

SG1400 Series

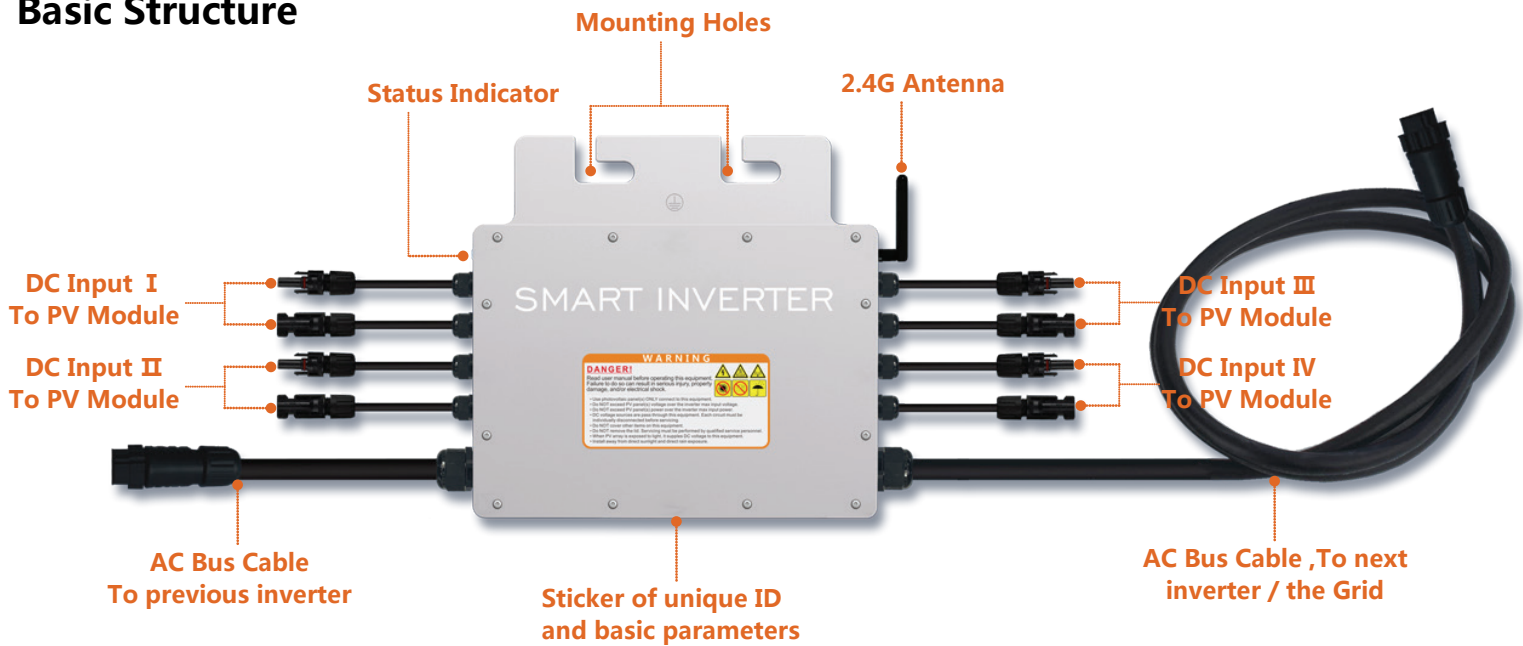
PV Smart Microinverter

SG1400 Series

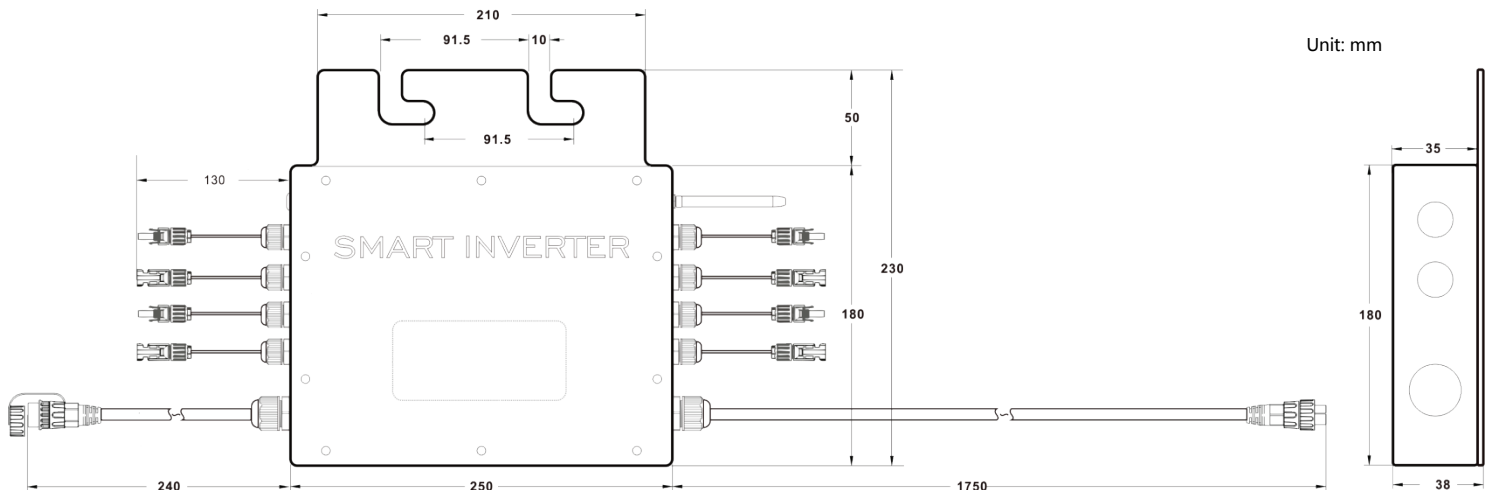


- Single unit connects up to four PV modules
- Maximum 1400W AC output power
- Single-phase output, Flexible 3-phase PV systems
- 2.4G wireless communication and monitoring
- Up to 6 units (230V) per branch
- Customizable various input (DC, PV) voltage range
- Integrated AC bus cable, Ready-To-Use
- 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. | |

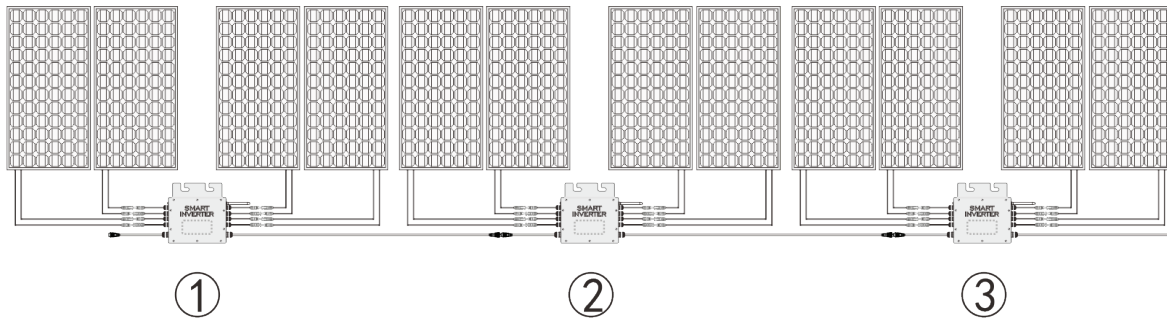
**** Specifications subject to change without notice****

Installation Schematic

SG1400 Series Microinverter

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Single-Phase 120V



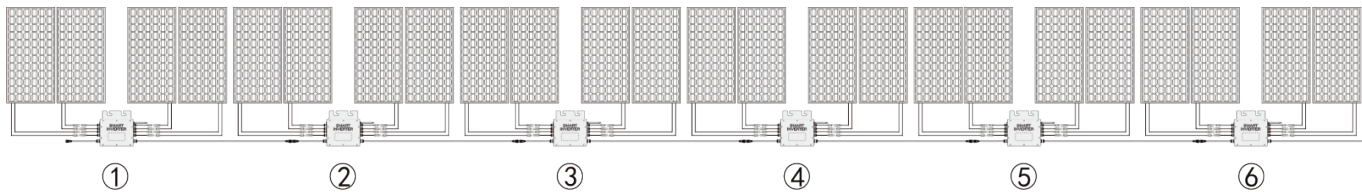
Single-Phase
120V Grid

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

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



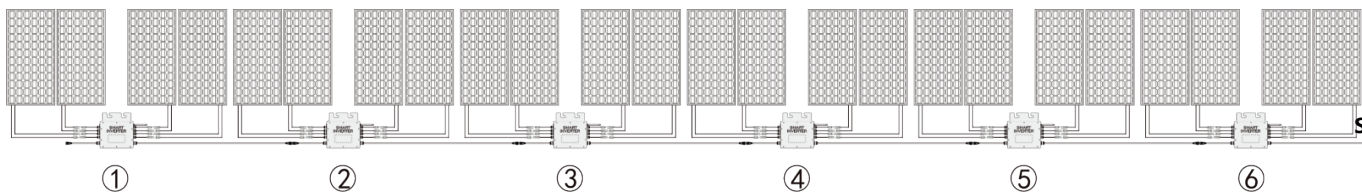
2-Phase
120V Grid

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

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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.

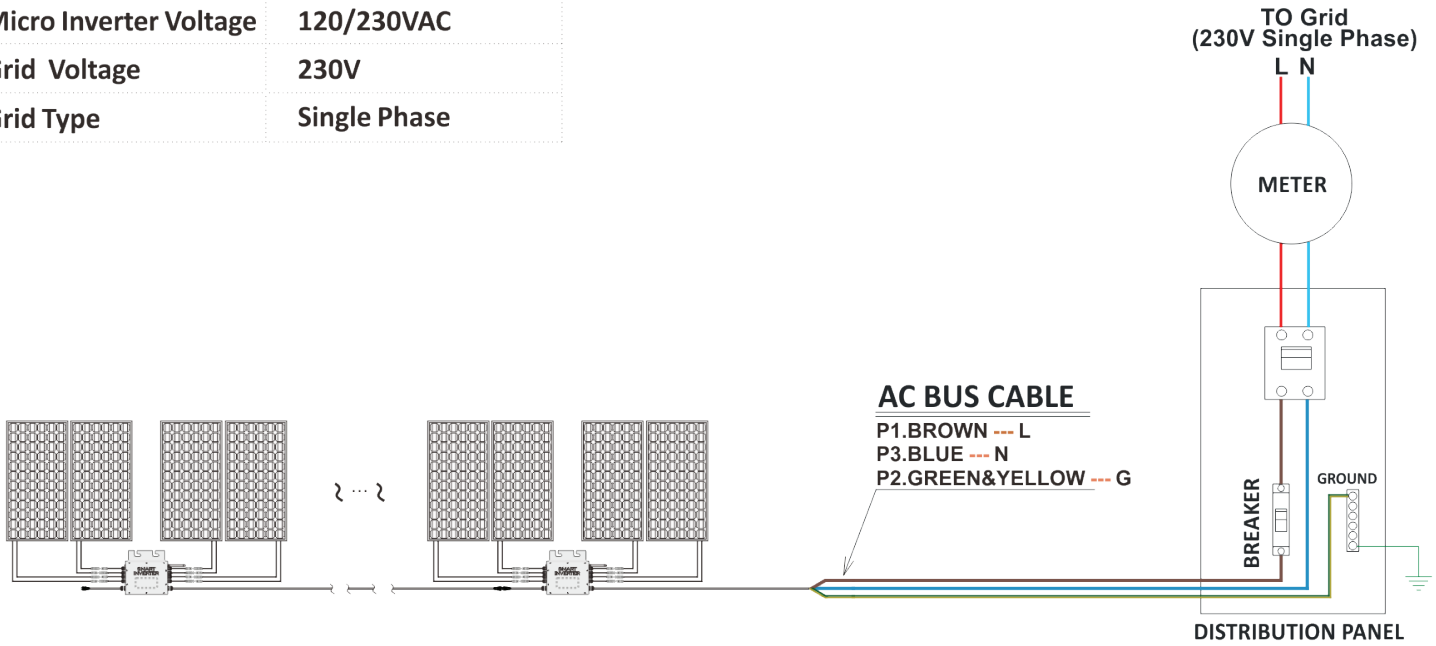
Wiring Schematic

SG1400 Series Microinverter

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Single-Phase 230V

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

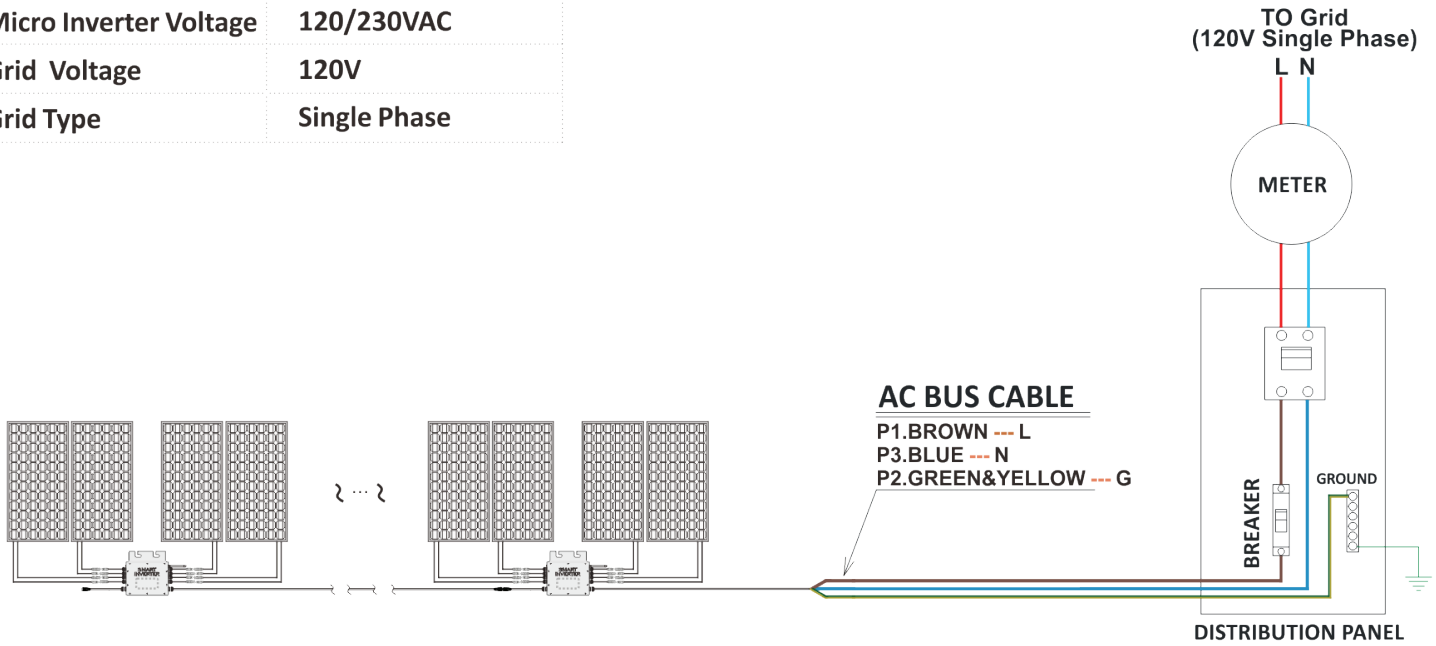


SG1400 Series Microinverter

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Single-Phase 120V

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

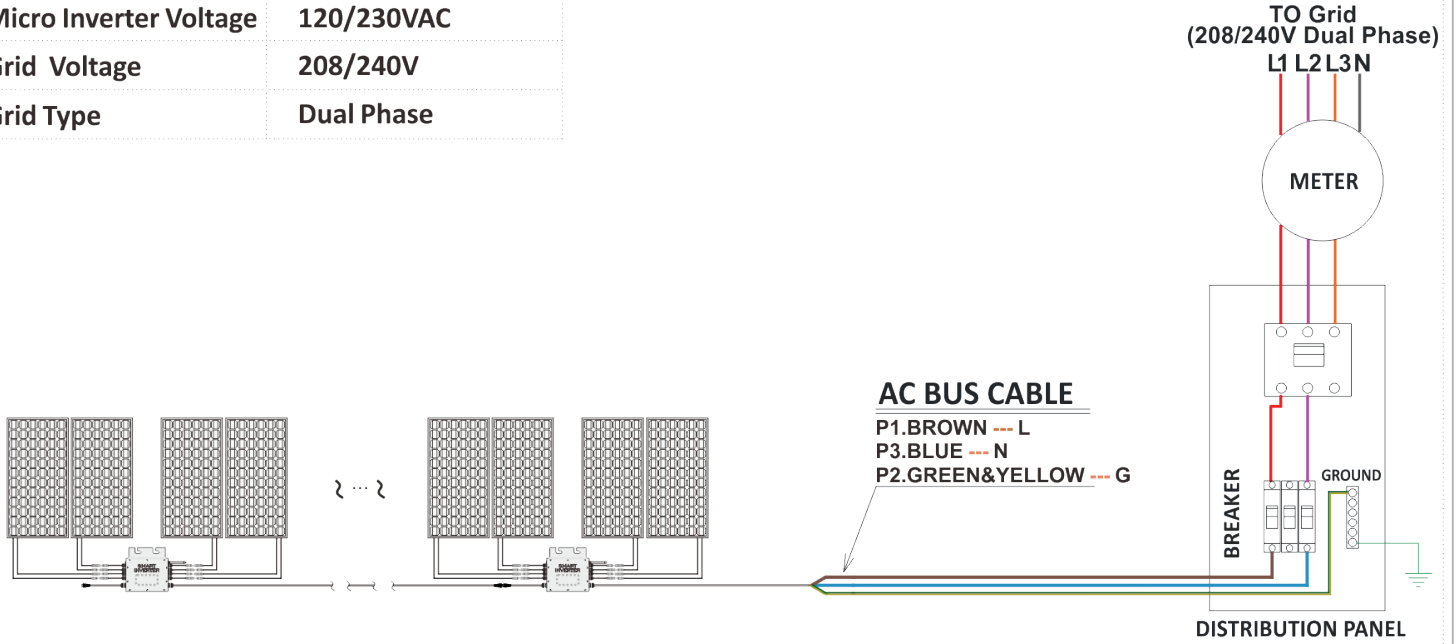


SG1400 Series Microinverter



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

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

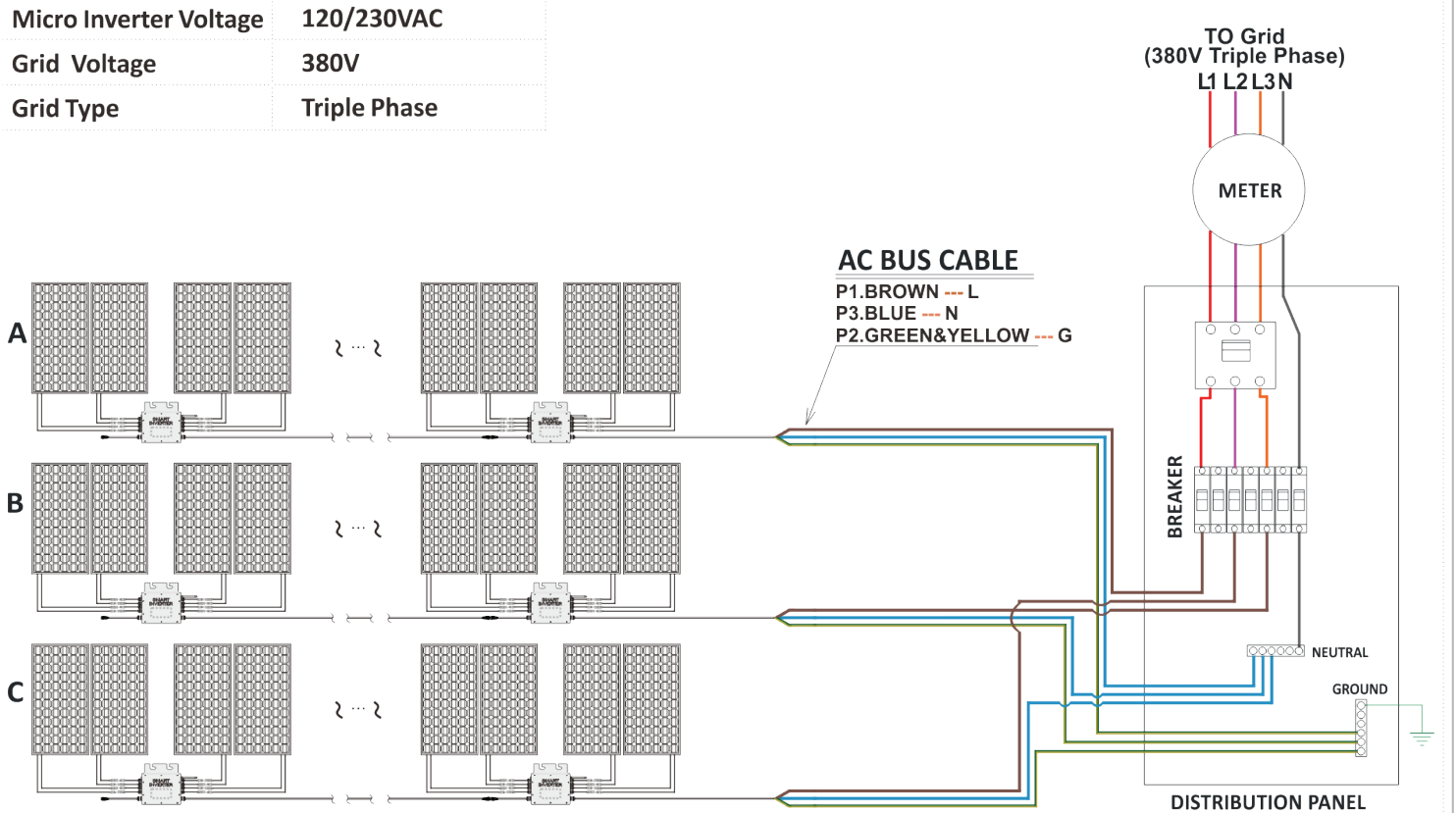


SG1400 Series Microinverter



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

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

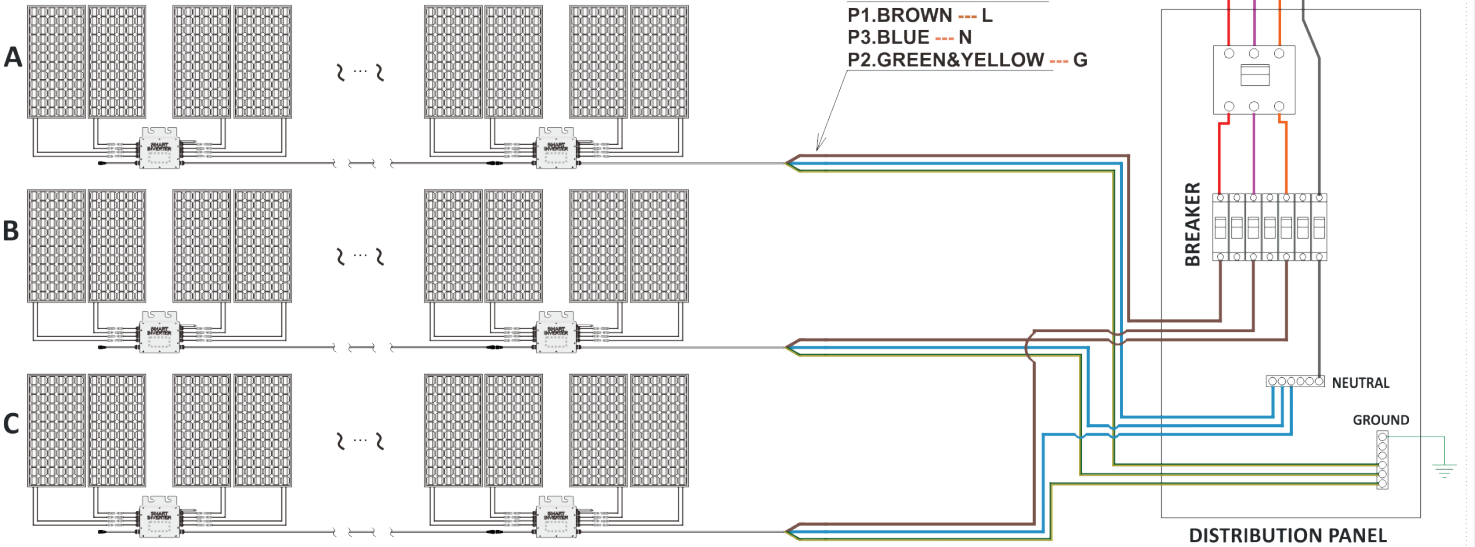


SG1400 Series Microinverter



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 |

