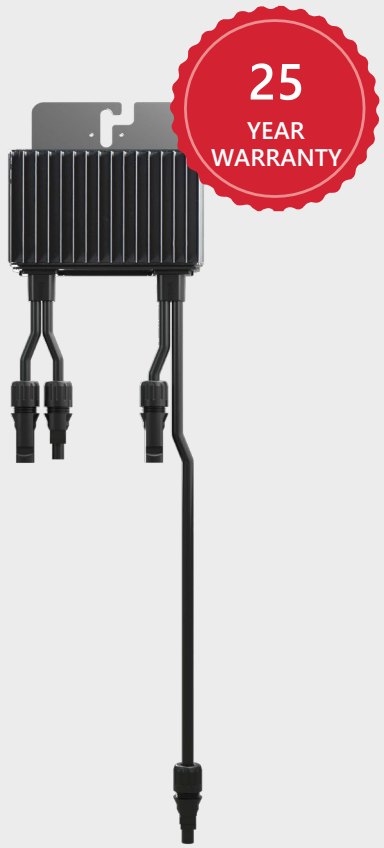
Power Optimizer

S1200

POWER OPTIMIZER



SolarEdge's most advanced, cost-effective Power Optimizer for commercial and large field installations

Greater Energy Yields

- High efficiency (99.5%) with module-level MPPT, for maximized system energy production and revenue, and fast project ROI
- Supports high power and bifacial PV modules, and high string current for more power per string

Maximum Protection with Built-In Safety

- Designed to automatically reduce high DC voltage to touch-safe levels, upon grid/inverter shutdown, with SafeDC™
- Includes SolarEdge Sense Connect, allowing continuous monitoring in order to detect overheating due to installation issues or connector-level wear and tear

Lower BoS Costs

- Flexible system design enables maximum space utilization and up to 2x longer string lengths, 50% less cables, fuses and combiner boxes
- Supports connection of two PV modules in series with easy cable management and fast installation times

Simpler O&M

- Module-level system monitoring enabling pinpointed fault detection and remote, time-saving troubleshooting

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	S1200	UNIT
INPUT		
Rated Input DC Power[1]	1200	W
Absolute Maximum Input Voltage (Voc)	125	Vdc
MPPT Operating Range	12.5-105	Vdc
Maximum Short Circuit Current (Isc) of Connected PV Module	15	Adc
Maximum Efficiency	99.5	%
Weighted Efficiency	98.8	%
Overvoltage Category	II	
OUTPUT DURING OPERATION		
Maximum Output Current	20	Adc
Maximum Output Voltage	80	Vdc
OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM INVERTER OR INVERTER OFF)		
Safety Output Voltage per Power Optimizer	1	Vdc
STANDARD COMPLIANCE		
EMC	FCC Part15, IEC 61000-6-2, and IEC 61000-6-3 - Class B, EN 55011	
Safety	IEC62109-1 (class II safety)	
Material	UL94 V-0, UV Resistant	
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)	129 x 155 x 59 / 5.08 x 6.10 x 2.32	mm / in
Weight (including cables)	1064 / 2.3	gr / lb
Input Connector	MC4[2]	
Input Wire Length	0.1 / 0.32, 1.3 / 4.26[3]	m / ft
Output Connector	MC4	
Output Wire Length	(+) 5.3 (-) 0.10 / (+) 17.38 , (-) 0.32	m / ft
Operating Temperature Range[4]	-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 S-Series models with long input cables (1.3m / 4.26ft), the Sense Connect feature is only enabled on the output.
(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[5][6][7][8]		230/400V Grid SE16K, SE17, SE25K*	230/400V Grid SE27.6K*	230/400V Grid SE30K*	230/400V Grid SE33.3K*	277/480V Grid SE40K*
Compatible Power Optimizers		S1200				
Minimum String Length	Power Optimizers	14	14	15	14	15
	PV Modules	27	27	29	27	29
Maximum String Length	Power Optimizers	30	30	30	30	30
	PV Modules	60	60	60	60	60
Maximum Continuous Power per String [W]		15000	15500	17000	15000	17000
Maximum Allowed Connected Power per String[8] (Permitted only when the difference in connected power between strings is 2,000W or less) [W]		1 string - 17250	1 string - 17250	1 string - 19250	1-2 strings 17250	1-2 strings 19250
		2 strings or more - 20000	2 strings or more - 20500	2 strings or more - 23000	3 strings or more 20000	3 strings or more - 23000
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.
(5) S1200 can be mixed in one string only with S1200.
(6) For each string, a Power Optimizer may be connected to a single PV module if 1) each Power Optimizer is connected to a single PV module or 2) it is the only Power Optimizer connected to a single PV module in the string.
(7) For SE16K and above, the minimum STC DC connected power should be 11KW.
(8) To connect more STC power per string, design your project using SolarEdge Designer.

CE RoHS