



SolarEdge Power Optimizer

Frame-Mounted Module Add-On

P300 / P370 / P404 / P500



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 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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Optimizer model (typical module compatibility)	P300 (for 60-cell modules)	P370 (for high-power 60-cell and for 72-cell modules)	P500 (for 96-cell modules)	P404 (for 60-cell and 72-cell, short strings)	
INPUT					
Rated Input DC Power ⁽¹⁾	300	370	500	405	W
Absolute Maximum Input Voltage (Voc at lowest temperature)	48	60	80	80	Vdc
MPPT Operating Range	8 - 48	8 - 60	8 - 80	12.5 - 80	Vdc
Maximum Short Circuit Current (Isc)	11		10.1		Adc
Maximum Efficiency	99.5				%
Weighted Efficiency	98.8				%
Overvoltage Category	II				
OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREEDGE INVERTER)					
Maximum Output Current	15				Adc
Maximum Output Voltage	60		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					
Maximum Allowed System Voltage	1000				Vdc
Dimensions (W x L x H)	139 x 165 x 41 / 5.47 x 6.5 x 1.61	139 x 165 x 49 / 5.47 x 6.5 x 1.93	139 x 165 x 56 / 5.47 x 6.5 x 2.2		mm / in
Weight (including cables)	750 / 1.65	775 / 1.7	870 / 1.9	895 / 2.0	gr / lb
Input Connector	MC4 ⁽²⁾				
Output Connector	MC4				
Output Wire Length	0.95 / 3.0	1.2 / 3.9			m / ft
Operating Temperature Range	-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.

PV SYSTEM DESIGN USING A SOLAREEDGE INVERTER ⁽³⁾		SINGLE PHASE HD-WAVE	SINGLE PHASE	THREE PHASE	THREE PHASE FOR MV GRID	
Minimum String Length (Power Optimizers)	P300/P370/P500 ⁽⁴⁾	8		16	18	
	P404	6		13 (12 with SE3K)	14	
Maximum String Length (Power Optimizers)		25		50	50	
Maximum Power per String		5700	5250	11250	12750	W
Parallel Strings of Different Lengths or Orientations		Yes				

⁽³⁾ It is not allowed to mix P404 with P300/P370/P500 in one string

⁽⁴⁾ The P300/P370/P500 cannot be used with the SE3K three phase inverter (available in some countries; refer to E-Series inverter datasheet).

