

**SG400 Series**

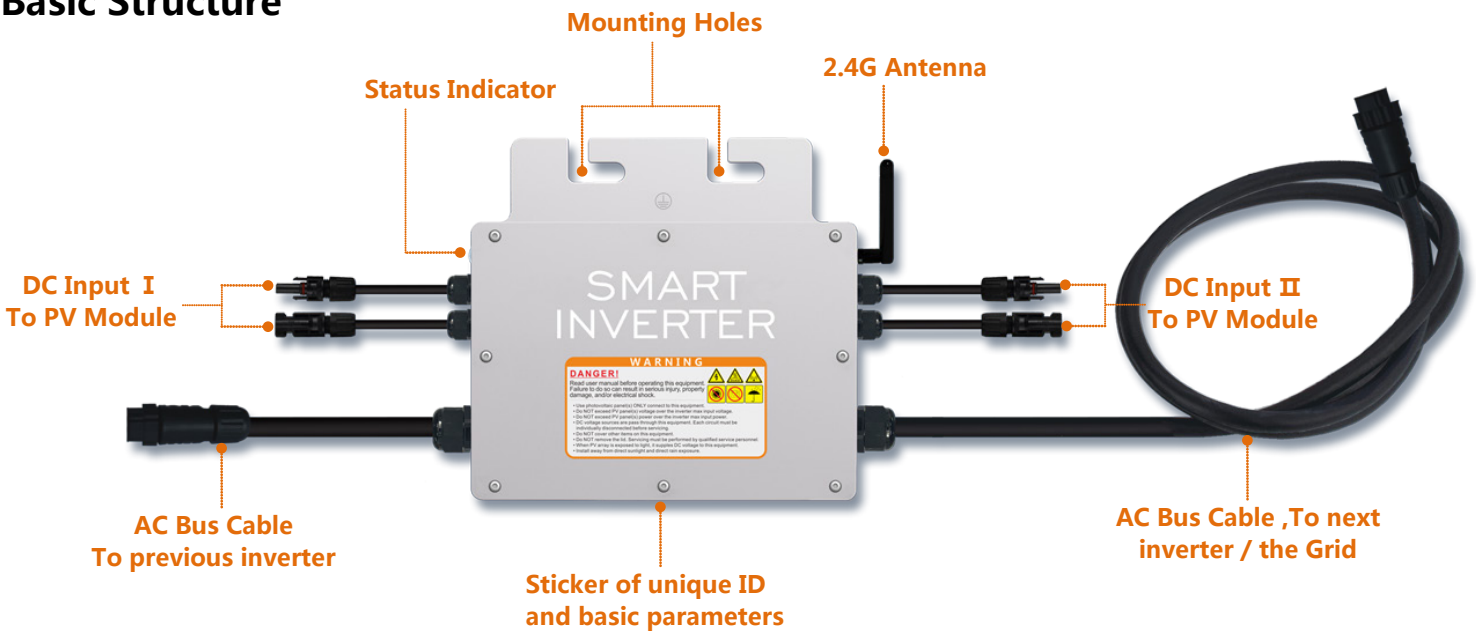
**PV Smart Microinverter**

**SG400 Series**

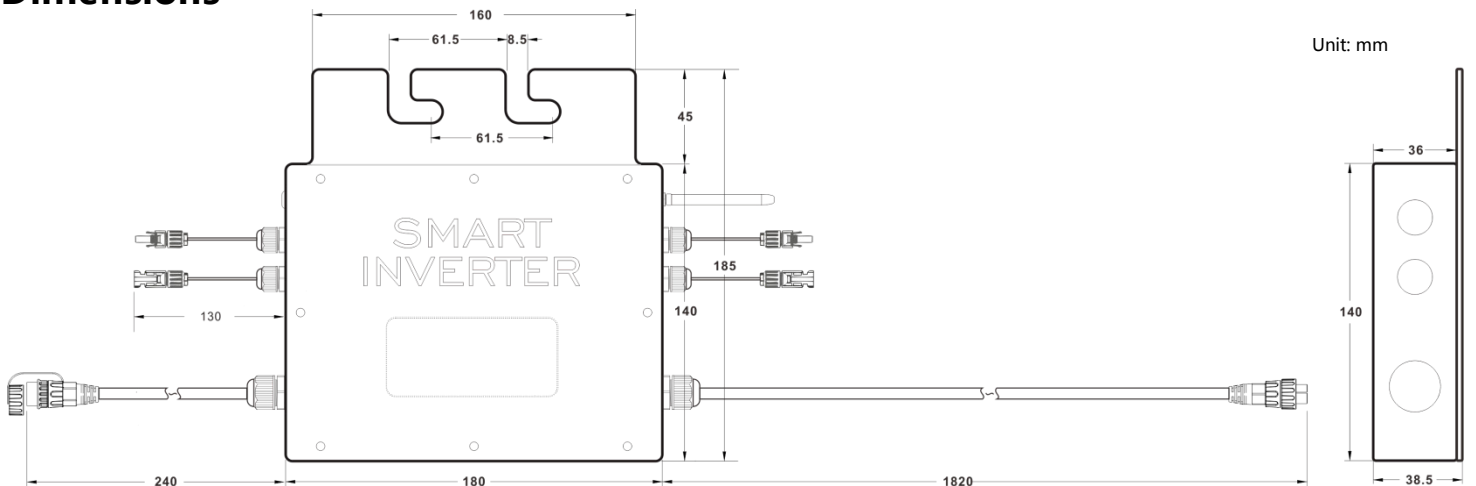


- Single unit connects up to two PV modules
- Maximum 400W AC output power
- Single-phase output, Flexible 3-phase PV systems
- 2.4G wireless communication and monitoring
- Up to 11 units (230V) per branch
- Customizable various input (DC, PV) voltage range
- Integrated AC bus cable, Ready-To-Use
- Low cost, Easy installation

**Basic Structure**



**Dimensions**



# SG400 Series PV Smart Microinverter - Parameter Table

Product Series	SG400 Series			
Model	SG400MD (Regular)	SG400MS (Custom-made)	SG400HS (Custom-made)	SG400TD (Custom-made)
<b>Input Data(DC,PV)</b>				
Number of Input MC4 Connector	2 set	1 set	1 set	2 set
MPPT Voltage Range	24V-40V	24V-40V	36V-60V	80V-115V
Operation Voltage Range	18V-50V	18V-50V	30V-70V	70V-120V
Maximum Input Voltage	50V	50V	70V	120V
Startup Voltage	18V	18V	30V	70V
Maximum Input Power	2*200W	400W	400W	2*200W
Maximum Input Current	2*8A	16A	11.1A	2*2.5A
<b>Output Data(AC)</b>				
Single-Phase Grid Type	120V & 230V			
Rated Output Power	395W			
Maximum Output Power	400W			
Nominal Output Current	@120VAC : 3.33A / @230VAC : 1.73A			
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 : 6 units / @230VAC : 11 units			
<b>Efficiency</b>				
Peak Efficiency	95%			
CEC Weighted Efficiency	@120VAC : 92.5% / @230VAC : 93.5%			
Nominal MPPT Efficiency	99.9%			
Night Power Consumption	<700mW			
<b>Mechanical Data</b>				
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			
<b>Other Features</b>				
Communication(Inverter to DataBox)	2.4G Wireless			
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	NB/T32004:2013,NB/T32004:2013,EN61000-3-2,EN62109,VDE0126,UL1741 etc.			

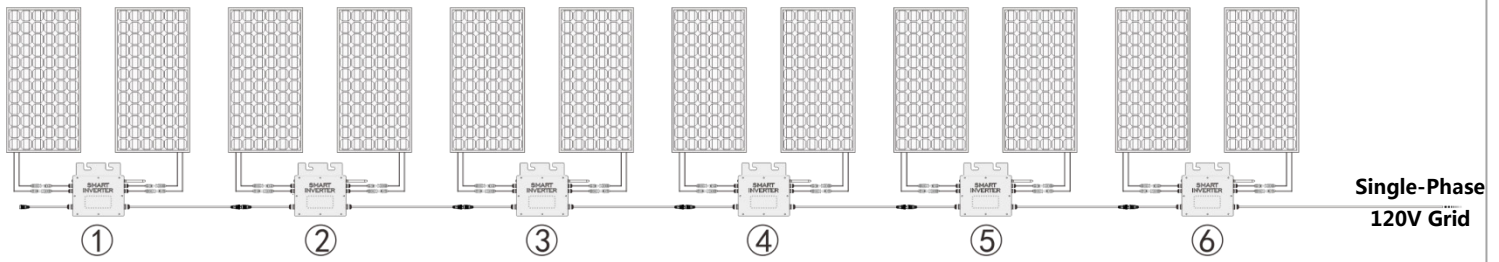
**\*\* Specifications subject to change without notice\*\***

# Installation Schematic

SG400 Series Microinverter

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Single-Phase 120V

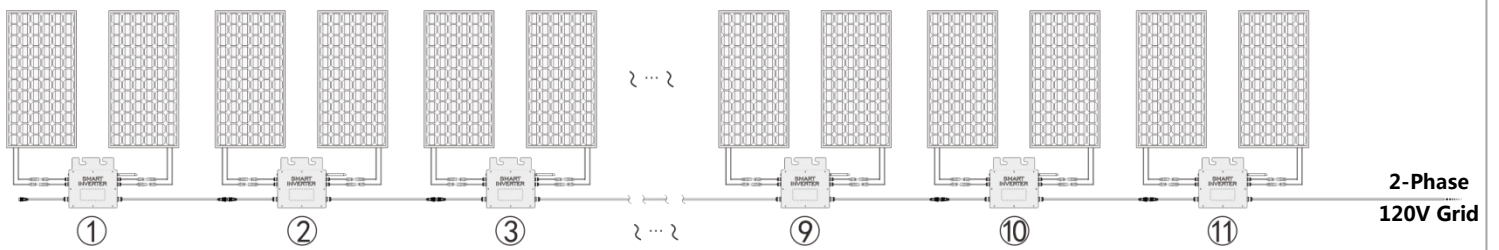


1. SG400 Series @Single-Phase 120V grid, Maximum **6** units SG400 Microinverters per branch.
2. The max DC input power of each inverter is **400W** (the PV module max output power is 2\*200W/400W).
3. The **VOC** of PV modules should not be greater than the max DC input voltage of Microinverters.

SG400 Series Microinverter

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

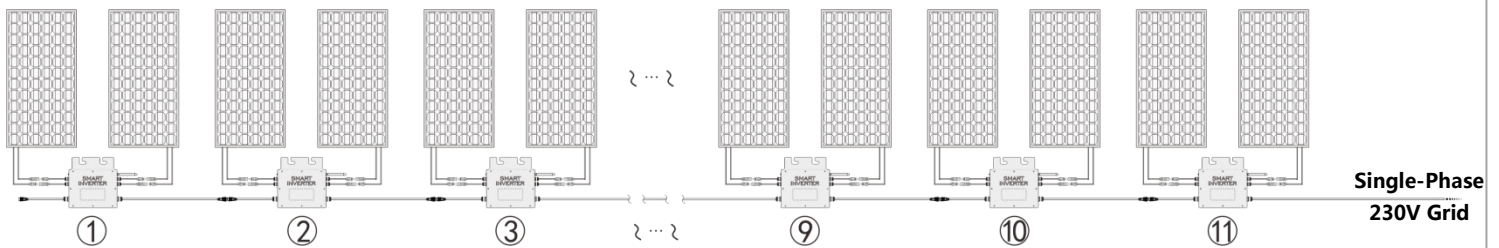


1. SG400 Series @2-Phase 208/240V grid, Maximum **11** units SG400 Microinverters per branch.
2. The max DC input power of each inverter is **400W** (the PV module max output power is 2\*200W/400W).
3. The **VOC** of PV modules should not be greater than the max DC input voltage of Microinverters.

SG400 Series Microinverter

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Single-Phase 230V



1. SG400 Series @Single-Phase 230V grid, Maximum **11** units SG400 Microinverters per branch.
2. The max DC input power of each inverter is **400W** (the PV module max output power is 2\*200W/400W).
3. The **VOC** of PV modules should not be greater than the max DC input voltage of Microinverters.

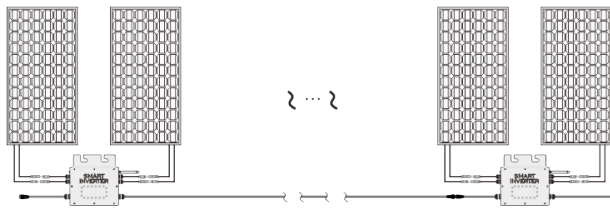
# Wiring Schematic

SG400 Series Microinverter

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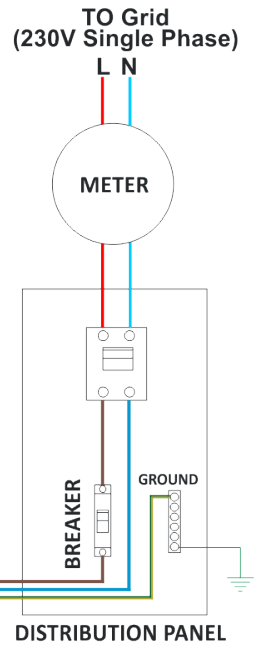
Single-Phase 230V

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



### AC BUS CABLE

- P1.BROWN --- L
- P3.BLUE --- N
- P2.GREEN&YELLOW --- G

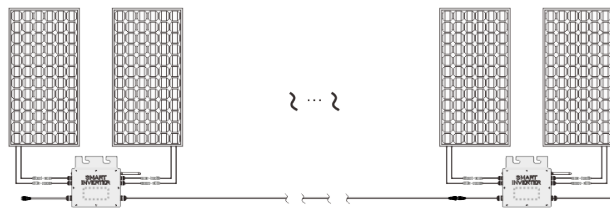


SG400 Series Microinverter

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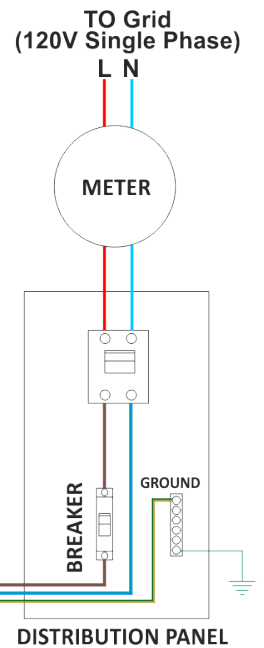
Single-Phase 120V

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



### AC BUS CABLE

- P1.BROWN --- L
- P3.BLUE --- N
- P2.GREEN&YELLOW --- G

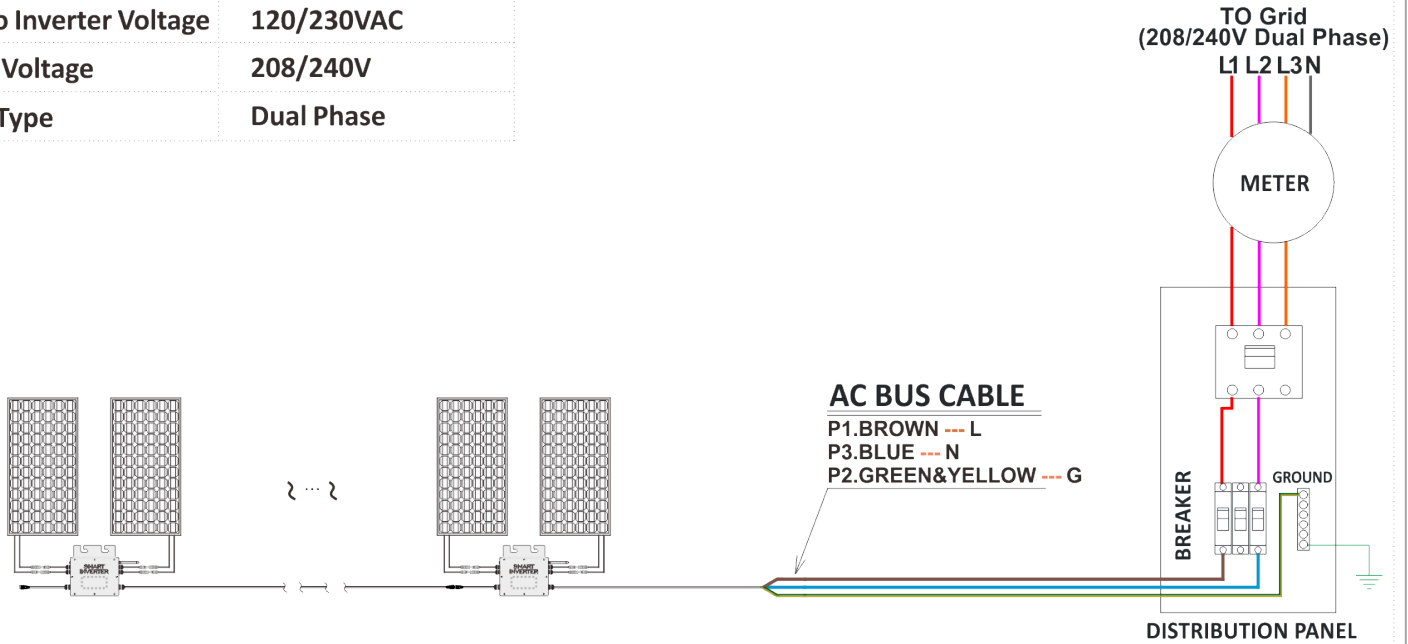


## SG400 Series Microinverter



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

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

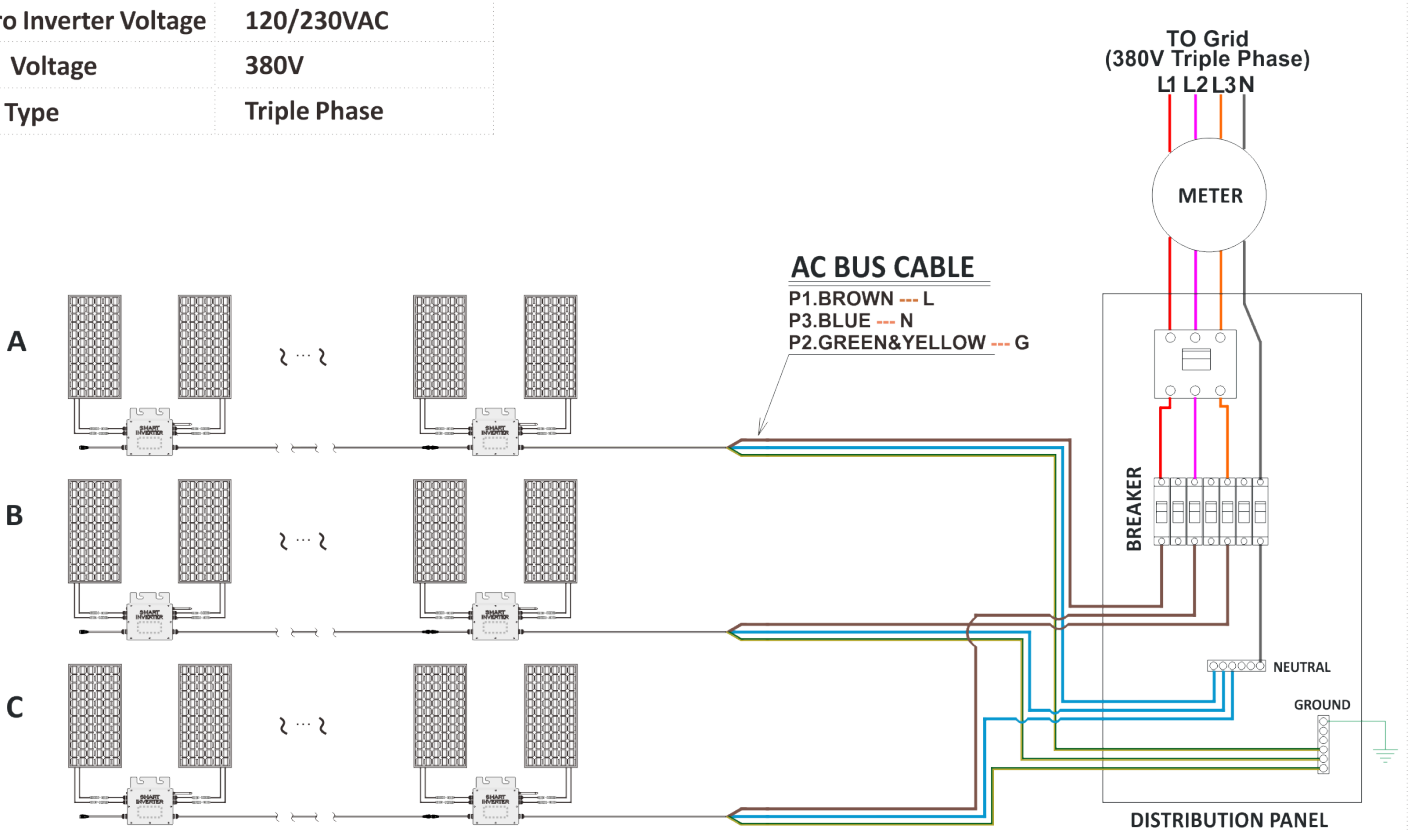


## SG400 Series Microinverter



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

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

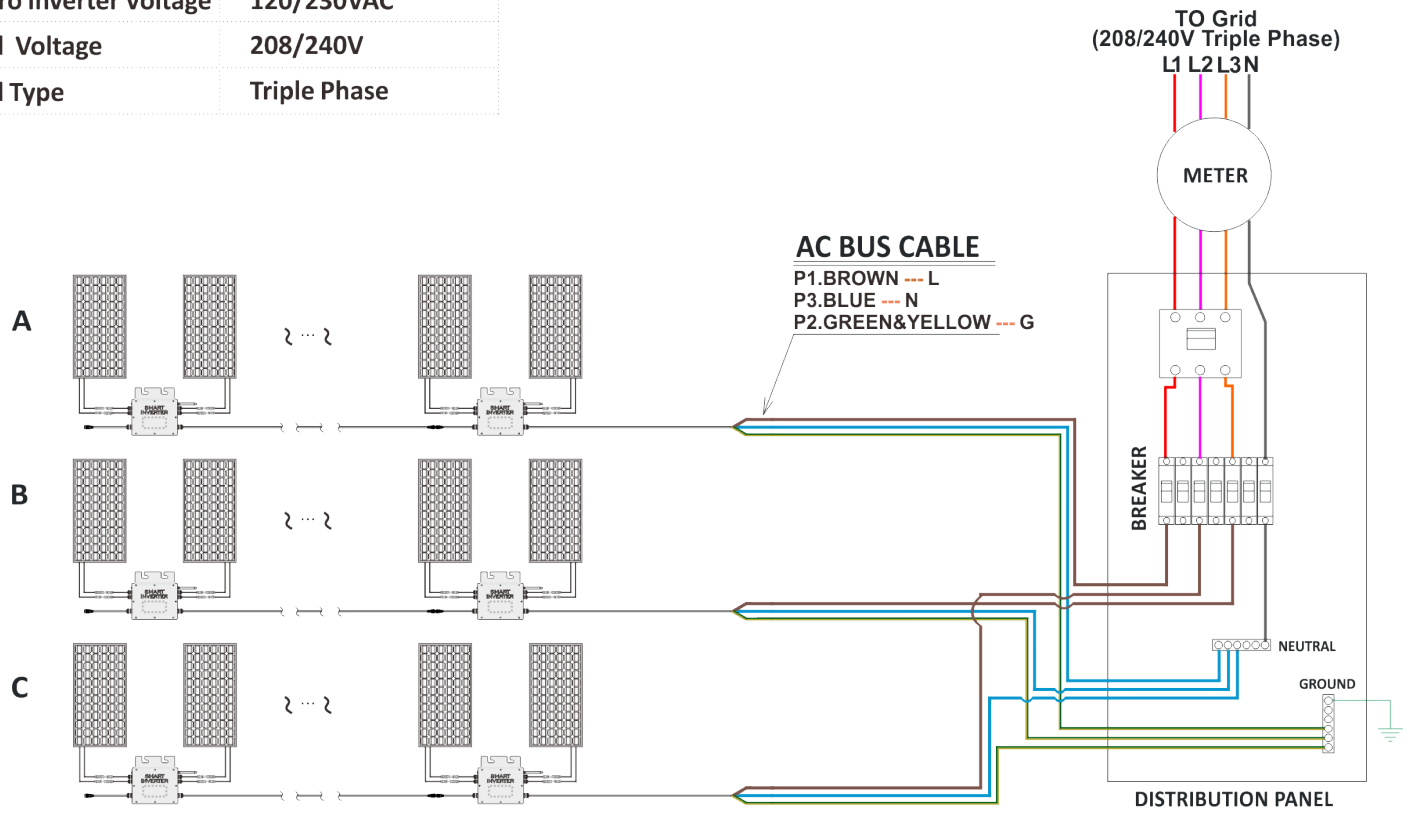


# SG400 Series Microinverter



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

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



# SG400 Series Microinverter



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

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

