POWER OPTIMIZER

SolarEdge Power Optimizer

Module Add-On for Commercial Installations

P600 / P700 / P800p (preliminary) /
P800s (preliminary)

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

- 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

SolarEdge Power Optimizer Module Add-On For Commercial Installations P600 / P700 / P800p (preliminary) / P800s (preliminary)

	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)	P800s (for series connection of 2x high power or bi-facial modules)	
INPUT					
Rated Input DC Power[1]	600	700	800		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 - 120	Vdc
Maximum Short Circuit Current (Isc)	10.1		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				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			mm / in
Weight (including cables)	994 / 2.1	1064 / 2.3	1090 / 2.4	1064/2.3	gr / lb
Input Connector[2]	MC4		MC4 (Single or 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)[4]	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.
[4] Single input version has 1.8m output wires.

PV SYSTEM DESIGN USING A SOLAREDGE INVERTER[5][6]		THREE PHASE SE15K AND LARGER	THREE PHASE SE16K AND LARGER		THREE PHASE SE33.3K		
Compatible Power Optimizers		P600	P600, P700	P800	P600, P700	P800	
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[7]		13500	12750[8]	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/P800 with P300/P350/P500/P404/P405 in one string.
[6] In a case of odd number of PV modules in one string it is allowed to install one P600/P700 /P800 power optimizer connected to one PV module. When connecting a single module to the P800 the single input version should be used.
[7] For SE27.6K: 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.
[8] For SE33.3K: 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.

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