Power Optimiser
For Australia

P605 / P730 / P801 / P850 / P800p / P950 / P1100

25 YEAR WARRANTY

PV power optimisation 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

- Module-level voltage shutdown for installer and firefighter safety

- Use with two PV modules connected in series or in parallel

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P605 / P730 / P801

Optimiser Model (Typical Module Compatibility)	P605 (for 1 x high power PV module)	P730 (for up to 2 x 72-cell PV modules)	P801 (for up to 2 x 72- cell PV modules)	
INPUT				
Rated Input DC Power[1]	605	730	800	W
Connection Method	Single input for series connected modules			
Absolute Maximum Input Voltage (Voc at lowest temperature)	65	125		Vdc
MPPT Operating Range	12.5 - 65	12.5 - 105		Vdc
Maximum Short Circuit Current per Input (Isc)	14	11	11.75	Adc
Maximum Efficiency	99.5			%
Weighted Efficiency	98.6			%
Overvoltage Category	II			
OUTPUT DURING OPERATION (POWER OPTIMISER CONNECTED TO OPERATING SOLAREDGE INVERTER)				
Maximum Output Current	15			Adc
Maximum Output Voltage	80			Vdc
OUTPUT DURING STANDBY (POWER OPTIMISER DISCONNECTED FROM SOLAREDGE INVERTER OR SOLAREDGE INVERTER OFF)				
Safety Output Voltage per Power Optimiser	1 ± 0.1			Vdc
STANDARD COMPLIANCE				
EMC	FCC Part15 Class A, 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 SE15K & larger			
Maximum Allowed System Voltage	1000			Vdc
Dimensions (W x L x H)	129 x 153 x 52	129 x 153 x 49.5		mm
Weight (including cables)	1064	933		gr
Input Connector	MC4[2]			
Output Connector	MC4			
Output Wire Length	1.4	2.2		m
Input Wire Length	0.16	0.16, 0.9[3]		m
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 optimiser "Rated Input DC Power". Modules with up to +5% power tolerance are allowed
(2) For other connector types please contact SolarEdge
(3) Longer inputs wire length are available for use with split junction box modules
   (For 0.9m/0.52ft order P730/P801/ P850-xxxLxxx. For 1.3m/4.26ft order P850/P950/P1100 -xxxXxxx. For 1.6m/5.24ft order P850/P950-xxxYxxx)
(4) For ambient temperature above +70°C power de-rating is applied. Refer to https://www.solaredge.com/sites/default/files/se-temperature-derating-note.pdf for more details

PV System Design Using a SolarEdge Inverter[5][6][7]		230/400VGrid SE15K, SE17K, SE25K*, SE30K, SE33.3K*		230/400V Grid SE27.6K*		
Compatible Power Optimisers		P605	P730, P801	P605	P730, P801	
Minimum String Length	Power Optimisers	14	14	14	14	
	PV Modules	14	27	14	27	
Maximum String Length	Power Optimisers	30	30	30	30	
	PV Modules	30	60	30	60	
Maximum Continuous Power per String		11250		11625		W
Maximum Allowed Connected Power per String[8] (Permitted only when the difference in connected power between strings is 2,000W or less)		13500		13875		W
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) P730/P801 can be mixed in one string only with P730/P801. P605 cannot be mixed with any other Power Optimiser in the same string
(6) For each string, a Power Optimiser may be connected to a single PV module if 1) each Power Optimiser is connected to a single PV module or 2) it is the only Power Optimiser connected to a single PV module in the string
(7) For SE15K 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

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P800p / P850 / P950 / P1100

Optimiser Model (Typical Module Compatibility)	P800p (for up to 2 x 96-cell 5'' PV modules)	P850 (for up to 2 x high power or bi-facial modules)	P950 (for up to 2 x high power or bi-facial modules)	P1100 (for up to 2 x high power or bi-facial modules)	
INPUT					
Rated Input DC Power[1]	800	850	950	1100	W
Connection Method	Dual input for Independently connected[7]	Single input for series connected modules			
Absolute Maximum Input Voltage (Voc at lowest temperature)	83	125			Vdc
MPPT Operating Range	12.5 - 83	12.5 - 105			Vdc
Maximum Short Circuit Current per Input (Isc)	7	12.5		14	Adc
Maximum Efficiency	99.5				%
Weighted Efficiency	98.6				%
Overvoltage Category	II				
OUTPUT DURING OPERATION (POWER OPTIMISER CONNECTED TO OPERATING SOLAREDGE INVERTER)					
Maximum Output Current	18				Adc
Maximum Output Voltage	80				Vdc
OUTPUT DURING STANDBY (POWER OPTIMISER DISCONNECTED FROM SOLAREDGE INVERTER OR SOLAREDGE INVERTER OFF)					
Safety Output Voltage per Power Optimiser	1 ± 0.1				Vdc
STANDARD COMPLIANCE					
EMC	FCC Part15 Class A, 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 SE15K & larger			Three phase inverters SE25K &larger	
Maximum Allowed System Voltage	1000				Vdc
Dimensions (W x L x H)	129 x 168 x 59	129 x 162 x 59	129 x 162 x 59	129 x 168 x 59	mm
Weight (including cables)	1064				gr
Input Connector	MC4[2]				
Output Connector	MC4				
Output Wire Length	2.2			2.4	m
Input Wire Length	0.16	0.16, 0.9, 1.3, 1.6[3]	0.16, 1.3, 1.6[3]	0.16, 1.3[3]	m
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 optimiser "Rated Input DC Power". Modules with up to +5% power tolerance are allowed
(2) For other connector types please contact SolarEdge
(3) Longer inputs wire length are available for use with split junction box modules
   (For 0.9m/0.52ft order P730/P801/ P850-xxxLxxx. For 1.3m/4.26ft order P850/P950/P1100 -xxxXxxx. For 1.6m/5.24ft order P850/P950-xxxYxxx)
(4) For ambient temperature above +70˚C power de-rating is applied. Refer to https://www.solaredge.com/sites/default/files/se-temperature-derating-note.pdf for more details

PV System Design Using a SolarEdge Inverter[5][6][7]		230/400V Grid SE15K, SE17K	230/400V Grid SE25K*	230/400V Grid SE27.6K*	230/400V Grid SE30K, SE33.3K*	
Compatible Power Optimisers		P800p, P850, P950	P800p, P850, P950, P1100	P800p, P850, P950, P1100	P800p, P850, P950, P1100	
Minimum String Length	Power Optimisers	14	14	14	14	
	PV Modules	27	27	27	27	
Maximum String Length	Power Optimisers	30	30	30	30	
	PV Modules	60	60	60	60	
Maximum Continuous Power per String		13500	13500	13950	13500	W
Maximum Allowed Connected Power per String[8] (Permitted only when the difference in connected power between strings is 2,000W or less)		1 string - 15750	1 string - 15750	1 string - 16200	2 strings or less - 15750	W
		2 strings or more - 18500	2 strings or more - 18500	2 strings or more - 18950	3 strings or more - 18500	
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) P800p/P850/P950/P1100 can be mixed in one string only with P800p/P850/P950/P1100
(6) For each string, a Power Optimiser may be connected to a single PV module if 1) each Power Optimiser is connected to a single PV module or 2) it is the only Power Optimiser connected to a single PV module in the string
(7) For SE15K 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