

SG600 Series

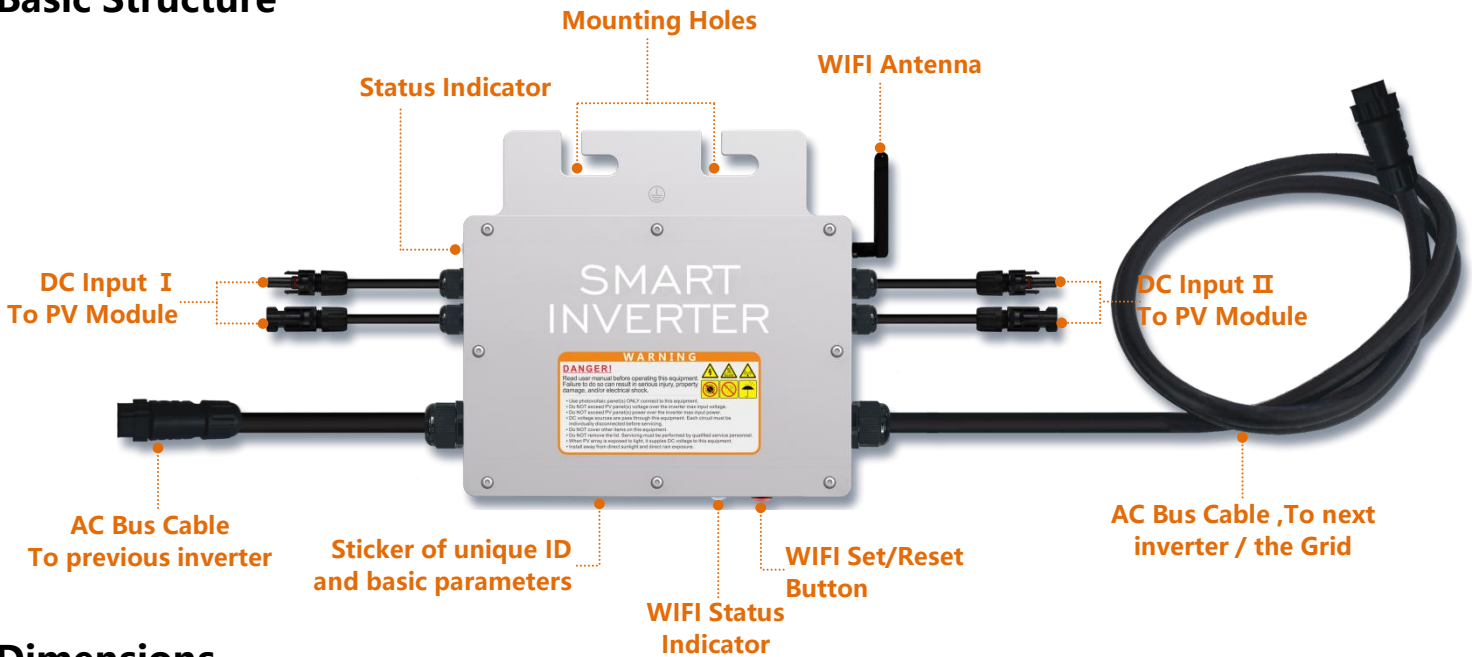
PV Smart Microinverter

SG600 Series

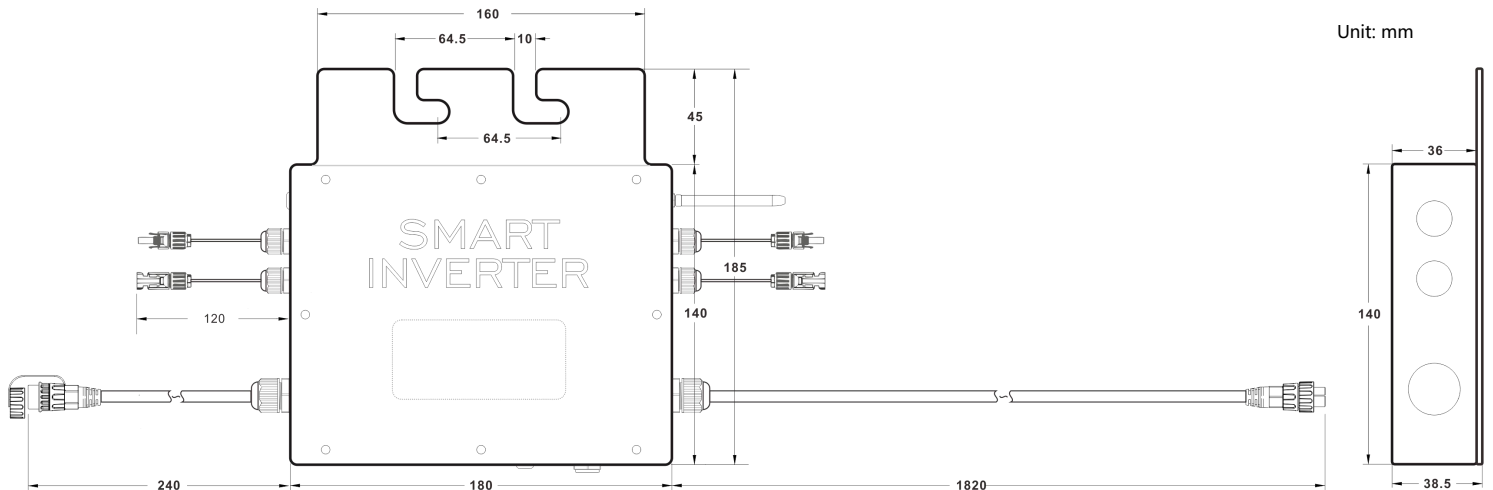


- Single unit connects up to two PV modules
- Maximum 600W AC output power
- Single-phase output, Flexible 3-phase PV systems
- WIFI communication and cloud monitoring
- Up to 8 units (230V) per branch
- Customizable various input (DC, PV) voltage range
- Integrated AC bus cable, Ready-To-Use
- Low cost, Easy installation

Basic Structure



Dimensions



SG600 Series PV Smart Microinverter - Parameter Table

Product Series	SG600 Series
Model	SG600MD (Regular)
Input Data(DC,PV)	
Number of Input MC4 Connector	2 set
MPPT Voltage Range	28V-55V
Operation Voltage Range	20V-60V
Maximum Input Voltage	60V
Startup Voltage	20V
Maximum Input Power	2*300W
Maximum Input Current	2*10A
Output Data(AC)	
Single-Phase Grid Type	120V & 230V
Rated Output Power	590W
Maximum Output Power	600W
Nominal Output Current	@120VAC : 4.91A / @230VAC : 2.56A
Nominal Output Voltage	120VAC / 230VAC
Default Output Voltage Range	@120VAC : 80V-160V / @230VAC : 180V-280V
Nominal Output Frequency	50Hz / 60Hz
Default Output Frequency Range	@50Hz : 47.5Hz-52.5Hz / @60Hz : 57.5Hz-62.5Hz
Power Factor	>0.99
Total Harmonic Distortion	THD <5%
Maximum Units per Branch	@120VAC : 4 units / @230VAC : 8 units
Efficiency	
Peak Efficiency	95%
CEC Weighted Efficiency	@120VAC : 92.5% / @230VAC : 93.5%
Nominal MPPT Efficiency	99.9%
Night Power Consumption	<700mW
Mechanical Data	
Operating Ambient Temperature Range	-40°C to +65°C
Storage Temperature Range	-40°C to +85°C
Dimensions (W x H x D)	185mm x 180mm x 38.5mm (not include connectors and cable)
Weight	1.5kg
Max Current of AC Bus Cable	20A
Waterproof Grade	IP65
Cooling Mode	Natural Convection - No Fans
Other Features	
Communication	WIFI (Cloud monitoring)
Transformer Design	High Frequency Transformers, Galvanically Isolated
Integrated Ground	Equipment ground is provided by the PE in the AC cable. No additional ground is required.
Protection Functions	Isolated Island Protection, Voltage Protection, Frequency Protection, Temperature Protection, Current Protection, etc.
Design Compliance	CE etc.

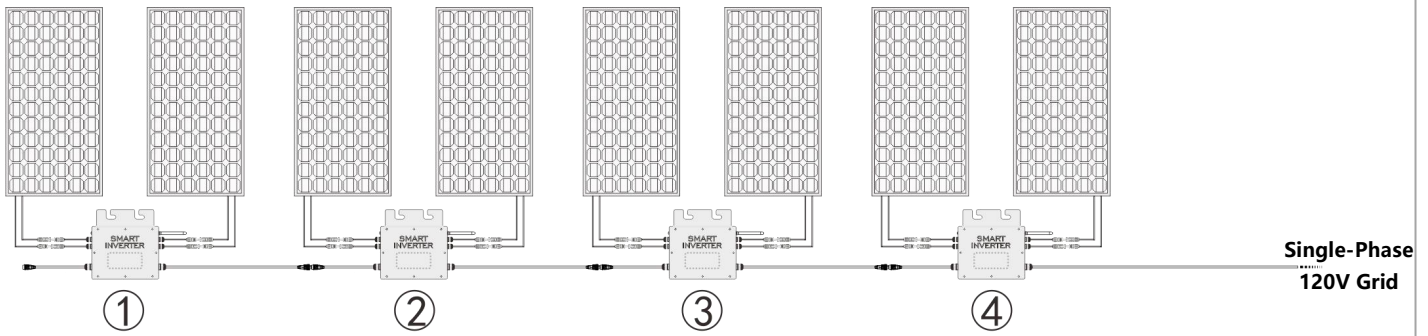
**** Specifications subject to change without notice****

Installation Schematic

SG600 Series Microinverter

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Single-Phase 120V

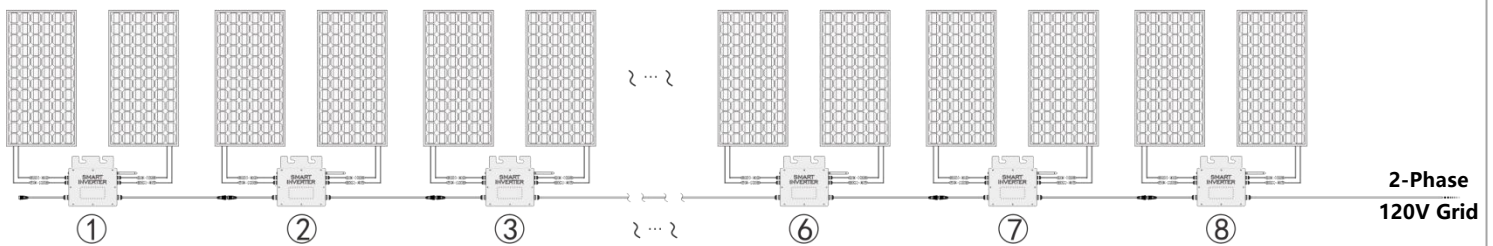


1. SG600 Series @Single-Phase 120V grid, Maximum **4** units SG600 Microinverters per branch.
2. The max DC input power of each inverter is **600W** (the PV module max output power is 2*300W).
3. The **VOC** of PV modules should not be greater than the max DC input voltage of Microinverters.

SG600 Series Microinverter

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2-Phase 208/240V(Single-Phase 120V)

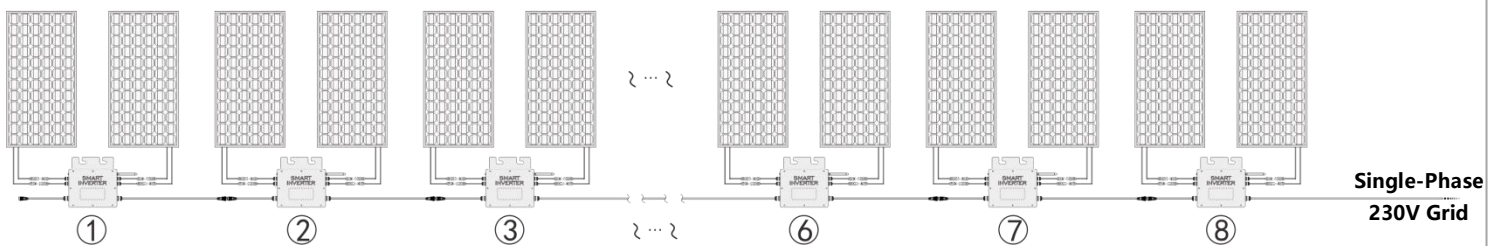


1. SG600 Series @2-Phase 208/240V grid, Maximum **8** units SG600 Microinverters per branch.
2. The max DC input power of each inverter is **600W** (the PV module max output power is 2*300W).
3. The **VOC** of PV modules should not be greater than the max DC input voltage of Microinverters.

SG600 Series Microinverter

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Single-Phase 230V



1. SG600 Series @Single-Phase 230V grid, Maximum **8** units SG600 Microinverters per branch.
2. The max DC input power of each inverter is **600W** (the PV module max output power is 2*300W).
3. The **VOC** of PV modules should not be greater than the max DC input voltage of Microinverters.

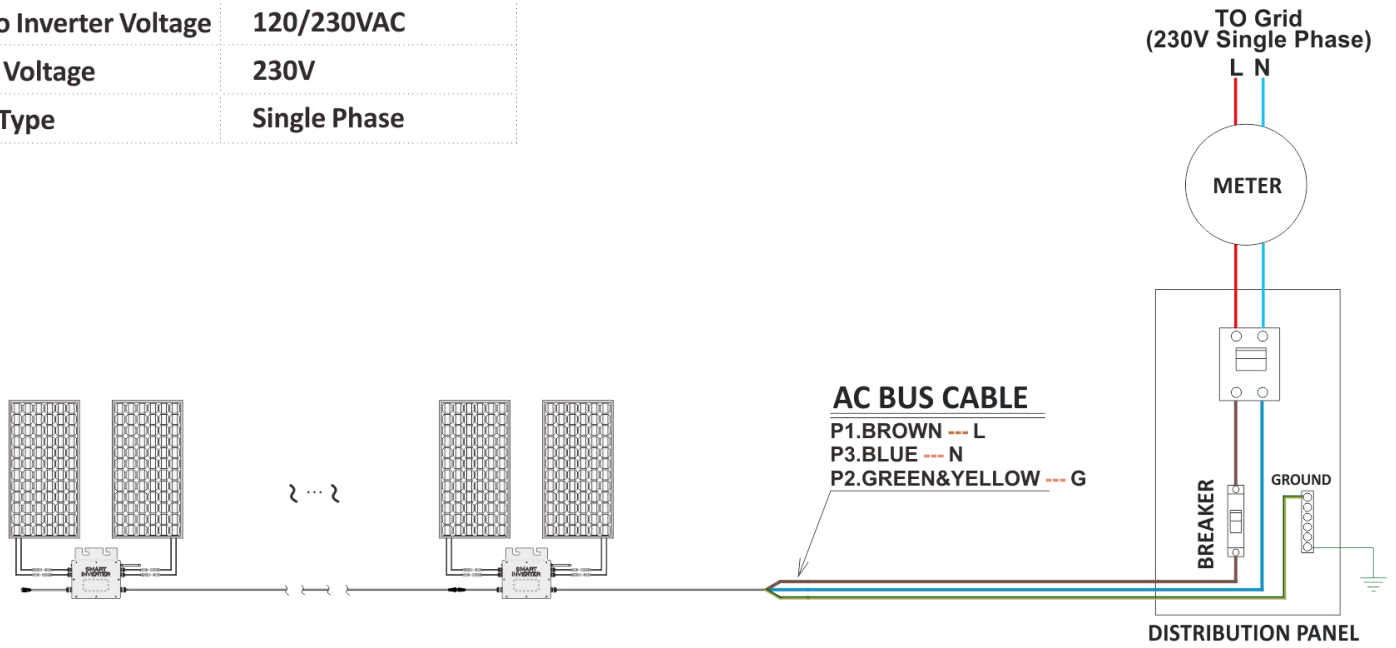
Wiring Schematic

SG600 Series Microinverter

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Single-Phase 230V

Micro Inverter Voltage	120/230VAC
Grid Voltage	230V
Grid Type	Single Phase

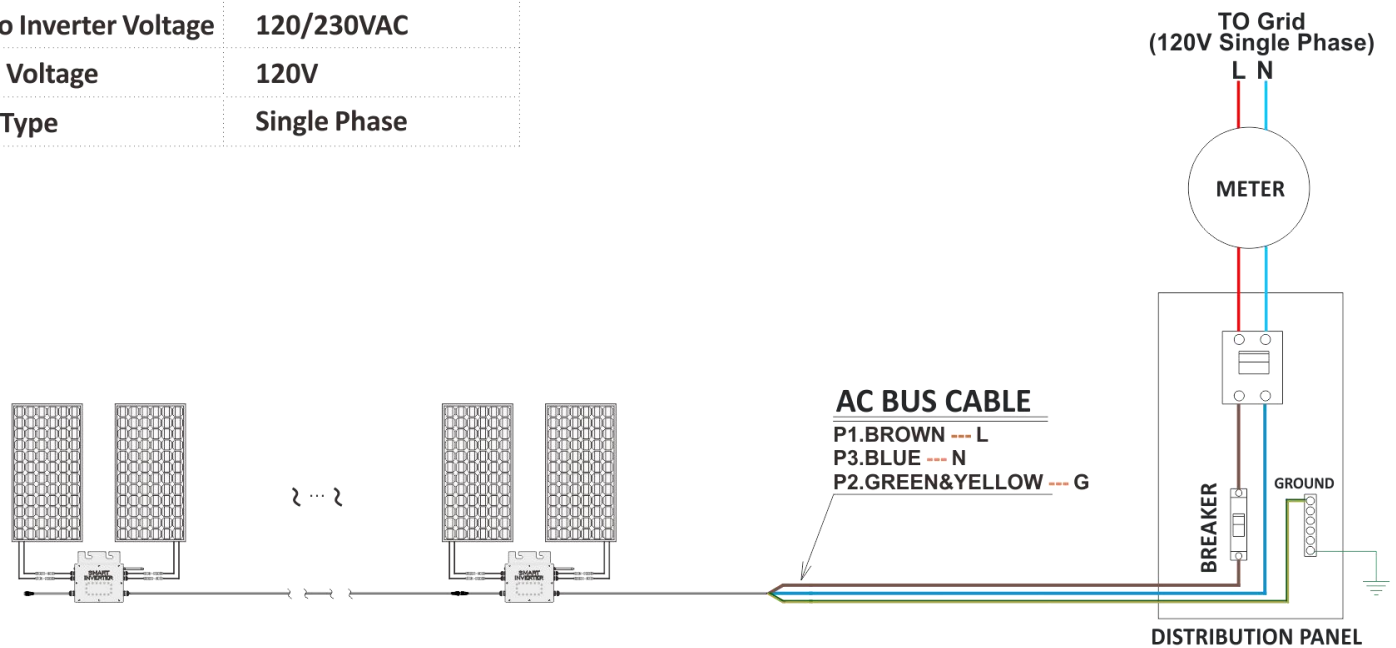


SG600 Series Microinverter

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Single-Phase 120V

Micro Inverter Voltage	120/230VAC
Grid Voltage	120V
Grid Type	Single Phase

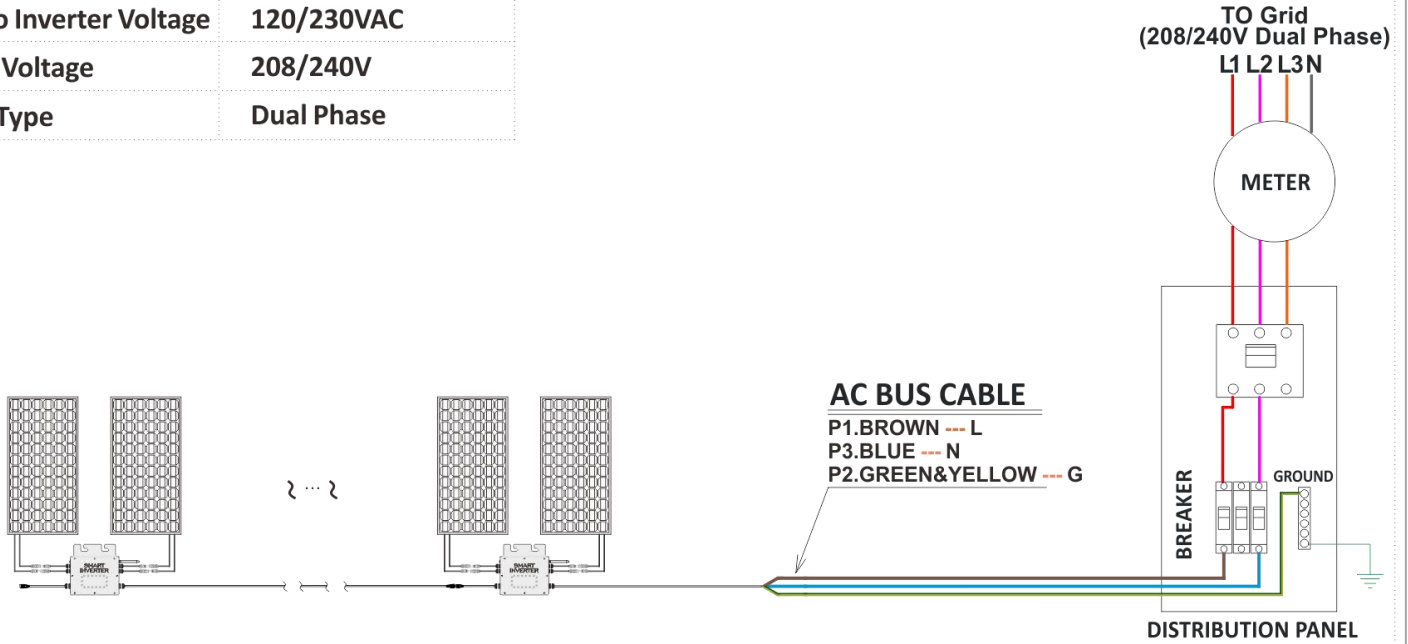


SG600 Series Microinverter



2-Phase 208/240V(Single-Phase 120V)

Micro Inverter Voltage	120/230VAC
Grid Voltage	208/240V
Grid Type	Dual Phase

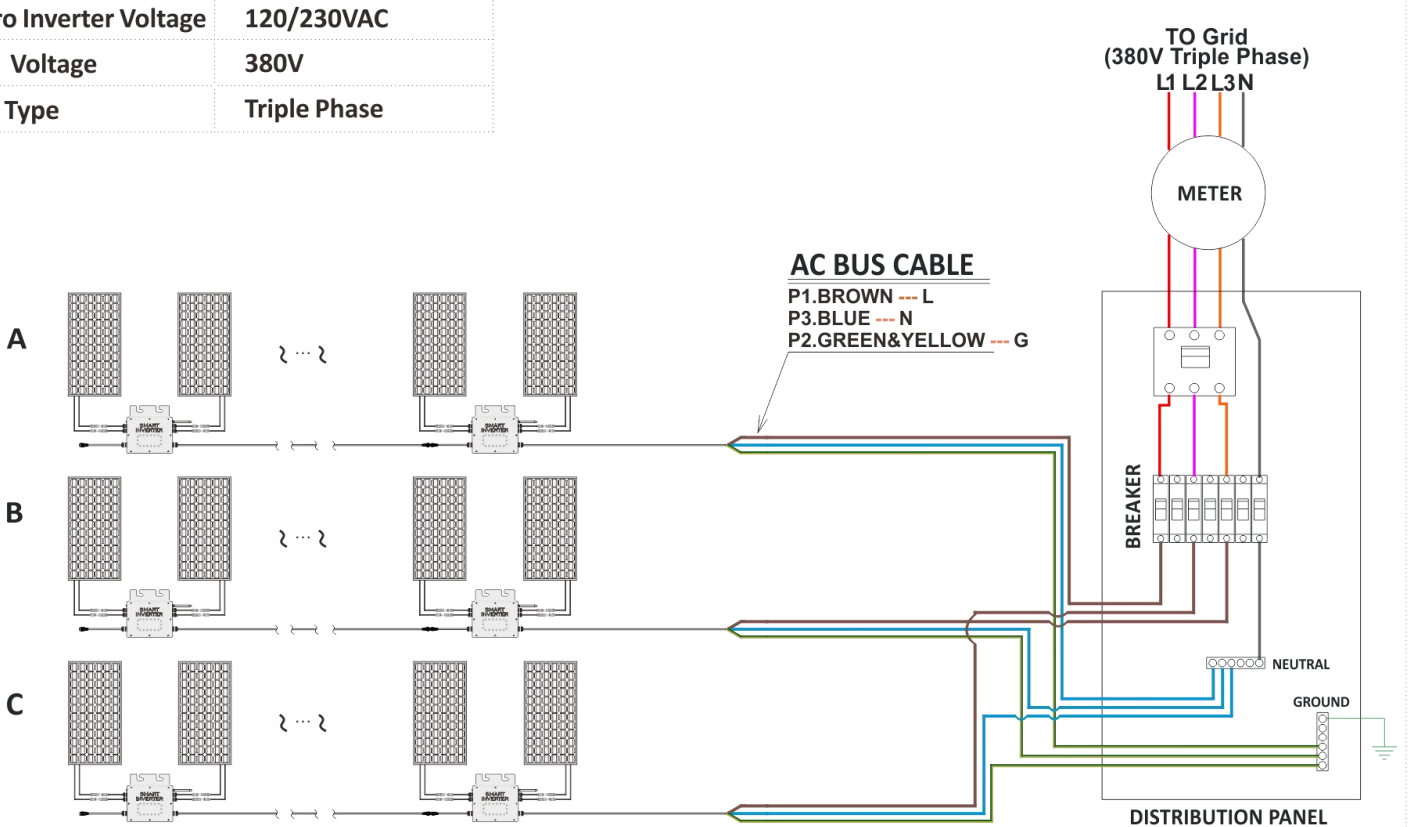


SG600 Series Microinverter



3-Phase 380V(Single-Phase 230V)

Micro Inverter Voltage	120/230VAC
Grid Voltage	380V
Grid Type	Triple Phase

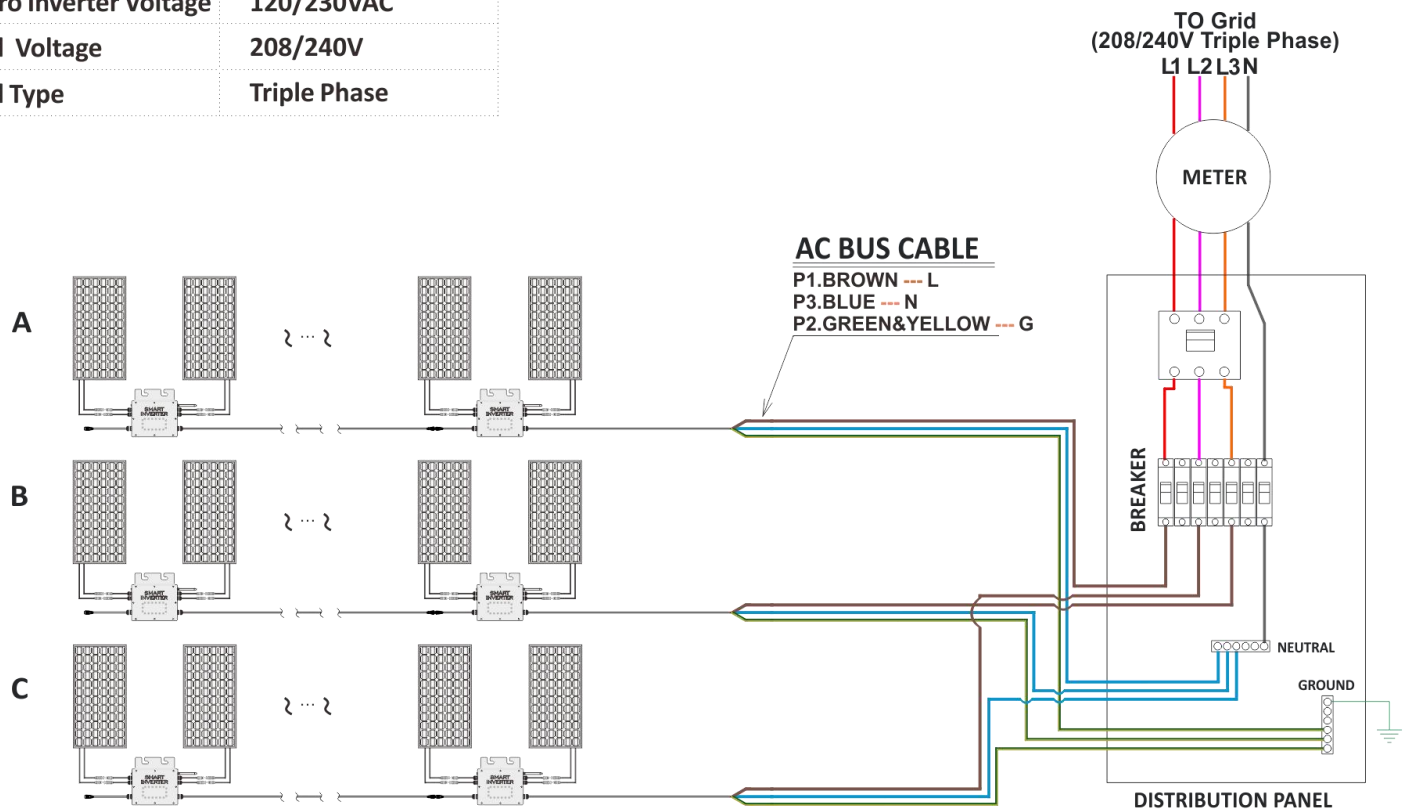


SG600 Series Microinverter



3-Phase 208/240V(Single-Phase 120V) I

Micro Inverter Voltage	120/230VAC
Grid Voltage	208/240V
Grid Type	Triple Phase

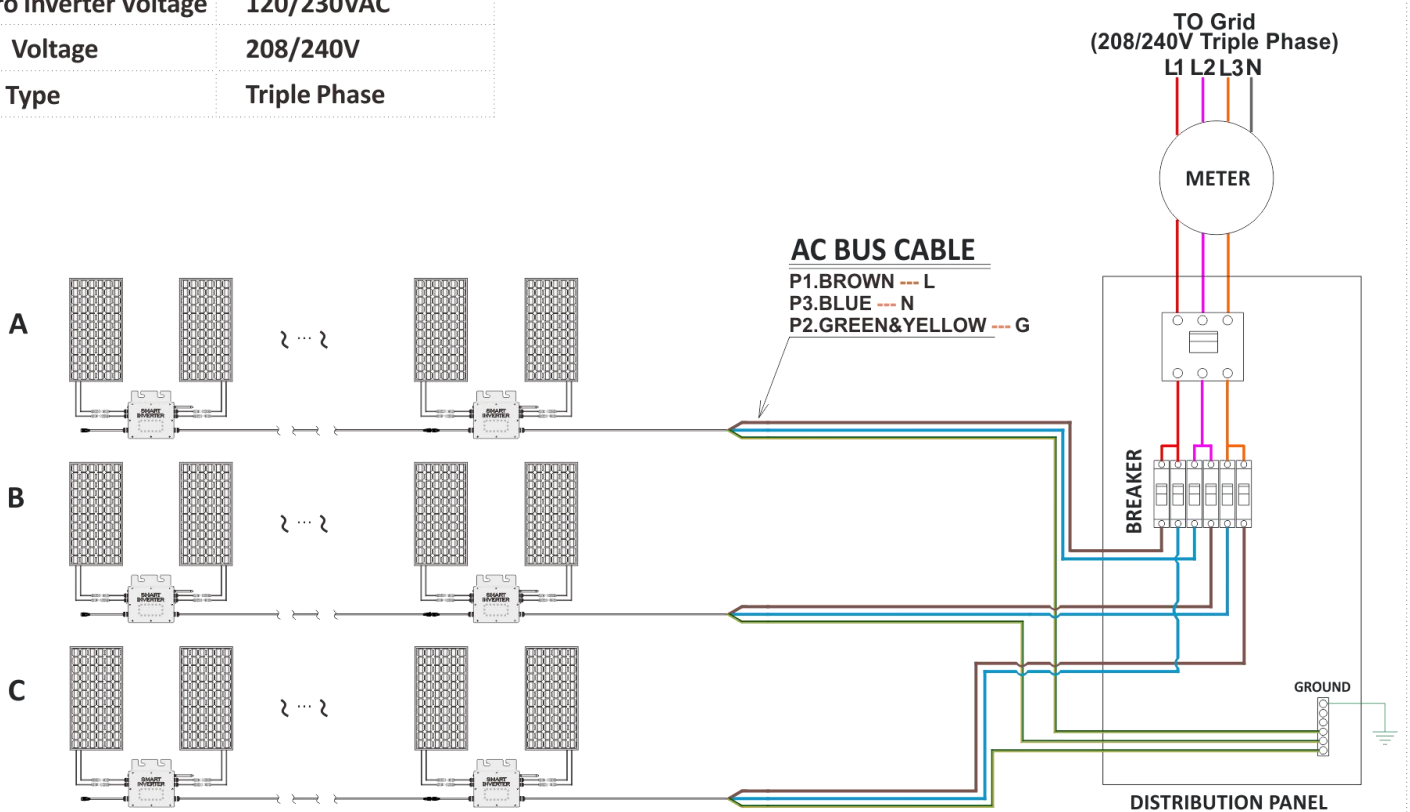


SG600 Series Microinverter



3-Phase 208/240V(Single-Phase 120V) II

Micro Inverter Voltage	120/230VAC
Grid Voltage	208/240V
Grid Type	Triple Phase





BST A RELIABLE TESTING FOR TRUST
GLOBAL TESTING AND CERTIFICATION PRECISION SERVICE CLOUD FACTORY

Certificate of Compliance

Certificate No. : **BSTXD220722719901EC**

Applicant : **DONGGUAN NEW ENERGY TECHNOLOGY CO., LTD.**
8F, #6 TianFeng Road, DaLingShan Town, DongGuan,
GuangDong 523839, China.

Manufacturer : **DONGGUAN NEW ENERGY TECHNOLOGY CO., LTD.**
8F, #6 TianFeng Road, DaLingShan Town, DongGuan,
GuangDong 523839, China.

Product Name : **GRID TIE MICRO POWER INVERTER**

Trade Name : **NewEnergyTek**

Main Test Model : **SG600**

Additional Model : **SG300,SG350,SG400,SG500,SG700,SG800,SG1000,SG1200,
SG1400,SG1600,SG1800,SG2000,SG3000**

Test Standard : **EN IEC 55014-1:2021
EN IEC 61000-3-2:2019+A1:2021
EN 61000-3-3:2013+A1:2019+A2:2021
EN IEC 55014-2:2021**

**As shown in the
Test Report No.** : **BSTXD220722719901ER**

The EUT described above has been tested by us with the listed standards and found in compliance with the council EMC directive 2014/30/EU. It is possible to use CE marking to demonstrate the compliance with this EMC Directive.
The certificate applies to the tested sample above mentioned only and shall not imply an assessment of the whole production.



Christina Deng
Manager
Jul.28,2022

BST Testing (Shenzhen) Co.,Ltd.

Add: No.7,New Era Industrial Zone, Guantian, Bao'an District, Shenzhen, Guangdong, China :

Certificate Search: <http://www.bst-lab.com>, Tel:400-922-6168, 8009990305, E-mail:christina@bst-lab.com

★ Q&A

1. HOW TO DO when "Smart Life" App can't find the micro inverter to be added?

A: Please check the following points. If you still can't find it after all the checks are normal, please long press the red reset button for more than 5 seconds to reset. After the WiFi indicator light flashes blue again, use "Smart Life" App to reconfigure the network.

- ◆ Check if the WiFi status indicator of the micro inverter is in the "Blue Flashing" state;
- ◆ Check if the Bluetooth function of your smart device is turned on;
- ◆ Check if the signal of the wireless network is good.

2. HOW TO DO if I have multiple micro inverters to configure?

A: Please install all micro inverters properly and make them work normally to generate power, and then operate according to the configuration and use steps. App can search all inverters to be added at one time and configure them at one time.

3. HOW TO DO if the SSID of my WiFi network is changed or the password is changed?

A: Please reconfigure the inverter according to the configuration and use steps.

4. HOW TO DO if the WiFi status indicator of the inverter goes out, but the device displayed on the app is not online?

A: This means that you can connect to the wireless network device, but you can't connect to the cloud server. It means that your wireless network device can't connect to the Internet. Please check if your Internet is working properly.

5. The installation site of the inverter is temporarily not equipped with a router and no WiFi signal. How does App connect the inverter and detect if the inverter is working properly?

A: You can use an idle smartphone to open the WiFi sharing of mobile phone signal hotspot for connection, and reconfigure the network connection after installing the router.

6. There are multiple WiFi signals on site. Can we connect with different WiFi signals?

A: No, the WiFi connected of the micro inverter and the smart phone must be consistent before the network can be configured.

7. Can App configure the micro inverter in different places? Can I view data in different places?

A: You can't configure the micro inverter in different places, but you can view data in different places, The inverter uploads the latest status data to the cloud server every minute.

8. After checking that there is no problem, App still cannot find the micro inverter?

A: Please press and hold the inverter red button for more than 5 seconds to reset the inverter. After the WiFi indicator flashes again, use App to reconfigure the network.

9. HOW TO DO if I want to monitor the same inverter on two or more smart devices?

A: You can share the inverter with another phone using the share device feature.

10. Will App data be saved?

A: Yes, App data will be stored on cloud server. After the network is successfully configured, you can view the data at any time and place.

11. The inverter cannot be connected to the app at night?

A: At night, because the solar panel does not generate power, the micro inverter does not have any power input, so it will offline and it is impossible to re-configure the network at night.



Solar Smart Micro Inverter WiFi Cloud Monitoring User Manual

READ ME FIRST

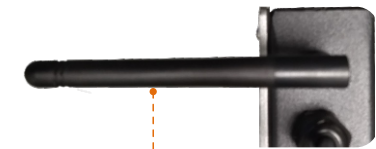
** User manual subject to change without notice**

- Before configuring WiFi cloud monitoring, please correctly install the micro inverter and make it work normally.
- This micro inverter is a grid tie inverter. Please pay attention to the danger of electric shock.
- The micro inverter will generate heat during power generation. Please pay attention to high temperature scald.
- You must have a smart device (smart phone or tablet) with Bluetooth function and Android or IOS system.
- You must have a wireless network device (such as a wireless router) that can provide WiFi and Internet service.
- Please turn on the Bluetooth function of the smart device first before configuring WiFi cloud monitoring.
- Your smart device must use the same WiFi network as the micro inverter to be configured.
- Please install the WiFi antenna of the micro inverter before configuring and using WiFi cloud monitoring.
- Please ensure that the straight-line distance between the wireless network equipment (such as wireless router) providing WiFi network and the micro inverter shall not exceed 20m, and there shall be no or few obstructions.
- Please ensure that your smart device can connect to wireless network devices and access the Internet in the same location of the micro inverter.

Hardware Description



WiFi Status Indicator WiFi Set/Reset Button





WiFi Antenna

WiFi LED Display

1. The blue light flashes after always on = the WiFi cloud monitoring module is waiting for configuration.
2. The blue light off after always on = the WiFi cloud monitoring module starts and enters the normal working state.
3. The blue light flashes = the network is not configured or the network cannot connect to the wireless network device, or the micro inverter has been deleted in the cloud.
4. No light = WiFi cloud monitoring is working normally.

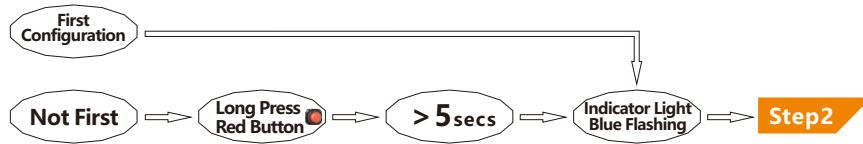
★Preparation Before Configuration And Use

1. Please install the micro inverter correctly and make it work normally to generate power.
2. Please use a smart device (smart phone or tablet) to scan the right QR code (you can also use "Android App Store" or "Apple App Store" search for "Smart Life") download and install the "Smart Life" App correctly.
3. Turn on the Bluetooth function of your smart device. 
4. Check that your wireless network device (such as wireless router) is working properly and connected to the Internet. 
5. Use your smart device ("Smart Life" App installed) at the installation location of micro inverter to connect to the wireless network device and test if you can access the Internet normally. If you can access the Internet normally, please read the configuration and use steps on the next page to start configuration and use.




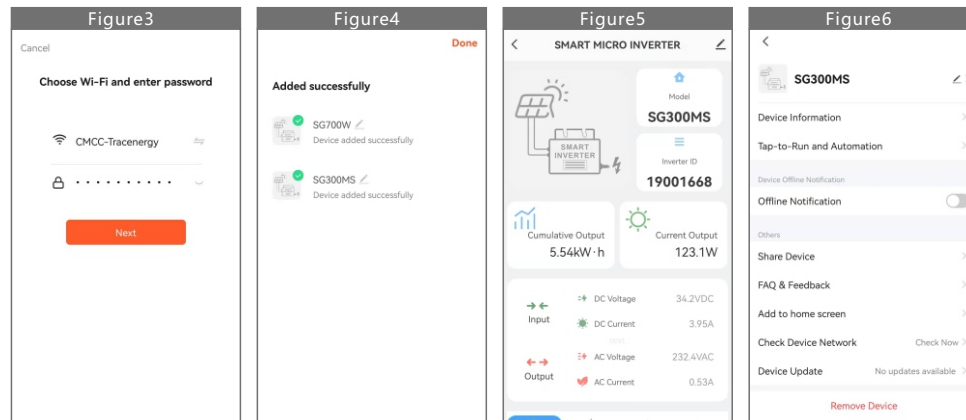
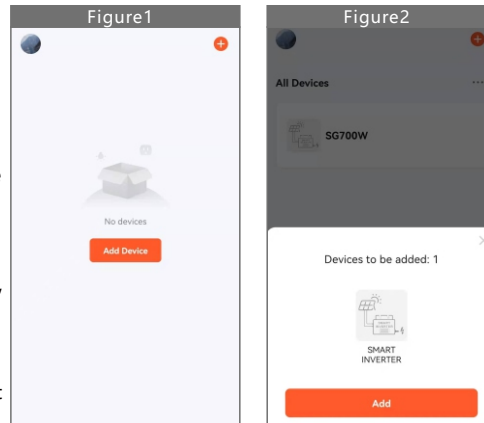
Configuration Steps Of WIFI Cloud Monitoring

Step1





Step2

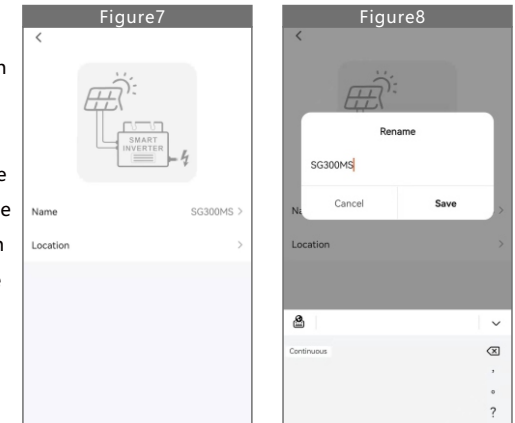
1. Turn on the Bluetooth function of the smart device and connect to WiFi at the installation position of the micro inverter .
2. Run  "Smart Life" APP.
3. If it is the first time to add, click the **Add Device** button. If there are other inverters, click the **+** button in the upper right corner (**Figure 1**).
4. App will automatically scan and find all devices that in configuration status, After discovering the devices, click the **"Add"** button (**Figure 2**) and enter device network configuration page.
5. On the network configuration page (**Figure 3**), select the correct SSID of WiFi (same as your smart device) and input the WiFi password, and click the **"Next"** button.
6. App completes micro inverter addition and shows the list of micro inverters (**Figure 4**).
7. Click the newly added item of list, you can enter the device information details page (**Figure 5**), On this page, you can view the detailed status data of the device.




Usage Of WIFI Cloud Monitoring App

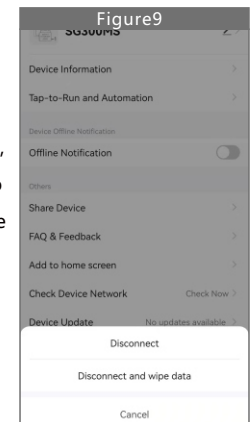
Modify Device Name

1. Click the device to be modified in the device list on the home page to enter the device information details page (**Figure 5**).
2. Click the button  in the upper right to enter the device setting page (**Figure 6**), Continue to click the upper button  to the page of name & position (**Figure 7**) click name item, then enter a new name and save it (**Figure 8**).




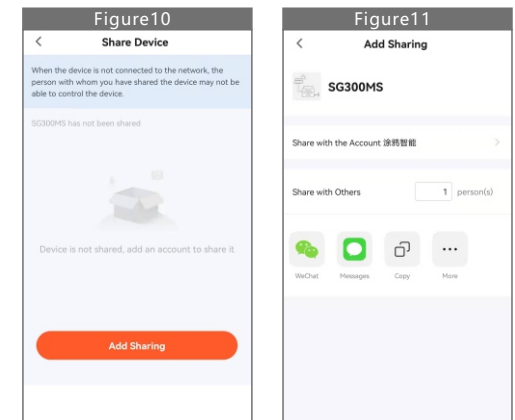
Remove Device

1. Click the device to be deleted in the device list on the home page to enter the device information details page (**Figure 5**).
2. Click the button  in the upper right to enter the device setting page (**Figure 6**), Click **"Remove Device"** button below (**Figure 9**), click the **"Disconnect"** button to remove the device or click the **"Disconnect and wipe data"** button to remove the device and clear all data saved by the device in the cloud at the same time.



Share Device With Others

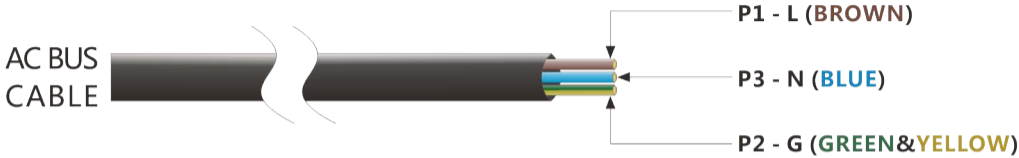
1. Click the device to be shared in the device list on the home page to enter the device information details page (**Figure 5**).
2. Click the button  in the upper right to enter the device setting page (**Figure 6**).
3. click the **"Share Device"** item to enter the device sharing page (**Figure 10**), click **Add Sharing** button to enter "Add Sharing" page (**Figure 11**), and select best sharing way that you think it is most convenient to share the link of micro inverter.



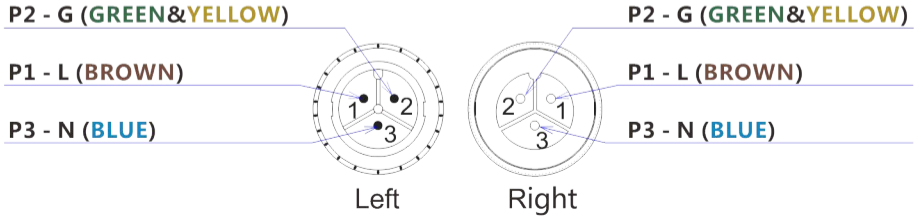


Scannen Sie den QR-Code, um die WIFI-APP
herunterzuladen

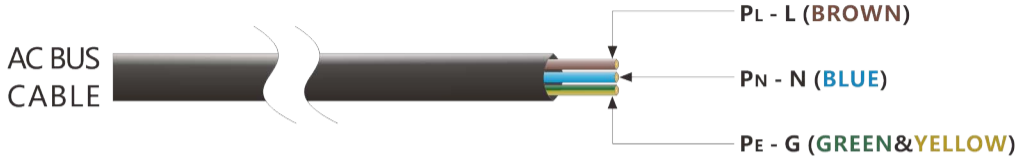
AC BUS CABLE



AC CONNECTORS



AC BUS CABLE



AC CONNECTORS

PN - N (BLUE)

PL - L (BROWN)

PE - G (GREEN&YELLOW)



PN - N (BLUE)

PL - L (BROWN)

PE - G (GREEN&YELLOW)