solaredge P750 Power Optimizer Instructions

Contents

solaredge 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% less 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 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 SOLAREDGE INVERTER OFF)		
Safety Output Voltage per Power Optimizer	1 ± 0.1	Vdc
STANDARD COMPLIANCE		
EMC	FCC Part 15 Class B, 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 SE16K & larger	
Maximum Allowed System Voltage	1000	Vdc
Dimensions (W x L x H)	129 x 169 x 59	mm
Weight	1340	gr
Input Connector	MC4(2)	
Input Wire Length	1.4	m
Output Connector	MC4	
Output Wire Length	Portrait Orientation: 1.4	m
Operating Temperature Range(3)	-40 to +85	˚C
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 other connector types please contact SolarEdge
3. 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(4)(5)(6)		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	30	30	30	30	30	30	
	PV Modules	30	30	30	30	30	30	
Maximum Continuous Power per String		13500	13500	13950	15300	13500	15300	W
Maximum Allowed Connected Power per String(6) (Permitted only when the difference in connected power between strings is 2000W or less)		1 string – 15750	1 string – 15750	1 string – 15750	1 string – 17550	2 strings or less – 15750	2 strings or less – 17550	W
		2 strings or more – 18500	2 strings or more – 18500	2 strings or more – 18500	2 strings or more – 20300	3 strings or more – 18500	3 strings or more – 20300	
Parallel Strings of Different Lengths or Orientations		Yes						

The same rules apply for Synergy units of equivalent power ratings, that are part of the modular Synergy Technology inverter

4. P750 can be mixed in one string only with P750
5. For SE16K and above, the minimum STC DC connected power should be 11KW
6. To connect more STC power per string, design your project using SolarEdge Designer
7. It is not allowed to mix S-series and P-series power optimizers in new installations

Documents / Resources

	solaredge P750 Power Optimizer [pdf] Instructions P750 Power Optimizer, P750, Power Optimizer, Optimizer