

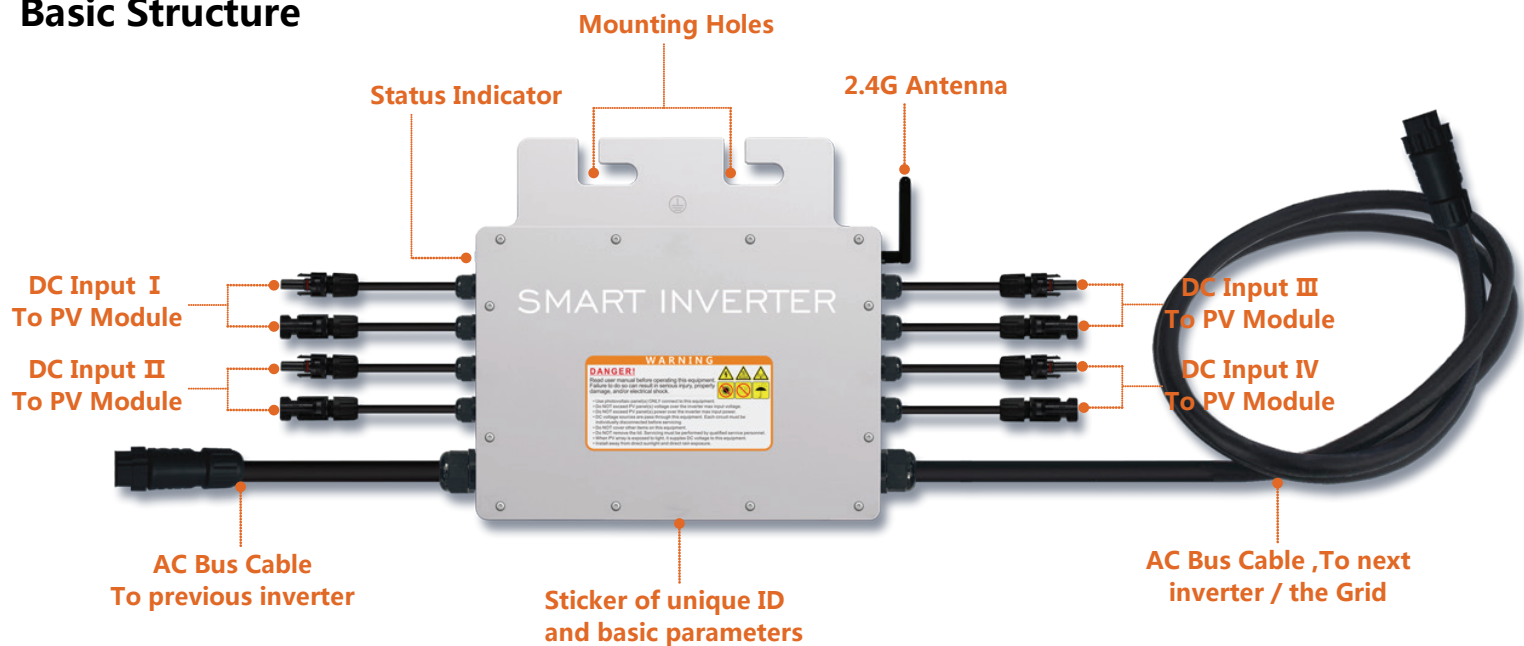
SG1400 Series

PV Smart Microinverter

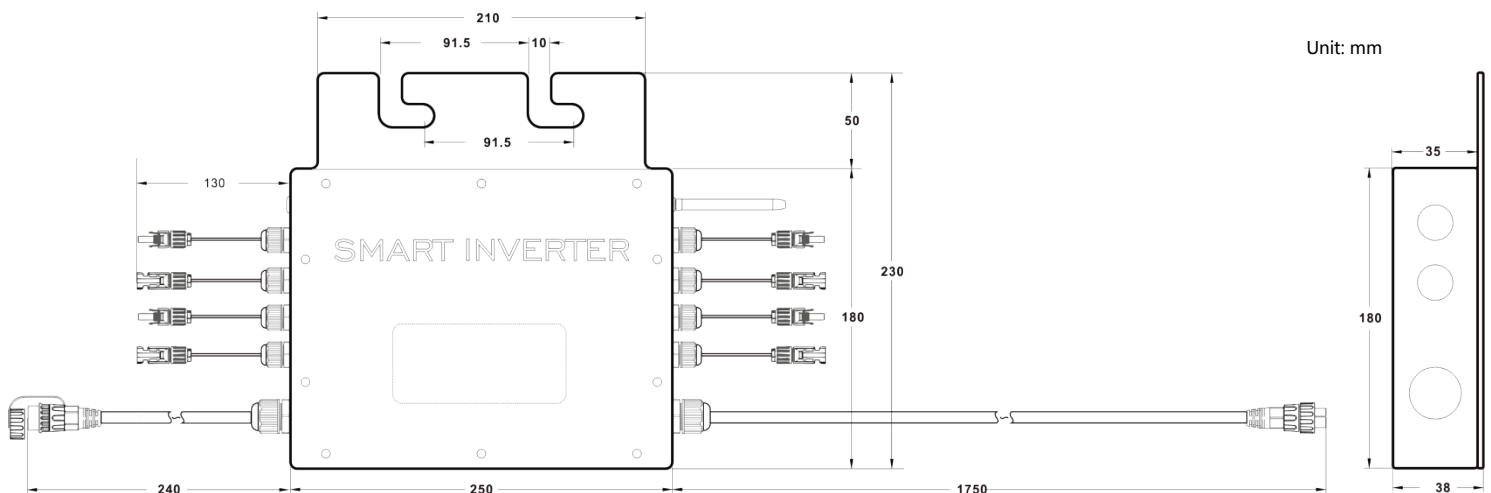
SG1400 Series

- Single unit connects up to four PV modules
- Maximum 1400W AC output power
- Single-phase output, Flexible 3-phase PV systems
- 2.4G wireless communication and monitoring
- Up to 6 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



SG1400 Series PV Smart Microinverter - Parameter Table

Product Series	SG1400 Series	
Model	SG1400MQ (Regular)	SG1400HQ (Custom-made)
Input Data(DC,PV)		
Number of Input MC4 Connector	4 set	4 set
MPPT Voltage Range	24V-40V	36V-60V
Operation Voltage Range	18V-50V	30V-70V
Maximum Input Voltage	50V	70V
Startup Voltage	18V	30V
Maximum Input Power	4*350W	4*350W
Maximum Input Current	4*14A	4*9.7A
Output Data(AC)		
Single-Phase Grid Type	120V & 230V	
Rated Output Power	1350W	
Maximum Output Power	1400W	
Nominal Output Current	@120VAC : 11.25A / @230VAC : 5.86A	
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 : 3 units / @230VAC : 6 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)	250mm x 230mm x 38mm (not include connectors and cable)	
Weight	2.5kg	
Max Current of AC Bus Cable	40A	
Waterproof Grade	IP65	
Cooling Mode	Natural Convection - No Fans	
Other Features		
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.	

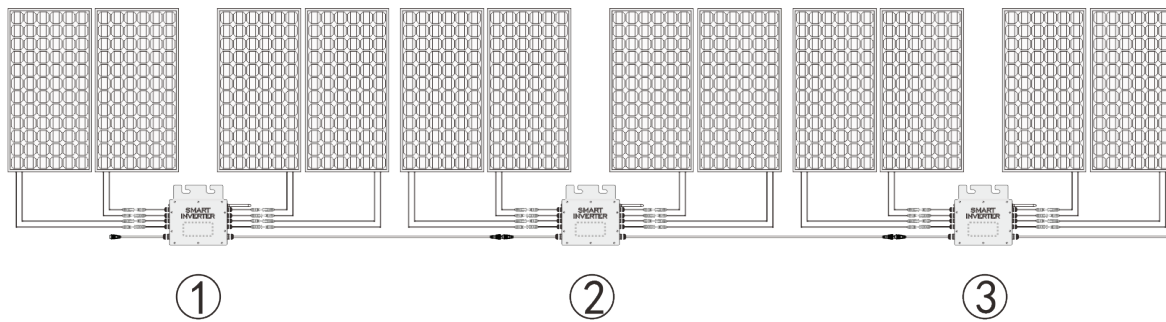
**** Specifications subject to change without notice****

Installation Schematic

SG1400 Series Microinverter

@

Single-Phase 120V



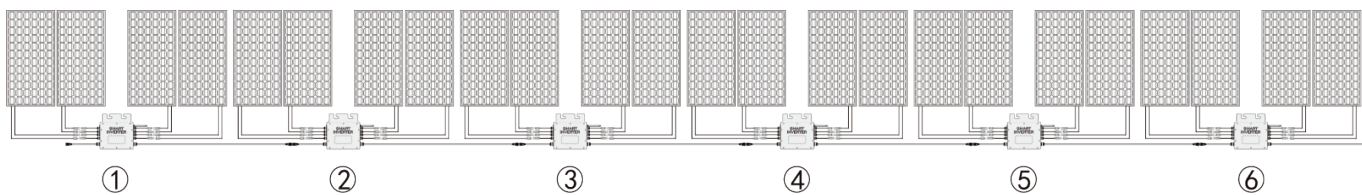
Single-Phase
120V Grid

1. SG1400 Series @Single-Phase 120V grid, Maximum **3** units SG1400 Microinverters per branch.
2. The max DC input power of each inverter is **1400W** (the PV module max output power is 4*350W).
3. The **VOC** of PV modules should not be greater than the max DC input voltage of Microinverters.

SG1400 Series Microinverter

@

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



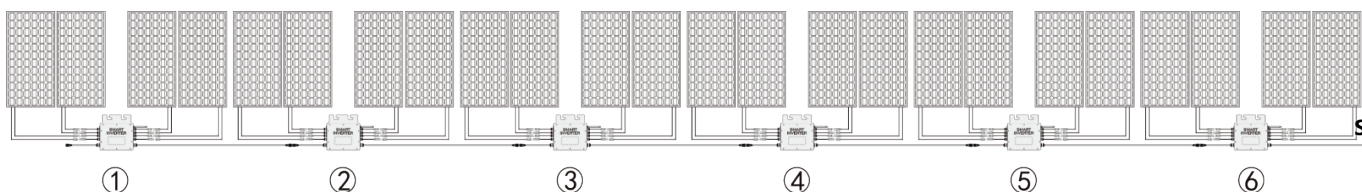
2-Phase
120V Grid

1. SG1400 Series @2-Phase 208/240V grid, Maximum **6** units SG1400 Microinverters per branch.
2. The max DC input power of each inverter is **1400W** (the PV module max output power is 4*350W).
3. The **VOC** of PV modules should not be greater than the max DC input voltage of Microinverters.

SG1400 Series Microinverter

@

Single-Phase 230V



Single-Phase
230V Grid

1. SG1400 Series @Single-Phase 230V grid, Maximum **6** units SG1400 Microinverters per branch.
2. The max DC input power of each inverter is **1400W** (the PV module max output power is 4*350W).
3. The **VOC** of PV modules should not be greater than the max DC input voltage of Microinverters.

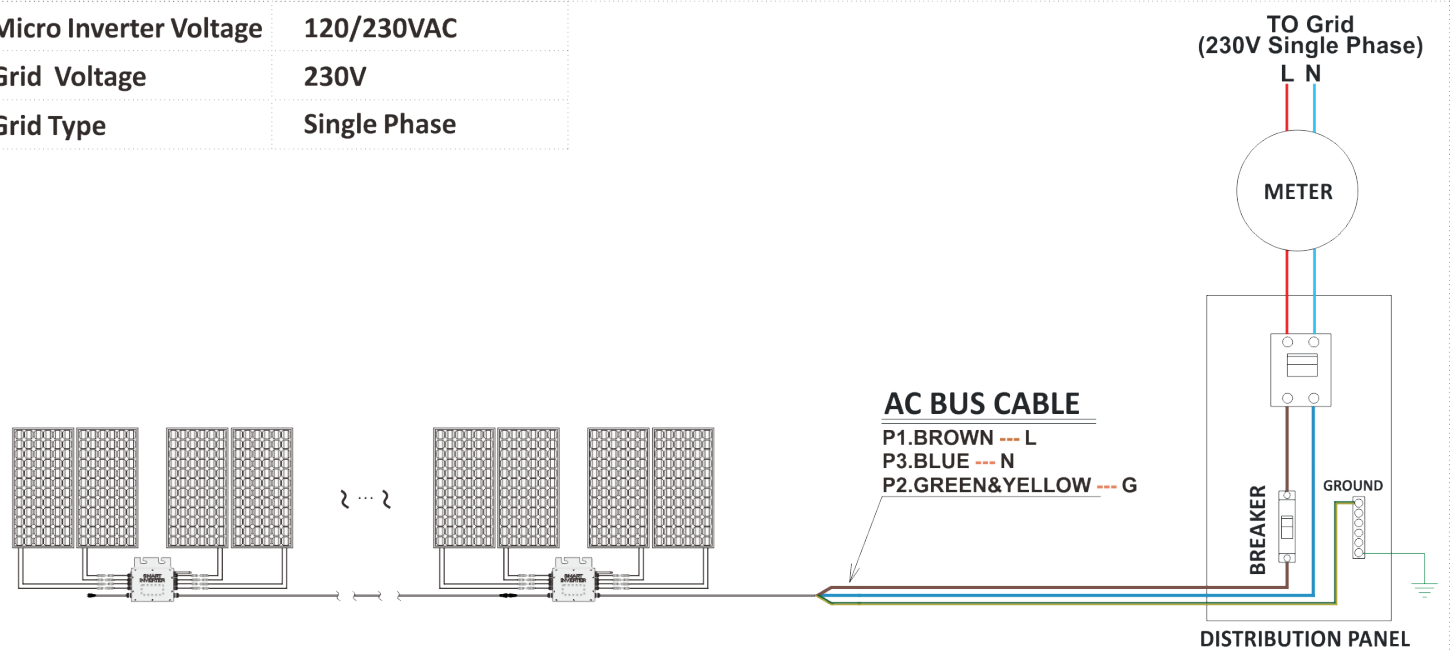
Wiring Schematic

SG1400 Series Microinverter

@

Single-Phase 230V

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

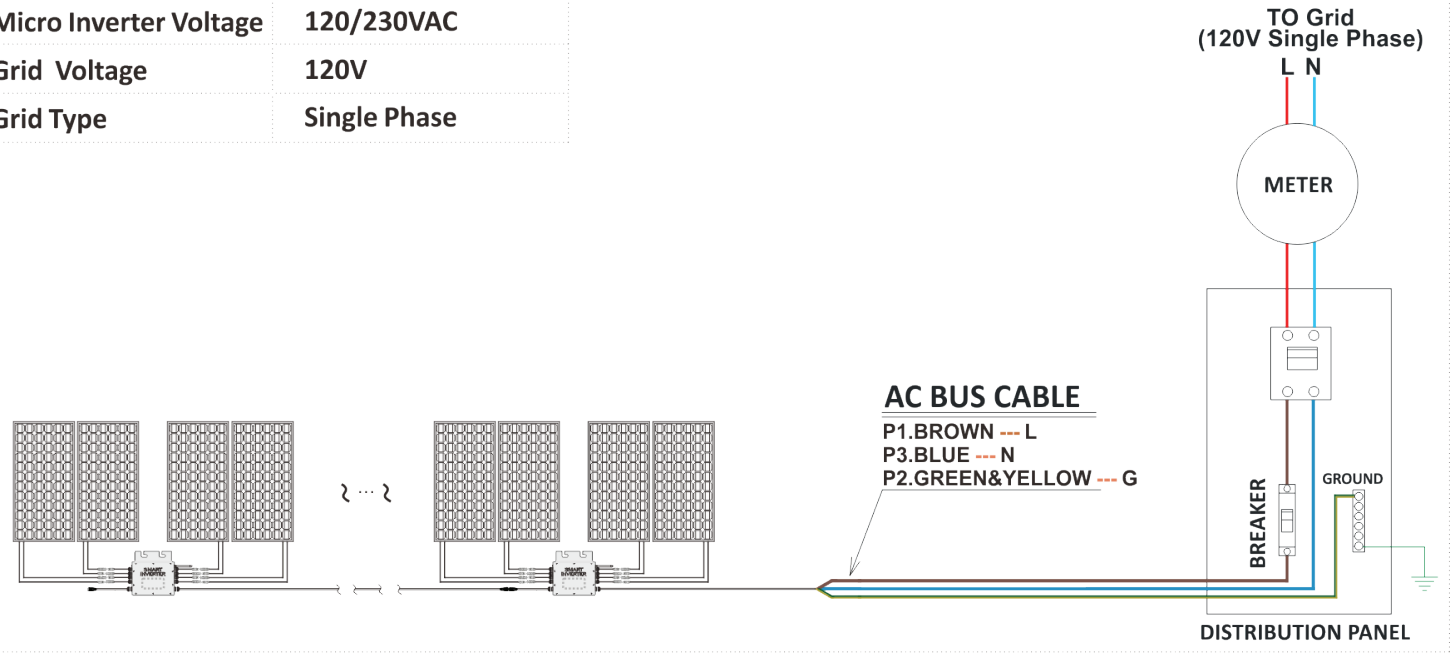


SG1400 Series Microinverter

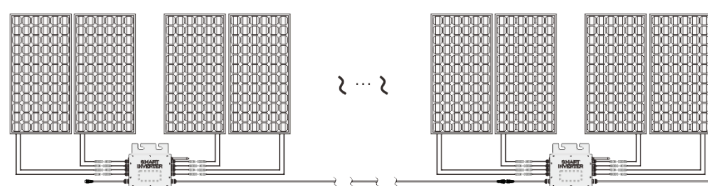
@

Single-Phase 120V

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



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

**AC BUS CABLE**

P1.BROWN --- L

P3.BLUE --- N

P2.GREEN&YELLOW --- G

TO Grid
(208/240V Dual Phase)

L1 L2 L3 N

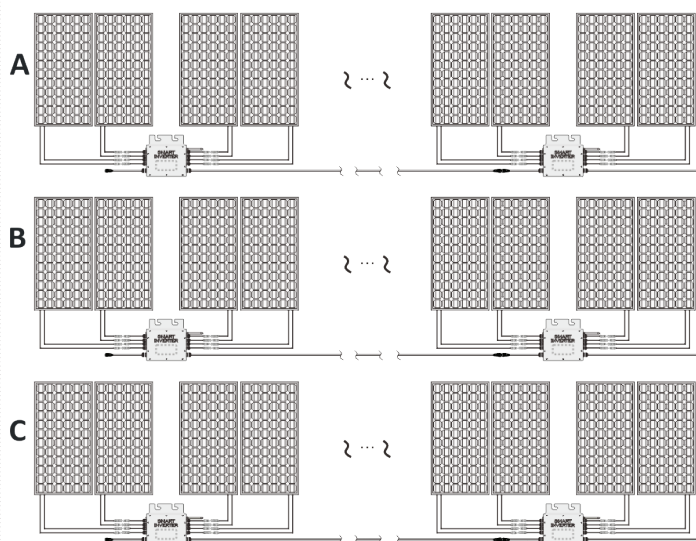
METER

BREAKER

GROUND

DISTRIBUTION PANEL

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

**AC BUS CABLE**

P1.BROWN --- L

P3.BLUE --- N

P2.GREEN&YELLOW --- G

TO Grid
(380V Triple Phase)

L1 L2 L3 N

METER

BREAKER

NEUTRAL

GROUND

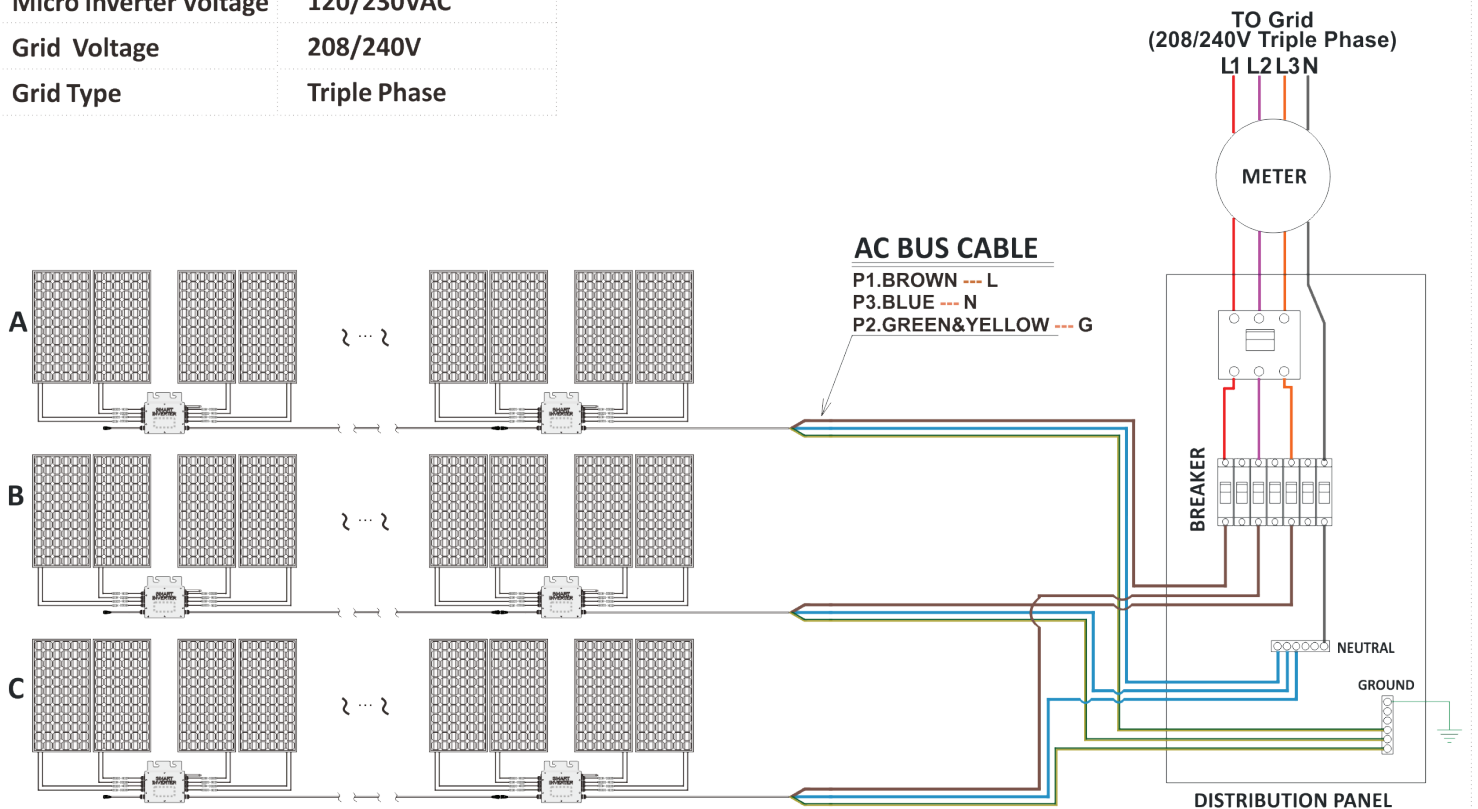
DISTRIBUTION PANEL

SG1400 Series Microinverter

@

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

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



SG1400 Series Microinverter

@

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

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

