solar**edge**

Power Optimizer

P600 / P700 / P800p / P850

25 Years Warranty · Power Optimizer · Power Optimizer · Power Optimizer ·

PV power optimization at the module-level
The most cost effective solution for commercial and large field installations

- Specifically designed to work with SolarEdge inverters
- Up to 25% more energy
- Superior efficiency (99.5%)
- Balance of System cost reduction; 50% less cables, fuses and combiner boxes, over 2x longer string lengths possible
- Fast installation with a single bolt
- Advanced maintenance with module-level monitoring
- Module-level voltage shutdown for installer and firefighter safety
- Use with two PV modules connected in series or in parallel

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P600 / P700 / P800p / P850

Optimizer model (typical module compatibility)	P600 (for 2 x 60-cell PV modules)	P700 (for 2 x 72-cell PV modules)	P800p (for parallel connection of 2x 96-cell 5'' PV modules)	P850 (for series connection of 2x high power or bi-facial modules)	
INPUT					
Rated Input DC Power[1]	600	730	800	850	W
Absolute Maximum Input Voltage (Voc at lowest temperature)	96	125	83	120	Vdc
MPPT Operating Range	12.5 - 80	12.5 - 105	12.5 - 83	12.5 - 105	Vdc
Maximum Short Circuit Current (Isc)	10.25	11	14	12.5	Adc
Maximum Efficiency			99.5		%
Weighted Efficiency			98.6		%
Overvoltage Category			II		
OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREDGE INVERTER)					
Maximum Output Current		15		18	Adc
Maximum Output Voltage			85		Vdc
OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM SOLAREDGE INVERTER OR SOLAREDGE INVERTER OFF)					
Safety Output Voltage per Power Optimizer			1 ± 0.1		Vdc
STANDARD COMPLIANCE					
EMC		FCC Part15 Class B, IEC61000-6-2, IEC61000-6-3			
Safety		IEC62109-1 (class II safety)			
RoHS		Yes			
Fire Safety		VDE-AR-E 2100-712:2013-05			
INSTALLATION SPECIFICATIONS					
Compatible SolarEdge Inverters	Three phase inverters SE15K & larger	Three phase inverters SE16K & larger			
Maximum Allowed System Voltage		1000			Vdc
Dimensions (W x L x H)	128 x 152 x 43 / 5 x 5.97 x 1.69	128 x 152 x 50 / 5 x 5.97 x 1.93	128 x 158 x 59 / 5 x 6.22 x 2.32	128 x 152 x 59 / 5 x 5.97 x 2.32	mm / in
Weight (including cables)	834 / 1.8	933 / 2.1	1019 / 2.2	1064/2.3	gr / lb
Input Connector[2]	MC4		MC4 Dual Input[6]	MC4	
Output Connector		MC4			
Output Wire Length	1.2 / 3.9 (portrait orientation) or 1.8 / 5.9 (landscape orientation)	1.2 / 3.9 (portrait orientation) or 2.1 / 6.9 (landscape orientation)	1.2 / 3.9 (portrait orientation) or 1.8 / 5.9 (landscape orientation)	1.2 / 3.9 (portrait orientation) or 2.1 / 6.9 (landscape orientation)	m / ft
Operating Temperature Range[3]		-40 - +85 / -40 - +185			°C / °F
Protection Rating		IP68 / NEMA6P			
Relative Humidity		0 - 100			%

[1] Rated STC power of the module. Module of up to +5% power tolerance allowed.
[2] For other connector types please contact SolarEdge.
[3] For ambient temperature above +70˚C / +158˚F power de-rating is applied. Refer to Power Optimizers Temperature De-Rating Application Note for more details.

PV SYSTEM DESIGN USING A SOLAREDGE INVERTER[5][6]		THREE PHASE SE15K AND LARGER	THREE PHASE SE16K AND LARGER				THREE PHASE FOR MV GRID				
Compatible Power Optimizers		P600	P600	P700[7]	P800p	P850[7]	P600	P700[7]	P800p	P850[7]	
Minimum String Length	Power Optimizers	13	12				13				
	PV Modules	26	24				26				
Maximum String Length	Power Optimizers				30						
	PV Modules				60						
Maximum Power per String		11250[8]		13500			12750[9]		15300		W
Parallel Strings of Different Lengths or Orientations				Yes							

[5] P600 and P700 can be mixed in one string. It is not allowed to mix P600/P700/P800p/P850 with P300/P370/P500/P404/P405/P505 in one string.
[6] In a case of odd number of PV modules in one string it is allowed to install one P600/P700/P800p/P850 power optimizer connected to one PV module. When connecting a single module to the P800p seal the unused input connectors with the supplied pair of seals.
[7] Longer inputs wire length (90 cm) are available for use with split junction box modules (Order P700-XXXLXXX or P850-XXXLXXX).
[8] For SE27.6K, SE50K, SE55K, SE82.8K: It is allowed to install up to 13,500W per string when 3 strings are connected to the inverter and when the maximum power difference between the strings is up to 2,000W; inverter max DC power: 37,250W.
[9] For inverters for MV grid: It is allowed to install up to 15,000W per string when 3 strings are connected to the inverter and when the maximum power difference between the strings is up to 2,000W; inverter max DC power: 45,000W.