



SolarEdge Power Optimizer

Frame-Mounted Module Add-On for
Commercial Installations P600 / P700



POWER OPTIMIZER

Fast mount power optimizers with module-level optimization

- Specifically designed to work with SolarEdge inverters
- Quicker installation - Power optimizers can be mounted in advance saving installation time
- Up to 25% more energy
- Superior efficiency (99.5%)
- Mitigates all types of module mismatch-loss, from manufacturing tolerance to partial shading
- Flexible system design for maximum space utilization
- Next generation maintenance with module level monitoring
- Module-level voltage shutdown for installer and firefighter safety



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Frame-mounted Module Add-On for Commercial Installations P600 / P700

| Optimizer model (typical module compatibility) | P600 (for 2 x 60-cell PV modules) | P700 (for 2 x 72-cell PV modules) | |
|---|--|--------------------------------------|---------|
| INPUT | | | |
| Rated Input DC Power ⁽¹⁾ | 600 | 700 | W |
| Absolute Maximum Input Voltage (Voc at lowest temperature) | 96 | 125 | Vdc |
| MPPT Operating Range | 12.5 - 80 | 12.5 - 105 | Vdc |
| Maximum Short Circuit Current (Isc) | | 10.25 | Adc |
| Maximum Efficiency | | 99.5 | % |
| Weighted Efficiency | | 98.6 | % |
| Overtoltage Category | | II | |
| OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREEDGE INVERTER) | | | |
| Maximum Output Current | | 15 | 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 ± 0.1 | Vdc |
| STANDARD COMPLIANCE | | | |
| EMC | FCC Part15 Class B, IEC61000-6-2, IEC61000-6-3 | | |
| Safety | IEC62109-1 (class II safety), UL1741 | | |
| RoHS | Yes | | |
| Fire Safety | VDE-AR-E 2100-712:2013-05 | | |
| INSTALLATION SPECIFICATIONS | | | |
| Compatible SolarEdge Inverters | Three phase inverters SE15K & larger | Three phase inverters SE16K & larger | |
| Maximum Allowed System Voltage | 1000 | | Vdc |
| Dimensions (W x L x H) | 139 x 165 x 56 / 5.5 x 6.5 x 2.2 | 139 x 165 x 63 \ 5.5 x 6.5 x 2.5 | mm / in |
| Weight (including cables) | 954 / 2.1 | 1053 / 2.3 | gr / lb |
| Input Connector | MC4 ⁽²⁾ | | |
| Output Connector | MC4 | | |
| Output Wire Length | 1.8 / 5.9 | 2.1 / 6.9 | m / ft |
| Operating Temperature Range | -40 - +85 / -40 - +185 | | °C / °F |
| Protection Rating | IP68 / NEMA6P | | |
| Relative Humidity | 0 - 100 | | % |

⁽¹⁾ Rated combined STC power of 2 modules connected in series. Module of up to +5% power tolerance allowed.

⁽²⁾ For other connector types please contact SolarEdge.

⁽³⁾ 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 ⁽⁴⁾⁽⁵⁾ | THREE PHASE SE15K AND LARGER | THREE PHASE SE16K AND LARGER | THREE PHASE FOR MV GRID | |
|--|------------------------------|------------------------------|-------------------------|--|
| Compatible Power Optimizers | P600 | P600 & P700 | | |
| Minimum String Length (Power Optimizers) | 13 | | | |
| Maximum String Length (Power Optimizers) | 30 | | | |
| Maximum Power per String | 11250 ⁽⁶⁾ | 12750 ⁽⁷⁾ | W | |
| Parallel Strings of Different Lengths or Orientations | Yes | | | |

⁽⁴⁾ P600 and P700 can be mixed in one string. It is not allowed to mix P600/P700/P800 with P300/P370/P404/P405/P500/P505 in one string

⁽⁵⁾ In a case of odd number of PV Modules in one string it is allowed to install one P600/P700 power optimizer connected to one PV Module.

⁽⁶⁾ For SE27.6K, SE55K, SE82.8K: It is allowed to install up to 13,500W per string when 3 strings are connected to the inverter and when the maximum power difference between the strings is up to 2,000W; inverter max DC power: 37,250W.

⁽⁷⁾ For inverters for MV grid: 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; inverter max DC power: 45,000W.

