

Voltsmile

RPC System

Installation Manual



14U



22U



44U

RPC Cabinet Datasheet

Key Feature

- Built-in RPC connector for fast installation
- Single section rack cabinet with sturdy structure and ventilation grilles
- Lockable front and rear door
- Removable blind side panels with quarter turn closure

Model	14U	22U	44U
Containable of RPC battery	4 units	6 units	12 units
Material	SPCC		
Length	600mm	600mm	600mm
Width	630mm	630mm	630mm
Height	731mm	1040mm	2005mm
Single-section size	482*498*137mm		
Gross weight	68.26KG	78.4KG	142.15KG
Net weight	59.86KG	72.5KG	130KG
Maximum load weight	500KG	500KG	1000KG
Package size	705*720*880mm	705*720*1100mm	705*720*2050mm
Power connector	1*350A Anderson power connector		2*350A Anderson power connector
Built-in Busbar	1*300A		2*300A
IP rating	IP20		

Precautions

The RPC systems offer many benefits, such as improved efficiency and reduced emissions. It is essential to take certain precautions to ensure safety. Here are some general precautions for using RPC system:

1. Always follow Voltsmile's instructions and guidelines for using and maintaining the battery system.
2. Wear appropriate personal protective equipment, such as insulated gloves and safety glasses, when working with high-voltage battery systems.
3. Ensure that the battery system is installed correctly and grounded and that all electrical connections are secure.
4. Do not attempt to disassemble or modify the battery system, as this can result in electric shock or other serious injuries.
5. If the battery system is damaged or shows signs of malfunction, such as leaking or swelling, stop using it immediately and seek professional assistance.
6. Avoid exposing the battery system to extreme temperatures or environmental conditions that could cause damage or degradation.
7. Always turn off the power supply before connecting or disconnecting the battery system, and never touch the electrical contacts with bare hands or metal tools.

These precautions ensure that battery systems are used safely and effectively in various applications.

Precautions

Installation Environment

- Do not install the equipment in a smoky, flammable, or explosive environment.
- Avoid exposing the equipment to direct sunlight, rain, standing water, snow, or dust. It is suggested to install the equipment in a sheltered place. Take preventive measures in operating areas prone to natural disasters such as floods, mudslides, earthquakes, and typhoons.
- Do not install the equipment in an environment with strong electromagnetic interference.
- The temperature and humidity of the installation environment should meet equipment requirements.
- The equipment should be installed in an area that is at least 500m away from corrosion sources that may result in salt damage or acid damage. Corrosion sources include but are not limited to seaside, thermal power plants, chemical plants, smelters, coal plants, rubber plants, and electroplating plants.

Installation Location

- Do not tilt the equipment or place it upside down. Ensure that the equipment is horizontally installed.
- Do not install the equipment in areas easily accessible to children.
- Do not install the equipment in a place with fire hazards or is prone to moisturizing.
- The equipment produces sound when it is operating. Please install the equipment in a place with appropriate distance at which there is no impact to daily work and life.
- Do not install the equipment in a sealed, poorly ventilated location without fire protection measures and inaccessible for firefighters.
- The equipment is hot when it is operating, please ensure good indoor ventilation.
- Do not install the equipment in mobile scenarios such as recreational vehicles, cruise ships, and trains.
- It is recommended to install the equipment in a location where you can easily access, install, operate, and maintain it, and view the indicator status.
- Do not place the equipment in the vehicle passage when installed in a garage to avoid collisions

Precautions

CAUTION!



THIS SYSTEM CONTAINS
LITHIUM-ION BATTERY



WARNING:

Installation and maintenance should only be carried out by trained professionals. We do not undertake any consequences or related responsibility because of violation of safety operation or violation of design, production and equipment safety standards.



CAUTION:

1. It is required to charge the battery at least once every six months. For this charge, maintenance ensures the SOC is higher than 90%.
2. The connection of the power connector, grounding point, power cable and screw are suggested to be checked yearly. Ensure there is no loose, broken, or corrosion at the connection point. Check the installation environment, such as dust, water, insect and more.
3. If the battery is stored for a long time, it must charge every six months, and the SOC should be higher than 90%.



In case a battery (normal condition or damaged) needs disposal or needs recycling, it shall follow the local recycling regulation (i.e. Regulation (EC) Number 1013/2006 among European Union) to process and use the best available measures to achieve relevant recycling efficiency.

Packing List



1*RPC cabinet



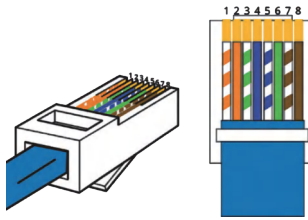
1*RPC power cable



2*Communication cable

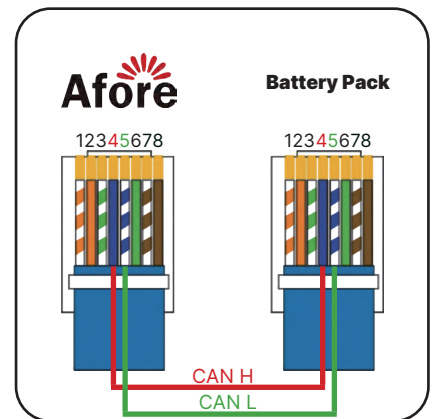
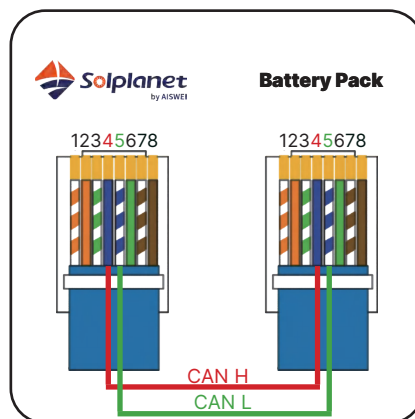
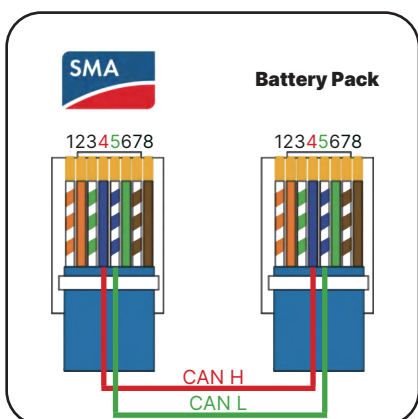
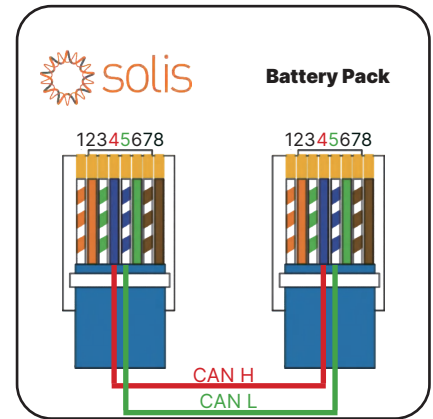
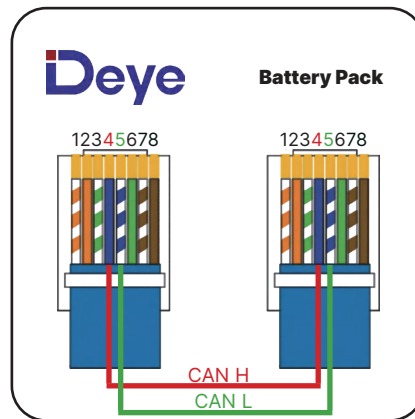
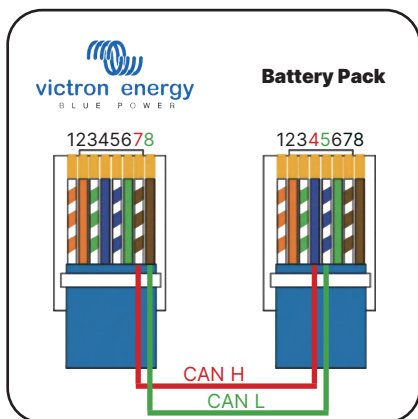
Communication cable Pinout

Cable pinout:



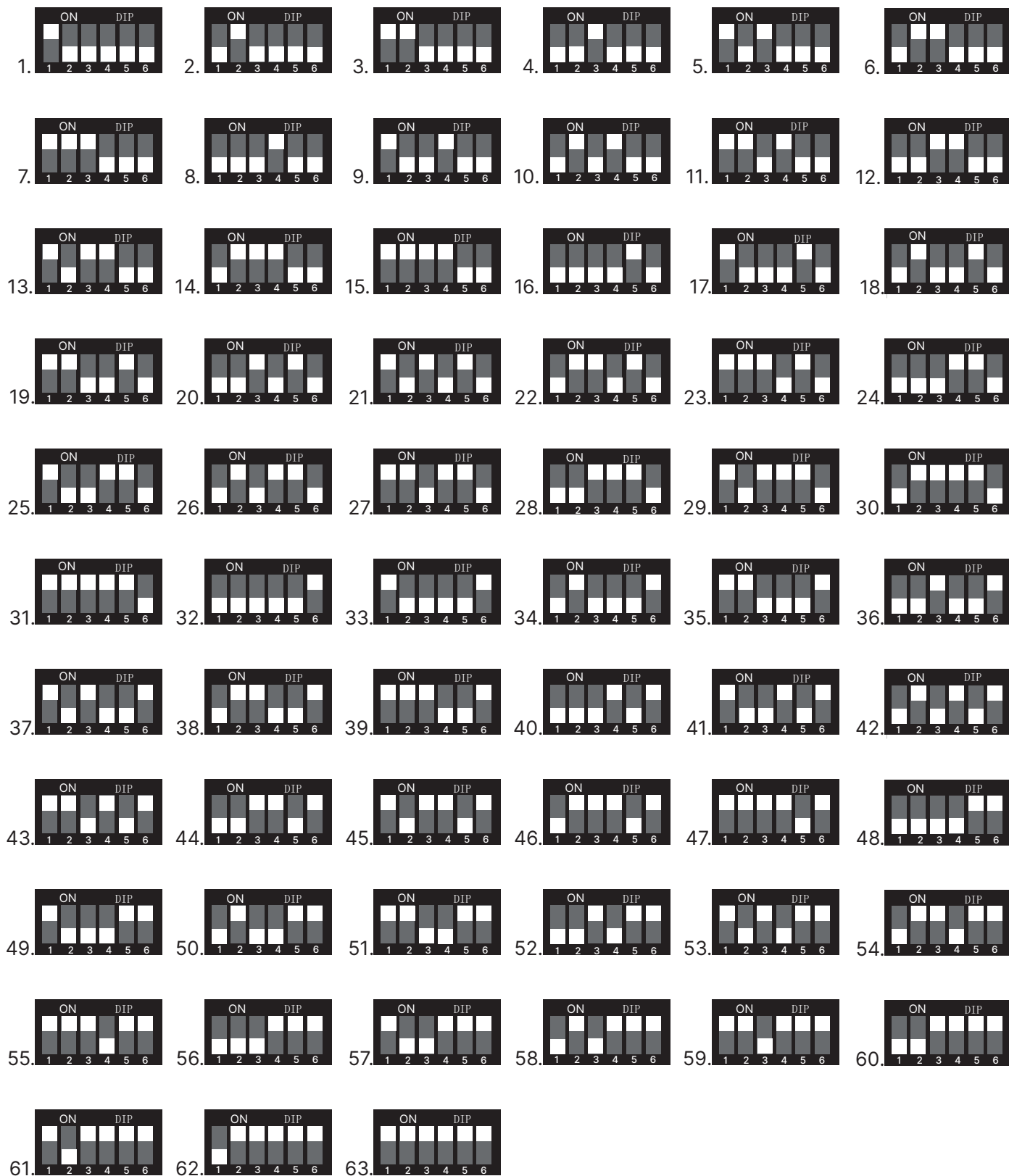
Pin	Colour	Defenition
1	Orange & White	NC
2	Orange	NC
3	Green & White	NC
4	Blue	CANH
5	Blue & White	CANL
6	Green	CAN_GND
7	Brown & White	485_A
8	Brown	485_B

Inverter cable pinout:



For more inverter support please consult your dealer

RPC Battery DIP Position



Pre-installation inspection:

1. According to the packing list, check whether the components in the box are complete and whether the appearance is intact; if there is any abnormality, please contact your sales agent in time.
2. Check the personal protective gears and installation tools to make sure they are complete; if not, please replace them.

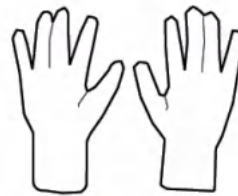
Protective Equipment



Safety hat



Goggles

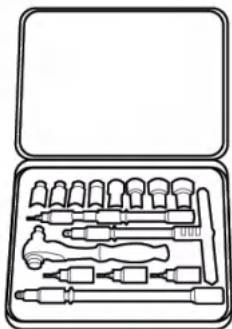


Protective gloves



Insulating shoes

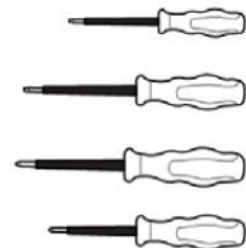
Installation Tool



Insulation sleeve set



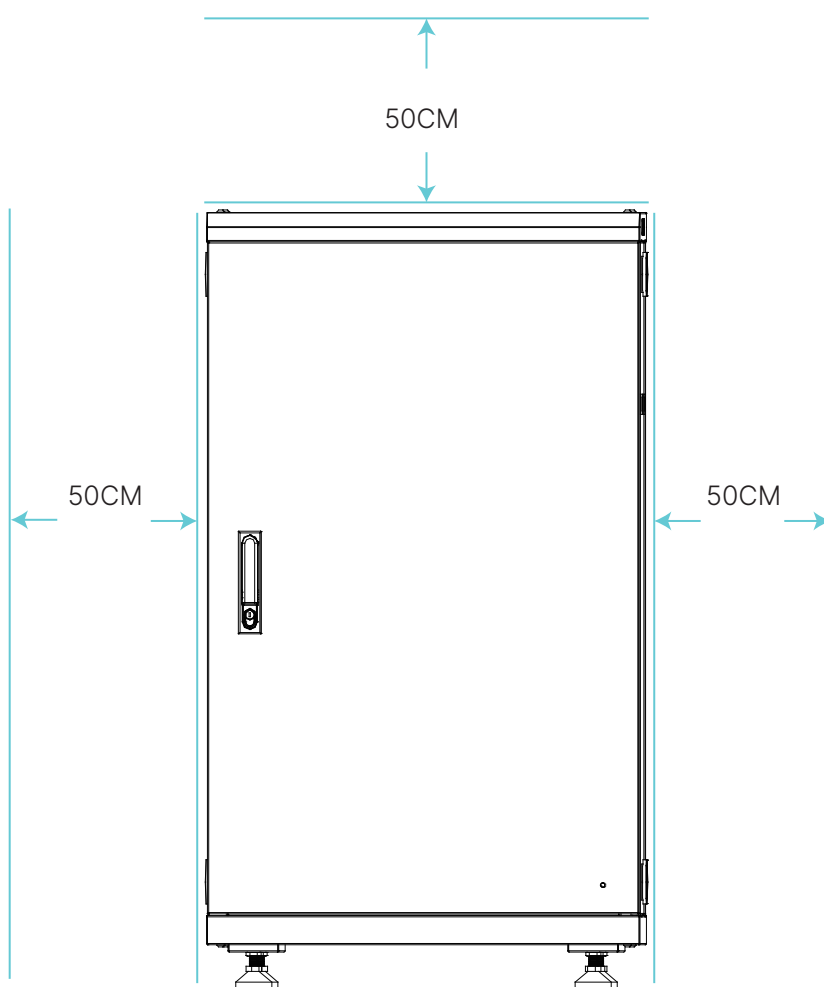
Torque socket wrench



Insulation screwdriver set

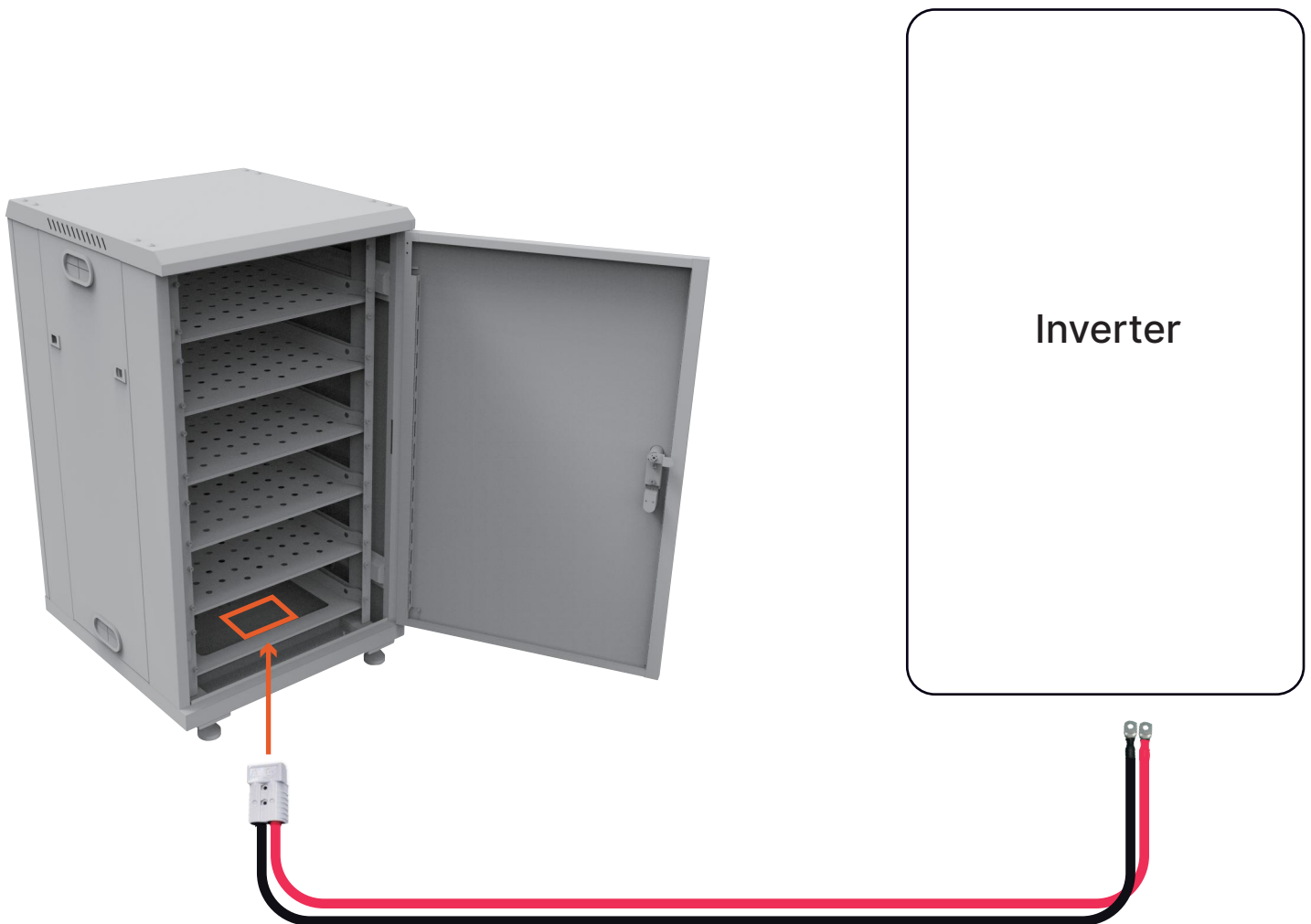
Installation

- ① Place the RPC cabinet at the designated area.



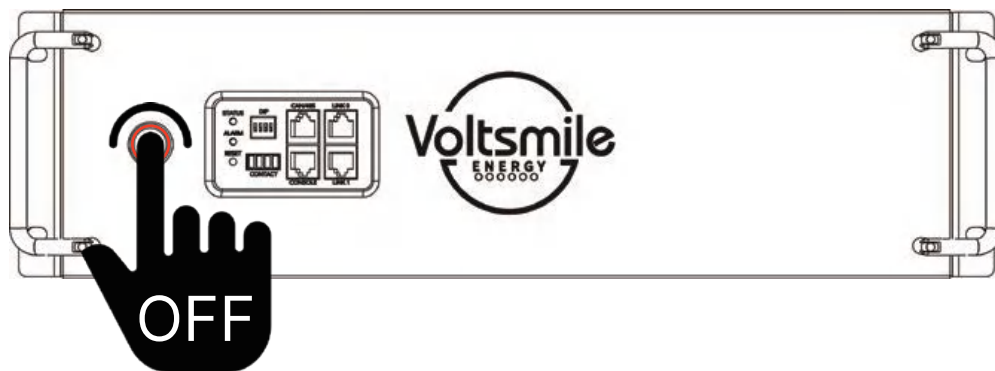
Installation

- ② Unlock and open the cabinet door, attach the RPC power cable from bottom of the cabinet to inverter.

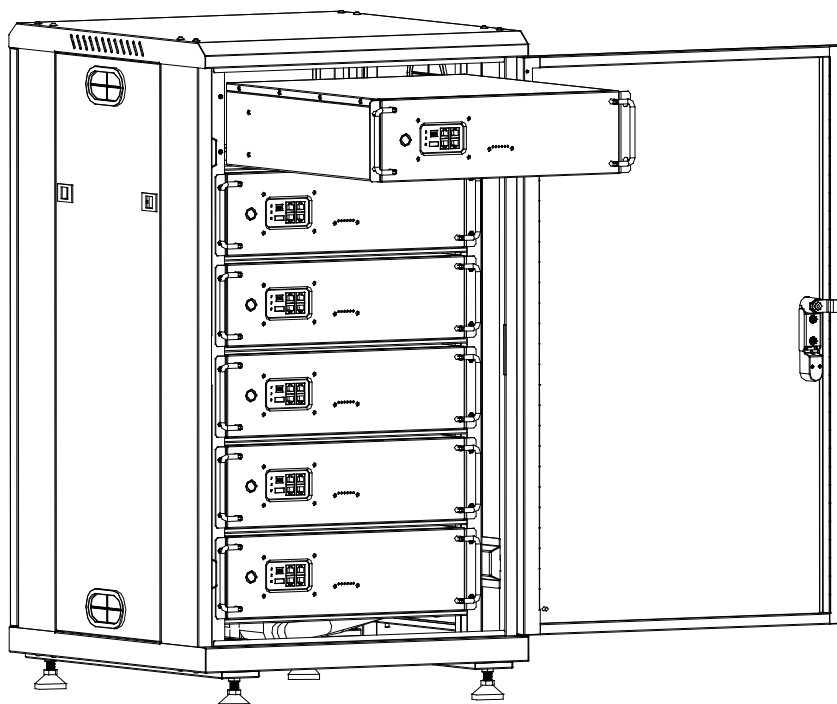


Installation

- ③ Check the battery and make sure batteries are turned off before install.

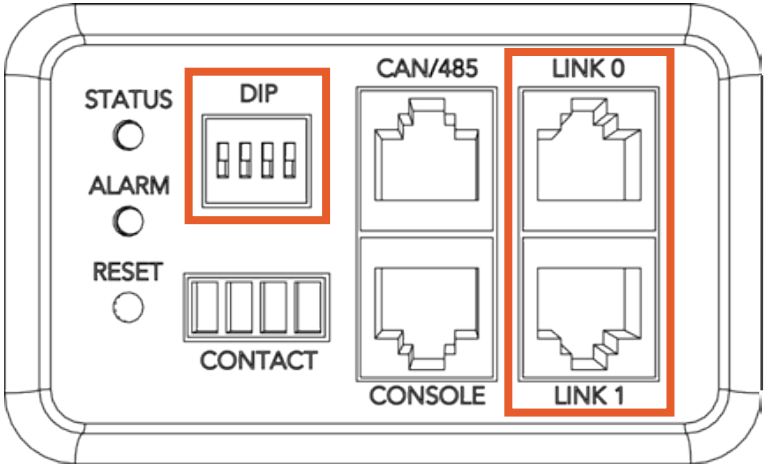


- ④ Secure the batteries into the cabinet and fixed with screws



Installation

⑤ Switch all the DIP of battery to correct position(You can find the DIP position in page 7, DIP 1 is the **Master battery**). If you have more than 1 cabinet, please connect the Link 0 and Link 1 with a communication cable between any battery of two cabinets.



Installation

- ⑥ Connect the communication cable from CAN/485 port of **Master battery** to inverter, all done.

