

WHESS

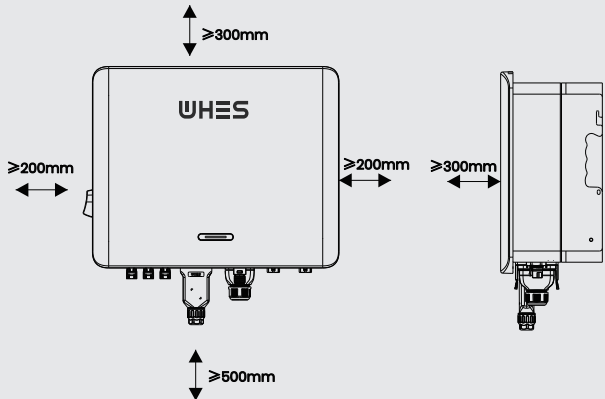
Quick Installation Guide

Note: Please scan the QR code and read the SHE Series Single Phase Hybrid Inverter user manual carefully before installation.



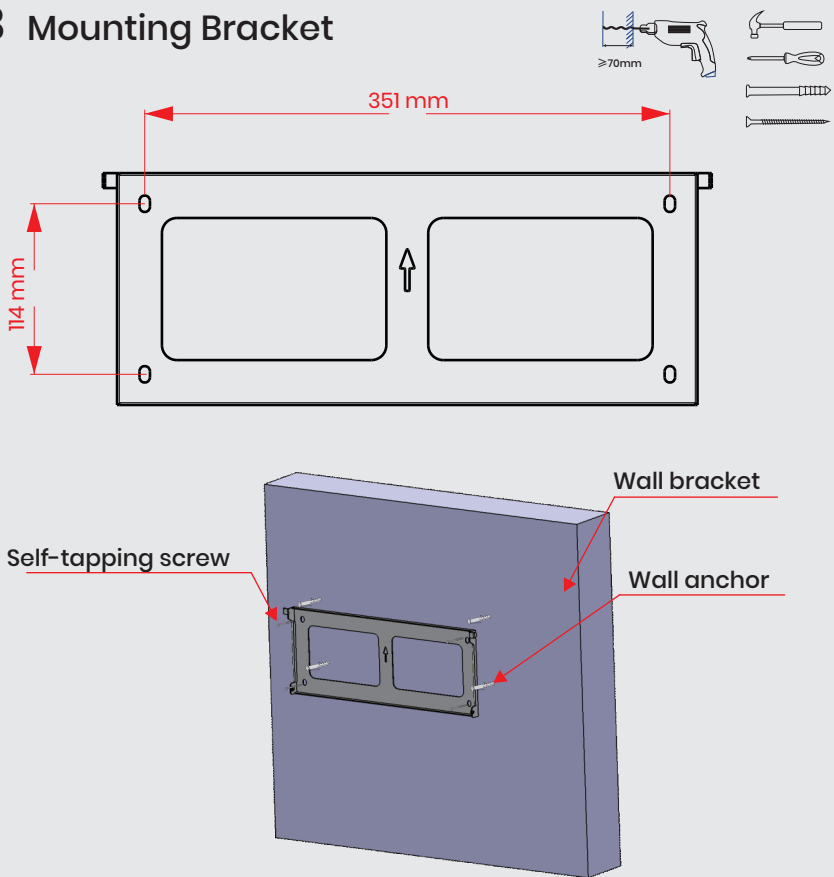
A Installation Space Requirements *

Top-----	300mm
Bottom-----	500mm
Front-----	300mm
Left and right sides-----	200mm

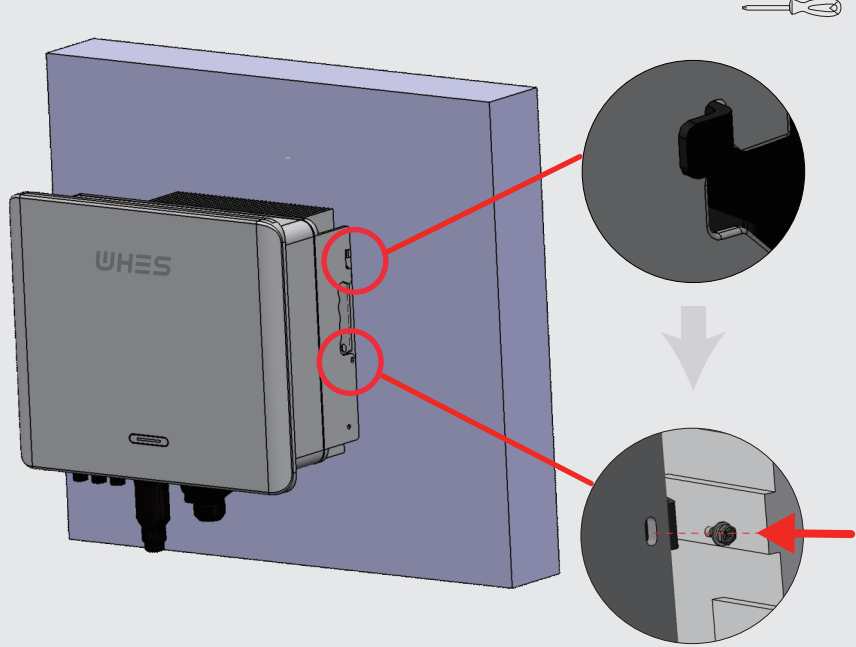


* The clearance is a recommendation. Reserve sufficient clearance around the product to ensure sufficient space for installation, maintenance and heat dissipation. If there is a local standard for the installation of energy storage systems, please define the clearance refer to the standard.

B Mounting Bracket

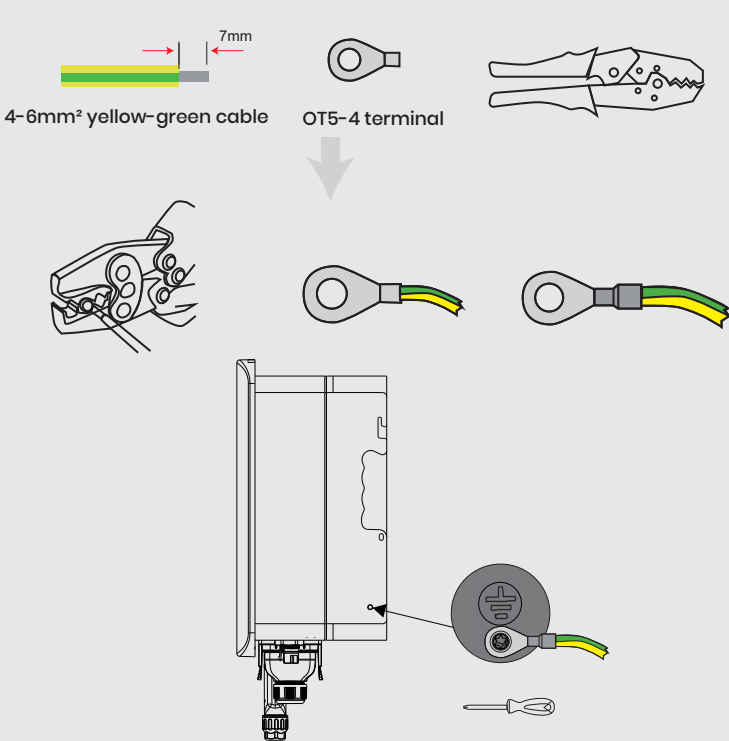


C Installation



Raise the hybrid inverter by holding it from both sides of the heatsink and attach it to the mounting bracket.
Tighten the two M4 × 14 screws and torque them to 2.5 ± 0.5 N·m

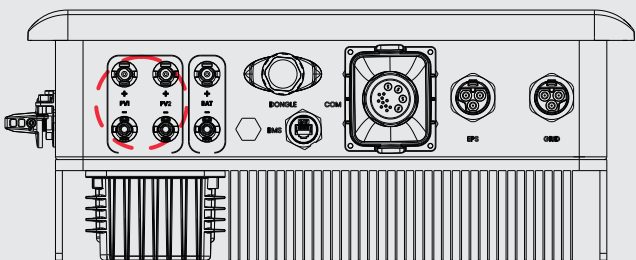
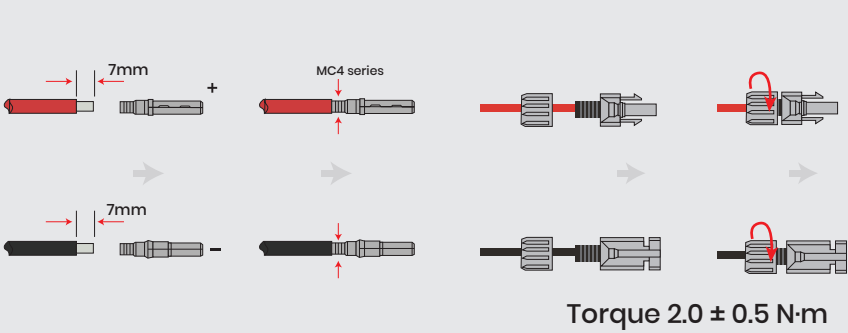
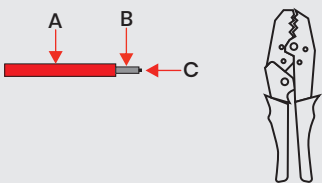
D Connecting PE Cable



NOTE: The PE screw is pre-installed on the hybrid inverter and should be torqued to 2.5 ± 0.5 N·m

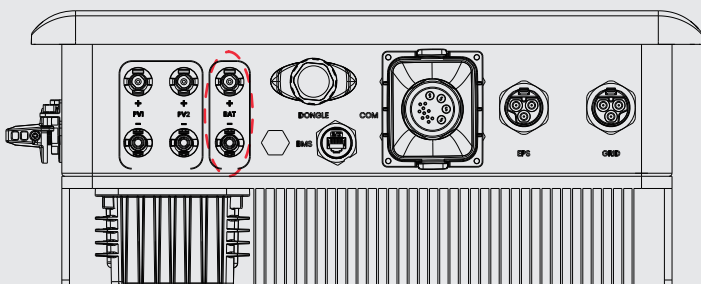
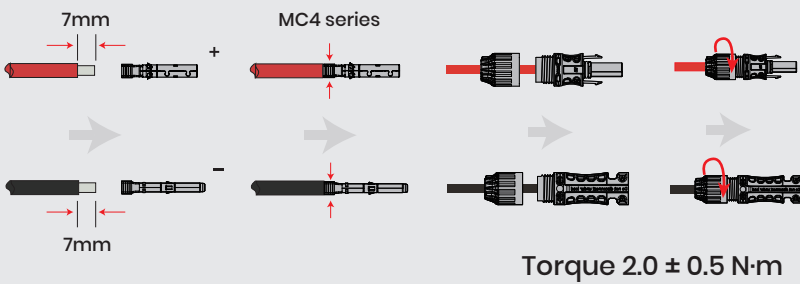
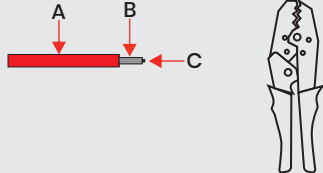
E Connecting the PV Cable

Legend	Description	Value
A	Outer Diameter	5.5-8.0mm
B	Insulated Cable Length	7mm
C	Conductor Core	4-6 mm²



F Connecting the Battery Cable

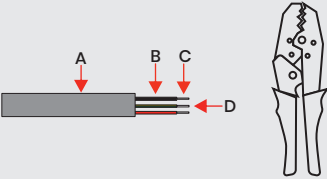
Legend	Description	Value
A	Outer Diameter	5.5-8.0mm
B	Insulated Cable Length	7 mm
C	Conductor Core	6 mm²





G Connecting the EPS Cable

Legend	Description	Value
A	Outer Diameter	8-11mm
B	Individual Cable Length	25-30mm
C	Insulated Cable Length	10mm
D	Conductor Core	6 mm²



STEP 1

Use crimping pliers to crimp the terminals

STEP 2

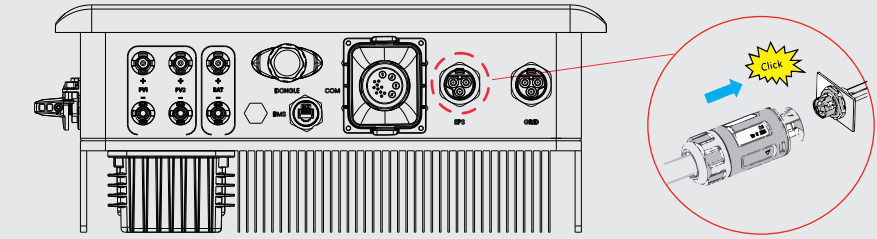
Arrange the terminals on the cable and insert them in order

STEP 3

Use a hex key to crimp the inner wires and torque them to 1.2 ± 0.1 N·m

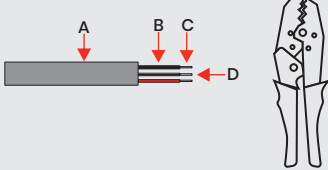
STEP 4

Insert the main cable body into the rubber insulator and use an open-ended wrench to torque the nut to 2.5 ± 0.5 N·m



H Connecting GRID

Legend	Description	Value
A	Outer Diameter	8-11mm
B	Individual Cable Length	25-30mm
C	Insulated Cable Length	10mm
D	Conductor Core	10-16 mm²



STEP 1

Use crimping pliers to crimp the terminals

STEP 2

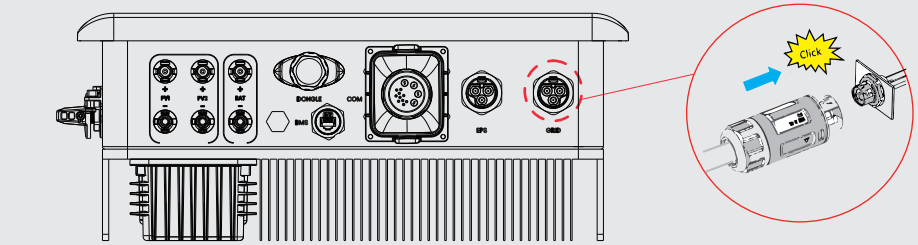
Arrange the terminals on the cable and insert them in order

STEP 3

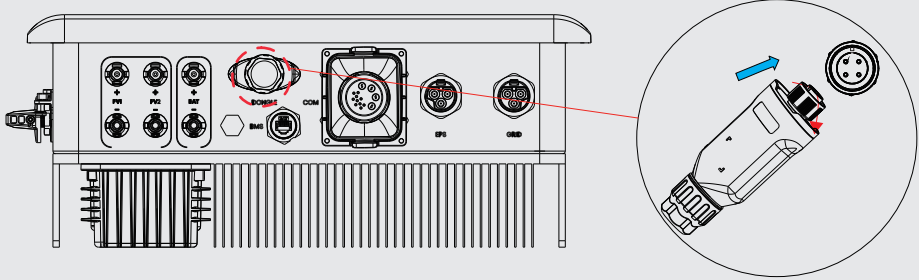
Use a hex key to crimp the inner wires and torque them to 1.2 ± 0.1 N·m

STEP 4

Insert the main cable body into the rubber insulator and use an open-ended wrench to torque the nut to 2.5 ± 0.5 N·m

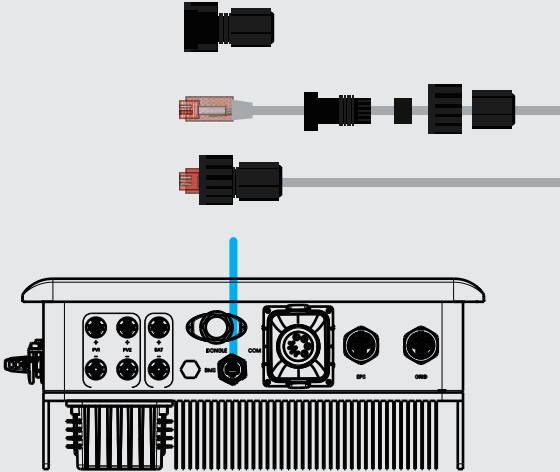


I Connecting WiFi Dongle

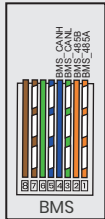


Insert the Wi-Fi dongle included in the accessory package into the base, then torque the plastic nut to 2.5 ± 0.5 N·m

J Connecting BMS



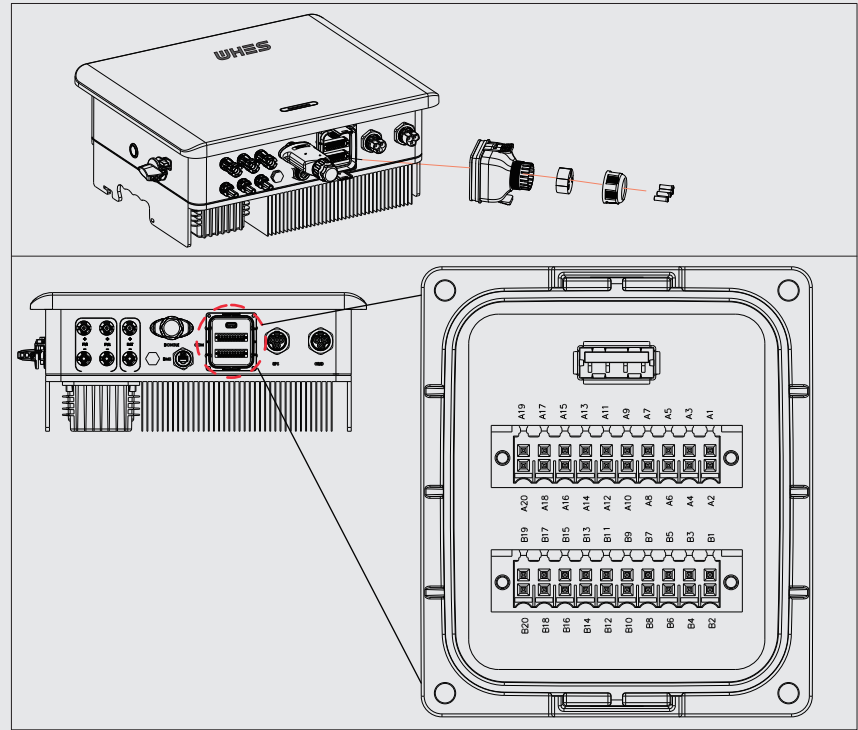
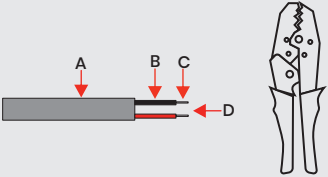
Pin Function of BMS eter Communication Connector on Inverter Side



1	BMS_485A
2	BMS_485B
3	BMS_CANL
4	BMS_CANH
5	NC
6	NC
7	GND_COM
8	GND_COM

K Connecting COM

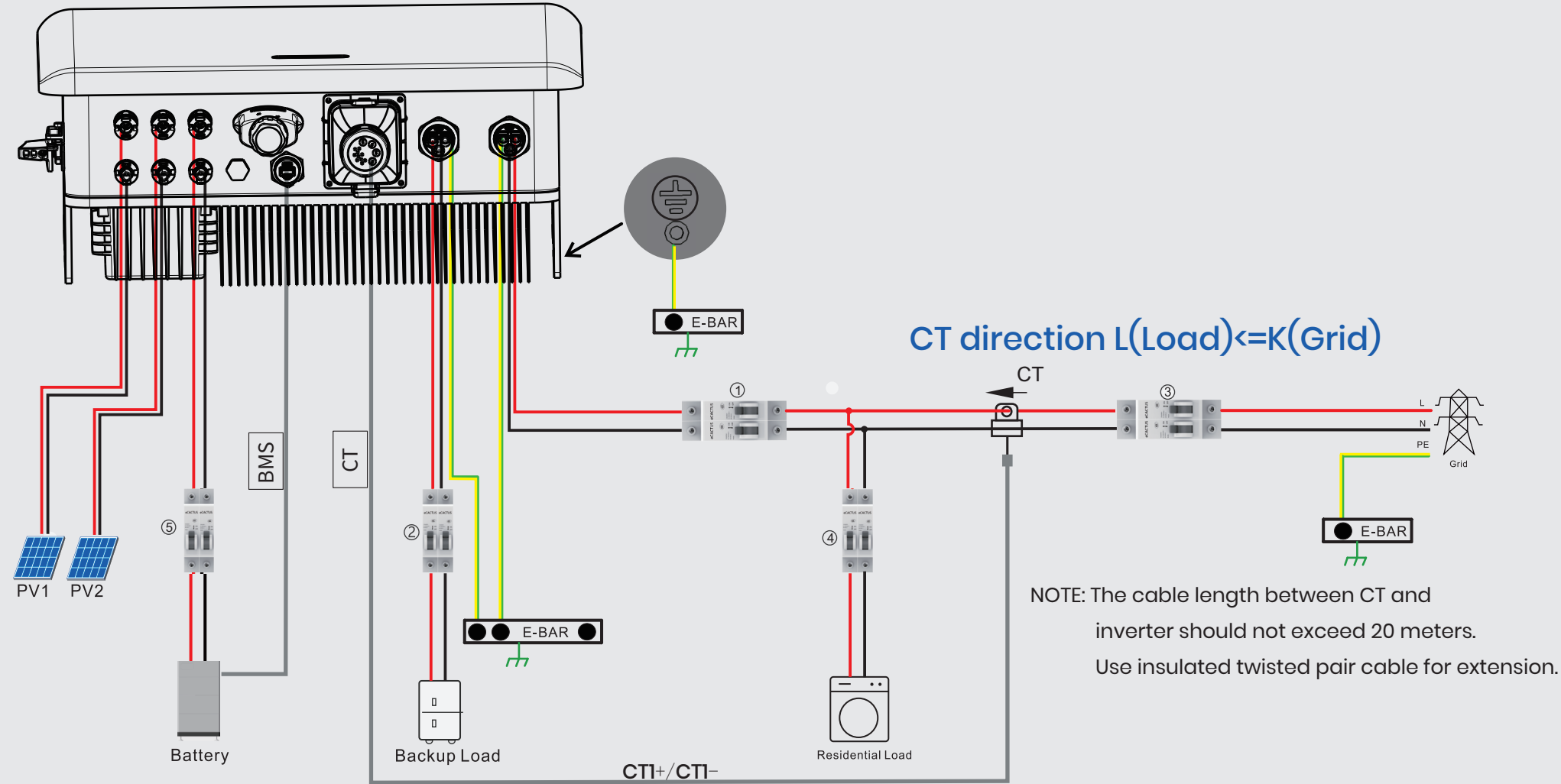
Legend	Description	Value
A	Outer Diameter	5-6mm
B	Individual Cable Length	22-32mm
C	Insulated Cable Length	7-8mm
D	Conductor Core	0.5 mm²



Pin	Definition	Pin	Definition
A1	M_485A	B1	RSD+
A2	M_485B	B2	RSD-
A3	COM_485A	B3	RLY1_O
A4	COM_485B	B4	RLY1_O
A5	PAR_485A	B5	RLY2_O
A6	PAR_485B	B6	RLY2_O
A7	D_CANH	B7	RLY3_O
A8	D_CANL	B8	RLY3_O
A9	CAN_120Ω	B9	IN1+
A10	CAN_120Ω	B10	IN1-
A11	SYNC1	B11	IN2+
A12	GND_COM	B12	IN2-
A13	D_485A	B13	CT1-
A14	D_485B	B14	CT1+
A15	COM/DRM0	B15	CT2-
A16	REFGEN	B16	CT2+
A17	DRM1/5	B17	+12V_COM
A18	DRM2/6	B18	GND_COM
A19	DRM3/7	B19	+5V_COM
A20	DRM4/8	B20	GND_COM



L-1 System Wiring Diagram (DC Couple, EU, CT TYPE: AKH-0.66 K-φ16 120A/40mA)



Model	①	②	③ ④	⑤
SIA-3.6kW	50A/230V AC breaker	32A/230V AC breaker	According to residential load (generally already installed in the grid distribution box)	40 A/750 V DC breaker(no external DC breaker is necessary when using battery systems with existing breakers)
SIA-4.6kW	50A/230V AC breaker	32A/230V AC breaker		
SIA-5kW	63A/230V AC breaker	32A/230V AC breaker		
SIA-6kW	63A/230V AC breaker	40A/230V AC breaker		

BMS

Pin Function of BMS eter Communication Connector on Inverter Side

1	BMS_485A
2	BMS_485B
3	BMS_CANL
4	BMS_CANH
5	NC
6	NC
7	GND_COM
8	GND_COM

CT

Pin	Definition	Pin	Definition
A1	M_485A	B1	RSD+
A2	M_485B	B2	RSD-
A3	COM_485A	B3	RLY1_O
A4	COM_485B	B4	RLY1_O
A5	PAR_485A	B5	RLY2_O
A6	PAR_485B	B6	RLY2_O
A7	D_CANH	B7	RLY3_O
A8	D_CANL	B8	RLY3_O
A9	CAN_120Ω	B9	IN1+
A10	CAN_120Ω	B10	IN1-
A11	SYNC1	B11	IN2+
A12	GND_COM	B12	IN2-
A13	D_485A	B13	CT1-
A14	D_485B	B14	CT1+
A15	COM/DRM0	B15	CT2-
A16	REFGEN	B16	CT2+
A17	DRM1/5	B17	+12V_COM
A18	DRM2/6	B18	GND_COM
A19	DRM3/7	B19	+5V_COM
A20	DRM4/8	B20	GND_COM

NOTE:

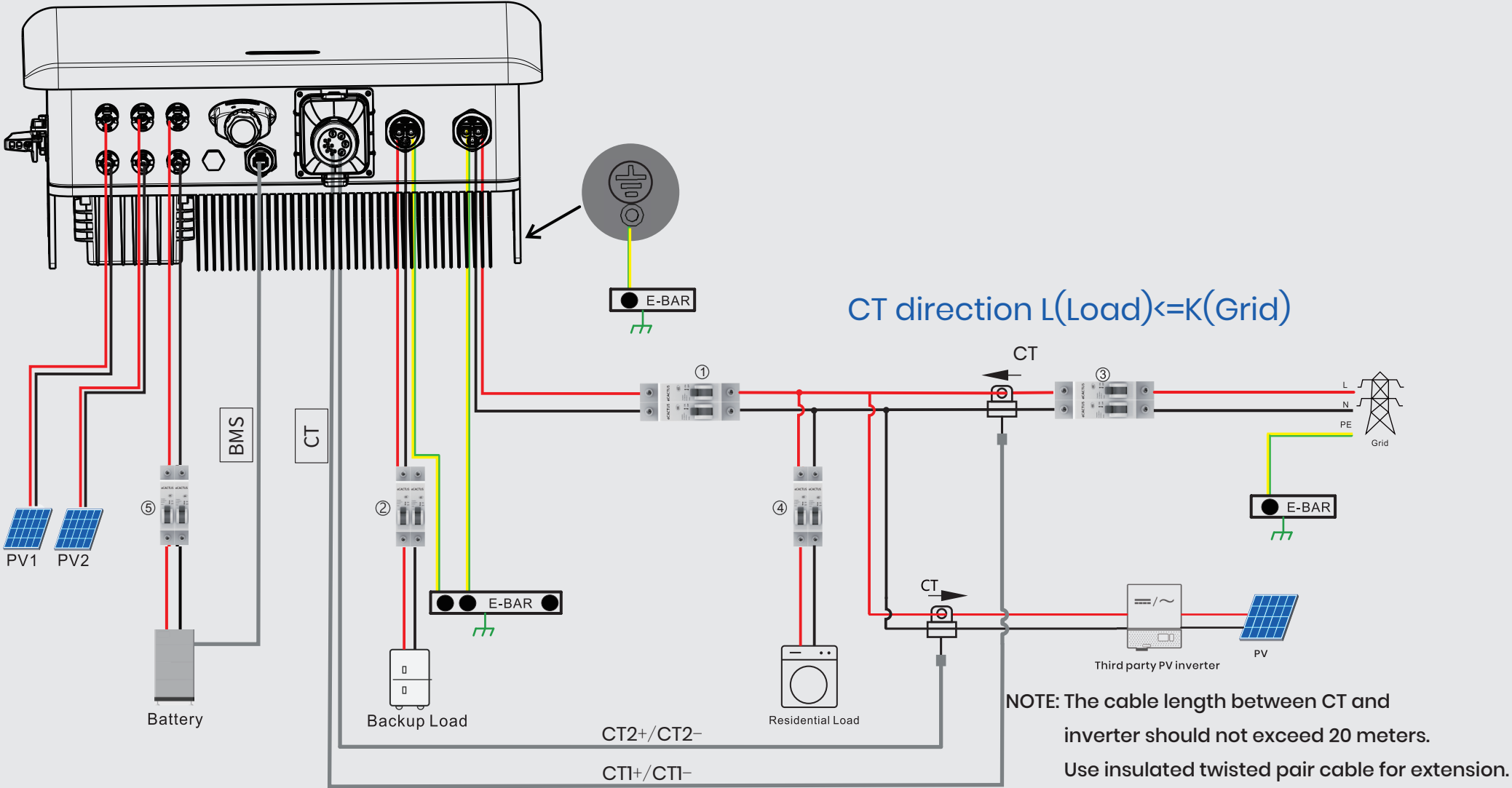
1. Make sure that any batteries selected are included on the SHE list of approved batteries before purchase, or the system may not work as intended. Please contact your installer or the WHES service team for confirmation if you're not sure whether your chosen battery is an approved battery.

2. This section mainly describes cable connections on the inverter side. Refer to the instructions supplied by the battery manufacturer for battery side connections and configurations.

3. Please make sure that the AC line matches the "L", "N", and the grounding port of the AC terminal completely when wiring. If the cable is connected incorrectly, the device may be damaged.



L-2 System Wiring Diagram (AC Couple, EU, CT TYPE: AKH-0.66 K-φ16 120A/40mA)



Model	①	②	③ ④	⑤
SIA-3.6kW	50A/230V AC breaker	32A/230V AC breaker	According to residential load (generally already installed in the grid distribution box)	40 A/750 V DC breaker(no external DC breaker is necessary when using battery systems with existing breakers)
SIA-4.6kW	50A/230V AC breaker	32A/230V AC breaker		
SIA-5kW	63A/230V AC breaker	32A/230V AC breaker		
SIA-6kW	63A/230V AC breaker	40A/230V AC breaker		

BMS

Pin Function of BMS eter Communication Connector on Inverter Side

1	BMS_485A
2	BMS_485B
3	BMS_CANL
4	BMS_CANH
5	NC
6	NC
7	GND_COM
8	GND_COM

CT

Pin	Definition	Pin	Definition
A1	M_485A	B1	RSD+
A2	M_485B	B2	RSD-
A3	COM_485A	B3	RLY1_O
A4	COM_485B	B4	RLY1_O
A5	PAR_485A	B5	RLY2_O
A6	PAR_485B	B6	RLY2_O
A7	D_CANH	B7	RLY3_O
A8	D_CANL	B8	RLY3_O
A9	CAN_120Ω	B9	IN1+
A10	CAN_120Ω	B10	IN1-
A11	SYNC1	B11	IN2+
A12	GND_COM	B12	IN2-
A13	D_485A	B13	CT1-
A14	D_485B	B14	CT1+
A15	COM/DRM0	B15	CT2-
A16	REFGEN	B16	CT2+
A17	DRM1/5	B17	+12V_COM
A18	DRM2/6	B18	GND_COM
A19	DRM3/7	B19	+5V_COM
A20	DRM4/8	B20	GND_COM

CT2-
CT1-

CT1+
CT2+

NOTE:

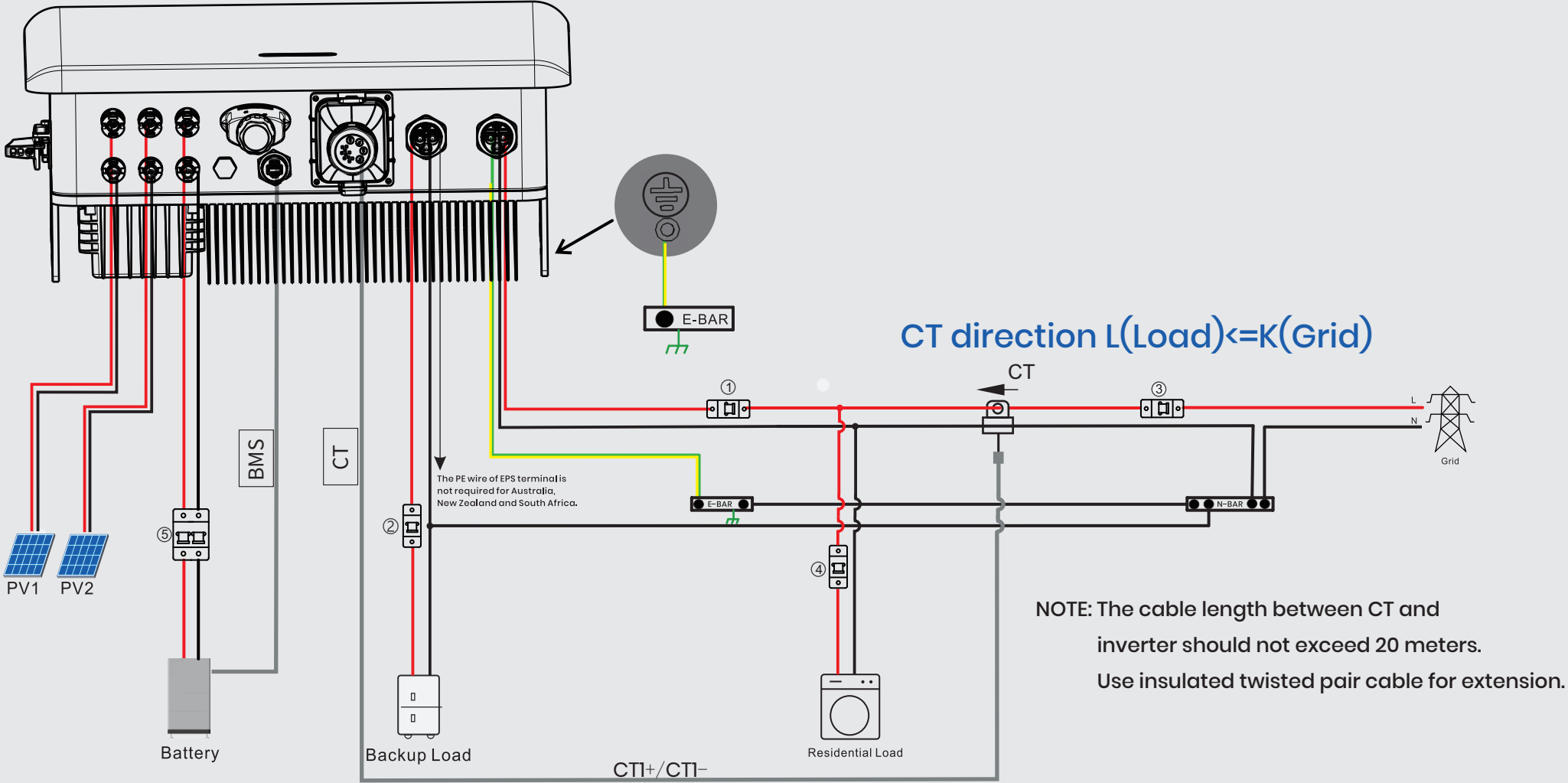
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3. Please make sure that the AC line matches the "L", "N", and the grounding port of the AC terminal completely when wiring. If the cable is connected incorrectly, the device may be damaged.



M-1 System Wiring Diagram (DC Couple, AU, NZ, SA, CT TYPE: AKH-0.66 K-φ16 120A/40mA)



Model	①	②	③ ④	⑤
SIA-3.6kW	50A/230V AC breaker	32A/230V AC breaker	According to residential load (generally already installed in the grid distribution box)	40 A/750 V DC breaker(no external DC breaker is necessary when using battery systems with existing breakers)
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SIA-5kW	63A/230V AC breaker	32A/230V AC breaker		
SIA-6kW	63A/230V AC breaker	40A/230V AC breaker		

BMS

Pin Function of BMS eter Communication Connector on Inverter Side

1	BMS_485A
2	BMS_485B
3	BMS_CANL
4	BMS_CANH
5	NC
6	NC
7	GND_COM
8	GND_COM

CT

Pin	Definition	Pin	Definition
A1	M_485A	B1	RSD+
A2	M_485B	B2	RSD-
A3	COM_485A	B3	RLY1_O
A4	COM_485B	B4	RLY1_O
A5	PAR_485A	B5	RLY2_O
A6	PAR_485B	B6	RLY2_O
A7	D_CANH	B7	RLY3_O
A8	D_CANL	B8	RLY3_O
A9	CAN_120Ω	B9	IN1+
A10	CAN_120Ω	B10	IN1-
A11	SYNC1	B11	IN2+
A12	GND_COM	B12	IN2-
A13	D_485A	B13	CT1-
A14	D_485B	B14	CT1+
A15	COM/DRM0	B15	CT2-
A16	REFGEN	B16	CT2+
A17	DRM1/5	B17	+12V_COM
A18	DRM2/6	B18	GND_COM
A19	DRM3/7	B19	+5V_COM
A20	DRM4/8	B20	GND_COM

NOTE:

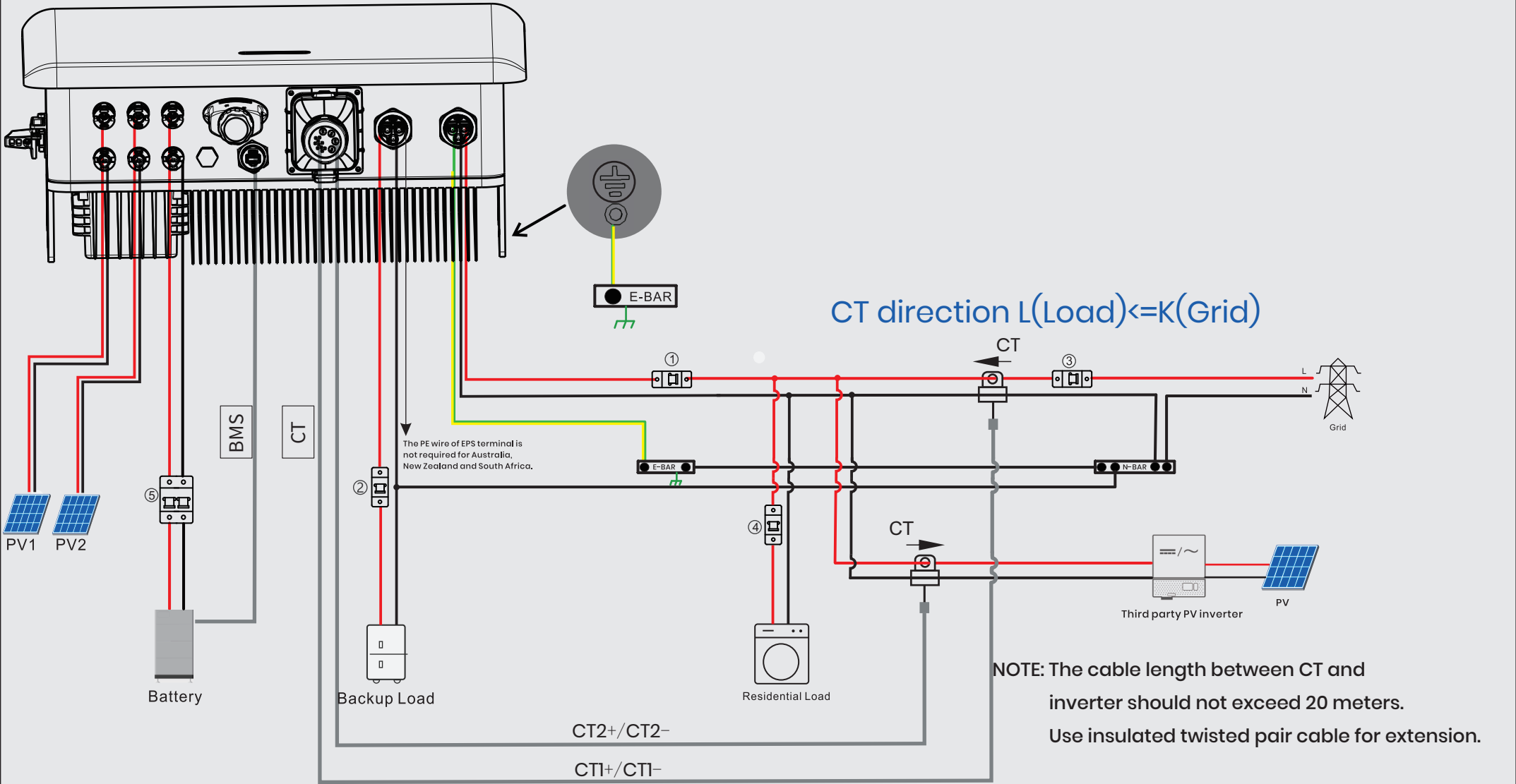
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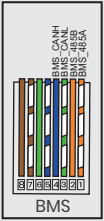
M-2 System Wiring Diagram (AC Couple, AU, NZ, SA, CT TYPE: AKH-0.66 K-φ16 120A/40mA)



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SIA-6kW	63A/230V AC breaker	40A/230V AC breaker		

BMS

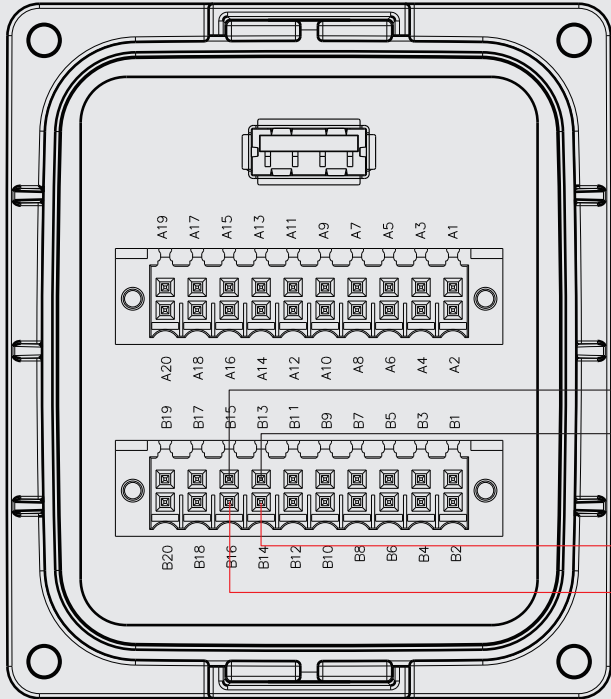
Pin Function of BMS eter Communication Connector on Inverter Side



1	BMS_485A
2	BMS_485B
3	BMS_CANL
4	BMS_CANH
5	NC
6	NC
7	GND_COM
8	GND_COM

CT

Pin	Definition	Pin	Definition
A1	M_485A	B1	RSD+
A2	M_485B	B2	RSD-
A3	COM_485A	B3	RLY1_O
A4	COM_485B	B4	RLY1_O
A5	PAR_485A	B5	RLY2_O
A6	PAR_485B	B6	RLY2_O
A7	D_CANH	B7	RLY3_O
A8	D_CANL	B8	RLY3_O
A9	CAN_120Ω	B9	IN1+
A10	CAN_120Ω	B10	IN1-
A11	SYNC1	B11	IN2+
A12	GND_COM	B12	IN2-
A13	D_485A	B13	CT1-
A14	D_485B	B14	CT1+
A15	COM/DRM0	B15	CT2-
A16	REFGEN	B16	CT2+
A17	DRM1/5	B17	+12V_COM
A18	DRM2/6	B18	GND_COM
A19	DRM3/7	B19	+5V_COM
A20	DRM4/8	B20	GND_COM



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3. Please make sure that the AC line matches the "L", "N", and the grounding port of the AC terminal completely when wiring. If the cable is connected incorrectly, the device may be damaged.



N App Pairing Preparation:

1. Ensure that the device has been properly installed and powered on.
2. Confirm that the Wi-Fi signal at the installation site is stable and strong.
3. A mobile phone with Android or iOS system.
4. Stay within close proximity to the device.

Notice

To complete device networking and configuration, installers are required to use the **ECOS Hub App**. Please download and install the ECOS Hub App in the iOS App Store or Google Play Store, or scan the QR code. For detailed instructions on using the app, scan the QR code for **App Use Guide**.

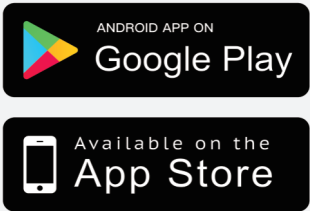
Note: The ECOS Hub App is intended for installers only. End users should use the ECOS App for system monitoring and daily operation.



Installer

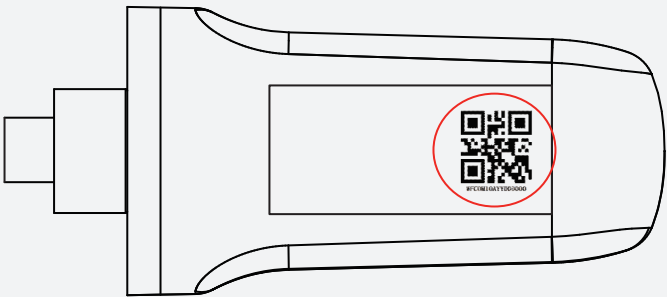


Download



APP Guide

The Product ID QR code for network connection is located on the Wi-Fi dongle installed on the right side of the device.



ECOS App is provided to End User for daily system monitoring.

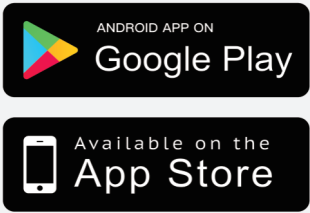
Please download and install the ECOS App in the iOS App Store or Google Play Store, or scan the QR code. Gain full system monitoring access by scanning the QR code provided by the installer. For detailed instructions on using the app, scan the QR code for **App Use Guide**.



User



Download



APP Guide