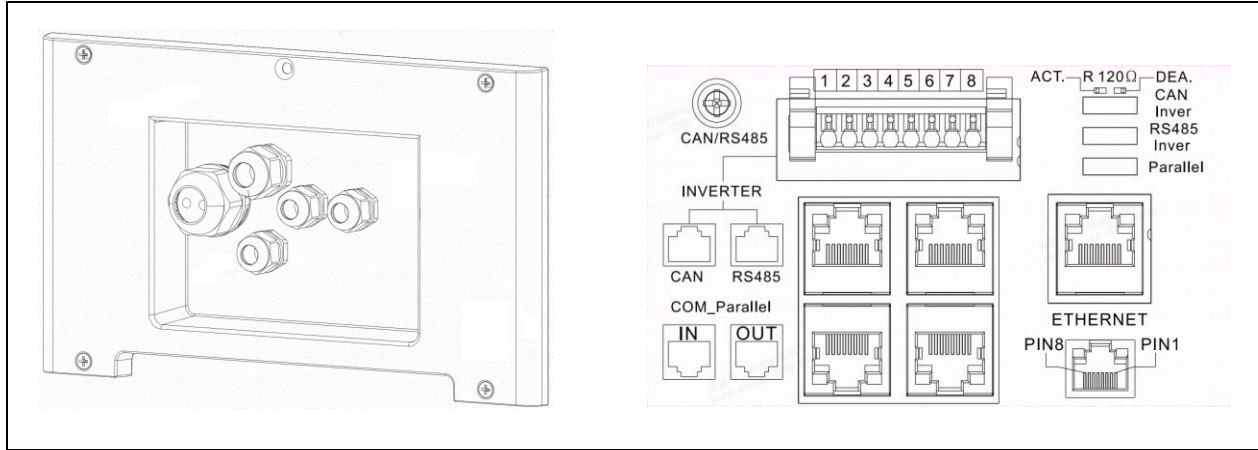
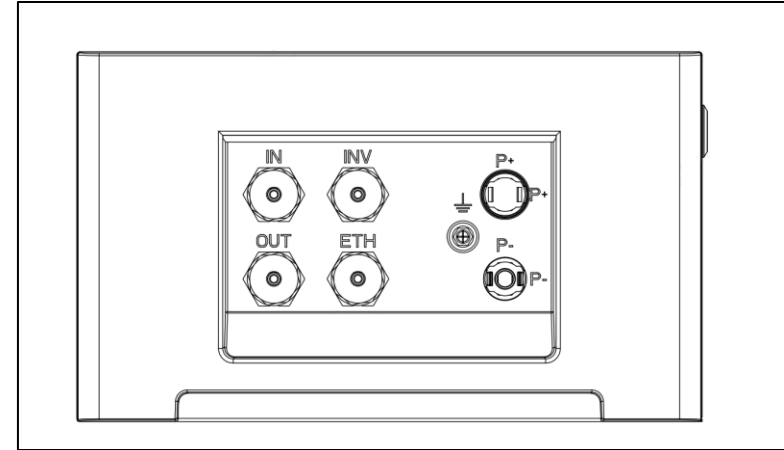


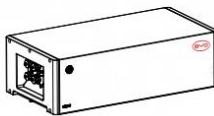
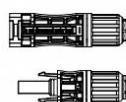
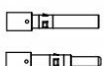
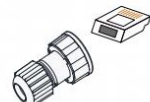
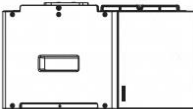
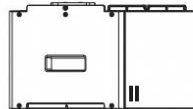
BCU-V2 Installation

Differences



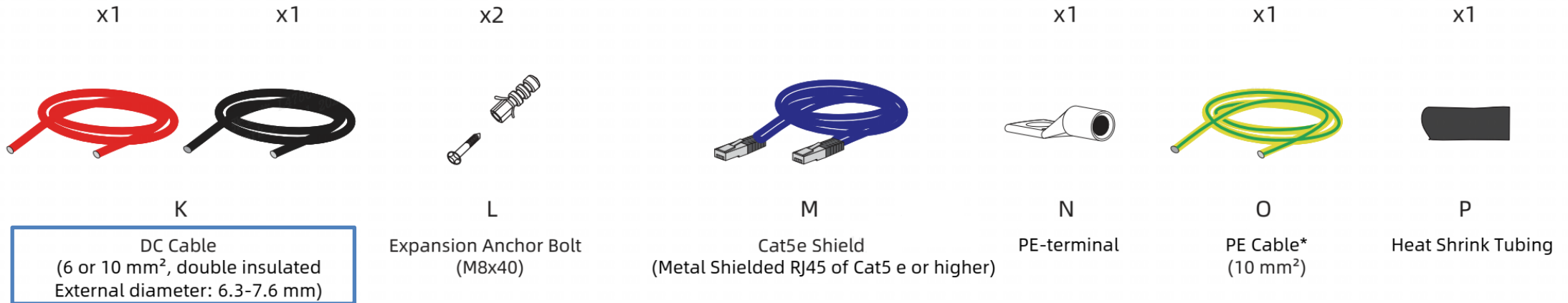
BCU	BCU-V2
<ol style="list-style-type: none">1. The panel must be removed before wiring, and all wiring must pass through the external waterproof connector, which is troublesome2. Inverter communication has 3 wiring methods, which is easy to confuse	<ol style="list-style-type: none">1. Wiring does not require panel removal, which is very convenient2. Inverter communication has only one wiring method, which is simple and intuitive3. All communication interfaces use RJ45 network ports

Scope of Delivery

 x1 A BCU	 x1 B Base	 x3 J M4x14 Countersunk Screw	 x1 R Power Cable Coupler	 x1 T1 6 mm² Terminal	 x1 T2 10 mm² Terminal	 x4 I Communication Connector		
 x2 D Hanger (BCU Part)	 x1 E Documents	 x2 F Hanger (Wall Part)	 x4 G M5 Screw	 x2 H M6 Bolt and Nut	 x1 Q Waterproof plug	 x1 T Terminal Resistor		
						 x1 C1 HVS Module	or	 x1 C2 HVM Module
						 x2 J M4x14 Countersunk Screw		

Added some new components

Additionally Required Installation Materials



* Note: If the maximum current of the connected inverter is no more than 40 A, a grounding cable with a cross-sectional area of 6 mm² is also acceptable.

New power cable coupler are applicable for two different specifications DC cables.

Tools



Network Wire Clamp



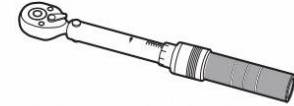
Marker



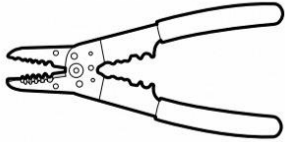
Phillips Screwdriver Bit



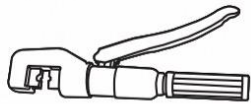
Flat-head Screwdriver



Torque Wrench



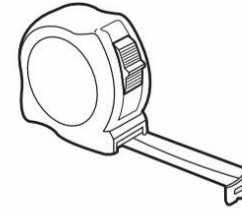
Wire Stripper



Hydraulic Plier
YQK-70



Wrench



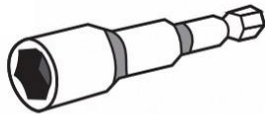
Tape Measure



Drill



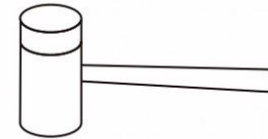
Heat Gun



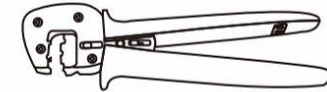
Cylinder Screwdriver



Connector Wrench



Rubber Mallet



Crimping Pliers

Added new tool

Installation Location



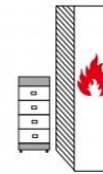
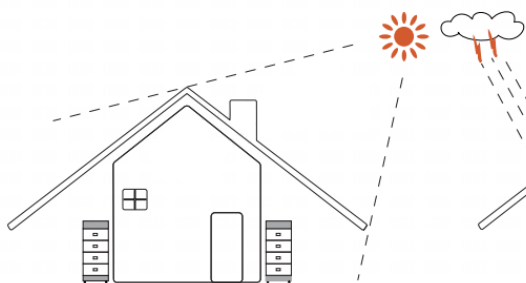
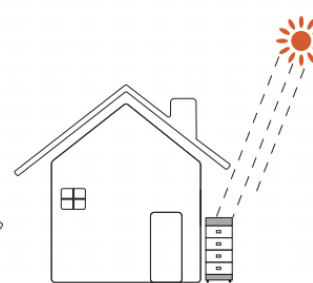
Max +50 °C



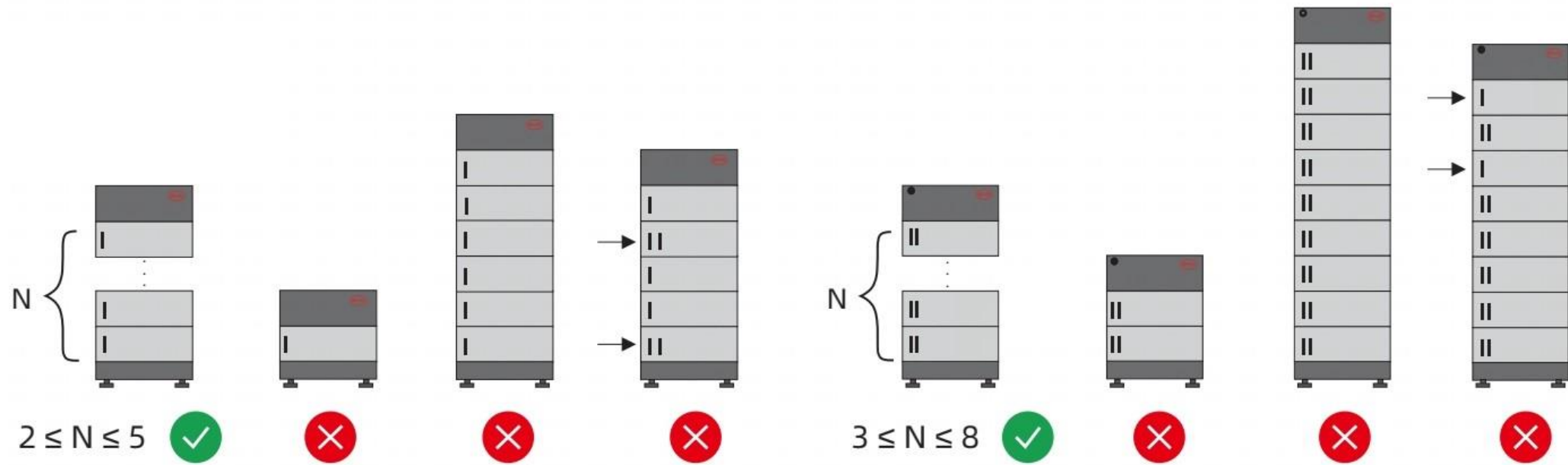
Min -10 °C



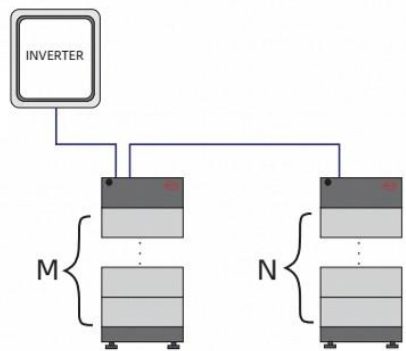
RH. +5 %~ +95 %



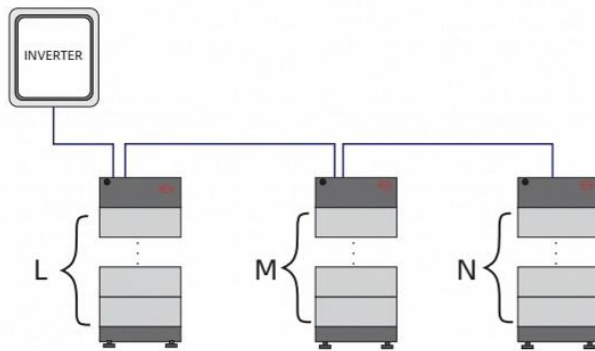
Connection Limitation



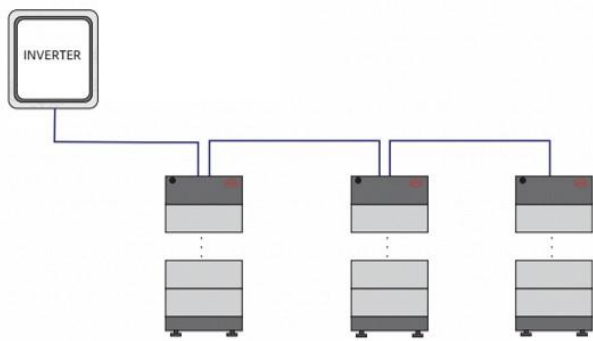
Connection Limitation



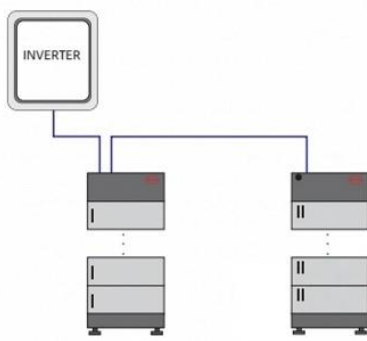
$M = N$ ✓



$L = M = N$ ✓ $L \neq M$ or $l \neq N$ or $M \neq N$ ✗



≤ 3 (Towers)

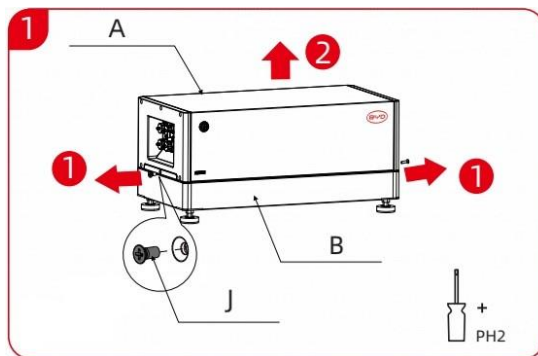
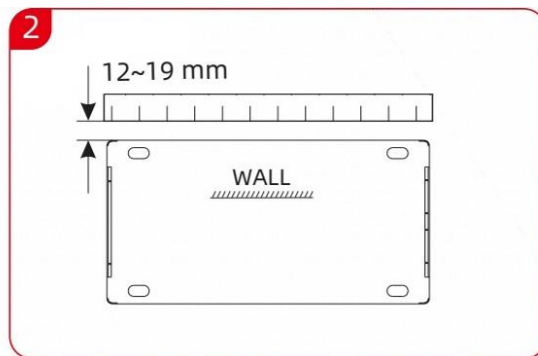
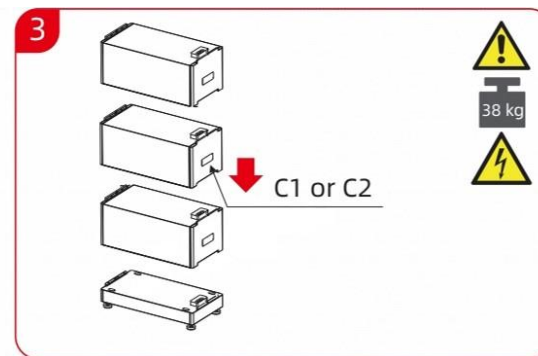
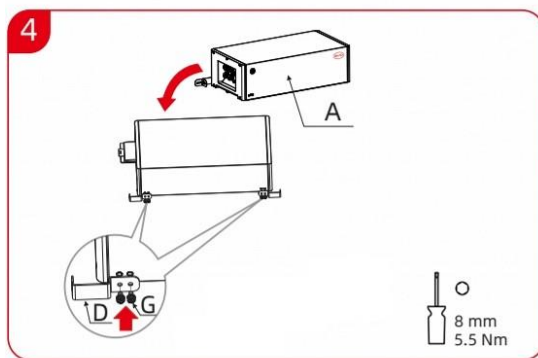
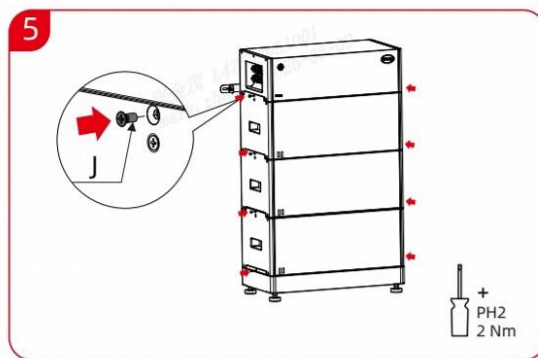
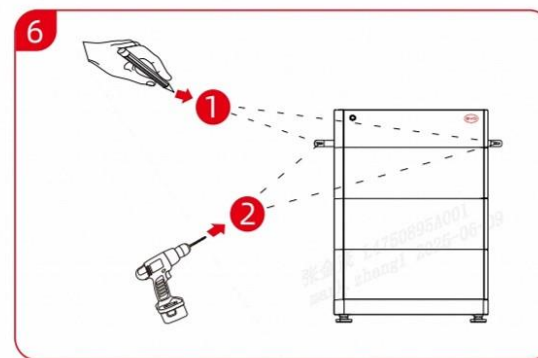
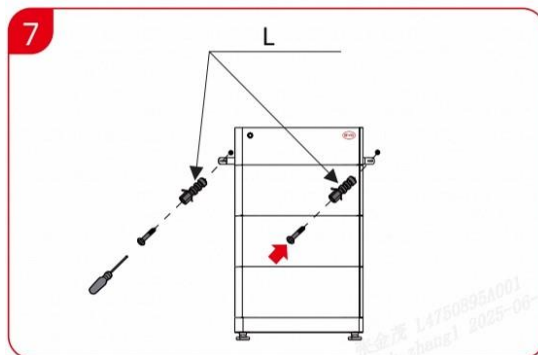
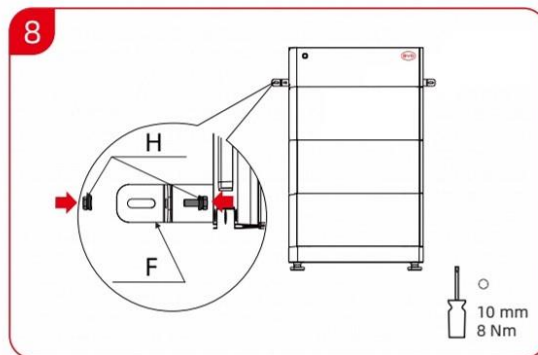
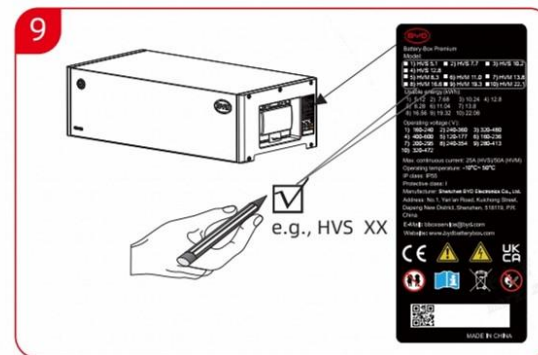


✗



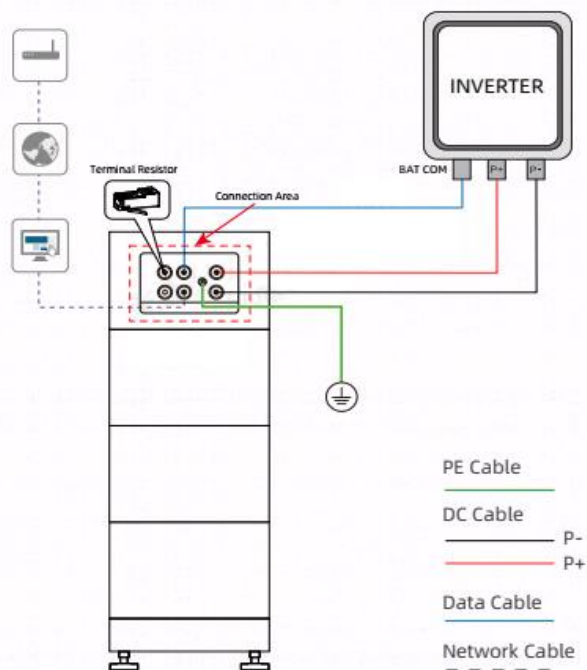
✗

Installation



Connection Diagram

Single Tower

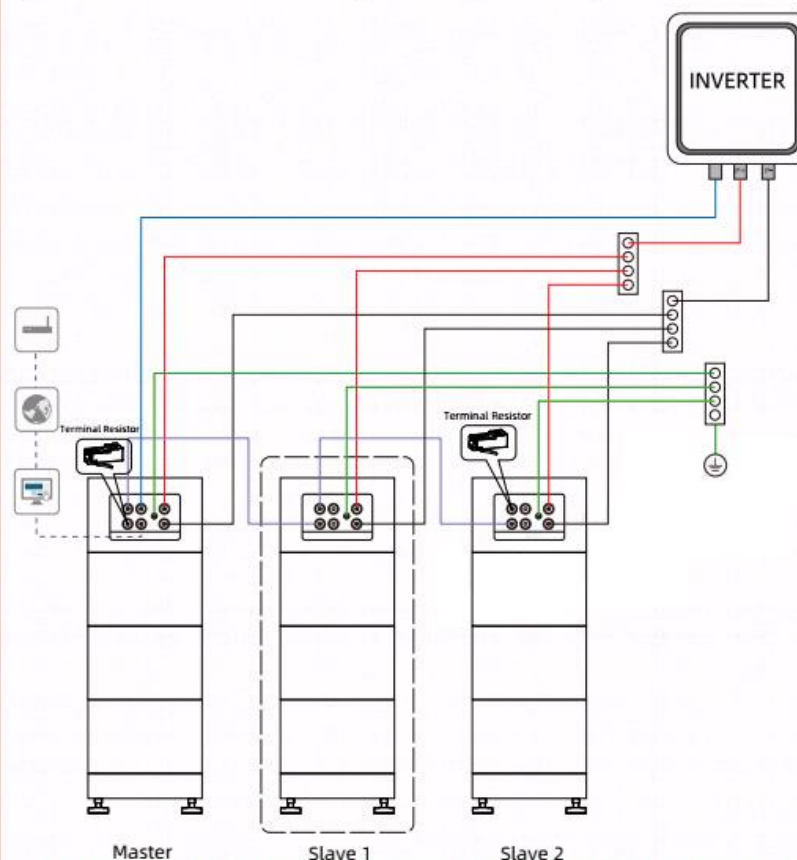


Designation of the connection Area

INV	Port for an inverter data cable
IN	IN port for parallel tower connection
OUT	OUT port for parallel tower connection
ETH	Network port for connecting a router or network switch
PE	Grounding cable connecting point
P-	DC- to inverter
P+	DC+ to inverter

Multiple Towers

Ignore the Slave 1 in the drawing below to get the diagram of two towers

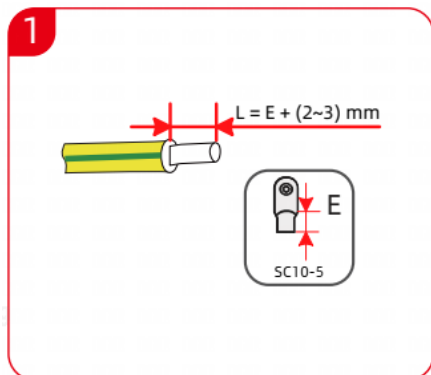
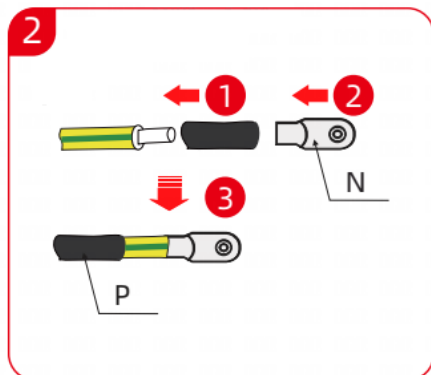
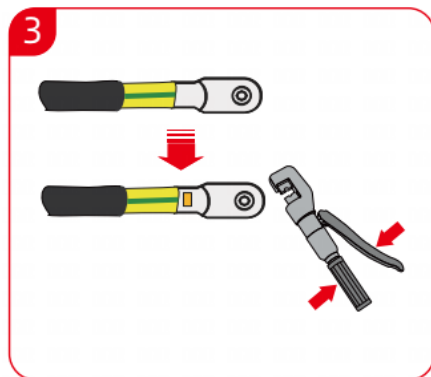
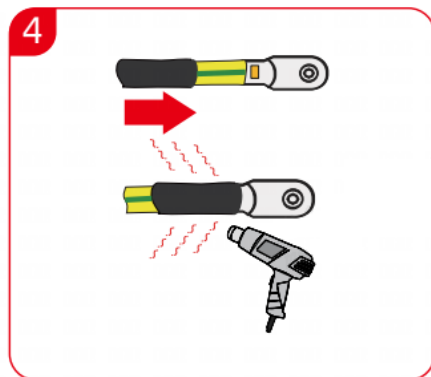
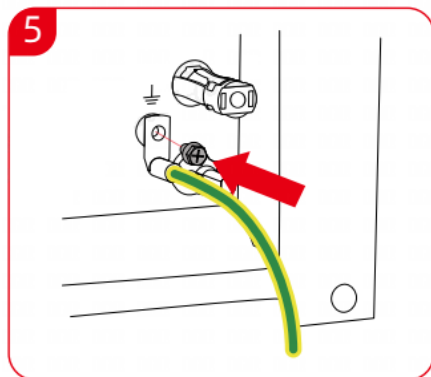


NOTICE

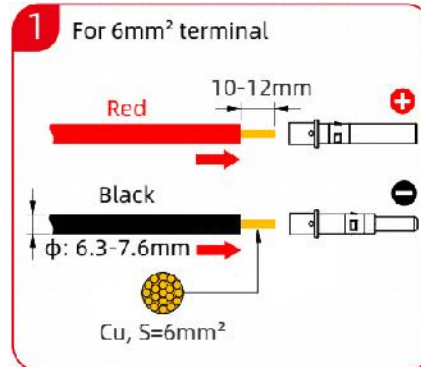
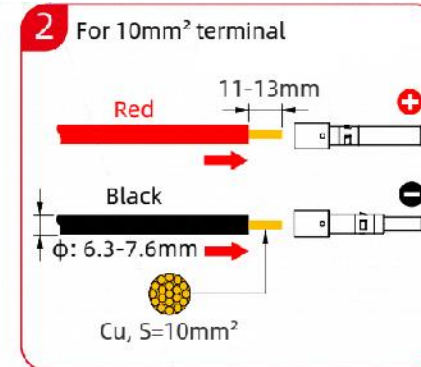
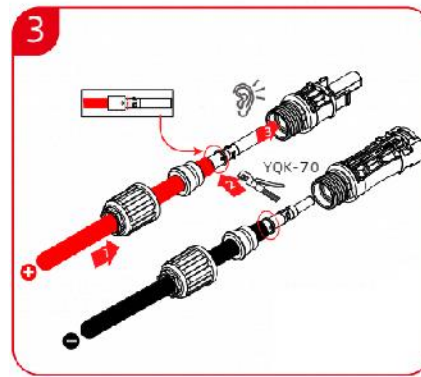
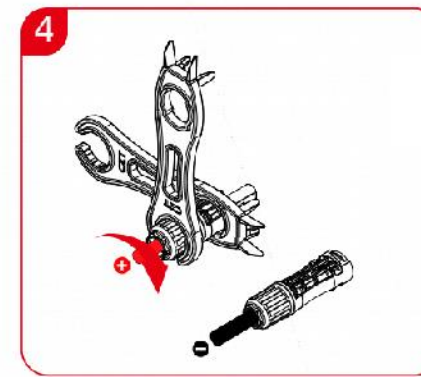
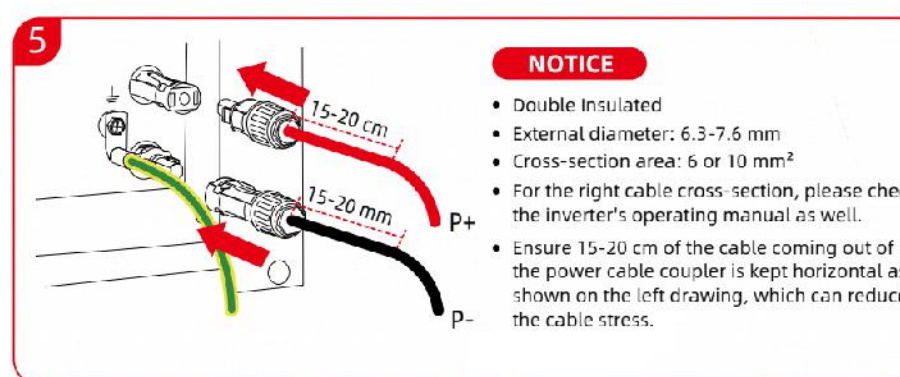
1. Parallel connection is not applicable to SMA Sunny Boy Storage 3.7-6.0. Please check the inverter's operating manual on how to connect up to three battery systems.
2. The length of the power cables from each tower to the combiner box should be the same.
3. The length of the power cable between each battery tower and the inverter should be less than 20 m.

Electrical Connections

DC Cable



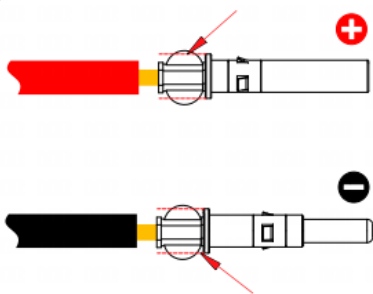
PE Cable



Electrical Connections

There are some notices for crimping DC cable.

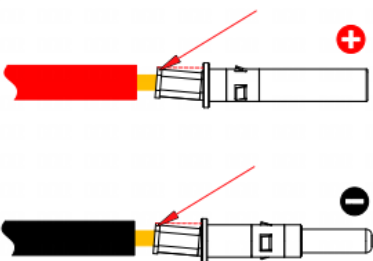
6



NOTICE

The burrs need to be trimmed. After trimming, they should not be higher than the right flange, and there should be no broken edges or wire core leakage.

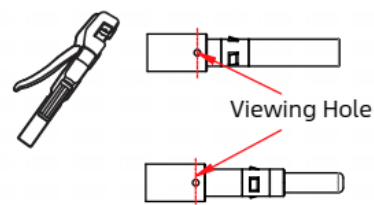
7



NOTICE

If there is any skew after pressing, it should not be higher than the right flange. And the crimping location should be no damage or cracking.

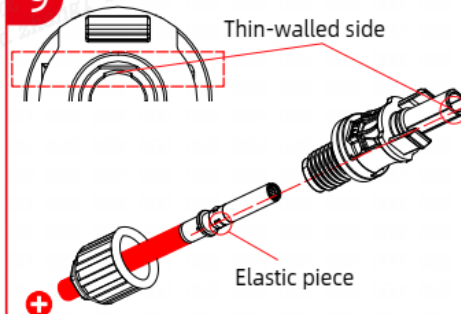
8



NOTICE

When crimping 10 mm² terminals, the crimping pliers die must not completely cover the viewing hole.

9

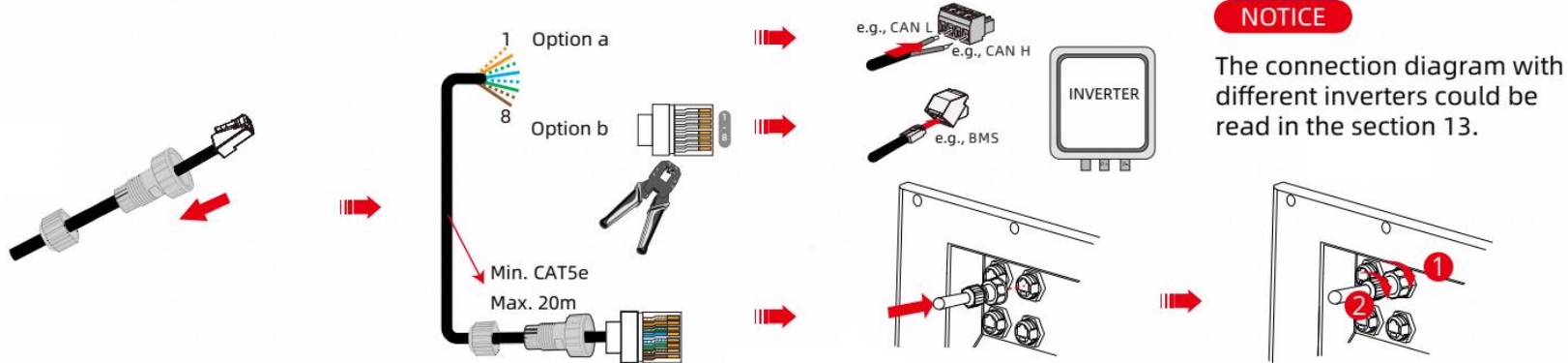


NOTICE

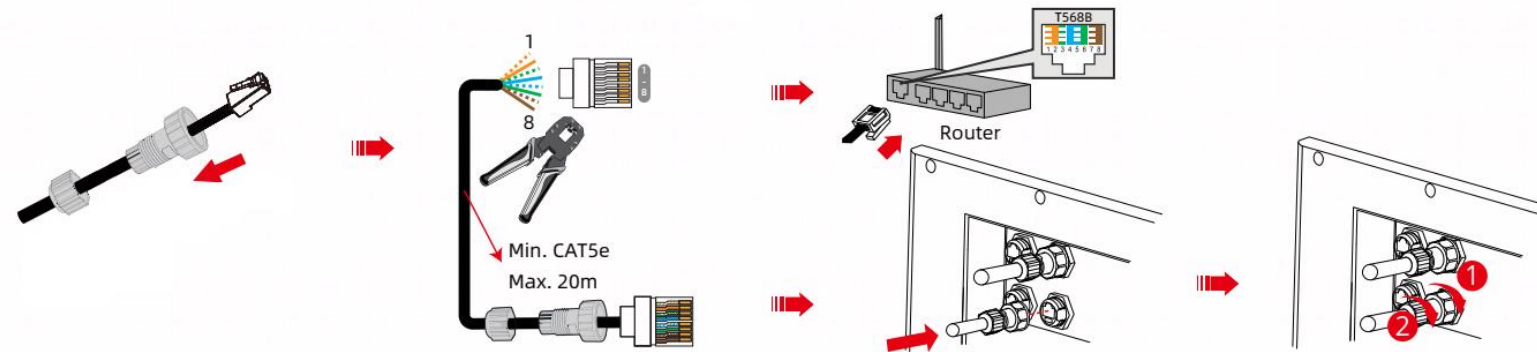
1. Any elastic piece of the terminal must be aligned with the thin-walled side of the plastic case opening before insertion.
2. After inserting, please try pulling it out to check if the terminal and the plastic case are securely connected.

Electrical Connections

8.3 Connecting the Data Cable to an Inverter



8.4 Connecting the Data Cable to a Router (It's not mandatory, but recommended)



8.5 Installing the Terminal Resistor



NOTICE The unused RJ45 port needs to be covered with the built-in waterproof cover and tightened.

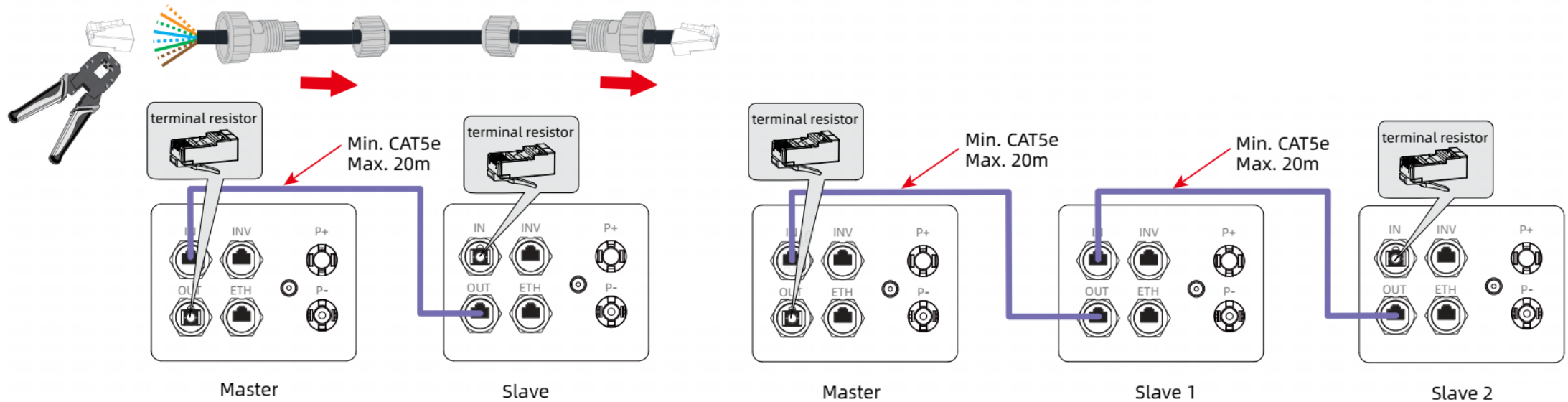
Added the steps to install the terminal resistor

Electrical Connections

Parallel Connection - BCU-V2

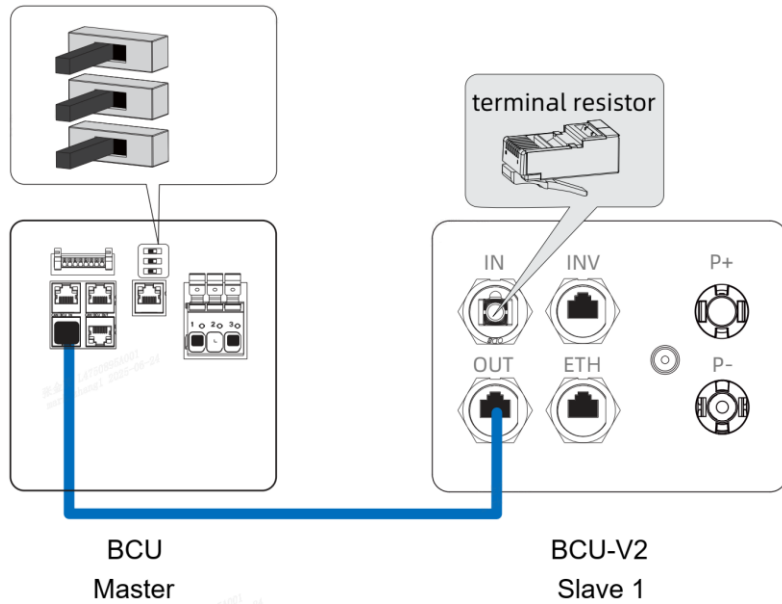
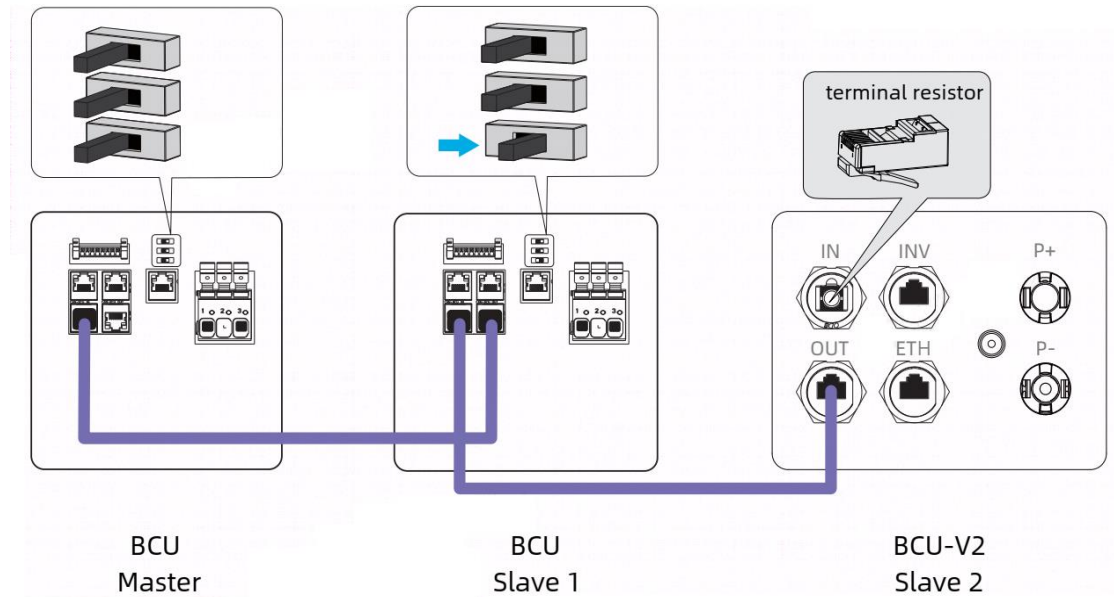
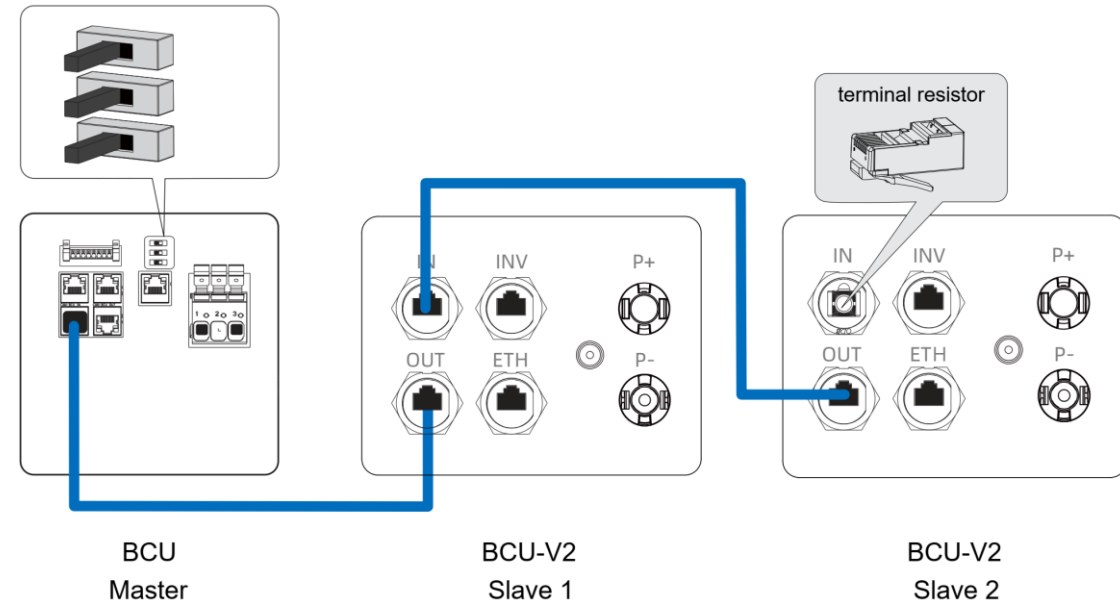
NOTICE

Parallel connection is not applicable to SMA Sunny Boy Storage 3.7-6.0.
Please check the inverter Operating Manual on how to connect up to three battery systems.



Electrical Connections

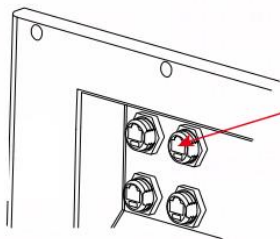
Parallel Connection - BCU&BCU-V2



Connection Options with Inverters

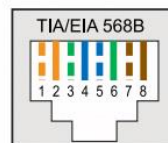
NOTICE

Do not crimp the unused pins when making the communication cable between the battery and the inverter.

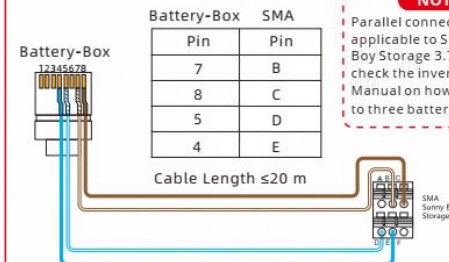


Designation of "INV" port

Pin	1	2	3	4
CAN/RS485	RS485A	RS485B	12V OUT	CAN H
Pin	5	6	7	8
CAN/RS485	CAN L	12V OUT_GND	EN	EN_GND



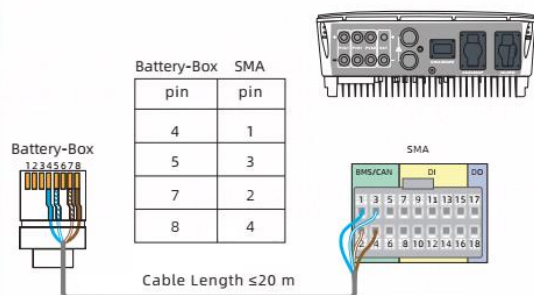
1 SMA SBS 2.5/ 3.7/ 5.0/ 6.0



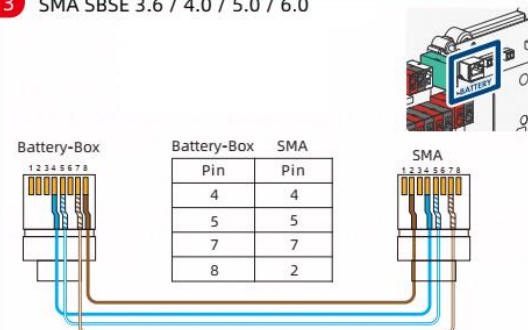
NOTICE

Parallel connection is not applicable to SMA Sunny Boy Storage 3.7-6.0. Please check the inverter Operating Manual on how to connect up to three battery systems.

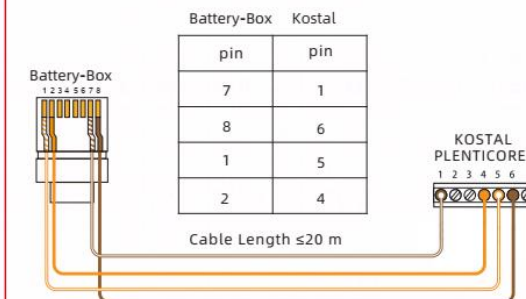
2 SMA STP 5.0-10.0 SE



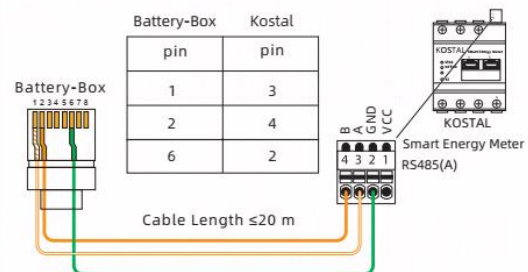
3 SMA SBSE 3.6 / 4.0 / 5.0 / 6.0



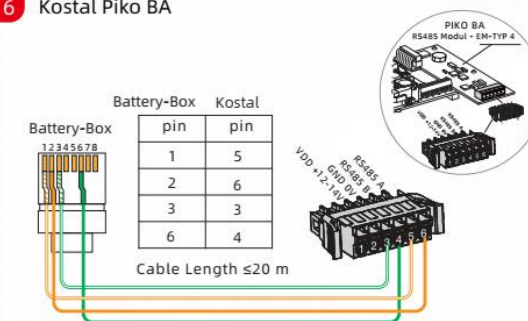
4 Kostal Plenticore Plus (G2)/ Plenticore BI (G2)/ Plenticore G3



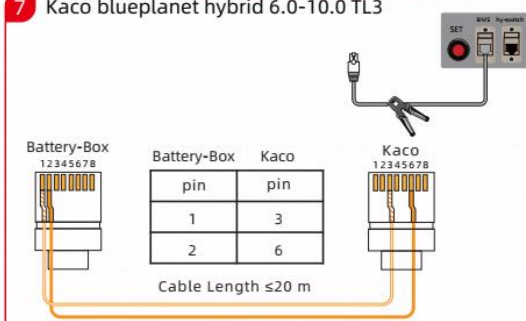
5 Kostal Piko MP Plus



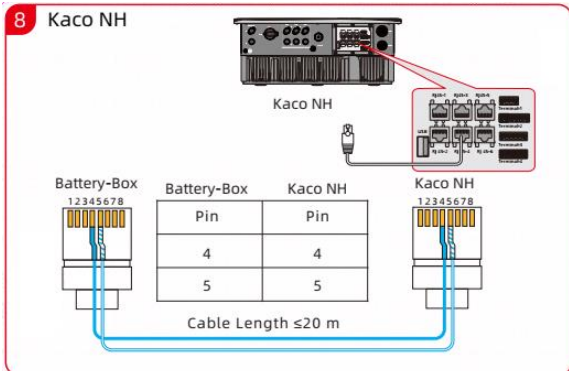
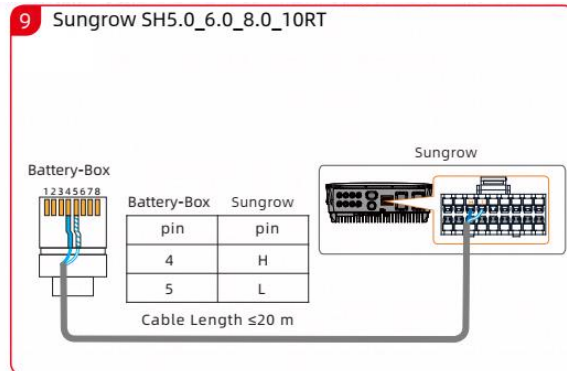
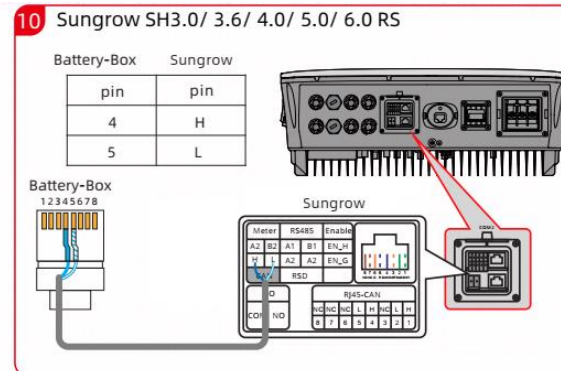
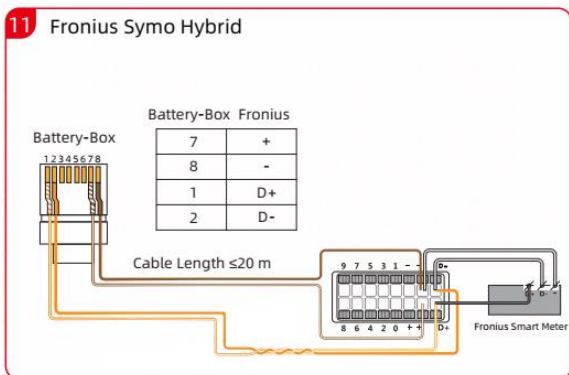
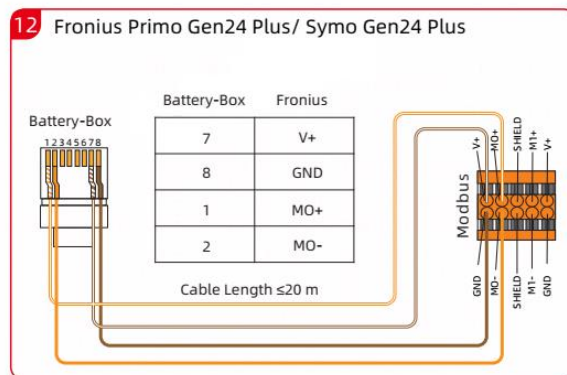
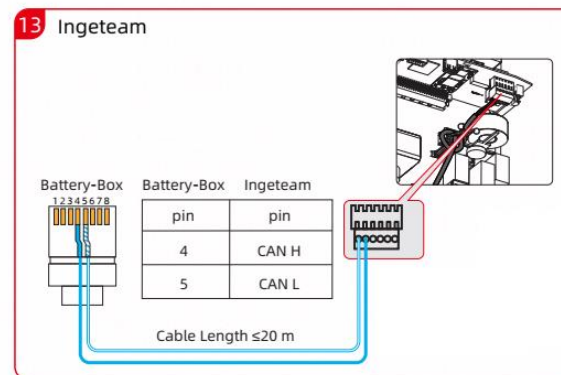
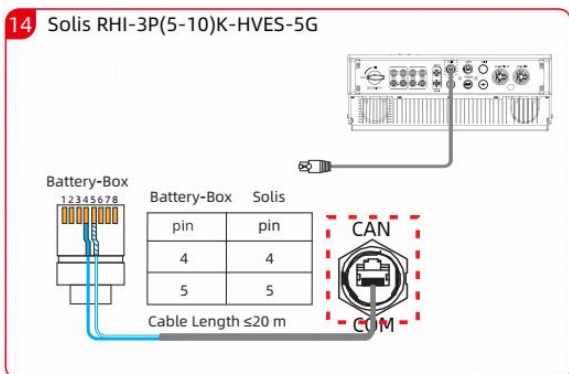
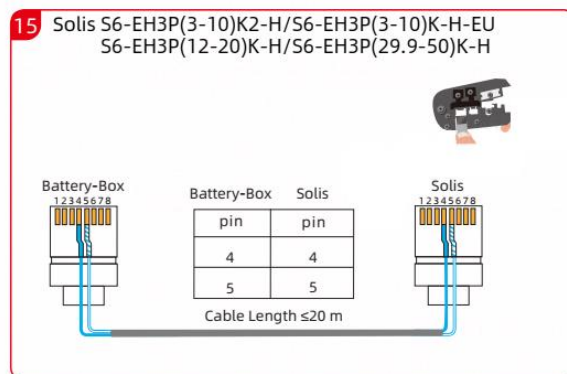
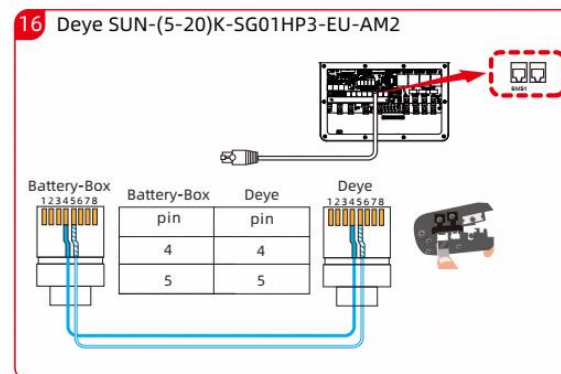
6 Kostal Piko BA



7 Kaco blueplanet hybrid 6.0-10.0 TL3

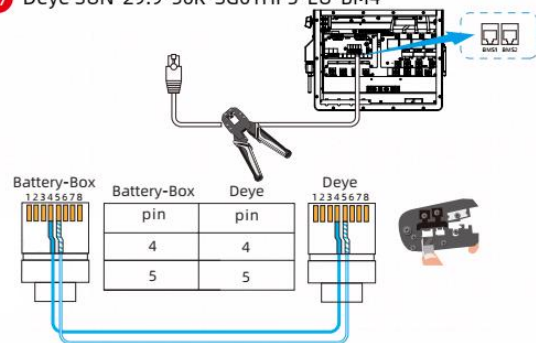


Connection Options with Inverters

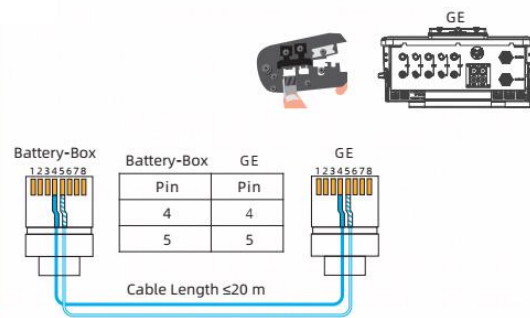


Connection Options with Inverters

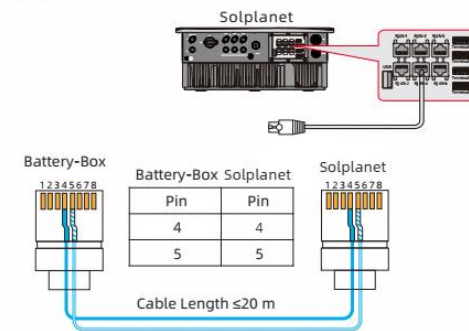
17 Deye SUN-29.9-50K-SG01HP3-EU-BM4



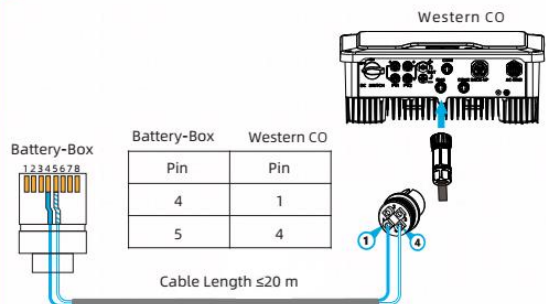
18 GE GEH 5.0/ 8.6/ 10-1U-10



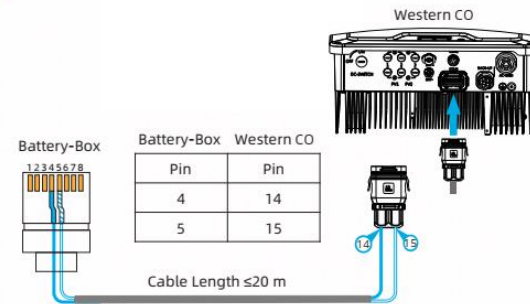
19 Solplanet



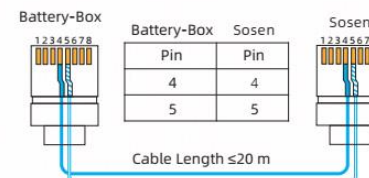
20 Western CO HHS 3000-6000/ HBS 3000-6000



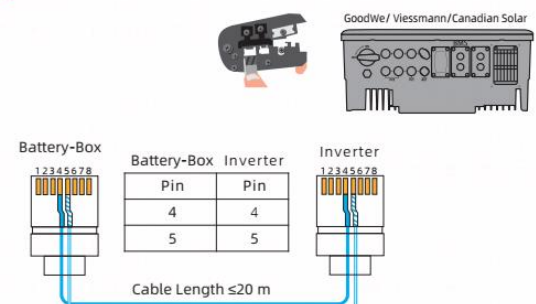
21 Western CO HHT 5000-12000/ HBT 5000-12000



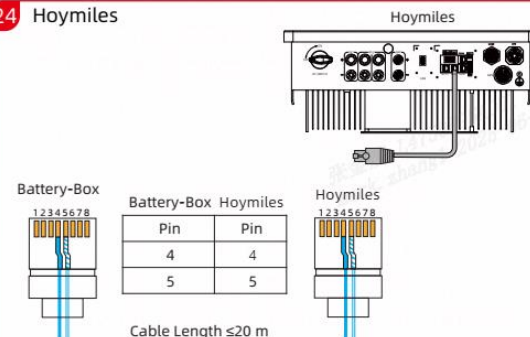
22 Sosen SSE-HH3K-6K-P1-EU



23 GoodWe/ Viessmann/ Canadian Solar



24 Hoymiles



25 Afore AF(3-30)K-TH

