# Power Optimizer

## Ground Mount for North America

S1200

**25 YEAR WARRANTY**

## SolarEdge's most advanced, cost-effective Power Optimizer for commercial and large field installations

### Greater Energy Yields

- High efficiency (99.5%) with module-level MPPT, for maximized system energy production and revenue, and fast project ROI
- Supports high power and bifacial PV modules, and high string current for more power per string

### Maximum Protection with Built-In Safety

- Designed to automatically reduce high DC voltage to touch-safe levels, upon grid/inverter shutdown, with SafeDC™
- Includes SolarEdge Sense Connect, allowing continuous monitoring to detect overheating due to installation issues or connector-level wear and tear

### Lower BoS Costs

- Flexible system design enables maximum space utilization and up to 2x longer string lengths, 50% less cables, fuses and combiner boxes
- Supports connection of two PV modules in series with easy cable management and fast installation times

### Simpler O&M

- Module-level system monitoring enabling pinpointed fault detection and remote, time-saving troubleshooting

solaredge.com

solar**edge**

# / Power Optimizer
## For North America
### S1200

| | S1200 | Units |
|---|---|---|
| **INPUT** | | |
| Rated Input DC Power[1] | 1200 | W |
| Absolute Maximum Input Voltage (Voc) | 125 | Vdc |
| MPPT Operating Range | 12.5-105 | Vdc |
| Maximum Short Circuit Current (Isc) of Connected PV Module | 15 | Adc |
| Maximum Efficiency | 99.5 | % |
| Weighted Efficiency | 98.8 | % |
| Overvoltage Category | II | |
| **OUTPUT DURING OPERATION** | | |
| Maximum Output Current | 18 | Adc |
| Maximum Output Voltage | 80 | Vdc |
| **OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM INVERTER OR INVERTER OFF)** | | |
| Safety Output Voltage per Power Optimizer | 1 | Vdc |
| **STANDARD COMPLIANCE** | | |
| Photovoltaic Rapid Shutdown System | Compliant with NEC 2014, 2017, 2020 | |
| EMC | FCC Part15, IEC 61000-6-2, and IEC 61000-6-3 | |
| Safety | IEC62109-1 (class II safety), UL1741, CSA C22.2#107.1 | |
| Material | UL94 V-0, UV Resistant | |
| RoHS | Yes | |
| Fire Safety | VDE-AR-E 2100-712:2013-05 | |
| **INSTALLATION SPECIFICATIONS** | | |
| Maximum Allowed System Voltage | 1000 | Vdc |
| Dimensions (W x L x H) | 129 x 155 x 59 / 5.08 x 6.10 x 2.32 | mm / in |
| Weight | 1106 / 2.4 | gr / lb |
| Input Connector | MC4[2] | |
| Input Wire Length | 1.6 / 5.25[3] | m / ft |
| Output Connector | MC4 | |
| Output Wire Length | (+) 5.3 (-) 0.10 / (+) 17.38 (-) 0.32 | m / ft |
| Operating Temperature Range[4] | -40 to +85 / -40 to +185 | °C / °F |
| Protection Rating | IP68 / NEMA6P | |
| Relative Humidity | 0 – 100 | % |

(1) Rated power of the module at STC will not exceed the power optimizer Rated Input DC Power. Modules with up to +5% power tolerance are allowed.
(2) For other connector types please contact SolarEdge.
(3) The Sense Connect feature is only enabled on the output cable connectors.
(4) For ambient temperatures above +65°C / +149°F power de-rating is applied.

| PV System Design Using a SolarEdge Inverter[5][6][7] | | 208V Grid SE10K | 208V Grid SE17.3K* | 277/480V Grid SE20K, SE30K | 277/480V Grid SE40K* | |
|---|---|---|---|---|---|---|
| Compatible Power Optimizers | | S1200 | | | | |
| Minimum String Length | Power Optimizers | 8 | 10 | 15 | 15 | |
| | PV Modules | 15 | 19 | 29 | 29 | |
| Maximum String Length | Power Optimizers | 30 | 30 | 30 | 30 | |
| | PV Modules | 60 | 60 | 60 | 60 | |
| Maximum Continuous Power per String | | 7200 | 8820 | 15300 | 15300 | W |
| Maximum Allowed Connected Power per String[7] | | 1 string – 8400 | 1 string – 10020 | 1 string – 17550 | 2 strings or less – 17550 | W |
| | | 2 strings or more – 10600 | 2 strings or more – 13000 | 2 strings or more – 23000 | 3 strings or more – 23000 | |
| Parallel Strings of Different Lengths or Orientations | | Yes | | | | |
| Maximum Difference in Number of Power Optimizers Allowed Between the Shortest and Longest String Connected to the Same Inverter Unit | | 5 Power Optimizers | | | | |

*The same rules apply for Synergy units of equivalent power ratings that are part of the modular Synergy Technology inverter.
(5) S1200 cannot be mixed with any other Power Optimizers models in the same string.
(6) For each string, a Power Optimizer may be connected to a single PV module if 1) each Power Optimizer is connected to a single PV module or 2) it is the only Power Optimizer connected to a single PV module in the string.
(7) To connect more STC power per string, design your project using SolarEdge Designer.

RoHS

ETL
c us
Intertek