



SolarEdge Power Optimizer

Frame-Mounted Module Add-On for
Commercial Installations P600 / P700



POWER OPTIMIZER

Fast mount power optimizers with module-level optimization

- Specifically designed to work with SolarEdge inverters
- Quicker installation - Power optimizers can be mounted in advance saving installation time
- Up to 25% more energy
- Superior efficiency (99.5%)
- Mitigates all types of module mismatch-loss, from manufacturing tolerance to partial shading
- Flexible system design for maximum space utilization
- Next generation maintenance with module level monitoring
- Module-level voltage shutdown for installer and firefighter safety



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Optimizer model (typical module compatibility)	P600 (for 2 x 60-cell PV modules)	P700 (for 2 x 72-cell PV modules)	
INPUT			
Rated Input DC Power ⁽¹⁾	600	700	W
Absolute Maximum Input Voltage (Voc at lowest temperature)	96	125	Vdc
MPPT Operating Range	12.5 - 80	12.5 - 105	Vdc
Maximum Short Circuit Current (Isc)		10.1	Adc
Maximum Efficiency		99.5	%
Weighted Efficiency		98.6	%
Overvoltage Category		II	
OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREEDGE INVERTER)			
Maximum Output Current		15	Adc
Maximum Output Voltage		85	Vdc
OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM SOLAREEDGE INVERTER OR SOLAREEDGE 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		
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)	139 x 165 x 56 / 5.5 x 6.5 x 2.2	139 x 165 x 63 \ 5.5 x 6.5 x 2.5	mm / in
Weight (including cables)	954 / 2.1	1053 / 2.3	gr / lb
Input Connector	MC4 ⁽²⁾		
Output Connector	MC4		
Output Wire Length	1.8 / 5.9	2.1 / 6.9	m / ft
Operating Temperature Range	-40 - +85 / -40 - +185		°C / °F
Protection Rating	IP68 / NEMA6P		
Relative Humidity	0 - 100		%

⁽¹⁾ Rated combined STC power of 2 modules connected in series. 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 SOLAREEDGE INVERTER ⁽⁴⁾⁽⁵⁾	THREE PHASE SE15K AND LARGER	THREE PHASE SE16K AND LARGER	THREE PHASE FOR MV GRID	
Compatible Power Optimizers	P600	P600 & P700		
Minimum String Length (Power Optimizers)	13			
Maximum String Length (Power Optimizers)	30			
Maximum Power per String	11250 ⁽⁶⁾	12750 ⁽⁷⁾	W	
Parallel Strings of Different Lengths or Orientations	Yes			

⁽⁴⁾ P600 and P700 can be mixed in one string. It is not allowed to mix P600/P700/P800 with P300/P370/P404/P405/P500/P505 in one string

⁽⁵⁾ In a case of odd number of PV Modules in one string it is allowed to install one P600/P700 power optimizer connected to one PV Module.

⁽⁶⁾ For SE27.6K, 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.

⁽⁷⁾ 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.

