

## SolarEdge Power Optimizer Module Add-On



### **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
  - Flexible system design for maximum space utilization
  - Next generation maintenance with module level monitoring and smart alerts
  - Unprecedented installer and firefighter safety
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- **The most cost effective solution for residential, commercial and large field installations**





# SolarEdge Power Optimizer OP250-LV OP300-MV

## Module Add-On

### OP400-EV OP400-MV

#### HIGHLIGHTS

- Module level MPPT - optimizes each module independently
- Dynamically tracks the global maximum operating point for both modules and [PV inverter](#)
- Module-level monitoring for automatic module and string level fault detection allowing easy maintenance
- Electric arc detection - reduces fire hazards
- Unprecedented installer and firefighter safety mode - safe module voltage when inverter is disconnected or off
- Connection of one or more modules to each [power optimizer](#)
- Lower installation costs with faster design, less wiring, DC disconnects and fuses
- Easy and flexible installation – use the same installation methods as exist today
- Allows parallel uneven length strings and multi-faceted installations
- Allows connection of different module types simplifying inventory considerations
- Immediate installation feedback for quick commissioning

#### TECHNICAL DATA

	OP250-LV	OP300-MV/OP400-MV	OP400-EV (Q4 2011)	
INPUT				
Rated Input DC power	250	300 / 400	400	W
Absolute Maximum Input Voltage (Voc)	55	75	125	Vdc
MPPT Operating Range	5 - 55	5 - 75	60 - 125	Vdc
Maximum Input Current	10	10	5.5	Adc
Reverse-Polarity Protection	Yes			
Maximum Efficiency	99.5			%
European Weighted Efficiency	98.8			%
CEC Weighted Efficiency	98.7			%
Inductive Lightning Protection	1			m / ft
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	500			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 Number of Power Optimizers per String (1 or More Modules per power optimizer)	8 (1-ph system) / 16 (3-ph system)			
Maximum Number of Power Optimizers per String (1 or More Modules per power optimizer)	Module power dependent; typically 20 - 25 (1-ph system) / 45 - 50 (3-ph system)			
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), UL1741			
Material	UL-94 (5-VA), UV Resistant			
RoHS	Yes			
INSTALLATION SPECIFICATIONS				
Dimensions (WxLxH)	120x130x37 / 4.72x5.11x1.45			mm / in
Weight	450 / 1.0			gr / lb
Output PV Wire	0.95 m / 3 ft length ; 6 mm² ; MC4			
Input Connector	MC4 / Tyco / H+S / Amphenol – H4			
Operating Temperature Range	-40 - +65 / -40 - +150			°C / °F
Protection Rating	IP65 / NEMA 4			
Relative Humidity	0 - 100			%

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