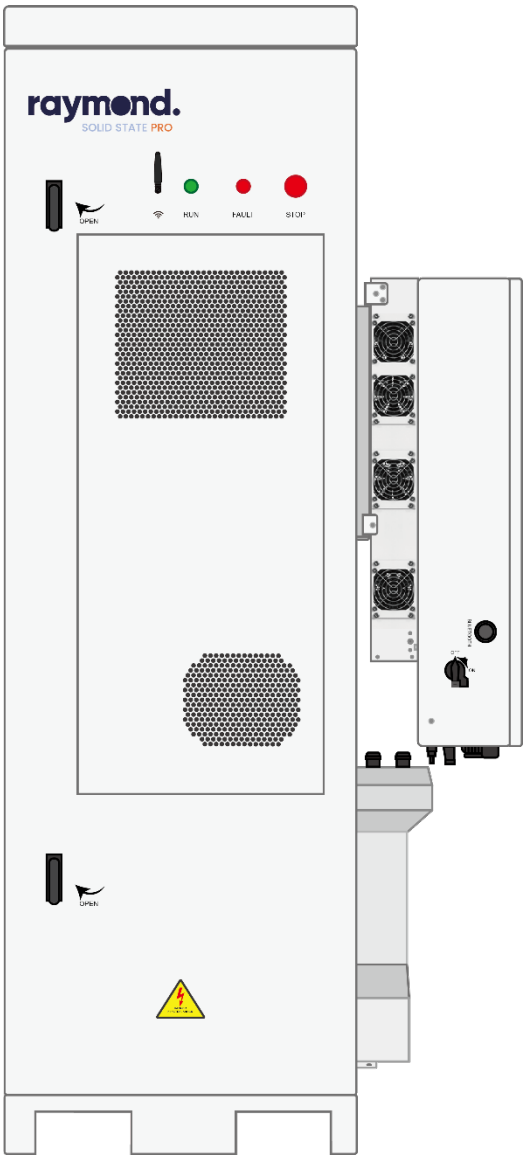
USER MANUAL

Raymond Solid State Pro 64.8kWh



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Dok-nr:P100025RA

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About this manual

This manual is intended for the Raymond Solid State Pro 64.8kWh Energy Storage battery.

Statement

Compliant with Best Practice Guide for Battery Storage Equipment—Electrical Safety Requirements- version 1- Pre -assembled integrated battery energy storage system equipment – Method 1 mandatory requirements and Optional requirements – a), c), e), f), g), h), i), j), k), l), m), n), o), p), q).

Declaration

Raymond declares that the Solid State Pro 64.8kWh is in compliance with the essential requirements and other relevant of RE Directive 2014/53/EU.

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1. Introduction

1.1 Safety Symbols &Warnings

Raymond Solid State Pro 64.8kWh is designed, manufactured and tested in accordance with international safety standards. However, as an electrical and electric product, it must be installed, operated and maintained strictly according to related safety notices.

If you have any problems, please contact the service center or authorized dealer. Please DO NOT install or repair the product by anyone who is not qualified by local authority.

We are not responsible for any damage or loss caused by misuse or misunderstanding of
the information in the manual.

1.1.1 Symbols Explanation

	System will be touchable or operable after at least 10 minutes after totally disconnected, in case of any electrical shock
	Heavy enough may cause severe injure!
	Danger of hot surface and burn injury!
	Earth line!
	The wasted products must be sent to the authorized collecting center!
	Refer to the operating instructions.

1.1.2 Safety Warning

 Warning	The system must be installed according to the local standard and related standard for an electrical enterprise. Please follow the instructions in this manual to use and operate the system.
 Danger	Keep the PV array covered and the DC circuit breaker OFF. High voltage will be generated by PV array exposed under sunshine. All the cables must be connected firmly.
 Danger	PV negative(PV-) and battery negative(BAT-） on system side are not grounded as default design. Connecting PV- or BAT- to ground are strictly forbidden.
 Danger	1.High voltage is a hazard, make sure the system device away from children. 2.Any touch with the device or terminal may cause electric shock or fire.Please follow all the safety instructions. 3.A damaged device or system fault may cause electric shock.Make sure that you have checked the package and the device before installation to avoid unnecessary damage or loss.
 Caution	Be aware of the hot surface while the device is running.
 Warning	Do not open inverter cover or change any components without our authorization, otherwise the warranty commitment of the inverter will be invalid.

1.1.3 Battery Handing Guide

- Use the battery pack only as directed.
- If the battery is defective, appears cracked, broken or otherwise damaged, or fails to operate, contact the Raymond **hot line at +46(0)10-188 20 30** immediately.
- Do not attempt to open, disassemble, repair, tamper, or modify the battery.

The battery is not suitable for users to use by themselves.

- To prevent the battery and its components from damage when transporting, handle with care.
- Do not subject it to any strong force.
- Do not insert foreign objects into any part of the battery pack.
- Do not use cleaning solvents to clean the battery.
- The battery can't be connected directly to SELV circuit.

1.2 Response to Emergency Situations

The Raymond battery is designed with multiple safety strategies to prevent hazards resulting from failures. However, Raymond cannot guarantee their absolute safety in uncertain situations.

1.2.1 Leaking Batteries

If the battery pack leaks electrolyte, avoid contact with the leaking liquid or gas. Electrolyte is corrosive and contact may cause skin irritation and chemical burns. If one is exposed to the leaked substance, do these actions:

Inhalation: Evacuate the contaminated area and seek medical attention immediately.

Eyes contact: Rinse eyes with flowing water for 15 minutes, and seek medical attention immediately.

Skin contact: Wash the affected area thoroughly with soap and water, and seek medical attention immediately.

Ingestion: Induce vomiting as soon as possible, and seek medical attention immediately.

1.2.2 Fire

In case of a fire, make sure that an ABC or carbon dioxide extinguisher is nearby and does not use water to extinguish the fire.

WARNING
The battery pack may catch fire when heated above 150°

If a fire breaks out where the battery is installed, do these actions:

1. Extinguish the fire before the battery catches fire.
2. If the battery has caught fire, do not try to extinguish the fire. Evacuate people immediately.

WARNING
If the battery catches fire, it will produce poisonous gases. Do not approach.

1.2.3 Wet battery

If the battery is wet or submerged in water, do not try to access it. Contact Raymond Customer Service or your distributor for technical assistance.

1.2.4 Damaged Battery

If the batteries are damaged, please contact Raymond customer service or your distributor for help as soon as possible, because damaged battery is dangerous and must be handled with extreme caution. Damaged batteries are not suited for use and may pose a danger to people or property. If the battery seems to be damaged, return it to Raymond or your distributor.

CAUTION
Damaged batteries might export electrolyte or flammable gas, so contact Raymond for advice and information immediately we will deal with it.

1.3 Installers

Raymond Energy Storage battery is suggested being installed by skilled workers or electricians.
A skilled worker is defined as a person who has been trained and qualified electrician
or has all of the following skills and experience:

- Knowledge of the functional principles and operation of on-grid Energy Storage systems.
- Knowledge of the dangers and risks associated with installing and using electrical devices and acceptable mitigation methods.
- Knowledge of the installation of electrical devices
- Knowledge of and adherence to this manual and all safety precautions and best practices.

1.4 Scrap Battery

For scrap battery(-ies), please deal with them by laws or regulations to recycle or scrap.

1.5 Contact Information

Use the contacts for technical assistance. The phone number is available only during business hours on weekdays.

Fax	+46(0)10-188 20 30
Email	info@raymondsolar.com
Address	Designvägen 2 435 33 Mölnlycke

2. Guidance for Disconnection of System During Shipment

- Raymond Solid State Pro 64.8kWh is not suitable for air transport.
- Cartons that have been crushed, punctured, or torn in such a way that contents are revealed shall be set aside in an isolated area and inspected by a skilled person. If the package is deemed not to be shippable, the contents shall be promptly collected, segregated, and either the consignor or consignee contacted.
- A precautionary label should be affixed to the shipping carton to let individuals who see the batteries know the packages have been disconnected; otherwise, the batteries should not be transported.
- We have conducted comprehensive tests to ensure the equipment distributed around the world is safe for shipping transport. These products shall be handled with care and immediately inspected if visibly damaged. If the cartoon visibly damaged, please contact with Raymond **hot line** to confirm whether the batteries can be used safely or not.

3. Product Introduction

3.1 Technical Specifications

Battery PACK:

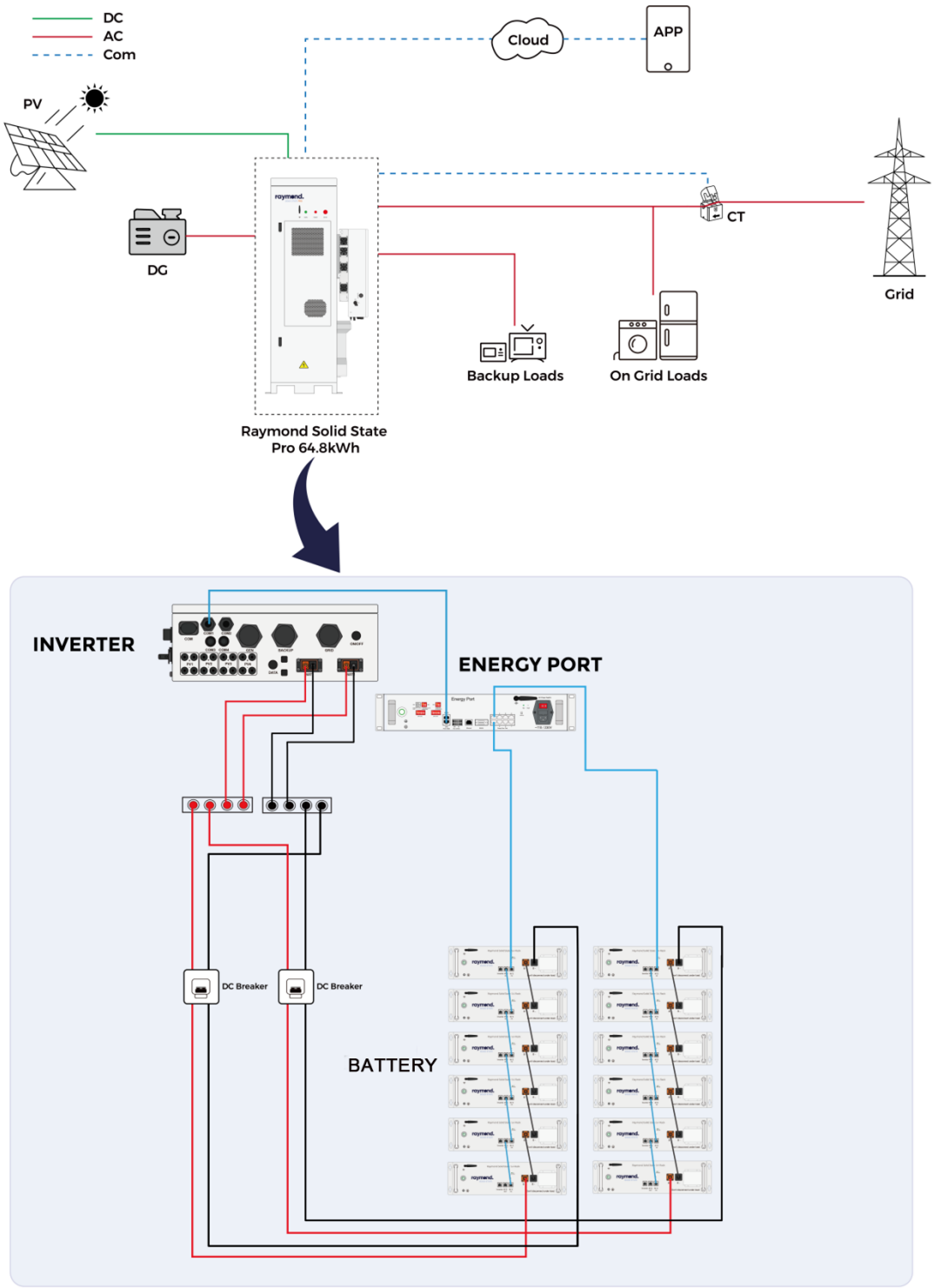
Product Type		Raymond Solid State Pro 64.8kWh
Total Energy*		64.8kWh
Battery Capacity		53Ah*2
Max.recommended DOD		93%
Max Dis/Charge Power		73.8kW for 3S
Voltage		576.0~672.0Vd.c
Nominal Voltage		614.4Vd.c
Nominal Dis/charging Current		50A*2
Max Charging Current		60A*2(3s)
Max Discharging Current		60A*2(3s)
Max. Charge Voltage		672Vd.c
Weight of the Total Cabinet (N.W.)		858kg
Dimension of the Cabinet(H*D*W)		2120*900*650 mm
Operating Condition		Indoor&Outdoor
Temperature Range(cell)	Charge	0~55℃
	Discharge	-20~55℃
Operating Ambient Temperature Charge/Discharge		-30~55℃
WIFI Frequency Range		2400MHz~2483MHz
Humidity		＜60%(No condensed water)
Over Voltage Category		II
Cooling Type		Air conditioner
Installation		Ground Installation
IP rating		IP55
Protective Class		I
Max. Connection Number		6S2P
Communication		CAN/ RS485
Protection Mode		Hardware&software protection
Battery Protection		Over-current/Over-voltage/Short circuit/ Under-voltage/Over temperature
Safety Certification		Cell UL TUV
		CE/TUV
Hazardous Material Classification		9
Transportation		UN 38.3

Inverter:

Models	30K	40K	50K
Input DC(PV side)			
Recommended Max.PV Array Size	60kW	80kW	100kW
Max. usable PV Input Power	60kW	80kW	96kW
Max. Input Voltage	1000V		
Rated Voltage	600V		
Start-up Voltage	180V		
MPPT Voltage Range	150~850V		
Max. Input Current	3*40A	4*40A	
Max. Short Circuit Current	3*60A	4*60A	
MPPT Number/Max . Input Strings Number	3/6	4/8	
Battery			
Battery Type	Li-ion		
Battery Voltage Range	120~800V		
Max. Charge/Discharge Power	33kW	44kW	55kW
Max. Charge/Discharge Current	70A*2		
No. of Cattery Inputs	2		
Max. charge/discharge power of each input	33kW	40kW	40kW
Communication	CAN/RS485		
Output AC(Grid side)			
Rated Output Power	30kW	40kW	50kW
Max. Apparent Output Power	30kVA	40kVA	50kVA
Rated Grid Voltage	3/N/PE,220V/380V 3/N/PE,230V/400V		
Rated Grid Frequency	50Hz/60Hz		
Rated Grid Output Current	45.6A/43.3A	60.8A/57.7A	76A/72.2A
Max. Output Current	45.6A/43.3A	60.8A/57.7A	76A/72.2A
Power Factor	>0.99(0.8 leading ~0.8 lagging)		
THDi	<3%		
Input AC(Grid side)			
Max. AC Passthrough Current	91.2/86.6A	121.6A/115.4A	152A/144.4A
Rated Input Voltage	3/N/PE,220V/380V 3/N/PE,230V/400V		
Rated Input Frequency	50Hz/60Hz		
Output AC(Back-up)			
Rated Output Power	30kW	40kW	50kW
Max. Apparent Output Power	1.6 times of rated power, 2s		
Back-up Switch Time	<10ms		
Rated Output Voltage	3/N/PE,220V/380V 3/N/PE,230V/400V		

Rated Frequency	50Hz/60Hz		
Rated Output Current	45.6A/43.3A	60.8A/57.7A	76A/72.2A
THDv(@linear load)	<2%		
Efficiency			
Max. efficiency	97.8%		
EU efficiency	97.4%		
BAT Charged by PV Max. efficiency	98.5%		
BAT Charged/Discharged to AC Max. efficiency	97.5%		
Protection			
Anti-islanding Protection	Yes		
Output Over Current Protection	Yes		
Short Circuit Protection	Yes		
Integrated DC Switch	Optional		
DC Reverse-polarity Protection	Yes		
Surge Protection	DC Type II / ACType II		
Integrated AFCI (DC arc-fault circuit protection)	Yes		
General Data			
Dimensions(W*H*D)	530*880*290 mm		
Weight	73kg		
Topology	Transformerless		
Self-consumption(night)	<25W		
Operating Ambient Temperature Range	-25~+60℃		
Relative Humidty	0~95%		
Ingress Protection	IP66		
Noise	<65dB(A)		
Cooling Concept	Interlligent Redundant Fan-cooling		
Max. Operation Altitude	4000m		
Grid Connection Standard	EN 50549-1, VDE4105 CEI 0-21, CEI 0-16, NC-RFG TypeB, NRS 097-2-1 ED 2.1		
Safety/EMC Standard	IEC/EN 62109-1/-2, IEC/EN 61000-6-1, IEC 61000-2		

3.2 System Diagram

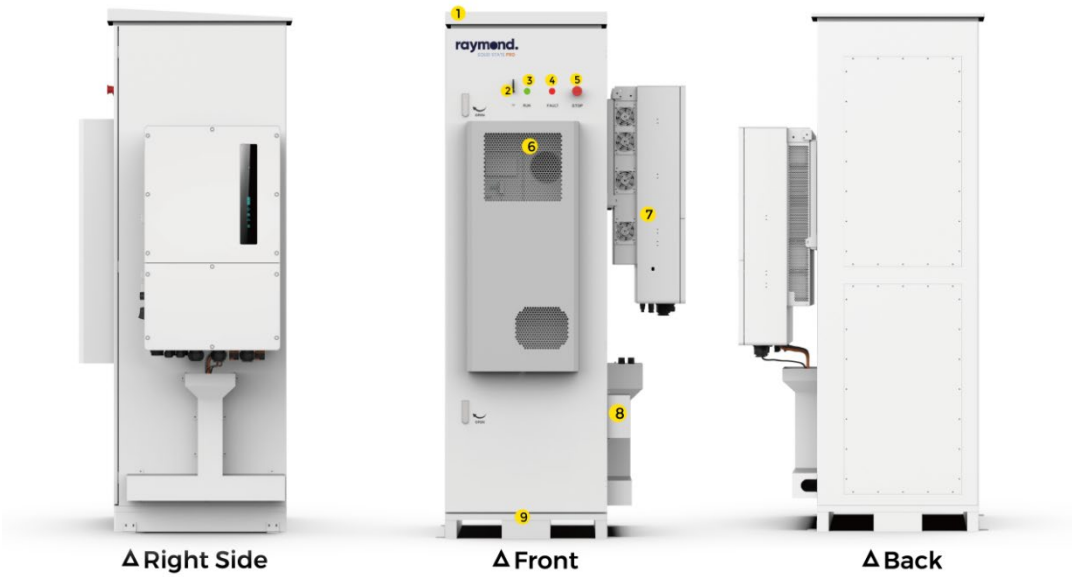


3.3 Structural composition

The Raymond Solid State Pro 64.8kWh system adopts a modular design framework, which installs battery modules, main control modules, distribution components, and energy storage inverters (optional) as components for easy replacement.

3.3.1 System Introduction

System Appearance Description：



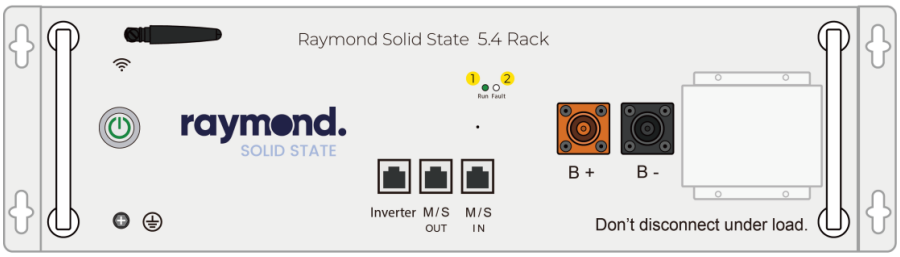
Item	Description
1	Lifting Ring
2	WiFi Module
3	Run Light
4	Fault Light
5	Emergency Stop Button
6	Air Conditioning
7	PCS
8	Wiring Cover Plate
9	Base

System Composition Description：

Item	Description
1	Fire Protection Module
2	Energy Port
3	Battery Module
4	Wiring Device
5	AC/DC
6	Lightning Protection Device
7	AC Breaker
8	DC Breaker
9	Busbar
10	Outlet Holes

3.3.2 Battery Modules Introduction

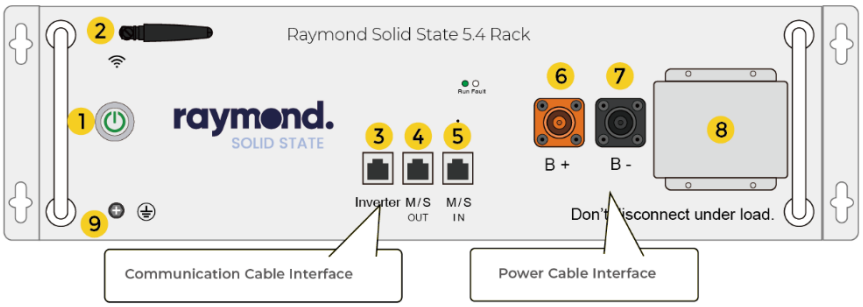
The Indicators of Battery



1. There are two LED indicators on the front of the battery to show its operating status.

Item	Designation	Definition
1	Run	Battery working normally
2	Fault	Battery failures

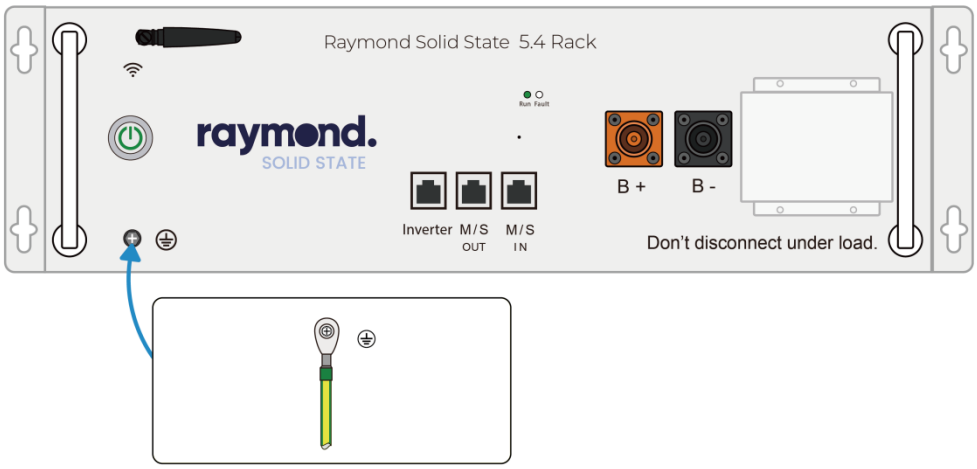
The ports of battery.



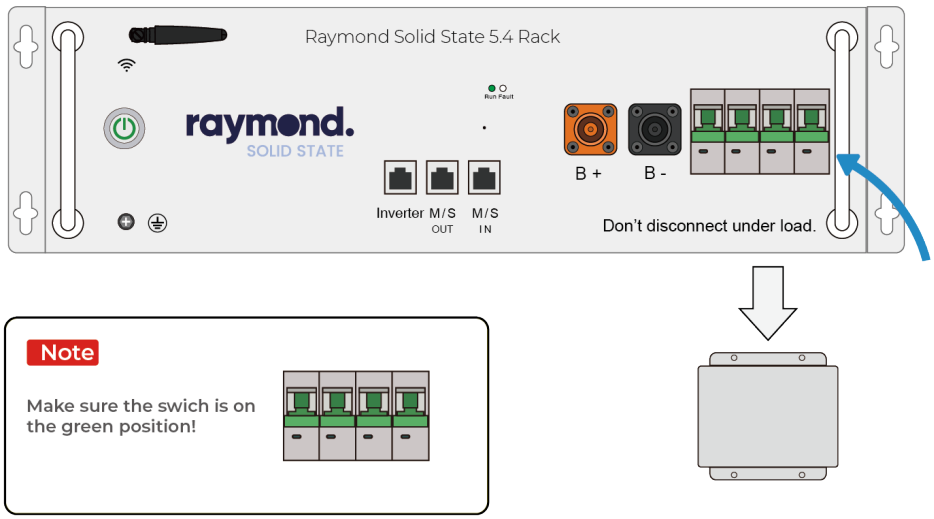
Item	Designation	Definition
1	/	Power on / off
2	WIFI module	WIFI module for APP or WEB configuration
3	Inverter	Communication between master battery and inverter
4	M/S OUT	Communication between batteries, OUT port on the first battery to IN port on the next battery
5	M/S IN	
6	B+	Power fitting for connecting to the battery packs
7	B-	Power fitting for connecting to the battery packs
8	/	DC breaker
9	M4	Ground connection

NOTICE

There is a grounding icon on the front of the battery,Please remember to install the grounding wire as the following figure.

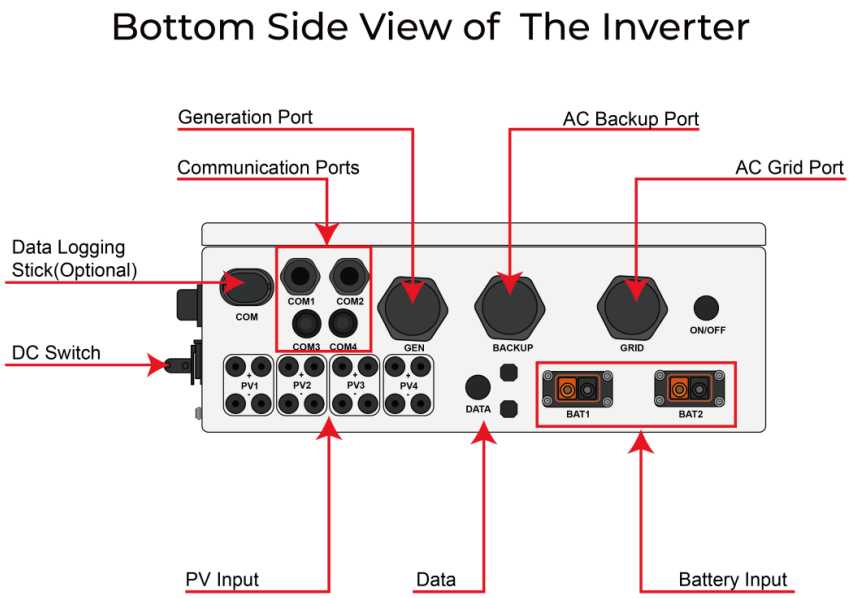


Before starting this device, please remember to make sure **the switch of the battery (DC Breaker)** is on the **green** position! As shown in the following figure:



3.3.3 Inverter Sketch

The ports of inverter.



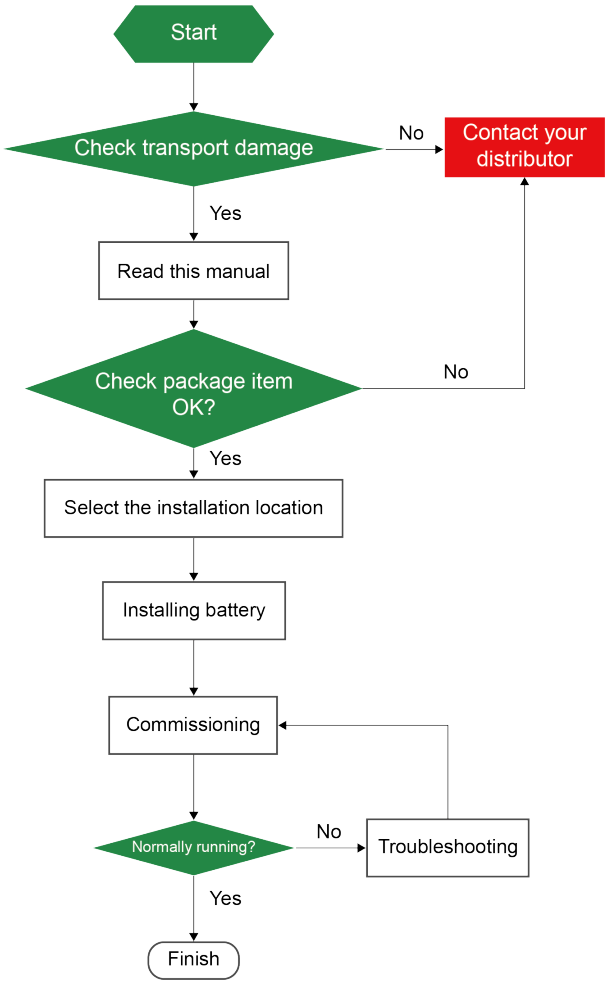
Item	Designation	Definition
1	DC Switch	This is the DC disconnect switch for the PV
2	COM	Solis data logger gets connected here-only USB version of the loggers will work
3	COM1	RS485 and CAN communication cables and parallel cables should go through these
4	COM2	RS485 and CAN communication cables and parallel cables should go through these
5	COM3	Communication cables for 14PIN terminal block should go through these
6	COM4	Communication cables for 14PIN terminal block should go through these
7	Smart Port	Conduit for AC conductors to generator should be connected here
8	Backup	Conduit for AC conductors to backup loads panel should be connected here
9	Grid	Conduit for AC conductors to the main service panel should be connected here
10	PV Module Input	Conduit for PV conductors should be connected here
11	Battery Connection	Conduit for Battery conductors should be connected here
12	DATA	Extends the range of the inverter GPRS signal (Not applicable to the USA, Australia, Europe)

NOTICE
For more operating instructions, please refer to the separate user manual for the inverter.

4. Installation Prerequisite

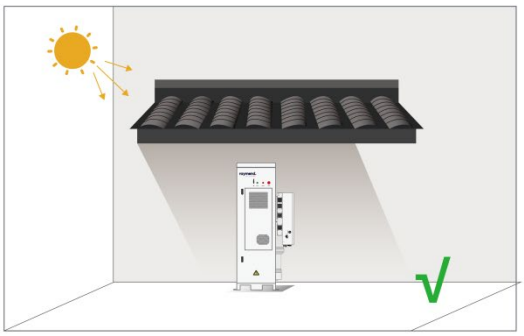
4.1 Installation Process

The system should be installed according to the following flow chart. The detailed installation process is described in chapter **5 Installation Procedure**.

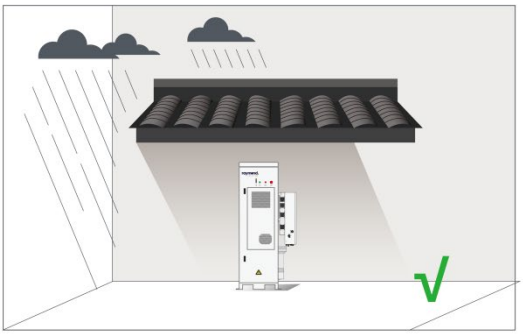


4.2 Installation Position

1.The installation of the system should be under shelter. The system can't be exposed to direct sunshine, rain, or snow:



No Exposure to Direct Sunlight √



No Exposure to Rain and Snow √

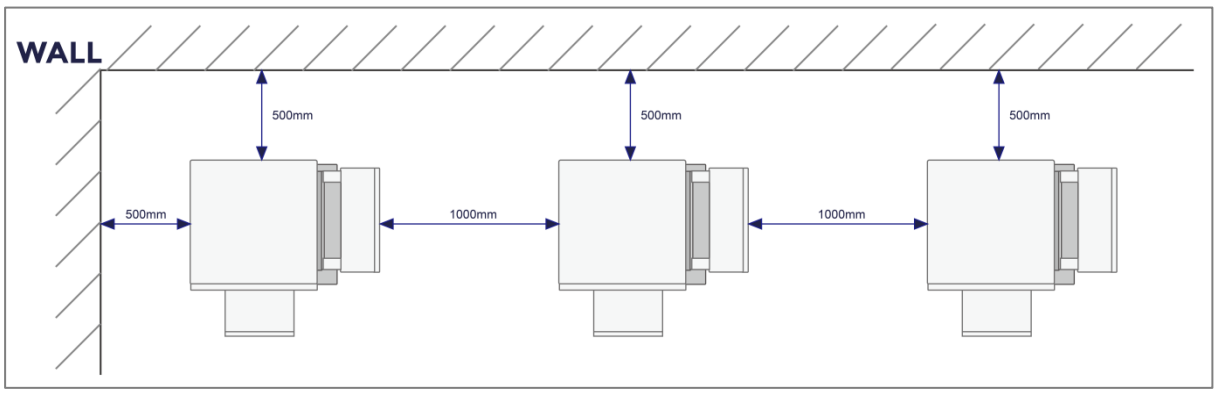
2.The system's LCD should be leveled with eyes and with enough space in the front for inspection.

3.To avoid burning and electric shock, the system should be installed beyond the reach of

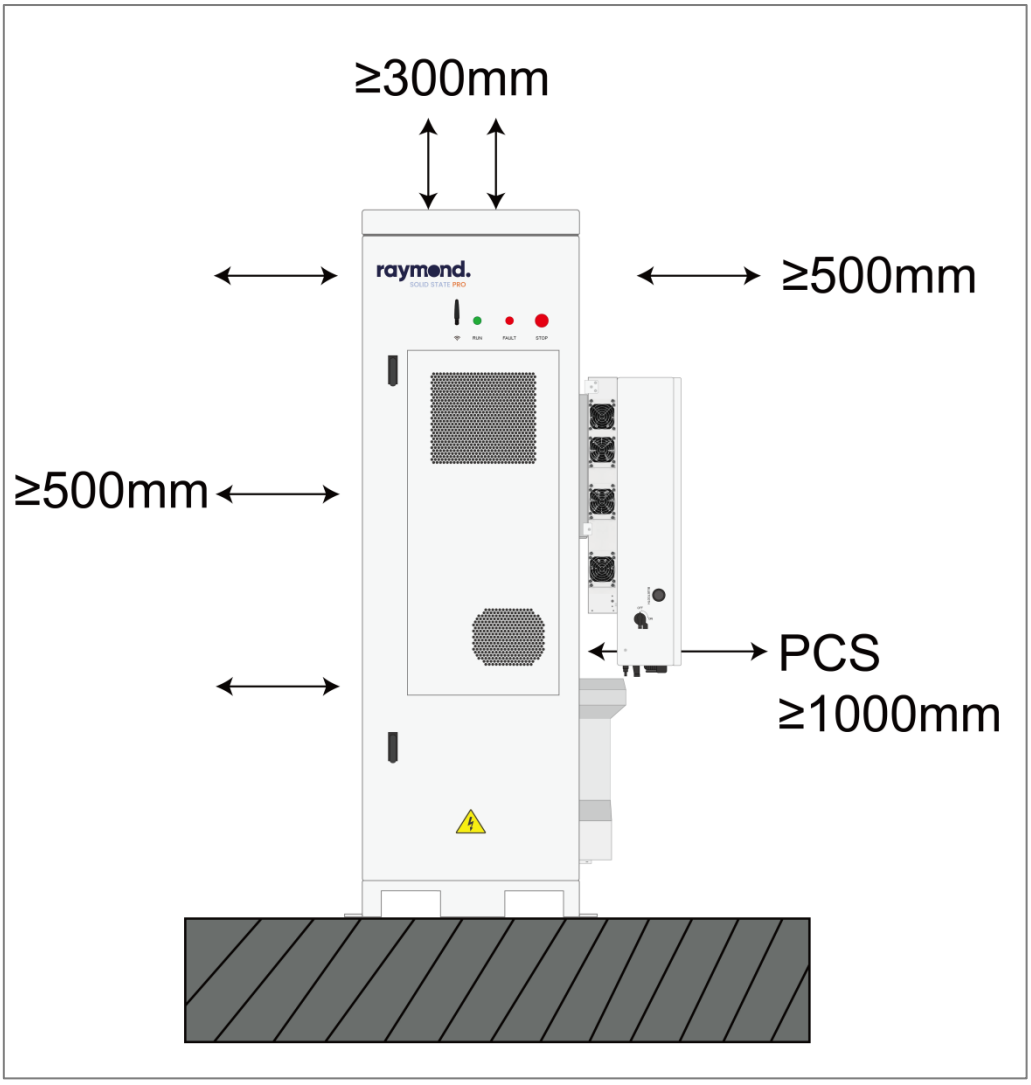
children.

4.Make sure the installation position does not shake.

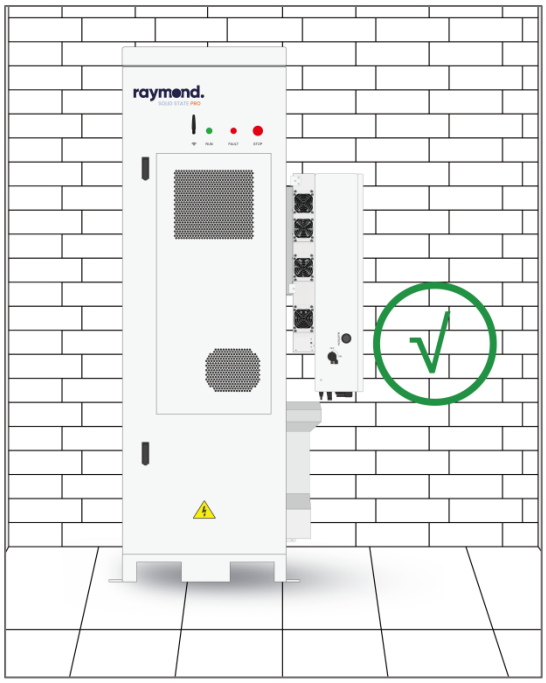
5.When installing multiple systems, please leave enough space around the system. During installation, the distance between the system and the wall should be kept at 500mm, and the distance between systems should be kept at 1000mm as shown below.

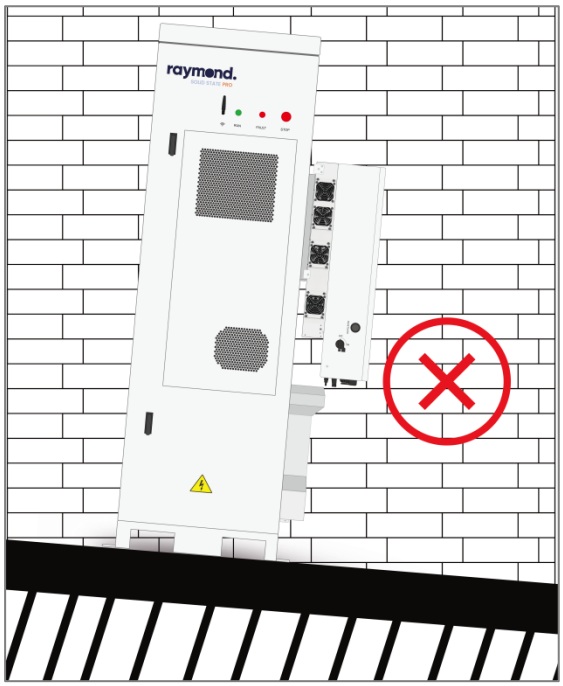


6. When installing a single system, the cabinet is installed on the ground and maintain a distance of 500mm from the wall, with a base height greater than 200mm. Maintain good ventilation on both sides, and the minimum gap between both sides and the top should not be less than the following diagram. When installing PCS on the right side of the cabinet, the gap should be greater than 1000mm.



7. The system needs to be installed on the ground with sufficient gravity and flatness. If the ground does not have sufficient support and flatness, it needs to be ensured through other means (such as making a foundation, adding load-bearing plates, etc.). The product must not be tilted or placed on its side.





4.3 Tools

To install the system, those following tools are required:

			
Phillips screwdriver	**Torque wrench**	**Cable crimper**	**Wire clamp**
			
Voltmeter	**Tape measure**	**Drill**	**Flat-head screwdriver**

In order to protect operator and installer's safety, please select and use suitable tools and measuring instruments that are certified for precision and accuracy.

4.4 Safety Instruments

When dealing with the battery, the following safety gears should be equipped.

Installers

must meet the relevant requirements of IEC 60364 or the domestic legislation and other relevant international standards.

		
Insulated glove	**Safety goggles**	**Safety shoes**

4.5 Storage

If the Raymond Solid State Pro 64.8kWh is not to be installed immediately, or removed from operation and needs to be stored for a long period, please choose an appropriate location to store it. Instructions for storage are:

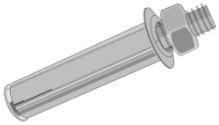
WARNING
The battery is stored indoors. No direct sunlight or rain, dry and well-ventilated, with a clean surrounding environment, free from a large amount of infrared and other radiation, no organic solvents or corrosive gases, no metal-conductive dust, etc., away from heat and ignition sources.
If the battery experiences bulging, deformation, damage, or leakage, it must be scrapped regardless of storage time.
When storing batteries, they should be placed correctly according to the packaging box markings. It is strictly prohibited to place them upside down, sideways, or tilted. When stacked, they should comply with the stacking requirements on the outer packaging.
The site must be equipped with fire protection facilities that meet the requirements, such as fire sand, fire extinguishers, etc.
CAUTION
It is recommended to use batteries in a timely manner. For batteries that have been stored for a long time, please regularly recharge them; otherwise, it may cause battery damage.
The ambient air should not contain corrosive or flammable gases and should not be tilted or stored upside down.
NOTICE
During storage, relevant certificates that meet the storage requirements of the product need to be saved, such as temperature and humidity log data, storage environment photos, and inspection reports.
Store in a clean and dry place and prevent erosion by dust and moisture. It is

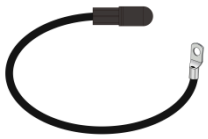
prohibited to suffer from rainwater or surface water erosion.
Storage environment requirements: Recommended storage temperature: 20 ℃~30 ℃. Relative humidity: 5% RH to 80% RH. Dry, ventilated, and clean. Avoid contact with corrosive organic solvents, gases, and other substances. Avoid direct sunlight. The distance from the heat source must not be less than two meters.
From the date of shipment by the manufacturer, the battery needs to be maintained at a maximum interval of 6 months. The requirements for the recharge interval after the battery is emptied are as follows: If the ambient temperature is (30,40] ℃, power should be replenished within 15 days; if the ambient temperature is ≤ 30 ℃, power should be replenished within 30 days. It is recommended to store at a state of charge of 45% to 55% SOC.

5 Installation

5.1 Package Items

Before installation, please check whether the parts in the accessory package are consistent with the list.

NO.	Picture	Material Name	Specifications	QTY
1		Energy storage battery system	PRO series energy storage battery system	1
2		User manual	English	1
3		Warranty	English	1
4		Connection	/	4
5		Expansion Screws	M12X80 carbon steel coated with white zinc	4
6		Stainless steel combination screw	M4 * 16	8
7		Communication Cable	2 meters of Category 5 network cable	2

8		Positive Power Cable	/	2
9		Negative Power Line	/	2

5.2 Checks before Installation

1.Before starting the system, please carefully check to confirm that there are no defects in the product.

2.Check the battery voltage using following instruction:

Press and hold the panel button for 4s and release after two indicators turn on.

Measure the voltage at the terminal interface with a voltmeter. If the voltage is lower than 96V, do not use the battery and contact customer service.

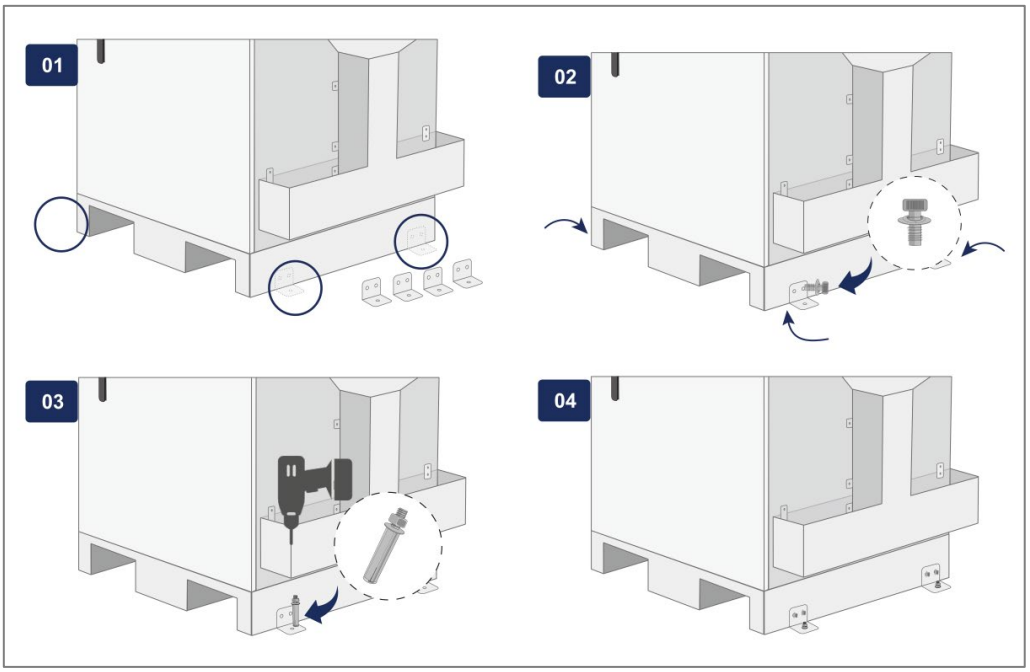
5.3 Ground Mounting

1. Find 4 connectors and matching screws as shown in the following picture from the product packaging box.

2. As shown in the figure, fix the four connectors in sequence at the bottom of the cabinet;

3. Then use a punching gun to drive the matching expansion screw into the ground and fix it in place;

4. After fixing the four connecting buckles on the ground, the fixed installation is completed.



***Notes:**

This product Suitable for Use in Non-Habitable Spaces. please maintain good indoor ventilation and install smoke alarm devices.

5.4 Electrical Connection

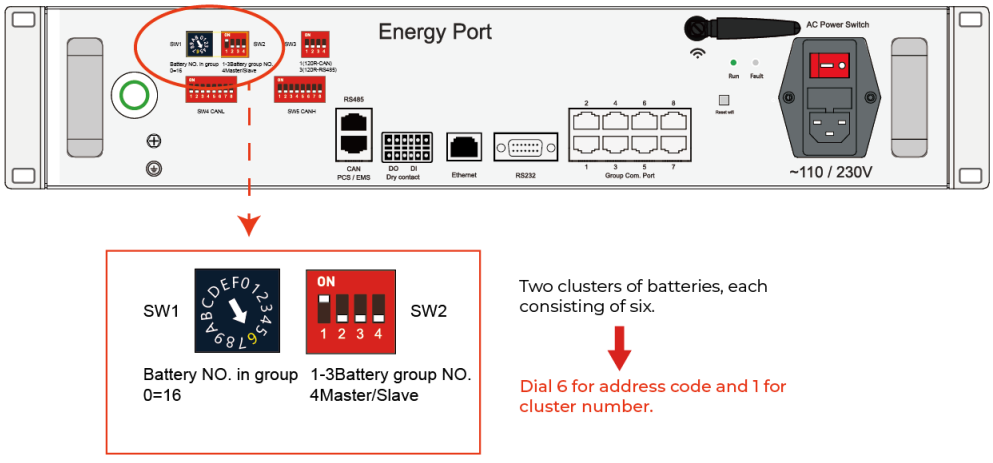
Before connecting the electrical cables, please check whether the cables between the battery modules are properly connected according to the following electrical connection diagram.

NOTICE

When making electrical connections, the protective ground wire must be connected first; When dismantling equipment, the protective ground wire must be removed last.

NOTICE

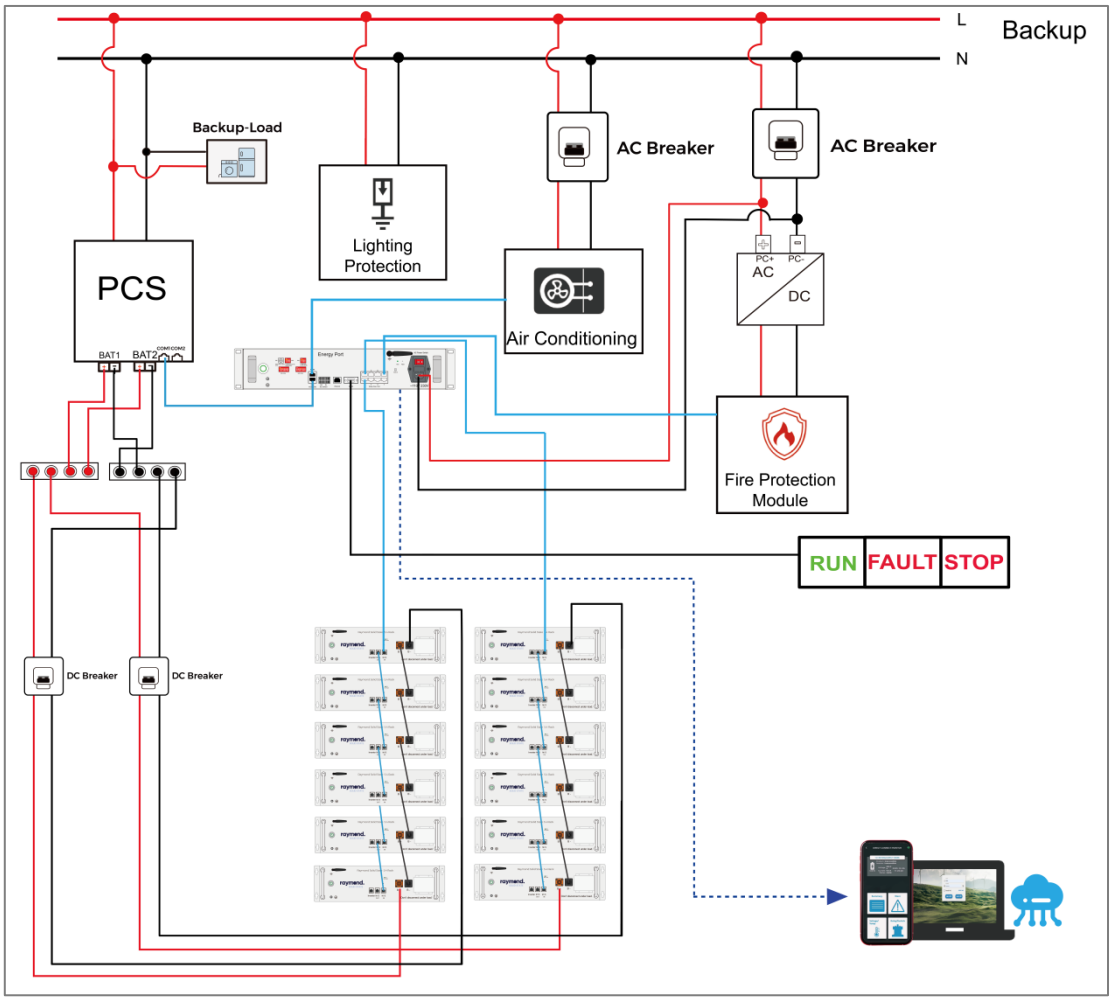
In Raymond Solid State Pro 64.8kWh, two clusters of six batteries are connected, make sure DIP switch of the **energy port** can be set as shown in the figure.(Two clusters of batteries, each consisting of six. Dial 6 for address code and 1 for cluster number.)



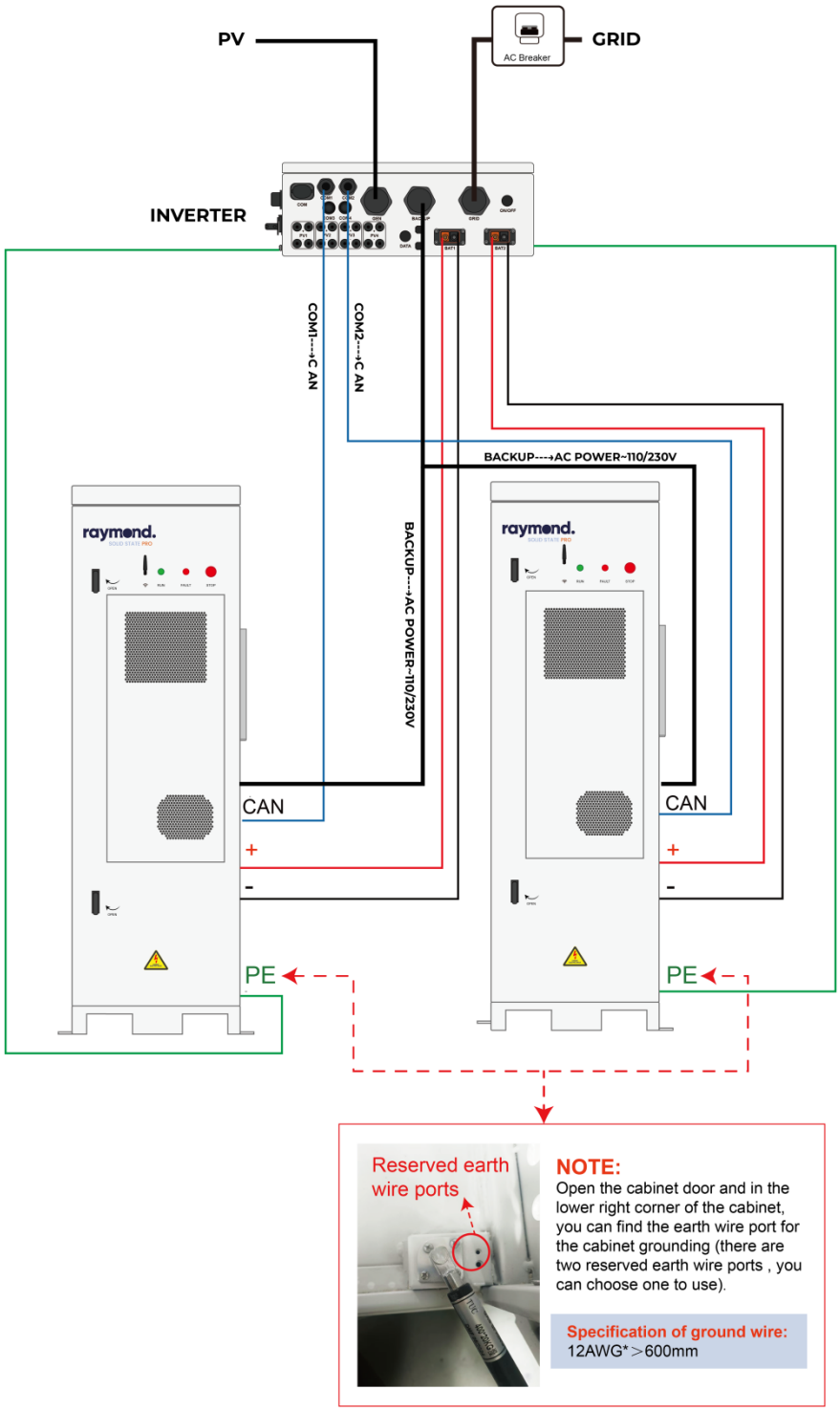
5.4.1 System Wiring Diagram

- Topology diagram of Single system ：

General wiring diagram of the Raymond Solid State Pro 64.8kWh all in one system.



- Topology diagram of two parallel systems：



NOTICE

Please follow the instructions below to set the DIP switch for the Energy port inside the cabinet:

[SW1→6],[SW2→1],[SW3→1],[SW4→5],[SW5→4]

SW1

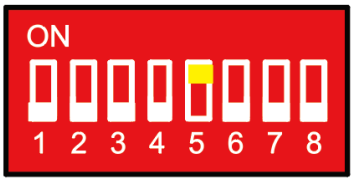
Battery NO. in group 0=16

SW2

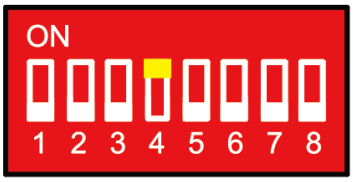
1-3Battery group NO.
4Master/Slave

SW3

1(120R-CAN)
3(120R-RS485



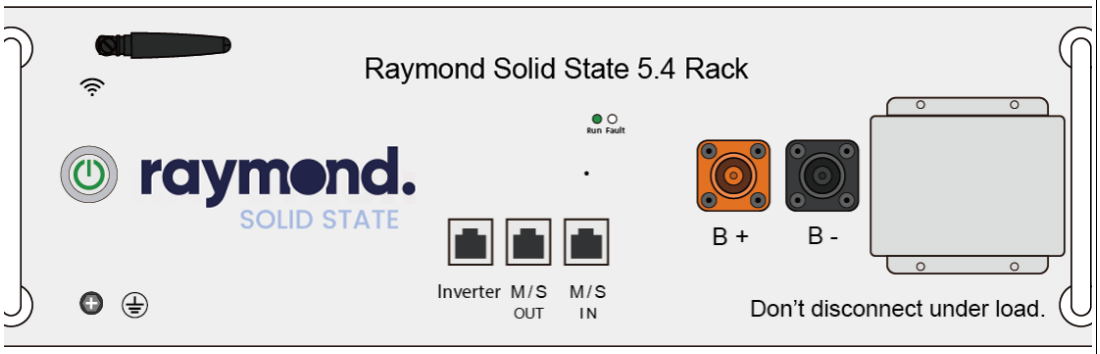
SW4 CANL



SW5 CANH

5.4.2 Cable Connections of the Battery

WARNING
Connect cables in accordance with local installation laws and regulations. Before connecting cables, ensure that the battery is **OFF**. Otherwise, the high voltage of the battery may result in electric shocks.
Make sure the caps are on, if you don't need to use the power interface.

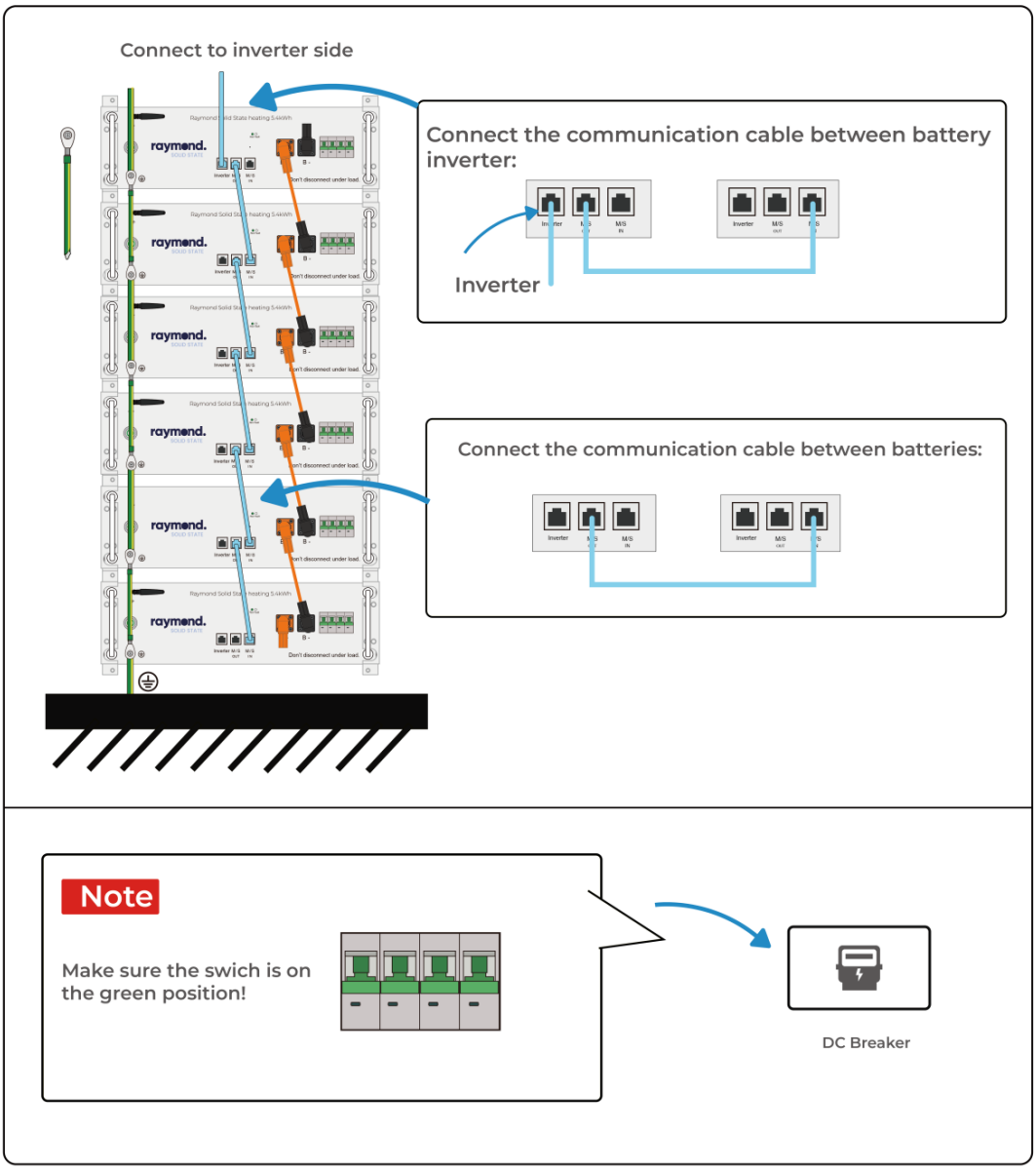


Series Connection

NOTICE
Before two or more batteries installed in series, please check the voltage of each battery and make sure the voltage is the same.
Before turn on/off the batteries, you must disconnect the batteries from inverter. The DC breaker is recommended to install.

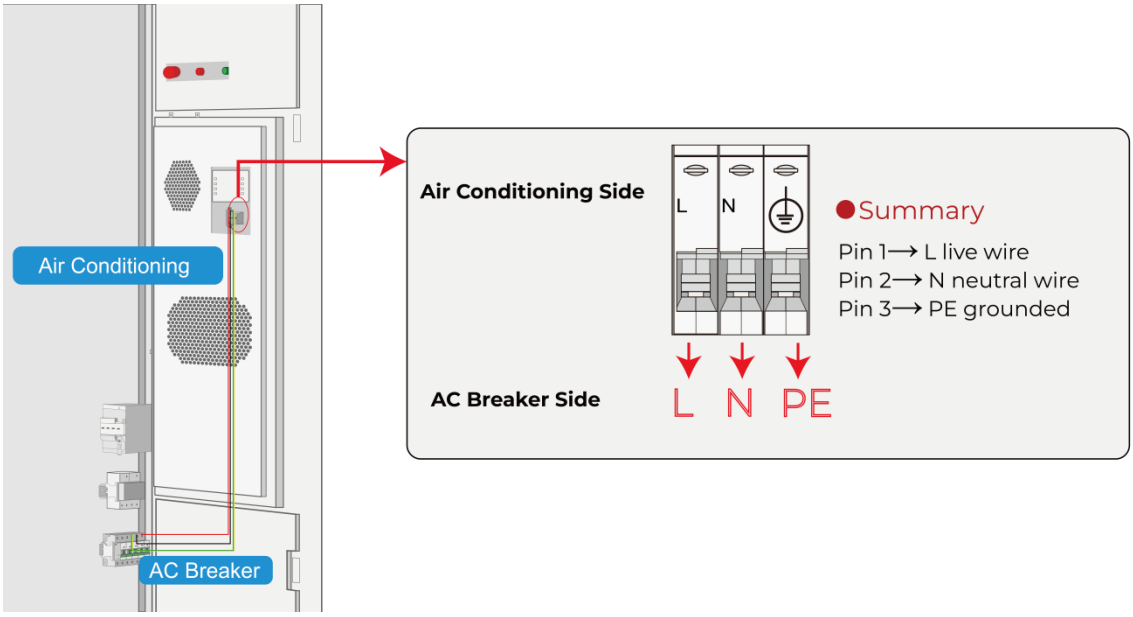
1.Install the grounding cables as below(Specification of ground wires between batteries:12AWG*280mm);

2.Connect the M/S Port. between the batteries with communication cables, then connect the power cables.

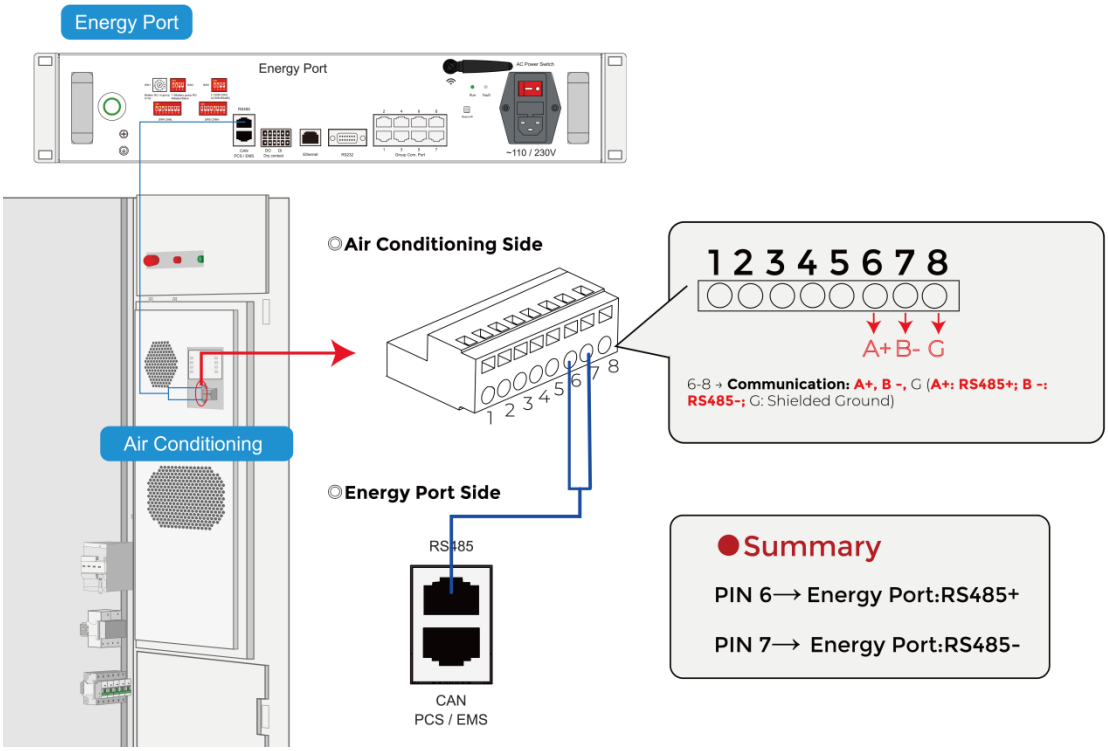

Connect to inverter side
Connect the communication cable between battery inverter:
Inverter
Connect the communication cable between batteries:
Note
Make sure the swich is on the green position!
DC Breaker

5.4.3 Cable Connections of the Air Conditioning

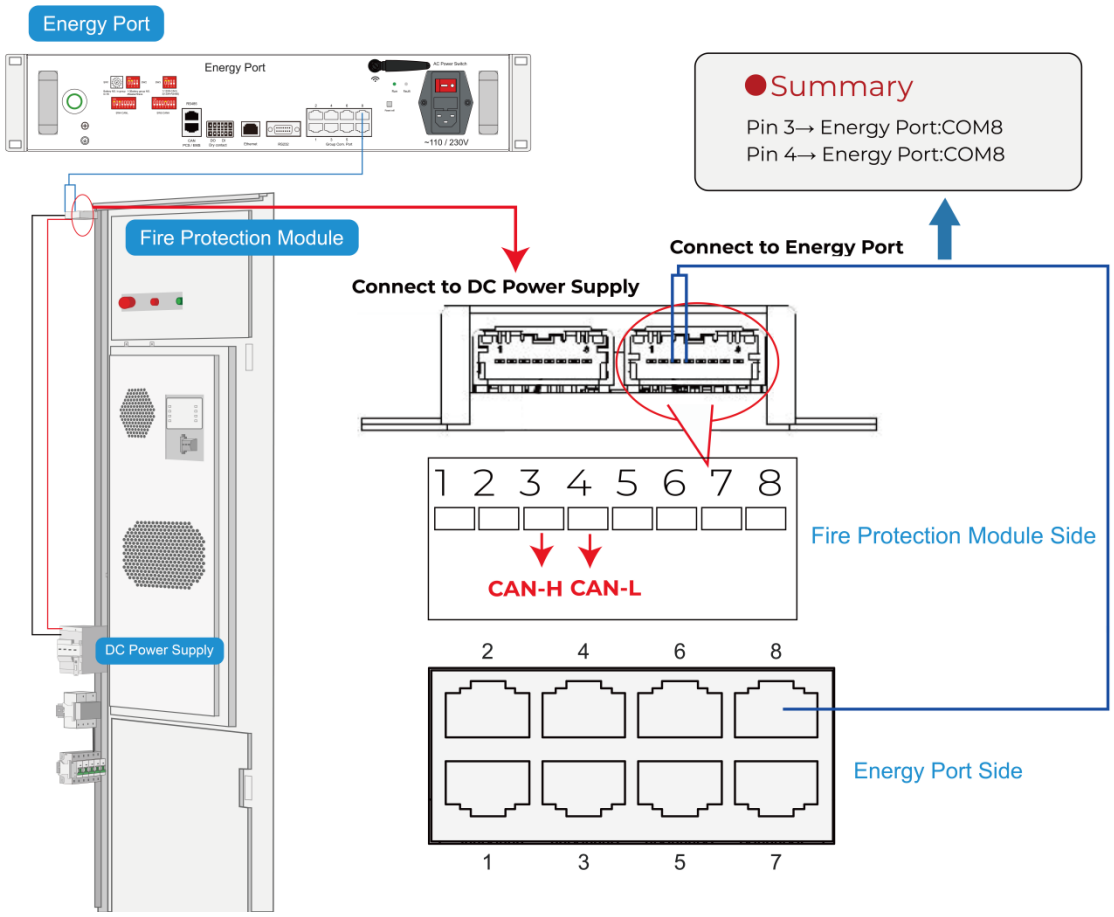
Air Conditioning Cables Connection: AC Power Input



Air Conditioning Cables Connection：RS485 Communication Port



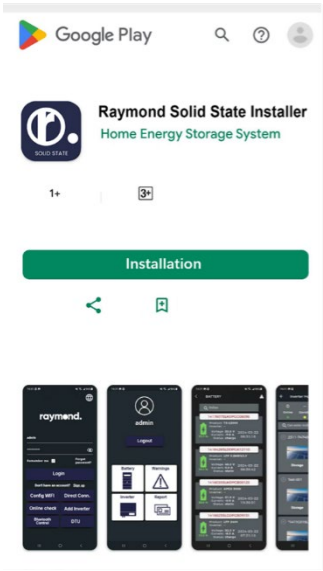
5.4.4 Cable Connections of the Fire Protection Module

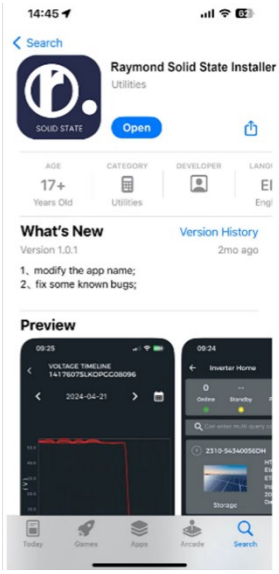


6. Configuration

6.1 APP Download

Search for the "**Raymond Solid State Installer" APP** in the Google Play Store or Apple App store and download.

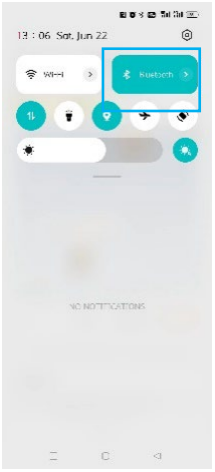


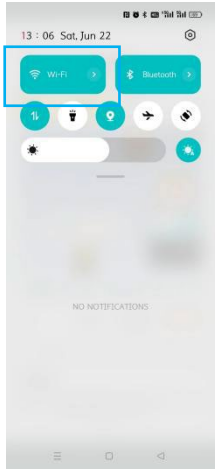


6.2 Configure Battery WIFI

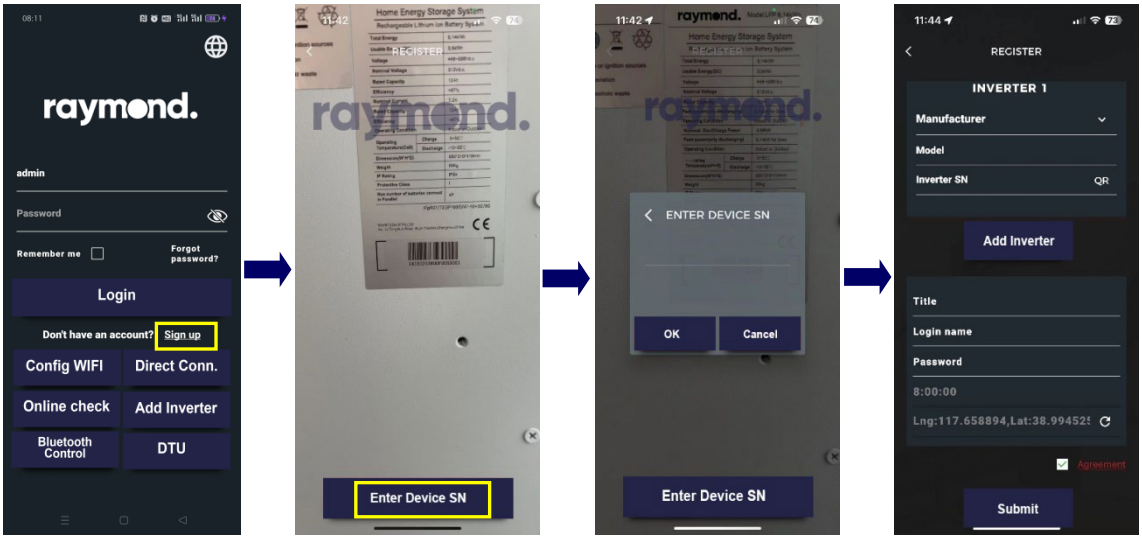
The battery has a built-in WIFI module for use with the App.

1. Press the power button and turn on the battery.
2. Turn on Bluetooth and turn on the WIFI button.

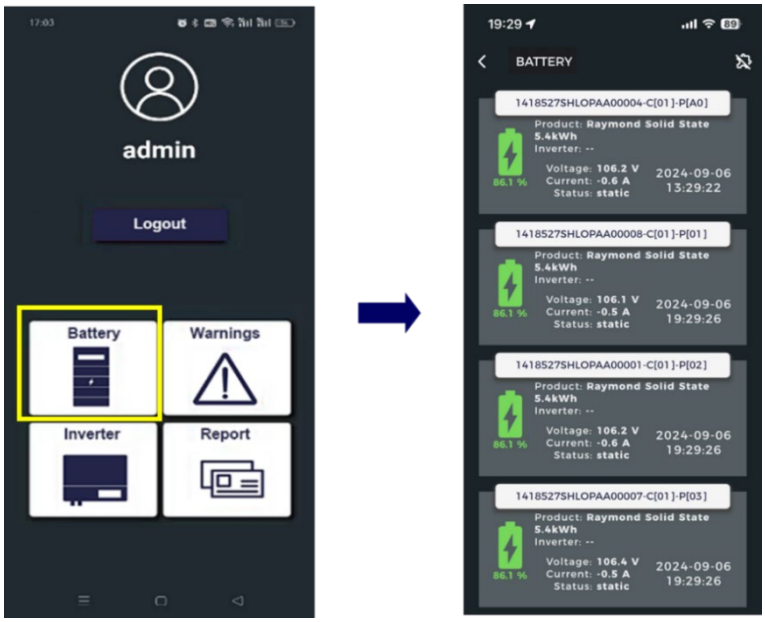




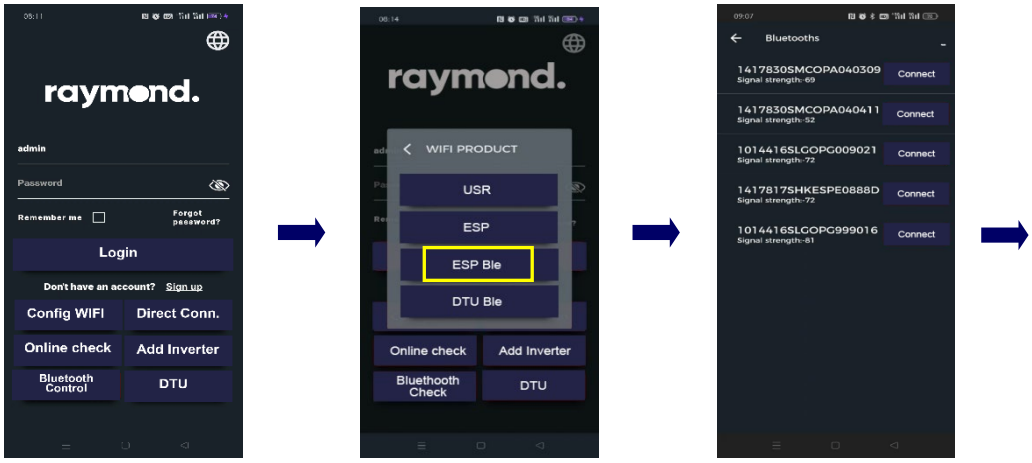
3. **User Registration:** Open the app, select “Sign up”, automatically redirect to barcode scanning page. Scan the battery barcode or Enter Device SN; input inverter details, and fill out user information on the following pages.



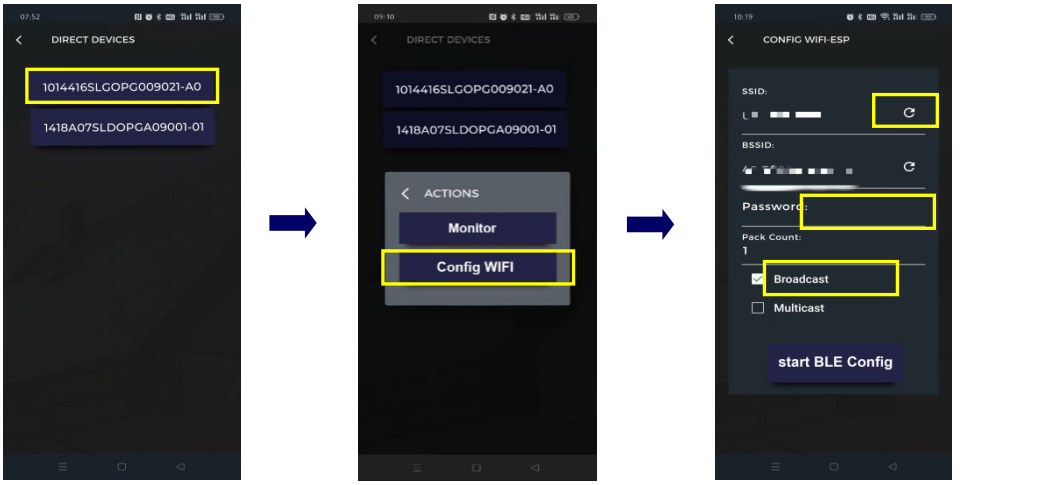
4. Scan or manually enter Device SN to add a new battery by clicking the ⊕ button on the Battery page.



5. Configure the network before Login



Click 'Config WiFi' Click 'ESP Ble' Displayed



Select the battery Click 'Config WiFi' Network Configuration

7. Commissioning

7.1 Commissioning Battery

If only one battery is installed, use the following steps to put it in operation:

1 Press and hold the panel button on the left side of the unit for 4s. Release when the indicator lights on.

2 Make sure the Run light is on. If it stays off, do not use the battery and contact customer service.

3 Turn on the inverter. Wait for the start-up sequence to complete fully.

If two or more batteries are connected in series, connect the power cables and the communication cables first. Follow the steps as below:

1 Check battery voltage. If it is lower than 96V, charge the battery first. If more assistance is needed, contact customer service.

2 Press and HOLD the panel button for 4s, after that the indicator lights turn on.

3 For all batteries, make sure that the Run light is on.

4 Make sure the maximum voltage difference between batteries is less than 100mV. If not, balance the battery voltage and connect batteries in series together.

5 Set the DIP switches according to the part 5.5.

6 Turn on the inverter at last.

7.2 Shutting Down Battery

Shut down the battery only when the battery is no charging or discharging which can be seen in your phone with APP.

1. Press and hold the Panel Button for 5s, release after hearing the sound of relay breaking.
2. Make sure all lights on the battery are off

8.Firmware Update

If you need to upgrade the BMS software version, please contact the after-sales staff by email: info@raymondsolar.com.

NOTICE
When you upgrading the program of the battery in your system, please make sure that the master battery disconnected from inverter.

RED Declaration of Conformity (DoC)

Unique identification of this DoC: .....

We,

Raymond Solar AB

Designvägen 2, 435 33 Mölnlycke, Sweden

declare under our sole responsibility that the product:

product name: RECHARGEABLE LITHIUM ION BATTERY SYSTEM

type or model: Raymond Solid State 5.4 Rack

relevant supplementary information: .....

(e.g. lot, batch or serial number, sources and numbers of items)

to which this declaration relates is in conformity with the essential requirements and other relevant requirements of the RED Directive (2014/53/EU).

The product is in conformity with the following standards and/or other normative documents:

HEALTH & SAFETY (Art. 3(1)(a)): EN 62311:2008, EN IEC 62311:2020, EN 50663:2017

EMC (Art. 3(1)(b)): EN IEC 61000-6-1:2019, EN IEC 61000-6-3:2021, EN 301 489-1 V2.2.3:2019, EN 301 489-17 V3.2.4:2020SPECTRUM (Art. 3(2)): EN 300 328 V2.2.2:2019

OTHER (incl. Art. 3(3) and voluntary specs): N/A

Accessories: N/A

Software: N/A

Technical file held by: Raymond Solar AB

Place and date of issue (of this DoC):

Signed by or for the manufacturer:

(Signature of authorized person)

Name (in print):

Title: