
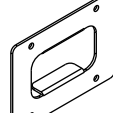
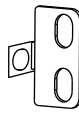
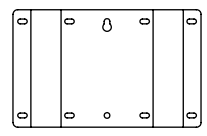

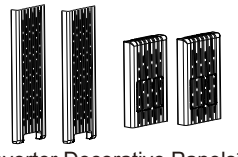



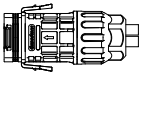



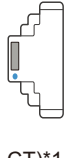

















Quick Installation Guide

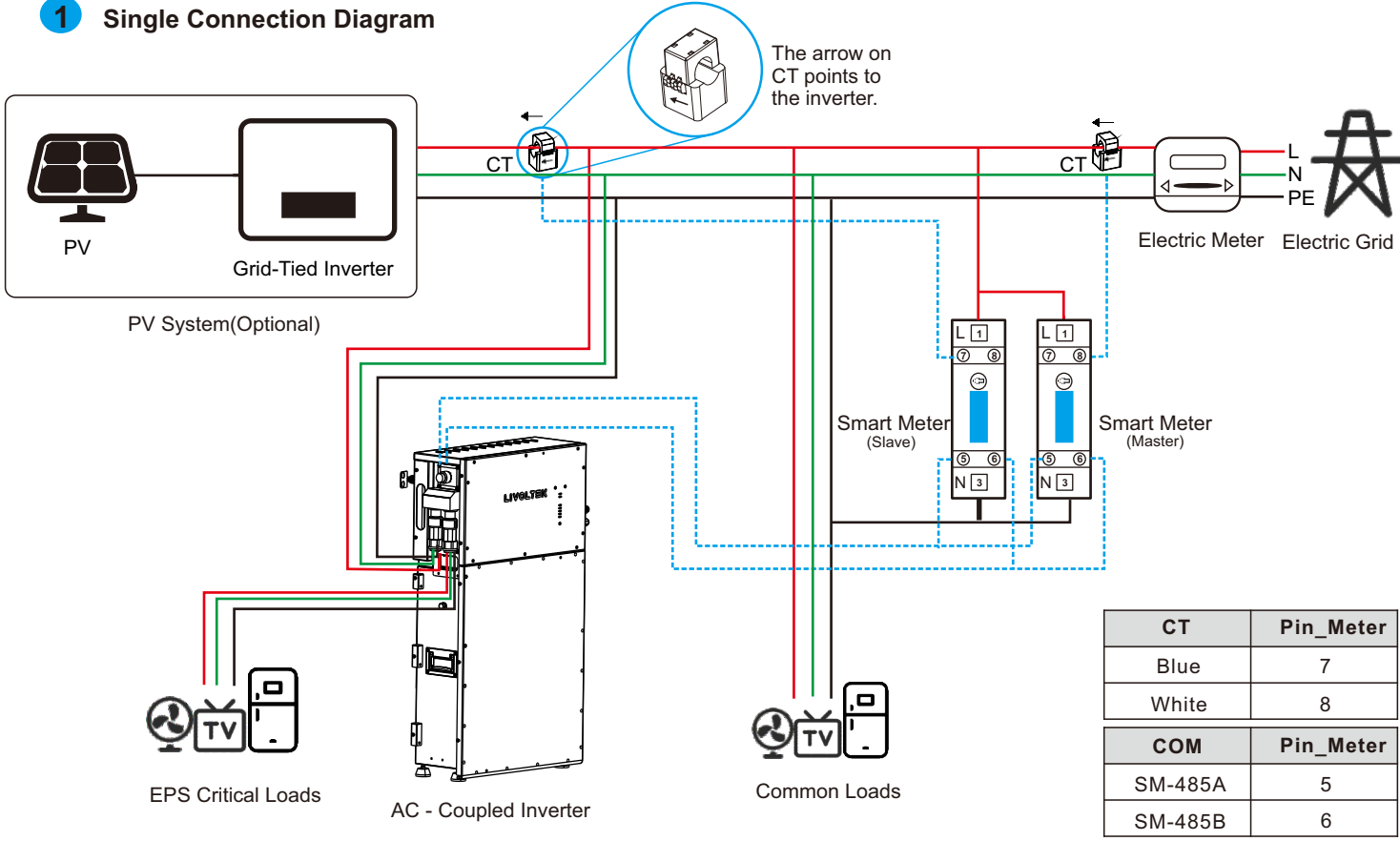
iPower AES1-3K/3.6K/4.6K/5KEG1

 Inverter+Battery*1	 Connecting Piece*2	 Fixed Piece*2	 Bracket*1	 Expansion Bolts *2
 Inverter Decorative Panels*2 Battery Decorative Panels*2	 AC Terminal Rubber Core Removal Tools *1 L-type Hexagon Wrench *1 AC Plug for Grid *1	 AC Plug for EPS *1	 CT*1 (Current Transformer)	
 MULTI Connector (16 pin) *1	 16pin Terminals *16	 Phillips Screws *10 PE Cable Terminal *1 M5*12 screw*1	 Wi-Fi Dongle *1	 Meter(with CT)*1(Optional)
 User Manual	 Quick Installation Instructions	 Certificate		
Quick Installation Guide *1 Certification *1 User Manual *1				

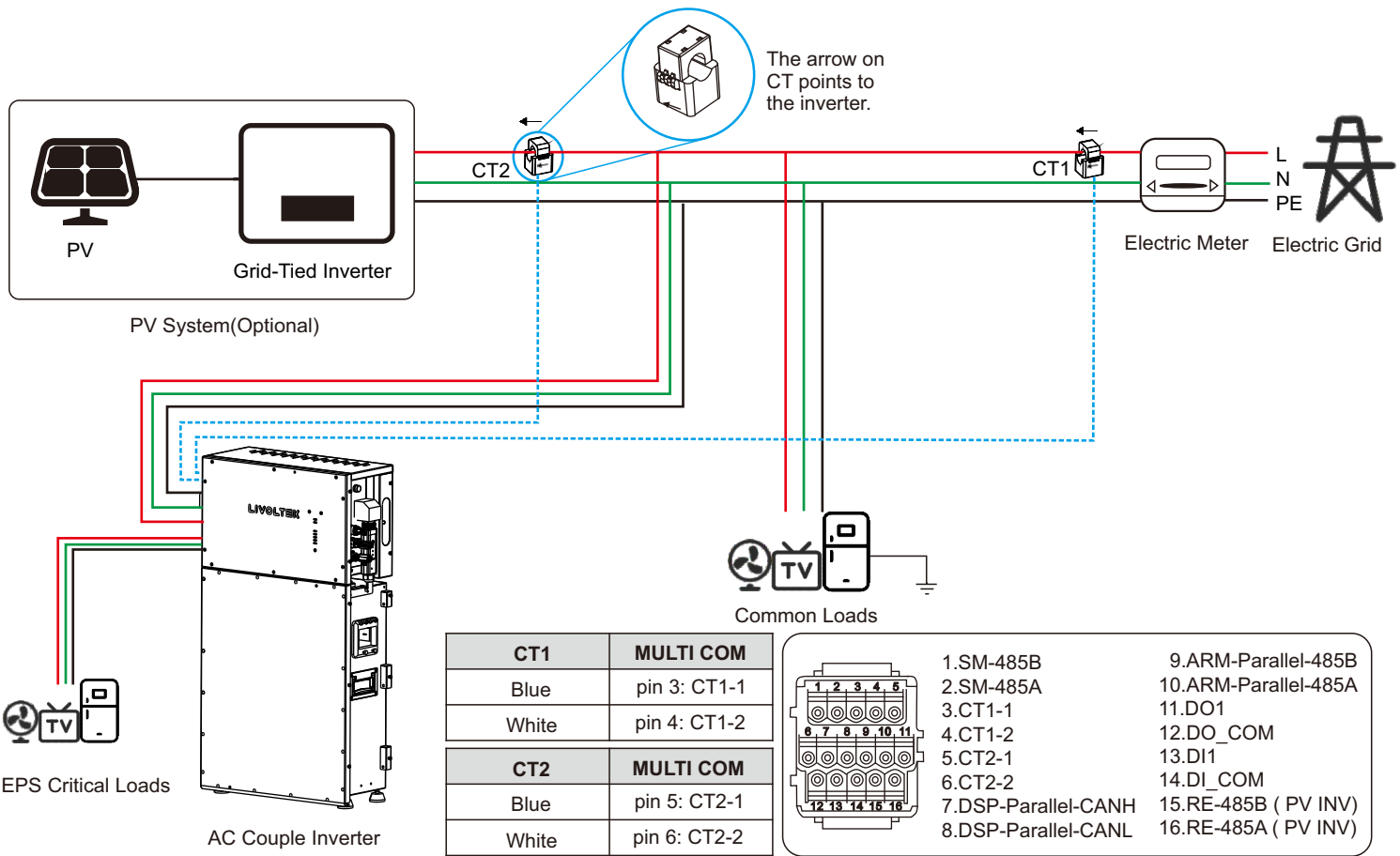
 Bit Φ10 Hammer drill	 Hammer	 Tape ruler	 Flat-head screwdriver Phillips head screwdriver
 Protective glasses	 Hydraulic tensioner	 OT terminals press clamp	 Wire stripper
 DC Voltage (Range≥ 1100V DC) Multimeter	 Euro terminal crimping tool	 Diagonal pliers	 Spirit level Marker

A Electrical Connection Diagram

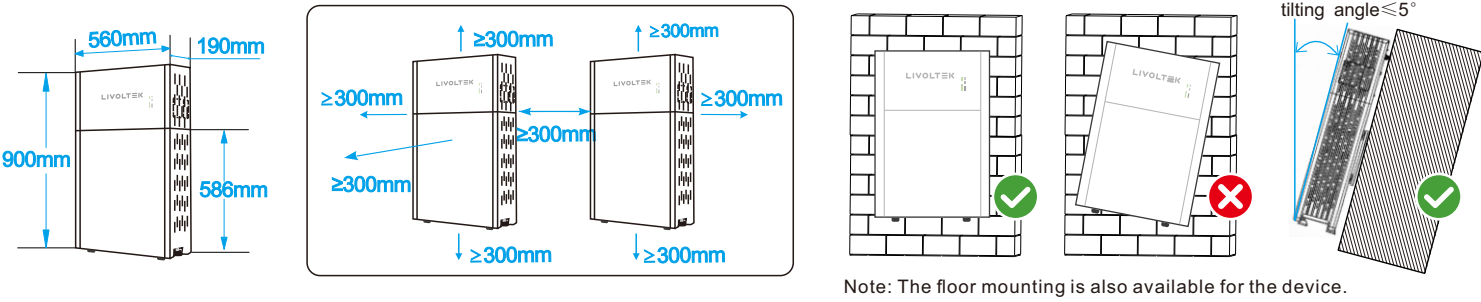
1 Single Connection Diagram



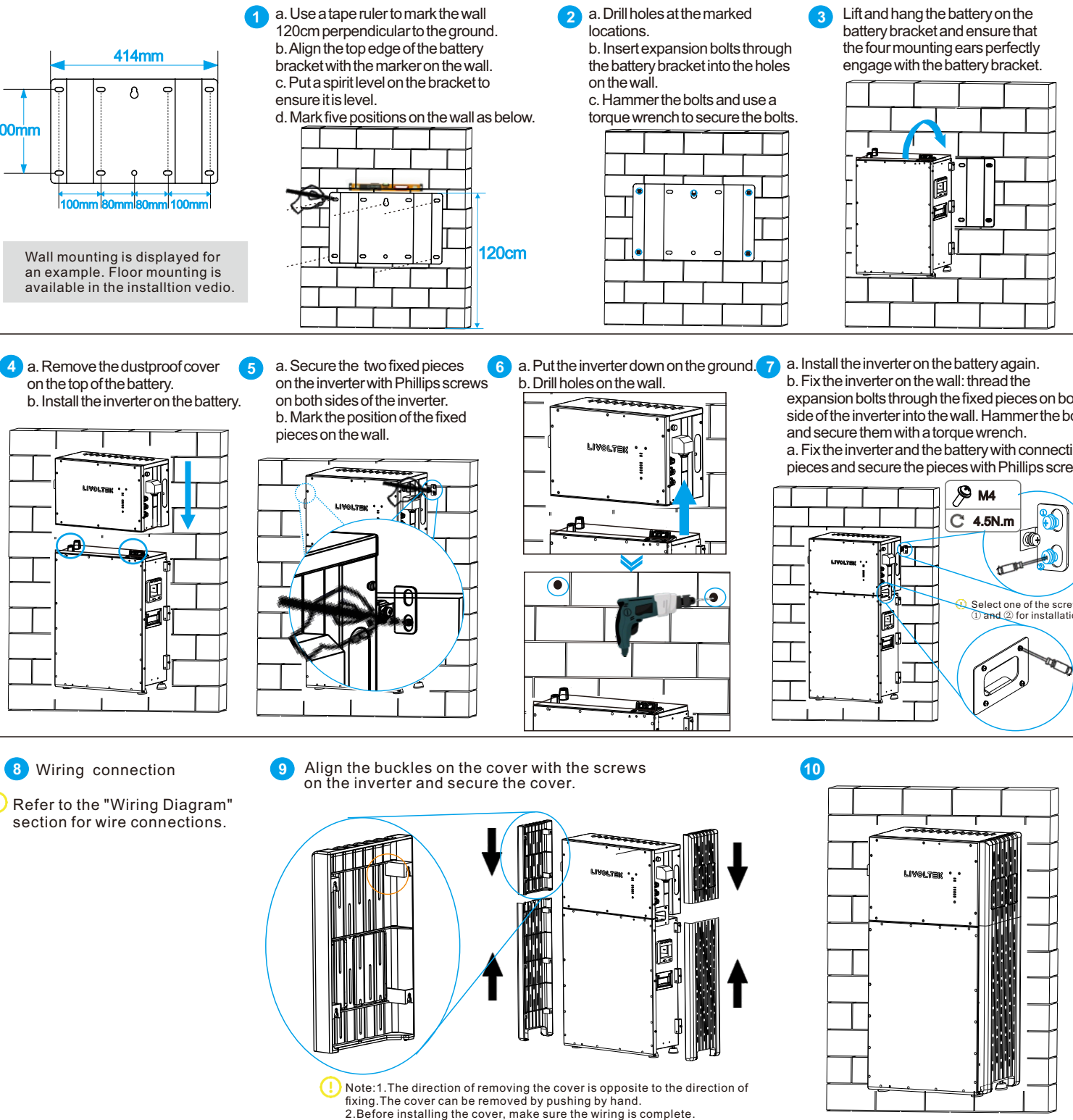
2 With Two CT Connection Diagram



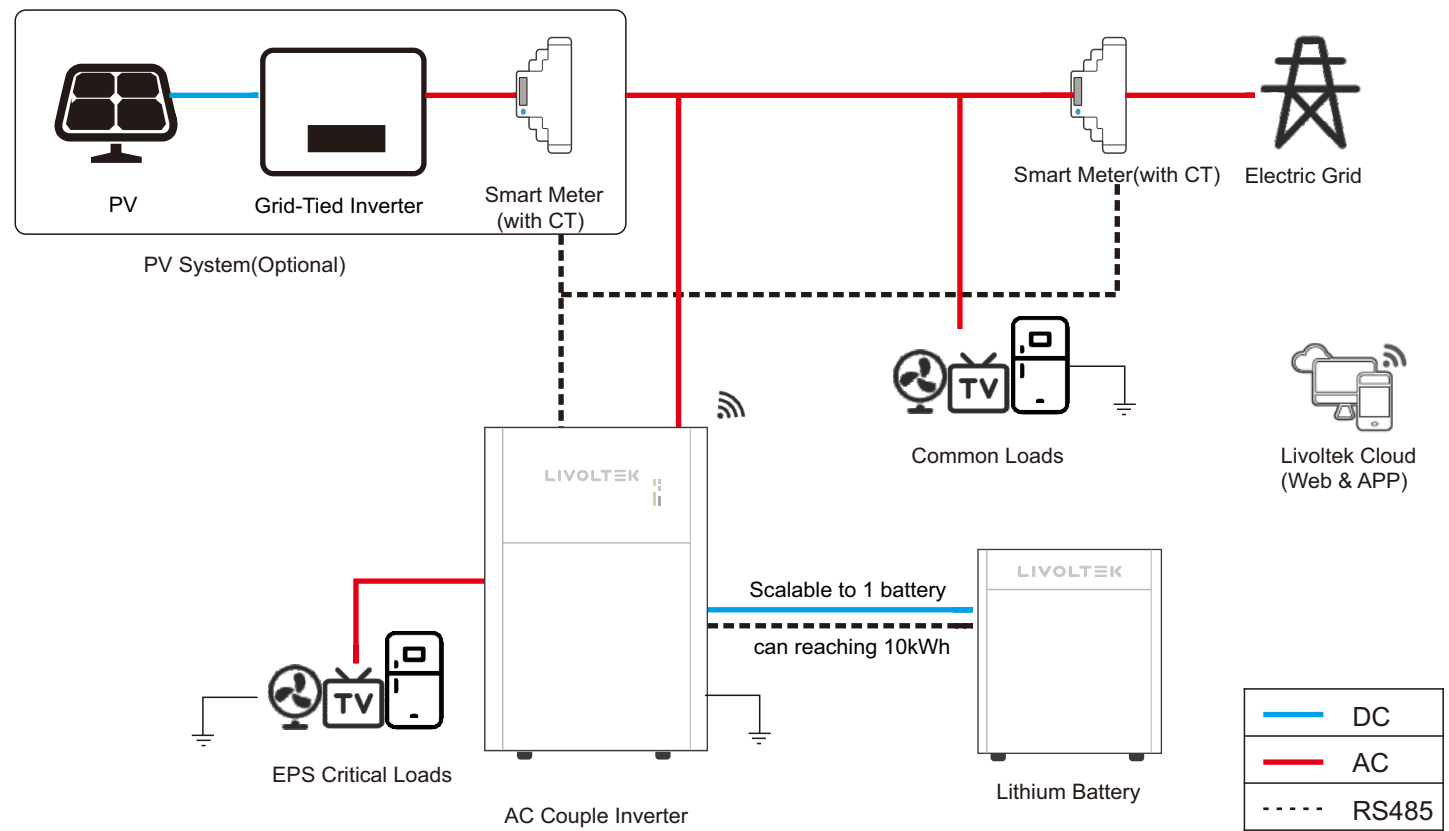
A Installation Requirements



B Wall Mounting



B System Connection Diagram



V

PE Connection

A

Please prepare the cable before connecting as follows

No.	Cable	Cross Section	Cable Diameter
1	PE cables	4~6mm ²	12~10 AWG
2	AC cables	4~6mm ²	12~10 AWG
3	Battery power cables	25mm ²	4 AWG
4	Network cable(recommend)	/	2-core

⚠ Notice:

- Do not work with power on. All operations, cables and parts specification during the electrical connection shall be in compliance with local laws and regulations.
- Disconnect the DC switch of the inverter to power off the inverter before any electrical connections.

B

External Grounding (PE Cable) Connection

1

Suggested spec:
10AWG wire

5-7mm

Strip cables

2

28~29mm

Heat-shrinktube (5mm)

3

Crimping terminal

4

Crimping terminal

5

Crimping terminal

6

Fasten on the inverter

M4

4.5N.m

⚠ Notice:

- Ensure that the PE cable is securely connected. Otherwise, electric shocks may occur.
- Do not connect the neutral wire to the enclosure as a PE cable. Otherwise, electric shocks may occur.
- The housing grounding of the inverter and the neutral line ground of cannot be grounded together, electric shocks may occur.

VII

EPS Connection

Step 1

Remove the cable jackets and strip the wire insulation.

Step 2

Take out the AC terminal from the package box and uninstall it as below chart.Put the AC cables through the terminal cap, threaded sleeve in sequence.

Step 3

Insert cables into connection terminals, according to polarities indicates on it and tighten the screws.

Step 4

Push threaded sleeve onto the connection terminal until both are locked tightly. Then screw up the terminal cap.

Step 5

Unscrew the cap on the EPS port.Then insert the EPS connector into the EPS port on the bottom of the inverter.

1

22mm

9mm

L

N

PE

2

22mm

9mm

L

N

PE

3

M3

0.8 N.m

4

22mm

9mm

L

N

PE

5

22mm

9mm

L

N

PE

IX

Battery Parallel Connection

A

Battery power cables connection

10-18mm

10-18mm

B

COM cables connection

Communicate the parallel Li-ion batteries via CAN protocol. Insert the communication cables into the RJ45 terminal in the correct order and crimp them.

1.BMS_CAN1_H

2.BMS_CAN1_L

3.BMS_485A

4.NULL

5.BMS_485B

6.NULL

7.NULL

8.NULL

Rj45 terminal

LIVOLTEK

LIVOLTEK

X

WiFi Dongle Connection

WiFi < 30m

WiFi < 30m

1

Remove the waterproof lid from the Wi-Fi terminal.

2

Insert the Wi-Fi stick into the communication port. Slightly shake it by hand to determine whether it is installed firmly.

3

Build the connection between the inverter and router. Please refer to the Pocket Wi-Fi user manual to configure the WLAN.

Refer the APP guide manual delivered with the product or find it at our APP homepage 'guide' (please install 'My Livoltek' APP on your phone firstly). You can also find it at our official website www.livoltek.com > service > guide.

'My Livoltek' is a platform to communicate with your device via Wi-Fi or bluetooth, you can login on our web (link as below) on your computer, also you can scan the QR code to download the APP on your phone.

APP: Search for 'My Livoltek' on Apple App Store, Google Play.

Web Link1: <https://www.livoltek-portal.com/>
For Asia, Latin American, Australia and others.

Web Link2: <https://evs.livoltek-portal.com/>
For Europe, Middle East Regions, Africa.

Google Play

My Livoltek

App Store

My Livoltek

Download

VI

AC GRID Connection

Step 1

Remove the cable jackets and strip the wire insulation

Step 2

Take out the AC terminal from the package box and uninstall it as below chart.Put the AC cables through the terminal cap, threaded sleeve in sequence.

Step 3

Insert cables into connection terminals, according to polarities indicates on it and tighten the screws.

Step 4

Push threaded sleeve onto the connection terminal until both are locked tightly. Then screw up the terminal cap.

Step 5

Unscrew the cap on the Grid port.Then insert the Grid connector into the Grid port on the bottom of the inverter.

1

To ensure safety, cut off power first.

22mm

9mm

L

N

PE

2

22mm

9mm

L

N

PE

3

Use the AC terminal removal tool to remove the terminal.

22mm

9mm

L

N

PE

4

22mm

9mm

L

N

PE

5

22mm

9mm

L

N

PE

6

22mm

9mm

L

N

PE

VIII

COM Connection

1

Strip the cable insulation for 6~8mm.

6~8 mm

2

COM terminal structure introduction

Nut

Sealing claw

Sealing

Body

Housing

3

Pass the cable through "nut-sealing claw-sealing-body-housing" in sequence.

Remove the waterproof plug in the terminal.

4

Insert cable into the corresponding pin ports, and complete the terminal assembly.

COM

5

Complete the terminal assembly.

COM

6

Insert the terminal into the inverter.

COM

Meter Connection

Inverter COM	Meter
SM_485A	5
SM_485B	6

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

1

SM-485B

2

SM-485A

3

CT1-1

4

CT1-2

5

CT2-1

6

CT2-2

7

DSP-Parallel-CANH

8

DSP-Parallel-CANL

9

ARM-Parallel-485B

10

ARM-Parallel-485A

11

DO1

12

DO_COM

13

DI1

14

DI_COM

15

RE-485B (PV INV)

16

RE-485A (PV INV)

XI

System Operation

A

Inspection before Commissioning

NO.	Content	State
1	All the switches connected to the inverter are set to the OFF position.	Yes No
2	The inverter is installed correctly and securely.	
3	All cables are connected correctly and securely.	
4	Unused cable holes are fitted using the waterproof nuts.	
5	The Wi-Fi Dongle is installed correctly and securely.	
6	The electrical conduit holes are sealed.	
7	The CT or smart meter is connected.	
8	The battery is well connected.	

B

Powering on the System

Powering on the System

Step 1:Power on the Grid;
Step 2:Power on the Battery;
Step 3:Switch on the loads;
Step 4:Configure the Wi-Fi stick;
Step 5:Observe the LED indicator.

Powering off the System

Step 1:Turn off the loads;
Step 2:Turn off battery;
Step 3:Turn off the main grid switch;
Step 4:Wait for at least 5 minutes after the LED and graphical display black out for the internal circuits to discharges energy;
Step 5:Disconnect all the power cables;
Step 6:Disconnect all the communication cables, Remove the Wi-Fi stick.

C

LED Display

SYS

COM

SOC

LED indicator

Item	Indicator	Description
SYS	System indicator	System status
COM	Communication indicator	WiFi, BOX feature status
SOC	Battery indicator 1	SOC 100%
SOC	Battery indicator 2	SOC 80%
SOC	Battery indicator 3	SOC 60%
SOC	Battery indicator 4	SOC 40%
SOC	Battery indicator 5	SOC <20%

WARNING

Before maintaining and commissioning the inverter and its peripheral distribution unit switch off all the charged terminals of the inverter, and wait at least 10 minutes after the inverter is powered off.