

Integrated DC Charger Quick Installation Guide

IDC80E



- This document will be updated from time to time due to updates of the product or other reasons. Under no circumstances should this document be taken as a substitute for the user manual and safety instructions provided on the product.
- Before performing any operation, please read through carefully the user manual and relevant standards and specifications. You can find the related documents by visiting <http://support.sungrowpower.com/> or by scanning the QR code provided on the device or the back cover of this Quick Installation Guide.
- Operations on the device must only be performed by qualified technical persons. The qualified technical persons must have received specialized training, read through the user manual to gain a good understanding of the relevant safe operation instructions, and be familiar with the applicable local standards and safety code for electrical systems.
- Before installation, check the delivered items for quantity according to the packing list and see if the delivery matches the order you placed. Meanwhile, inspect the items for any visible damage. Contact the transport service provider or SUNGROW in case of anything abnormal.
- The cables used must all be intact and well-insulated. Be sure to use insulated tools and wear personal protective equipment properly during operation.
- Violation of any of the above requirements may result in personal injury or device damage.

Safety Disclaimer

SUNGROW shall not be held liable for any personal injury or device damage arising from device-related operations that are not carried out in compliance with the requirements specified in this document or the user manual.

DANGER

- Electrical connection must be performed by qualified technical persons who wear personal protective equipment.
- All electrical connections must be done in compliance with the applicable local and national electrical standards.
- Be sure to use specialized insulated tools when performing electrical connection.
- Do not use the power cabinet when its cable is defective, frayed, cracked, or in case of exposed wires. Contact SUNGROW if you have found any of the above issues.
- When the power cabinet is running, do not touch any of its live parts, nor remove any of its part or component; otherwise, it may lead to electrical shocks.

WARNING

- All safety signs and warning labels and the nameplate on the power cabinet must be clearly visible and cannot be removed or covered.

CAUTION

Burn hazard!

- During the charging process, do not touch any hot part of the power cabinet (e.g., air outlet for heat dissipation); otherwise, it may cause burns.

NOTICE

- Non-qualified personnel are forbidden from disassembling the device or moving its components.
- Do not install the device in a place with corrosives such as corrosive gas and organic solvent, etc.
- Do not install the device in dusty and smoky environments.

Signs on the Product

	Disconnect the device from all external power sources before maintenance!		Danger to life due to high voltages! Installation and operation must only be performed by qualified technical persons.
	Protective grounding (PE) terminal.		CE mark of conformity.
	XX XXXX XXXX-XX PTB mark of conformity.		TÜV mark of conformity.
	Do not dispose of the device together with household waste.		Read the user manual before performing any operation on the device.
	Do not touch live parts until 10 minutes after disconnection from the sources.		Regulatory compliance mark.
	Burn hazard due to the hot surface that may exceed 60°C.		

EU Declaration of Conformity

within the scope of the EU directives:

- Low Voltage Directive 2014/35/EU (LVD)
- Electromagnetic compatibility Directive 2014/30/EU (EMC)
- Radio Equipment Directive 2014/53/EU (RED)
- The restriction of the use of certain hazardous substances (RoHS) in electrical and electronic equipment Directive 2011/65/EU and Commission Delegated Directive (EU)2015/863



The manufacturer Sungrow Power Supply Co., Ltd., China hereby confirms that the product IDC49.9E/IDC60E/IDC80E complies with the essential requirements and other relevant provisions of Directives 2014/35/EU, 2014/30/EU, 2014/53/EU, 2011/65/EU and (EU)2015/863.

Radio data

	WIFI	RFID
Model	AW-AM510-I	QB-ST25R3918
Power Supply	3.3V	5V
Frequency range	2412-2472MHz	13.56MHz
Maximum transmitting power	20dBm	<5 dBμA/m
Max. Antenna gain	2.5dBi	0dBi

4G			
Model	EC25-EUX	EG25-G MINIPCIE	
Power Supply	3.8V	3.8V	
Frequency range	LTE band 1	1920~1980MHz	1920~1980MHz
	LTE band 3	1710~1785MHz	1710~1785MHz
	LTE band 5	-	824~849MHz
	LTE band 7	2500~2570MHz	2500~2570MHz
	LTE band 8	880~915MHz	880~915MHz
	LTE band 20	832~862MHz	832~862MHz
	LTE band 28	703~736MHz	703~748MHz
	LTE band 38	2570~2620MHz	2570~2620MHz
	LTE band 40	2300~2400MHz	2300~2400MHz
	LTE band 41	-	2496~2690MHz
Maximum transmitting power	LTE band 1	24.37 dBm	23.51dBm
	LTE band 3	24.04dBm	23.80dBm
	LTE band 5	-	23.80dBm
	LTE band 7	23.60dBm	23.50dBm
	LTE band 8	24.17dBm	23.91dBm
	LTE band 20	22.88dBm	23.88dBm
	LTE band 28	23.17dBm	23.59dBm
	LTE band 38	23.78dBm	23.51dBm
	LTE band 40	23.78dBm	23.18dBm
	LTE band 41	-	23.69dBm
Max. Antenna gain	2.0dBi	2.0dBi	

*Technical parameters listed above apply to EU countries only.

Manufacturer:

Sungrow Power Supply Co., Ltd.

No.1699 Xiyou Rd.,New & High Technology Industrial Development Zone, Hefei 230088 Anhui P.R. China

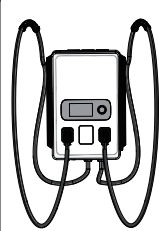
For EU only

EU/EEA Importer:

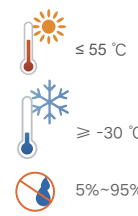
Sungrow Deutschland GmbH Balanstraße 59, 81541 München, Germany

Scope of Delivery

Charger components

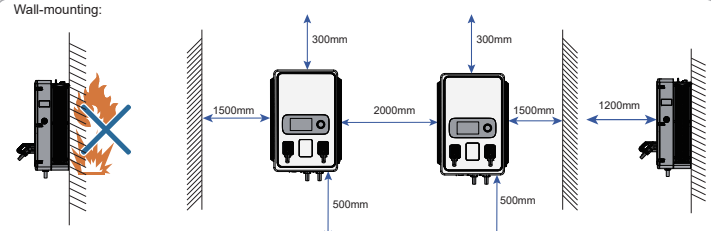
 Charger (x1)	 Modular RJ45 plug (x2)	 SIM card ejector pin and holder (x2)	 Fireproof mud (x1)	 RFID card (x2)
	 Documents	 Sealing plug (x2)	 Sealing plug (x4)	

Installation Site Selection

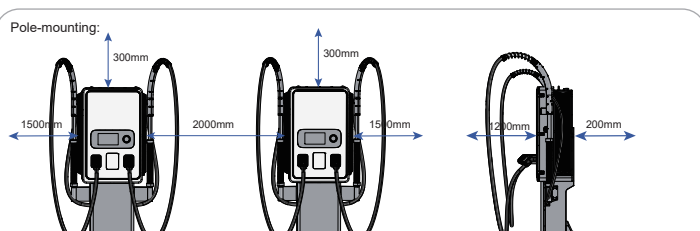


$\leq 55^{\circ}\text{C}$
 $\geq -30^{\circ}\text{C}$
5%~95%

Wall-mounting:

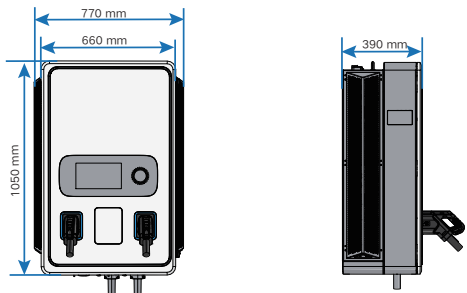


Pole-mounting:

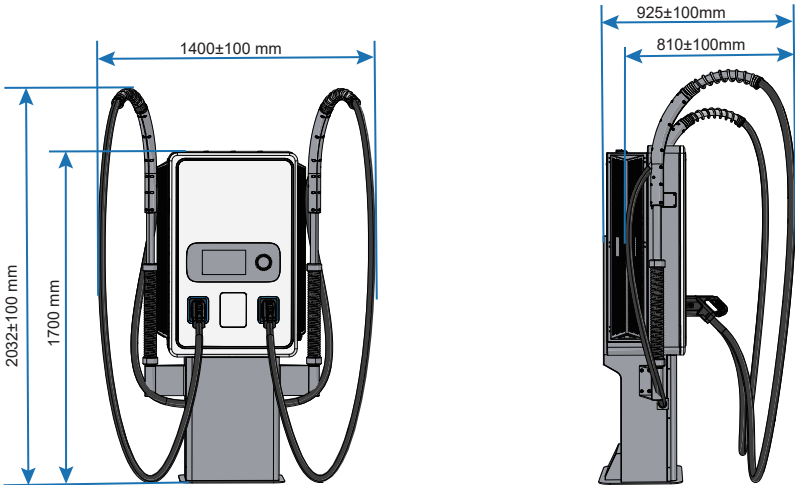


Dimensions

Without the post and the cable management system



- With the post and the cable management system

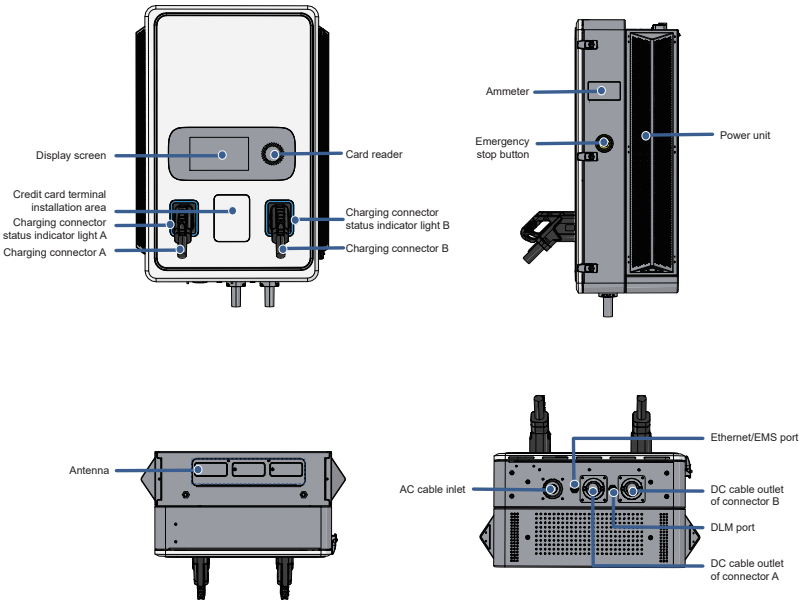


i note

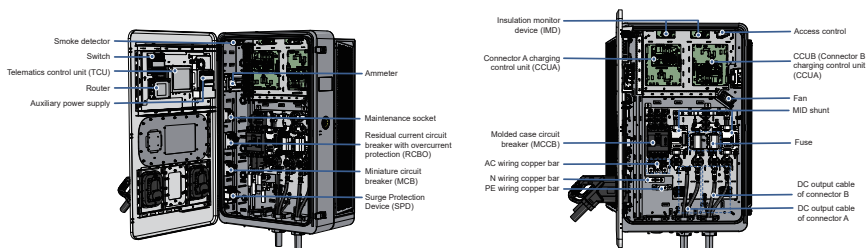
The dimensions of the real product may differ.

Product Overview

- External Design



Internal Structure



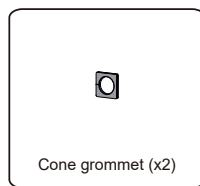
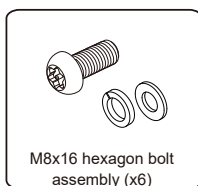
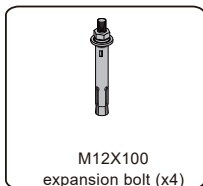
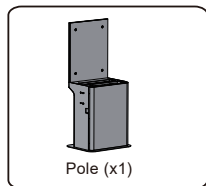
Pole-mounting

Pole components(optional)

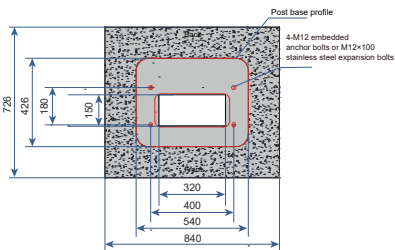
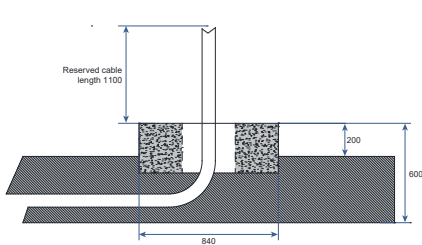


note

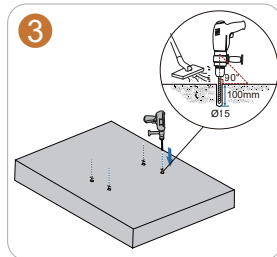
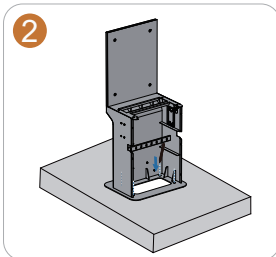
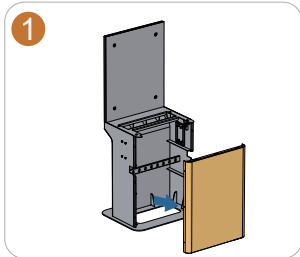
The post and cable management system spring components are optional. Please contact SUNGROW to purchase them separately as needed.

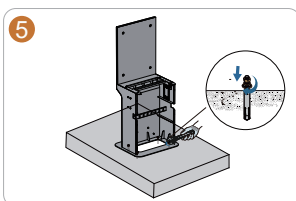
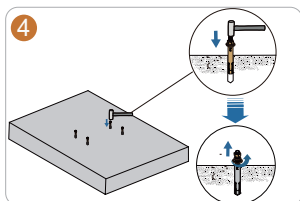


Foundation Dimensions (mm)

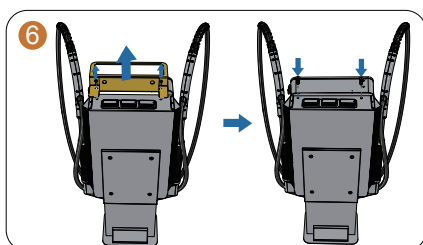
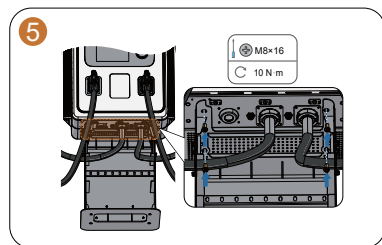
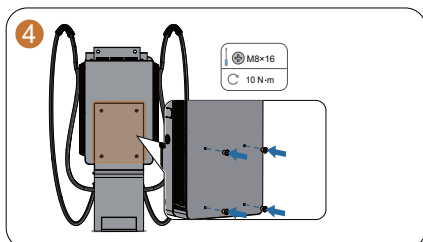
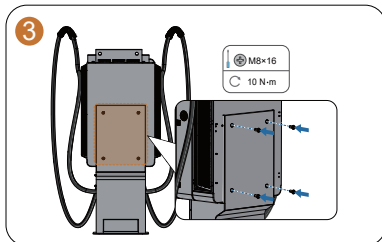
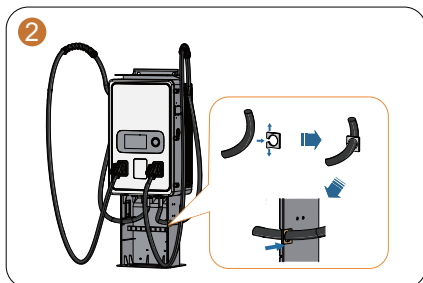
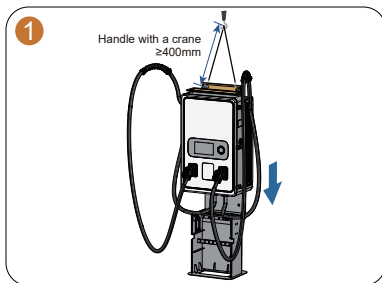


Post-mounting





• Cabinet mounting

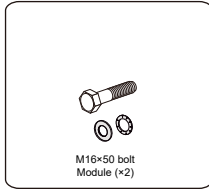
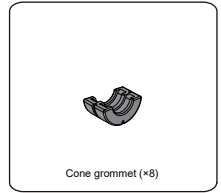
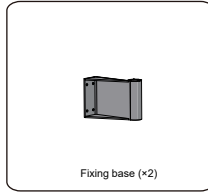
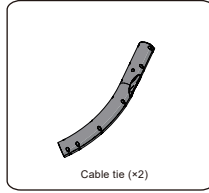
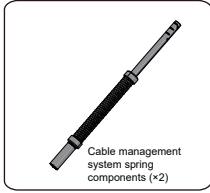


Cable Management System Installation

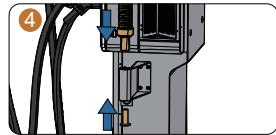
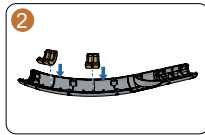
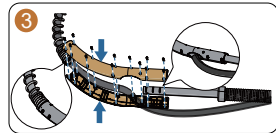
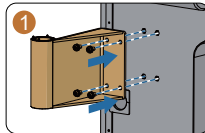
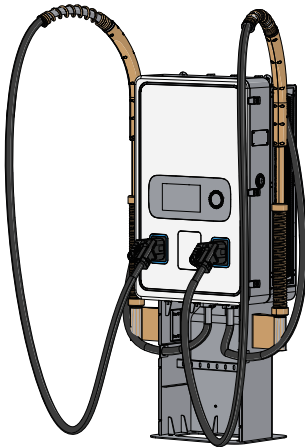
• Cable Management System Spring Components (optional)

note

The cable management system spring components are optional. Please contact SUNGROW to purchase them separately as needed.



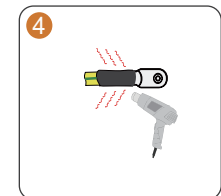
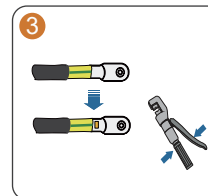
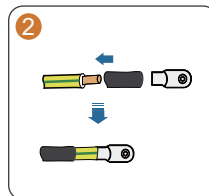
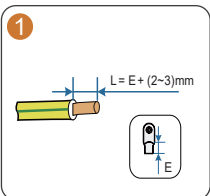
• Cable Management System Assembling



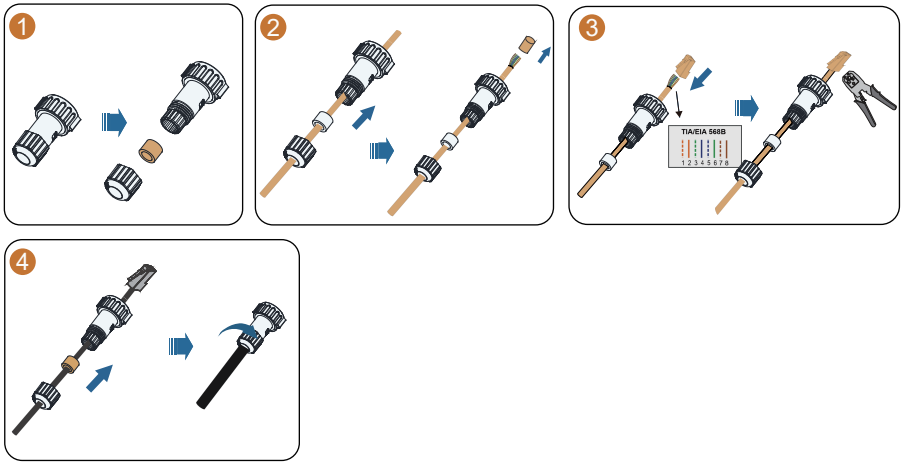
i note

During assembling, ensure the reserved length of the charging cable between the cable outlet of the charger and the cable outlet of the cable tie is ≥ 2000 mm.

OT/DT/SC Terminal Crimping



Modular RJ45 Plug Assembling



i note

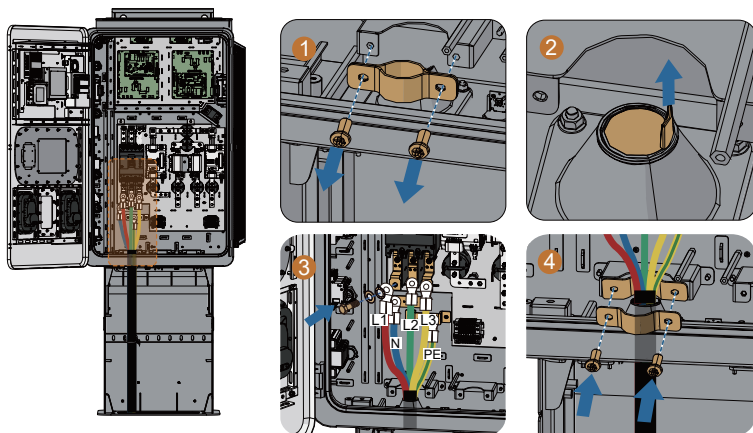
- 1. All cable specifications listed in this manual are recommended values. Users must select appropriate cables based on actual conditions and ensure compliance with local regulations and safety standards.
- 2. After confirming that wiring is completed correctly, promptly seal the cable inlets using the fireproof mud included in the shipment or locally compliant foam.

AC Cable Connection

i note

Before connecting the AC cables, make sure that the upstream circuit breaker and the MCCB in the AC wiring area are in the open state.

Power	Cable type	Wire cross-sectional area	Crimp Terminal
49.9kW	Outdoor multi-core/single-core copper cable	L1,L2,L3,N: 25mm ²	SC25-8
	Withstand voltage:≥1 kV	PE: 16 mm ²	SC16-8
	Outdoor multi-core/single-core aluminum cable	L1,L2,L3,N: 35 mm ²	SC35-8
	Withstand voltage:≥1kV	PE: 25 mm ²	SC25-8
60kW	Outdoor multi-core/single-core copper cable	L1,L2,L3,N: 25mm ²	SC25-8
	Withstand voltage:≥1 kV	PE: 16 mm ²	SC16-8
	Outdoor multi-core/single-core aluminum cable	L1,L2,L3,N: 50 mm ²	SC50-8
	Withstand voltage:≥1kV	PE: 25 mm ²	SC25-8
80kW	Outdoor multi-core/single-core copper cable	L1,L2,L3,N: 50mm ²	SC50-8
	Withstand voltage:≥1 kV	PE: 25 mm ²	SC25-8
	Outdoor multi-core/single-core aluminum cable	L1,L2,L3,N: 70 mm ²	SC70-8
	Withstand voltage:≥1kV	PE: 35 mm ²	SC35-8

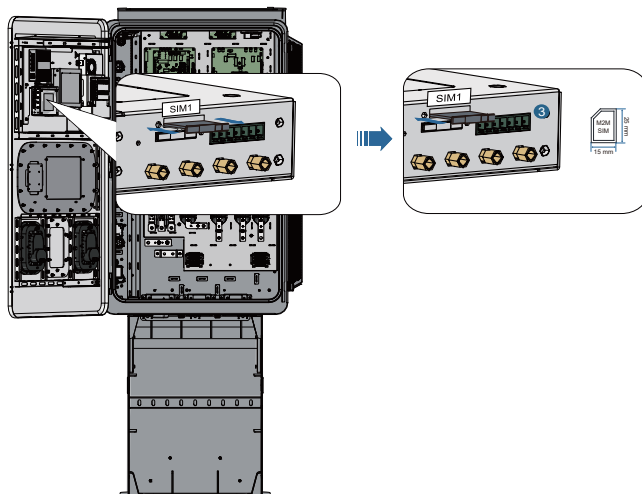


Network Connection

The charger supports Ethernet, 4G and Wi-Fi network . SIM cards and Ethernet Cables are purchased by user.

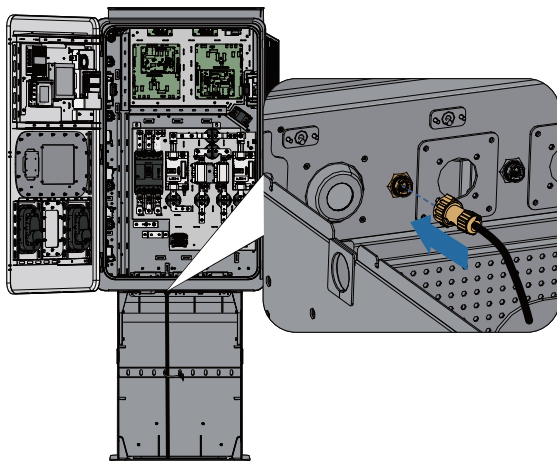
• SIM Card Installation (4G network Connection)

Industrial-grade IoT SIM cards with a size of 2FF 25mm*15mm are recommended for users.It is recommended to allocate 1G/month per device.



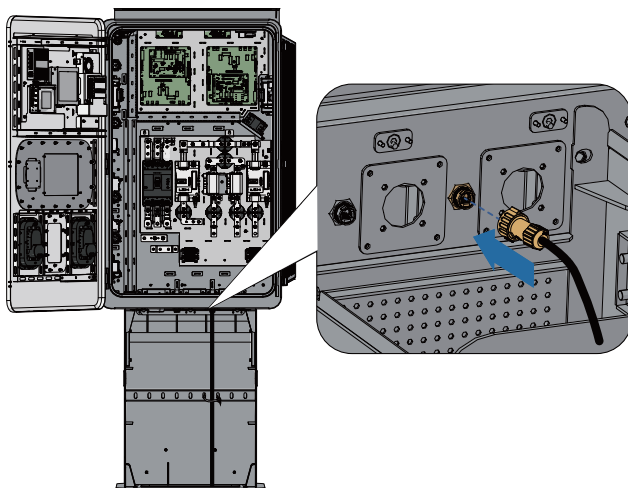
• Ethernet Cable Connection

8-core Cat5e Ethernet cable is recommended.



DLM Cable Connection (Optional)

8-core Cat5e Ethernet cable is recommended.

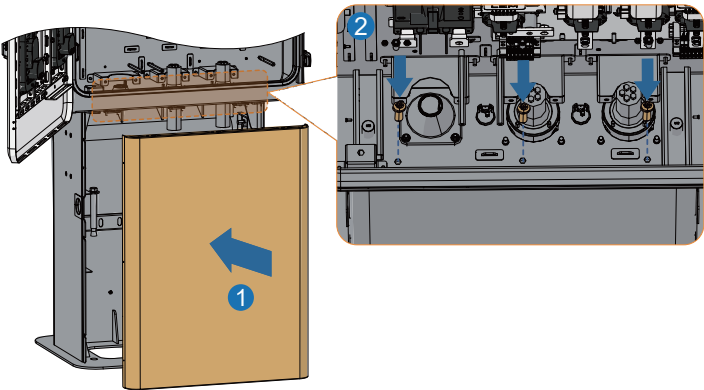


EMS Cable Connection (Optional)



The port and wiring procedures for the EMS control unit are identical to those for Ethernet. For details, refer to Ethernet wiring.

Front Panel Mounting



LED Indicator

Indicator	Indicator Status	Charger Status	Remark
LED indicators	Steady green	Charging connector in standby state	Normal. Indicators for the left and right connector are independent of each other.
	Breathing blue	Charging connector in use for charging.	Normal. Indicators for the left and right connector are independent of each other.
	Steady blue	Fully charged.	Normal. Indicators for the left and right connector are independent of each other.
	Steady red	Fault with the charger.	Abnormal. Indicators for the left and right connector are independent of each other.
Energy Star-Ring	Steady blue	Charger works normally.	Normal.
	Blink blue	Authentication successful, charging initiated.	Normal.
	Steady red	Fault with the charger.	Abnormal. In case of a fault with only one of the charging connectors, the indicator is still steady blue.

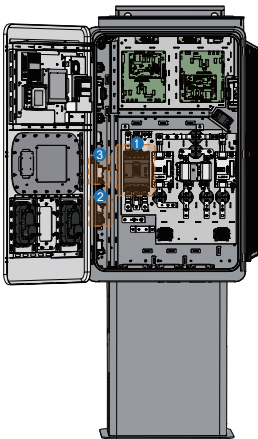
1 Switch on the upstream circuit breaker.



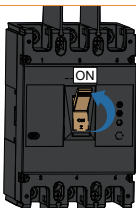
2 Test the voltage.

Test Point 1	Test Point 2	Normal Range
L1	L2	323 V ~ 440 V
L1	L3	323 V ~ 440 V
L2	L3	323 V ~ 440 V
L1	N	187 V ~ 254 V
L1	N	187 V ~ 254 V
L1	N	187 V ~ 254 V

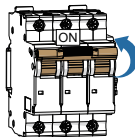
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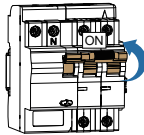
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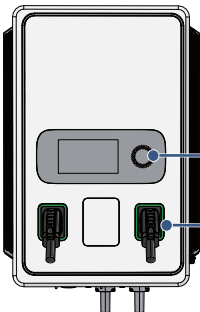
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3



4

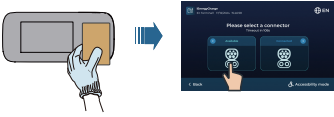


Steady blue

Steady green

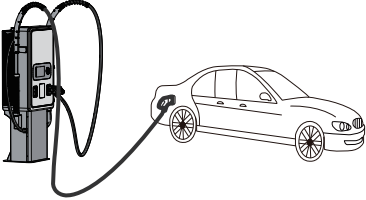
Start charging

1 Tap the RFID card and select a connector



The illustration shows a hand holding an orange RFID card and tapping it on a grey rectangular reader. A blue arrow points to a digital screen displaying the text "Please select a connector" and two icons representing different connector types. A finger is shown selecting one of the icons.

2 Plug the connector to your vehicle



The illustration shows a charging station with a cable. The cable's connector is being plugged into the charging port of a white sedan.

iEnergyCharge App (for O&M Management)

1 Download and install the App



The illustration shows a QR code with a red frame and a red icon in the center. A blue arrow points to the iEnergyCharge App icon, which is an orange square with a white plug and a person icon. Below the icon is the text "iEnergyCharge App".

2 For more detailed information regarding the use of iEnergyCharge App, please scan the QR code below to view the manual.



The illustration shows a standard black and white QR code.



More information in the QR code or
at <http://support.sungrowpower.com/>

SUNGROW

Sungrow Power Supply Co., Ltd.

www.sungrowpower.com



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