

## I Unpacking and Inspection

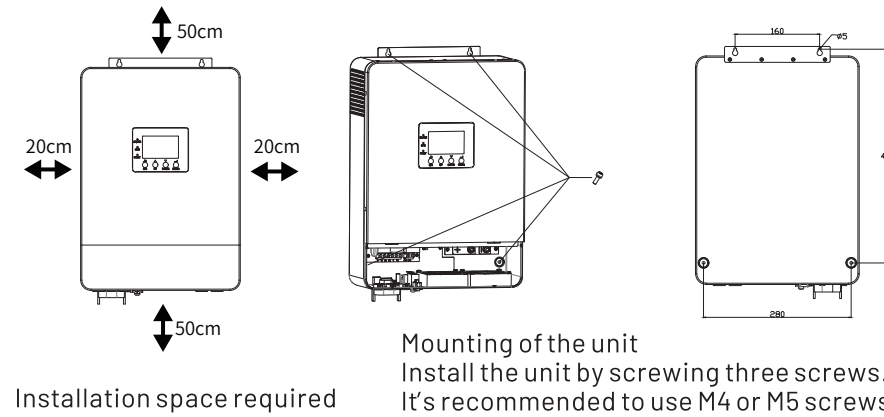
Before installation, please inspect the unit. Be sure that nothing inside the package is damaged. You should have received the following items in the package:

- |                                |      |
|--------------------------------|------|
| ① The unit                     | 1pcs |
| ② Parallel communication cable | 1pcs |
| ③ User manual                  | 1pcs |
| ④ Quick Installation Guide     | 1pcs |
| ⑤ Factory Report & QC Pass     | 1pcs |

## II Mounting the Unit

Consider the following points before selecting where to install:

- ① Do not mount the inverter on flammable construction materials.
- ② Mount on a solid surface.
- ③ Install this inverter at eye level in order to allow the LCD display to be read at all times.
- ④ The ambient temperature should be between 0°C and 50°C to ensure optimal operation.
- ⑤ The recommended installation position is to be adhered to the wall vertically.
- ⑥ Be sure to keep other objects and surfaces as shown in the right diagram to guarantee sufficient heat dissipation and to have enough space for removing wires.



Installation space required

Mounting of the unit  
Install the unit by screwing three screws.  
It's recommended to use M4 or M5 screws.

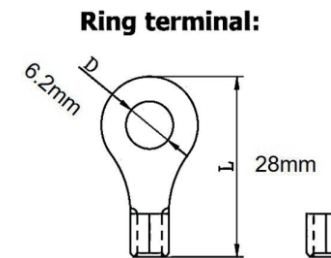
## III Unpacking and Inspection

### 1) Lead-acid Battery Connection

Please use the battery with a nominal voltage at 48V. Also, you need to choose battery type as "AGM(default) or FLD".  
For lead acid battery, the recommended charge current is not larger than 0.2C (C battery capacity).

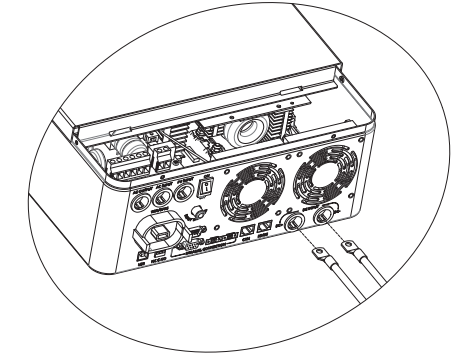
Recommended battery cable and terminal size:

Model	Wire Size	Torque value
01-HF-3.6	1* 4 AWG	2-3 Nm
01-HF-5.0	1* 2 AWG	2-3 Nm



Please follow below steps to implement battery connection:

- S1. Assemble battery ring terminal based on recommended battery cable and terminal size.
- S2. Connect all battery packs as units requires. It's suggested to connect at least 200Ah capacity battery for 01-HF-5.0 and at least 100Ah capacity battery for 01-HF-3.6.
- S3. Insert the ring terminal of battery cable flatly into battery connector of inverter and make sure the bolts are tightened with torque of 2-3Nm.



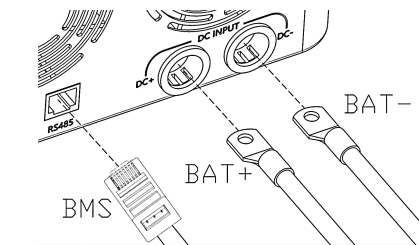
Mounting of the unit

### 2) Lithium Battery Connection

If choosing lithium battery, you are allowed to use the lithium battery only which we have matched.

Please follow below steps to implement lithium battery connection:

- S1. Assemble battery ring terminal based on recommended battery cable and terminal size.
- S2. Insert the ring terminal of battery cable flatly into battery connector of inverter and make sure the bolts are tightened with torque of 2-3Nm.
- S3. Connect the end of RJ45 of battery to BMS communication port(RS485 or CAN) of inverter.  
The other end of RJ45 insert to battery communication port (RS485 or CAN).



Schematic diagram of lithium battery connection

#### IV Unpacking and Inspection

It's very important for system safety and efficient operation to use appropriate cable for AC input connection. To reduce risk of injury, please use the proper recommended cable size as below.

Suggested cable requirement for AC wires:

Model	Wire Size	Torque value
O1-HF-3.6	1* 10 AWG	1.2-1.6 Nm
O1-HF-5.0	1* 8 AWG	1.2-1.6 Nm

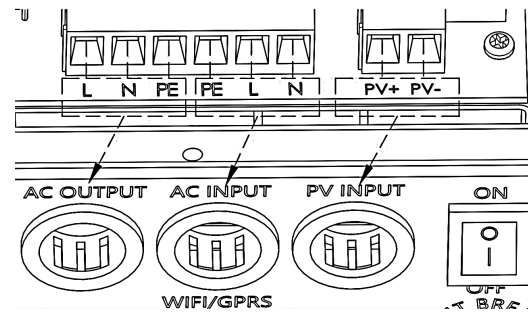
Please follow below the steps to accomplish AC input/output connection:

- S1. Be sure to disconnect both DC and AC breaker Before performing AC input/output connection.
- S2. Remove insulation sleeve 10mm for six conductors. And shorten phase L and neutral conductor N 3mm.
- S3. Insert AC input wires according to polarities indicated on terminal block and tighten the terminal screws. Be sure to connect PE protective conductor first.
- S4. Insert AC output wires according to polarities indicated on terminal block and tighten terminal screws. For safety be sure to connect PE protective conductor first.

PE→Potential Ground (yellow-green)

L→LINE (brown or black)

N→ Neutral (blue)



Schematic diagram of AC input/output connection

#### V PV Connection

It's very important for system safety and efficient operation to use appropriate cable for PV module connection. To reduce risk of injury, please use the proper recommended cable size as below.

Model	Wire Size	Torque value
O1-HF-3.6	1* 12 AWG	1.2-1.6 Nm
O1-HF-5.0	1* 12 AWG	1.2-1.6 Nm

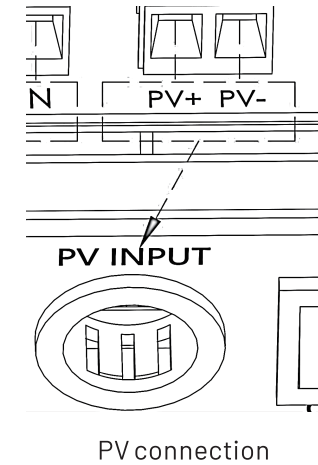
Please follow below steps to implement PV module connection:

- S1. Remove insulation sleeve 10 mm for positive and negative conductors.



Fig.12 Schematic diagram of AC input/output connection

- S2. Check correct polarity of connection cable from PV modules and PV input connectors. Then, connect positive pole (+) of connection cable to positive pole (+) of PV input connector. Connect negative pole (-) of connection cable to negative pole (-) of PV input connector.



- S3. Make sure the wires are securely connected.

#### VI Final Assembly

After connecting all wiring, please put bottom cover back by screwing four screws as shown below.

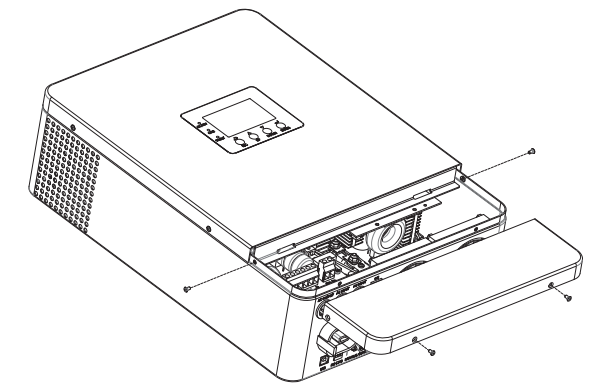


Fig.13 The assembly