

**SG400 Series**

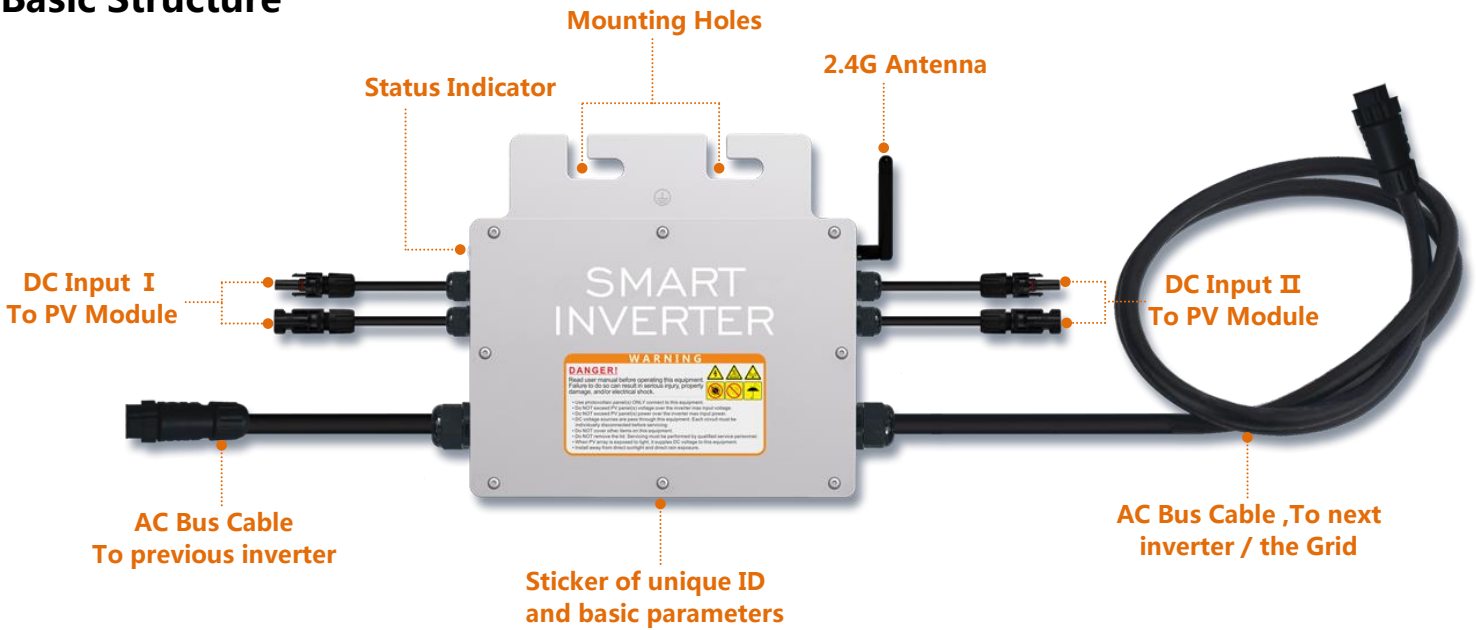
**PV Smart Microinverter**

**SG400 Series**

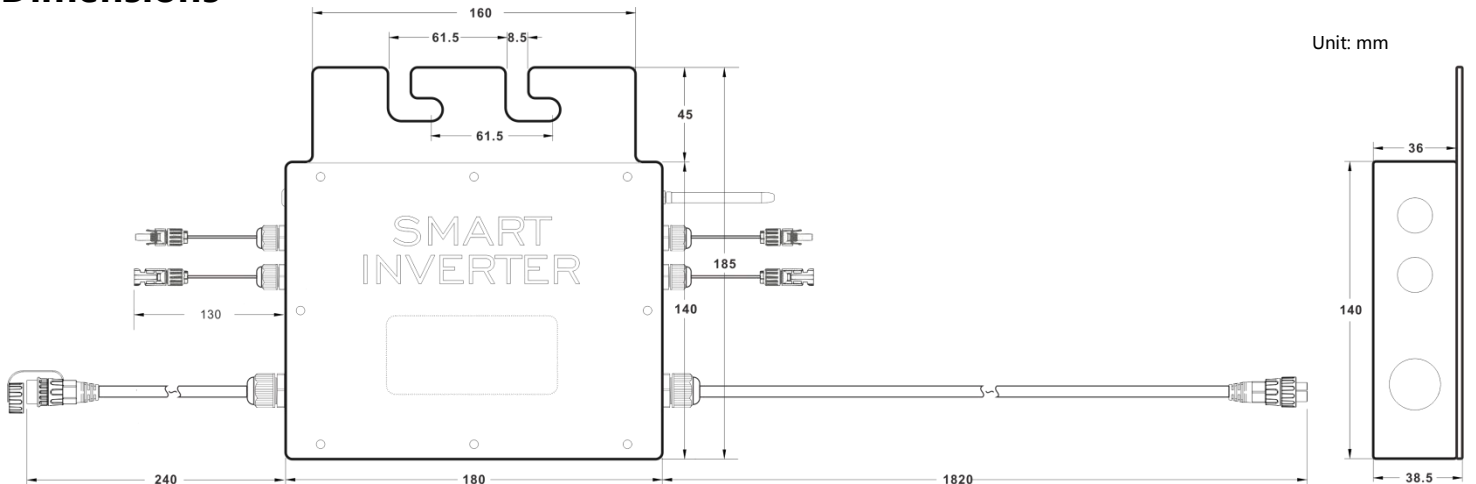


- Single unit connects up to two PV modules
- Maximum 400W AC output power
- Single-phase output, Flexible 3-phase PV systems
- 2.4G wireless communication and monitoring
- Up to 11 units (230V) per branch
- Customizable various input (DC, PV) voltage range
- Integrated AC bus cable, Ready-To-Use
- Low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

**Basic Structure**



**Dimensions**



# SG400 Series PV Smart Microinverter - Parameter Table

|                                     |  |
|-------------------------------------|--|
| <b>Product Series</b>               | <b>SG400 Series</b>  |
| <b>Model</b>                        | <b>SG400MD</b><br>(Regular)  |
| <b>Input Data(DC,PV)</b>            |  |
| Number of Input MC4 Connector       | 2 set  |
| MPPT Voltage Range                  | 24V-40V  |
| Operation Voltage Range             | 18V-50V  |
| Maximum Input Voltage               | 50V  |
| Startup Voltage                     | 18V  |
| Maximum Input Power                 | 2*200W   |
| Maximum Input Current               | 2*8A   |
| <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                   | CE etc.  |

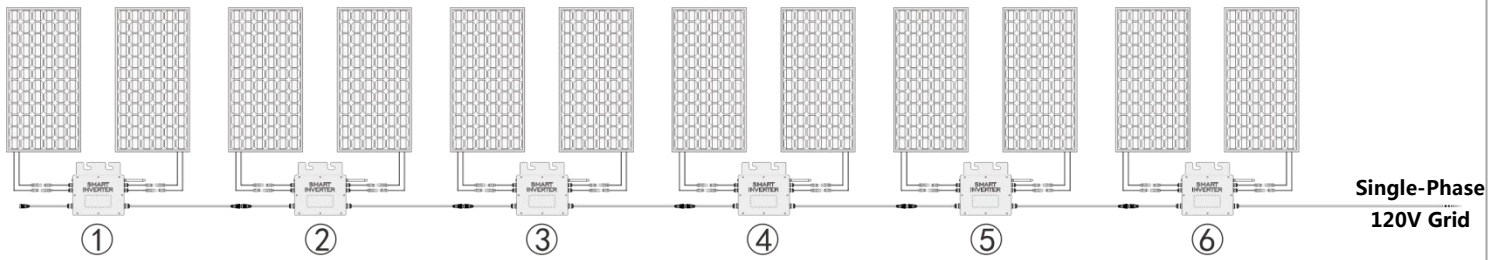
**\*\* Specifications subject to change without notice\*\***

# Installation Schematic

SG400 Series Microinverter

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Single-Phase 120V

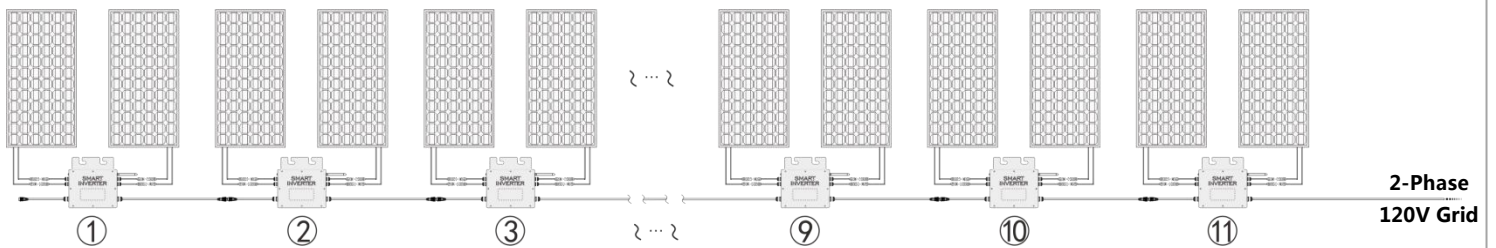


1. SG400 Series @Single-Phase 120V grid, Maximum **6** units SG400 Microinverters per branch.
2. The max DC input power of each inverter is **400W** (the PV module max output power is 2\*200W/400W).
3. The **VOC** of PV modules should not be greater than the max DC input voltage of Microinverters.

SG400 Series Microinverter

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

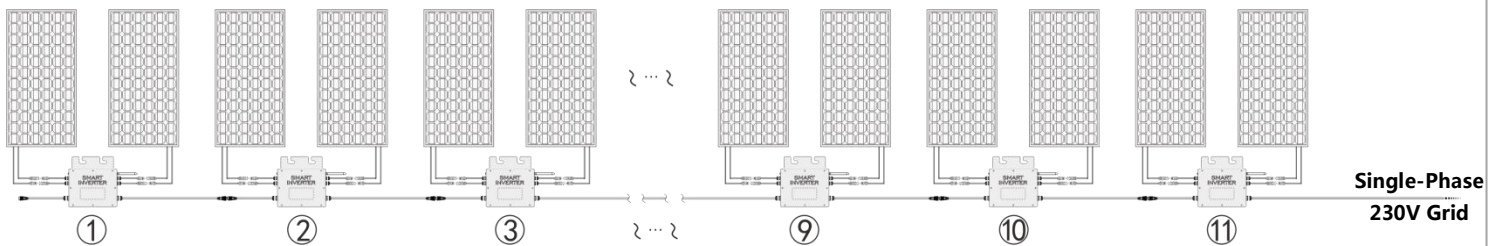


1. SG400 Series @2-Phase 208/240V grid, Maximum **11** units SG400 Microinverters per branch.
2. The max DC input power of each inverter is **400W** (the PV module max output power is 2\*200W/400W).
3. The **VOC** of PV modules should not be greater than the max DC input voltage of Microinverters.

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.

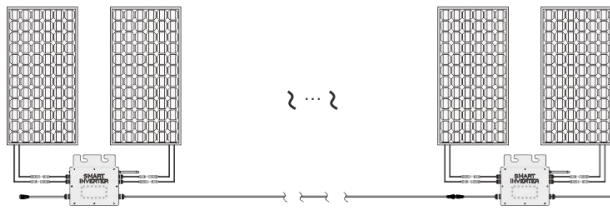
# Wiring Schematic

SG400 Series Microinverter

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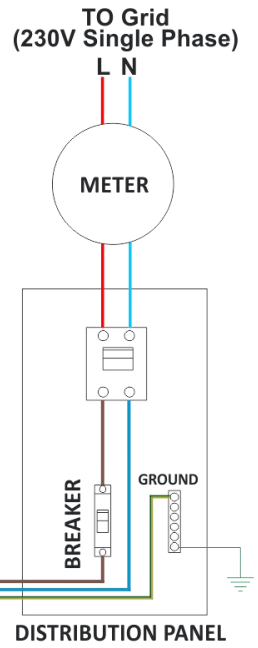
Single-Phase 230V

|                        |              |
|------------------------|--------------|
| 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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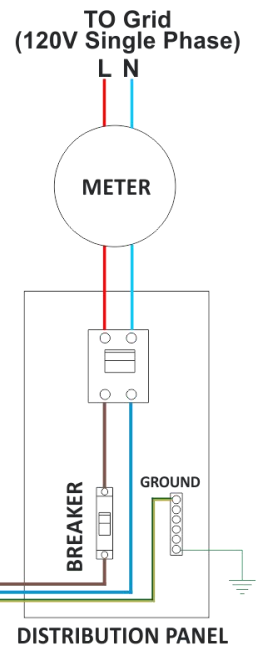
Single-Phase 120V

|                        |              |
|------------------------|--------------|
| 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

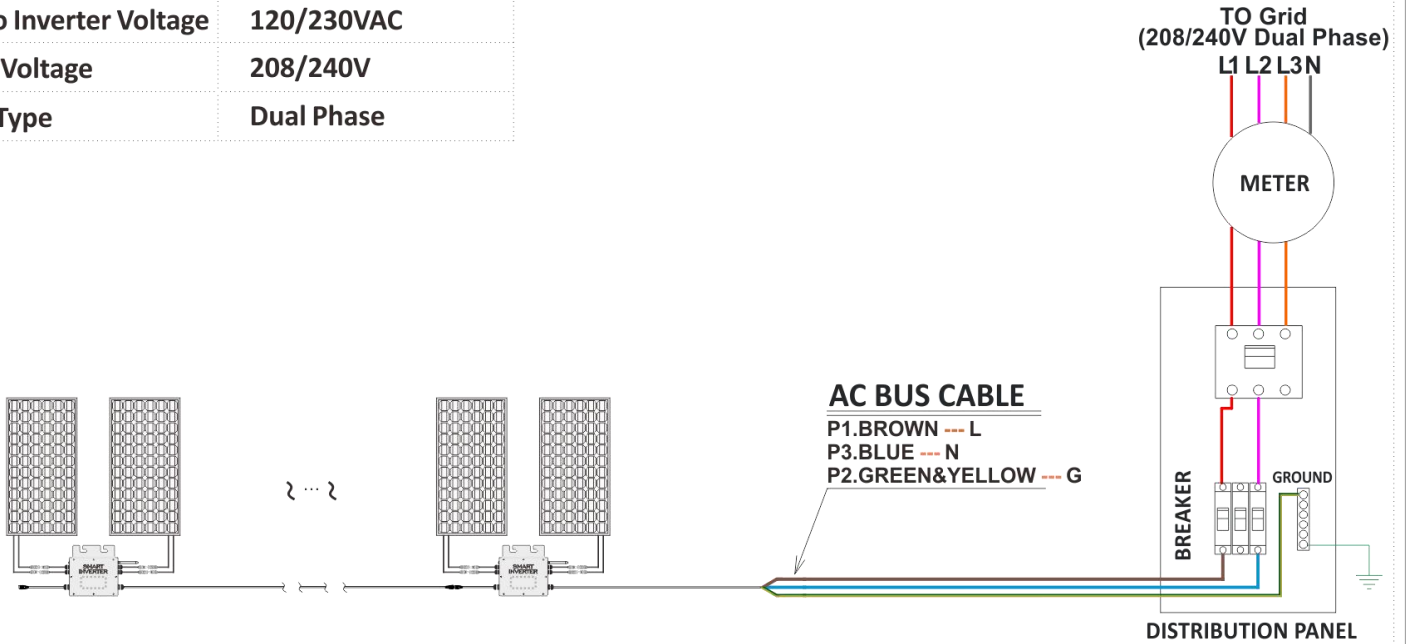


**SG400 Series Microinverter**



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

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

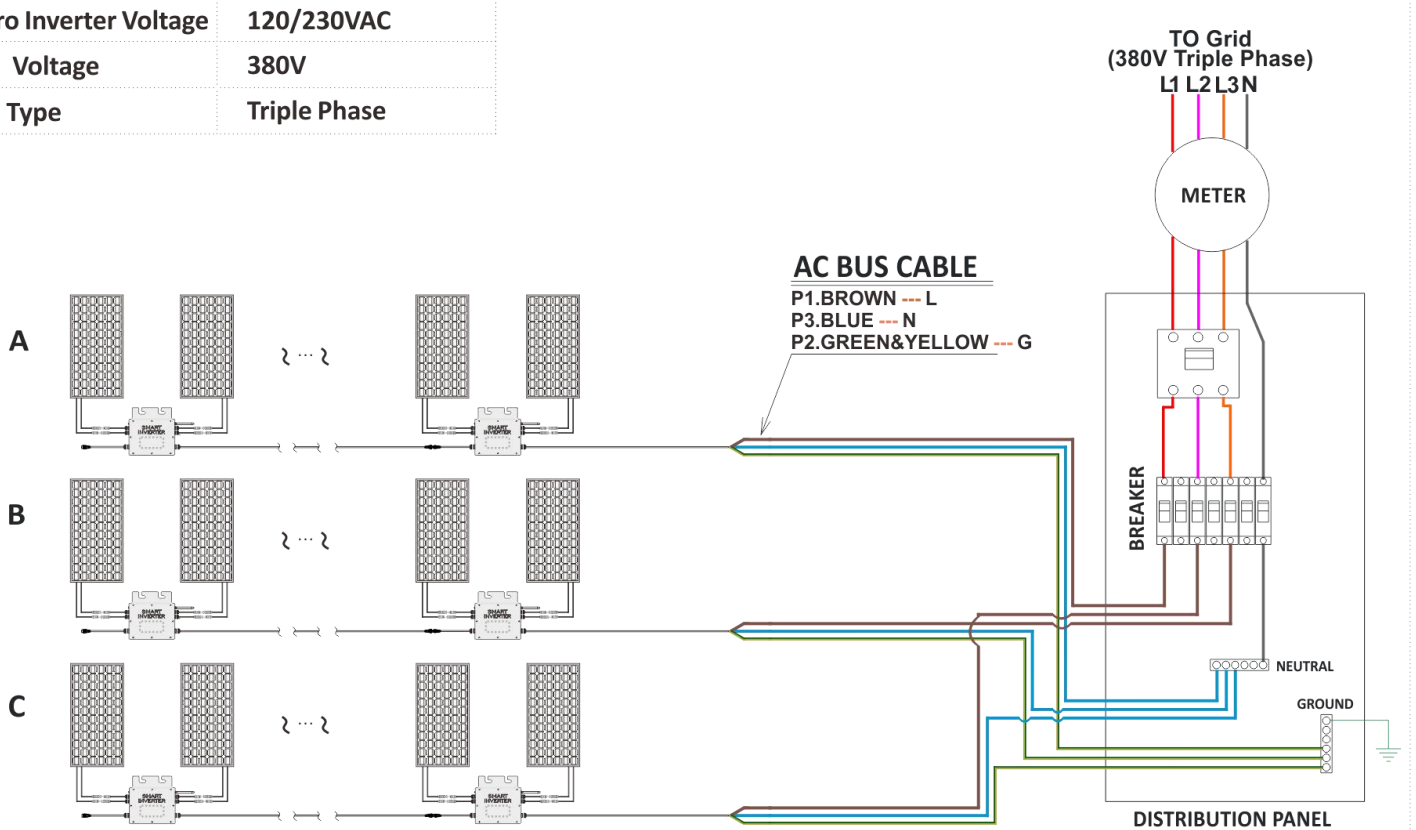


**SG400 Series Microinverter**



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

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

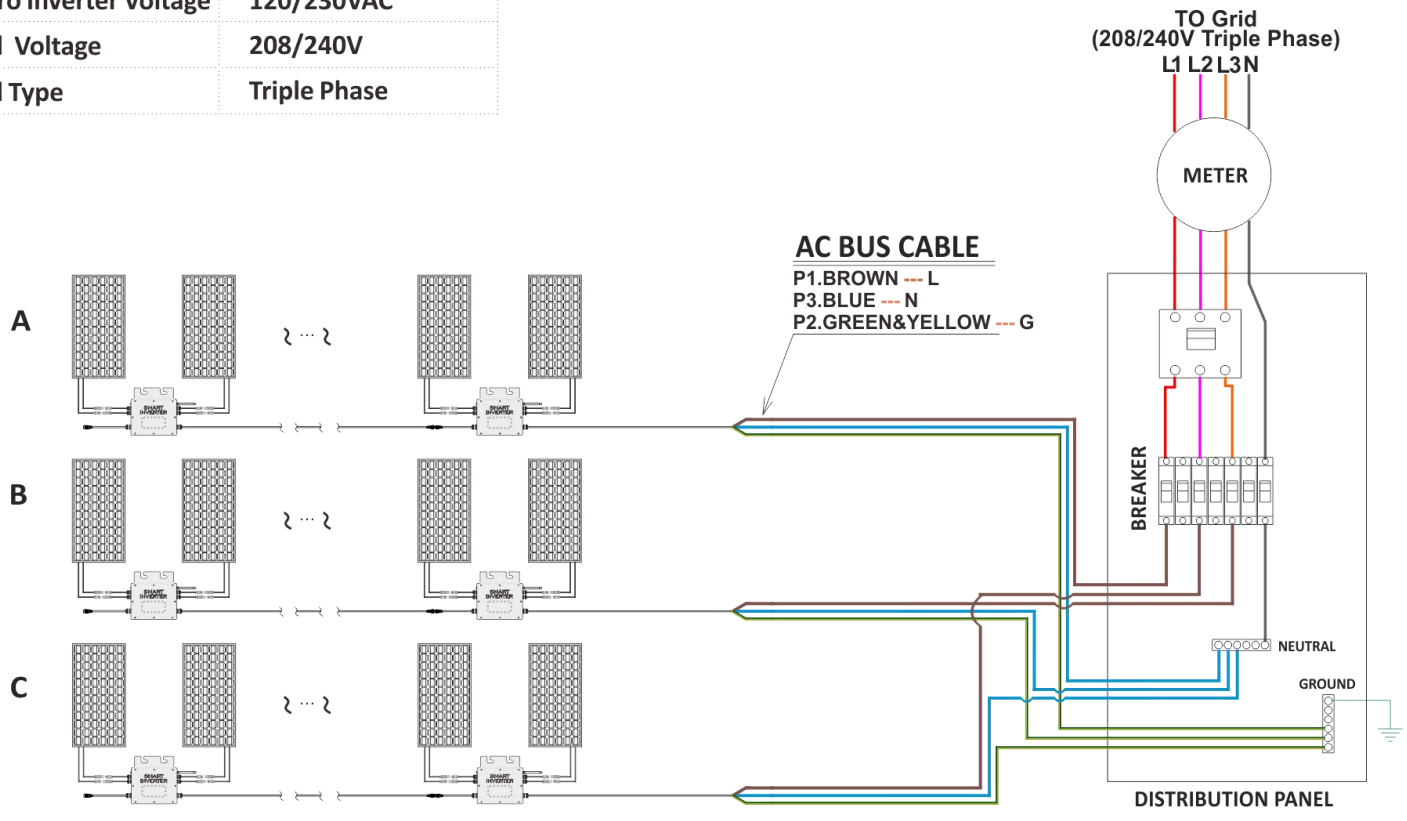


# SG400 Series Microinverter



# 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 |

