INSTALLATION AND OPERATING INSTRUCTION

Automatic control unit

OMD100

Table of contents

1. Introduction

This manual describes the installation and the basic operation of the OMD100 automatic control unit. The instructive part is followed by a section on available accessories.

1.1 Use of symbols

Hazardous voltage: warns about a situation where a hazardous voltage may cause physical injury to a person or damage to equipment.

General warning: warns about a situation where something other than electrical equipment may cause physical injury to a person or damage to equipment.

Caution: provides important information or warns about a situation that may have a detrimental effect on equipment.

Information: provides important information about the equipment.

1.2 Explanations of abbreviations and terms

OMD	The control unit of automatic transfer switching equipment, common type name for the automatic control unit
OMD100	The automatic control unit, basic version with simplified functionalities
LN1-Switch I	Power supply line, eg. the primary line
LN2-Switch II	Power supply line, eg. the secondary line used in emergency cases
Test sequence	A sequence to test the functionality of the OMD and the connected change-over switch
Ts	Switching delay
Tbs	Back switching delay

2. Product overview

The automatic transfer switch concept is applied to any application requiring switching from the primary power line to secondary power line to ensure the supply of loads.

OMD100 is the basic version of the control unit of automatic switching equipment. It has two sensors to monitor two three-phase power lines, both able to work with single phase, too. OMD100 can measure voltage, frequency and the phase balance of the primary and secondary power line. OMD100 is able to command a single motorized change-over switch. The neutral has to be always connected.

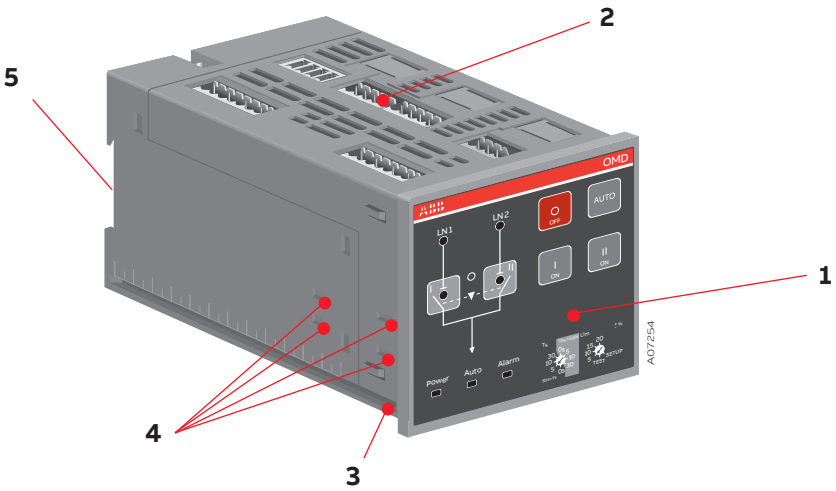


Figure 2.1 Automatic control unit OMD100

1 User interface consists of LEDs, keypad and rotary switches
2 Connectors to connect automatic control unit with application and motorized change-over switch
3 DIP switches for parameter setting
4 Places for fasteners, used when OMD100 is mounted on the door
5 Place for DIN rail

2.1 Typical applications

Network line a – Network line b

In case of loss of the primary power line, the OMD100 device manages the switching to a secondary power line used as an emergency source.

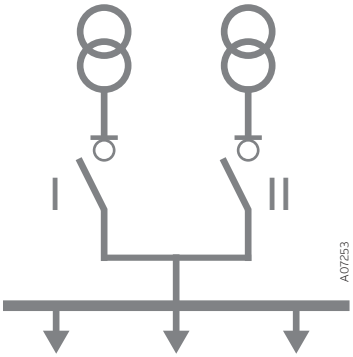


Figure 2.2 Network line a - Network line b

Automatic control unit type OMD100 is designed for single and three-phase distribution systems in diverse applications. OMD100 is supplied from Line 1 and Line 2 and can be used without external power supply.

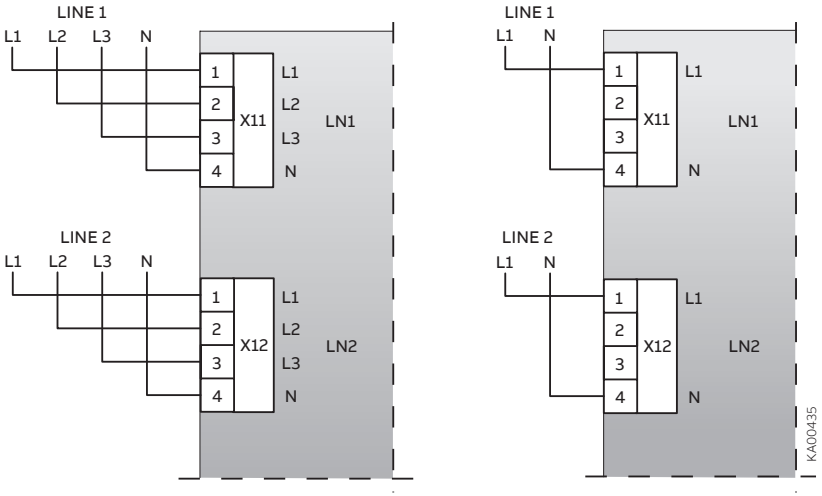


Figure 2.3 OMD100 has two sensors to monitor two three-phase power lines, both able to work with single phase, too. Neutral has to be always connected.

3. Description

3.1 OMD100 switching sequence

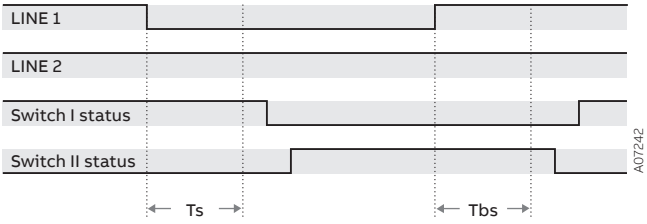
3.1.1 Line 1 priority

The switching sequence can be summarized in following steps:

- An anomaly occurs on the Line 1
- Switching delay
- Change-over switch (Switch I) to the position O
- Change-over switch (Switch II) to the position II

And the back switching sequence can be summarized in the following steps:

- The Line 1 will start the normal functioning
- Back switching delay
- Change-over switch (Switch II) to the position O
- Change-over switch (Switch I) to the position I



Ts: Switching delay, **Tbs**:Back switching delay

Figure 3.1 Automatic Switching Sequence, Line 1 priority

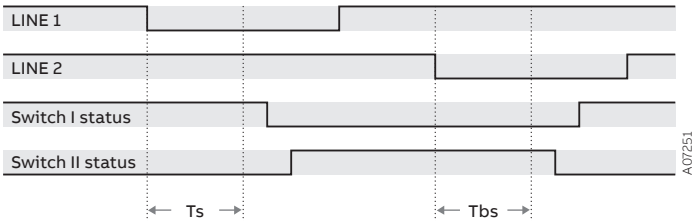
3.1.2 No line priority

The switching sequence can be summarized in following steps:

- An anomaly occurs on the Line 1
- Switching delay
- Change-over switch (Switch I) to the position O
- Change-over switch (Switch II) to the position II

And the back switching sequence can be summarized in the following steps:

- The Line 1 will start the normal functioning
- Change-over switch stays in position II
- An anomaly occurs on the Line 2
- Back switching delay
- Change-over switch (Switch II) to the position O
- Change-over switch (Switch I) to the position I



Ts: Switching delay, **Tbs**:Back switching delay

Figure 3.2 Automatic Switching Sequence, no line priority

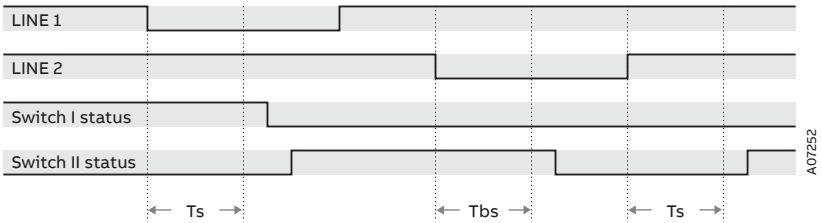
3.1.3 Manual back switching

The switching sequence can be summarized in following steps:

- An anomaly occurs on the Line 1
- Switching delay
- Change-over switch (Switch I) to the position O
- Change-over switch (Switch II) to the position II

And the back switching sequence can be summarized in the following steps:

- The Line 1 will start the normal functioning
- Change-over switch stays in position II
- An anomaly occurs on the Line 2
- Back switching delay
- Change-over switch (Switch II) to the position O
- The Line 2 will start the normal functioning
- Switching delay
- Change-over switch (Switch II) to the position II



Ts: Switching delay, **Tbs**:Back switching delay

Figure 3.3 Automatic Switching Sequence, manual back switching

4. Installation

4.1 Dimensional drawings

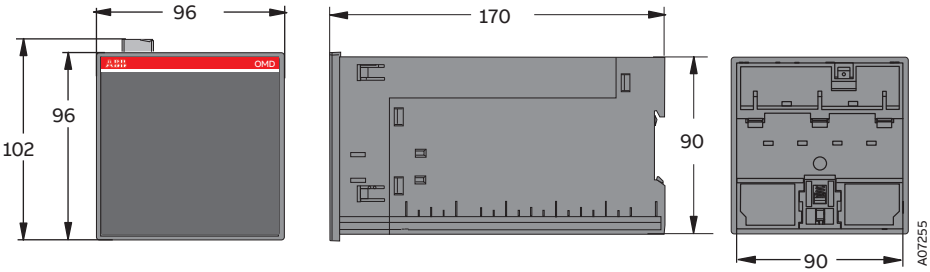


Figure 4.1 OMD100, dimensions of the device

4.2 Mounting

4.2.1 Automatic control unit OMD100, door mounting

The automatic control unit OMD100 can be mounted on the door with the fastener OMZD1, see Accessories, Section 10. Door drilling according to Figure 4.2.

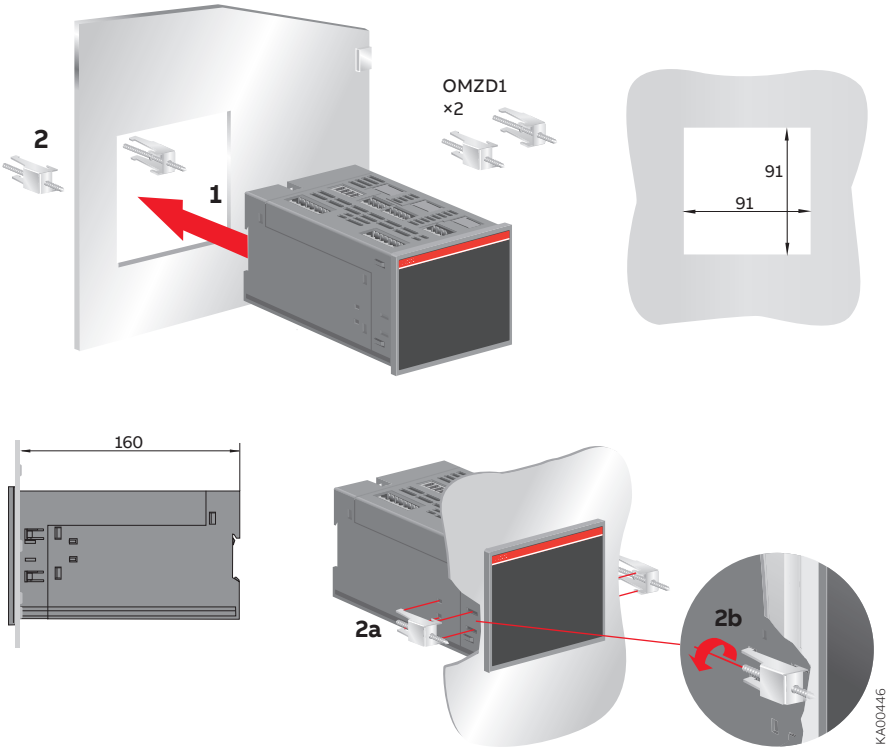


Figure 4.2 Automatic control unit OMD100, door mounting, door drilling

4.2.2 Automatic control unit OMD100, DIN-rail mounting

The automatic control unit OMD100 can be mounted on the 35 mm DIN-rail and the door drilling, if needed, according to Figure 4.3.

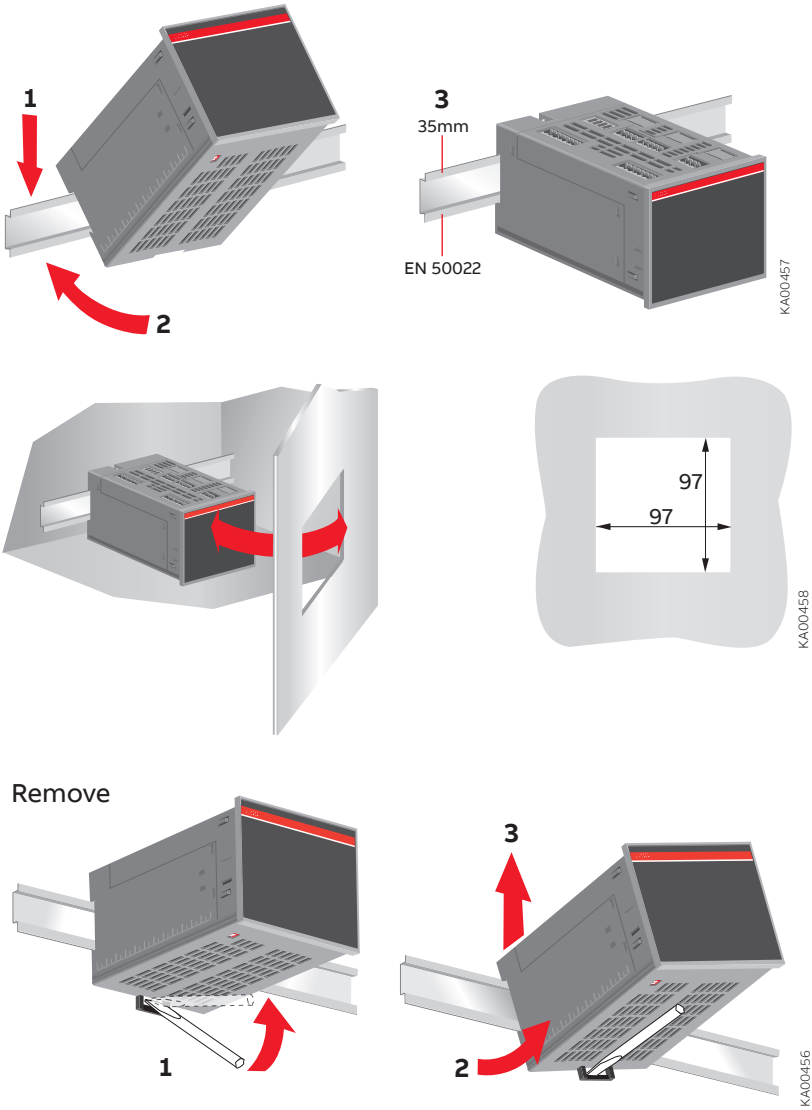


Figure 4.3 Automatic control unit OMD100, DIN-rail mounting

5. Connecting

5.1 Power circuit

Operating voltage:

Main voltage: 380 Vac (±20 %)
Phase voltage: 220 Vac (±20 %)
Frequency: 50 Hz (±10 %)

Neutral must always be connected.
Phase setting with DIP switch: Single phase or Three-phase (default).

5.2 Control circuit

5.2.1 Control circuit diagram OMD100 with motorized OTM40...125_CMA_

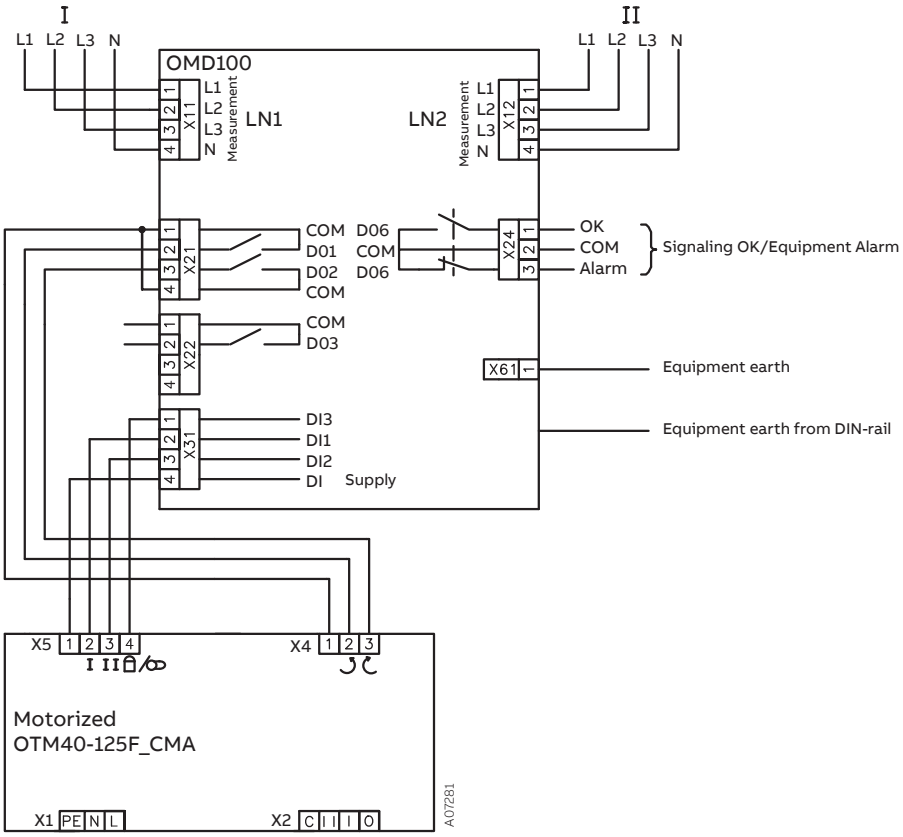


Figure 5.1 Control circuit diagram OMD100 with motorized OTM40...125_CMA_

Equipment earth must always be connected.

5.2.2 Control circuit diagram OMD100 with motorized OTM160...2500_CM_

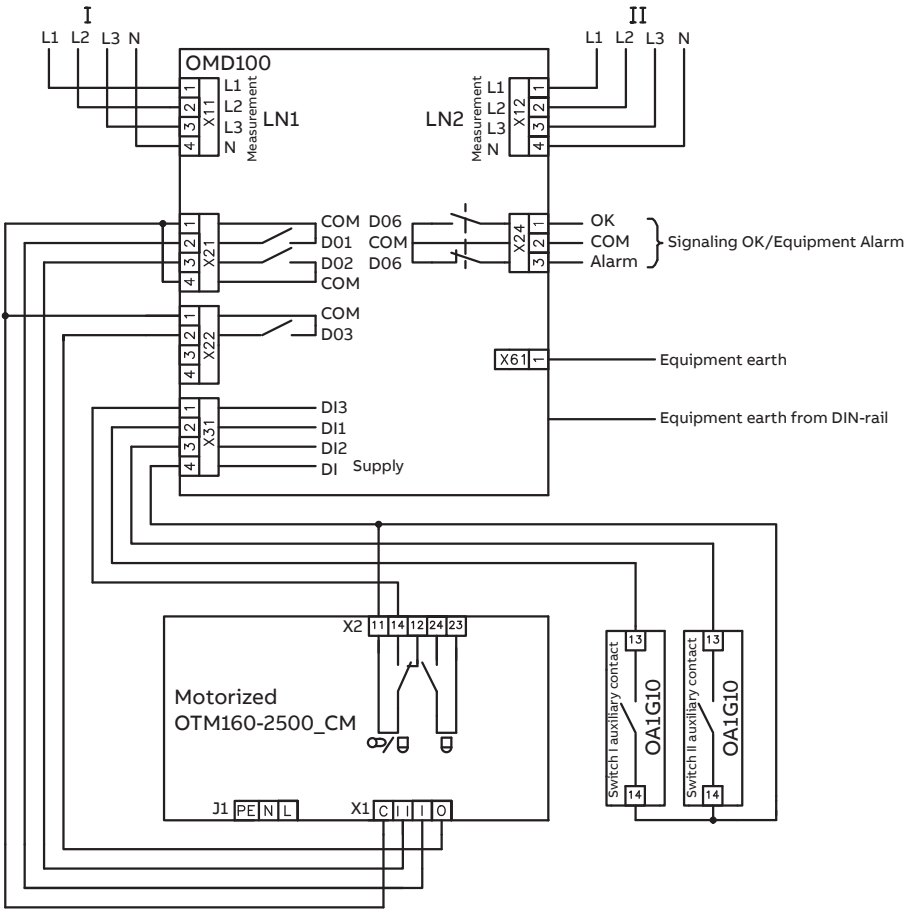


Figure 5.2 Control circuit diagram OMD100 with motorized OTM160…2500_CM_

Equipment earth must always be connected.

5.2.3 Connectors, OMD100

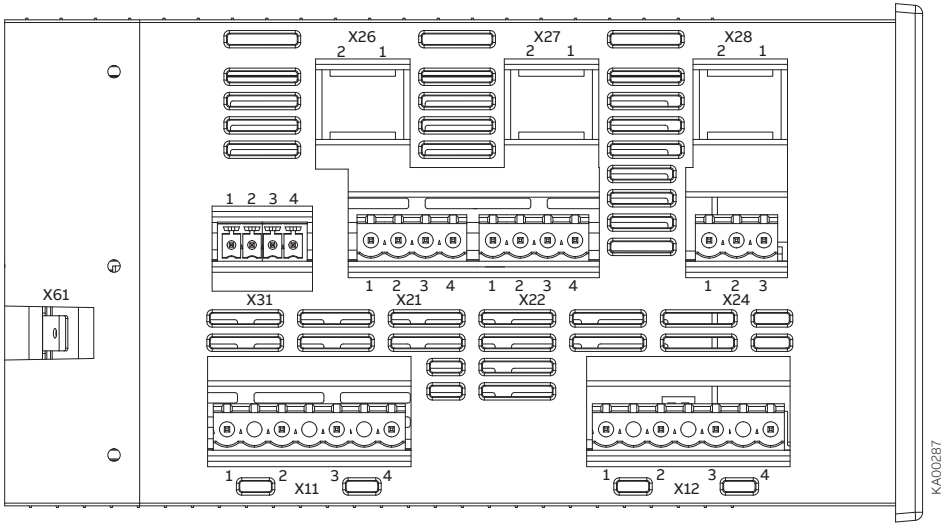


Figure 5.3 Connectors, OMD100

Connector	Description	
X11:1	Supply I: L1	
X11:2	Supply I: L2	
X11:3	Supply I: L3	
X11:4	Supply I: N	
X12:1	Supply II: L1	
X12:2	Supply II: L2	
X12:3	Supply II: L3	
X12:4	Supply II: N	
X21:1	Voltage supply from motor operator OME_	Common
X21:2	Output to close switch I	NO
X21:3	Output to close switch II	NO
X21:4	Voltage supply from motor operator OME_	Common
X22:1	Voltage supply from motor operator OME_	Common
X22:2	Output to open switch I and switch II	NO
X22:3	Reserved	
X22:4	Reserved	
X24:1	Output to signal OK (no alarm)	
X24:2	Common	
X24:3	Output to signal Alarm	
X31:1	Manual / Alarm input from handle	
X31:2	Status of switch I auxiliary contact	
X31:3	Status of switch II auxiliary contact	
X31:4	Voltage supply from the automatic control unit OMD100	
X61	Equipment earth	

Table 5.1 Connectors OMD 100

5.2.4 OMD100 outputs

5.2.4.1 Opening/closing command to change-over switches, X21 (DO1-DO3)

These outputs command the change-over switch to open and close Switch I or Switch II.
To guarantee the highest-level safety OMD100 monitors the correct operation of the change-over switch after a command has been sent. If the feedback of the switch status is not received within 3 seconds of the sending of the command, the device considers it as a failed command and operates as follows:

- An alarm is generated: DO6 activate.
- Alarm LED switches on.
- Alarm is set off by pushing the AUTO key. After that the device is always in the Manual Mode to prevent unwanted operation of the change-over switch.

Exactly the same operations are performed on the secondary line (LN2-Switch II) during the back switching sequence.

5.2.4.2 Alarm signaling, X24 (DO6)

When the relay contact Alarm (X24:3) is open and contact OK (X24:1) is closed, the automatic transfer logic is enabled. If the relay contact Alarm (X24:3) is closed and the contact OK (X24:1) is open the automatic transfer logic is disabled and an alarm is active.

5.2.5 OMD100 inputs

5.2.5.1 Switch status input, X31:2 (DI1), X31:3 (DI2)

These two inputs are connected to change-over switch auxiliary contacts. Input X31:2 (DI1) is connected to LN1-Switch I and input X31:3 (DI2) is connected to LN2-Switch II (Switch I / II open = input inactive, Switch I / II closed = input active). Auxiliary contacts are in-built in motorized OTM40…125_CMA_. If OMD100 is used with motorized OTM160…2500_CM_, use always type OA1G10 auxiliary contacts with DI1 and DI2. See the wiring diagrams on Figure 5.1 and Figure 5.2.

5.2.5.2 Force manual, X31:1 (DI3)

When the handle is attached this input is closed and OMD100 is forced to Manual Mode. To set the OMD100 back to the Automatic Mode the handle must be removed and the AUTO key pushed (Auto LED is ON).

6. Operating

Never open any covers on the product. There may be dangerous external control voltages inside the automatic transfer switch even if the voltage is turned off.

Never handle control cables when the voltage of the automatic transfer switch or external control circuits are connected.

Exercise sufficient caution when handling the unit.

6.1 Automatic control unit in Manual Mode

Selecting the automatic control unit OMD100 to the Manual Mode:

a. Make sure that the power LED is ON, see the Figure 6.1/①.

b. If the Auto LED is OFF /②, the automatic control unit is in Manual Mode.

c. If the Auto LED is ON, push the Auto key once /③. The Auto LED switches to OFF and the automatic control unit OMD100 is in Manual Mode /④.

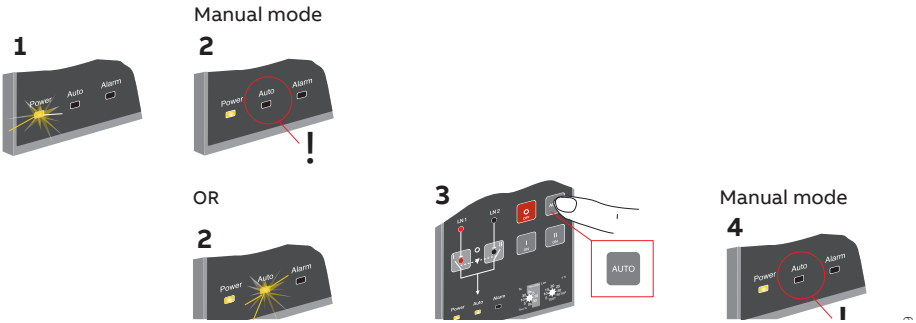


Figure 6.1 Selecting the automatic control unit OMD100 to Manual Mode

To select the switch to operate by the automatic control unit OMD100 in Manual Mode:

a. Push the appropriate I, O or II key.

b. When pushing the I-key (see the Figure 6.2/①, the I-switch will be in the ON position (the status and the line indication, see the Figure 6.2/② and the II-switch will be in the OFF position. If the I-switch is already in the ON position, pushing the I-key does not have any influence.

c. When pushing the O-key, the I-switch will be in the OFF position. The II-switch remains in the OFF position.

d. When pushing the II-key, the II-switch will be in the ON position and the I-switch will be in the OFF position.

e. If you push the I-key while the II-switch is in the ON position, first the II-switch opens (OFF position) and then the I-switch closes its contacts (ON position).

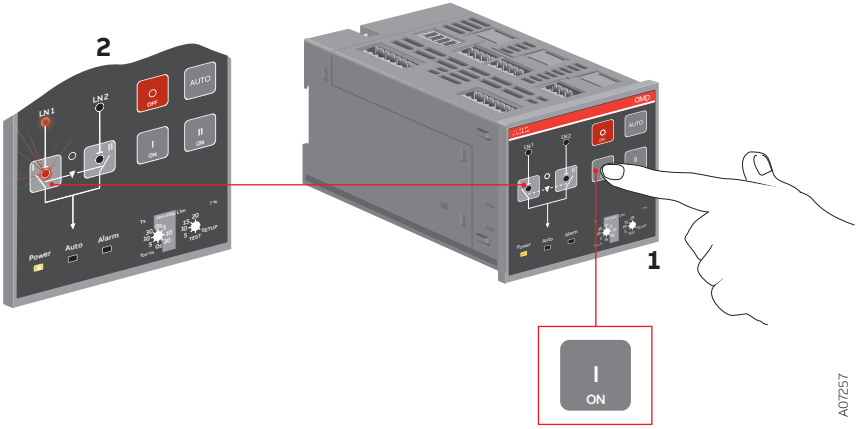


Figure 6.2 Selecting the switch to operate, the switch status and the chosen line indication with LEDs in OMD100

If a new command is given before the switch has reached the position of the previous command, the fuse (F1) of the motor operator may operate.

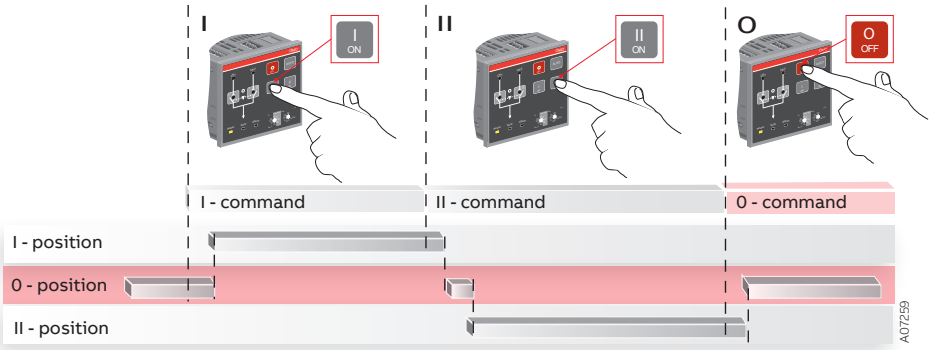


Figure 6.3 Manual Mode control

Pushing of the O-key (= O-command) will override the commands of the other keys. For example, if you simultaneously give an O-command and another command (I or II), the motorized change-over switch OTM_C is driven to the position O.

6.2 Automatic control unit in Automatic Mode

Selecting the automatic control unit OMD100 to the Automatic Mode:

a. Make sure that power LED is ON. If Auto LED is ON/①, the automatic control unit is in Automatic Mode.

b. If Auto LED is OFF/①, check that the Lim rotary switch is not in the TEST or SETUP position/②.

c. Push the Auto key once/③. The Auto LED switches ON and the automatic control unit OMD_ is in Automatic Mode/④

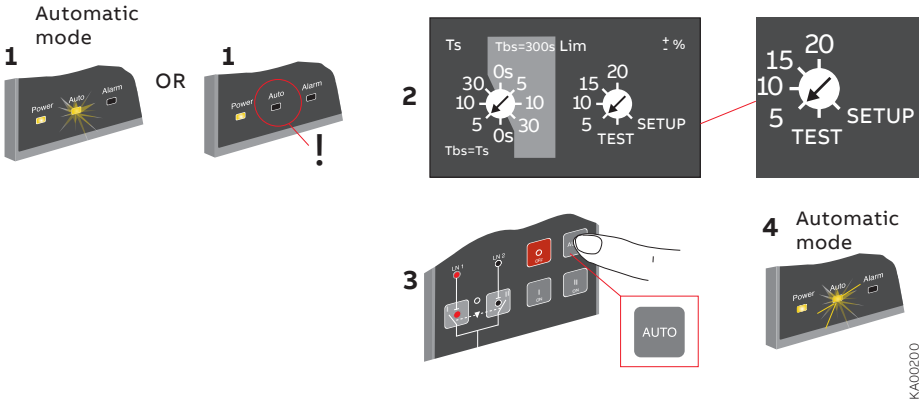


Figure 6.4 Selecting the automatic control unit OMD100 to Automatic Mode

See the OMD100 Automatic Mode operation in Section 7.

6.3 Selection of delay time, voltage threshold and TEST function

The delay time and the voltage threshold are set by the rotary switches in automatic control units OMD100.

Ts / Tbs = Delay times for automatic switching

The delay time is the time before activating the switching sequence and the back switching sequence. User can choose two types of settings for delay times:

Choice 1: Darker side of the rotary switch

Available selections for the delay times are: 0, 5, 10 and 30 s. When this side is used the back switching delay Tbs is always same as switching delay Ts.

Choice 2: Lighter side of the rotary switch

Available selections for the delay times are: 0, 5, 10 and 30 s. When this side is used the back switching delay Tbs is always set to 300s.

Lim = Voltage threshold with SETUP and TEST function

The available selections for voltage threshold in OMD100 are: ± 5, ± 10, ± 15, ± 20 %. By setting the voltage threshold, the unbalance is also set to the same level.

When the user wants to enter to the SETUP mode, the automatic control unit has to be set to manual mode and Lim rotary switch has to be set to SETUP position. In SETUP mode it is possible to choose between three operating modes: standard switching mode, no priority mode or manual back switching mode. In the SETUP –mode user must also choose between automatic OTM_C_D, motorized OTM40…125_CMA_ or motorized OTM_160…2500_CM_ change-over switch.
See Section 6.4.2 Choice of Operating mode in OMD100.

When the Lim rotary switch is set to the TEST position, the automatic control unit OMD100 enters the test sequence. In test sequence it is possible to simulate switching and back switching sequences step by step by pushing the AUTO key.

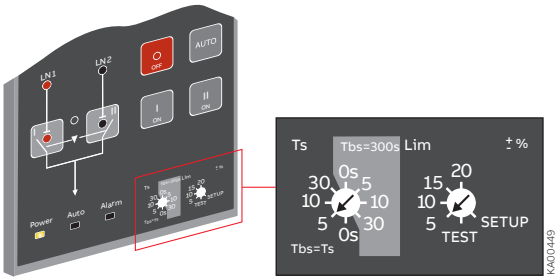


Figure 6.5 Selection of delay time and voltage threshold in OMD100

Steps in the TEST sequence are:

1. Push AUTO; change-over switch to position II
2. Push AUTO; change-over switch to position I

After final step, the TEST sequence restarts. The user can stop the TEST sequence by turning the Lim rotary switch back to the voltage threshold wanted. After stopping the TEST sequence the device returns to the MANUAL mode. By pushing AUTO key once after stopping test sequence the device is set to the AUTO mode.

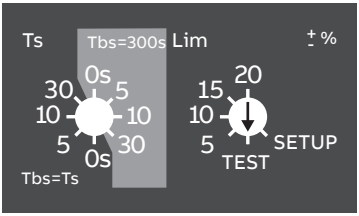


Figure 6.6 Lim rotary switch is set to the TEST function in OMD100

6.4 Operating modes

6.4.1 Operating modes in OMD100

6.4.1.1 Normal switching sequence + automatic OTM_C_D or motorized OTM40…125_CMA_

This operating mode is used when user has automatic OTM_C_D change-over switch or motorized OTM40…125_CMA_ and line priority is Line 1 – Switch I.

6.4.1.2 No priority mode + automatic OTM_C_D or motorized OTM40…125_CMA_

This operating mode is used when user has automatic OTM_C_D change-over switch or motorized OTM40…125_CMA_ and neither of the lines has priority. No line priority means that after switching sequence the device remains on the Line 2 although the Line 1 starts to work properly. The back switching is performed only if the Line 2 fails.

6.4.1.3 Manual back switching mode + automatic OTM_C_D or motorized OTM40…125_CMA_

This operating mode is used when user has automatic OTM_C_D change-over switch or motorized OTM40…125_CMA_ and the automatic back switching sequence has to be inhibited for example while performing maintenance on the Line 1. If the Line 2 fails the switch is changed to the position O.

6.4.1.4 Normal switching sequence + motorized OTM160…2500_CM_

This operating mode is used when user has motorized OTM160…2500_CM_ change-over switch and line priority is Line 1 – Switch I.

6.4.1.5 No priority mode + motorized OTM160…2500_CM_

This operating mode is used when user has motorized OTM160…2500_CM_ change-over switch and neither of the lines has priority. No line priority means that after switching sequence the device remains on the Line 2 although the Line 1 starts to work properly. The back switching is performed only if the Line 2 fails.

6.4.1.6 Manual back switching mode + motorized OTM160…2500_CM_

This operating mode is used when user has motorized OTM160…2500_CM_ change-over switch and the automatic back switching sequence has to be inhibited for example while performing maintenance on the Line 1. If the Line 2 fails the switch is changed to the position O.

6.4.2 Choice of Operating mode in OMD100

1. Set device to MANUAL mode according the Figure 6.7

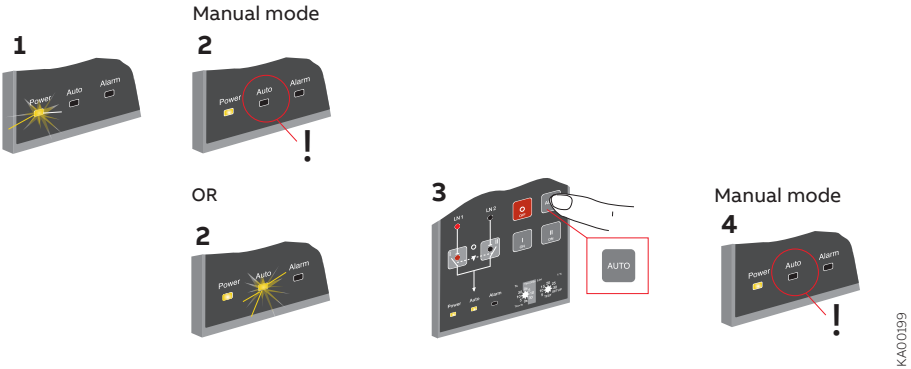


Figure 6.7 Selecting the automatic control unit OMD100 to Manual Mode

2. Choose SETUP mode with Lim rotary switch according to the Figure 6.8

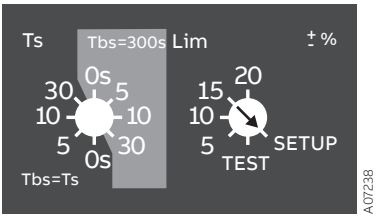


Figure 6.8 Setting of SETUP mode with Lim rotary switch in automatic control unit OMD100

3. Press AUTO button to choose the mode. The Operation modes are indicated by LEDs according the Table 6.1, see next page.

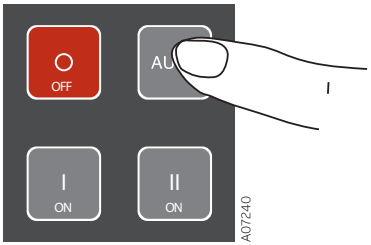


Figure 6.9 Choosing the Operation mode by pressing the AUTO button. See the Table 6.1 of LED indications for wanted Operation mode

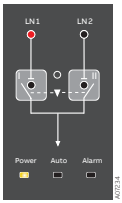
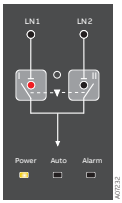
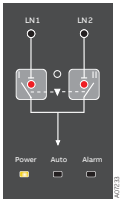
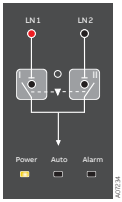
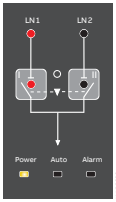
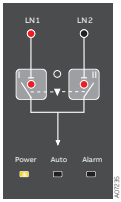
LED indication			
Mode	Normal switching sequence + automatic OTM_C_D or motorized OTM40…125_CMA_	No priority mode + automatic OTM_C_D or motorized OTM40…125_CMA_	Manual back switching mode + automatic OTM_C_D or motorized OTM40…125_CMA_
LED indication			
Mode	Normal switching sequence + motorized OTM160…2500_CM_	No priority mode + motorized OTM160…2500_CM_	Manual back switching mode + motorized OTM160…2500_CM_

Table 6.1 Indications of the Operating modes in automatic control unit OMD100

4. Set Lim rotary switch back to original position

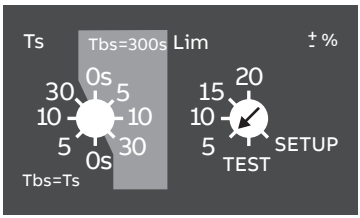


Figure 6.10 Setting of SETUP mode with Lim rotary switch in automatic control unit OMD 100

5. Set device to AUTO mode according to the Figure 6.11.

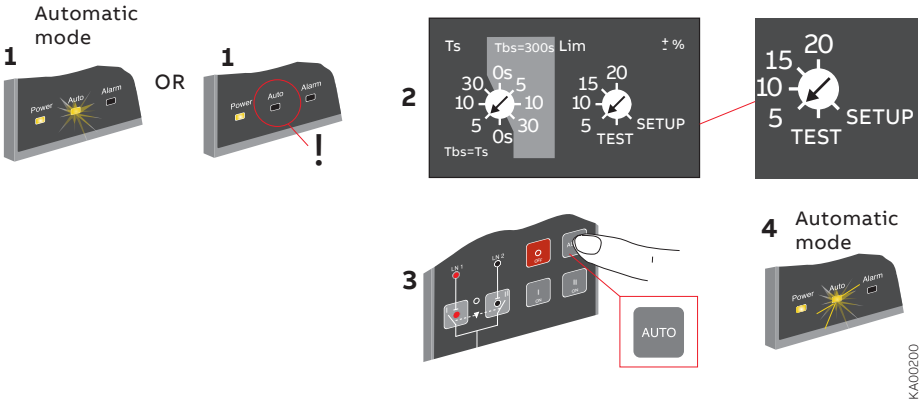


Figure 6.11 Selecting the automatic control unit OMD100 to Automatic Mode

7. Using automatic control unit OMD100

7.1 Interface

Figure 7.1 Interface of OMD100

7.1.1 Keypad

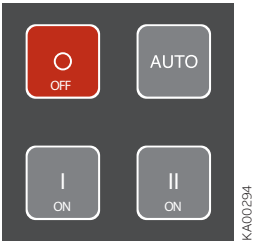


Figure 7.2 Keypad on OMD100

AUTO key

Selecting the automatic control unit OMD100 to the manual or automatic mode. An active alarm can reset by the AUTO key.

O key

Setting the motorized change-over switch OTM_C to the OFF position in manual and auto mode; both switches (I and II) are in the OFF position. After pressing the O-key the automatic control unit OMD100 is always in manual mode.

I key

Setting in manual mode the motorized change-over switch OTM_C to position I, when the I-switch will be in the ON position and the II-switch will be in the OFF position.

II key

Setting in manual mode the motorized change-over switch OTM_C to position II, when the II-switch will be in the ON position and the I-switch will be in the OFF position.

7.1.2 LEDs

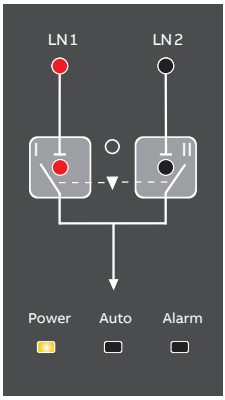


Figure 7.3 LEDs on OMD100

Line 1 status (LN1)

A red LN 1 LED signals the status of the line LN 1. Line status and indication is explained in the Table 7.1.

Line 2 status (LN2)

A red LN 2 LED signals the status of the line LN 2. Line status and indication is explained in the Table 7.1.

Line Status	LED Indication
Voltage OK	ON
No voltage	OFF
Overvoltage	Fast blinking (5 Hz, 50 % ON / 50 % OFF)
Undervoltage	Blinking (1 Hz, 50 % ON / 50 % OFF)
Invalid frequency	Blinking (1 Hz, 90 % ON / 10 % OFF)
Unbalance	Blinking (1Hz, 10 % ON / 90 % OFF)

Table 7.1 Line status indication

Switch in position I (I)

A red I LED is ON, when the motorized change-over switch OTM_C is in the I position (the I-switch is ON and the II-switch is OFF), the LED is OFF otherwise. If transition from the O position to the I position fails, the I LED will blink.

Switch in position II (II)

A red II LED is ON, when the motorized change-over switch OTM_C is in the II position (the II-switch is ON and the I-switch is OFF), the LED is OFF otherwise. If transition from the O position to the II position fails, the II LED will blink.

Alarm

A red Alarm LED signals an external alarm. Alarm status is explained in the Table 7.2. An active alarm is set off by pushing the AUTO key.

Alarm Status	LED Indication
Handle attached	ON
Switching logic alarm	Blinking
No alarm	OFF

Table 7.2 Alarm status indication

NOTE: When the handle is removed, the automatic control unit will stay in manual mode and the Alarm LED will be OFF.

When the Alarm LED is ON or blinking, check the state of the motorized change-over switch and repair the possible fault situation. An active alarm is set off by pushing the AUTO key.

Auto

A green Auto LED signals the automatic or the manual mode. When the OMD100 is in automatic mode, the Auto LED is ON. When the device is in manual mode, the Auto LED is OFF. In test sequence the Auto LED is blinking.

Power

A green Power LED signals the power status. When power is ON, the Power LED is ON.

7.2 Configuration

7.2.1 Rotary switches

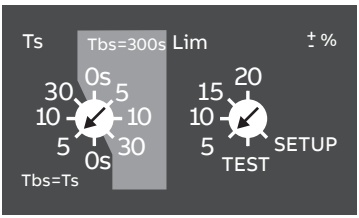


Figure 7.4 Selection of delay time and voltage threshold, the factory settings are shown in the figure

Ts / Tbs = Delay times for automatic switching
The delay time is the time before activating the switching sequence and the back switching sequence. User can choose two types of settings for delay times:

Choice 1: Darker side of the rotary switch
Available selections for the delay times are: 0, 5, 10 and 30 s. When this side is used the back switching delay Tbs is always same as switching delay Ts.

Choice 2: Lighter side of the rotary switch
Available selections for the delay times are: 0, 5, 10 and 30 s. When this side is used the back switching delay Tbs is always set to 300 s.

Lim = Voltage threshold with SETUP and TEST function
The available selections for voltage threshold in OMD100 are: ±5, ±10, ±15, ±20 %.

When the user wants to enter to the SETUP mode, the automatic control unit has to be set to manual mode and Lim rotary switch has to be set to SETUP position. In SETUP mode it is possible to choose between three operating modes: standard switching mode, no priority mode or manual back switching mode. In the SETUP –mode user must also choose between automatic OTM_C_D, motorized OTM40…125_CMA_ or motorized OTM_160…2500_CM_ change-over switch. . See Section 6.4.2 Choice of Operating mode in OMD100.

When the Lim rotary switch is set to the TEST position, the automatic control unit OMD100 enters the test sequence. In test sequence it is possible to simulate switching and back switching sequences step by step by pushing the AUTO key.

7.2.2 DIP switches / parameter setting

Only an authorised electrician may perform the electrical installation and maintenance of automatic transfer switches. Do not attempt any installation or maintenance actions when an automatic transfer switch is connected to the electrical mains. Before starting work, make sure that the switch is de-energised.

The parameter setting of automatic control unit OMD100 is performed by the DIP switch. The DIP switch is situated on the bottom of the OMD100 unit, see Figure 7.5.

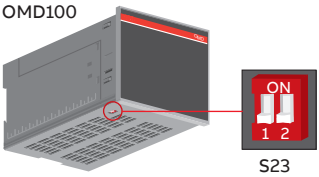


Figure 7.5 Place of the DIP switch

Automatic control unit OMD100 has a total of four (4) adjustable parameters. The parameter settings are performed by the DIP switch and by the rotary switches.

Ph	Number of phases, setting by DIP switch S23-1
Ts	Switching delay, setting by Ts / Tbs rotary switch, see Section 7.2.1
Tbs	Back switching delay, setting by Ts / Tbs rotary switch, see Section 7.2.1
THR	Voltage threshold, setting by Lim rotary switch, see Section 7.2.1

7.2.2.1 Parameter settings by DIP switches S23

S23

Figure 7.6 DIP switches in OMD100, the positions are factory default settings

DIP switch S23-1 to set phase system

S23-1	Position	Phase system
	**OFF**	**three-phase (default)**
	ON	single phase

DIP switch S23-2 is not in use.

7.3 TEST sequence

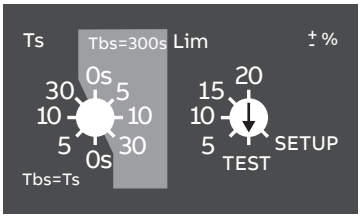


Figure 7.7 Lim rotary switch is set to the TEST position

When the Lim rotary switch is set to the TEST position, automatic control unit OMD100 enters the test sequence. While entering the test sequence OMD100 blinks all LEDs twice to give the information that the LEDs are functioning.

In the TEST position it is possible to simulate switching and back switching sequences step-by-step by pressing the AUTO key. The user can interrupt the simulation at any place and return to normal use of the device. More information, see Section 6.3.

NOTE: In the TEST sequence the power circuit is switched on!

NOTE: After testing the user must ensure that the device is not left in the TEST position by accident.

NOTE: If TEST sequence is interrupted for example because of power failure, it is continued from that same situation where it was when interrupted.

8. Technical data of the automatic control unit OMD100

Operating voltage	
Main voltage	380Vac (±20 %) + N
Phase voltage	220Vac (±20 %)
Frequency	50 Hz (±10 %)
Voltage and frequency sensing precision	
Voltage	5 %
Frequency	1 %
Relay utilization category	
X21, X22	12 A, AC1, 250 V / 12 A, DC1, 24 V
X24	8 A, AC1, 250 V / 5 A, DC1, 24 V
Over voltage category	III, U_{imp} 4 kV
IP rating	IP40 for the front panel
Temperature area	– 20 to + 60 °C
Transportation and storage temperature	– 40 to + 90 °C
Humidity	
with condensation	5 % - 98 %
without condensation	5 % - 90 %

Table 8.1 Technical data of OMD100

9. Troubleshooting

9.1 OMD100

State	Action
Switching from position I to position O fails. After 3 seconds the Alarm LED blinks and the I LED is ON.	The alarm can be reset by pressing the AUTO key. If the alarm does not disappear, please check that the handle has been removed from the change-over switch and the change-over switch is not padlocked from the front panel. If the alarm can be reset but it activates again after trying to operate the switch, please check that the Motor/Manual selector of the change-over switch (only with motorized change-over switches OTM160...2500_CM) is in Motor (M) position and check the fuse (F1) of the motor operator.
Switching from position II to position O fails. After 3 seconds the Alarm LED is blinking and the II LED is ON.	The alarm can be reset by pressing the AUTO key. If the alarm does not disappear, please check that the handle has been removed from the change-over switch and the change-over switch is not padlocked from the front panel. If the alarm can be reset but it activates again after trying to operate the switch, please check that the Motor/Manual selector of the change-over switch (only with motorized change-over switches OTM160...2500_CM) is in Motor (M) position and check the fuse (F1) of the motor operator.
Switching from position O to position I fails. After 3 seconds the Alarm LED and the I LED are blinking.	The alarm can be reset by pressing the AUTO key. If the alarm does not disappear, please check that the handle has been removed from the change-over switch and the change-over switch is not padlocked from the front panel. If the alarm can be reset but it activates again after trying to operate the switch, please check that the Motor/Manual selector of the change-over switch (only with motorized change-over switches OTM160...2500_CM) is in Motor (M) position and check the fuse (F1) of the motor operator.
Switching from position O to position II fails. After 3 seconds the Alarm LED and the II LED are blinking.	The alarm can be reset by pressing the AUTO key. If the alarm does not disappear, please check that the handle has been removed from the change-over switch and the change-over switch is not padlocked from the front panel. If the alarm can be reset but it activates again after trying to operate the switch, please check that the Motor/Manual selector of the change-over switch (only with motorized change-over switches OTM160...2500_CM) is in Motor (M) position and check the fuse (F1) of the motor operator.

Table 9.1 Fault situations in OMD100

9.2 Explanations of internal faults, OMD100

When digital Input 1 and 2 are both active, logic is locked and the Alarm LED is ON.

When digital Input 3 is active, logic is locked and the Alarm LED is ON.

9.3 Change-over switch does not respond

During the switching sequence, the OMD100 operates the change-over switch (Switch I) first to the position O from position I. If this transition is not completed in three seconds, the Open 1 Failure is activated. If switching to the position O is completed, but the transition (Switch II) from O to II fails, the Close 2 Failure is activated. These alarms will lock the switching logic and can only be reset by pushing the AUTO key.

During the back switching sequence, similiar transitions will be perfomed from II to O and from O to I, possibly activating Open 2 Failure or Close 1 Failure.

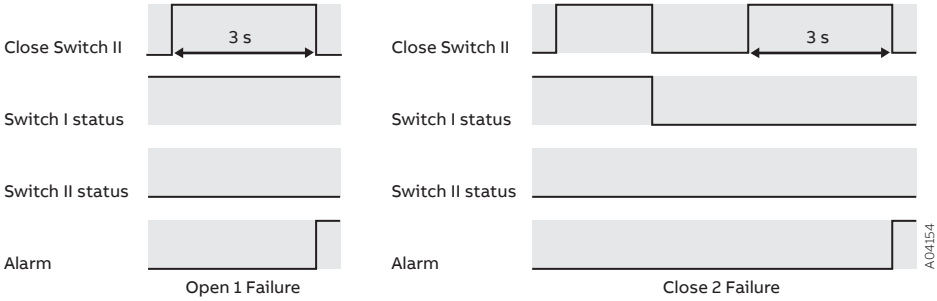


Figure 9.1 Unsuccesful switching sequence

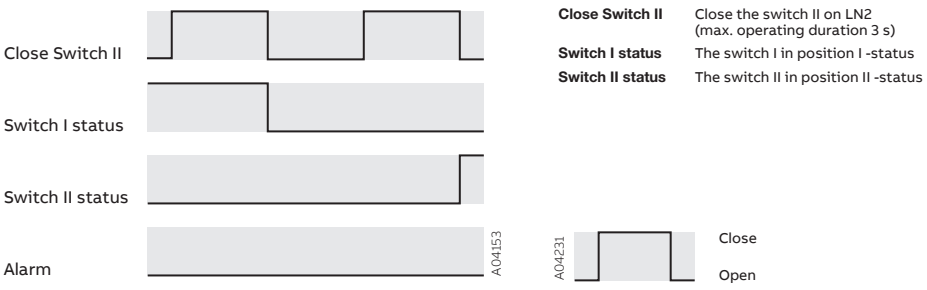


Figure 9.2 Succesful switching sequence

10. Accessories

10.1 Fastener

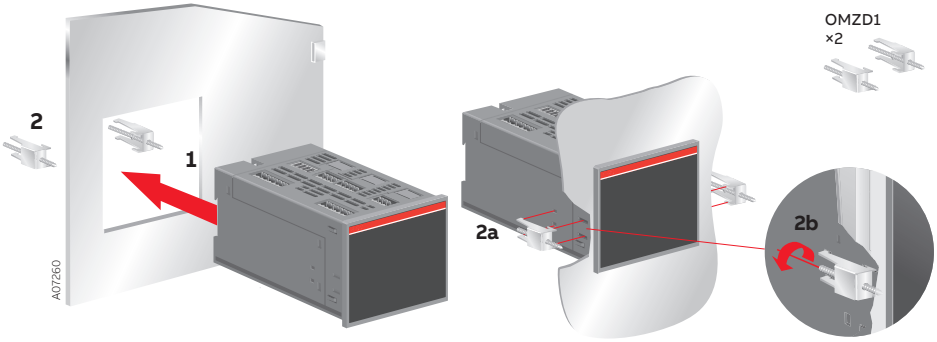


Figure 10.1 Fastener OMZD1, used when the automatic control unit OMD100 is mounted on the door.




BG Внимание! Опасно напрежение! Да се монтира само от лице с електротехническа квалификация.
CN 警告！电压危险！只能由专业电工进行安装。
CZ Varování! Nebezpečné napětí! Montáž smí provádět výhradně elektrotechnik!
DA Advarsel! Farlig elektrisk spænding! Installation må kun foretages af personer med elektroteknisk ekspertise.
DE Warnung! Gefährliche Spannung! Installation nur durch elektrotechnische Fachkraft.
EL Προειδοποίηση! Υψηλή τάση! Η εγκατάσταση πρέπει να γίνεται μόνο από εξειδικευμένους ηλεκτροτεχνικούς.
EN Warning! Hazardous voltage! Installation by person with electrotechnical expertise only.
ES ¡Advertencia! ¡Tensión peligrosa! La instalación deberá ser realizada únicamente por electricistas especializados.
ET Hoiatus! Ohtlik pinge. Paigaldada võib ainult elektrotehnika-alane ekspert.
FI Varoitus! Vaarallinen jännite! Asennuksen voi tehdä vain sähköalan ammattihenkilö.
FR Avertissement! Tension électrique dangereuse! Installation uniquement par des personnes qualifiées en électrotechnique.
HR Upozorenje! Opasan napon! Postavljati smije samo elektrotehnički stručnjak.
HU Figyelmeztetés! Veszélyes feszültség! Csak elektrotechnikai tapasztalattal rendelkező szakember helyezheti üzembe.
IE Rabhadh! Voltas guaiseach! Ba chóir do dhuine ag a bhfuil saineolas leictriteicniúil, agus an té sin amháin, é seo a shuiteáil.
IT Avvertenza! Tensione pericolosa! Fare installare solo da un elettricista qualificato.
LT Dėmesio! Pavojinga įtampa! Dirbti leidžiama tik elektrotechniko patirties turintiems asmenims.
LV Uzmanību! Bīstami - elektrība! Montāžas darbus drīkst veikt tikai personas, kuram ir atbilstošas elektrotehniskās zināšanas.
MT Twissija! Vultaġġ perikoluż! Għandu jiġi installat biss minn persuna b'kompetenza elettroteknika.
NL Waarschuwing! Gevaarlijke spanning! Mag alleen geïnstalleerd worden door een deskundige elektrotechnicus.
NO Advarsel! Farlig spenning! Montering skal kun utføres av kvalifiserte personer med elektrokompetanse.
PL Ostrzeżenie! Niebezpieczne napięcie! Instalacji może dokonać wyłącznie osoba z fachową wiedzą w dziedzinie elektrotechniki.
PT Aviso! Tensão perigosa! A instalação só deve ser realizada por um eletricista especializado.
RO Avertizare! Tensiune periculoasă! Instalarea trebuie efectuată numai de către o persoană cu experienţă în electrotehnică.
RU Осторожно! Опасное напряжение! Монтаж должен выполняться только специалистом-электриком.
SE Varning! Farlig spänning! Installation får endast utföras av en elektriker.
SK Varovanie! Nebezpečné napätie! Montáž môže vykonávať iba skúsený elektrotechnik.
SL Opozorilo! Nevarna napetost! Vgradnjo lahko opravi le oseba z elektrotehničnim strokovnim znanjem.

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