

MANUAL

Power Battery 3.8 / 5.7 / 7.6 / 9.6 / 11.5

EN



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1 Overview

1.1 Scope of this document

This instruction manual is an important part of the battery system Power Battery 3.8 / 5.7 / 7.6 / 9.6 / 11.5. It contains information about working safely and efficiently with the battery system.

Always keep the operating instructions near the battery system.

Persons who carry out maintenance or service work on the battery system must always have access to the instructions and information in this operating manual.

Read the operating instructions before installing the system. Pay particular attention to the safety instructions.

This operating manual contains information on the installation, wiring, commissioning and operation of the battery system.

This document does not replace any laws, regulations, rules, standards or conventions.

1.2 Intended use

The battery systems Power Battery 3.8 / 5.7 / 7.6 / 9.6 / 11.5 are stationary battery systems with lithium-iron-phosphate accumulators (LiFePO₄).

A Power Battery in combination with a Power Storage forms a Power Storage System that stores the generated PV energy intelligently and highly efficiently and makes it available to the consumer again according to economic aspects.

The Power Battery has not been developed for other applications or connections to other devices.

Any use that differs from the intended use is considered misuse. RCT Power is not liable for any damage resulting from misuse.

Any misuse will terminate the manufacturer's warranty, guarantee and general liability.

1.3 Explanation of symbols

The following symbols may appear on the type plate and/or on the unit. These symbols must always be observed:



Observe the operating instructions!



Acid traces in the eyes or on the skin clean with lot of clear water.
Then consult a doctor immediately!
Wash contaminated clothing with plenty of water.



Fire- extinguisher for abatement from initial fire.



Warning!

Metal parts of the batteries are always under voltage.
Do not short-circuit the batteries!
In case of a short-circuit, may flow very high currents and cause burns.
By Touching conductive parts can cause cardiac arrhythmia and shock.



Explosion risk!

It is strictly forbidden to clean with synthetic cloths or a feather duster. Otherwise there is the risk of electrostatic charging or discharging.



Electrolyte is highly corrosive!

In normal operation, contact with the electrolyte is not possible.
In the case of destruction of the housing, the liberated bound electrolyte is just as corrosive as liquid electrolyte.



Warning of battery hazards.



Battery must not get wet.



Defective battery must not be operated.



Caution!

Children should be kept away from the battery system.



This product must not be disposed of as normal household waste, → Chapter 7 "Storage, transportation, cleaning and disposal", page 23



CSA certified

1.4 Warranty and liability

The warranty and liability shall be governed by the terms and conditions set out in the contract.

Limits of warranty

Warranty and liability claims of any kind are excluded by one or more of the following causes:

- Improper use or installation of the product.
- - Installing or operating the product in an unauthorised environment.
- - Ignoring relevant safety regulations at the place of use, during installation and commissioning.
- - Ignoring safety notices and instructions in all documents relevant to the product.
- - Installing or operating the product under incorrect safety or protective conditions.
- - Modifying the product or installing software without authorisation.
- - Defects in the product caused by neighbouring devices or devices operated outside the permissible limits.
- - Damage due to force majeure.

Property rights

All rights to drawings, software and other documents as well as any power of disposal, such as copying and passing on rights, are held by RCT Power.

Storage

RCT Power does not accept any warranty for damage caused by incorrect storage, → chapter 7.1 "Storage", page 23.

Transport

We would like to point out that improper transport does not entitle the user to any replacement or warranty claims. In any case, please consult RCT Power before transporting the system.

1.5 Declaration of conformity

The company RCT Power hereby declares, that the described battery system in this document is in accordance with the essential requirements and the other relevant provisions of the guidelines below.

- UL 1973
- UL9540A
- UL60730-1
- FCC Part 15B

For a detailed US declaration of conformity, please visit: <http://www.rct-power.us>.

1.6 Application Example

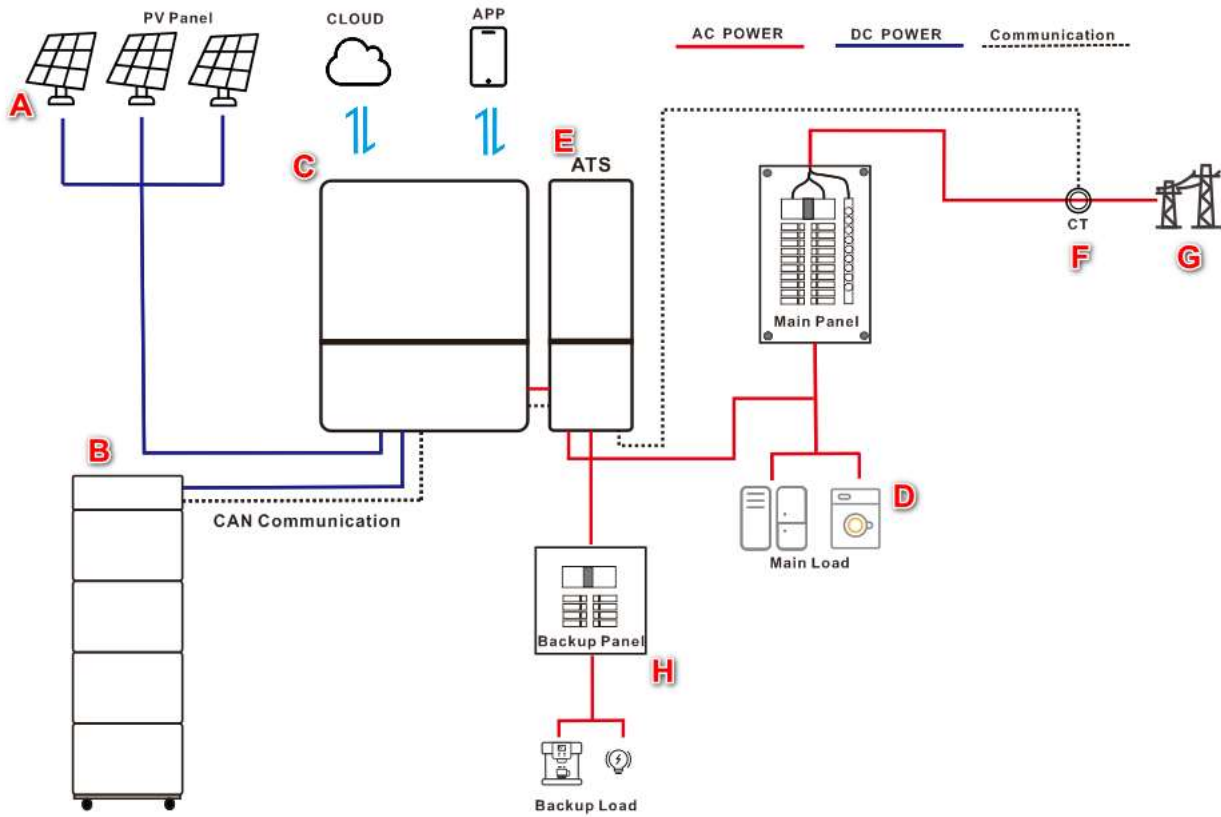


Abb. 1: Example of a PV system with Power Battery, Power Switch and Power Sensor

Item	Description	Comment
A	PV Generator	Monocrystalline silicon; polycrystalline silicon
B	Battery	Power Battery 3.8, 5.7, 7.6, 9.6, 11.5kwh
C	Inverter	Power Storage DC 8.0
D	Dwelling	Domestic electricity consumers
E	Power Switch	In the event of a power failure, the system switches to back-up operation mode
F	Power Sensor	Current sensors to collect AC power measurements
G	Public grid	240V/120V Split phase, 208V, 208V/120V WYE, 240V
H	Back-up	Connect to domestic back-up load

1.7 Scope of delivery

Before shipment our products are checked for proper condition.

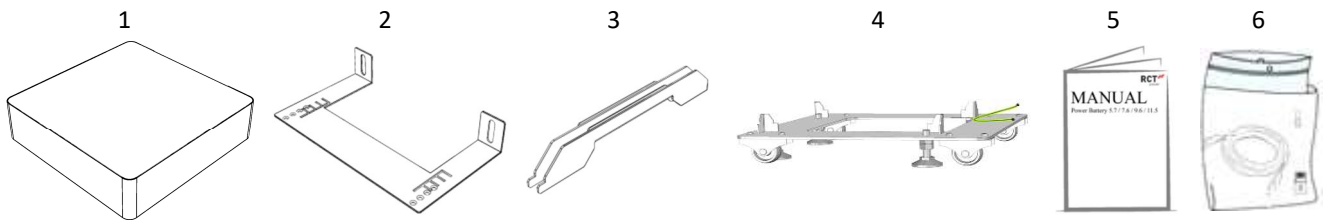
Despite careful packaging, transport damage can occur, for which the transport company is generally responsible.

If you notice any damage to the packaging or the PowerBattery, please immediately inform the transport company.

Every Power Battery consists of 1 Power Battery Master and 2 to 6 Power Battery Stacks:

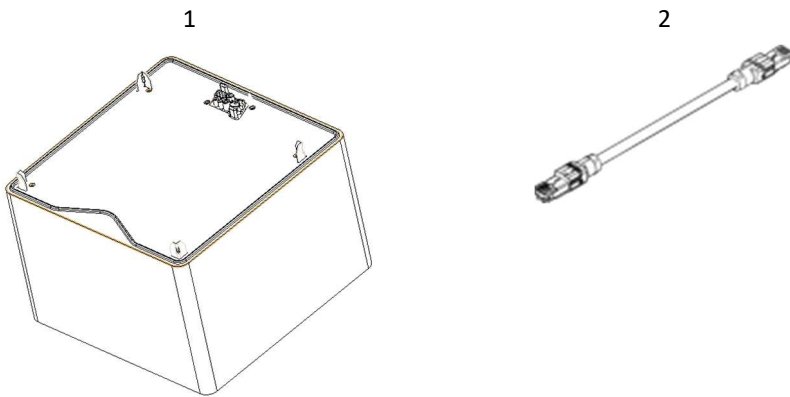
Version Power Battery	number Power Battery Master	number Power Battery Stacks
3.8 kWh	1 Carton	2 Cartons
5.7 kWh	1 Carton	3 Cartons
7.6 kWh	1 Carton	4 Cartons
9.6 kWh	1 Carton	5 Cartons
11.5 kWh	1 Carton	6 Cartons

1.7.1 Power Battery Master



Pos	Beschreibung
1	1x Power Battery Master
2	1x Wall bracket used to fix the upper part of the battery onto the wall
3	2x Handle
4	1x base plate (adjustable), with earth protection connector
5	1x Manual Power Battery (this document)
6	1x Accessory packaging with: <ul style="list-style-type: none"> - 1x PV-Stick + (MC4-Evo 2) - 1x PV-Stick - (MC4-Evo 2) - 1x Terminating resistor (RJ 45) - 1x Patch cable RJ 45/Cat5e - 1x Ring terminal for grounding

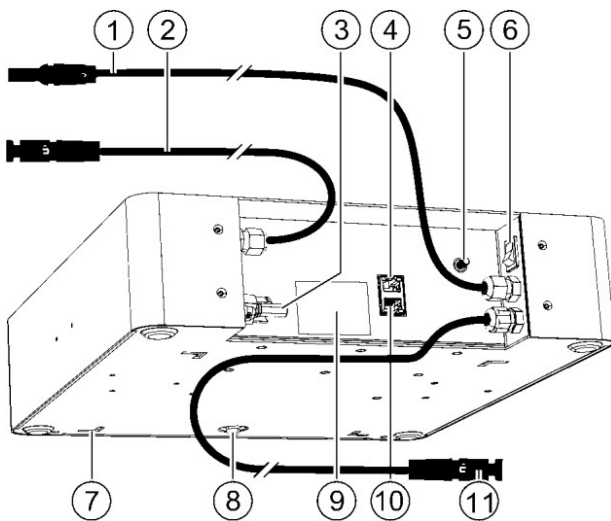
1.7.2 Power Battery Stack



Pos.	Description
1	1x Power Battery Stack
2	1x Patch cable RJ 45/Cat5e 5.9 inch (15 cm)

1.8 Module description

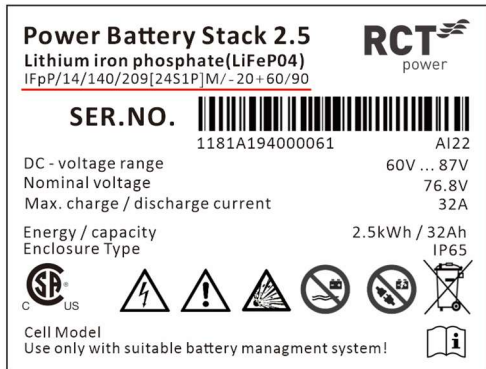
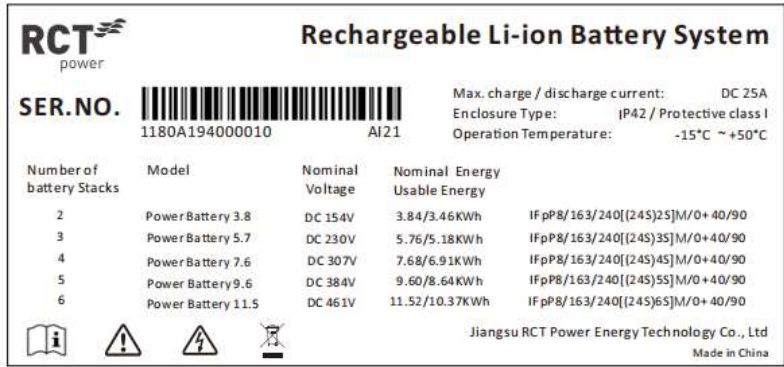
1.8.1 Power Battery Master



The DC cables to the power storage and to the lowest stack are already attached to the master at the factory.

1	DC cable (+) to the Power Storage
2	DC cable (-) to the Power Storage
3	Connector for DC cable (-) from top stack
4	RJ45 socket for network cable to Power Storage
5	PE connection for protective conductor
6	On / Off switch
7	Openings for stacking on the top stack
8	LED status display
9	Type plate (see section 1.8.2, page 7)
10	RJ45 socket for network cable to top stack
11	DC cable (+) to the bottom stack

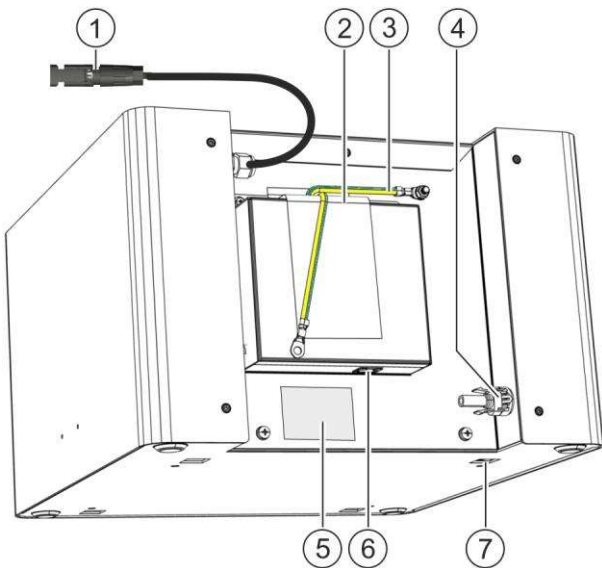
1.8.2 Type plates



The type plates show the serial number (1) of the component, as well as information (2) on the voltages occurring in the component and the IP protection class.

Explanation of symbols → Chapter 1.3 "Explanation of symbols", page 2.

1.8.3 Power Battery Stack



- 1 DC cable to the stack above, at the top stack to the master

- 2 RJ45 socket for network cable to stack above it

- 3 PE protective conductor

- 4 Connector for DC cable from stack below, on the lowest stack from the master

- 5 Type plate (see section 1.8.2, page 7)

- 6 RJ45 socket for network cable to the stack below, at the lowest stack for the terminating resistor

- 7 Openings for stacking on the stack below, on the bottom stack on the base plate

2 Safety instructions

2.1 Symbols

Safety-relevant instructions are marked in this document with the following symbols and signal words:



Danger to life or danger of serious bodily injury!

Failure to comply **may** result in death or serious bodily injury

- Counter-measure...



Risk of injury!

Failure to comply may result in bodily injury!

- Counter-measure...



Risk of injury!

This symbol indicates an immediate danger with a low level of risk which, if not avoided, could result in minor or moderate injury.

- Counter-measure...

Note

Risk of property damage!

Non-observance may result in material damage (loss of time, loss of data, system defect, etc.)!

2.2 Personnel and qualifications

Qualified personnel eligible to perform the tasks described in this document have following skills and knowledge:

- They are trained in installing electrical devices.
- They understand the functions of a battery system and knowhow it operates.
- They are familiar with lithium iron phosphate (LiFePO4) batteries.
- They have read and understood the documents shipped with the device.
- They know and use the appropriate tools and equipment to perform the work.
- They are familiar with all applicable laws, regulations, standards and codes for electrical devices.
- They are familiar with safety requirements and safety-related guidelines for electrical devices.
- They are familiar with national work protection laws and regulations.
- They know and use the appropriate personal protective equipment.

2.3 Basic safety instructions

A correctly mounted Power Battery 3.8 / 5.7 / 7.6 / 9.6 / 11.5 is intrinsically safe.



Risk of injury from electric shock!

Inside the components of the Power Battery there are elements under high voltage which can also generate high currents! In the event of a short circuit, very high currents can flow and cause burns. Touching conductive parts can cause cardiac arrhythmia and shock.

- Do not open the housing!
- Only carry out electrical work when the power is off.
- Ensure that cables are not damaged.
- Use only suitable protective and measuring equipment.
- Do not operate defective cables or components with damaged housings.
- Do not short-circuit batteries.
- Ensure that no liquid enters the cables and housing and that the battery system is not exposed to condensing moisture.
- Do not place tools or metal parts on the components.
- Ensure correct earthing when mounting the components.
- Do not subject components to pressure or impact. In particular, ensure that they do not fall over or drop during assembly.
- Carry out all electrical installations in accordance with local and national standards and directives.
- Do not remove the type plate.



Fire hazard due to flammable substances!

The Power Battery is not approved for explosive environments.

- Ensure that no explosive gases, liquids or other substances are stored or used in their vicinity.

3 Mechanical Assembly

3.1 Preparing the installation site



DANGER

Risk of injury due to electric shock and heavy weight!

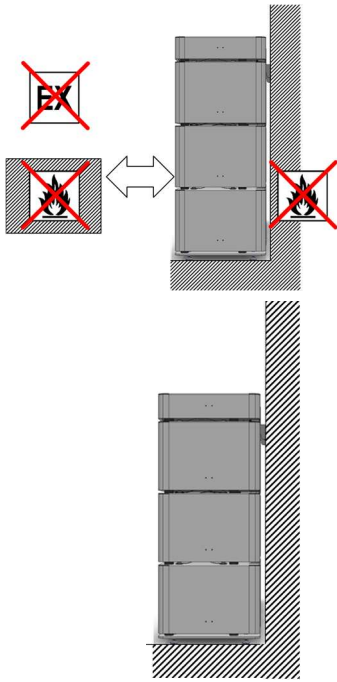
Inside the components of the Power Battery there are elements under high voltage which can also generate high currents! Metal parts of the batteries are always live. In the event of a short circuit, very high currents can flow and cause burns. Touching conductive parts can cause cardiac arrhythmia and shock. If set up improperly, the battery system can tip over and cause injuries. The weight of a stack is more than 18 kg. Montage und elektrischen Anschluss des Batteriesystems nur durch qualifizierte Elektrofachkraft.

- Do not install the Power Battery in rooms where there is a risk of explosion.
- Make sure that the electrically conductive surfaces of the Power Battery are earthed.
- Use a wall bracket to secure the Power Battery against falling over.
- Do not subject components to pressure or impact. In particular, ensure that they do not fall over or drop during installation.
- Carry out all electrical installations in accordance with local and national standards and directives.
- Do not operate a damaged power battery

Note

Possible power reduction of the Power Battery!

- Do not cover the power battery, especially the top.
- Keep clearances to ensure cooling by convection.
- Operating temperature range is between -20°C~55°C, optimum operating temperature range is between 0°C ~45°C.



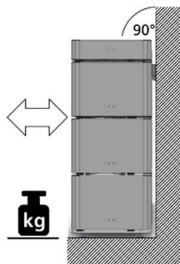
- ⇒ Ensure that the mounting surface is made of flame-retardant material.
- ⇒ Do not install the battery system in explosive areas and keep it away from flammable materials.
- ⇒ Ensure that there are no corrosive gases at the installation site.

The battery system is permitted for indoor and outdoor use.

- ⇒ Protect the battery system from direct heat radiation (e.g. sun, heating, etc.).

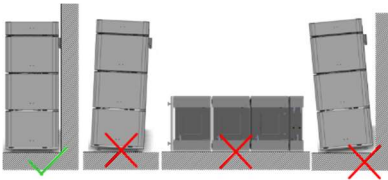
Following requirements must be fulfilled:

- Enough space installation, air-conditioned.
- It is recommended to be installed in a space with a height of 2 meters and an area of 4 by 4 meters, or at least 30 cubic meters.
- Operating temperature -20 - 55 °C
- Relative humidity 5 - 85 %, non-condensing
- Protect from dirt, dust and ammonia gases

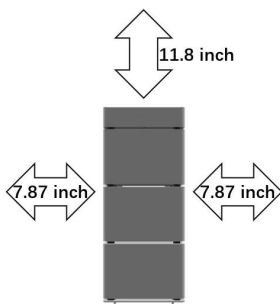


The mounting surface must be firm and able to bear the weight in the long term.

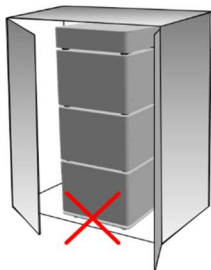
The selected location must be easily and safely accessible at all times without additional aids such as ladders or scaffolding.



- ⇒ Install battery system in upright position, and not in rooms and areas where animals are kept.



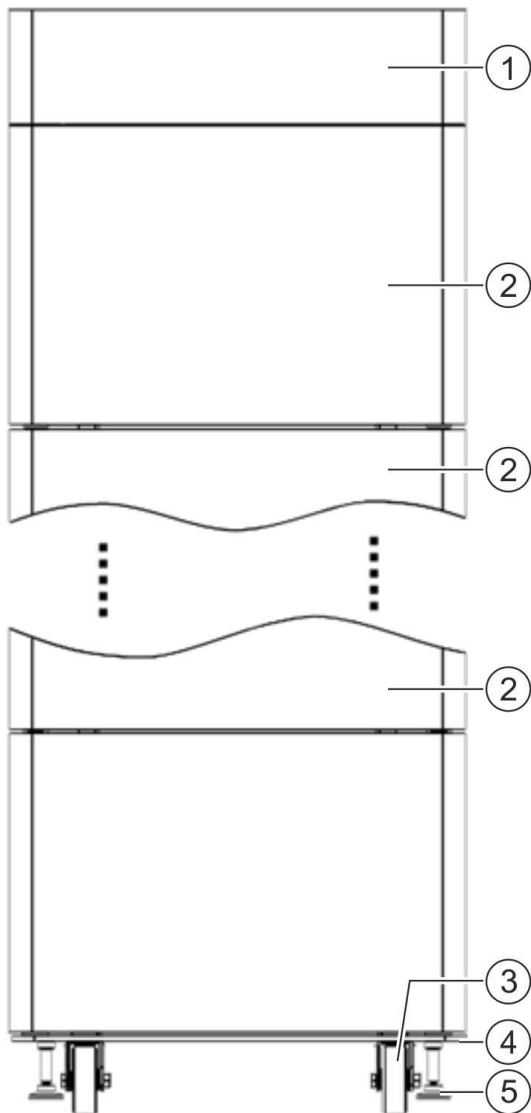
- ⇒ Maintain minimum distances to allow sufficient free convection.
- ⇒ When a predefined temperature threshold is reached, the charging and discharging power of the battery is automatically reduced linearly.



Installation in a closed cabinet is prohibited.

- ⇒ Ensure that the system has sufficient convection and is in a suitable installation location.

3.2 Setting up the battery system



Overview

1 Power Battery Master

2 Power Battery Stack

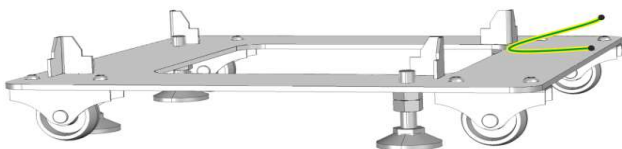
3 Wheels of base plate

4 Base plate

5 pedestal adjustable

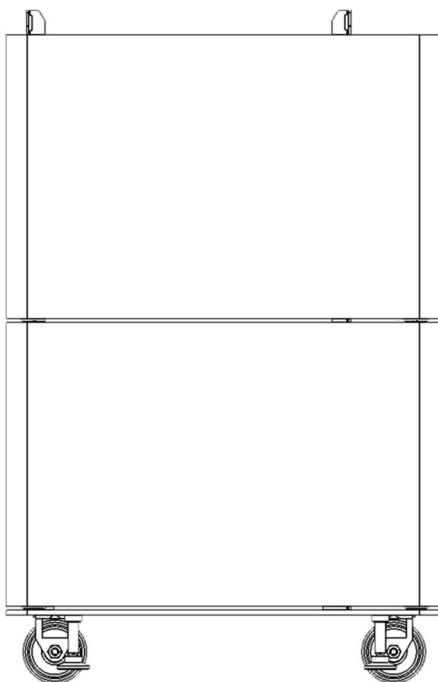
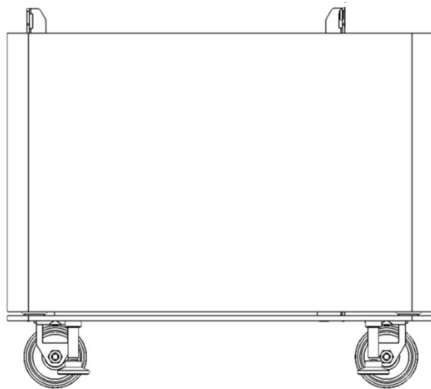
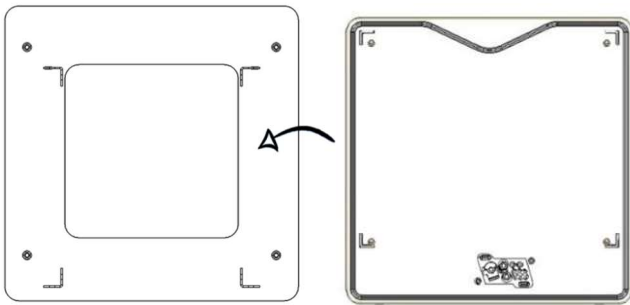
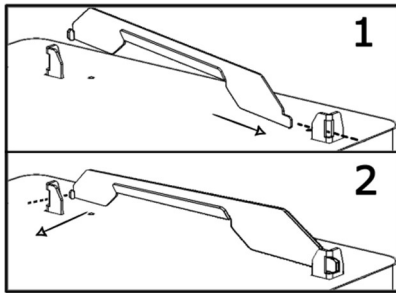
The battery system is subsequently

- Plugged together on its base plate (4)
- Wired
- Screwed to the wall



⇒ Place the base plate at the location where the Power Battery is to be placed later. The side with the protective conductor facing the wall.

⇒ Keep sufficient distance to the wall for installation.



Set up stacks

⇒ Place a power battery stack on the base plate with the enclosed mounting handles so that the connections face the wall.

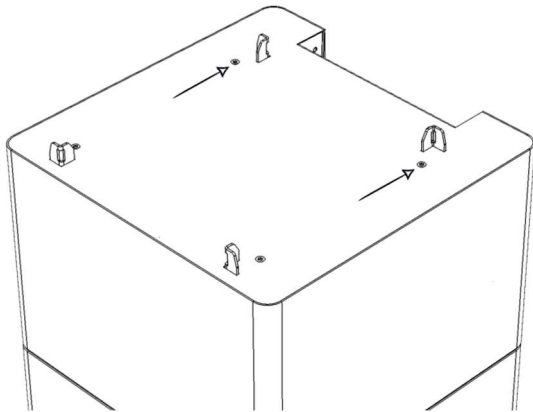
↪ If the stack is set up correctly, it is automatically centred.

⇒ Ensure that no cables are pinched during installation and that the components of the Power Battery are parallel to the ground.

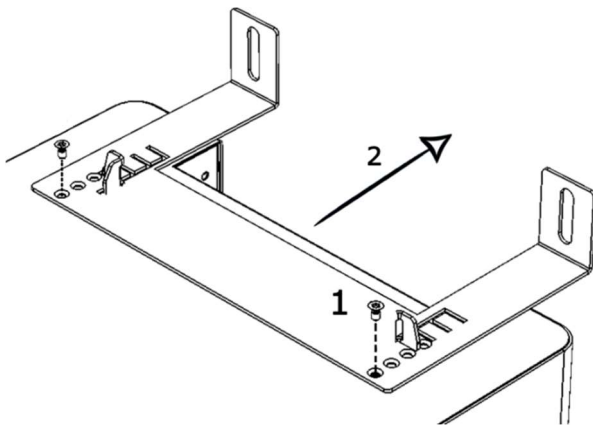
⇒ Place another power battery stack on top of the previous one so that both are parallel to each other.

↪ If the stack is set up correctly, it is automatically centred.

⇒ Keep adding more stacks until all power battery stacks of the battery system have been built up.



⇒ To fix the wall bracket, remove the two screws on the top stack (screw head preferably Torx T20).



Mark the drill holes for the wall bracket

- ⇒ Mount the wall bracket on the top Power Battery Stack with the two screws (①).
- ⇒ Carefully push the battery system towards the wall(②).
- ⇒ Mark the drill holes vertically in the centre of the slotted holes in the wall bracket.

Screwing to the wall is only done after the battery system has been wired, → chapter 4.5 "Aligning the power battery and attaching it to the wall", page 18.

⇒ Place the Power Battery Master on the top Power Battery Stack so that the DC cables (red and black) remain free and are not pinched.

4 Electrical Installation

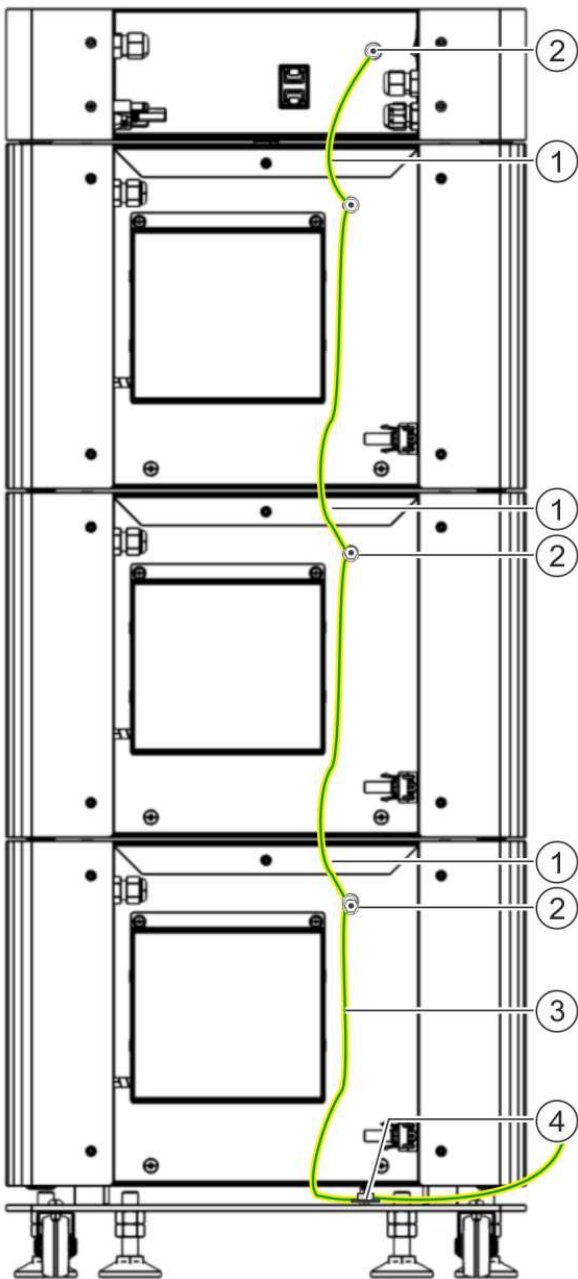
4.1 Earthing the components



Risk of injury from electric shock

Inside the components of the Power Battery there are elements under high voltage which can also generate high currents! Grounding faults can lead to electric shock!

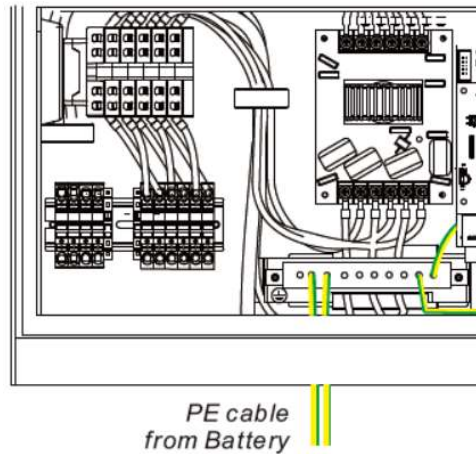
- Assembly and electrical connection of the battery system only by qualified electricians!
- Ensure correct earthing of all metallic components!



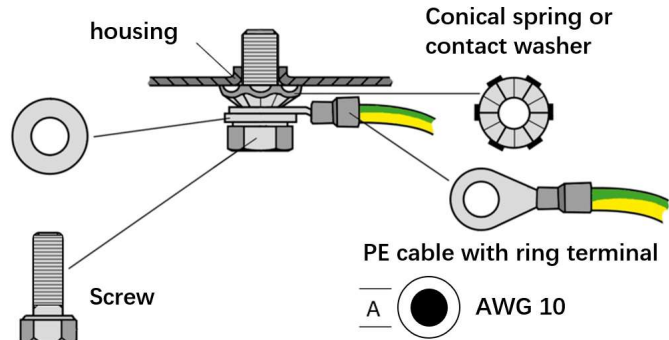
In the adjacent drawing, the permanently attached DC cables have been omitted for the sake of clarity.

⇒ Connect the protective conductor (①) of the stacks to the protective conductor connection (②) of the stack mounted above, starting with the protective conductor (③) of the base plate.

The protective conductor connection (④) of the base plate must be connected to the equipotential bonding bar inside Power Storage.

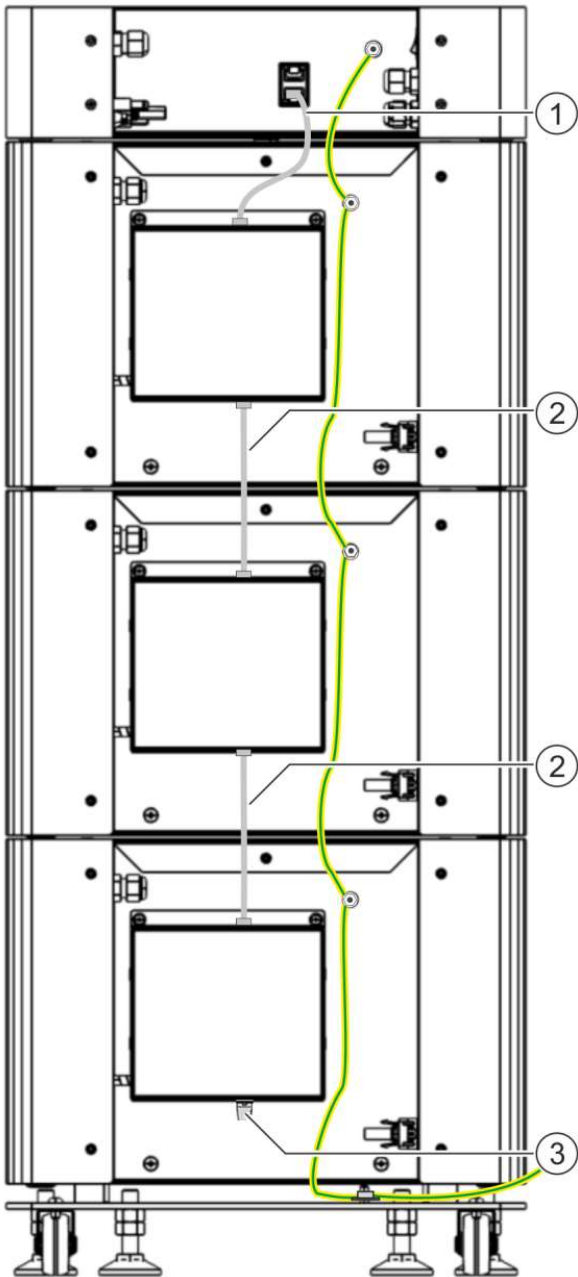


Protective conductor connection in detail



⇒ Tighten the nuts of the PE connections with 22in-lbs (2.5 Nm).

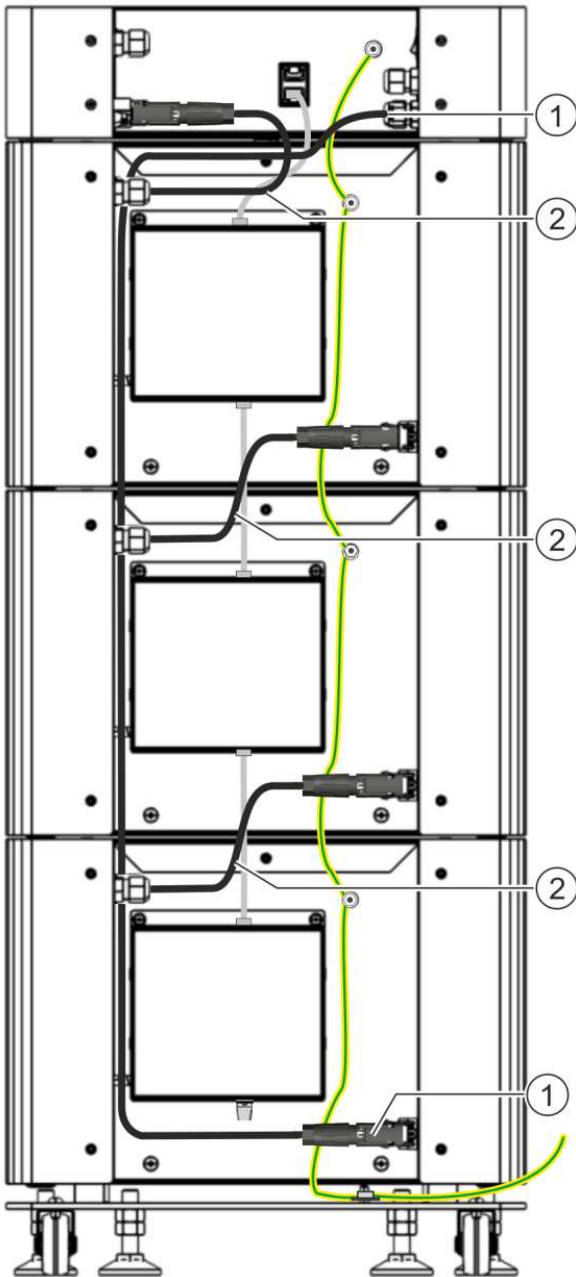
4.2 Establishing a network connection



In the adjacent drawing, the permanently attached DC cables have been omitted for the sake of clarity.

- ⇒ Use the enclosed patch cables and the terminating resistor for communication between the individual stacks.
- ⇒ Connect the top stack to the bottom RJ-45 connector (①) on the Power Battery Master.
- ⇒ Connect the other stacks to the stack above (②).
- ⇒ Provide the bottom connection of the lowest stack with the terminating resistor (③).

4.3 Establishing DC connection



The Power Battery Stacks are connected in series.

The Power Battery Master is therefore connected to the top and bottom stack.

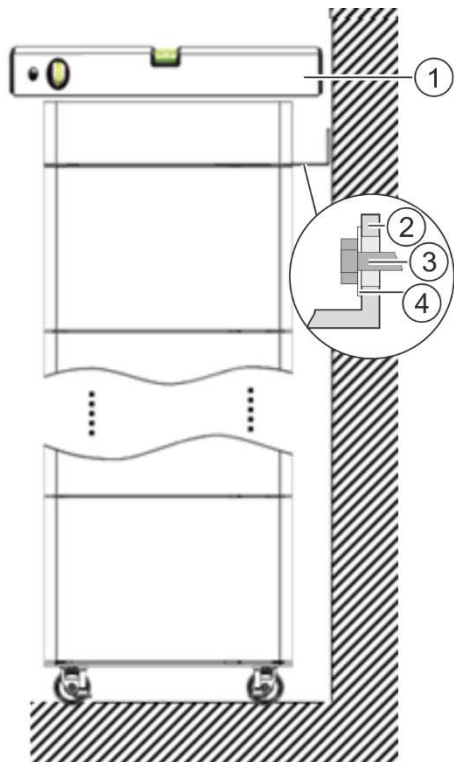
- ⇒ Connect the DC cable (①) of the Power Battery Master to the connection socket (+) of the lowest stack. It is advisable to run the cable between the housing and the cables of the stacks.
- ⇒ Connect the DC cables (②) of the remaining stacks to the connection socket (+) of the stack above.
- ⇒ Connect the DC cable (②) of the top stack to the connection socket (-) of the Power Battery Master.

4.4 Preparing the connection to the Power Storage Inverter

The DC cables to the Power Storage are already mounted on the Power Battery Master at the factory.

- ⇒ Make sure that they are not pinched during the following steps.

4.5 Aligning the Power Battery and attaching it to the wall



To avoid accidental tipping over, you should fix the Power Battery to the wall.

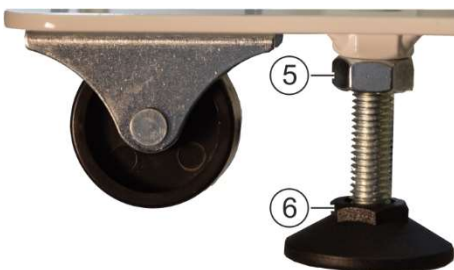
Additional material required (not included):

- 2 hexagon head screws (③) with a diameter of max. 0.31inch (8 mm) and suitable dowels
- Fitting open-end spanner
- Matching washers (④) with an outer diameter of at least 0.59inch (5 mm)

⇒ Use previously made markings and drill holes to match the dowels, → Mark drill holes for wall bracket, page 14.

⇒ Carefully slide the Power Battery onto the wall and screw the 2 screws (③) loosely into the dowels at first so that the wall bracket (②) can still be adjusted vertically.

⇒ Level the Power Battery using the adjustable feet on the base plate and a spirit level (①) so that the rollers are unloaded and the Power Battery stands securely on the feet.



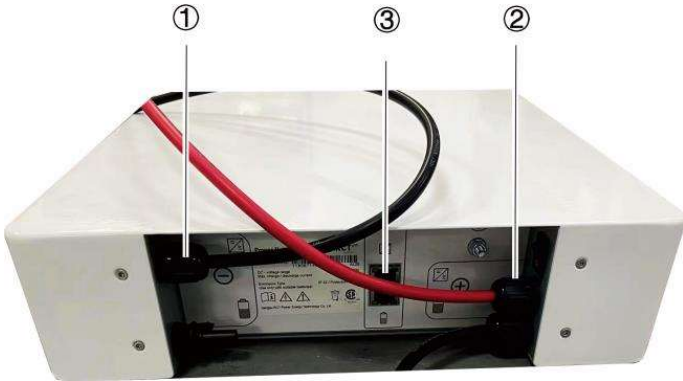
Adjust stand vertically

⇒ Loosen all 4 lock nuts (⑤).

⇒ If necessary, adjust the height by turning the stand (⑥).

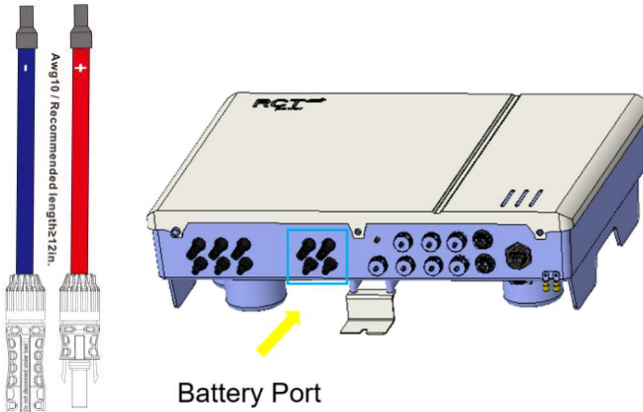
⇒ After adjusting all 4 feet (⑥), retighten all lock nuts (⑤).

4.6 Connection to the Power Storage Inverter



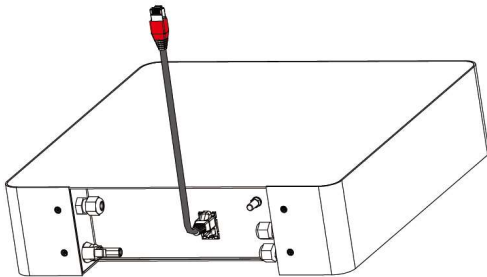
The DC cables (①, ②) are already permanently connected to the Power Battery Master at the factory. In the picture, the DC cables (black and red) are not yet connected to the Power Storage (symbol picture).

- ⇒ Plug the RJ45 cable into the upper socket (③) of the master.
- ⇒ Route the DC cable and RJ45 cable properly to the Power Storage.

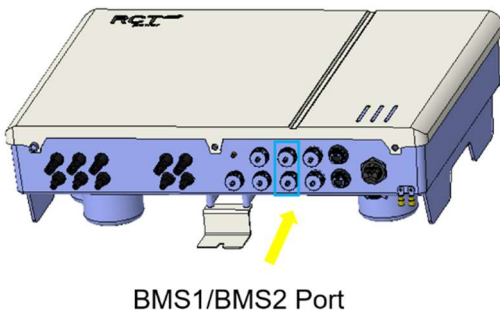


- ⇒ Before performing the wiring process, please ensure that the power cable in the Inverter have been wired and passed through the conduit.
- ⇒ Then the DC connector of the battery side is plugged together with the DC connector of the Inverter side.

Cat 5 cable for CAN connection from Power Battery Master to Power Storage Inverter



- ⇒ Thread the Cat 5 network cable through the conduit at the bottom of the wiring box.
- ⇒ Then plug the cable into the RJ45 connector for BMS1, BMS2 (CAN).



5 Commissioning

5.1 Inspection before powering on

When powering on the battery system, ensure that the following items are checked to prevent system damage.

- ⇒ The inverter is firmly installed, the installation position is convenient for operation and maintenance, the installation space is convenient for ventilation and heat dissipation, and the installation environment is clean and tidy.
- ⇒ Check if all cables are properly connected.
- ⇒ Cables are bundled according to cable routing requirements, properly distributed, and without damage.
- ⇒ The unused port is blocked.

5.2 Power on Battery system

Circuit breakers between inverters and batteries must be installed according to local laws and regulations.

- ⇒ Power on the inverters in the system. For details, see the inverter user manual of the corresponding model.
- ⇒ Press switch button to "I" position. Observe the LED indication on panel.

Note

The inverter is powered by PV modules. The power supply unit can only be switched on to start and complete the commissioning tasks if the PV array is exposed to sufficient solar radiation.



5.3 Setting Battery parameters

After the battery is successfully connected to the inverter communication, select the correct battery option on **RCT RESS APP**:

- ⇒ Download and install the **RCT RESS APP**.

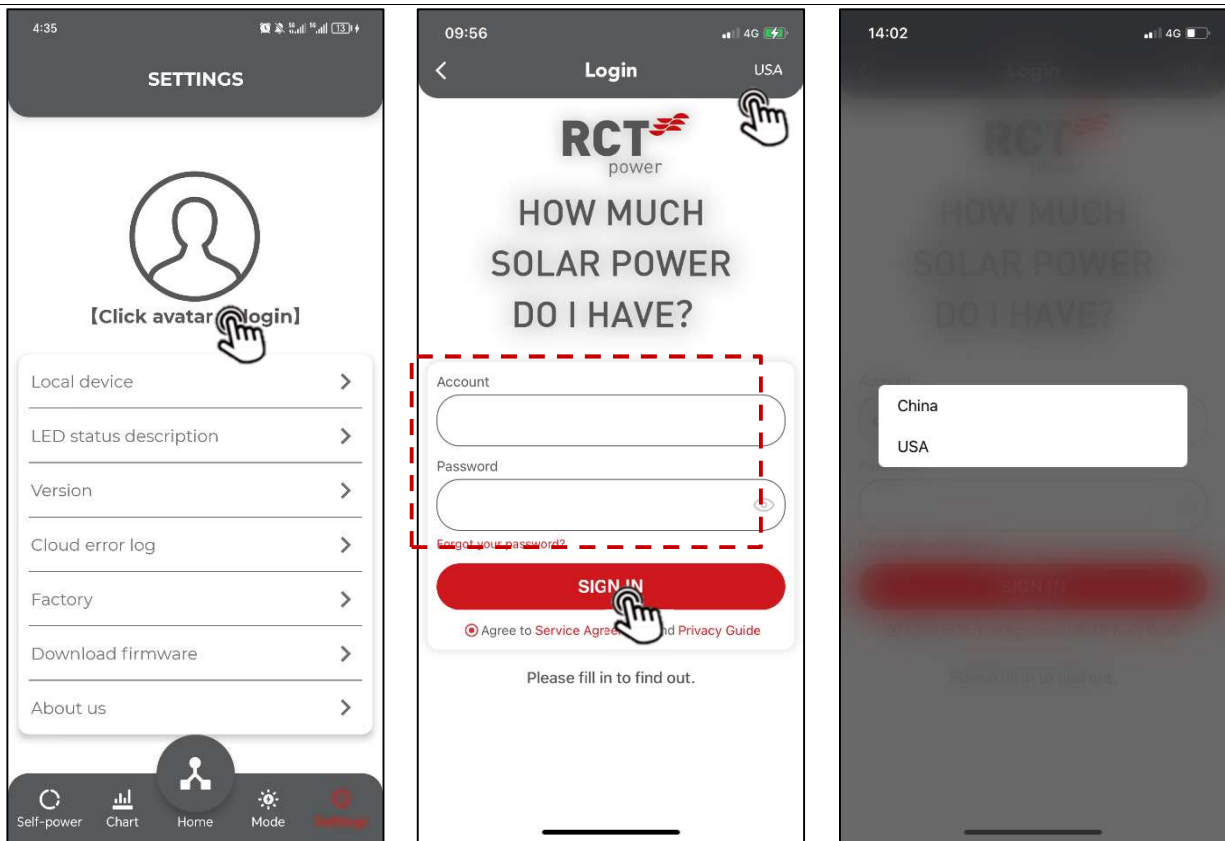


iOS App Store



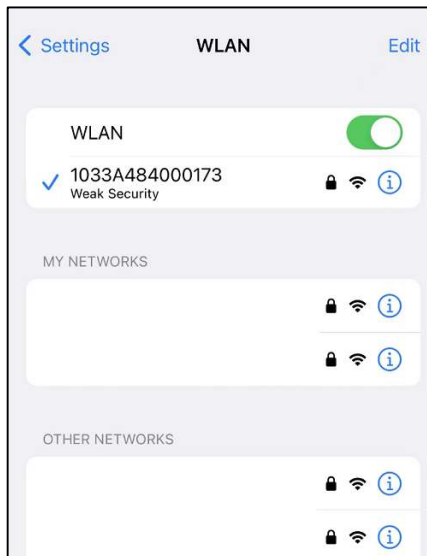
Google Play Store


- ⇒ Enter the account and password and click "Agree to Service Agreement and Privacy Guide" to login. Then, tap "SIGN IN" to enter the **RCT RESS APP**.

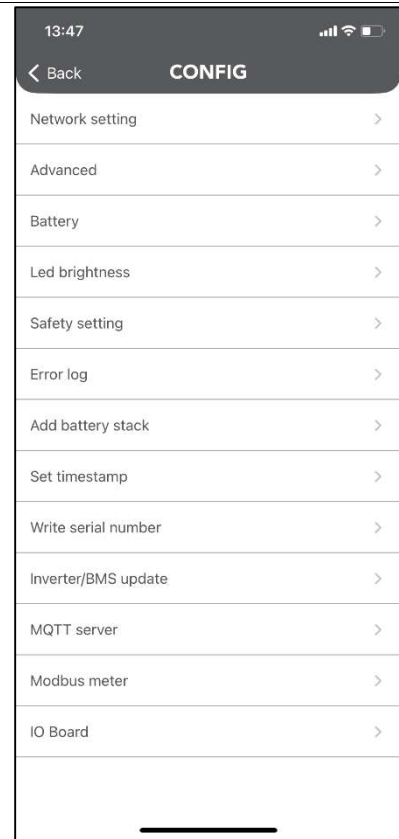
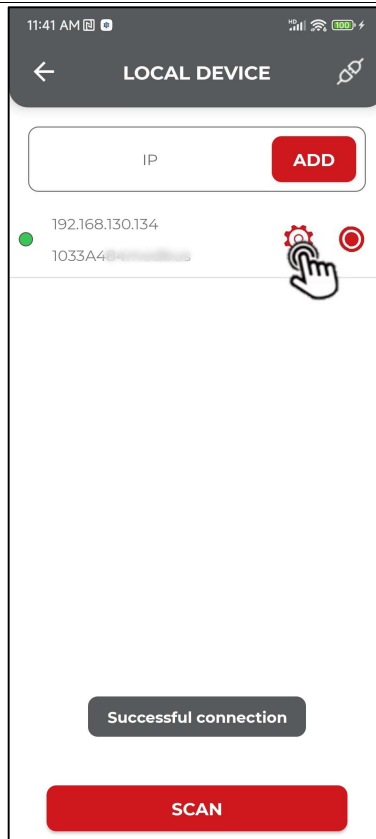
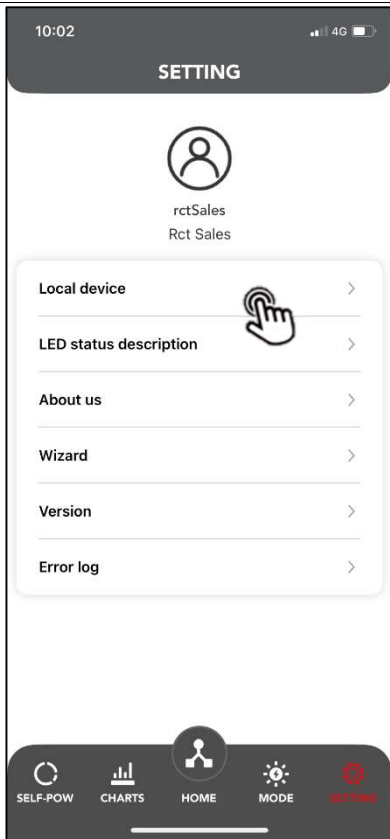


⇒ Connect the phone to the inverter.

- Enable WLAN function on mobile devices and connect to the WLAN network of the current inverter.



- Click the "Local device" button to enter the Local device screen.
- Connect the device hotspot (password is the device serial number), click "Scan" button or enter 10.10.100.254 in the IP field and click "Add" button.
- Tap  button behind the device to be connected to enter the config screen, user can read and write to the inverter.



⇒ Tap **"Battery"** to enter the screen, as shown in the following figure:

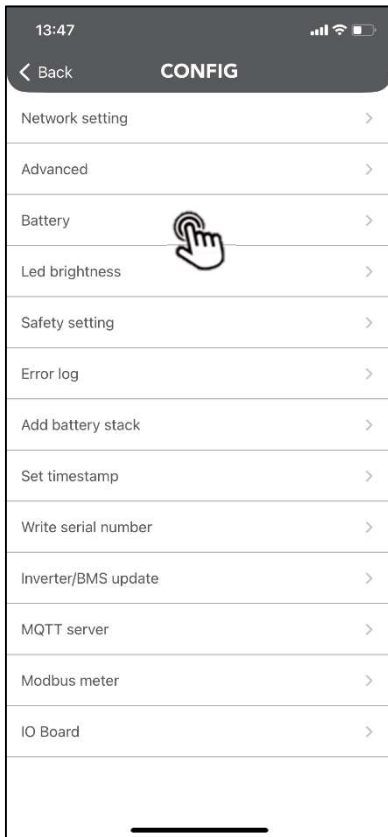


Fig 1: Config

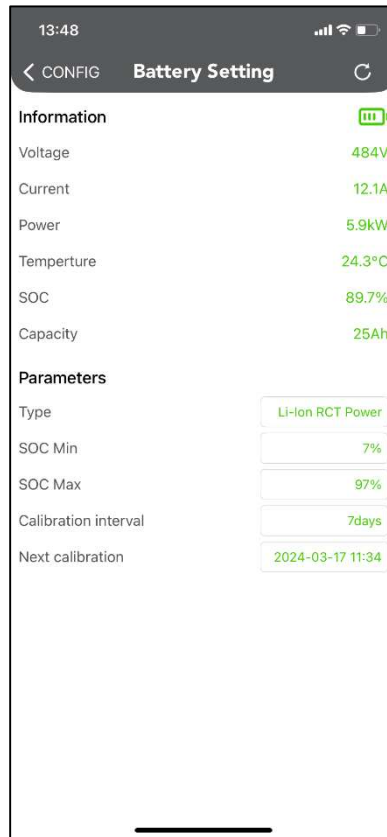


Fig 2: Connect a set of batteries

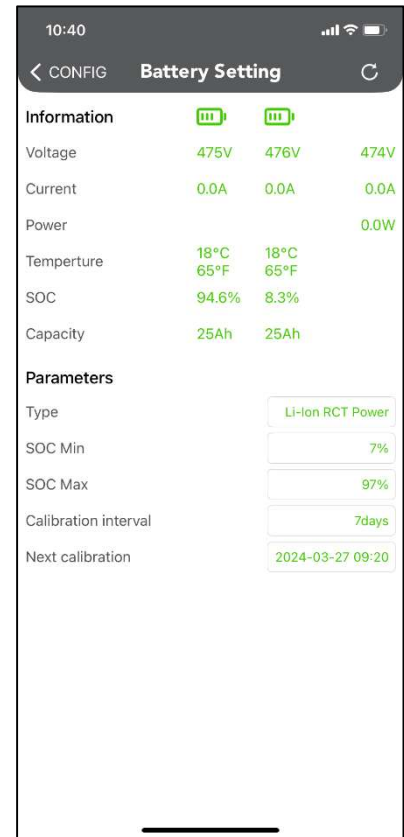
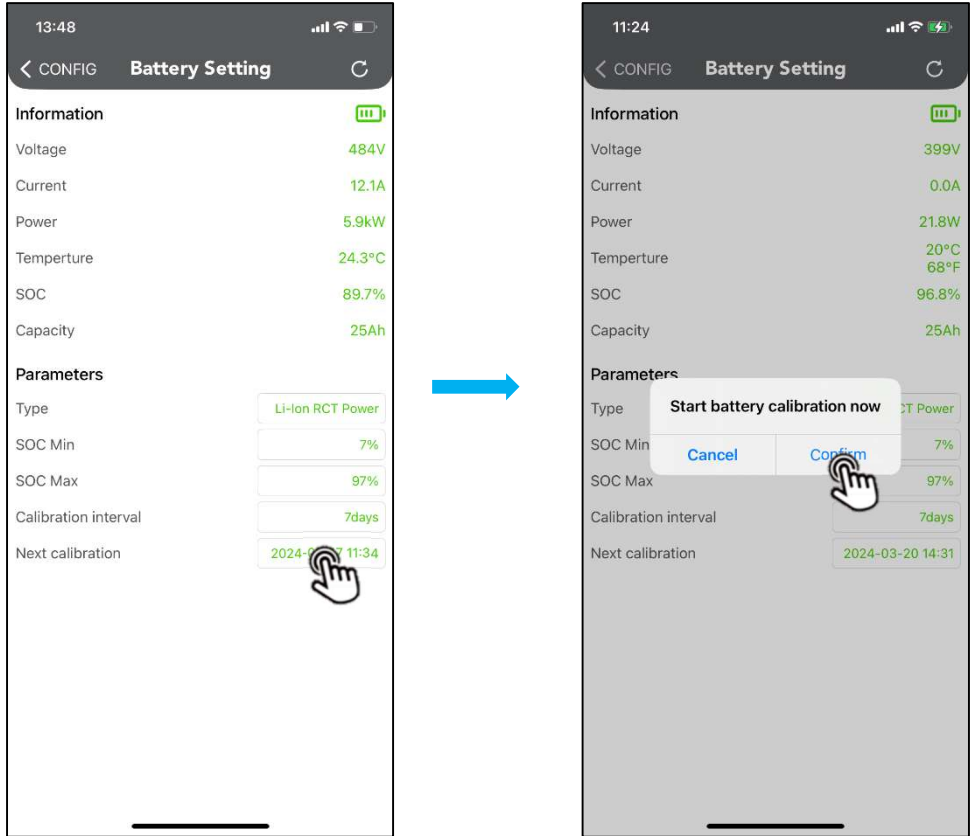


Fig 3: Connect two batteries in parallel

5.3.1 Battery Calibration

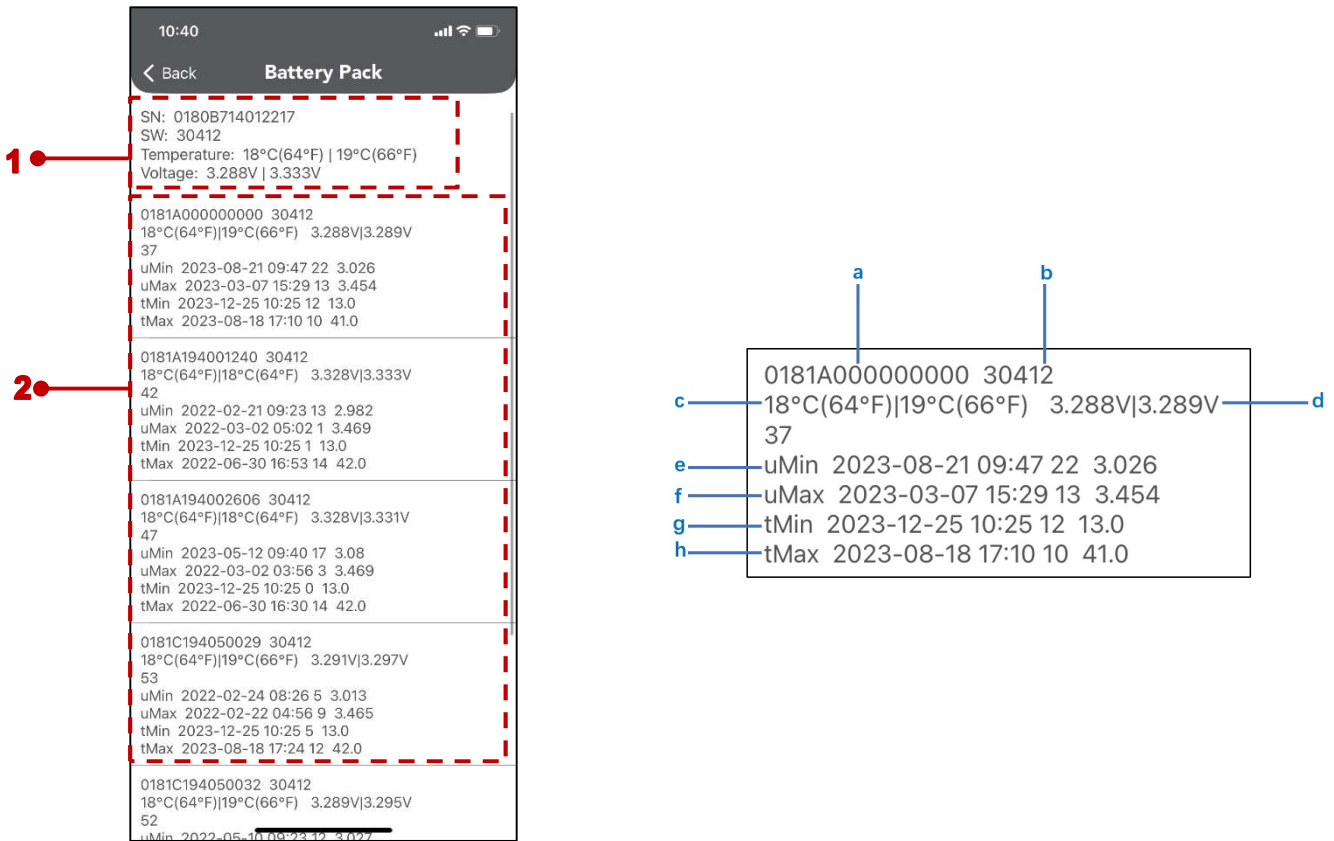
⇒ Click “Next calibration” for the battery calibration.

⇒ Click “Confirm” button.



5.3.2 Battery Rack

⇒ Click  button to enter the battery Rack interface. A battery rack contains up to six battery packs.

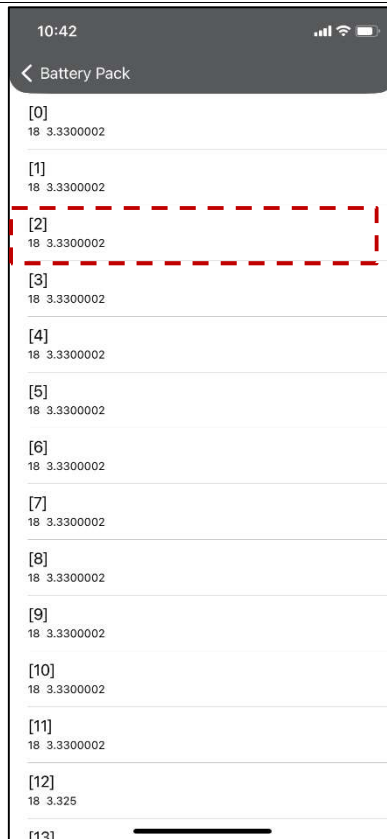


No.	Name	Description
1	Battery rack information	SN: Battery rack serial number
		SW: Battery rack software version
2	Battery pack information	Temperature: Current minimum maximum temperature of the battery cell in the battery rack
		Voltage: Current minimum maximum voltage of the battery cell in the battery rack
		a: Battery pack serial number
		b: Battery pack version number
		c: Current minimum maximum temperature of the battery cell in the battery pack
		d: Current minimum maximum voltage of the battery cell in the battery pack
		e: The historical minimum voltage of the cell in the battery pack. The minimum voltage of the 16th cell at 2022.12.20 17:01:42 is 2.597 V.
		f: The historical maximum voltage of the cell in the battery pack. The highest voltage of the first cell at 2022.12.13 13:46:28 is 3.455V.
g: The historical minimum temperature of the cell in the battery pack. The minimum temperature of the 23rd cell at 2023.01.28 06:33:16 is 14°C.		
h: The historical maximum temperature of the cell in the battery pack. The minimum temperature of the 23rd cell at 2022.11.11 16:39:59 is 38°C.		

5.3.3 Cell

Click battery pack information to enter the cell interface, as shown in the following figure:

For example: The selection section means the current temperature and voltage of the second cell.



5.4 Power off Battery system

When turning off the battery system, follow the sequence of steps below to prevent damage to the system:

- ⇒ Press switch button to “O” position. Observe the LED indication on panel.
- ⇒ Check that the LED indicator of the battery is off.








6 Operation

6.1 Normal operation





The Power Battery itself requires no operation.

The LED status indicator at the bottom of the Power Battery Master can reflect the following states:

LED indication	Status	Status Power Battery
Green		In operation (battery is connected to the Power Storage).
Red		Fault (battery is not connected to the Power Storage).
Orange		Initialisation (battery is not connected to the Power Storage).
Red/Orange (blinking)		CAN connection to the Power Storage is interrupted.
Red/Green (blinking)		Software update (battery is not connected to the Power Storage).

6.2 CAN-communication

Two LEDs are installed on the Ethernet interface to enable the Power Battery Stack to be diagnosed.

LED	LED indication	Status	Status Power Battery
1. Supply voltage	Green		Voltage supply of stack CAN interface works properly
2. CAN communication	Orange blinking		CAN communication ongoing

6.3 Troubleshooting

If a fault occurs (LED status indicator does not light up green), warnings appear on the display of the Power Storage. They can also be called up via the **RCT Power App**.

In the event of a malfunction:

- ⇒ Switch off the power battery at the on/off switch, → chapter 1.8.1 "Power battery master", page 6.
- ⇒ Consult the manufacturer's customer service.

6.4 Periodic maintenance

The Power Battery does not contain any serviceable parts.

In case of malfunctions, please contact the RCT Power US service department.

7 Storage, transportation, cleaning and disposal

7.1 Storage

- ⇒ Store the Power Battery Stacks in a clean, dry, cool, frost-free room on non-flammable and non-conductive surfaces. Too high storage temperature leads to faster self-discharge and premature ageing.
- ⇒ To avoid damage, store the Power Battery Stacks in an environment with relative humidity <85%, no corrosive gas and storage temperature from 14°F to 104°F (-10 °C to 40 °C).
- ⇒ For long-term storage longer than 3 months, store the Power Battery Stacks in an environment with relative humidity < 65%, no corrosive gas and a storage temperature of 32°F to 77°F (0°C to 25°C).
- ⇒ After 6 months of storage at the latest, carry out a voltage measurement on the power battery stacks and contact the manufacturer if a voltage of <67V is measured.

7.2 Transportation

Battery pack has been certified in UN38.3 (Section 38.3 of the sixth Revised Edition of the Recommendations on the Transport of Dangerous Goods: Manual of Tests and Criteria) and SN/T 0370.2-2009 (Part 2: Performance Test of the Rules for the Inspection of Packaging for Exporting Dangerous Goods). Battery pack is classified as category 9 dangerous goods.

- ⇒ The battery pack shall not be transported with other inflammable, explosive or toxic substances.
- ⇒ Ensure the original Package and label complete and recognizable.
- ⇒ Prohibit direct exposure to sunlight, rain, condensing water caused by temperature difference and mechanical damages.
- ⇒ Prohibit to pile up more than six battery pack.
- ⇒ There will be a drop in capacity during transportation and storage.
- ⇒ Transportation temperature is between 14°F to 104°F (-10 °C to 40 °C), relative humidity: <85%RH.

7.3 Cleaning

- ⇒ Clean the surfaces with a slightly damp cotton cloth.



Risk of injury from electric shock!

Inside the components of the Power Battery there are elements under high voltage which can also generate high currents! In the event of a short circuit, very high currents can flow and cause burns. Touching conductive parts can cause cardiac arrhythmia and shock.

- Do not open the housing!
- Ensure that the housing and cable are not damaged!
- Ensure that no liquid penetrates into the cable and housing!

7.4 Disposal



This symbol indicates that the appliance must not be disposed of with household waste at the end of its service life, but as electronic waste.

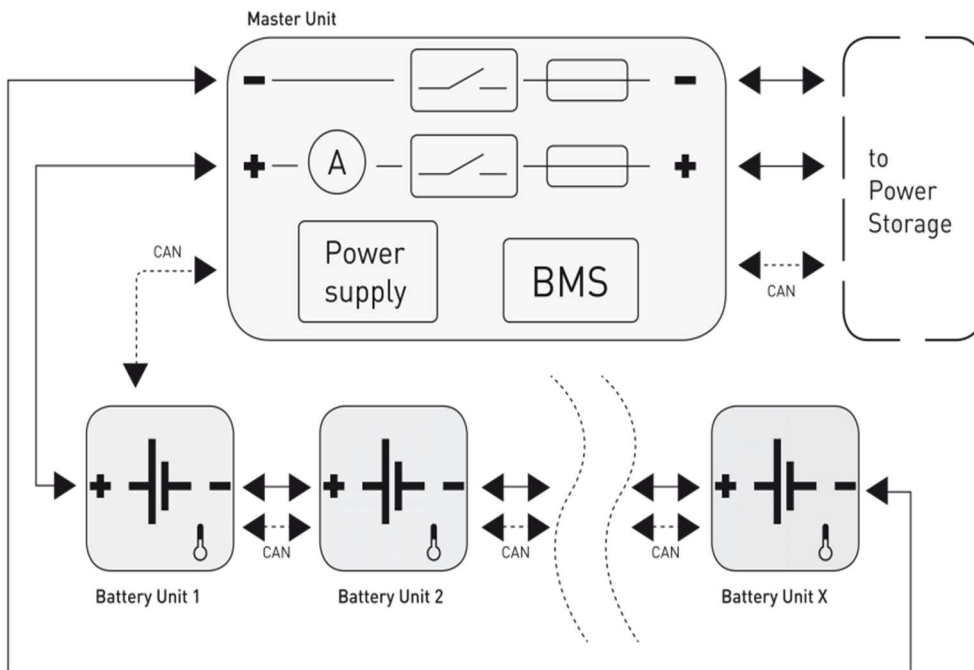
Observe local regulations!

Note on data protection: If the device contains data memories with possibly personal data, please ensure in your own interest that these are reliably deleted before disposing of the device.

8 Technical Data

Power Battery	3.8	5.7	7.6	9.6	11.5
ELECTRICAL PARAMETER					
Nominal capacity	3,84kWh	5,76kWh	7,68kWh	9,60kWh	11,52kWh
Usable capacity (90% DoD)	3,46kWh	5,18kWh	6,91kWh	8,64kWh	10,37kWh
Cycle life (at 80% remaining capacity)	5000				
Voltage range	120 V ... 173 V	180 V ... 260 V	240 V ... 346 V	300 V ... 432 V	360 V ... 520V
Nominal voltage	154 V	230 V	307 V	384 V	461 V
Maximum charge/ discharge current	25A/25A	25A/25A	25A/25A	25A/25A	25A/25A
DC charge power	3850 W	5775 W	7700 W	9625 W	11550 W
Discharge power	3850 W	5775 W	7700 W	8000 W	8000 W
Standby consumption	< 5 W				
Interface					
Power Storage interface	CAN				
General					
Battery technology	LiFeP04				
Dimensions (Height x Length x Width)	1,97'x1,12'x1,12' 600x340x340mm	2,72'x1,12'x1,12' 830x340x340mm	3,48'x1,12'x1,12' 1060x340x340mm	4,23'x1,12'x1,12' 1290x340x340mm	4,99'x1,12'x1,12' 1520x340x340mm
Weight (single stack 24 kg)	119,0 lb (54kg)	172,0 lb (78kg)	224,9 lb (102kg)	277,8 lb (126kg)	330,7 lb (150kg)
Enclosure type	Type 1				
Type of installation	floor stand / indoor				
Operating temperature range	5°F ~122°F (-15 °C to 50 °C)				
Connector type	Quick Contact MC4-Evo 2				
SAFETY / STANDARDS					
EMC	FCC Part 15B EN61000-6-2, EN61000-6-3, EN61000 – 4 -2, -3, -4, -8				
Safety	UL1973, UL60730-1, UL9540A EN/IEC 61010-1:2010				
Certificates	UN38-3, UL1973, UL60730-1, UL9540A CE, UN38-3, UN/IEC62619, EN/IEC 62133				

Block diagram





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