

# Smart Optimizer & Monitoring SUNGO iOPT 800W

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## Features

### Safety

Module-level automatic rapid shutdown, ensuring fire and maintenance safety

### Intelligent Management

Module-level data intelligent monitoring, One App to Manage the PV power plant

### Optimize Power Generation

Module-level MPPT ensures optimal performance regardless of shadows, malfunction, etc, resulting in a remarkable power generation increase of 5%-30%

### Flexible Use

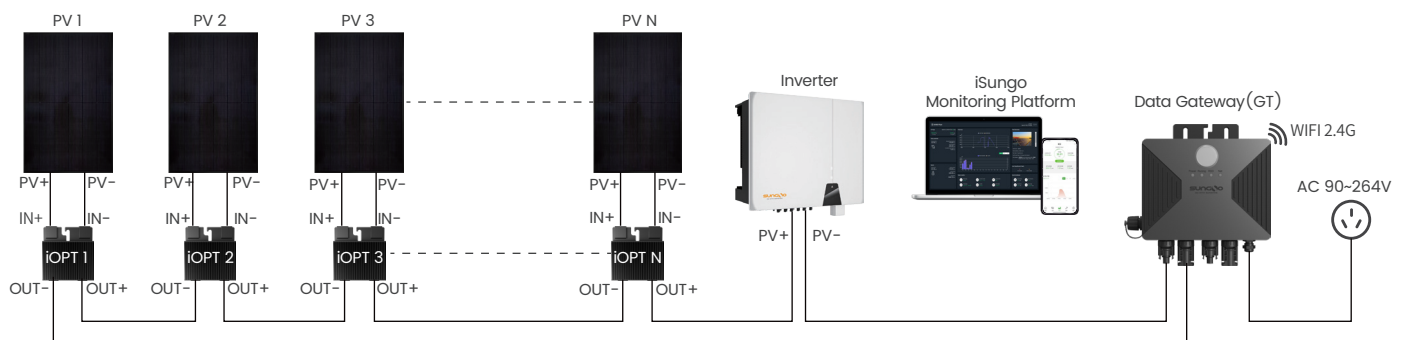
Matching mainstream PV modules and various inverters for worry-free installation of PV power plants in operation and under construction

### Advanced MPPT Algorithm

The MPPT algorithm is not only advanced but also boasts rapid calculation speeds, resulting in efficiency levels exceeding 99.5% and peaking at 99.7%

### Quality Warranty

12-year standard warranty, high stability, service life over 25 years



Optimizer Connection Diagram

## Optimizer Technical Parameters

| Model                             | SUNGO iOPT 800W                                                              |
|-----------------------------------|------------------------------------------------------------------------------|
| <b>DC Input</b>                   |                                                                              |
| Max input power                   | 800W                                                                         |
| Max voltage                       | 70V                                                                          |
| MPPT voltage range                | 12~60V                                                                       |
| Max continuous input current      | 21A                                                                          |
| Max input short-circuits current  | 23A                                                                          |
| Night self-consumption            | 0W                                                                           |
| <b>DC Output</b>                  |                                                                              |
| Output voltage                    | 0~60V                                                                        |
| Max continuous output current     | 21A                                                                          |
| Max output power                  | 780W                                                                         |
| Max system voltage                | 1500V                                                                        |
| <b>DC Output During Shutdown</b>  |                                                                              |
| Output voltage (without SUNGO GT) | 1±0.1V                                                                       |
| <b>Efficiency</b>                 |                                                                              |
| Peak MPPT efficiency              | ≥99.7%                                                                       |
| <b>Communication</b>              |                                                                              |
| Communication Method              | PLC                                                                          |
| Communication parameter           | PV Voltage, Output Voltage, Output Current, Output Power, Temperature, State |
| <b>Advanced Protection</b>        |                                                                              |
| Input overvoltage protection      | >75V                                                                         |
| Output overcurrent protection     | >22A                                                                         |
| Output overload protection        | >800W                                                                        |
| High temperature protection       | >110℃                                                                        |
| <b>General Data</b>               |                                                                              |
| Dimensions (W*D*H)                | 116*31.5*123mm                                                               |
| Weight                            | 0.865kg                                                                      |
| Input/output cable length         | IN+ 200 / IN- 1100 / OUT+ 750 / IN- 750mm                                    |
| Input/output cable size           | 4mm² (12AWG) / 4mm² (12AWG)                                                  |
| Terminals                         | MC4(Compatible)                                                              |
| Protection rating                 | IP68                                                                         |
| Relative humidity                 | 0~100%RH                                                                     |
| Operating temperature range       | -40~+65℃                                                                     |
| Cooling                           | Natural cooling                                                              |
| Certification                     | CE                                                                           |
| Packaging                         | 28pcs/CTN 840pcs/pallets                                                     |

## Data Gateway Technical Parameters

| Model                               | SUNGO GT                                                                                                           |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Match with                          | SUNGO iOPT 800W                                                                                                    |
| <b>AC Input Parameters</b>          |                                                                                                                    |
| AC input voltage range              | 90~264V                                                                                                            |
| AC Input frequency                  | 50/60Hz                                                                                                            |
| Maximum AC input power              | 5W                                                                                                                 |
| Maximum AC input current            | 0.1A@90Vac                                                                                                         |
| <b>PV Input Parameters</b>          |                                                                                                                    |
| Terminals                           | MC4(Compatible)                                                                                                    |
| Maximum system voltage              | 1500V                                                                                                              |
| Nos of input strings                | 2                                                                                                                  |
| Max current of each string          | 21A                                                                                                                |
| Max Module Nos per string           | 30                                                                                                                 |
| <b>Communication Method</b>         |                                                                                                                    |
| Communication with optimizer        | PLC                                                                                                                |
| Communication with upper machine    | 2.4GHz Wi-Fi / RS485                                                                                               |
| <b>Rapid Shutdown</b>               |                                                                                                                    |
| Initial state                       | 1. OFF when AC is not connected 2. ON when AC is connected                                                         |
| Switch-on                           | Press the button once until the Running light is on                                                                |
| Switch-on time                      | <5s                                                                                                                |
| Shut-down                           | 1. Press the button once until the RSD indicator lights up<br>2. Controller AC power off, all indicator lights off |
| Shut-down time                      | <30s                                                                                                               |
| <b>Standards</b>                    |                                                                                                                    |
| Electromagnetic compatibility (EMS) | IEC61000-6-1, IEC61000-6-2, IEC61000-6-3                                                                           |
| Safety                              | IEC62109-1                                                                                                         |
| RoHs                                | Yes                                                                                                                |
| <b>Installation Specification</b>   |                                                                                                                    |
| Dimension (W*D*H)                   | 140*33.5*175mm                                                                                                     |
| Weight                              | 0.88kg                                                                                                             |
| AC input cable length               | 1m                                                                                                                 |
| Protection level                    | IP67                                                                                                               |
| Working temperature range           | -40~+70℃                                                                                                           |
| Cooling                             | Natural cooling                                                                                                    |
| Form of installation                | Wall hanging/holding, screw locking                                                                                |
| Certification                       | CE                                                                                                                 |
| Packaging                           | 5pcs/CTN 40pcs/pallets                                                                                             |