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# SolarEdge Power Optimizer

## Module Embedded Solution

OPJ300-LV



POWER OPTIMIZER

### PV power optimization at the module-level

- // Simplifies system design by eliminating power optimizer selection process
- // High efficiency with module-level MPPT, for maximized system energy production and revenue, and fast project ROI
- // Superior efficiency (99.5%)
- // Mitigates all types of module mismatch losses, from manufacturing tolerance to partial shading
- // Module-level voltage shutdown for installer and firefighter safety
- // A certified junction box (US, IEC) incorporating the field proven SolarEdge power optimizer
- // Independent optimization technology (IndOP™)-operation with any inverter and no additional hardware or addition of SolarEdge inverter for added benefits
- // Unique Pass-Thru connector for easy module flashing and field replacement

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## Module Embedded Solution

### OPJ300-LV

| BENEFITS PER SOLUTION | SOLAREEDGE POWER OPTIMIZER WITH SOLAREEDGE INVERTER | SOLAREEDGE POWER OPTIMIZER WITH SOLAREEDGE SAFETY & MONITORING INTERFACE AND A NON-SOLAREEDGE INVERTER | SOLAREEDGE POWER OPTIMIZER WITH A NON-SOLAREEDGE INVERTER |
|-----------------------|---|--|---|
| Added Energy          | v   | v  | v   |
| Safety                | v   | v  | -   |
| Monitoring            | v   | v  | -   |
| Multi-facet Design    | v   | v  | v   |
| Long String Design    | v   | -  | -   |

|  | POWER OPTIMIZER CONNECTED TO A SOLAREEDGE INVERTER | POWER OPTIMIZER CONNECTED TO A NON-SOLAREEDGE INVERTER <sup>(1)</sup> |
|--|--|---|
|--|--|---|

| INPUT  |  |        |     |
|--|--|--------|-----|
| Rated Input DC Power                                       |  | 330    | W   |
| Absolute Maximum Input Voltage (Voc)                       |  | 55     | Vdc |
| MPPT Operating Range                                       |  | 5 - 55 | Vdc |
| Maximum Short Circuit Current (Isc) of connected PV Module |  | 10     | Adc |
| Maximum DC Input Current                                   |  | 12.5   | Adc |
| Maximum Efficiency   |  | 99.5   | %   |
| Weighted Efficiency  |  | 98.9   | %   |
| Overvoltage Category                                       |  | II     |     |

| OUTPUT DURING OPERATION |    |                            |     |
|-------------------------|----|----------------------------|-----|
| Maximum Output Current  | 15 | 10                         | Adc |
| Maximum Output Voltage  | 60 | Voc of connected PV module | Vdc |

| OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM INVERTER OR INVERTER OFF) |   |                  |     |
|--|---|------------------|-----|
| Safety Output Voltage per Power Optimizer  | 1 | 1 <sup>(2)</sup> | Vdc |

| NDARD COMPLIANCE |   |  |  |
|------------------|---|--|--|
| EMC              | FCC Part15 Class B, IEC61000-6-2, IEC61000-6-3                      |  |  |
| Safety           | IEC62109-1 (class II safety, TUV-SUD), UL1741 (TUV-Rheinland & CSA) |  |  |
| PV Junction Box  | EN50548 (TUV-SUD), UL3730 (TUV-Rheinland & CSA)                     |  |  |
| Material         | UL94 V-0, UV Resistant  |  |  |
| RoHS             | Yes   |  |  |

| INSTALLATION SPECIFICATIONS    |  |  |         |
|--------------------------------|--|--|---------|
| Maximum Allowed System Voltage | 1000V  |  | Vdc     |
| Dimensions (W x L x H)         | 208x155x29.5 / 8.2x6.1x1.16                              |  | mm / in |
| Weight (excluding cables)      | 700 / 1.5  |  | gr / lb |
| Output Wire Type               | Double insulated; 6 mm <sup>2</sup> ; MC4 <sup>(3)</sup> |  |         |
| Output Wire Length             | 1/3.38 , 1.2/3.93  |  | m / ft  |
| Operating Temperature Range    | -40 - +85 / -40 - +185                                   |  | °C / °F |
| Protection Rating              | IP67 / NEMA6   |  |         |
| Relative Humidity              | 0 - 100  |  | %       |

(1) Available only if Safety & Monitoring Interface (SMI) is installed or if SafeDC™ is disabled during installation by a one-time operation using the SolarEdge Key.  
(2) When SolarEdge Safety and Monitoring Interface (SMI) is installed and off. Note - OPJ power optimizer warranty shall not exceed the maximum of (1) the module product warranty and (2) the module power warranty periods provided by the applicable module manufacturer.  
(3) For T4 please order OPJ300-LV-P1.

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## OPJ300-LV

| PV SYSTEM DESIGN                           | POWER OPTIMIZER CONNECTED TO A SOLAREEDGE INVERTER              | POWER OPTIMIZER CONNECTED TO A NON-SOLAREEDGE INVERTER <sup>(1)</sup> |   |
|--|---|---|---|
| Minimum String Length                      | 8 (1ph)<br>16 (3ph)<br>18 (3ph-MV)                              | According to inverter design rules & PV module datasheet              |   |
| Maximum String Length                      | 25 (1ph)<br>50 (3ph)  |   |   |
| Maximum Power per String                   | 5250 (1ph), 5700 (1ph HD-Wave)<br>11250 (3ph)<br>12750 (3ph-MV) |   | W |
| Parallel Strings of Different Lengths      | Yes   | No  |   |
| Parallel Strings of Different Orientations | Yes   | Yes   |   |

(1) Available only if Safety & Monitoring Interface (SMI) is installed or if SafeDC™ is disabled during installation by a one-time operation using the SolarEdge Key.

