



# SolarEdge Power Optimizer

Module Add-On

P300 / P350 / P405 / P500



POWER OPTIMIZER

## PV power optimization at the module-level

- Up to 25% more energy
- Superior efficiency (99.5%)
- Mitigates all types of modules mismatch-loss, from manufacturing tolerance to partial shading
- Flexible system design for maximum space utilization
- Fast installation with a single bolt
- Next generation maintenance with module level monitoring
- Module-level voltage shutdown for installer and firefighter safety



# SolarEdge Power Optimizer Module Add-On

P300 / P350 / P405 / P500

	P300 (for 60-cell modules)	P350 (for 72-cell modules)	P500 (for 96-cell modules)	P405 (for thin film modules)	
<b>INPUT</b>					
Rated Input DC Power <sup>(1)</sup>	300	350	500	405	W
Absolute Maximum Input Voltage (Voc at lowest temperature)	48	60	80	125	Vdc
MPPT Operating Range	8 - 48	8 - 60	8 - 80	12.5 - 105	Vdc
Maximum Continuous Input Current (Isc)			10		Adc
Maximum Efficiency			99.5		%
Weighted Efficiency			98.8		%
Overtoltage Category			II		
<b>OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREEDGE INVERTER)</b>					
Maximum Output Current			15		Adc
Maximum Output Voltage		60		85	Vdc
<b>OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM SOLAREEDGE INVERTER OR SOLAREEDGE INVERTER OFF)</b>					
Safety Output Voltage per Power Optimizer			1		Vdc
<b>STANDARD COMPLIANCE</b>					
EMC	FCC Part15 Class B, IEC61000-6-2, IEC61000-6-3				
Safety	IEC62109-1 (class II safety), UL1741				
RoHS	Yes				
Fire Safety	VDE-AR-E 2100-712:2013-05				
<b>INSTALLATION SPECIFICATIONS</b>					
Maximum Allowed System Voltage	1000				Vdc
Dimensions (W x L x H)	Pxxx-2 series	141 x 212 x 40.5 / 5.55 x 8.34 x 1.59			mm / in
	Pxxx-5 series	128 x 152 x 27.5 / 5 x 5.97 x 1.08	128 x 152 x 35 / 5 x 5.97 x 1.37	128 x 152 x 48 / 5 x 5.97 x 1.89	mm / in
Weight (including cables)	Pxxx-2 series	950 / 2.1			gr / lb
	Pxxx-5 series	770 / 1.7		930 / 2.05	gr / lb
Input Connector	MC4 <sup>(2)</sup>				
Output Connector	MC4				
Output Wire Length	0.95 / 3.0		1.2 / 3.9		m / ft
Operating Temperature Range	-40 - +85 / -40 - +185				°C / °F
Protection Rating	Pxxx-2 series	IP65 / NEMA4			
	Pxxx-5 series	IP68 / NEMA6P			
Relative Humidity	0 - 100				%

<sup>(1)</sup> Rated STC power of the module. Module of up to +5% power tolerance allowed.

<sup>(2)</sup> For other connector types please contact SolarEdge.

PV SYSTEM DESIGN USING A SOLAREEDGE INVERTER <sup>(3)</sup>		SINGLE PHASE	THREE PHASE	
Minimum String Length (Power Optimizers)	P300,P350,P500	8	16	
	P405	6	13	
Maximum String Length (Power Optimizers)		25	50	
Maximum Power per String		5250	11250	W
Parallel Strings of Different Lengths or Orientations		Yes		

<sup>(3)</sup> It is not allowed to mix P405 with P300/P350/P500/P600/P700 in one string.





## SolarEdge Single Phase Inverters

SE2200 - SE6000



INVERTERS

### Specifically designed to work with power optimizers

- Superior efficiency (97.6%)
- Small, lightweight and easy to install
- Built-in module-level monitoring
- Internet connection through Ethernet or Wireless
- IP65 – Outdoor and indoor installation
- Fixed voltage inverter, DC/AC conversion only
- Compatible with the StorEdge Interface for Smart Energy Management StorEdge™ applications



# Single Phase Inverters

SE2200 - SE6000

	SE2200	SE3000	SE3500	SE4000	SE5000	SE6000	
<b>OUTPUT</b>							
Rated AC Power Output	2200	3000	3500	4000	5000 <sup>(1)</sup>	6000	VA
Maximum AC Power Output	2200	3000	3500	4000	5000 <sup>(1)</sup>	6000	VA
AC Output Voltage (Nominal)	220 / 230						Vac
AC Output Voltage Range	184 - 264.5						Vac
AC Frequency (Nominal)	50 / 60 ± 5						Hz
Maximum Continuous Output Current	12	16.5 <sup>(2)</sup>	19.5 <sup>(2)</sup>	22 <sup>(2)</sup>	27	27	A
Residual Current Detector / Residual Current Step Detector	300 / 30						mA
Utility Monitoring, Islanding Protection, Country Configurable Thresholds	Yes						
<b>INPUT</b>							
Maximum DC Power (Module STC)	2950	4050	4700	5400	6750	8100	W
Transformer-less, Ungrounded	Yes						
Maximum Input Voltage	500						Vdc
Nominal DC Input Voltage	350						Vdc
Maximum Input Current	8.5	11.5	13.5	15.5	19.5	23	Adc
Reverse-Polarity Protection	Yes						
Ground-Fault Isolation Detection	600kΩ Sensitivity						
Maximum Inverter Efficiency	97.6						%
European Weighted Efficiency	97.6	97.6	97.5	97.5	97.4	97.4	%
Nighttime Power Consumption	< 2.5						W
<b>ADDITIONAL FEATURES</b>							
Supported Communication Interfaces <sup>(3)</sup>	RS485, Ethernet, ZigBee (optional), Wi-Fi (optional), Built-in GSM (optional)						
Smart Energy Management	Export Limitation, StorEdge applications						
<b>STANDARD COMPLIANCE</b>							
Safety	IEC-62103 (EN50178), IEC-62109						
Grid Connection Standards	VDE 0126-1-1, VDE-AR-N-4105, AS-4777, RD-1663, DK 5940						
Emissions	IEC61000-6-2, IEC61000-6-3, IEC61000-3-11, IEC61000-3-12, FCC part15 class B						
RoHS	Yes						
<b>INSTALLATION SPECIFICATIONS</b>							
AC Output	Cable Gland - diameter 9-16						mm
DC Input	1 MC4 pair			2 MC4 pairs			
Dimensions (HxWxD)	540 x 315 x 172			540 x 315 x 191			mm
Weight	20.2			21.7			kg
Cooling	Natural Convection						
Noise	<25						dBA
Operating Temperature Range	-20 - +50 (M40 version -40 - +50)						°C
Protection Rating	IP65 - Outdoor and Indoor						
Bracket Mounted (Bracket Provided)							

<sup>(1)</sup> Limited to 4600VA when inverter is set to South Africa

<sup>(2)</sup> For inverters with an AC current limit of 16A please refer to the "SE3000-4000-16A Inverter" datasheet

<sup>(3)</sup> Refer to Datasheets -> Communications category in Downloads page for specifications of optional communication options: <http://www.solaredge.com/groups/support/downloads>

