

Power Optimizer

Add-on module for commercial systems, frame-mountable
P600



POWER OPTIMIZER



solar**edge**

Fast Installation of PV power optimization at the module-level

- Reduces all types of energy loss through mismatch, from manufacturing tolerances to partial shading
- A single optimizer supports up to four modules with 2 MPP trackers
- Up to 25% more energy
- Superior efficiency (99.5%)
- Extremely long string length for excellent balance of system cost
- Module-level voltage shutdown for installer and firefighter safety
- Advanced maintenance with module-level monitoring
- Quick installation with just one bolt

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Power optimizer model (compatible with common modules)	P600 (for 2 PV modules with 60 cells)	
INPUT		
Nominal DC input power ⁽¹⁾	600	W
Absolute Maximum Input Voltage per Input (Voc at lowest temperature)	96	Vdc
MPPT Operating Range per Input	12.5-80	Vdc
Maximum Short Circuit Current (Isc)	10.1	Adc
Maximum Efficiency	99.5	%
Weighted Efficiency	98.8	%
Overvoltage Category	II	
OUTPUT IN OPERATION (POWER OPTIMIZER CONNECTED WITH SOLAREEDGE INVERTER IN OPERATION)		
Maximum output current	15	Adc
Maximum output voltage	85	Vdc
OUTPUT IN STANDBY (POWER OPTIMIZER DISCONNECTED FROM SOLAREEDGE INVERTER OR SOLAREEDGE INVERTER)		
Safety output voltage per optimizer	1	
STANDARD COMPLIANCE		
EMC	FCC Part15 Class B, IEC61000-6-2, IEC61000-6-3	
Safety	IEC62109-1 (class II safety)	
Fire Safety	VDE-AR-E 2100-712: 2013-05	
RoHS	Yes	
INSTALLATION SPECIFICATIONS		
Compatible SolarEdge inverters	Three-phase inverter SE15k and larger	
Maximum system voltage	1,000	Vdc
Dimensions (w x l x h)	128 x 152 x 43	
Weight (including cable)	1,065 kg	
Connector on the module side	MC4 ⁽²⁾	
Length of the output cable	1.8	m
Output connector	MC4	
Length of the output cable	1.2 / 3.9 (portrait installation); 2.2 / 7.2 (landscape installation)	m
Operating temperature range	-40 - +85	°C
Protection class	IP68 / NEMA6P	
Relative humidity	0-100	%

(1) DC nominal input power of 2 PV modules connected in series. Module with up to + 5% performance tolerance.

(2) For other connector types, please contact SolarEdge.

(3) The performance of the optimizer is reduced at ambient temperatures above + 70 ° C. "Power Optimizers Temperature De-Rating Application Note" provides further details.

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PV System Design using a SolarEdge Inverter ⁽⁴⁾ ⁽⁵⁾	Three Phase SE15K and larger	Three Phase SE16K and larger	
Minimum String Length (Power Optimizers)	P600	P600	
Maximum String Length (Power Optimizers)	13		
Maximum Power per string	30		
Parallel strings of different lengths or orientations	11,250 ⁽⁶⁾	12,750 ⁽⁷⁾	W

(4) P600 can be mixed in one strand. It is not allowed to mix P600 with P300 / P350 / P405 / P500 in one line.

(5) If there is an odd number of modules in a line, the connection of one module to a P600 / P700 is permitted.

(6) For SE27.6K: It is permitted to assign the string with up to 13.5kWp as soon as the following requirements are met:

- The inverter has three strings; and
- Max. Power difference between

(7) the strands not larger than 2kWp; and

- Max. DC power inverter not greater than 37.25 kWp.

For SE33.3K: It is permitted to assign the string with up to 15.0kWp as soon as the following requirements are met:

- The inverter has three strings;
- Max. Power difference between the strings not larger than 2kWp; and
- Max. DC power inverter not greater than 45.00 kWp.

