Power Optimizer

P750



POWER OPTIMIZER

PV power optimization at the module level

The most cost effective solution for commercial and large field installations

- Specifically designed to work with SolarEdge inverters
- Up to 25% more energy
- Superior efficiency (99.5%)
- Balance of System cost reduction; 50% fewer cables, fuses and combiner boxes, over 2x longer string lengths possible
- Fast installation with a single bolt
- Advanced maintenance with module-level monitoring
- Support high input current, bifacial and high power modules

/ Power Optimizer

P750

Power Optimizer Model (Typical Module Compatibility)	P750 (for 1 x high power PV module)	Units
INPUT		
Rated Input DC Power(1)	750	W
Connection Method	Single input	
Absolute Maximum Input Voltage (Voc at lowest temperature)	60	Vdc
MPPT Operating Range	12.5 – 60	Vdc
Maximum Short Circuit Current per Input (Isc)	20	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	18	Adc
Maximum Output Voltage	80	Vdc
OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM SOLAREDGE INVERTER OR INVERTER OFF)		
Safety Output Voltage per Power Optimizer	1 ± 0.1	Vdc
STANDARD COMPLIANCE		
EMC(2)	FCC Part 15 Class B, IEC 61000-6-2, IEC 61000-6-3, EN 55011	
Safety	IEC 62109-1 (class II safety)	
RoHS	Yes	
Fire Safety	VDE-AR-E 2100-712:2013-05	
INSTALLATION SPECIFICATIONS		
Compatible SolarEdge Inverters	Three Phase Inverters SE16K & larger	
Maximum Allowed System Voltage	1000	Vdc
Dimensions (W x L x H)	129 x 162 x 59	mm
Weight	979	gr
Input Connector	MC4(3)	
Input Wire Length	0.9	m
Output Connector	MC4	
Output Wire Length	Portrait Orientation: 1.4	m
Operating Temperature Range(4)	-40 to +85	ºC
Protection Rating	IP68 / NEMA6P	
Relative Humidity	0 – 100	%

(1) Rated power of the module at STC will not exceed the power optimizer Rated Input DC Power. Modules with up to +5% power tolerance are allowed.
(2) For compliance with EN55011 class A (when required), installation shall be done using an inverter with a rated power of > 20kVA, and comply with the requirements in the EMC section of the installation manual.
(3) For other connector types, please contact SolarEdge.
(4) For ambient temperatures above +70ºC / 158ºF, power de-rating is applied. Refer to the Temperature Derating Technical Note for more details.

PV System Design Using a SolarEdge Inverter(5)(6)(7)		230/400V Grid SE16K, SE17K	230/400V Grid SE25K	230/400V Grid SE27.6K*	230/400V Grid SE30K*	230/400V Grid SE33.3K*	277/480V Grid SE40K*	
Compatible Power Optimizers		P750						
Minimum String Length	Power Optimizers	14	14	14	15	14	14	
	PV Modules	14	14	14	15	14	14	
Maximum String Length	Power Optimizers(8)	30	30	30	30	30	30	
	PV Modules	30	30	30	30	30	30	
Maximum Continuous Power per String		13,500	13,500	13,950	15,300	13,500	15,300	W
Maximum Allowed Connected Power per String(7)		1 string – 15,750	1 string – 15,750	1 string – 15,750	1 string – 17,550	2 strings or less – 15,750	2 strings or less – 17,550	W
		2 strings or more – 18,500	2 strings or more – 18,500	2 strings or more – 18,500	2 strings or more – 20,300	3 strings or more – 18,500	3 strings or more – 20,300	
Parallel Strings of Different Lengths or Orientations		Yes						
Maximum Difference in Number of Power Optimizers Allowed Between the Shortest and Longest String Connected to the Same Inverter Unit		5 Power Optimizers						

* The same rules apply for Synergy units of equivalent power ratings that are part of the Synergy Technology inverter.
(5) P750 can be mixed in one string only with P750.
(6) For SE16K and above, the minimum STC DC connected power should be 11KW.
(7) To connect more STC power per string, design your project using SolarEdge Designer.
(8) When connecting to inverters that support Rapid Shutdown, each string must contain fewer than 28 power optimizers to meet NEC Rapid Shutdown requirements.

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