



# SolarEdge Power Optimizer

Module Add-On

P300 / P350 / P370 / P404 / P405 / P500



POWER OPTIMIZER

## PV power optimization at the module-level

- Up to 25% more energy
- Superior efficiency (99.5%)
- Mitigates all types of modules mismatch-loss, from manufacturing tolerance to partial shading
- Flexible system design for maximum space utilization
- Fast installation with a single bolt
- Next generation maintenance with module level monitoring
- Module-level voltage shutdown for installer and firefighter safety



# SolarEdge Power Optimizer Module Add-On

P300 / P350 / P370 / P404 / P405 / P500

|   | P300<br>(for 60-cell<br>modules)               | P350<br>(for high-power<br>60-cell and for<br>72-cell modules) | P370<br>(for higher-<br>power 60<br>and 72-cell<br>modules) | P500<br>(for 96-cell<br>modules)          | P404<br>(for 60-cell<br>and 72-cell,<br>short strings) | P405<br>(for thin<br>film<br>modules)  |         |
|---|--|--|---|---|--|--|---------|
| <b>INPUT</b>  |  |  |   |   |  |  |         |
| Rated Input DC Power <sup>(1)</sup>   | 300  | 350  | 370   | 500                                       | 405  | 405                                    | W       |
| Absolute Maximum Input Voltage<br>(Voc at lowest temperature)   | 48   | 60   |   | 80  | 80   | 125                                    | Vdc     |
| MPPT Operating Range  | 8 - 48   |  | 8 - 60  |   | 12.5 - 80  |  | Vdc     |
| Maximum Continuous Input Current (Isc)  | 10   | 11   |   | 10.1                                      |  |  | Adc     |
| Maximum Efficiency  |  |  |   | 99.5                                      |  |  | %       |
| Weighted Efficiency   |  |  |   | 98.8                                      |  |  | %       |
| Overvoltage Category  | II   |  |   |   |  |  |         |
| <b>OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREEDGE INVERTER)</b>                     |  |  |   |   |  |  |         |
| Maximum Output Current  |  |  |   | 15  |  |  | Adc     |
| Maximum Output Voltage  | 60   |  |   | 85  |  |  | Vdc     |
| <b>OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM SOLAREEDGE INVERTER OR SOLAREEDGE INVERTER OFF)</b> |  |  |   |   |  |  |         |
| Safety Output Voltage per Power Optimizer   | 1  |  |   |   |  |  | Vdc     |
| <b>STANDARD COMPLIANCE</b>  |  |  |   |   |  |  |         |
| 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                      |  |   |   |  |  |         |
| <b>INSTALLATION SPECIFICATIONS</b>  |  |  |   |   |  |  |         |
| Maximum Allowed System Voltage  | 1000   |  |   |   |  |  | Vdc     |
| Dimensions (W x L x H)  | 128 x 152 x 27.5 / 5 x 5.97 x 1.08             |  |   | 128 x 152 x<br>35 /<br>5 x 5.97 x<br>1.37 | 128 x 152 x<br>43 / 5 x 5.97<br>x 1.69                 | 128 x 152 x<br>50 / 5 x 5.97<br>x 1.96 | mm / in |
| Weight (including cables)   | 630 / 1.4                                      | 655 / 1.5  |   | 750 / 1.7                                 | 775 / 1.7  | 845 / 1.9                              | gr / lb |
| Input Connector   | MC4 <sup>(2)</sup>                             |  |   |   |  | Single or<br>Dual MC4 <sup>(3)</sup>   |         |
| Output Connector  | MC4  |  |   |   |  |  |         |
| Output Wire Length  | 0.95 / 3.0                                     | 1.2 / 3.9  | 0.95 / 3.0  | 1.2 / 3.9                                 |  |  | m / ft  |
| Operating Temperature Range   | -40 - +85 / -40 - +185                         |  |   |   |  |  | °C / °F |
| Protection Rating   | IP68 / NEMA6P                                  |  |   |   |  |  |         |
| Relative Humidity   | 0 - 100  |  |   |   |  |  | %       |

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

<sup>(2)</sup> For other connector types please contact SolarEdge.

<sup>(3)</sup> Dual version for parallel connection of 2 thin film modules; P/N: P405-SRMDMRM.

| PV SYSTEM DESIGN USING A SOLAREEDGE INVERTER <sup>(4)</sup> |                     | SINGLE PHASE<br>HD-WAVE | SINGLE PHASE | THREE PHASE |   |
|---|---------------------|-------------------------|--------------|-------------|---|
| Minimum String Length<br>(Power Optimizers)                 | P300,P350,P370,P500 | 8                       |              | 16          |   |
|   | P404,P405           | 6                       |              | 13          |   |
| Maximum String Length (Power Optimizers)                    |                     | 25                      |              | 50          |   |
| Maximum Power per String                                    |                     | 5700                    | 5250         | 11250       | W |
| Parallel Strings of Different Lengths or Orientations       |                     | Yes                     |              |             |   |

<sup>(4)</sup> It is not allowed to mix P404/P405 with P300/P350/P370/P500/P600/P700 in one string.

