Power Optimiser

For Australia

P650 / P730 / P801 / P850 / P800p /P950

POWEROPTIMISER

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

solaredge

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Optimiser Model (Typical Module Compatibility)	P650 (for 2 x 60-cell PV modules)	P730 (for 2 x 72-cell PV modules)	P801 (for 2x72-cell PV modules)	P850 (for 2x high power or bi-facial modules)	P800p (for 2x 96-cell 5" PV modules)	P950 (for 2x high power or bi-facial modules)	
INPUT							
Rated Input DC Power(1)	650	730	800	850	800	950	W
Connection Method	Single input for series connected modules				Dual input for independently connected (7)	Single input for series connected modules	
Absolute Maximum Input Voltage (Voc at lowest temperature)	96	125			83	125	Vdc
MPPT Operating Range	12.5 - 80	12.5 - 105			12.5 - 83	12.5 - 105	Vdc
Maximum Short Circuit Current per Input (Isc)	11		11.75	12.5	7	12.5	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			18			Adc
Maximum Output Voltage	85						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 SE16K & larger				
Maximum Allowed System Voltage	1000						Vdc
Dimensions (W x L x H)	129 x 153 x 42.5	129 x 153 x 49.5		129 x 162 x 59	129 x 168 x 59	129 x 162 x 59	mm
Weight (including cables)	834	933		1064			gr
Input Connector	MC4(2)						
Output Connector	MC4						
Output Wire Length	2.2						m
Input wire length	0.16	0.16, 0.9(3)		0.16, 0.9, 1.3, 1.6(3)	0.16	0.16, 1.3, 1.6(3)	m
Operating Temperature Range(4)	-40 - +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 order P730-xxxLxxx or P801/P850-xxxLxxx. For 1.3m order P850-xxxXxxx or P950-xxxXxxx. For 1.6m order P850-xxxYxxx or P950-xxxYxxx).
(4) For ambient temperature above +70°C power de-rating is applied. Refer to Power Optimisers Temperature De-Rating Technical Note for more details.

PV System Design Using a Solaredge Inverter(5)(6)(7)		Three Phase SE15K and larger						Three Phase for 277/480V grid						
Compatible Power Optimisers		P650	P730	P801	P850	P800p	P950	P650	P730	P801	P850	P800p	P950	
Minimum String Length	Power Optimisers	14												
	PV Modules(7)	27												
Maximum String Length	Power Optimisers	30												
	PV Modules(7)	60												
Maximum Power per String		11250(8)			13500(8)			12750(9)			15300(9)			W
Parallel Strings of Different Lengths or Orientations		Yes												

(5) P650/P730/P801 can be mixed in one string, and P850/P800p/P950 can also be mixed in one string. It is not allowed to mix P650/P730/P801 with P850/P800p/P950, nor is it allowed to mix P650-P950with P370-P505 in one string
(6) For SE15K and above, the minimum DC power should be 11KW.
(7) In a case of odd number of PV modules in one string it is allowed to install one P650/P730/P850/P800p/P801/P950 power optimizer connected to one PV module. When connecting a single module to the P800p seal the unused input connectors with the supplied pair of seals.
(8) For the 230/400V grid: With P650/P730/P801 up to 13,500W per string may be installed, with P850/P800p up to 15,750W and with P950 up to 18,500W per string may be installed when the maximum power difference between each string is 2,000W. For the P950, minimum two string are required.
For the P950, minimum two strings are required for SE16K-SE27.6K inverters,and for SE30K and up minimum three string are required
(9) For the 277/480V grid: With P650/P730/P801 up to 15,000W per string may be installed, with P850/P800p up to 17,550W and with P950 up to 20,300W per string may be installed when the maximum power difference between each string is 2,000W.
For the P950, minimum three strings are required for SE33.3K and SE40K inverters.

CE RoHS