Power Optimizer
Frame-Mounted Module Add-On for Commercial Installations

P600 / P650 / P730

25 YEAR WARRANTY

Fast mount power optimizers with module-level optimization

- Specifcally 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 modules 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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/ Power Optimizer
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Optimizer model (typical module compatibilty)	P600 (for 2 x 60-cell PV modules)	P650 (for 2 x 60-cell PV modules)	P730[1] (for 2 x 72-cell PV modules)	CE
INPUT				
Rated Input DC Power[2]	600	650	730	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)	10.25	11		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			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 A, 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)	139 x 165 x 55 / 5.5 x 6.5 x 2.2		139 x 165 x 62 \ 5.5 x 6.5 x 2.4	mm / in
Weight (including cables)	954 / 2.1		1053 / 2.3	gr / lb
Input Connector	MC4[3]			
Input wire Length	0.16 / 0.52			m / ft
Output Connector	MC4			
Output Wire Length	Portrait Orientation: 1.2 / 3.9 Landscape Orientation: 1.8 / 5.9		Portrait Orientation: 1.2 / 3.9 Landscape Orientation: 2.1 / 6.9	m / ft
Operating Temperature Range[4]	-40 - +85 / -40 - +185			˚C / ˚F
Protection Rating	IP68 / NEMA6P			
Relative Humidity	0 - 100			%

[1] P730 replaced the P700; can be used interchangeably and can be connected in the same string.
[2] Rated power of the module at STC will not exceed the optimizer "Rated Input DC Power". Modules with up to +5% power tolerance are allowed
[3] For other connector types please contact SolarEdge.
[4] For ambient temperature above +70˚C / +158˚F power de-rating is applied. Refer to "Power Optimizers Temperature De-Rating Technical Note" for more details.

PV SYSTEM DESIGN USING A SOLAREDGE INVERTER[6][7]	THREE PHASE SE15K AND LARGER	THREE PHASE SE16K AND LARGER	THREE PHASE FOR 277/480V GRID	
Compatible Power Optimizers	P600, P650	P600, P650, P730		
Minimum String Length (Power Optimizers)	14			
Minimum String Length (PV Modules)	27			
Maximum String Length (Power Optimizers)	30			
MAximum String Length (PV Modules)	60			
Maximum Power per String	11250[8]	12750[9]		W
Parallel Strings of Different Lengths or Orientations	Yes			

[6] P600, P650 and P730 can be mixed in one string. It is not allowed to mix P600/P650/P730 with P300/P370/P404/P405/P500/P505 in one string
[7] In a case of odd number of PV Modules in one string it is allowed to install one P600/P650/P730 power optimizer connected to one PV Module.
[8] 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.
[9] For inverters for 277/480V grid: It is allowed to install up to 15,000W per string when 3 strings are connected to the inverter (3 strings per unit when using SE66.6K and SE100K) and when the maximum power difference between the strings is up to 2,000W; inverter max DC power: 45,000W.

Supported frame crosssection

1.1-2.2mm / 0.04-0.09in

> 12mm / 0.48in

CE