3 Peak & Coincident Demand		21st Century	1s			R
47622	2	Cumulative Demand for Monitored Data Set 4 - Rate 3	FLOAT	0 to ±99999999	data specific			R
47624		Accumulator for Monitored Data Set 5 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47626	2	Peak Demand for Monitored Data Set 5 - Rate 3		0 to ±9.999 E+09	data specific			R
47628	2	Coincident Demand for Monitored Data Set 5 - Rate 3		0 to ±99999999 or 0 to ±1	data specific			R
47630	3	Timestamp for Monitored Data Set 5 - Rate 3 Peak & Coincident Demand		21st Century	1s			R
47634		Cumulative Demand for Monitored Data Set 5 - Rate 3		0 to ±99999999	data specific			R
47636		Accumulator for Monitored Data Set 6 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47638	2	Peak Demand for Monitored Data Set 6 - Rate 3		0 to ±9.999 E+09	data specific			R
47640	2	Coincident Demand for Monitored Data Set 6 - Rate 3		0 to ±99999999 or 0 to ±1	data specific			R
47642	3	Timestamp for Monitored Data Set 6 - Rate 3 Peak & Coincident Demand		21st Century	1s			R
47646	2	Cumulative Demand for Monitored Data Set 6 - Rate 3		0 to ±99999999	data specific			R
47648	2	Accumulator for Monitored Data Set 7 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47650	2	Peak Demand for Monitored Data Set 7 - Rate 3		0 to ±9.999 E+09	data specific			R
47652	2	Coincident Demand for Monitored Data Set 7 - Rate 3		0 to ±99999999 or 0 to ±1	data specific			R
47654	3	Timestamp for Monitored Data Set 7 Peak & Coincident Demand		21st Century	1s			R
47658	2	Cumulative Demand for Monitored Data Set 7- Rate 3		0 to ±99999999	data specific			R
47660		Accumulator for Monitored Data Set 8 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47662	2	Peak Demand for Monitored Data Set 8 - Rate 3		0 to ±9.999 E+09	data specific			R
47664	2	Coincident Demand for Monitored Data Set 8 - Rate 3			data specific			R
47666	3	Timestamp for Monitored Data Set 8 - Rate 3 Peak & Coincident Demand		21st Century	1s			R
47670	2	Cumulative Demand for Monitored Data Set 8 - Rate 3	FLOAT	0 to ±99999999	data specific			R



Reg# Size Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
47672 2 Accumulator for Monitored Data Set 9 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47674 2 Peak Demand for Monitored Data Set 9 - Rate 3		0 to ±9.999 E+09	data specific			R
47676 2 Coincident Demand for Monitored Data Set 9 - Rate 3		0 to ±99999999 or 0 to ±1	data specific			R
47678 3 Timestamp for Monitored Data Set 9 - Rate 3 Peak & Coincident Demand		21st Century	1s			R
47682 2 Cumulative Demand for Monitored Data Set 9 - Rate 3		0 to ±99999999	data specific			R
47684 2 Accumulator for Monitored Data Set 10 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47686 2 Peak Demand for Monitored Data Set 10 - Rate 3		0 to ±9.999 E+09	data specific			R
47688 2 Coincident Demand for Monitored Data Set 10 - Rate 3			data specific			R
47690 3 Timestamp for Monitored Data Set 10 - Rate 3 Peak & Coincident Demand		21st Century	1s			R
47694 2 Cumulative Demand for Monitored Data Set 10 - Rate 3		0 to ±99999999	data specific			R
47696 2 Accumulator for Monitored Data Set 11 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47698 2 Peak Demand for Monitored Data Set 11 - Rate 3		0 to ±9.999 E+09	data specific			R
47700 2 Coincident Demand for Monitored Data Set 11 - Rate 3		0 to ±99999999 or 0 to ±1	data specific			R
47702 3 Timestamp for Monitored Data Set 11 - Rate 3 Peak & Coincident Demand		21st Century	1s			R
47706 2 Cumulative Demand for Monitored Data Set 11 - Rate 3		0 to ±99999999	data specific			R
47708 2 Accumulator for Monitored Data Set 12 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47710 2 Peak Demand for Monitored Data Set 12 - Rate 3		0 to ±9.999 E+09	data specific			R
47712 2 Coincident Demand for Monitored Data Set 12 - Rate 3		0 to ±99999999 or 0 to ±1	data specific			R
47714 3 Timestamp for Monitored Data Set 12 - Rate 3 Peak & Coincident Demand		21st Century	1 s			R
47718 2 Cumulative Demand for Monitored Data Set 12 - Rate 3		0 to ±99999999	data specific			R
47720 2 Accumulator for Monitored Data Set 13 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47722 2 Peak Demand for Monitored Data Set 13 - Rate 3		0 to ±9.999 E+09	data specific			R
47724 2 Coincident Demand for Monitored Data Set 13 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
47726 3 Timestamp for Monitored Data Set 13 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
47730 2 Cumulative Demand for Monitored Data Set 13 - Rate 3	FLOAT	0 to ±99999999	data specific			R
47732 2 Accumulator for Monitored Data Set 14 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47734 2 Peak Demand for Monitored Data Set 14 - Rate 3						R
47736 2 Coincident Demand for Monitored Data Set 14 - Rate 3			data specific			R
47738 3 Timestamp for Monitored Data Set 14 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
47742 2 Cumulative Demand for Monitored Data Set 14 - Rate 3		0 to ±99999999	data specific			R
47744 2 Accumulator for Monitored Data Set 15 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47746 2 Peak Demand for Monitored Data Set 15 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific			R
47748 2 Coincident Demand for Monitored Data Set 15 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
47750 3 Timestamp for Monitored Data Set 15 - Rate 3 Peak & Coincident Demand		21st Century	1s			R
47754 2 Cumulative Demand for Monitored Data Set 15 - Rate 3		0 to ±99999999	data specific			R
47756 2 Accumulator for Monitored Data Set 16 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47758 2 Peak Demand for Monitored Data Set 16 - Rate 3						R
47760 2 Coincident Demand for Monitored Data Set 16 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
47762 3 Timestamp for Monitored Data Set 16 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
47766 2 Cumulative Demand for Monitored Data Set 16 - Rate 3	FLOAT	0 to ±99999999	data specific			R



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
Curre	ent Se	ason Block, Rate 4	•			•		
47768	2	Accumulator for Monitored Data Set 1 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47770	2	Peak Demand for Monitored Data Set 1 - Rate 4		0 to ±9.999 E+09	data specific			R
47772	2	Coincident Demand for Monitored Data Set 1 - Rate 4	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
47774	3	Timestamp for Monitored Data Set 1 - Rate 4 Peak & Coincident Demand		•				R
47778				0 to ±99999999	data specific			R
47780	2	Accumulator for Monitored Data Set 2 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47782		Peak Demand for Monitored Data Set 2 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific			R
47784	2	Coincident Demand for Monitored Data Set 2 - Rate 4		0 to ±99999999 or 0 to ±1	data specific			R
47786	3	Timestamp for Monitored Data Set 2 - Rate 4 Peak & Coincident Demand	TSTAMP	21st Century	1 s			R
47790	2	Cumulative Demand for Monitored Data Set 2 - Rate 4						R
47792	2	Accumulator for Monitored Data Set 3 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47794		Peak Demand for Monitored Data Set 3 - Rate 4		0 to ±9.999 E+09	data specific			R
47796		Coincident Demand for Monitored Data Set 3 - Rate 4			data specific			R
47798	3	Timestamp for Monitored Data Set 3 - Rate 4 Peak & Coincident Demand		21st Century	1 s			R
47802		Cumulative Demand for Monitored Data Set 3 - Rate 4		0 to ±99999999	data specific			R
47804		Accumulator for Monitored Data Set 4 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47806		Peak Demand for Monitored Data Set 4 - Rate 4						R
47808		Coincident Demand for Monitored Data Set 4 - Rate 4			data specific			R
47810	3	Timestamp for Monitored Data Set 4 - Rate 4 Peak & Coincident Demand		21st Century	1 s			R
47814		Cumulative Demand for Monitored Data Set 4 - Rate 4		0 to ±99999999	data specific			R
47816		Accumulator for Monitored Data Set 5 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47818		Peak Demand for Monitored Data Set 5 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific			R
47820		Coincident Demand for Monitored Data Set 5 - Rate 4	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
47822		Timestamp for Monitored Data Set 5 - Rate 4 Peak & Coincident Demand						R
47826				0 to ±99999999	data specific			R
47828	2	Accumulator for Monitored Data Set 6 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47830		Peak Demand for Monitored Data Set 6 - Rate 4		0 to ±9.999 E+09	data specific			R
47832		Coincident Demand for Monitored Data Set 6 - Rate 4	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
47834		Timestamp for Monitored Data Set 6 - Rate 4 Peak & Coincident Demand	TSTAMP	21st Century	1 s			R
47838		Cumulative Demand for Monitored Data Set 6 - Rate 4						R
47840	2	Accumulator for Monitored Data Set 7 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47842		Peak Demand for Monitored Data Set 7 - Rate 4		0 to ±9.999 E+09	data specific			R
47844		Coincident Demand for Monitored Data Set 7 - Rate 4			data specific			R
47846		Timestamp for Monitored Data Set 7 Peak & Coincident Demand		21st Century	1 s			R
47850		Cumulative Demand for Monitored Data Set 7- Rate 4		0 to ±99999999	data specific			R
47852		Accumulator for Monitored Data Set 8 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47854	2	Peak Demand for Monitored Data Set 8 - Rate 4						R
47856	2	Coincident Demand for Monitored Data Set 8 - Rate 4			data specific			R
47858		Timestamp for Monitored Data Set 8 - Rate 4 Peak & Coincident Demand		21st Century	1 s			R
47862	2	Cumulative Demand for Monitored Data Set 8 - Rate 4	FLOAT	0 to ±99999999	data specific			R



Reg# Size Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
47864 2 Accumulator for Monitored Data Set 9 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47866 2 Peak Demand for Monitored Data Set 9 - Rate 4		0 to ±9.999 E+09	data specific			R
	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
47870 3 Timestamp for Monitored Data Set 9 - Rate 4 Peak & Coincident Demand						R
	FLOAT	0 to ±99999999	data specific			R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
		0 to ±9.999 E+09	data specific			R
			data specific			R
47882 3 Timestamp for Monitored Data Set 10 - Rate 4 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
47886 2 Cumulative Demand for Monitored Data Set 10 - Rate 4	-					R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
	FLOAT	0 to ±9.999 E+09	data specific			R
	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
47894 3 Timestamp for Monitored Data Set 11 - Rate 4 Peak & Coincident Demand		21st Century	1s			R
	FLOAT	0 to ±99999999	data specific			R
47900 2 Accumulator for Monitored Data Set 12 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47902 2 Peak Demand for Monitored Data Set 12 - Rate 4						R
	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
47906 3 Timestamp for Monitored Data Set 12 - Rate 4 Peak & Coincident Demand		21st Century	1s			R
		0 to ±99999999	data specific			R
47912 2 Accumulator for Monitored Data Set 13 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
		0 to ±9.999 E+09	data specific			R
	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
47918 3 Timestamp for Monitored Data Set 13 - Rate 4 Peak & Coincident Demand						R
	FLOAT	0 to ±99999999	data specific			R
47924 2 Accumulator for Monitored Data Set 14 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
		0 to ±9.999 E+09	data specific			R
	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
47930 3 Timestamp for Monitored Data Set 14 - Rate 4 Peak & Coincident Demand	TSTAMP	21st Century	1 s			R
47934 2 Cumulative Demand for Monitored Data Set 14 - Rate 4						R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
	. =	0 to ±9.999 E+09	data specific			R
	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
47942 3 Timestamp for Monitored Data Set 15 - Rate 4 Peak & Coincident Demand		21st Century	1 s			R
		0 to ±99999999	data specific			R
47948 2 Accumulator for Monitored Data Set 16 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47950 2 Peak Demand for Monitored Data Set 16 - Rate 4						R
			data specific			R
47954 3 Timestamp for Monitored Data Set 16 - Rate 4 Peak & Coincident Demand		21st Century	1s			R
47958 2 Cumulative Demand for Monitored Data Set 16 - Rate 4	FLOAT	0 to ±99999999	data specific			R



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
Prior	Seas	on Block, Rate 0 - Total						
47960		Accumulator for Monitored Data Set 1 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47962	2	Peak Demand for Monitored Data Set 1 - Rate 0		•				R
47964	2	Coincident Demand for Monitored Data Set 1 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
47966	3	Timestamp for Monitored Data Set 1 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
47970	2	Cumulative Demand for Monitored Data Set 1 - Rate 0		0 to ±99999999	data specific			R
47972		Accumulator for Monitored Data Set 2 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47974		Peak Demand for Monitored Data Set 2 - Rate 0		0 to ±9.999 E+09	data specific			R
47976		Coincident Demand for Monitored Data Set 2 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
47978		Timestamp for Monitored Data Set 2 - Rate 0 Peak & Coincident Demand						R
47982		Cumulative Demand for Monitored Data Set 2 - Rate 0		0 to ±99999999	data specific			R
47984		Accumulator for Monitored Data Set 3 - Rate 0		0 to ±99999999		Energy format, scaling applies only if energy is accumulated		R
47986		Peak Demand for Monitored Data Set 3 - Rate 0		0 to ±9.999 E+09	data specific			R
47988		Coincident Demand for Monitored Data Set 3 - Rate 0		0 to ±99999999 or 0 to ±1	data specific			R
47990		Timestamp for Monitored Data Set 3 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1 s			R
47994		Cumulative Demand for Monitored Data Set 3 - Rate 0						R
47996		Accumulator for Monitored Data Set 4 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
47998		Peak Demand for Monitored Data Set 4 - Rate 0		0 to ±9.999 E+09	data specific			R
48000		Coincident Demand for Monitored Data Set 4 - Rate 0		0 to ±99999999 or 0 to ±1	data specific			R
48002		Timestamp for Monitored Data Set 4 - Rate 0 Peak & Coincident Demand		21st Century	1 s			R
48006		Cumulative Demand for Monitored Data Set 4 - Rate 0		0 to ±99999999	data specific			R
48008		Accumulator for Monitored Data Set 5 - Rate 0	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48010		Peak Demand for Monitored Data Set 5 - Rate 0						R
48012		Coincident Demand for Monitored Data Set 5 - Rate 0		0 to ±99999999 or 0 to ±1	data specific			R
48014		Timestamp for Monitored Data Set 5 - Rate 0 Peak & Coincident Demand		21st Century	1 s			R
48018		Cumulative Demand for Monitored Data Set 5 - Rate 0	FLOAT	0 to ±99999999	data specific			R
48020		Accumulator for Monitored Data Set 6 - Rate 0				Energy format, scaling applies only if energy is accumulated		R
48022		Peak Demand for Monitored Data Set 6 - Rate 0						R
48024		Coincident Demand for Monitored Data Set 6 - Rate 0						R
48026		Timestamp for Monitored Data Set 6 - Rate 0 Peak & Coincident Demand			1			R
48030		Cumulative Demand for Monitored Data Set 6 - Rate 0		0 to ±99999999	data specific			R
48032		Accumulator for Monitored Data Set 7 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48034		Peak Demand for Monitored Data Set 7 - Rate 0		0 to ±9.999 E+09	data specific			R
48036		Coincident Demand for Monitored Data Set 7 - Rate 0		0 to ±99999999 or 0 to ±1	data specific			R
48038		Timestamp for Monitored Data Set 7 Peak & Coincident Demand		21st Century	1s			R
48042		Cumulative Demand for Monitored Data Set 7 - Rate 0		0 to ±99999999	data specific			R
48044		Accumulator for Monitored Data Set 8 - Rate 0		0 to ±99999999		Energy format, scaling applies only if energy is accumulated		R
48046		Peak Demand for Monitored Data Set 8 - Rate 0	FLOAT	0 to ±9.999 E+09	data specific			R
48048		Coincident Demand for Monitored Data Set 8 - Rate 0			14			R
48050		Timestamp for Monitored Data Set 8 - Rate 0 Peak & Coincident Demand	ISTAMP	21st Century	1s			R
48054	2	Cumulative Demand for Monitored Data Set 8 - Rate 0						R



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
48056		Accumulator for Monitored Data Set 9 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	Ì	R
48058		Peak Demand for Monitored Data Set 9 - Rate 0		0 to ±9.999 E+09	data specific			R
48060		Coincident Demand for Monitored Data Set 9 - Rate 0		0 to ±99999999 or 0 to ±1	data specific			R
48062		Timestamp for Monitored Data Set 9 - Rate 0 Peak & Coincident Demand		21st Century	1 s			R
48066		Cumulative Demand for Monitored Data Set 9 - Rate 0		0 to ±99999999	data specific			R
48068		Accumulator for Monitored Data Set 10 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48070		Peak Demand for Monitored Data Set 10 - Rate 0		0 to ±9.999 E+09	data specific			R
48072		Coincident Demand for Monitored Data Set 10 - Rate 0		0 to ±99999999 or 0 to ±1	data specific			R
48074		Timestamp for Monitored Data Set 10 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
48078		Cumulative Demand for Monitored Data Set 10 - Rate 0						R
48080		Accumulator for Monitored Data Set 11 - Rate 0				Energy format, scaling applies only if energy is accumulated		R
48082	-	Peak Demand for Monitored Data Set 11 - Rate 0			-			R
48084		Coincident Demand for Monitored Data Set 11 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
48086		Timestamp for Monitored Data Set 11 - Rate 0 Peak & Coincident Demand						R
48090		Cumulative Demand for Monitored Data Set 11 - Rate 0		0 to ±99999999	data specific			R
48092		Accumulator for Monitored Data Set 12 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48094		Peak Demand for Monitored Data Set 12 - Rate 0		0 to ±9.999 E+09	data specific			R
48096		Coincident Demand for Monitored Data Set 12 - Rate 0	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
48098		Timestamp for Monitored Data Set 12 - Rate 0 Peak & Coincident Demand						R
48102		Cumulative Demand for Monitored Data Set 12 - Rate 0						R
48104		Accumulator for Monitored Data Set 13 - Rate 0	-			Energy format, scaling applies only if energy is accumulated		R
48106		Peak Demand for Monitored Data Set 13 - Rate 0		0 to ±9.999 E+09	data specific			R
48108		Coincident Demand for Monitored Data Set 13 - Rate 0			data specific			R
48110		Timestamp for Monitored Data Set 13 - Rate 0 Peak & Coincident Demand		21st Century	1s			R
48114		Cumulative Demand for Monitored Data Set 13 - Rate 0		0 to ±99999999	data specific			R
48116		Accumulator for Monitored Data Set 14 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48118		Peak Demand for Monitored Data Set 14 - Rate 0		0 to ±9.999 E+09	data specific			R
48120		Coincident Demand for Monitored Data Set 14 - Rate 0		0 to ±99999999 or 0 to ±1	data specific			R
48122		Timestamp for Monitored Data Set 14 - Rate 0 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
48126		Cumulative Demand for Monitored Data Set 14 - Rate 0						R
48128		Accumulator for Monitored Data Set 15 - Rate 0				Energy format, scaling applies only if energy is accumulated		R
48130		Peak Demand for Monitored Data Set 15 - Rate 0						R
48132		Coincident Demand for Monitored Data Set 15 - Rate 0			4			R
48134		Timestamp for Monitored Data Set 15 - Rate 0 Peak & Coincident Demand	ISTAMP	21st Century	1s			R
48138		Cumulative Demand for Monitored Data Set 15 - Rate 0	CINITAO	0.4- 00000000	data an aife a			R
48140		Accumulator for Monitored Data Set 16 - Rate 0		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48142		Peak Demand for Monitored Data Set 16 - Rate 0		0 to ±9.999 E+09	data specific			R
48144		Coincident Demand for Monitored Data Set 16 - Rate 0			data specific			R
48146		Timestamp for Monitored Data Set 16 - Rate 0 Peak & Coincident Demand		21st Century	1s			R
48150	2	Cumulative Demand for Monitored Data Set 16 - Rate 0	FLOAT	0 to ±99999999	data specific	1	1	R



Reg# Size Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value Acc
Prior Sea					· · · · · · · · · · · · · · · · · · ·
48152 2 Accumulator for Monitored Data Set 1 - Rate 1				Energy format, scaling applies only if energy is accumulated	R
48154 2 Peak Demand for Monitored Data Set 1 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific		R
48156 2 Coincident Demand for Monitored Data Set 1 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
48158 3 Timestamp for Monitored Data Set 1 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
48162 2 Cumulative Demand for Monitored Data Set 1 - Rate 1	FLOAT	0 to ±99999999	data specific		R
48164 2 Accumulator for Monitored Data Set 2 - Rate 1	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
48166 2 Peak Demand for Monitored Data Set 2 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific		R
48168 2 Coincident Demand for Monitored Data Set 2 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
48170 3 Timestamp for Monitored Data Set 2 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
48174 2 Cumulative Demand for Monitored Data Set 2 - Rate 1					R
48176 2 Accumulator for Monitored Data Set 3 - Rate 1				Energy format, scaling applies only if energy is accumulated	R
48178 2 Peak Demand for Monitored Data Set 3 - Rate 1					R
48180 2 Coincident Demand for Monitored Data Set 3 - Rate 1					R
48182 3 Timestamp for Monitored Data Set 3 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
48186 2 Cumulative Demand for Monitored Data Set 3 - Rate 1					R
48188 2 Accumulator for Monitored Data Set 4 - Rate 1	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
48190 2 Peak Demand for Monitored Data Set 4 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific		R
48192 2 Coincident Demand for Monitored Data Set 4 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
48194 3 Timestamp for Monitored Data Set 4 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
48198 2 Cumulative Demand for Monitored Data Set 4 - Rate 1	FLOAT	0 to ±99999999	data specific		R
48200 2 Accumulator for Monitored Data Set 5 - Rate 1	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
48202 2 Peak Demand for Monitored Data Set 5 - Rate 1		0 to ±9.999 E+09	data specific		R
48204 2 Coincident Demand for Monitored Data Set 5 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
48206 3 Timestamp for Monitored Data Set 5 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
48210 2 Cumulative Demand for Monitored Data Set 5 - Rate 1					R
48212 2 Accumulator for Monitored Data Set 6 - Rate 1		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
48214 2 Peak Demand for Monitored Data Set 6 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific		R
48216 2 Coincident Demand for Monitored Data Set 6 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
48218 3 Timestamp for Monitored Data Set 6 - Rate 1 Peak & Coincident Demand	TSTAMP	21st Century	1s		R
48222 2 Cumulative Demand for Monitored Data Set 6 - Rate 1	FLOAT	0 to ±99999999	data specific		R
48224 2 Accumulator for Monitored Data Set 7 - Rate 1	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
48226 2 Peak Demand for Monitored Data Set 7 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific		R
48228 2 Coincident Demand for Monitored Data Set 7	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R
48230 3 Timestamp for Monitored Data Set 7 Peak & Coincident Demand		21st Century	1 s		R
48234 2 Cumulative Demand for Monitored Data Set 7- Rate 1	FLOAT	0 to ±99999999	data specific		R
48236 2 Accumulator for Monitored Data Set 8 - Rate 1	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
48238 2 Peak Demand for Monitored Data Set 8 - Rate 1	FLOAT	0 to ±9.999 E+09	data specific		R
48240 2 Coincident Demand for Monitored Data Set 8 - Rate 1			data specific		R
48242 3 Timestamp for Monitored Data Set 8 - Rate 1 Peak & Coincident Demand		21st Century	1s		R
48246 2 Cumulative Demand for Monitored Data Set 8 - Rate 1	FLOAT	0 to ±99999999	data specific		R



Reg# S	ize	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
48248				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48250				0 to ±9.999 E+09	data specific			R
48252	2	Coincident Demand for Monitored Data Set 9 - Rate 1	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
48254				21st Century	1 s			R
48258				0 to ±99999999	data specific			R
48260	2	Accumulator for Monitored Data Set 10 - Rate 1	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48262				0 to ±9.999 E+09	data specific			R
48264			FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
10200				21st Century	1s			R
48270				0 to ±99999999	data specific			R
10272				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48274				0 to ±9.999 E+09	data specific			R
48276					data specific			R
				21st Century	1s			R
48282				0 to ±99999999	data specific			R
48284				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48286			FLOAT	0 to ±9.999 E+09	data specific			R
48288		Coincident Demand for Monitored Data Set 12 - Rate 1						R
48290				21st Century	1 s			R
48294					data specific			R
48296				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48298				0 to ±9.999 E+09	data specific			R
48300					data specific			R
48302				21st Century	1 s			R
48306				0 to ±99999999	data specific			R
48308				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48310				0 to ±9.999 E+09	data specific			R
48312					data specific			R
				21st Century	1s			R
48318				0 to ±99999999	data specific			R
48320				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48322				0 to ±9.999 E+09	data specific			R
48324			FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
				21st Century	1s			R
48330				0 to ±99999999	data specific			R
48332				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48334				0 to ±9.999 E+09	data specific			R
48336					data specific			R
48338				21st Century	1s			R
48342	2	Cumulative Demand for Monitored Data Set 16 - Rate 1	FLOAT	0 to ±99999999	data specific			R



Reg# S	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	c
Prior	Seas	on Block, Rate 2	1					
48344	2	Accumulator for Monitored Data Set 1 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R	
48346	2	Peak Demand for Monitored Data Set 1 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific		R	
48348	2	Coincident Demand for Monitored Data Set 1 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R	
48350	3	Timestamp for Monitored Data Set 1 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1s		R	
48354	2	Cumulative Demand for Monitored Data Set 1 - Rate 2	FLOAT	0 to ±99999999	data specific		R	
48356		Accumulator for Monitored Data Set 2 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R	
48358	2	Peak Demand for Monitored Data Set 2 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific		R	
48360		Coincident Demand for Monitored Data Set 2 - Rate 2		0 to ±99999999 or 0 to ±1	data specific		R	
48362		Timestamp for Monitored Data Set 2 - Rate 2 Peak & Coincident Demand		21st Century	1 s		R	
48366		Cumulative Demand for Monitored Data Set 2 - Rate 2		0 to ±99999999	data specific		R	
48368	2	Accumulator for Monitored Data Set 3 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R	
48370		Peak Demand for Monitored Data Set 3 - Rate 2		0 to ±9.999 E+09	data specific		R	
48372		Coincident Demand for Monitored Data Set 3 - Rate 2		0 to ±99999999 or 0 to ±1	data specific		R	
48374		Timestamp for Monitored Data Set 3 - Rate 2 Peak & Coincident Demand		21st Century	1 s		R	
48378	2	Cumulative Demand for Monitored Data Set 3 - Rate 2		0 to ±99999999	data specific		R	
48380		Accumulator for Monitored Data Set 4 - Rate 2		0 to ±99999999		Energy format, scaling applies only if energy is accumulated	R	
48382		Peak Demand for Monitored Data Set 4 - Rate 2		0 to ±9.999 E+09	data specific		R	
48384		Coincident Demand for Monitored Data Set 4 - Rate 2		0 to ±99999999 or 0 to ±1	data specific		R	
48386		Timestamp for Monitored Data Set 4 - Rate 2 Peak & Coincident Demand		21st Century	1 s		R	
48390		Cumulative Demand for Monitored Data Set 4 - Rate 2		0 to ±99999999	data specific		R	
48392		Accumulator for Monitored Data Set 5 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R	
48394		Peak Demand for Monitored Data Set 5 - Rate 2		0 to ±9.999 E+09	data specific		R	
48396	2	Coincident Demand for Monitored Data Set 5 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific		R	
48398		Timestamp for Monitored Data Set 5 - Rate 2 Peak & Coincident Demand		21st Century	1 s		R	
48402		Cumulative Demand for Monitored Data Set 5 - Rate 2		0 to ±99999999	data specific		R	
48404		Accumulator for Monitored Data Set 6 - Rate 2		0 to ±99999999		Energy format, scaling applies only if energy is accumulated	R	
48406		Peak Demand for Monitored Data Set 6 - Rate 2		0 to ±9.999 E+09	data specific		R	
48408		Coincident Demand for Monitored Data Set 6 - Rate 2		0 to ±99999999 or 0 to ±1	data specific		R	
48410	3	Timestamp for Monitored Data Set 6 - Rate 2 Peak & Coincident Demand		21st Century	1 s		R	
48414		Cumulative Demand for Monitored Data Set 6 - Rate 2		0 to ±99999999	data specific		R	
48416		Accumulator for Monitored Data Set 7 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R	
48418		Peak Demand for Monitored Data Set 7 - Rate 2		0 to ±9.999 E+09	data specific		R	
48420		Coincident Demand for Monitored Data Set 7 - Rate 2		0 to ±99999999 or 0 to ±1	data specific		R	
48422		Timestamp for Monitored Data Set 7 Peak & Coincident Demand		21st Century	1s		R	
48426		Cumulative Demand for Monitored Data Set 7 - Rate 2		0 to ±99999999	data specific		R	
48428		Accumulator for Monitored Data Set 8 - Rate 2		0 to ±99999999		Energy format, scaling applies only if energy is accumulated	R	
48430		Peak Demand for Monitored Data Set 8 - Rate 2		0 to ±9.999 E+09	data specific		R	
48432		Coincident Demand for Monitored Data Set 8 - Rate 2		0 to ±99999999 or 0 to ±1	data specific		R	
48434		Timestamp for Monitored Data Set 8 - Rate 2 Peak & Coincident Demand		21st Century	1s		R	
48438	2	Cumulative Demand for Monitored Data Set 8 - Rate 2	FLOAT	0 to ±99999999	data specific		R	_



	e Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
	Accumulator for Monitored Data Set 9 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48442 2	Peak Demand for Monitored Data Set 9 - Rate 2		0 to ±9.999 E+09	data specific			R
48444 2		FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
48446 3			21st Century	1s			R
48450 2	Cumulative Demand for Monitored Data Set 9 - Rate 2	FLOAT	0 to ±99999999	data specific			R
48452 2	Accumulator for Monitored Data Set 10 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48454 2	Peak Demand for Monitored Data Set 10 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific			R
48456 2	Coincident Demand for Monitored Data Set 10 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
48458 3	Timestamp for Monitored Data Set 10 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
48462 2	Cumulative Demand for Monitored Data Set 10 - Rate 2	FLOAT	0 to ±99999999	data specific			R
48464 2	Accumulator for Monitored Data Set 11 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48466 2	Peak Demand for Monitored Data Set 11 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific			R
48468 2	Coincident Demand for Monitored Data Set 11 - Rate 2	FLOAT		data specific			R
48470 3	Timestamp for Monitored Data Set 11 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1 s			R
48474 2	Cumulative Demand for Monitored Data Set 11 - Rate 2	FLOAT	0 to ±99999999	data specific			R
48476 2	Accumulator for Monitored Data Set 12 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48478 2	Peak Demand for Monitored Data Set 12 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific			R
48480 2	Coincident Demand for Monitored Data Set 12 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
48482 3	Timestamp for Monitored Data Set 12 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
48486 2	Cumulative Demand for Monitored Data Set 12 - Rate 2	FLOAT	0 to ±99999999	data specific			R
48488 2	Accumulator for Monitored Data Set 13 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48490 2	Peak Demand for Monitored Data Set 13 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific			R
48492 2	Coincident Demand for Monitored Data Set 13 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
48494 3	Timestamp for Monitored Data Set 13 - Rate 2 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
48498 2	Cumulative Demand for Monitored Data Set 13 - Rate 2	FLOAT	0 to ±99999999	data specific			R
48500 2	Accumulator for Monitored Data Set 14 - Rate 2	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48502 2	Peak Demand for Monitored Data Set 14 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific			R
48504 2	Coincident Demand for Monitored Data Set 14 - Rate 2	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
48506 3	Timestamp for Monitored Data Set 14 - Rate 2 Peak & Coincident Demand						R
48510 2	Cumulative Demand for Monitored Data Set 14 - Rate 2	FLOAT	0 to ±99999999	data specific			R
48512 2	Accumulator for Monitored Data Set 15 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48514 2	Peak Demand for Monitored Data Set 15 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific			R
48516 2	Coincident Demand for Monitored Data Set 15 - Rate 2						R
48518 3		TSTAMP	21st Century	1s			R
48522 2		FLOAT	0 to ±99999999	data specific			R
48524 2	Accumulator for Monitored Data Set 16 - Rate 2		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48526 2	Peak Demand for Monitored Data Set 16 - Rate 2	FLOAT	0 to ±9.999 E+09	data specific			R
48528 2	Coincident Demand for Monitored Data Set 16 - Rate 2						R
48530 3	Timestamp for Monitored Data Set 16 - Rate 2 Peak & Coincident Demand		21st Century	1 s			R
48534 2	Cumulative Demand for Monitored Data Set 16 - Rate 2	FLOAT	0 to ±99999999	data specific			R



Reg# S	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value Acc
Prior	Seas	on Block, Rate 3			•		
48536	2	Accumulator for Monitored Data Set 1 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
48538	2	Peak Demand for Monitored Data Set 1 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific		R
48540	2	Coincident Demand for Monitored Data Set 1 - Rate 3					R
48542	3	Timestamp for Monitored Data Set 1 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
48546		Cumulative Demand for Monitored Data Set 1 - Rate 3		0 to ±99999999	data specific		R
48548		Accumulator for Monitored Data Set 2 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
48550		Peak Demand for Monitored Data Set 2 - Rate 3		0 to ±9.999 E+09	data specific		R
48552		Coincident Demand for Monitored Data Set 2 - Rate 3		0 to ±99999999 or 0 to ±1	data specific		R
48554		Timestamp for Monitored Data Set 2 - Rate 3 Peak & Coincident Demand		21st Century	1 s		R
48558		Cumulative Demand for Monitored Data Set 2 - Rate 3		0 to ±99999999	data specific		R
48560		Accumulator for Monitored Data Set 3 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
48562		Peak Demand for Monitored Data Set 3 - Rate 3					R
48564		Coincident Demand for Monitored Data Set 3 - Rate 3		0 to ±99999999 or 0 to ±1	data specific		R
10000		Timestamp for Monitored Data Set 3 - Rate 3 Peak & Coincident Demand		21st Century	1 s		R
48570	2	Cumulative Demand for Monitored Data Set 3 - Rate 3		0 to ±99999999	data specific		R
48572		Accumulator for Monitored Data Set 4 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
48574		Peak Demand for Monitored Data Set 4 - Rate 3		0 to ±9.999 E+09	data specific		R
48576		Coincident Demand for Monitored Data Set 4 - Rate 3		0 to ±99999999 or 0 to ±1	data specific		R
48578	3	Timestamp for Monitored Data Set 4 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1 s		R
48582		Cumulative Demand for Monitored Data Set 4 - Rate 3		0 to ±99999999	data specific		R
48584		Accumulator for Monitored Data Set 5 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
48586	2	Peak Demand for Monitored Data Set 5 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific		R
48588		Coincident Demand for Monitored Data Set 5 - Rate 3		0 to ±99999999 or 0 to ±1	data specific		R
48590	3	Timestamp for Monitored Data Set 5 - Rate 3 Peak & Coincident Demand		21st Century	1 s		R
48594	2	Cumulative Demand for Monitored Data Set 5 - Rate 3		0 to ±99999999	data specific		R
48596		Accumulator for Monitored Data Set 6 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
48598	2	Peak Demand for Monitored Data Set 6 - Rate 3		0 to ±9.999 E+09	data specific		R
48600		Coincident Demand for Monitored Data Set 6 - Rate 3		0 to ±99999999 or 0 to ±1	data specific		R
48602		Timestamp for Monitored Data Set 6 - Rate 3 Peak & Coincident Demand		21st Century	1 s		R
48606		Cumulative Demand for Monitored Data Set 6 - Rate 3		0 to ±99999999	data specific		R
48608		Accumulator for Monitored Data Set 7 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
48610		Peak Demand for Monitored Data Set 7 - Rate 3		0 to ±9.999 E+09	data specific		R
48612		Coincident Demand for Monitored Data Set 7 - Rate 3		0 to ±99999999 or 0 to ±1	data specific		R
48614		Timestamp for Monitored Data Set 7 Peak & Coincident Demand		21st Century	1 s		R
48618		Cumulative Demand for Monitored Data Set 7- Rate 3		0 to ±99999999	data specific		R
48620		Accumulator for Monitored Data Set 8 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated	R
48622		Peak Demand for Monitored Data Set 8 - Rate 3		0 to ±9.999 E+09	data specific		R
10021		Coincident Demand for Monitored Data Set 8 - Rate 3			data specific		R
48626		Timestamp for Monitored Data Set 8 - Rate 3 Peak & Coincident Demand		21st Century	1 s		R
48630	2	Cumulative Demand for Monitored Data Set 8 - Rate 3	FLOAT	0 to ±99999999	data specific		R



Reg# Size Description		Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
48632 2 Accumulator for Monitored Data Set 9 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
		0 to ±9.999 E+09	data specific			R
			data specific			R
		21st Century	1s			R
		0 to ±99999999	data specific			R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
		0 to ±9.999 E+09	data specific			R
			data specific			R
		21st Century	1s			R
		0 to ±99999999	data specific			R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
		0 to ±9.999 E+09	data specific			R
			data specific			R
48662 3 Timestamp for Monitored Data Set 11 - Rate 3 Peak & Coincident Demand		21st Century	1 s			R
		0 to ±99999999	data specific			R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48670 2 Peak Demand for Monitored Data Set 12 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific			R
48672 2 Coincident Demand for Monitored Data Set 12 - Rate 3			data specific			R
48674 3 Timestamp for Monitored Data Set 12 - Rate 3 Peak & Coincident Demand		21st Century	1s			R
48678 2 Cumulative Demand for Monitored Data Set 12 - Rate 3		0 to ±99999999	data specific			R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48682 2 Peak Demand for Monitored Data Set 13 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific			R
48684 2 Coincident Demand for Monitored Data Set 13 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
48686 3 Timestamp for Monitored Data Set 13 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
48690 2 Cumulative Demand for Monitored Data Set 13 - Rate 3	FLOAT	0 to ±99999999	data specific			R
48692 2 Accumulator for Monitored Data Set 14 - Rate 3	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48694 2 Peak Demand for Monitored Data Set 14 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific			R
48696 2 Coincident Demand for Monitored Data Set 14 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
48698 3 Timestamp for Monitored Data Set 14 - Rate 3 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
		0 to ±99999999	data specific			R
48704 2 Accumulator for Monitored Data Set 15 - Rate 3		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48706 2 Peak Demand for Monitored Data Set 15 - Rate 3	FLOAT	0 to ±9.999 E+09	data specific			R
48708 2 Coincident Demand for Monitored Data Set 15 - Rate 3	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
		21st Century	1s			R
			data specific			R
		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
		0 to ±9.999 E+09	data specific			R
			data specific			R
		21st Century	1 s			R
48726 2 Cumulative Demand for Monitored Data Set 16 - Rate 3	FLOAT	0 to ±99999999	data specific			R



Reg# Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
Prior Sea	ason Block, Rate 4	•				· · ·	
48728 2	Accumulator for Monitored Data Set 1 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48730 2	Peak Demand for Monitored Data Set 1 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific			R
48732 2	Coincident Demand for Monitored Data Set 1 - Rate 4	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
48734 3	Timestamp for Monitored Data Set 1 - Rate 4 Peak & Coincident Demand	TSTAMP	21st Century	1s			R
48738 2	Cumulative Demand for Monitored Data Set 1 - Rate 4		0 to ±99999999	data specific			R
48740 2	Accumulator for Monitored Data Set 2 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48742 2	Peak Demand for Monitored Data Set 2 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific			R
48744 2	Coincident Demand for Monitored Data Set 2 - Rate 4		0 to ±99999999 or 0 to ±1	data specific			R
48746 3	Timestamp for Monitored Data Set 2 - Rate 4 Peak & Coincident Demand		21st Century	1 s			R
48750 2	Cumulative Demand for Monitored Data Set 2 - Rate 4		0 to ±99999999	data specific			R
48752 2	Accumulator for Monitored Data Set 3 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48754 2	Peak Demand for Monitored Data Set 3 - Rate 4		0 to ±9.999 E+09	data specific			R
48756 2	Coincident Demand for Monitored Data Set 3 - Rate 4		0 to ±99999999 or 0 to ±1	data specific			R
48758 3	Timestamp for Monitored Data Set 3 - Rate 4 Peak & Coincident Demand		21st Century	1 s			R
48762 2	Cumulative Demand for Monitored Data Set 3 - Rate 4		0 to ±99999999	data specific			R
48764 2	Accumulator for Monitored Data Set 4 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48766 2	Peak Demand for Monitored Data Set 4 - Rate 4		0 to ±9.999 E+09	data specific			R
48768 2	Coincident Demand for Monitored Data Set 4 - Rate 4		0 to ±99999999 or 0 to ±1	data specific			R
48770 3	Timestamp for Monitored Data Set 4 - Rate 4 Peak & Coincident Demand		21st Century	1s			R
48774 2	Cumulative Demand for Monitored Data Set 4 - Rate 4		0 to ±99999999	data specific			R
48776 2	Accumulator for Monitored Data Set 5 - Rate 4	SINT32	0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48778 2	Peak Demand for Monitored Data Set 5 - Rate 4		0 to ±9.999 E+09	data specific			R
48780 2	Coincident Demand for Monitored Data Set 5 - Rate 4	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
48782 3	Timestamp for Monitored Data Set 5 - Rate 4 Peak & Coincident Demand		21st Century	1 s			R
48786 2	Cumulative Demand for Monitored Data Set 5 - Rate 4		0 to ±99999999	data specific			R
48788 2	Accumulator for Monitored Data Set 6 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48790 2	Peak Demand for Monitored Data Set 6 - Rate 4		0 to ±9.999 E+09	data specific			R
48792 2	Coincident Demand for Monitored Data Set 6 - Rate 4		0 to ±99999999 or 0 to ±1	data specific			R
48794 3	Timestamp for Monitored Data Set 6 - Rate 4 Peak & Coincident Demand		21st Century	1s			R
48798 2	Cumulative Demand for Monitored Data Set 6 - Rate 4		0 to ±99999999	data specific			R
48800 2	Accumulator for Monitored Data Set 7 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48802 2	Peak Demand for Monitored Data Set 7 - Rate 4		0 to ±9.999 E+09	data specific			R
48804 2	Coincident Demand for Monitored Data Set 7 - Rate 4		0 to ±99999999 or 0 to ±1	data specific			R
48806 3	Timestamp for Monitored Data Set 7 Peak & Coincident Demand		21st Century	1 s			R
48810 2	Cumulative Demand for Monitored Data Set 7- Rate 4		0 to ±99999999	data specific			R
48812 2	Accumulator for Monitored Data Set 8 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48814 2	Peak Demand for Monitored Data Set 8 - Rate 4		0 to ±9.999 E+09	data specific			R
48816 2	Coincident Demand for Monitored Data Set 8 - Rate 4		0 to ±99999999 or 0 to ±1	data specific			R
48818 3	Timestamp for Monitored Data Set 8 - Rate 4 Peak & Coincident Demand		21st Century	1s			R
48822 2	Cumulative Demand for Monitored Data Set 8 - Rate 4	FLOAT	0 to ±99999999	data specific			R



				Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
48824		Accumulator for Monitored Data Set 9 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48826	2	Peak Demand for Monitored Data Set 9 - Rate 4	FLOAT	0 to ±9.999 E+09	data specific			R
48828	2	Coincident Demand for Monitored Data Set 9 - Rate 4	FLOAT	0 to ±99999999 or 0 to ±1	data specific			R
48830		Timestamp for Monitored Data Set 9 - Rate 4 Peak & Coincident Demand		21st Century	1 s			R
48834				0 to ±99999999	data specific			R
48836				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48838				0 to ±9.999 E+09	data specific			R
48840					data specific			R
48842				21st Century	1 s			R
48846				0 to ±99999999	data specific			R
48848				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48850				0 to ±9.999 E+09	data specific			R
48852				0 to ±99999999 or 0 to ±1	data specific			R
48854				21st Century	1s			R
48858				0 to ±99999999	data specific			R
48860				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48862				0 to ±9.999 E+09	data specific			R
48864					data specific			R
48866		Timestamp for Monitored Data Set 12 - Rate 4 Peak & Coincident Demand		21st Century	1s			R
48870				0 to ±99999999	data specific			R
48872				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48874				0 to ±9.999 E+09	data specific			R
48876					data specific			R
48878		Timestamp for Monitored Data Set 13 - Rate 4 Peak & Coincident Demand		21st Century	1 s			R
48882				0 to ±99999999	data specific			R
48884				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48886				0 to ±9.999 E+09	data specific			R
48888				0 to ±99999999 or 0 to ±1	data specific			R
48890		Timestamp for Monitored Data Set 14 - Rate 4 Peak & Coincident Demand		21st Century	1s			R
48894				0 to ±99999999	data specific			R
48896		Accumulator for Monitored Data Set 15 - Rate 4		0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48898				0 to ±9.999 E+09	data specific			R
48900					data specific			R
48902		Timestamp for Monitored Data Set 15 - Rate 4 Peak & Coincident Demand		21st Century	1s			R
48906				0 to ±99999999	data specific			R
48908				0 to ±99999999	data specific	Energy format, scaling applies only if energy is accumulated		R
48910				0 to ±9.999 E+09	data specific			R
48912				0 to ±99999999 or 0 to ±1	data specific			R
48914		Timestamp for Monitored Data Set 16 - Rate 4 Peak & Coincident Demand		21st Century	1s			R
48918	2	Cumulative Demand for Monitored Data Set 16 - Rate 4	FLOAT	0 to ±99999999	data specific			R



Reg#	Size	Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
		al Section	I			Address Range: 49996-51949		
<b>Log I</b> 49996		eval Block Session Semaphore	UINT16	0 to 65535		Write to indicate session activity 0x0000: Session terminated Non zero: Session started. Auto cleared by a 5 minute timer. 0xFFFF: Reset semaphor timer		R/W
49997	2	Log Retrieval Session Duration	UINT32	0 to 4294967294	4 ms	0 if no session active; wraps around after max count (max count = approximately 199 days)		R
49999	1	Log Retrieval Session Com Port	UINT16	0 to 4		0 if no session active, 1-4 for session active on COM1 - COM4		R
50000	1	Log Number, Enable, Scope	UINT16	bitmapped		nnnnnnn essssss high byte is the log number : 0-System Event, 1-Limits Alarm, 2-History1, 3-History2, 4-History3, 5-History4, 6-History5, 7-History6, 8-Diagnostic, 9-MaxVolt & Temp, 10-I/O changes, 13-PQ,14-waveform, 18-TOU month, 19-TOU season, 20-TOU action "e" is retrieval session enable(1) or disable(0) ssssss is What to retrieve (0-normal record, 1-timestA only, 2- complete memory image (no data validation if image)		R/W
50001	1	Records per Window or Batch, Record Scope Selector, Number of Repeats	UINT16	bitmapped		high byte is records per window if s=0 or records per batch if s=1, low byte is number of repeats for function 35 or 0 to suppress auto- incrementing; max number of repeats is 8 (RTU) or 4 (ASCII) total windows, a batch is all the windows		R/W
50002	2	Offset of First Record in Window	UINT32	bitmapped		ssssssss nnnnnnn nnnnnnn nnnnnnn 'wwwwww snnnnnn sssssss is window status (0 to 7-window number, 0xFF-not ready); this byte is read-only. nnnn is a 24-bit record number. The log's first record is latched as a reference point When the session is enabled. This offset is a record index relative to that point. Value provided is the relative index of the Whole or partial record that begins the window.		R/W
50004	123	Log Retrieve Window	UINT16	see comments		mapped per record layout and retrieval scope, read-only		R
Log	Statu	is Block			•			
		Log Status Block		0 to 4,294,967,294	rocord	Individual Log Status Block Size		R
		Log Size in Records Number of Records Used	UINT32 UINT32	0 to 4,294,967,294	record record			R
	1	Record Size in Bytes Log Availability	UINT16 UINT16	14 to 242	Byte	0=available, 1-4=in use by COM1-4, 0xFFFF=not available (log size=0)		R
51006	3	Timestamp, First Record	TSTAMP	21st Century	1 s			R
		Timestamp, Last Record		21st Century	1 s			R



Reg# Size		Format	Value Range	Unit of measure or resolution	Comments	Factory default value Acc
System	n Log Status Block			1 ·	Individual Log Status Block Size	
51016 2	Log Size in Records	UINT32	0 to 4,294,967,294	record		R
	Number of Records Used	UINT32	1 to 4,294,967,294	record		R
51020 1	Record Size in Bytes	UINT16	14 to 242	Byte		R
	Log Availability	UINT16			0=available, 1-4=in use by COM1-4, 0xFFFF=not available (log size=0)	R
51022 3	Timestamp, First Record		21st Century	1 s		R
	Timestamp, Last Record	TSTAMP	21st Century	1s		R
	cal Log 1 Status Block				Individual Log Status Block Size	
	Log Size in Records	UINT32	0 to 4,294,967,294	record		R
51034 2	Number of Records Used	UINT32	1 to 4,294,967,294	record		R
51036 1	Record Size in Bytes	UINT16	14 to 242	Byte		R
	Log Availability	UINT16			0=available, 1-4=in use by COM1-4, 0xFFFF=not available (log size=0)	R
	Timestamp, First Record		21st Century	1s		R
	Timestamp, Last Record	TSTAMP	21st Century	1s		R
Histori	cal Log 2 Status Block	1			Individual Log Status Block Size	
	Log Size in Records	UINT32	0 to 4,294,967,294	record		R
	Number of Records Used	UINT32	1 to 4,294,967,294	record		R
51052 1	Record Size in Bytes	UINT16	14 to 242	Byte		R
	Log Availability	UINT16			0=available, 1-4=in use by COM1-4, 0xFFFF=not available (log size=0)	R
51054 3	Timestamp, First Record		21st Century	1s		R
	Timestamp, Last Record	TSTAMP	21st Century	1 s		R
Histori	cal Log 3 Status Block			1 .	Individual Log Status Block Size	
51064 2	Log Size in Records	UINT32	0 to 4,294,967,294	record		R
	Number of Records Used	UINT32	1 to 4,294,967,294	record		R
51068 1	Record Size in Bytes	UINT16	14 to 242	Byte		R
	Log Availability	UINT16			0=available, 1-4=in use by COM1-4, 0xFFFF=not available (log size=0)	R
51070 3	Timestamp, First Record		21st Century	1s		R
51073 3	Timestamp, Last Record	TSTAMP	21st Century	1s		R
	cal Log 4 Status Block		I	1 .	Individual Log Status Block Size	
	Log Size in Records	UINT32	0 to 4,294,967,294	record		R
	Number of Records Used	UINT32	1 to 4,294,967,294	record		R
51084 1	Record Size in Bytes	UINT16	14 to 242	Byte		R
	Log Availability	UINT16			0=available, 1-4=in use by COM1-4, 0xFFFF=not available (log size=0)	R
	Timestamp, First Record		21st Century	1s		R
51089 3	Timestamp, Last Record	ISTAMP	21st Century	1 s		R



Reg# Size		Format	Value Range	Unit of measure or resolution	Comments	Factory default value	Acc
	cal Log 5 Status Block	1	L	l :	Individual Log Status Block Size		
	Log Size in Records	UINT32	0 to 4,294,967,294	record			R
51098 2	Number of Records Used	UINT32	1 to 4,294,967,294	record			R
51100 1	Record Size in Bytes	UINT16	14 to 242	Byte			R
51101 1	Log Availability	UINT16			0=available, 1-4=in use by COM1-4, 0xFFFF=not available (log size=0)		R
	Timestamp, First Record		21st Century	1s			R
51105 3	Timestamp, Last Record	TSTAMP	21st Century	1 s			R
	cal Log 6 Status Block	r		-	Individual Log Status Block Size	) <u> </u>	
	Log Size in Records	UINT32	0 to 4,294,967,294	record			R
51114 2	Number of Records Used	UINT32	1 to 4,294,967,294	record			R
51116 1	Record Size in Bytes	UINT16	14 to 242	Byte			R
	Log Availability	UINT16			0=available, 1-4=in use by COM1-4, 0xFFFF=not available (log size=0)		R
	Timestamp, First Record		21st Century	1 s			R
51121 3	Timestamp, Last Record	TSTAMP	21st Century	1 s			R
Diagno	ostic Log Block				Individual Log Status Block Size	) <u> </u>	
	Log Size in Records	UINT32	0 to 4,294,967,294	record			R
	Number of Records Used	UINT32	1 to 4,294,967,294	record			R
51132 1	Record Size in Bytes	UINT16	14 to 242	Byte			R
	Log Availability	UINT16			0=available, 1-4=in use by COM1-4, 0xFFFF=not available (log size=0)		R
	Timestamp, First Record		21st Century	1s			R
	Timestamp, Last Record	TSTAMP	21st Century	1s			R
Voltage	e Temperature log block			1 .	Individual Log Status Block Size	<u>.</u>	
	Log Size in Records	UINT32	0 to 4,294,967,294	record			R
<u>51146</u> 2 51148 1	Number of Records Used Record Size in Bytes	UINT32 UINT16	1 to 4,294,967,294 14 to 242	record Bvte			R
51149 1	Log Availability	UINT16		Dyie	0=available, 1-4=in use by COM1-4, 0xFFFF=not available (log size=0)		R
	Timestamp, First Record		21st Century	1s			R
51153 3	Timestamp, Last Record	TSTAMP	21st Century	1s			R
	ange Log Status Block				Individual Log Status Block Size	:	
	Log Size in Records	UINT32	0 to 4,294,967,294	record			R
	Number of Records Used	UINT32	1 to 4,294,967,294	record			R
51164 1	Record Size in Bytes	UINT16	14 to 242	Byte			R
	Log Availability	UINT16			0=available, 1-4=in use by COM1-4, 0xFFFF=not available (log size=0)		R
	Timestamp, First Record		21st Century	1s			R
51169 3	Timestamp, Last Record	ISTAMP	21st Century	1 s			R



		Description	Format	Value Range	Unit of measure or resolution	Comments	Factory default value Acc
		Quality Log Status Block	r		T	Individual Log Status Block Size:	
51176	2	Log Size in Records	UINT32	0 to 4,294,967,294	record		R
51178	2	Number of Records Used	UINT32	1 to 4,294,967,294	record		R
51180	1	Record Size in Bytes	UINT16	14 to 242	Byte		R
		Log Availability	UINT16			0=available, 1-4=in use by COM1-4, 0xFFFF=not available (log size=0)	R
51182	3	Timestamp, First Record	TSTAMP	21st Century	1 s		R
51185	3	Timestamp, Last Record	TSTAMP	21st Century	1 s		R
V	Navef	orm Capture Log Status Block				Individual Log Status Block Size:	
		Log Size in Records		0 to 4,294,967,294	record		R
51194	2	Number of Records Used	UINT32	1 to 4,294,967,294	record		R
51196	1	Record Size in Bytes	UINT16	14 to 242	Byte		R
		Log Availability	UINT16			0=available, 1-4=in use by COM1-4, 0xFFFF=not available (log size=0)	R
		Timestamp, First Record		21st Century	1 s		R
		Timestamp, Last Record	TSTAMP	21st Century	1 s		R
Т	OU M	onth Log Status Block				Individual Log Status Block Size:	
		Log Size in Records	UINT32	0 to 4,294,967,294	record		R
51210	2	Number of Records Used	UINT32	1 to 4,294,967,294	record		R
51212	1	Record Size in Bytes	UINT16	14 to 242	Byte		R
51213		Log Availability	UINT16			0=available, 1-4=in use by COM1-4, 0xFFFF=not available (log size=0)	R
51214	3	Timestamp, First Record		21st Century	1s		R
		Timestamp, Last Record	TSTAMP	21st Century	1 s		R
		eason Log Status Block				Individual Log Status Block Size:	
		Log Size in Records		0 to 4,294,967,294	record		R
51226		Number of Records Used	UINT32	1 to 4,294,967,294	record		R
51228	1	Record Size in Bytes	UINT16	14 to 242	Byte		R
51229		Log Availability	UINT16			0=available, 1-4=in use by COM1-4, 0xFFFF=not available (log size=0)	R
51230	3	Timestamp, First Record		21st Century	1 s		R
51233	3	Timestamp, Last Record	TSTAMP	21st Century	1 s		R
		ction Log Status Block				Individual Log Status Block Size:	
51240	2	Log Size in Records	UINT32	0 to 4,294,967,294	record		R
	2	Number of Records Used		1 to 4,294,967,294	record		R
51244	1	Record Size in Bytes	UINT16	14 to 242	Byte		R
51245		Log Availability	UINT16	<u> </u>		0=available, 1-4=in use by COM1-4, 0xFFFF=not available (log size=0)	R
		Timestamp, First Record		21st Century	1s		R
51249	3	Timestamp, Last Record	TSTAMP	21st Century	1s		R



## **Data Formats:**

ASCII:	ASCII characters packed 2 per register in high, low order and without any termination characters. For example, "Shark200" would be 4 registers containing 0x5378, 0x6172, 0x6B32,
	0x3030.
SINT16 / UINT16:	16-bit signed / unsigned integer.
SINT32 / UINT32:	32-bit signed / unsigned integer spanning 2 registers. The lower-addressed register is the high order half.
FLOAT:	32-bit IEEE floating point number spanning 2 registers. The lower-addressed register is the high order half (i.e., contains the exponent).
TSTAMP:	3 adjacent registers, 2 bytes each. First (lowest-addressed) register high byte is year (0-99), low byte is month (1-12).
	Middle register high byte is day(1-31), low byte is hour (0-23 plus DST bit). DST (daylight saving time) bit is bit 6 (0x40).
	Third register high byte is minutes (0-59), low byte is seconds (0-59). For example, 9:35:07AM on October 12, 2049 would be 0x310A, 0x0C49, 0x2307, assuming DST is in effect.
LTSTAMP:	4 adjacent registers, 2 bytes each. First 3 registers match TSTAMP. Fourth register is milliseconds (0-999)

## Notes:

- 1. All registers not explicitly listed in the table read as 0. Writes to these registers will be accepted but won't actually change the register (since it doesn't exist).
- 2. Meter Data Section items read as 0 until first readings are available or if the meter is not in operating mode. Writes to these registers will be accepted but won't actually change the register.
- 3. Register valid only in programmable settings update mode. In other modes these registers read as 0 and return an illegal data address exception if a write is attempted.
- 4. Meter command registers always read as 0. They may be written only when the meter is in a suitable mode. The registers return an illegal data address exception if a write is attempted in an incorrect mode.
- 5. Password protection may apply as per security settings.
- 6. TOU notes (to detail)
  - a. Monitored Data Sets Definitions. A set of related measurements to be monitored for Time Of Use. E.g. : positive watt hours, peak average positive watt demand, and coincident average positive VAR. Typically all members of the set will be related as illustrated in the example, but that is not strictly required.
- Each identifier is a Modbus register. For entities that occupy multiple registers (FLOAT, SINT32, etc.) all registers making up the entity must be listed, in ascending order.
   For example, to log phase A V, VA, voltage THD, and VA hour, the register list would be 0x3E7, 0x3E8, 0x411, 0x412, 0x176F, 0x61D, 0x61E and the number of registers (0x7917 high byte) would be 7.
- 8. Writing this register causes data to be saved permanently in nonvolatile memory. Reply to the command indicates that it was accepted but not Whether or not the save was successful. This can only be determined after the meter has restarted.
- 9. Reset commands make no sense if the meter state is LIMP. An illegal function exception will be returned. Reply to a reset log command indicates that the command was accepted but not necessarily that the reset is finished. Poll log status block to determine it.



- 10. Energy registers should be reset after a format change.
- 11. Entities to be monitored against limits are identified by Modbus address. Entities occupying multiple Modbus registers, such as floating point values, are identified by the lower register address. If any of the 16 limits is unused, set its identifier to zero. If the indicated Modbus register is not used or is a nonsensical entity for limits, it will behave as an unused limit.
- 12. There are 2 set-points per limit, one above and one below the expected range of values. LM1 is the "too high" limit, LM2 is "too low".
  - a. The entity goes "out of limit" on LM1 When its value is greater than the set-point. It remains "out of limit" until the value drops below the in threshold.
  - b. LM2 works similarly, in the opposite direction. If limits in only one direction are of interest, set the in threshold on the "wrong" side of the set-point
  - c. Limits are specified as % of full scale (FS), Where full scale is automatically set appropriately for the entity being monitored:
    - i. Current FS = CT numerator
    - ii. Voltage FS = PT numerator
    - iii. 3 phase power FS = CT numerator \* PT numerator \* 3 [ \* SQRT(3) // for delta hookup]
    - iv. Single phase power FS = CT numerator \* PT numerator
    - v. Frequency FS = 60 (or 50)Hz
    - vi. Power factor FS = 1.0
    - vii. Percentage FS = 100.0%
    - viii. Angle FS = 180.0°

13. Value "10000" means not available in all THD, TDD, K factor and harmonic magnitude and phase registers for the channel. Data may be unavailable due to low V or I amplitude, delta hookup (V

only), or V-switch setting. Harmonics phase angle calculation:  $\Phi_{(h)} = h * \phi + 90^{\circ} * (h - 1)$ ; h harmonic number, starting at 2;  $\phi$ : phase angle of harmonic from register.

- 14. Option Card Identification and Configuration Block is an image of the EEPROM on the card
- 15. A block of data and control registers is allocated for each option slot. Interpretation of the register data depends on what card is in the slot.
- 16. Measurement states:

Off occurs during programmable settings updates;

Run is the normal measuring state. Run state is required for measurement, historical logging, demand interval processing, limit alarm evaluation, min/max comparisons, and THD calculations.

Limp indicates that an essential non-volatile memory block is corrupted; and Warmup occurs briefly (approximately 4 seconds) at startup While the readings stabilize.

In limp state, the meter reboots at 5 minute intervals in an effort to clear the problem.

(Resetting min/max or energy is allowed only in run and off states; warmup will return a busy exception)

- 17. Limits evaluation for all entities except demand averages commences immediately after the warmup period. Evaluation for demand averages, maximum demands, and minimum demands commences at the end of the first demand interval after startup.
- 18. Auto incrementing and function 35 must be used when retrieving waveform logs.



19. Depending on the V-switch setting memory is assigned to 6 historical logs, waveform log and PQ log.

The number of sectors for each log, and the number of registers per record together determine the maximum number of records a log can hold.

S = number of sectors assigned to the log,

H = number of Modbus registers to be monitored in each historical record (up to 117),

R = number of bytes per record = (12 + 2H) for historical logs

N = number of records per sector = 65516 / R, rounded down to an integer value (no partial records in a sector)

T = total number of records the log can hold = S \* N

T = S \* 2 for the waveform log.

20. Logs cannot be reset during log retrieval. Waveform log cannot be reset while storing a capture. Busy exception will be returned.

21. Combination of class and type currently defined are:

0x23 = Fiber optic card

0x24 = Ethernet card

0x29 = IEC 61850 Card (Ethernet)

- 0x41 = Relay/Input card
- 0x42 = Pulse-Out/Input card
- 0x81 = 0-1mA analog output card
- 0x82 = 4-20mA analog output card

0x22 = RS232/RS485 card

All registers not explicitly listed in the table read as 0. Writes to these registers will be accepted but won't actually change the register (since it doesn't exist).

Meter Data Section items read as 0 until first readings are available or if the meter is not in operating mode. Writes to these registers will be accepted but won't actually change the register. Register valid only in programmable settings update mode. In other modes these registers read as 0 and return an illegal data address exception if a write is attempted.

Meter command registers always read as 0. They may be written only When the meter is in a suitable mode. The registers return an illegal data address exception if a write is attempted in an incorrect mode.

If the password is incorrect, a valid response is returned but the command is not executed. Use 5555 for the password if passwords are disabled in the programmable settings.

- 22. The data read from these registers (32068), can be a float, a signed 32-bit integer or an unsigned 32-bit integer, depending on the configured value of the data-type register (32066)
- 23. Glossary Abbreviations:
  - (Qn): Quadrant n. Example (Q1) = Quadrant 1, (Q1+Q2) = Quadrant 1 and 2.
  - Ph: Phase
  - PF: Power factor
  - TOU: Time-Of-Use

