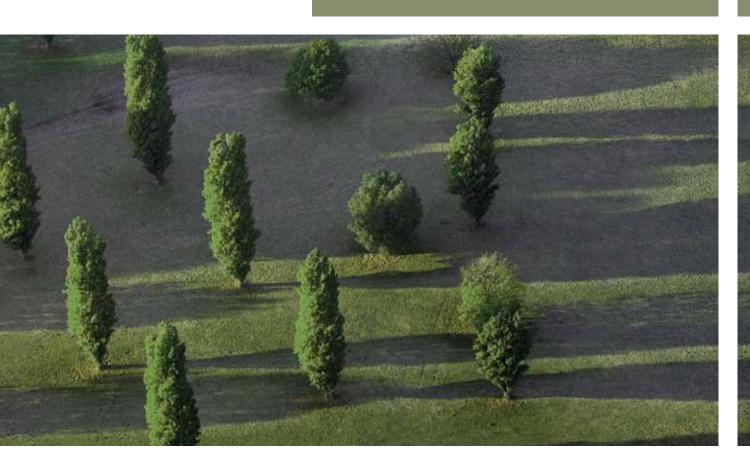# solar**edge**

SolarEdge Power Optimizer
Module Embedded Solution

A superior approach to maximizing the throughput of photovoltaic systems using module embedded electronics

- Up to 25% increase in power output

- Superior efficiency (99.5%) - peak performance in both mismatched and unshaded conditions

- Independent optimization technology (IndOP™) - allows operation with any inverter and requires no additional interface hardware.

- Flexible system design for maximum space utilization

- Next generation maintenance with module-level monitoring and smart alerts

- Designed for extreme environmental conditions

- **Embedded into any module as a certified junction box**

- **Faster installation, less wiring and better roof utilization**

architects of energy™

SolarEdge Power Optimizer   OPJ300-LV
Module Embedded Solution

HIGHLIGHTS

- Module level MPPT - optimizes each module independently
- Module-level monitoring for automatic module and string level fault detection allowing easy maintenance
- Compatible with any inverter
- Unprecedented installer and firefighter safety mode - safe module voltage when inverter is disconnected or off
- Built-in disabling of optimizer for flashing & maintenance

- Up to 4 sub-string inputs with bypass diodes
- Lower installation costs with faster design, less wiring, DC disconnects and fuses
- Allows parallel uneven length strings and multi-faceted installations
- Immediate installation feedback for quick commissioning

TECHNICAL DATA

INPUT		
Rated Input DC Power	300	W
Absolute Maximum Input Voltage (Voc)	55	Vdc
MPPT Operating Range	5 - 55	Vdc
Maximum Input Current	10	Adc
Reverse-Polarity Protection	Yes	
Maximum Efficiency	99.5	%
Weighted Efficiency	98.8	%
Overvoltage Category	II	
OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING INVERTER)		
Maximum Output Current	15	Adc
Operating Output Voltage	5 - 60	Vdc
Total Maximum String Voltage (Controlled by Inverter) - US and EU 1-ph	550	Vdc
Total Maximum String Voltage (Controlled by Inverter) - EU 3-ph	950	Vdc
OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM INVERTER OR INVERTER OFF)		
Safety Output Voltage per Power Optimizer	1	Vdc
PV SYSTEM DESIGN		
Minimum String Length	8 (1ph system) / 15 (3ph system)	modules
Maximum String Length	module power dependant; typically 20 - 25 (1ph system) / 45 - 50 (3ph system)	modules
Parallel Strings of Different Lengths or Orientations	Yes	
STANDARD COMPLIANCE		
EMC	FCC Part15 Class B, IEC61000-6-2, IEC61000-6-3	
Safety	IEC-62103 (class II safety), VDE0126-5, UL1741	
Material	UL-94 (5-VA), UV Resistant	
RoHS	Yes	
INSTALLATION SPECIFICATIONS		
Dimensions (WxLxH)	208x155x29.5 / 8.2x6.1x1.16	mm / in
Weight	700 / 1.5	g / lb
Output Wire Type	Double insulated PV wire ; 6 mm^2 ; MC4	
Output Wire Length	0.95 / 3	m / ft
Operating Temperature Range	-40 - +85 / -40 - +185	°C / °F
Protection Rating	IP67 / NEMA 4X	
Relative Humidity	0 - 100	%

*OPJ power optimizer warranty will not extend beyond the warranty period of the module in which it is embedded.

■ **USA** ■ **Germany** ■ **Italy** ■ **France** ■ **Japan** ■ **China** ■ **Israel**

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