



SolarEdge Power Optimizer Module Embedded Solution



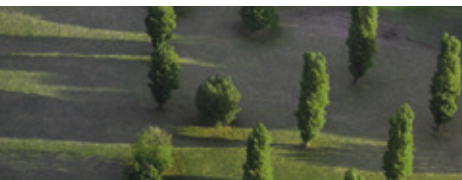
A superior approach to maximizing the throughput of photovoltaic systems using module embedded electronics

- Up to 25% increase in power output
- Superior efficiency (99.5%) - peak performance in both mismatched and unshaded conditions
- Flexible system design for maximum space utilization
- Next generation maintenance with module-level monitoring and smart alerts
- Unprecedented installer and firefighter safety

- **Embedded into any module as a certified junction box**
- **Faster installation, less wiring and better roof utilization**
- **Electric arc detection and termination**



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SolarEdge Power Optimizer

Module Embedded Solution

PB250-CSI
PB350-CSI

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
- Up to 4 sub-string inputs with bypass diodes
- Removes manufacturer limitations - no more temperature variance, cell mismatch and manufacturing variations
- 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

INPUT		
Rated Input DC Power	250/350	W
Absolute Maximum Input Voltage (Voc)	60	Vdc
MPPT Operating Range	5 - 60	Vdc
Maximum Input Current	10	Adc
Reverse-Polarity Protection	Yes	
Maximum Efficiency	99.5	%
European Weighted Efficiency	98.8	%
CEC Weighted Efficiency	98.7	%
Nighttime Power Consumption	0	W
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)	200x141x25 / 7.9x5.6x1	mm / in
Weight	700 / 1.5	g / lb
Operating Temperature Range	-40 - +65 / -40 - +150	°C / °F
Protection Rating	IP65 Outdoor Use / NEMA 3R	
Relative Humidity	0 - 100	%

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

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