



FinDreams Energy Pod

Household Energy Storage System

Installation and User Manual

Energy Pod 3kW/7.2kWh AC, Energy Pod 4kW/9.6kWh AC, Energy Pod 5kW/12.0kWh AC, Energy Pod 5kW/14.4kWh AC



V1.1

Note: Please read and understand all the contents of this Manual carefully before installation and use of the product, and please keep this Manual properly for look-up at any time.

Table of Contents

I. About this Manual	1
1 Description	1
2 Introduction	1
3 Standard.....	1
4 Abbreviated Terms	2
5 Nameplate.....	2
II. Safety	2
1 Symbols	3
2 Environmental Requirements.....	4
3 Safety Requirements for Installation	4
4 Safety Requirements for Use.....	5
III. Compliance	5
IV. Product Descriptions	6
1 Product Introduction	6
2 System Parameter	6
3 Product Composition	8
4 Product Functional Logic.....	11
5 System Functions	12
6 Monitoring	14
V. Installation	15
1 Installation Instructions.....	15
2 Location	16
3 Installation Preparations	17
4 Formal Installation	20
5 Check and Confirmation.....	35
6 Description of on/off and Status	35
7 Installation Submission	36
8 Registration	38
9 Grid connection standard and Debugging	39
10 Induction and Training of the System Owner/Operator.....	41
VI. Frequently Asked Questions and Requirements	41
1 Frequently Asked Questions and Solutions.....	41
2 Fault Code	42
3 Cleaning Requirement.....	43
4 Storage Requirements	44
5 Battery Maintenance	45
VII. Quality Assurance.....	46
VIII. Disposal instruction	46
VIII. Contact Us	47

I. About this Manual

Thank you very much for choosing the FinDreams Energy Pod household energy storage system developed and produced by FinDreams. We sincerely believe that our products can satisfy your needs, and also look forward to your feedback on the performance of the product during use, so that we can further improve the quality of the product.

1 Description

- The FinDreams Energy Pod Installation and User Manual is applicable to the installation and use of four types of products: Energy Pod 3kW/7.2kWh AC, Energy Pod 4kW/9.6kWh AC, Energy Pod 5kW/12.0kWh AC, Energy Pod 5kW/14.4kWh AC.
- Please read and understand all the contents of this Manual carefully before installation and operation of the product. Any loss caused by ignoring the contents of this Manual may void the warranty of the product.
- This product is used only according to the documents provided and local standards, laws and regulations. Any other use may cause the personal injury and property damage.
- The drawings provided in this Manual are for explanation of the relevant concepts of the product, including product information, installation guide, instructions for use, safety information, frequently asked questions and maintenance, etc.
- The products can't be changed or modified without the prior explicit written approval of FinDreams. Any unauthorized changes will void the FinDreams Energy Pod warranty letter, and FinDreams will not be responsible for any losses caused thereby.
- This Manual and other product-related documents are an integral part of the product and need to be properly kept for the on-site installation personnel and relevant technical personnel to look up further.

2 Introduction

This Manual contains the product information, installation guide, instructions for use, safety information, frequently asked questions and maintenance, etc. of the FinDreams Energy Pod.

3 Standard

The design, development and production process of this product is in full compliance with the following standards:

IEC 62619: 2017	Secondary cells and batteries containing alkaline or other non-acid electrolytes-Safety requirements for secondary lithium cells and batteries, for use in industrial applications
IEC 62477-1: 2012	Safety requirements for power electronic converter systems and equipment-Part 1: General

AS 62040.1: 2019	Uninterruptible Power system(UPS) Part 1: Safety requirements(IEC 62040-1: 2017(ED 2.0), MOD)
AS 4777.2: 2015	Grid connection of energy systems via inverters Part 2: Inverter requirements
G98/G99	UK grid connection Standard

4 Abbreviated Terms

AC	Alternating Current
DC	Direct Current
PCS	Power Conversion System
BMS	Battery Management System
LAN	Local Area Network
URL	Uniform Resource Locator
CT	Current Transducer
RJ45	Registered Jack 45
C	Charge C-rate

5 Nameplate

The product nameplate may be found on the PCS as follows:



FinDreams

Energy Pod

Type	☐ Energy Pod 3 kW/7.2 kWh AC	☐ Energy Pod 4 kW/9.6 kWh AC	☐ Energy Pod 5 kW/12.0 kWh AC	☐ Energy Pod 5 kW/14.4 kWh AC
Battery Parameters	LiFePO ₄ (Lithium Iron Phosphate)			
Battery Chemistry	3			
Number of Battery Modules	4			
Nominal Voltage	96V d.c.	128V d.c.	160V d.c.	192V d.c.
Battery Voltage Range	84V d.c. - 108V d.c.	112V d.c. - 144V d.c.	140V d.c. - 190V d.c.	168V d.c. - 216V d.c.
Max Charging Current	36A d.c.	36A d.c.	36A d.c.	28A d.c.
Max Discharging Current	37A d.c.	37A d.c.	37A d.c.	31A d.c.
Battery Capacity	7.2 kWh	9.6 kWh	12.0 kWh	14.4 kWh
Max Short Circuit Current	1660 A			
On-Grid Parameters	230V a.c. / 50 Hz			
Maximum Power	3 kVA*	4 kVA*	5 kVA*	5 kVA*
Nominal Current	13.0A a.c.*	17.4A a.c.*	21.7A a.c.*	21.7A a.c.*
Maximum Current	14.3A a.c.*	19.1A a.c.*	23.8A a.c.*	23.8A a.c.*
Nominal Voltage and Frequency	230V a.c. / 50 Hz			
Off-Grid Parameters	0.85 Lagging to 0.85 Leading			
Power Factor	3 kVA			
Nominal Power	NA	13.0A a.c.	4 kVA	4 kVA
Nominal Current	NA	17.4A a.c.	17.4A a.c.	17.4A a.c.
Nominal Voltage and Frequency	230V a.c. / 50 Hz			
Inverter Topology	Non-Isolated (Transformerless)			
Operating Temperature Range	-10 °C to 50 °C			
Protection Class	I			
Ingress Protection**	IP55			
Operating Altitude Range	Up to 2000 m			
DRED	☒ DRM0	☐ DRM1	☐ DRM2	☐ DRM3
	☐ DRM4	☐ DRM5	☐ DRM6	☐ DRM7
	☐ DRM8			

*Energy Pod 5 kW/12.0 kWh AC, Energy Pod 5 kW/14.4 kWh AC 4600 VA, 20A a.c. for VDE-AR-N 4105.
 **Energy Pod 4 kW/9.6 kWh AC, Energy Pod 5 kW/12.0 kWh AC, Energy Pod 5 kW/14.4 kWh AC 3680 VA, 16A a.c. for G98.
 ** This unit should not be installed in locations exposed to direct sunlight, significant condensation or snow.
 Improved performance is typically gained by installation indoors in a well-ventilated environment.

Manufacture: FinDreams Battery Company Limited
 Telephone: +86-755-8988 8888
 Fax: +86-755-8993 7043
 Website: Http://www.bydenenergy.com










MADE IN CHINA

II. Safety

Before formally installing and operating this product, please read this part carefully and strictly implement its contents.

During installation and use of this product, in order to prevent the personal injury and property loss and ensure the long-term usage of this product, the installation personnel

and user shall abide by the articles and regulations of the relevant local laws and comply with all safety provisions and usage specifications of this Manual. FinDreams will not be responsible for any damage to the product or personal injury caused due to any operation and usage that violates the above-mentioned relevant contents, and will no longer provide any quality assurance service.

1 Symbols

Note: This product contains the following symbols, please pay attention to identifying.

If the symbols are missing or illegible, please contact your dealer.



TUV mark



RCM certification



CE certification



The battery system should be disposed of at a proper facility for environmentally safe recycling.



The battery system should not be disposed together with the household waste.



Danger of high voltages.
Danger to life due to high voltages in the battery system.



Danger.
Risk of electric shock!



Observe enclosed documentation.



Do not touch the product in 90 s after shutdown



Hot surface



Make keep ventilation



Ground connection. EC 60417-5019(2011-01)

2 Environmental Requirements

- Do not install and use this product in an environment with temperatures below -10°C or above 50°C.
- Do not install and use this product near any heat source or combustible materials.
- Do not install and use this product in the areas where the persons frequently move.
- Do not expose this product to the corrosive gas or liquid.
- Do not expose this product to the direct sunlight for a long time.
- Do not expose this product to the direct rainfall/snow.
- Please install and use the product far away from the children and animals
- The product shall be installed with a maximum altitude of 2000m.
- The sufficient space shall be reserved for the installation of product, to ensure the adequate ventilation.



Max +50°C



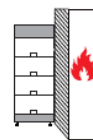
Min -10°C



RH. +5% ~ +95%



No flammable material or gas near the installation



No flammable wall



Direct sunlight



Direct rainfall



Direct snow

3 Safety Requirements for Installation

- The safety protective equipment used in the process of installation shall meet the

- regulations on use of protective equipment.
- Any unclear safety symbols and warning messages on the product shall be replaced immediately.
- The transportation, installation and commissioning of the product must be carried out under the specified conditions.
- The installation and commissioning personnel of the product shall obtain the local electrician qualification.
- The installation and commissioning personnel of the product shall receive the corresponding training and obtain the qualification for installation and commissioning of the product.
- The installation and commissioning personnel of the product shall have the ability to evaluate the potential risks.
- Before commencement of installation, the installation personnel shall identify all safety risks at the site and implement the necessary safety risk controls.
- Please read and understand the safety information in this Manual carefully before commencing the installation.

4 Safety Requirements for Use

- Do not touch the battery module with the wet hands, in order to avoid the electric shock.
- Do not squeeze, impact or puncture the battery, in order to avoid the unnecessary damage and loss.
- Store and use the battery according to the instructions in this Manual, and comply with the relevant local laws and regulations and relevant safety standards.
- Before installation, replacement, repair and maintenance, remove all metal objects (e.g., keys) that may cause a short circuit.
- Ensure that the fuse on the base is not installed prior to all installation, replacement and maintenance processes.
- This product shall be repaired, replaced and maintained by the authorized personnel with electrician qualification.
- It's forbidden to reverse the polarity of the battery.
- The electrolyte of the battery will harm the skin and eyes; do not damage or disassemble the battery.
- Disconnect the battery with the grid/load before installation and maintenance, and then disconnect the battery supply.
- In the process of transporting, handling and storing the product, do not stack the unpacked products, in order to avoid the irreversible damage.
- The packaged battery modules shall not be stacked in excess of the specified quantity.

III. Compliance

- The FinDreams Energy Pod product range has been designed and manufactured

to comply with the requirements of the relevant Australian and New Zealand Standards.

- The product design has been independently certified and carries the RCM marking and is listed on the Australian Government ERAC website.
- The FinDreams Energy Pod is also designed in compliance with the Australian *Best Practice Guide: Battery Storage Equipment – Electrical Safety Requirements*.

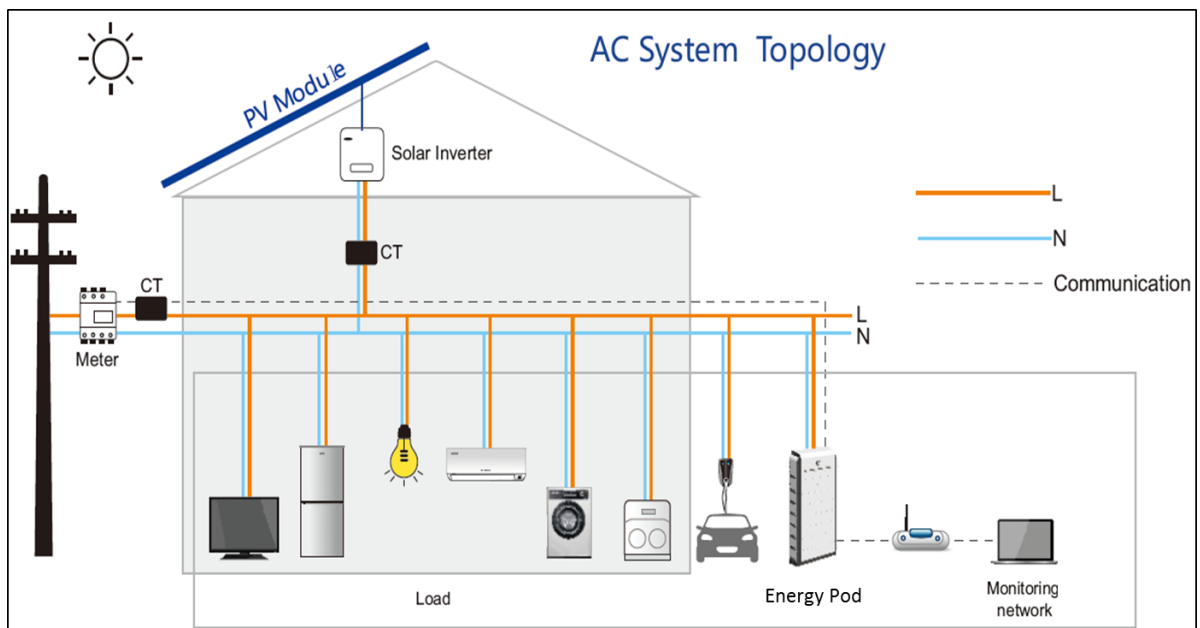


IV. Product Descriptions

1 Product Introduction

The FinDreams Energy Pod is a new generation of the household energy storage system which can meet the diversified needs of the users around the world. The high-performance lithium iron phosphate battery is adopted, and the functional integration and modular structural design are carried out, so as to achieve the convenient capacity expansion and quick product installation, and realize the functions, such as load matching, remote control, emergency power supply and so on.

The single-phase AC system topology is shown as follows:



2 System Parameter

This series of product has four different types: Energy Pod 3kW/7.2kWh AC, Energy Pod 4kW/9.6kWh AC, Energy Pod 5kW/12.0kWh AC, Energy Pod 5kW/14.4kWh AC. The users can select the specific quantity of batteries to meet the different needs.

Product Technical Parameter Table:

				
Type	Energy Pod 3kW/7.2kWh AC	Energy Pod 4kW/9.6kWh AC	Energy Pod 5kW/12.0kWh AC	Energy Pod 5kW/14.4kWh AC
Battery	3	4	5	6
PCS	1	1	1	1
BMS	1	1	1	1
Base	1	1	1	1
On-grid				
Nominal Power* (@230,50Hz)	3kVA	4kVA	5kVA	5kVA
Nominal Current*	13.0Aa.c.	17.4Aa.c.	21.7Aa.c.	21.7Aa.c.
Maximum current (@230V,50Hz)	14.3Aa.c.	19.1Aa.c.	23.8Aa.c.	23.8Aa.c.
Max inrush current	0			
Nominal Voltage/Range	230Va.c./172.5Va.c.~264.5Va.c.			
Nominal Frequency	50Hz			
Overvoltage	III			
Island Detection	Have			
Max. Grid Port Short-circuit Fault Current/ Apeak	102A /190ms			
THD of current	<3%			
Max. efficiency	96%			
Power factor	0.85lagging~0.85 leading			
Phase	Single phase			
Off-grid 【1】				
Nominal Power	/	3kW	4kW	4kW
Nominal Current	/	13.0Aa.c.	17.4Aa.c.	17.4Aa.c.
Nominal Voltage	/	230Va.c.		
Maximum current	/	14.3Aa.c.	19.1Aa.c.	19.1Aa.c.
Nominal Frequency	/	50Hz, Single phase		
Max. output short current/ Apeak	73A/372us			
Overload Capacity	1 ~ 1.1 times, 30min protection; 1.1 ~ 1.2 times, 5min protection; 1.2~1.4 times, 5s protection; Continuous overload 3 times, the product automatically shut down			
Battery				
Capacity	7.2kWh	9.6kWh	12.0kWh	14.4kWh
Battery Voltage/Range	96Vd.c./(84~108)	128Vd.c./(112~144)	160Vd.c./(140~180)	192Vd.c./(168~216)
Maximum charging power	3.4 kW	4.6 kW	5.7 kW	5.3 kW
Maximum charging current	36Ad.c.			28Ad.c.
Maximum discharging power	3.5 kW	4.7 kW	5.9 kW	5.9 kW
Maximum discharging current	37Ad.c.			31Ad.c.
DOD	>90%			
Other				
Ingress Protection rating	IP55			
Dimension L× D× H	760×295×1155mm	760×295×1325mm	760×295×1490mm	760×295×1655mm
Noise	40dB(A)			
Weight	124kg	152kg	180kg	208kg
Protective Class	I			
Pollution Degree	III			
Operation Humidity	5%~85%			
Can Use at Wet Location	YES			

Cooling Mode	Force-Air Cooling
Storage Temperature	-20℃~50℃
Recommended Operation Environment	Indoor
Nominal Operation Altitude	<2000m
Inverter Topology	Transformerless
Communication Port	LAN/RS485
Communication protocol	Modbus
Interaction	Button
Work Temp.	-10℃~50℃【2】

* Energy Pod 5KW/12KWh AC, Energy Pod 5KW/14.4KWh AC 4600 VA, 20 Aa.c. for VDE-AR-N 4105

*Energy Pod 4KW/9.6KWh AC, Energy Pod 5KW/12KWh AC, Energy Pod 5KW/14.4KWh AC 3680 VA, 16 Aa.c. for G98

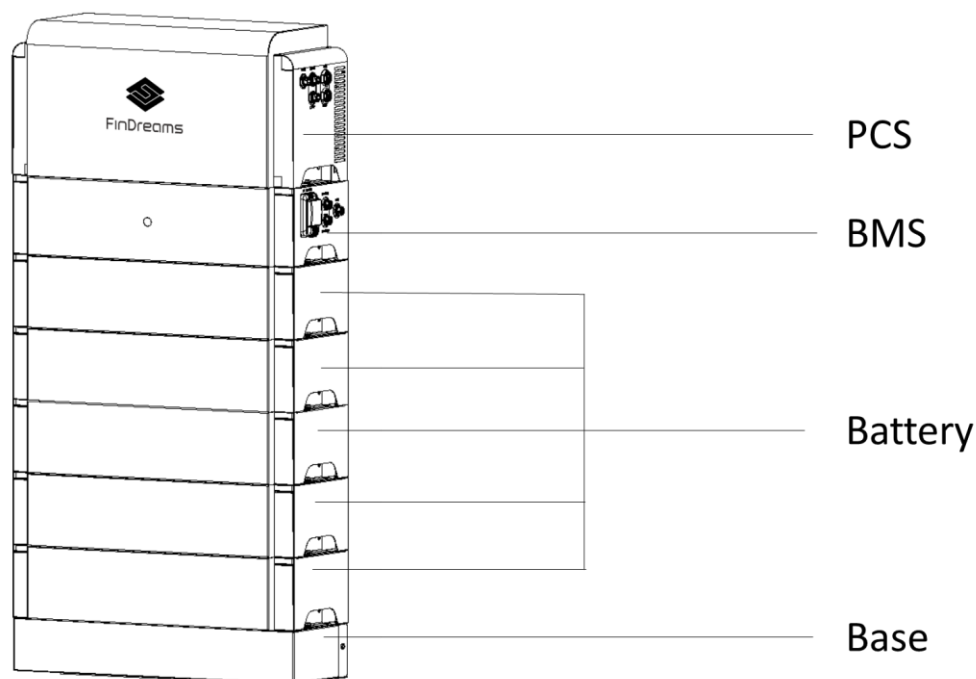
【1】 The emergency power supply is available in case of grid fault, and can only be used to power the specific loads. The system cannot be started without connecting to the power grid.

【2】 In case of ambient temperature below 10℃ or above 40℃, the output power of the system will decrease.

Ambient temperature	Power
0℃~10℃	50% Nominal Power
11℃~40℃	Nominal Power (3/4/5kW)
41℃~45℃	50% Nominal Power
46℃~50℃	10% Nominal Power

3 Product Composition

The product is designed in a modular structure and consists of the PCS, BMS, Battery and Base.



3.1 PCS



PCS Parameter Table:

Parameter	Value
DC voltage range	84~216Vd.c.
Maximum DC current	37Ad.c.
Rated AC voltage	230Vd.c.
Maximum AC current	23.8Aa.c.
Rated frequency	50Hz
Maximum power	5kW
Maximum efficiency	96%
Operating temperature	-10~50℃
Dimension	760*270*355mm
Weight	32.6kg
GRID interface	Connection to the grid, maximum current of 23.8A
LOAD interface	Connection to the load, maximum current of 19.1A
CT-Grid	Connection to the CT at the side of the external power grid (the CT is the delivery accessory)
CT-PV interface	Connection to the CT at the side of the external PV inverter (the CT is the delivery accessory)
DRM interface	Grid control interface, DRM0

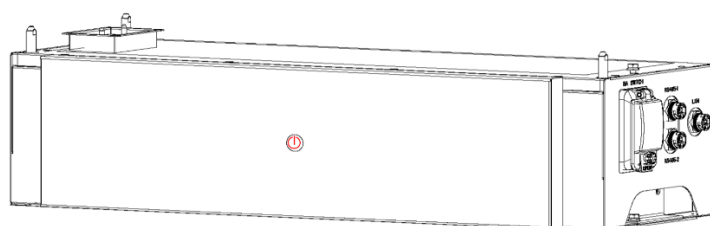
DRM Function Explanation:

This needs to be enabled through parameter configuration

	DRM0	The Energy Pod is in the state of “Key-stop”
	DRM1	\
	DRM2	\
	DRM3	\
	DRM4	\
	DRM5	\
	DRM6	\
	DRM7	\

 RJ45 Plug. Pin 1 Clip is pointed away from you. T-568B <table><tr><th colspan="2">Corresponding Relationship Between Cables and Pins (568B)</th></tr><tr><td>Pin. 1 : White-orange</td><td>: DRM 1/5</td></tr><tr><td>Pin. 2 : Orange</td><td>: DRM 2/6</td></tr><tr><td>Pin. 3 : White-green</td><td>: DRM 3/7</td></tr><tr><td>Pin. 4 : Blue</td><td>: DRM 4/8</td></tr><tr><td>Pin. 5 : White-blue</td><td>: RefGen</td></tr><tr><td>Pin. 6 : Green</td><td>: Com.DRM 0</td></tr><tr><td>Pin. 7 : White-brown</td><td>: -</td></tr><tr><td>Pin. 8 : Brown</td><td>: -</td></tr></table>	Corresponding Relationship Between Cables and Pins (568B)		Pin. 1 : White-orange	: DRM 1/5	Pin. 2 : Orange	: DRM 2/6	Pin. 3 : White-green	: DRM 3/7	Pin. 4 : Blue	: DRM 4/8	Pin. 5 : White-blue	: RefGen	Pin. 6 : Green	: Com. DRM 0	Pin. 7 : White-brown	: -	Pin. 8 : Brown	: -	DRM8	\
Corresponding Relationship Between Cables and Pins (568B)																				
Pin. 1 : White-orange	: DRM 1/5																			
Pin. 2 : Orange	: DRM 2/6																			
Pin. 3 : White-green	: DRM 3/7																			
Pin. 4 : Blue	: DRM 4/8																			
Pin. 5 : White-blue	: RefGen																			
Pin. 6 : Green	: Com. DRM 0																			
Pin. 7 : White-brown	: -																			
Pin. 8 : Brown	: -																			

3.2 BMS

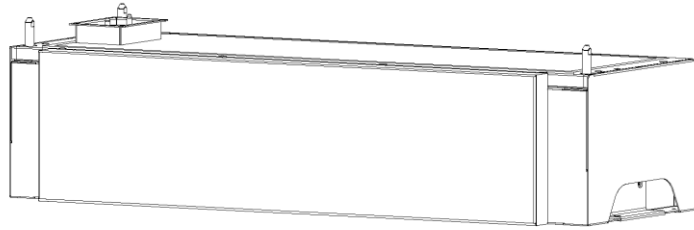


BMS Parameter Table:

Parameter	Value
DC voltage range	84~216Vd.c.
Maximum current	37Ad.c.
Operating temperature	-10~50℃
Dimension	750*295*210mm
Weight	14kg
LAN interface*	Connection to the external ROUTER
RS485-1 interface*	Connection to the client controller
RS485-2 interface*	Connection to the client controller
BA Switch	63A/250Vdc

* The communication interface, RS485 interface, is designed on BMS which provide the communication method between FinDreams Energy pod and remote control system of customer side. The communication protocol is Modbus. User can get more information in *FinDreams Energy Pod communication protocol instruction*.

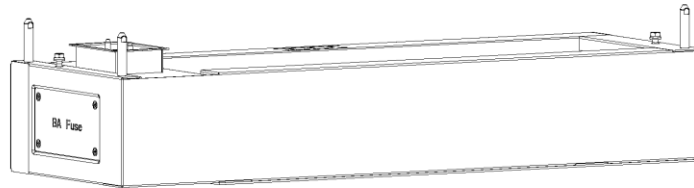
3.3 Battery



Battery Parameters:

Parameter	Value
Battery type	LiFePO ₄
Battery capacity	2.4kWh
Rated voltage	32Vd.c.
Voltage range	28~36Vd.c.
Maximum charging current	36Ad.c.
Maximum discharging current	37Ad.c.
Operating temperature	-10~50℃
Dimension	725*270*200mm
Weight	31kg

3.4 Base

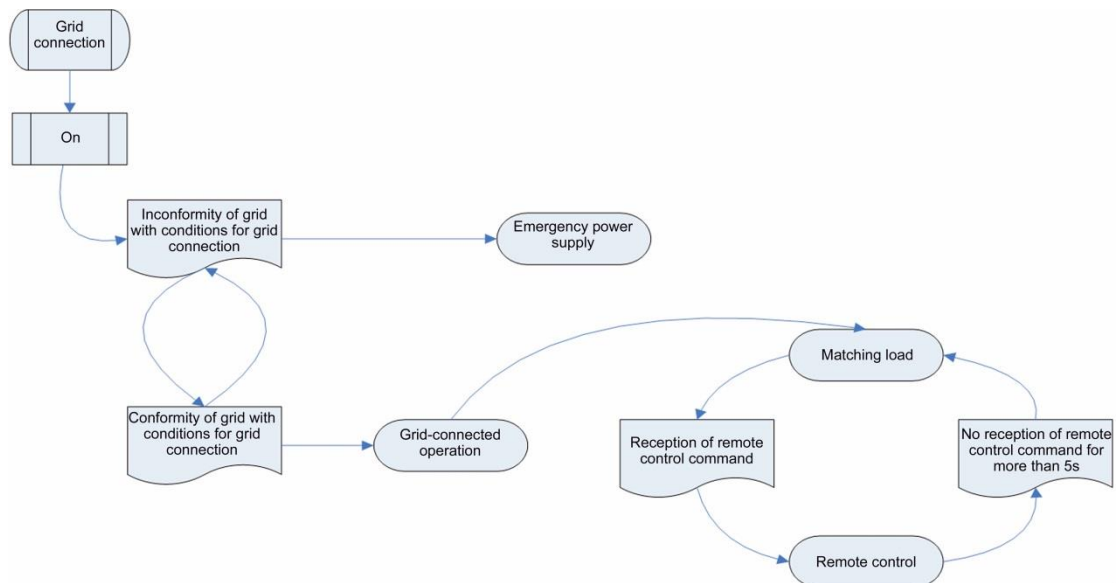


Base Parameters

Parameter	Value
Rated current	63A
Rated voltage	700V
Dimension	735*245*170mm
Weight	6kg

4 Product Functional Logic

The logical relationship between functions of the product is shown in the following figure:

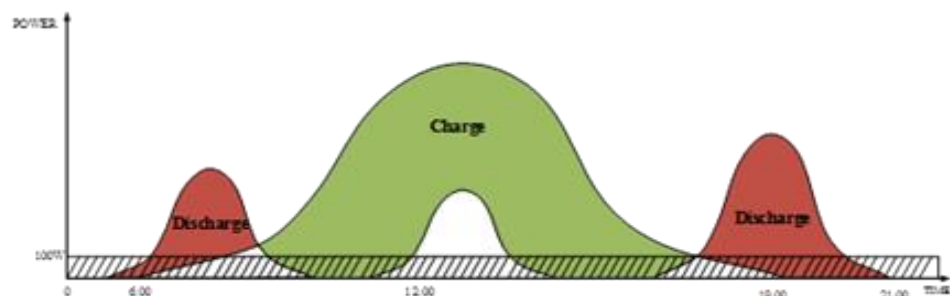


- When the power grid does not meet the conditions for grid connection, the function of emergency power supply only supports the matched load.

5 System Functions

5.1 Matching load

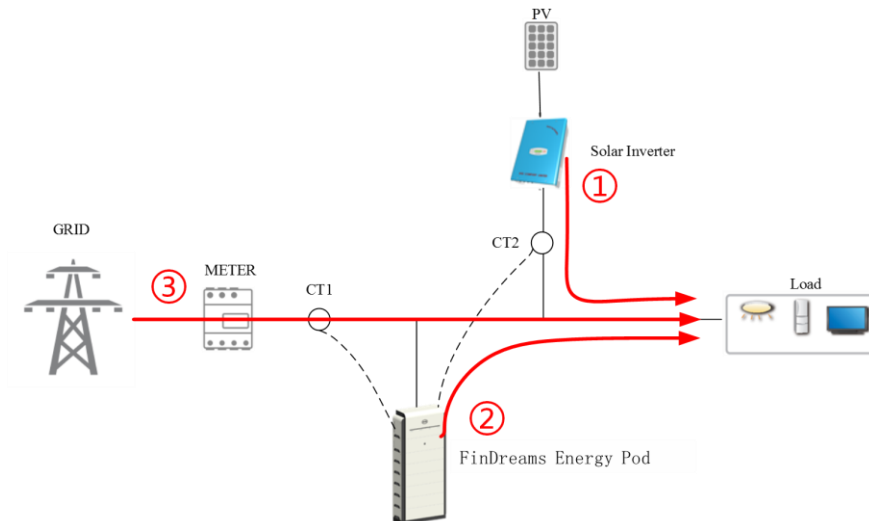
In this mode, in order to maximize the photovoltaic utilization rate, and reduce the cost of the users for buying the electricity from the grid.



Match load	Working State	Discharge	Discharge	Charge	Discharge	Discharge
	Power supply source	FinDreams Energy Pod	Grid & PV	PV	FinDreams Energy Pod & PV	FinDreams Energy Pod
	PV	/	Load	Load & FinDreams Energy Pod	Load	/

The priority of power supply to load is as:

- ① Photovoltaic power supply > ② FinDreams Energy Pod power supply > ③ Grid power supply



5.2 Remote control

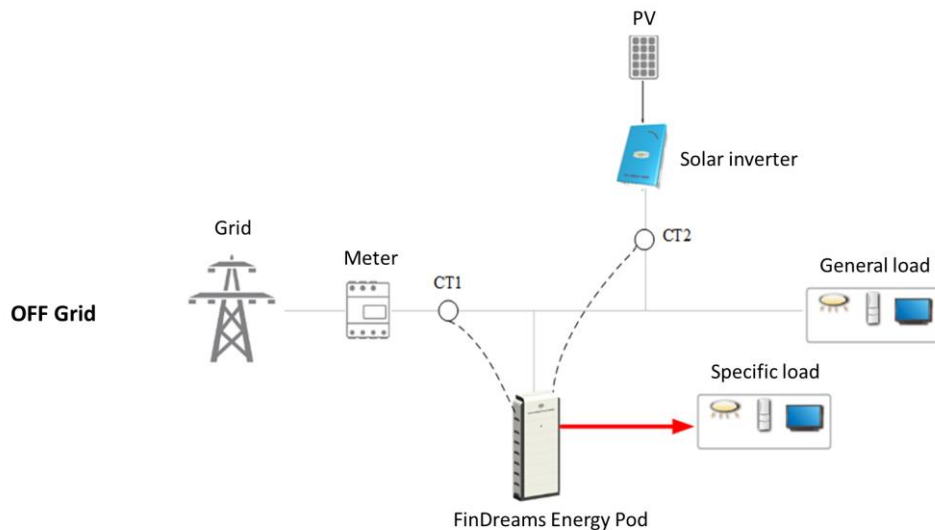
The product is provided with the RS485 interface and capable of responding to the control command issued by the external controller. The communication protocol is Modbus. Please refer to the *Technical agreement* for details of external protocol, charge and discharge control, standby and shutdown control, etc.

Note:

- The remote control function can only be used while the product is connected to the power grid.
- Disconnect remote control when on-site maintenance personnel are operating.

5.3 Emergency power supply

In case of the grid-connected operation of the system, when the power grid blackout occurs, the Energy Pod can supply emergency power for the **specific loads (lighting, mobile phone charging)**, the grid-connected switch to emergency power supply is carried out automatically, with a switch time of less than 1s; when the power grid returns to normal, the system is automatically switching to the state of grid-connected operation. The emergency power supply load shall be connected to the Load interface.



Note:

- The system does not support the startup when the power grid is not connected.
- FinDreams Energy Pod 3kw/7.2kwh AC do not have the emergency power supply mode.

6 Monitoring

After the Energy Pod is put into use, the user can view the status of the product through the provided website.

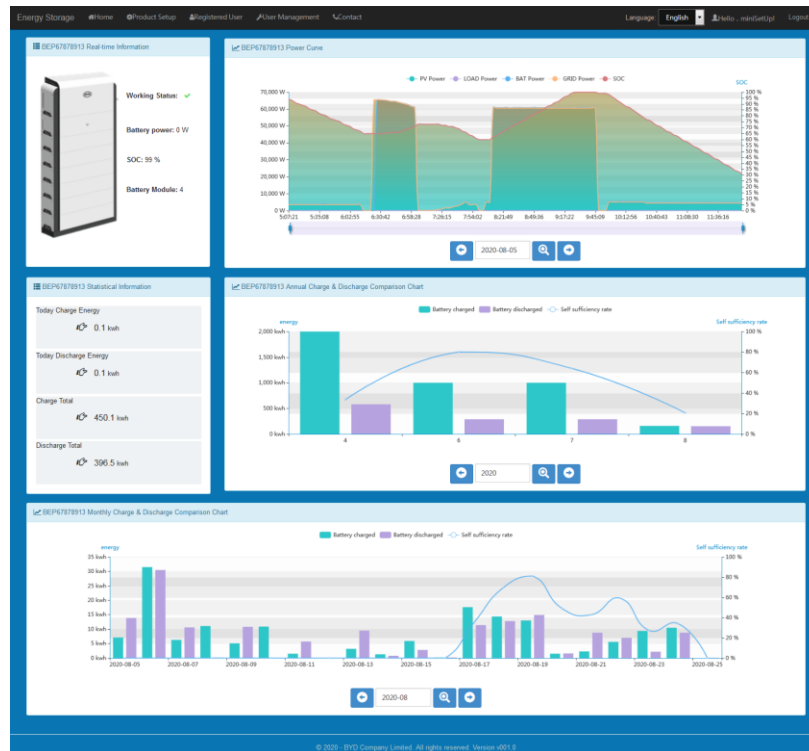
- Open browser and type in the URL: <https://energycontainerdata.azurewebsites.net>
- Choose Language and enter the user name and password in the login interface, and click Login. For account access, please refer to section V, point 8.

- Choose and click product serial number you want to view.

Product Serial Number	Working state	Charge-Discharge Status	Power	Soc	Recording time
XXXXXXXXXX	✓	No Power	0.00 kW	70.00 %	6/12/2020 7:29:47 PM
XXXXXXXXXX	⚠		kW	%	
XXXXXXXXXX	⚠		kW	%	

Page 1 of 1

- Product status information page.



V. Installation

1 Installation Instructions

Please read and understand this part carefully before installation of product.

1.1 Personnel qualification

The installer of the product shall have the local electrician qualification, have received the safety and technical training, obtain the qualification authorized for the installation of the product, possess the experience in installation and use of electrical equipment, and the following capabilities, including but not limited to:

- Setting, activation, shutdown, grounding, short circuit and repair of electrical equipment
- Standard maintenance and use of protective devices for electrical equipment.
- Provision of emergency rescue for the injured.
- Compliance with local laws, regulations, standards and instructions.

1.2 Notes

The attention shall be paid to the followings:

- Check whether the product is damaged prior to installation. The product has been carefully checked and packed prior to shipment, but may still be damaged possibly during transportation.
- Wear the personal protective equipment during installation of product, in order to avoid the electric shock.
- Please check whether the base is equipped with **Fuse** before installation, and if

so, remove it to avoid electric shock during installation.

- In the process of handling the product, the product shall be protected from the heavy objects, in order to avoid the damage due to impact by the heavy object.
- Please ensure that all switches of the system are turned off prior to installation, in order to avoid the electric shock.
- Please follow the installation procedures strictly during installation of the product, in order to avoid the safety accidents caused by incorrect installation.
- The installation of the product shall be completed as soon as possible, so as to avoid the irreversible damage caused due to long-term storage of product.

2 Location

An appropriate location should be considered before installing FinDreams Energy Pod.

2.1 Location restrictions in Australia

Local or National restrictions may prohibit installation in some locations. In Australia, AS5139 provides guidance as to where a Battery Energy Storage System (BESS) cannot be installed.

Some of the restricted locations under AS5139 include;

- Under Stairs.
- Within 600mm of any exit.
- Within 600mm of the vertical side of any window or ventilation.
- Within 600mm of other equipment not associated with the BESS (e.g a hot water system or air conditioner) and within 900mm of such equipment above the top of the BESS.
- In any Habitable room (including bedrooms, kitchens, studies, lounge/living rooms, theatre rooms etc.).

It is the responsibility of the Installer to ensure that the installation location complies with any and all restrictions mandated by local or national regulations.

For the sake of convenience, Figure 4.1 from AS/NZS 5139:2019 is reproduced below.

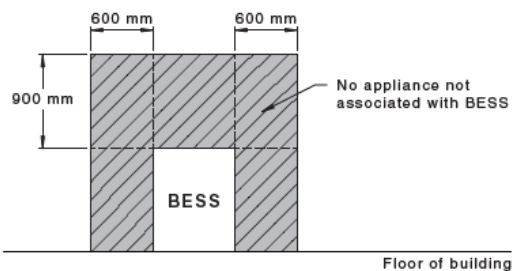


Figure 4.1 — Restricted zones for equipment not associated with the pre-assembled integrated BESS

2.2 Flammable materials and fire-proofing

Consideration should be given to the material behind and around the FinDreams Energy Pod and the flammability of that material. Australian Standard AS5139 dictates considerable requirements regarding the use of fire-proof materials behind and around any Battery Energy Storage System (regardless of the battery chemistry) which must

be adhered to in Australia. Other countries may have similar requirements and it is the Installer's responsibility to be aware of and comply with relevant local and national regulations.

For the sake of convenience, Figure 4.2 from AS/NZS 5139:2019 is reproduced below. This diagram shows the dimensions which a non-combustible material must extend past the edges of a BESS in cases where such material is required as a barrier to habitable rooms.

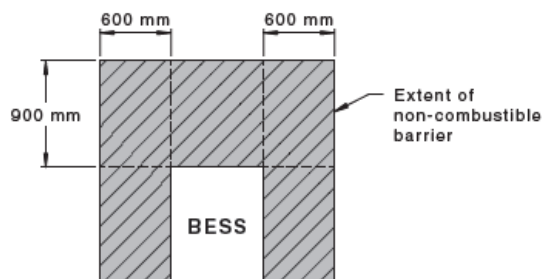


Figure 4.2 — Barrier zones for pre-assembled integrated BESS installed on or near a habitable room facing wall

2.3 Smoke Alarms

It is a requirement in Australia that this document contains text to advise that a smoke alarm *should* be installed within the same room as any BESS which is installed indoors. The term “should” means that this is a recommendation and not a requirement under the Standard.

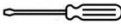
2.4 AS3000 – Mechanical Protection

AS/NZS 3000 requires that adequate mechanical protection be installed to prevent damage to the FinDreams Energy Pod in any areas where the equipment may be struck and damaged (for instance in a garage). Any Bollards used to provide mechanical protection should be located such that they do not interfere with access to the Energy Pod unit for service, inspection or maintenance.

3 Installation Preparations

3.1 List of tools

During installation of Energy Pod, the following tools may be used:

	Leveling instrument		Slotted screwdriver
	Wire clamp		Flexible rule
	Trox screwdriver		Torque wrench
	Wrench		Hammer
	Churn drill		Phillips screwdriver

3.2 Personal Protective equipment

- The product is the household energy storage system; the improper operation may cause the personal injury and property damage.
- The personal protective equipment must be worn during installation, use and maintenance of the product.
- It's recommended to wear the following personal protective equipment:
Insulated gloves: ensure the life safety of installers.
Safety shoes: ensure the safety in case of accidental falling of modules during installation



3.3 Unpacking and accessories

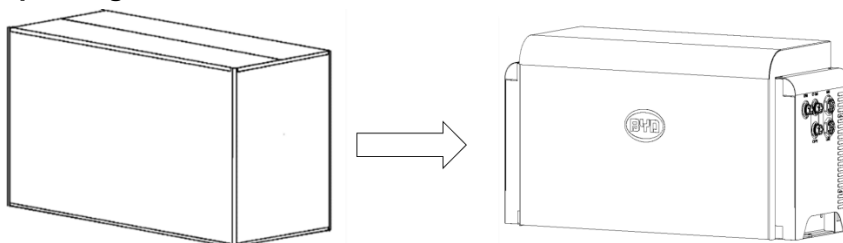
The product is composed of multiple modules, the PCS and Battery are packed separately, the Base and BMS are packaged in one package, and each component is distinguished according to the external labels of the package. Please carefully check whether the components and accessories are complete after unpacking.

3.3.1 PCS

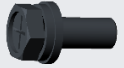
■ Label:

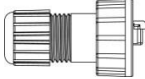
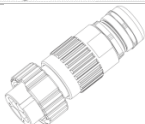
P.R.	PCS
G.W.	___kg
O.D	800×345×430mm

■ Unpacking:

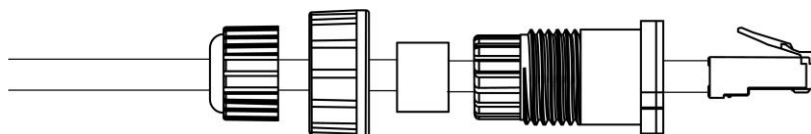


■ Accessories:

Accessories	Graphical expression	Qty.	Function
M6×16 assembling bolt		2	Fixation of PCS
CT		2	Measurement of current magnitude

Accessories	Graphical expression	Qty.	Function
RJ45 network cable adapter		2	Connection with CT and PCS
RJ45 waterproof connector		3	Connection with PCS CT interface and DRM interface
Grid connector		1	Connection of Grid with PCS
Load connector		1	Connection of Load with PCS

Exploded view of RJ45 waterproof connector:

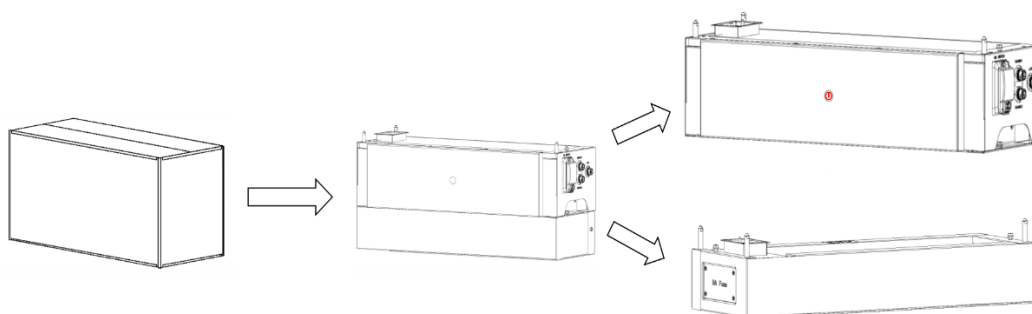


3.3.2 BMS&Base

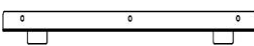
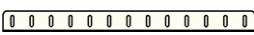
■ Label:

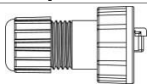
P.R.	Base& BMS
G.W.	___kg
O.D	800×345×390mm

■ Unpacking:



■ Accessories:

Accessories	Graphical expression	Qty.	Function
Wall hanging accessory 1		1	Fixation of BMS
Wall hanging accessory 2		1	Fixation of BMS
M6×60 expansion bolt		2	Fixation of wall hanging accessory 2
M8×80 expansion bolt		4	Fixation of Base
M6×10 cross recessed outer hexagon screw		3	Fixation of wall hanging accessory 1

Accessories	Graphical expression	Qty.	Function
RJ45 waterproof connector		3	External communication connection
Fuse(63A/700Vac)		1	Protection system
FinDreams Energy Pod Household Energy Storage System User's Installation and Use Manual	/	1	Introduction

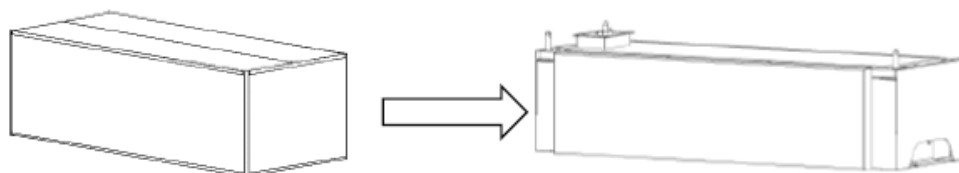
In order to ensure the stability of the product, the wall hanging accessories are designed to be fixed on the wall, and comprised of the wall hanging accessory 1 installed at the rear of BMS and the wall hanging accessory 2 installed on the wall.

3.3.3 Battery

■ Label:

P.R.	BATTERY
G.W.	___kg
O.D	800×345×250mm

■ Unpacking:



■ Accessories:

Accessories	Graphical expression	Qty.	Function
M6×16 assembling bolt		2	Fixation of Battery

3.4 Installation environment

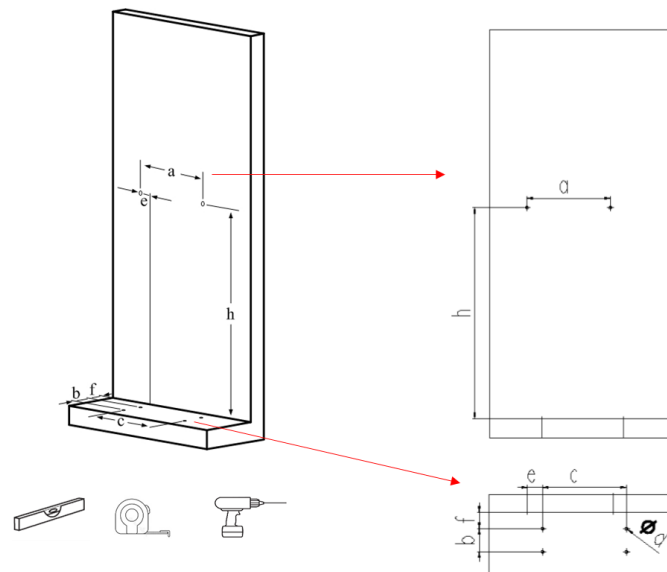
For more details of requirements for installation environment, please refer to article 2 in Part II Safety of this Manual.

4 Formal Installation

4.1 Hole drilling

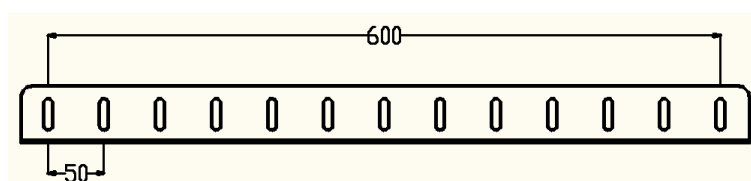
As for determination of installation position of the product, the installation position must be horizontal; the holes shall be drilled on the wall and ground as shown in the figure below, wherein, the specified size a shall be selected according to the local

requirements. A bit with a diameter of 10mm is used for wall holing, and the drilling depth is greater than 60mm, and a bit with a diameter of 12mm is used for ground holing, and the drilling depth is greater than 80mm.



a*	Hole drilling distance on wall	*			
b	Vertical spacing of fixing holes of base	120mm			
c	Transverse spacing of fixing holes of base	440mm			
e	Transverse distance between fixing hole of wall hanging accessory and fixing hole of base	80mm			
f**	Distance between fixing hole of base and the wall surface where install wall hanging accessory 2	100mm			
φd	Hole diameter	12mm			
n	Hole drilling distance on wall	3	4	5	6
h	Vertical spacing of fixing holes of base	705mm	871mm	1038mm	1204mm

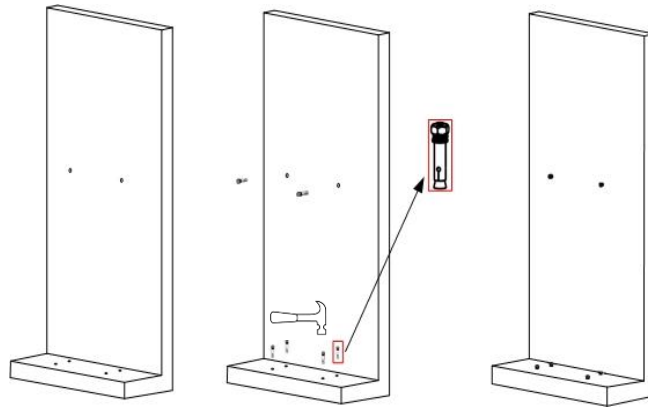
*** Choose the distance between two holes in the wall according to the actual situation.**



****When installing, use dimension f to determine the Base position at first.**

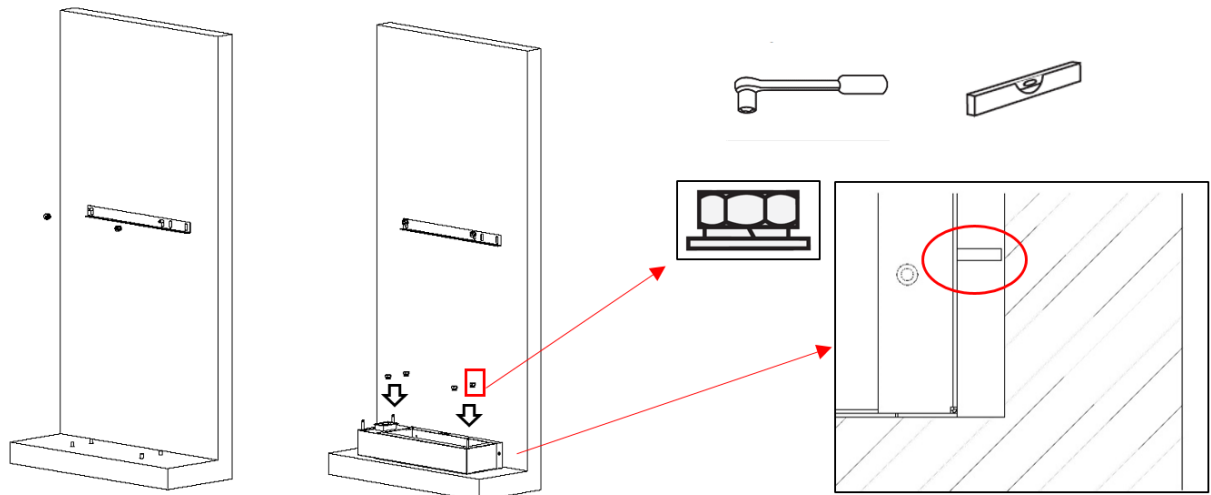
4.2 Expansion bolt

Place the expansion bolts into the drilled holes.



4.3 Installation of wall hanging accessory 2 and Base

Take off the nuts and washers of the expansion bolts in 4.2, install the wall hanging accessories and base at the corresponding positions, and tighten the nuts with a torque of 45N.m. The limiting stopper is designed at the rear of the base, and it can be adjusted according to the wall.

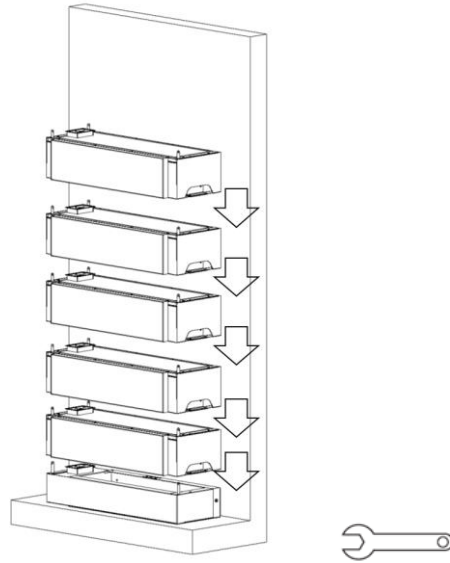


4.4 Installation of modules

The Battery, BMS and PCS are installed in sequence, and are fixed with each other by use of bolts.

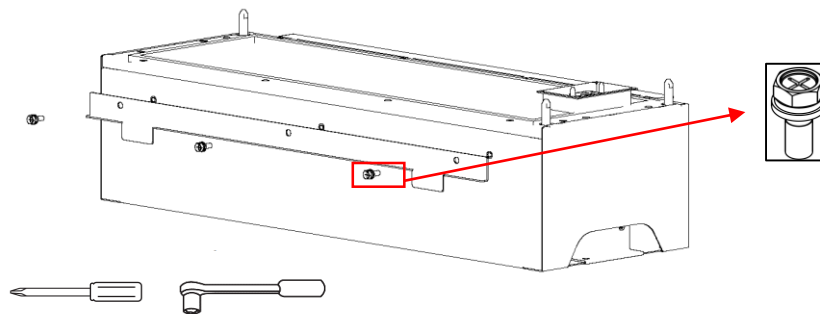
■ Installation of Battery:

Install as per the actual number of Battery, the following figure shows an example with 5 Batteries. Tighten the bolts with a wrench for each module.



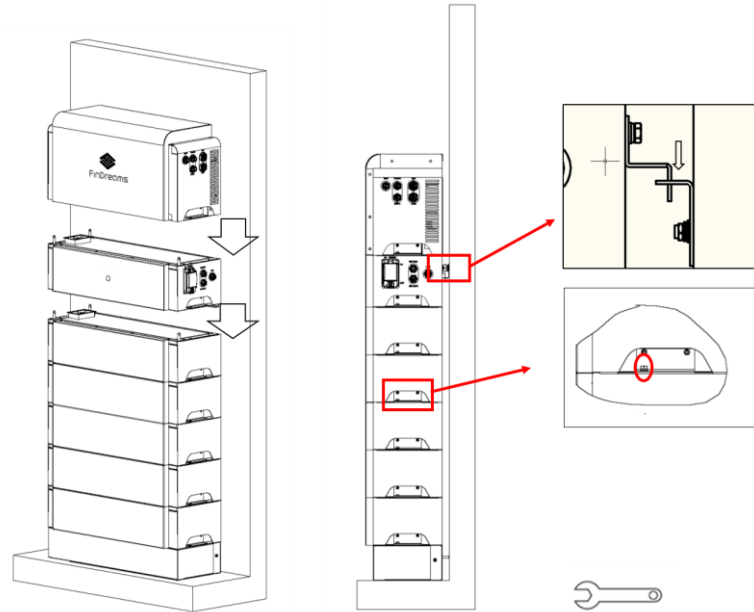
■ Installation of wall hanging accessory 1

Install the wall hanging accessory 1 on the back of the BMS as shown in the following figure.



■ Installation of BMS and PCS

Install the BMS and PCS in sequence, and insert the wall hanging accessory 1 at the rear of the BMS into the hole of the wall hanging accessory 2 on the wall. It is suggested that two installers cooperate to install PCS.

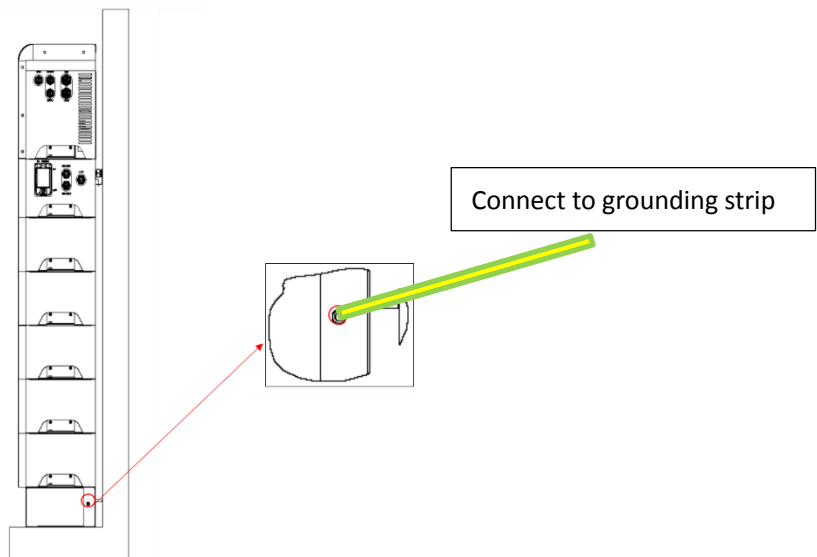


※Note: Each part shall be handled with care during installation, in order to avoid damage to the components. All parts are fixed by use of M6×16 bolts, with a torque of 10N·m.



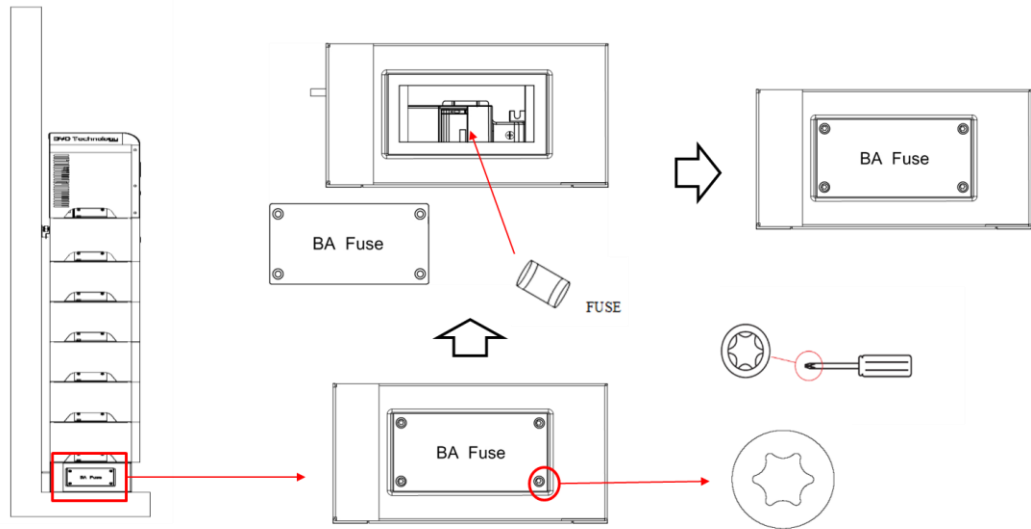
4.5 System grounding

The system grounding position is shown in the following figure, and equipped with the M6×16 bolts.



4.6 Installation of fuse

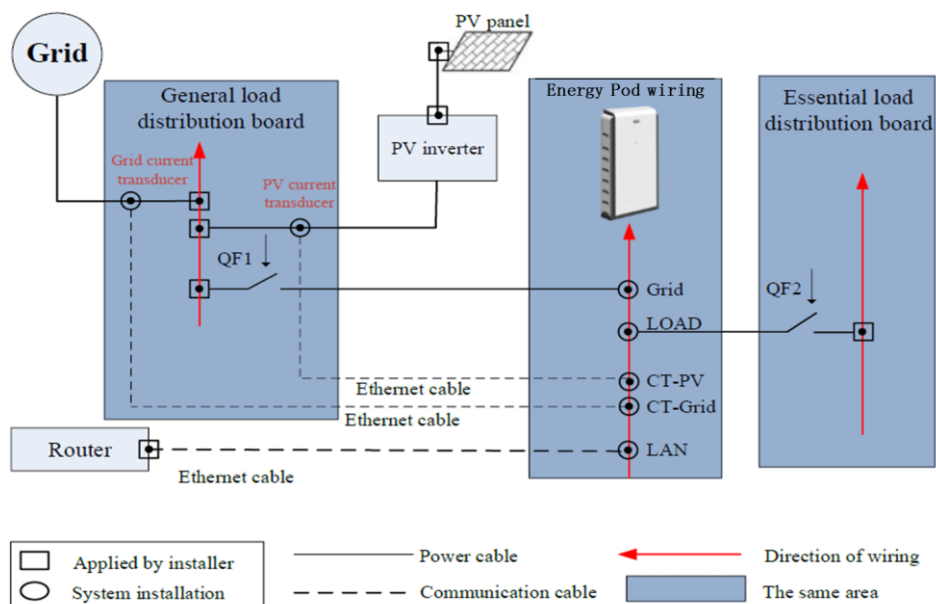
Remove the fuse cover plate on the base by use of the trox screwdriver, install the fuse at the corresponding position, and then reinstall the cover plate.



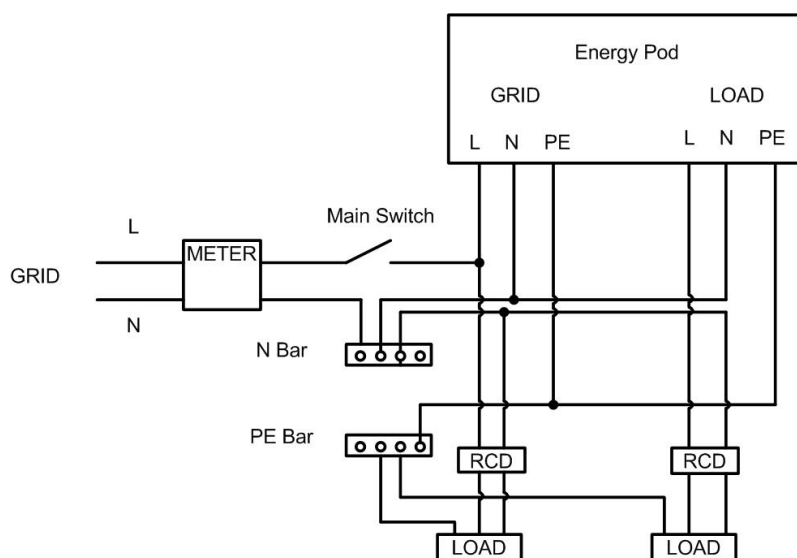
⚠ The fuse may be installed only after completion of installation of all contents, in order to avoid the electric shock.

4.7 Wiring

The following figure shows the schematic diagram of wiring principle for Energy Pod. Please read carefully and understand the meaning of the diagram before formal wiring.

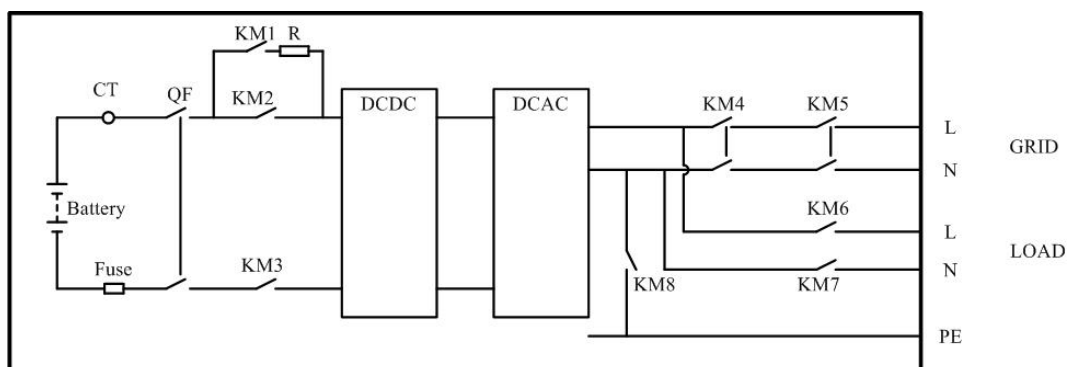


Topology for Australia:



Circuit breaker (QF₁, QF₂) specification recommendation:

Product Type	QF ₁ (RCD - B Type)	QF ₂ (RCD - B Type)
3kW/7.2kWh AC	16A	/
4kW/9.6kWh AC	25A	16A
5kW/12.0kWh AC	32A	25A
5kW/14.4kWh AC		



Note:

QF: Battery switch, TYPE: NDM2Z-63-2P, Nominal voltage: 250V,

Nominal Current: 63A, Capacity of circuit breaker: 10kA, Number of poles: 2

No KM8 in Australia (or KM8 does not latch)

4.7.1 Cable specification requirements

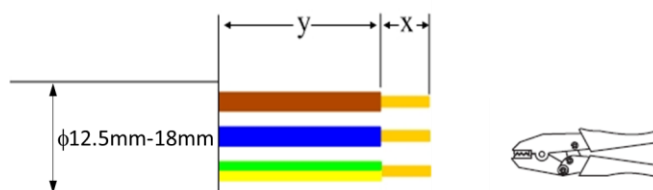
The following table shows the information about cables recommended for the Energy Pod. Please ensure that the correct cable is used for wiring:

S/N	Item	Description	Cable specification
1	Grid	Connection from Grid interface of Energy Pod to power grid	L:Brown 10AWG N:Blue 10AWG PE:Yellow&Green 10AWG
2	Load	Connection from Load interface of Energy Pod to load	L:Brown 10AWG N:Blue 10AWG PE:Yellow&Green 10AWG
3	Ground Wire	Protection	Yellow&Green 10AWG

S/N	Item	Description	Cable specification
4	CT-Grid	Connection from CT-Grid interface of Energy Pod to Grid-current transducer	Cat. 5e twisted pair (CAT-5)
5	CT-PV	Connection from CT-PV interface of Energy Pod to PV-current transducer	Cat. 5e twisted pair (CAT-5)
6	Ethernet	Connection from LAN interface to Router	Cat. 5e twisted pair (CAT-5),
7	RS485	RS485 interface for external communication	Cat. 5e twisted pair (CAT-5)

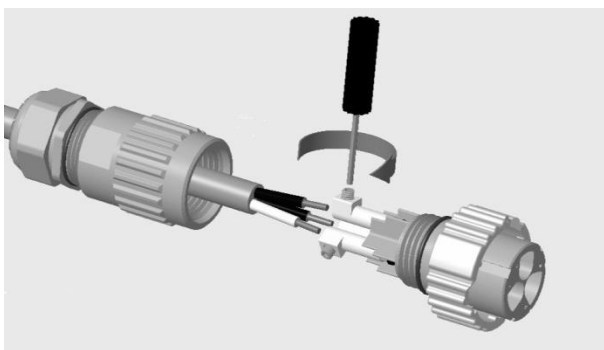
4.7.2 Grid wiring

- Refer to the followings for wire stripping schematic diagram and length of power grid wires.



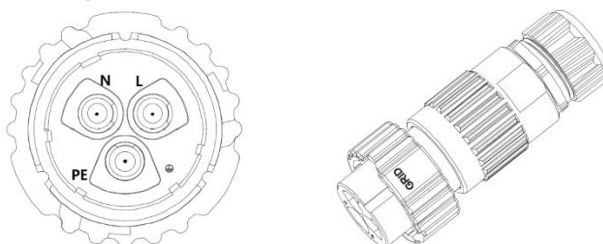
x	ϕ	y
8.5±1mm	12.5mm-18mm	35~40mm

- Connect the stripped power grid wire into the terminal slot of the corresponding connector, and tighten the screw (Note: the screw shall be in direct contact with the wire core, the wire skin cannot be used for fixing, and the wire core exposed outside the terminal slot shall not exceed 1/2 of the insulation blocking wafer).



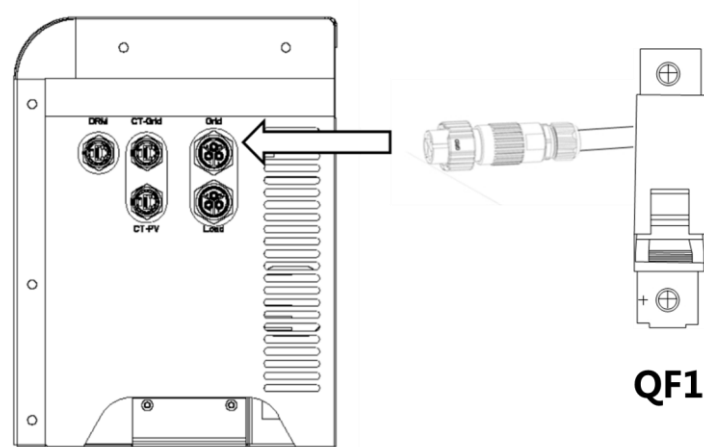
A phase mark is arranged at the connector terminal port, as shown in the following figure; please pay attention to the correspondence during wiring.

Terminal at the end of the grid:

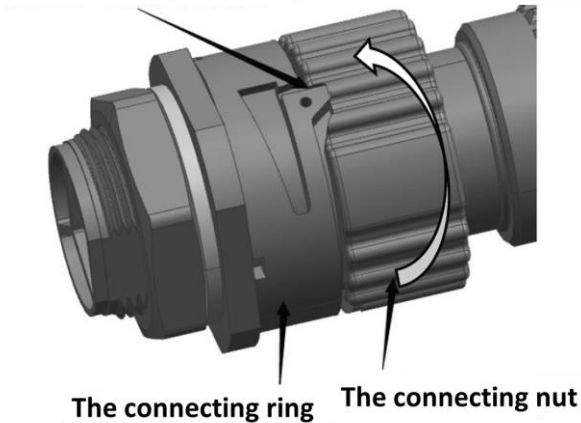


- Insert the connector already connected with the wire into the Grid interface on the

PCS, and pay attention to the phase correspondence.

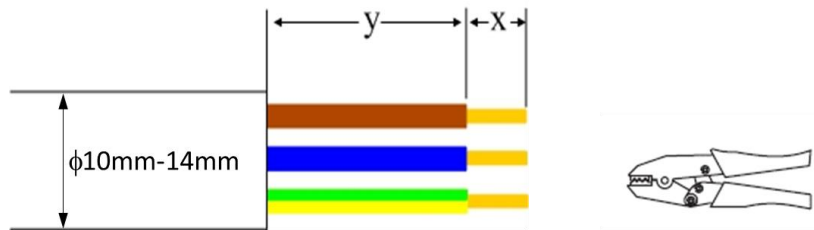


Turn the connecting nut so that the connecting ring buckle enters the connecting nut clamp slot to lock the connector



4.7.3 Load wiring

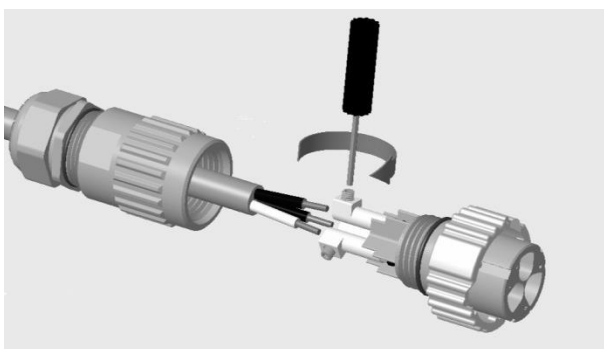
- Refer to the followings for wire stripping schematic diagram and length of load wires.



x	ϕ	y
8.5±1mm	10mm-14mm	35~40mm

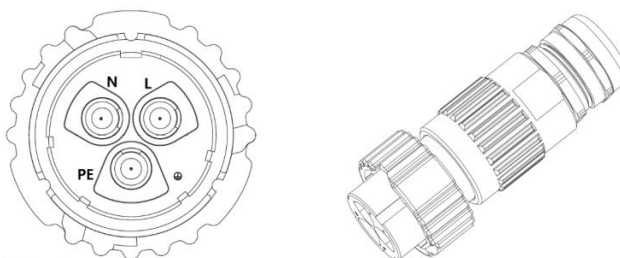
- Connect the stripped load wire into the terminal slot of the corresponding connector, and tighten the screw (Note: the screw shall be in direct contact with the wire core, the wire skin cannot be used for fixing, and the wire core exposed

outside the terminal slot shall not exceed 1/2 of the insulation blocking wafer).

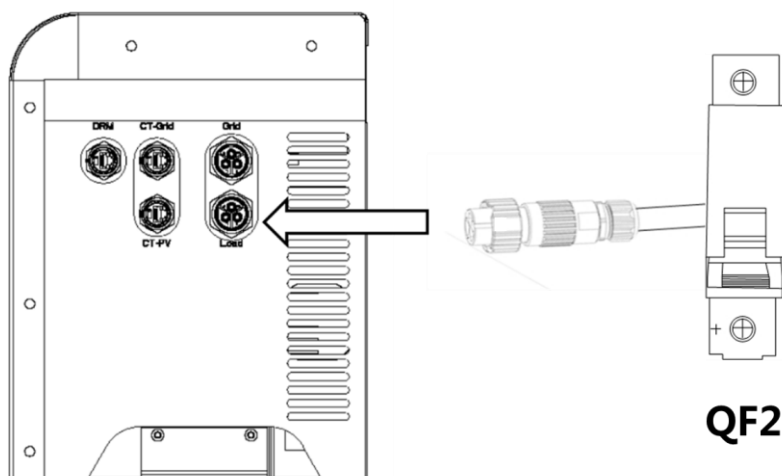


A phase mark is arranged at the connector terminal port, as shown in the following figure; please pay attention to the correspondence during wiring.

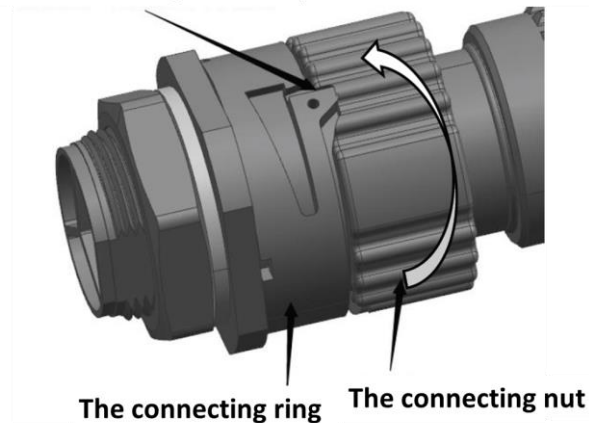
Terminal at the end of the load:



- Insert the connector already connected with the wire into the Load interface on the PCS, and pay attention to the phase correspondence.



Turn the connecting nut so that the connecting ring buckle enters the connecting nut clamp slot to lock the connector

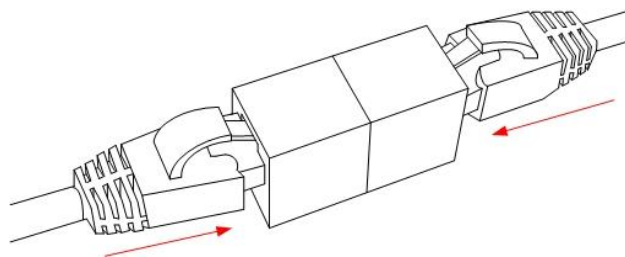


4.7.4 CT wiring

The schematic diagram of CT is shown in the left figure, and the bottom view of CT is shown in the right figure; the direction is K→L, representing from PCS to GRID.



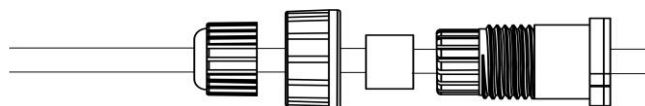
Note: The length of network cable accompanied with the CT is 3m. If the cable is not long enough, the user need to prepare the network cable with sufficient length and use the network cable connectors to connect the CT with the CT interface on PCS.



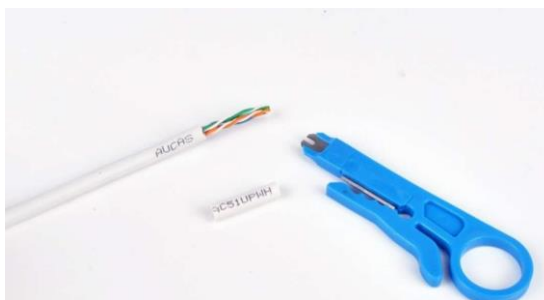
Connect Crystal Head:

CT, LAN, RS485 wiring all need this process

- Run the cable through the waterproof connector



- Peel off the skin of the cable, and the length is about 3cm



- Arrange the cables from left to right: 1 orange and white, 2 orange, 3 green and white, 4 blue, 5 blue and white, 6 green, 7 brown and white, 8 brown



- Cut the cable flat with the RJ45 crimp tool, and the remaining length is about 1.2cm





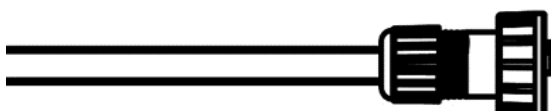
- **Force the cable into the crystal head**



- **Insert the crystal head into the corresponding RJ45 crimp tool mouth, align the crystal head copper piece, and then firmly grip the RJ45 crimp tool**



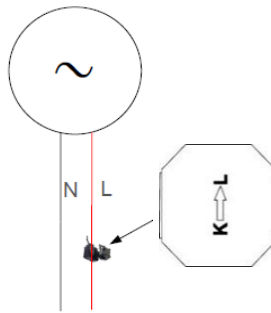
- **Finished**



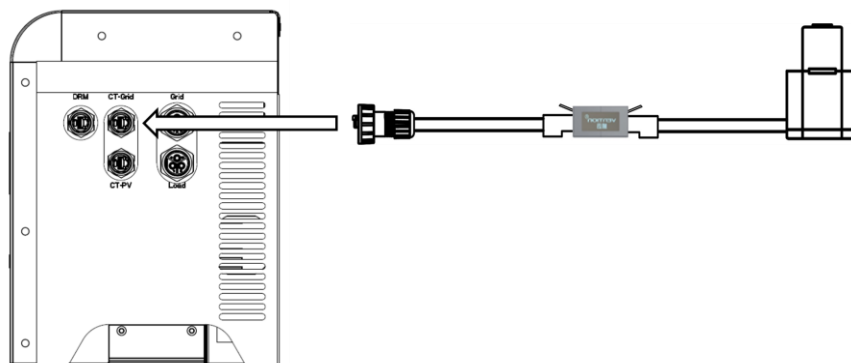
- **Grid-CT**

The installation position and direction of CT at the end of the Grid are shown as

follows.

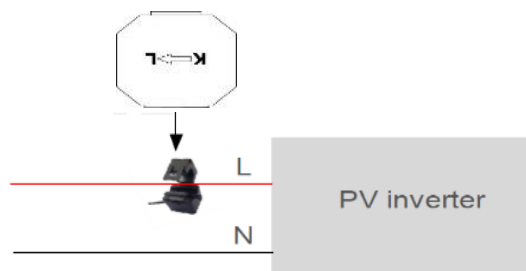


Insert the CT correctly connected to the Grid into the corresponding CT-Grid interface of the PCS.

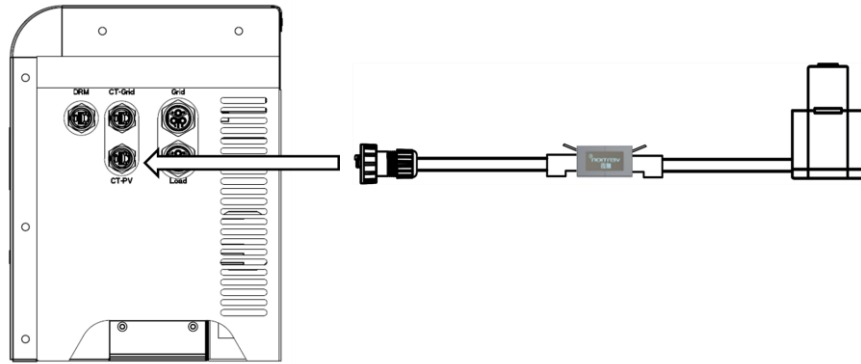


■ PV-CT

The installation position and direction of CT at the end of the PV are shown as follows.

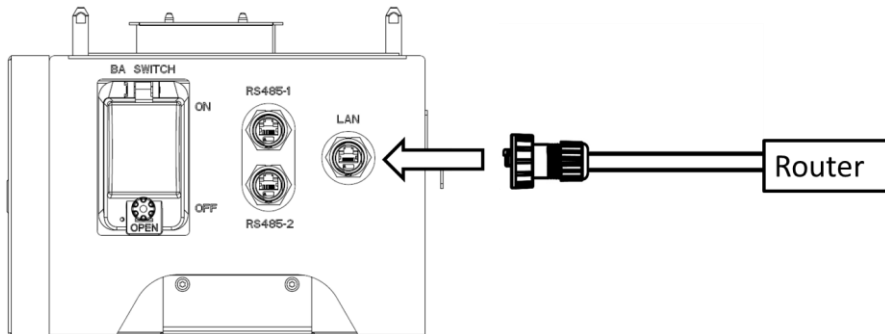


Insert the CT correctly connected to the PV into the corresponding CT-PV interface of the PCS.



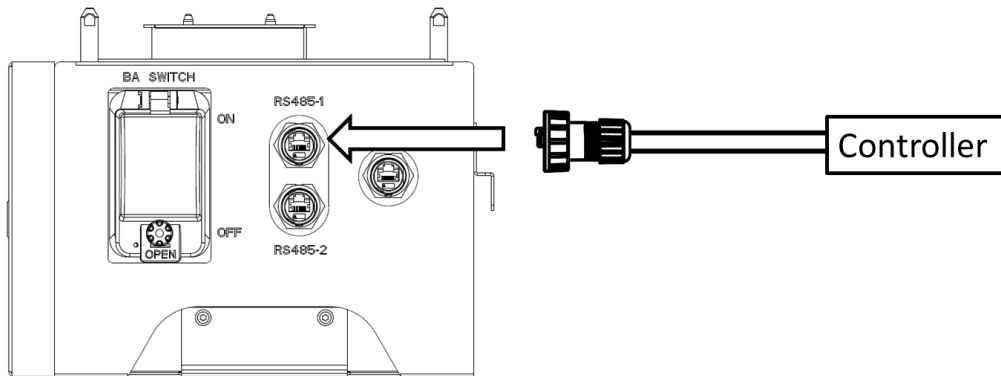
4.7.5 LAN wiring:

- Connect the cable connected to the ROUTER into the BMS LAN interface.

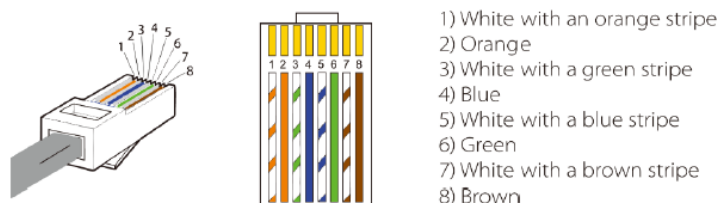


4.7.6 RS485 wiring:

- The RS485 interface is an external communication interface, through which the control commands can be issued to the system.



The RS485 interface is defined as follows.



Interface name	Function	1	2	3	4	5	6	7	8
RS485-1	Remote control	485-B	485-A	/	/	/	/	/	/
RS485-2	Electric meter connection	/	/	485-B	485-A	/	/	/	/

5 Check and Confirmation

Prior to officially using the product, please check each item listed in the table one by one according to the Check and Confirmation Form given below, including product fixation, electrical connection, etc.

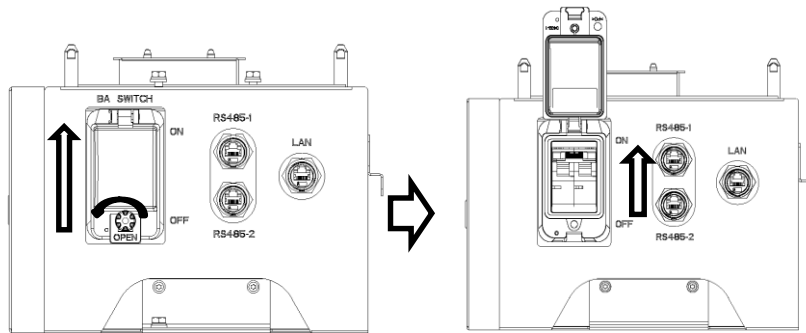
Check and Confirmation Form	
Items	Confirmation
Base fixing bolts	☐ Yes ☐ No
Fixation of wall hanging accessory on wall surface	☐ Yes ☐ No
Connection of fixing bolts among parts	☐ Yes ☐ No
Connection of grounding wire	☐ Yes ☐ No
Grid cable specification	☐ Yes ☐ No
Phase of Grid interface	☐ Yes ☐ No
Load cable specification	☐ Yes ☐ No
Phase of Load interface	☐ Yes ☐ No
CT cable specification	☐ Yes ☐ No
Grid-CT position	☐ Yes ☐ No
Grid-CT direction	☐ Yes ☐ No
PV-CT position	☐ Yes ☐ No
PV-CT direction	☐ Yes ☐ No
LAN cable specification	☐ Yes ☐ No
Base fuse	☐ Yes ☐ No
Base fuse cover plate	☐ Yes ☐ No

6 Description of on/off and Status

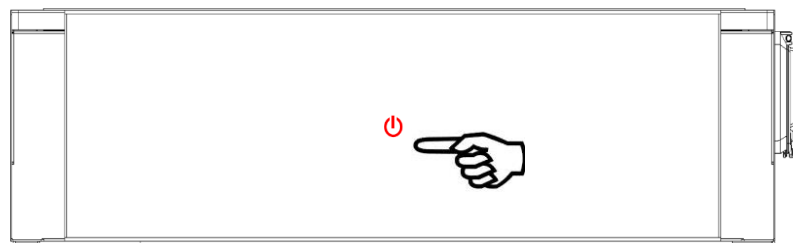
Please make sure that the product is fixed firmly and all cables are connected correctly before activating the product.

■ Closing of BMS circuit breaker:

Open the BA Switch cover and close the circuit breaker



- Power-on: Close the grid circuit breaker and press the POWER button on the BMS for a long time, **until** the button indicator lights up (about 5S).
- Power-off: Press the button on BMS for a long time until the button indicator lights off (about 5s), and disconnect the BA Switch and the grid circuit breaker.



Status description

Indicator	Status
Light up	The product is in startup and running state.
Light out	The product is in shutdown state.
Twinkle	The product is in fault state.

Note: The product cannot be started up in case that the power grid is not connected.

7 Installation Submission

7.1 Open browser and type in the url: <https://energycontainerdata.azurewebsites.net>

7.2 Choose Language and enter the user name and password in the login interface, and click Login.

LOGIN

Username

Password

Language

English
▼

Login

7.3 Fill in and submit the installation information on the installation information submission interface. The serial number can be filled by keyboard or scan QR code.

Product Information

Network Status *

Working Status *

Product Serial Number*

BEP123...

PCS Serial Number*

PCS123...

BMS Serial Number*

BMS123...

Battery Module Quantity*

3

Battery Module Serial Number1*

BTS123...

Battery Module Serial Number2*

BTS123...

Battery Module Serial Number3*

BTS123...

Setup Date*

2020-08-25

Parameter Configuration

Country* Please select Nation.

--Select Nation--

Grid Standard*

G98

Time Zone*

Coordinated Universal Time(UTC)

NTP Server Automatic time synchronization* Open Close

time.windows.com

Parameter Configuration

Country* Please select Nation.

--Select Nation--

Grid Standard*

G98

Time Zone*

Coordinated Universal Time(UTC)

NTP Server Automatic time synchronization* Open Close

time.windows.com

Client Information (Click to hide or show the client information.)

Client name

Phone

Email

Address

Picture Message

Picture Upload*
(Formats: jpg/png. Each picture should not exceed 4M.)

Setup Picture*
(The product setup environment can be seen in the picture.)

Drag & drop files here ...

Submit

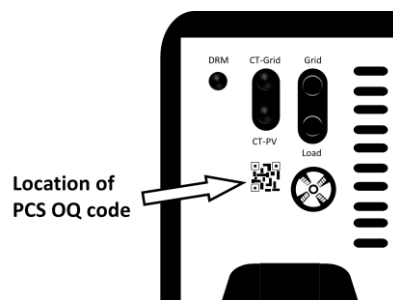
Client Signs for Acceptance*
(Client Signature for Confirmation of Setup is Required.)

Drag & drop files here ...

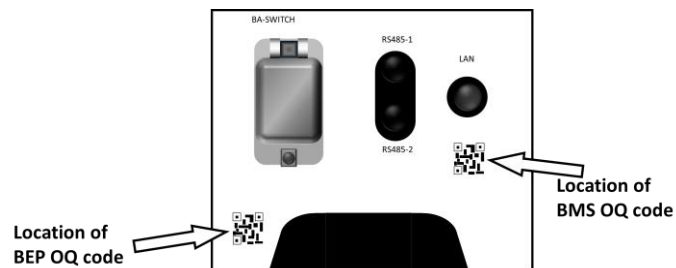
Close

The product related serial number (QR code) location is shown below:

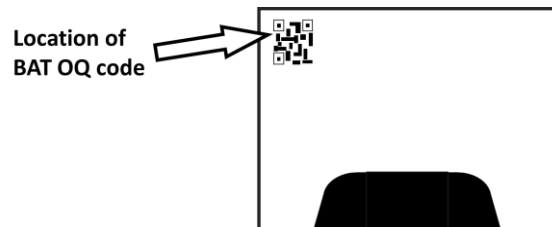
- PCS serial number



- Product serial number(BEP) and BMS serial number



- Battery module serial number(BAT)



8 Registration

Click “Registered User” to register account for end user.

Energy Storage Home Product Setup **Registered User** User Management Contact Language: English Hello, miniSetUp! Logout

Registered User

Username* (The user name can only be composed of letters, numbers and underscores)

Email*

Password* (Remarks: The password must include 8-16 letters and numbers.)

Confirm Password*

Product Serial Number*

Submit Close

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9 Grid connection standard and Debugging

The upper computer Energy Pod is used to set the grid-connection standard for the product and debug the product.

- Connect RS485 interface on Energy Pod and laptop.
- Open upper computer Energy Pod
- Connect to product. When connected to RS485-1, the device ID is 4; when connected to RS485-2, the device ID is 5. Click Connect to Connect to the device.

Connect Device

Connection Type: RS485

Device Id: 4

Port: COM7

Baud: 19200

Parity: None

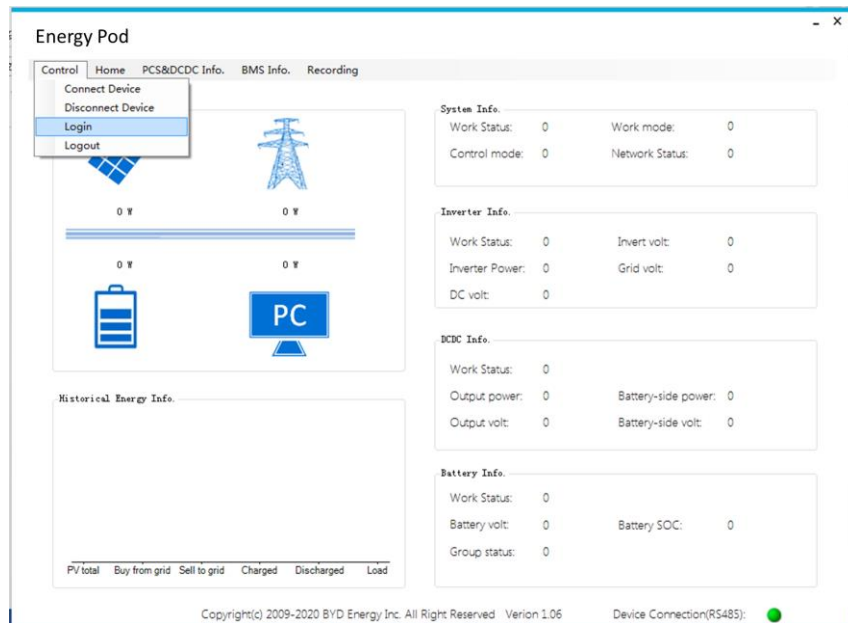
Word: 8

Stop: 1

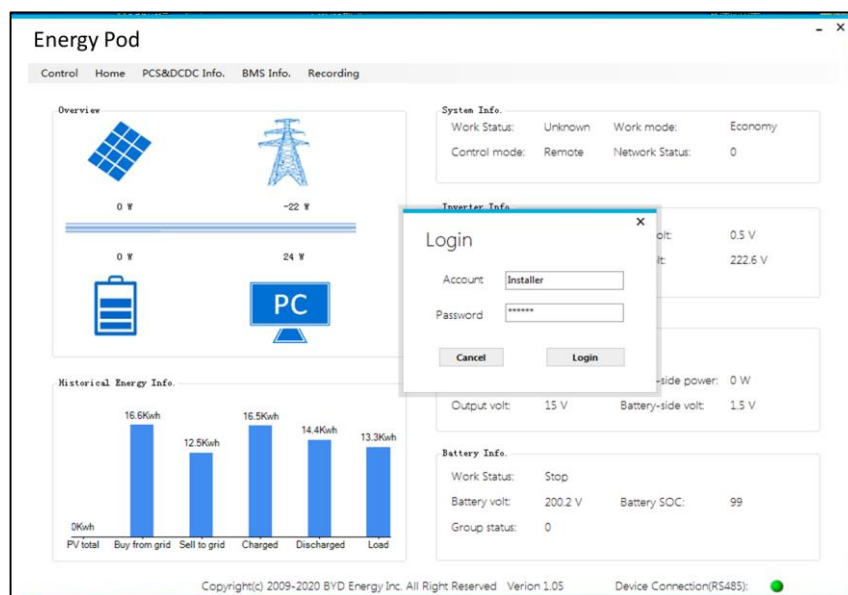
Timeout(ms): 2000

Connect Cancel

- Click CONTROL→LOGIN



- Enter account name “Installer” and password “898888”, click Login

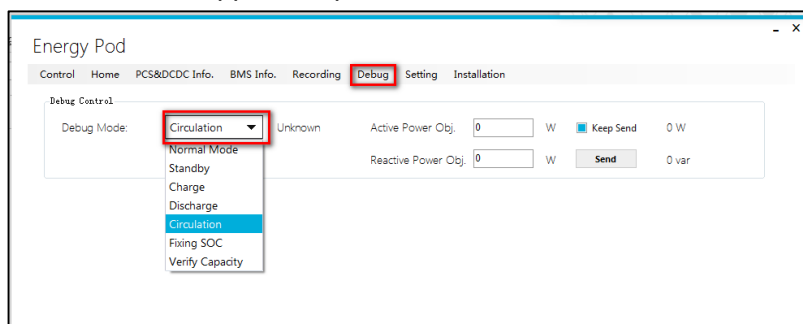


- Installation page. This page can setting grid standards.



- Debug page. This page can be used to issue running status debugging

instructions to the device (including Normal Mode, Standby, Charge, Discharge, Circulation, Fixing SOC, Verify Capacity). Also active power and reactive power can be sent via upper computer



- In occasions where the power quality response modes settings need to be adjusted required by different states, please contact the BYD technical support

10 Induction and Training of the System Owner/Operator

It is a requirement of FinDreams that the Installer provide adequate instruction to the Owner/Operator of the equipment. Instruction should cover site-specific details, safety and methods of operation.

The FinDreams Energy Pod ships with a separate Owner's Manual. Be sure to pass the Owner's Manual to the new owner and direct them to read the contents.

In addition:

Show the owner how to isolate the product, including:

- The Circuit Breaker on the side of the unit.
- The Power Button on the front of the unit.
- The MCB protecting the Normal circuit and the EPS circuit.
- Any relevant switches, MCBs or other isolators used in the Backup Circuit.

Show the owner the location of the Shutdown Procedure labels.

VI. Frequently Asked Questions and Requirements

The personnel safety shall be ensured during product troubleshooting.

1 Frequently Asked Questions and Solutions

Question description	Solutions
Failure of Energy Pod to start up	Check whether the power grid wire is correctly connected to the reliable power grid
	Check whether the fuse at the bottom is installed correctly
	Check whether the BMS circuit breaker is closed
Fault prompt during startup of Energy Pod	Check whether the power grid wiring is correctly carried out
	Check whether the Battery is connected reliably
	Check whether the CT is installed in the correct direction
	Check whether the external communication interface is connected correctly

2 Fault Code

- When the product fault cannot be judged by direct observation, the hardware is detected to be free of faults (including PCS and BMS communication line, BMS and BIC communication line, BA Switch closed and CT correctly installed), and the fault cannot be cleared after re-power-on and restart (i.e., shut down by pressing the button and disconnect the power grid, and then reconnect the power grid and start up by pressing the button), the fault information of the relevant equipment may be viewed through the fault code or monitoring website.
- The upper computer is connected by use of the 485 interface to obtain the fault code.
- Fault Code List.

The fault light will be on when the system fault as listed in the following table. Generally, the fault will be automatically cleared within 30s~180s. If the fault cannot be automatically cleared for a long time, the system needs to be cut off and restarted. If the fault still exists, please contact the dealer.

S/N	Code	Fault Item
BMS		
1	15000	No battery pack available
2	15001	Failed to activate
3	15002	Stop failed
4	15003	Disconnection from PCS_CAN
5	15004	Disconnection from DCDC_CAN
6	15200	Disconnection of BIC_CAN
7	15201	BIC fault
8	15202	Serious overvoltage
9	15203	Serious undervoltage
10	15204	Serious high temperature
11	15205	Serious low temperature
12	15206	Serious overcurrent for charging
13	15207	Serious overcurrent for discharging
14	15208	Out-of-limit of charging current
15	15209	Out-of-limit of discharging current
16	15210	Startup failure _ Precharge not full
17	15211	Stop failure _ Current unsafe
18	15212	Serious electric leakage
19	15215	Disconnection of BSMU CAN
PCS		
20	25000	High DC voltage protection
21	25001	EEPROM fault
22	25002	Protection from abnormal grid capture
23	25003	Protection from abnormal inverter capture
24	25004	Hardware PDP protection
25	25005	PV DCDC shutdown
26	25006	Software overcurrent protection
27	25007	Low DC voltage protection
28	25008	DC tensile failure protection
29	25009	Abnormal zero drift
30	25011	Disconnection of CAN (BMS)

S/N	Code	Fault Item
31	25012	Disconnection of CAN (DCDC)
32	25015	Over-temperature of environment inside box
33	25101	Leakage current protection
34	25102	Protection from abnormal grounding voltage
35	25103	Overload protection
36	25104	Inverter current sampling failure
37	25105	Grid current sampling failure
38	25106	Grid voltage sampling failure
39	25107	Bus voltage sampling failure
40	25108	Inverter voltage sampling failure
41	25109	External PV current sampling failure
42	25110	External grid current sampling failure
43	25111	Grounding detection (grounding wire and N voltage) sampling failure
44	25112	Leakage current sampling failure
45	25113	Box internal environment temperature sampling failure
DCDC		
46	35000	High DC voltage protection
47	35001	High Battery current
48	35002	High DC1 input current
49	35003	High DC2 input current
50	35004	CPLD Fault
51	35005	Abnormal zero drift
52	35006	Low voltage at the side of battery
53	35007	High voltage at the side of battery
54	35008	PDP protection
55	35009	Disconnection of BSMU CAN
56	35010	Disconnection of PCS CAN
57	35014	EEPROM fault
58	35015	Radiator overtemperature
59	35100	Inductor DC2 overtemperature
60	35101	Inductor DC1 overtemperature
61	35104	Battery side total current sampling failure
62	35105	Branch current 1 sampling failure
63	35106	Branch current 2 sampling failure
64	35107	Input voltage sampling failure at the side of battery
65	35108	Output voltage sampling failure
66	35109	Radiator temperature sampling failure
67	35110	DC1 Inductor temperature sampling failure
68	35111	DC2 Inductor temperature sampling failure

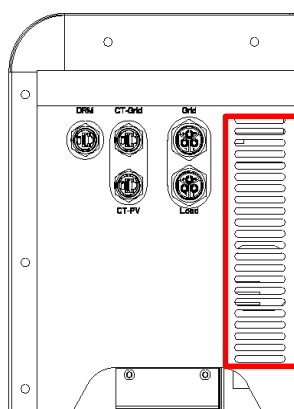
Emergency: In case of emergency, promptly cut off the power supply and disconnect the circuit breaker.

3 Cleaning Requirement

Note: Please shut down prior to cleaning

It's recommended to clean and maintain the product irregularly. During cleaning, please use the soft and dry cloth or the vacuum cleaner to remove the dust and stains from the product, and especially clean the heat dissipation and ventilation vents on both sides of the product. **The organic solvents, corrosive liquids, etc.** cannot be used

for cleaning the product.



4 Storage Requirements

4.1 Requirement for recharging after normal storage

The storage temperature range of the battery is $-10^{\circ}\text{C} \sim +45^{\circ}\text{C}$. As for the battery with long-term storage, the routine maintenance is required. Please charge the battery to 40%SOC at a current of 0.2C according to the requirements in the table below.

Requirement for Recharging for Storage:

Ambient temperature for storage	Relative humidity for storage environment	Storage Time	SOC
$<-10^{\circ}\text{C}$	/	Prohibited	/
$-10\sim 25^{\circ}\text{C}$	5%~70%	≤ 12 months	$30\%\leq \text{SOC}\leq 60\%$
$25\sim 35^{\circ}\text{C}$		≤ 6 months	
$35\sim 45^{\circ}\text{C}$		≤ 3 months	
$>45^{\circ}\text{C}$	/	Prohibited	/

4.2 Requirement for recharging after over discharge

Please charge the overdischarged battery according to the time specified in the table below; otherwise the overdischarged battery module will be damaged.

Recharging Conditions of Battery after Overdischarge:

Storage Environment Temperature	Storage Time
$-10\sim 25^{\circ}\text{C}$	≤ 15 days
$25\sim 45^{\circ}\text{C}$	≤ 7 days

4.3 Battery placement conditions

After completion of system installation, it shall be confirmed that the system can be charged and discharged normally. Otherwise, please ensure that the system switch is OFF. During use, if the user needs to leave for a long period of time (≥ 30 days), the following two methods may be adopted to ensure that the battery is not damaged:

1. Ensure that the SOC system of the battery is above 60% and the BA Switch is kept OFF. The system shall be restarted to charge the battery within 90 days.
2. Prior to leaving, check whether the whole system works normally, especially

whether it can be charged. Please ensure that the whole system works properly in case of nobody at home.

In case of damage to the product due to non-quality reasons, the product will lose the warranty service!

5 Battery Maintenance

- When the device is not used for a long time, discharge the battery to between 45% and 60% of the battery capacity, and disconnect the battery output to avoid the battery power being emptied;
- When the device is not used for a long time, it is recommended to charge the battery once every six months to ensure that the battery can work normally.
- Ensure reliable grounding.
- Battery maintenance must be carried out by professionals or under their direction;
- When replacing the battery, use the same type and number of batteries or battery packs;
- Warning: Do not throw the battery into a fire. The battery may explode;
- I Warning: Do not open or damage the battery. The electrolyte flowing out of the battery is harmful to the skin and eyes. The electrolyte may also be toxic;
- Warning: The battery may cause a shock hazard and a large short-circuit current.
-
- When handling the battery, pay attention to the following aspects:
 - Remove watches, rings and other metal products;
 - Use a tool with an insulated handle;
 - Wear rubber gloves and shoes;
 - Do not place tools or metal parts on the battery;
 - Disconnect the charging power supply before disassembling the battery terminal block;
- Pay attention to whether the battery is inadvertently grounded. If you find that the battery has been accidentally grounded, remove the power supply from the ground.
- Touching any part of the grounded battery can cause an electric shock.
- Disconnecting ground during installation and maintenance reduces the probability of electric shock (applicable to equipment without a grounded power supply and remote battery power).
- Do not touch the battery pack with wet hands.
- Do not crush, drop or puncture the battery.
- Always dispose of the batteries according to local safety regulations.
- Store and recharge battery in a manner in accordance with this user manual.
- The charging circuit of inverter shall be DVC A, and the output circuit needs to be isolated from high voltage bus.
- Do not reverse battery polarity

- When storing or transporting the battery, do not stack the battery without protective packaging
- Packaged batteries should not be stacked more than specified number stipulated on the package.
- All operators of the energy storage system shall follow the user manual, installation and service manuals and quality guarantee. Any damage to equipment caused by ignoring and misreading the user manual, installation and service manuals and quality guarantee will invalidate the product warranty.

VII. Quality Assurance

After the product is installed and put into use, FinDreams will start to provide the quality assurance service according to the FinDreams Energy Pod Installation and User Manual and the Energy Pod Warranty Letter of FinDreams Auto Industry Company Limited.

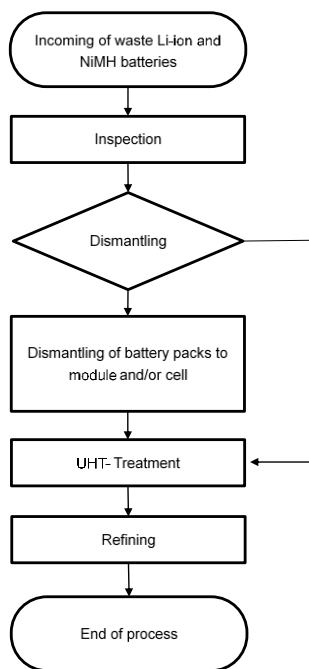
1. Please contact the local service provider for technical support and after-sales service.
2. Please refer to the quality assurance agreement for details and obtain the Energy Pod Warranty Letter by the following way: <http://asms.byd.com/asapp/>

VIII. Disposal instruction

When system reaches the end of its life and it can't continue to run, or the user doesn't want to continue to use and want to disposal it.

The components except the battery inside Energy pod should be delivered to professional local end-of-life company for recycling. Extra charged may be needed.

The battery inside energy pod should be delivered to recycling company which is approved by importer or BYD for recycling. Extra charged may be needed. And suggest disposal procedure is shown below".



VIII. Contact Us

For any assistance about FinDreams product, please contact BYD by:

Electric Power Research Institute

BYD Auto Industry Company Limited / BYD Lithium Battery Co., Ltd

No.3009, BYD Road, Pingshan, Shenzhen, 518118, P.R.China

Tel:+86 0755-89888888 - 57860