



SolarEdge Power Optimizer

Module Add-On for Commercial Installations
for North America P600 / P700 / P730 /
P800p / P800s



POWER OPTIMIZER

PV power optimization at the module-level The most cost effective solution for commercial and large field installations

- Specifically designed to work with SolarEdge inverters
- Up to 25% more energy
- Superior efficiency (99.5%)
- Balance of System cost reduction; 50% less cables, fuses and combiner boxes, over 2x longer string lengths possible
- Fast installation with a single bolt
- Advanced maintenance with module-level monitoring
- Module-level voltage shutdown for installer and firefighter safety
- Use with two PV modules connected in series or in parallel



SolarEdge Power Optimizer Module Add-On For Commercial Installations for North America P600 / P700 / P730 / P800p / P800s

| | P600 (for 2 x 60-cell PV modules) | P700 (for 2 x 72-cell PV modules) | P730 (for 2 x high power 72-cell PV modules) | P800p (for parallel connection of 2x 96-cell 5" PV modules) | P800s (for series connection of 2x high power or bi-facial modules) | |
|---|--|--------------------------------------|---|--|--|---------|
| INPUT | | | | | | |
| Rated Input DC Power ⁽¹⁾ | 600 | 700 | 730 | 800 | | W |
| Absolute Maximum Input Voltage (Voc at lowest temperature) | 96 | 125 | | 83 | 120 | Vdc |
| MPPT Operating Range | 12.5 - 80 | 12.5 - 105 | | 12.5 - 83 | 12.5 - 105 | Vdc |
| Maximum Short Circuit Current (Isc) | 10.1 | | 11 | 14 | 12.5 | Adc |
| Maximum DC Input Current | 12.65 | | 13.75 | 17.5 | 15.63 | Adc |
| Maximum Efficiency | | | | 99.5 | | % |
| Weighted Efficiency | | | | 98.6 | | % |
| Overvoltage Category | | | | II | | |
| OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREEDGE INVERTER) | | | | | | |
| Maximum Output Current | 15 | | | 18 | | Adc |
| Maximum Output Voltage | | | | 85 | | Vdc |
| OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM SOLAREEDGE INVERTER OR SOLAREEDGE INVERTER OFF) | | | | | | |
| Safety Output Voltage per Power Optimizer | | | | 1 | | Vdc |
| STANDARD COMPLIANCE | | | | | | |
| EMC | FCC Part15 Class B, IEC61000-6-2, IEC61000-6-3 | | | | | |
| Safety | IEC62109-1 (class II safety), UL1741 | | | | | |
| Material | UL-94 (5-VA), UV Resistant | | | | | |
| RoHS | Yes | | | | | |
| INSTALLATION SPECIFICATIONS | | | | | | |
| Compatible SolarEdge Inverters | Three phase inverters | | | | | Vdc |
| Maximum Allowed System Voltage | 1000 | | | | | |
| Dimensions (W x L x H) | 128 x 152 x 43 / 5 x 5.97 x 1.69 | 128 x 152 x 50 / 5 x 5.97 x 1.96 | | 128 x 152 x 50 / 5 x 5.97 x 1.93 | | mm / in |
| Weight (including cables) | 994 / 2.2 | 1064 / 2.34 | | 1090 / 2.4 | 1064 / 2.34 | gr / lb |
| Input Connector | MC4 Compatible | | | MC4 Compatible (Single or Dual input) ⁽⁴⁾ | MC4 Compatible | |
| Output Wire Type / Connector | Double Insulated; MC4 Compatible | | | | | |
| Output Wire Length | 1.8 / 5.9 | 2.1 / 6.9 | | 1.8 / 5.9 | 2.1 / 6.9 | m / ft |
| Operating Temperature Range ⁽²⁾ | -40 - +85 / -40 - +185 | | | | | °C / °F |
| Protection Rating | IP68 / NEMA6P | | | | | |
| Relative Humidity | 0 - 100 | | | | | % |

⁽¹⁾ Rated STC power of the module. Module of up to +5% power tolerance allowed.

⁽²⁾ For ambient temperature above +70°C / +158°F power de-rating is applied. Refer to Power Optimizers Temperature De-Rating Application Note for more details.

| PV SYSTEM DESIGN USING A SOLAREEDGE INVERTER ⁽³⁾⁽⁴⁾ | | THREE PHASE 208V | | THREE PHASE 480V | | |
|--|------------------|----------------------------------|---------------------|-------------------|----------------------|-------|
| | | P600, P700 & P730 ⁽⁵⁾ | P800 ⁽⁵⁾ | P600, P700 & P730 | P800 | |
| Minimum String Length | Power Optimizers | 8 | | 13 | | |
| | PV Modules | 16 | | 26 | | |
| Maximum String Length | Power Optimizers | 30 | | 30 | | |
| | PV Modules | 6000 ⁽⁶⁾ | 60 | 7200 | 12750 ⁽⁷⁾ | 15300 |
| Maximum Power per String | | | | | | W |
| Parallel Strings of Different Lengths or Orientations | | | | Yes | | |

⁽³⁾ P600, P700 and P730 can be mixed in one string. It is not allowed to mix P600/P700/P730/P800 with P300/P320/P400/P405 in one string.

⁽⁴⁾ In a case of odd number of PV modules in one string it is allowed to install one P600/P700 /P800 power optimizer connected to one PV module. When connecting a single module to the P800p the single input version should be used.

⁽⁵⁾ P700/P730/ P800 design with three phase 208V inverters is limited. Use the SolarEdge Site Designer for verification.

⁽⁶⁾ For SE14.4KUS: It is allowed to install up to 6,500W per string when 3 strings are connected to the inverter and when the maximum power difference between the strings is up to 1,000W.

⁽⁷⁾ For SE33.3KUS: It is allowed to install up to 15,000W per string when 3 strings are connected to the inverter and when the maximum power difference between the strings is up to 2,000W.

