



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

- **The most cost effective solution for residential, commercial and large field installations**



architects of energy™



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 inverter
- Module-level monitoring for automatic module and string level fault detection allowing easy maintenance
- Electric arc detection and termination - 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		0		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		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 Number of Power Optimizers per String (1 or More Modules per power optimizer)		8 (1-ph system) / 15 (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 mm ² ; MC4		
Input Connector		MC4 / MC3 / Tyco / H+S / Amphenol – H4 / LC4 / LC3		
Operating Temperature Range		-40 - +65 / -40 - +150		°C / °F
Protection Rating		IP65 / NEMA 4		
Relative Humidity		0 - 100		%

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