



## SolarEdge PowerBox™ Module Embedded Solution



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

- Up to 25% increase in power output
- Simple, error-free system design & installation
- Next generation maintenance with module-level monitoring and smart alerts
- Unprecedented installer and fireman safety
- 25 year reliability & warranty
  
- **Embedded into any module as a certified junction box**
- **Faster installation, less wiring and better roof utilization**
- **Advanced theft prevention**



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# SolarEdge PowerBox™

## Module Embedded Solution

PB250-CSI  
PB350-CSI

### HIGHLIGHTS

- Up to 4 sub-string inputs with bypass diodes
- Removes manufacturer limitations - no more temperature variance, cell mismatch and manufacturing variations
- Module-level monitoring - for easy module and string level fault detection with no added wiring
- Immediate installation feedback for quick commissioning
- Unprecedented installer and fireman Safety Mode - safe module voltage when inverter is disconnected or off
- Module embedded SolarEdge solution - part of SolarEdge's patented Smart-DC system
- Easy no constraint installation – use the same installation methods as exist today with all the SolarEdge added benefits
- Panel level MPPT - optimizes each panel separately
- Theft prevention feature – modules are immobilized if stolen
- Enables manufacturers to design and deliver a system per customer with speed and efficiency
- Customer specific adaptations and solutions

### TECHNICAL DATA

INPUT		
Rated Input DC Power	250/350	W
Absolute Maximum Input Voltage	68	Vdc
MPPT Operating Range	5 - 65	Vdc
Maximum Input Current	14	Adc
Reverse-Polarity Protection	Yes	
Maximum Efficiency	98.6	%
European Weighted Efficiency	97.8	%
CEC Weighted Efficiency	97.7	%
Inductive Lightning Protection	1 / 3	m / ft
Nighttime Power Consumption	0	W
OUTPUT DURING OPERATION (POWERBOX CONNECTED TO OPERATING INVERTER)		
Maximum Output Current	16.4	Adc
Operating Output Voltage	5 - 60	Vdc
Total Maximum String Voltage (Controlled by Inverter) - US and EU 1-ph	600	Vdc
Total Maximum String Voltage (Controlled by Inverter) - EU 3-ph	1000	Vdc
OUTPUT DURING STANDBY (POWERBOX DISCONNECTED FROM INVERTER OR INVERTER OFF)		
Safety Output Voltage per PowerBox	1	Vdc
PV SYSTEM DESIGN		
String Limitations - EU, 1ph System	8 - 25	modules
String Limitations - EU, 3ph System	16 - 50	modules
String Limitations - US	8 - 25	modules
Parallel Strings of Different Lengths or Orientations	Yes	
STANDARD COMPLIANCE		
EMC	FCC Part15 Class B, IEC61000-6-2, IEC61000-6-3	
Safety	UL1741, IEC-62103 (class II safety), IEC61730	
Material	UL-94 (5-VA), UV Resistant	
WEEE, 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 PowerBox warranty will not extend beyond the warranty period of the module in which it is embedded.

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