# **Power Optimizer**

Frame-Mounted Module Add-On for Commercial Installations for North America



# 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
- Compliant with arc fault protection and rapid shutdown NEC requirements (when installed as part of the SolarEdge system)
- Module-level voltage shutdown for installer and firefighter safety



# / Power Optimizer

## Frame-Mounted Module Add-On for Commercial Installations for North America

P320

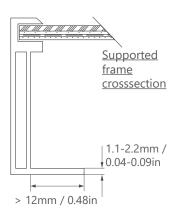
Optimizer model (typical module compatibilty)	P320 (for high-power 60-cell modules)						
INPUT							
Rated Input DC Power <sup>(1)</sup>	320	W					
Absolute Maximum Input Voltage (Voc at lowest temperature)	48	Vdc					
MPPT Operating Range	8 - 48	Vdc					
Maximum Short Circuit Current (Isc)	11	Adc					
Maximum DC Input Current	13.75	Adc					
Maximum Efficiency	99.5	%					
Weighted Efficiency	98.8	%					
Overvoltage Category	<u>II</u>						
OUTPUT DURING OPERATION (POW	/ER OPTIMIZER CONNECTED TO OPERATING SOLAREDGE INVERTER)						
Maximum Output Current	15	Adc					
Maximum Output Voltage	60	Vdc					
OUTPUT DURING STANDBY (POWER O	OPTIMIZER DISCONNECTED FROM SOLAREDGE INVERTER OR SOLAREDGE INVE	RTER 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)						
Material	UL94 V-0, UV Resistant						
RoHS	Yes						
INSTALLATION SPECIFICATIONS							
Maximum Allowed System Voltage	1000	Vdc					
Compatible Inverters	All SolarEdge Single Phase and Three Phase inverters						
Dimensions (W x L x H)	139 x 165 x 40 / 5.5 x 6.5 x 1.6	mm / in					
Weight (including cables)	630 / 1.4	gr / lb					
Input Connector	MC4 <sup>(2)</sup>						
Input Wire Length	0.16 / 0.52	m / ft					
Output Wire Type / Connector	Double Insulated / MC4						
Output Wire Length	0.9 / 2.95	m / ft					
Operating Temperature Range <sup>(3)</sup>	-40 - +85 / -40 - +185						
Protection Rating	IP68 / NEMA6P						
Relative Humidity	0 - 100	%					
(1) Pated power of the module at STC will not exceed the o	ntimizer "Rated Input DC Power" Modules with up to +5% power tolerance are allowed	-					

<sup>1)</sup> 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

<sup>&</sup>lt;sup>(6)</sup> For ambient temperature above +85°C / +185°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 <sup>(4)</sup>	SINGLE PHASE HD-WAVE	SINGLE PHASE	THREE PHASE 208V	THREE PHASE 480V	
Minimum String Length (Power Optimizers)	8		10	18	
Maximum String Length (Power Optimizers)	25		25	50 <sup>(5)</sup>	
Maximum Power per String	5700 (6000 with SE7600H-US)	5250	6000(6)	12750 <sup>(7)</sup>	W
Parallel Strings of Different Lengths or Orientations	Yes				

<sup>(7)</sup> For SE30KUS/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





<sup>(2)</sup> For other connector types please contact SolarEdge

<sup>(4)</sup> For detailed string sizing information refer to: http://www.solaredge.com/sites/default/files/string\_sizing\_na.pdf.
(5) A string with more than 30 optimizers does not meet NEC rapid shutdown requirements; safety voltage will be above the 30V requirement (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