SolarEdge Power Optimizer

Module Add-On for Commercial Installations for North America P600 / P700 / P730 / P800p / P800s

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
- Compliant with arc fault protection and rapid shutdown NEC requirements (when installed as part of the SolarEdge system)
- Use with two PV modules connected in series or in parallel

SolarEdge Power Optimizer Module Add-On For Commercial Installations for North America P600 / P700 / P730 / P800p / P800s

Optimizer model (typical module compatibility)	P600 (for 2 x 60-cell PV modules)	P700 (for 2 x 72-cell PV modules)	P730 (for 2 x high power 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	730	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 - 105	Vdc
Maximum Short Circuit Current (Isc)	10.1		11	14	12.5	Adc
Maximum DC Input Current	12.65		13.75	17.5	15.63	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), UL1741					
Material	UL-94 (5-VA), UV Resistant					
RoHS	Yes					
INSTALLATION SPECIFICATIONS						
Compatible SolarEdge Inverters	Three phase inverters					
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 1.96		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)	994 / 2.2	1064 / 2.34		1090 / 2.4	1064 / 2.34	gr / lb
Input Connector	MC4 Compatible					
Output Wire Type / Connector	Double Insulated; MC4 Compatible					
Output Wire Length	1.8 / 5.9	2.1 / 6.9		1.8 / 5.9	2.1 / 6.9	m / ft
Operating Temperature Range[2]	-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 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[3][4]		THREE PHASE 208V		THREE PHASE 480V		
Compatible Power Optimizers		P600, P700 & P730[5]	P800[5]	P600, P700 & P730	P800	
Minimum String Length	Power Optimizers	8		13		
	PV Modules	16		26		
Maximum String Length	Power Optimizers	30		30		
	PV Modules	60		60		
Maximum Power per String		6000[6]	7200	12750[7]	15300	W
Parallel Strings of Different Lengths or Orientations		Yes				

[3] P600, P700 and P730 can be mixed in one string. It is not allowed to mix P600/P700/P730/P800 with P300/P320/P400/P405 in one string.
[4] In a case of odd number of PV modules in one string it is allowed to install one P600/P700/P730/P800 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.
[5] P700/P730/ P800 design with three phase 208V inverters is limited. Use the SolarEdge Site Designer for verification.
[6] For SE14.4KUS/SE43.2KUS: It is allowed to install up to 6,500W per string when 3 strings are connected to the inverter (3 strings per unit for SE43.2KUS) and when the maximum power difference between the strings is up to 1,000W.
[7] For SE33.3KUS/SE66.6KUS/SE100KUS: It is allowed to install up to 15,000W per string when 3 strings are connected to the inverter (3 strings per unit for SE66.6KUS/SE100KUS) and when the maximum power difference between the strings is up to 2,000W.

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