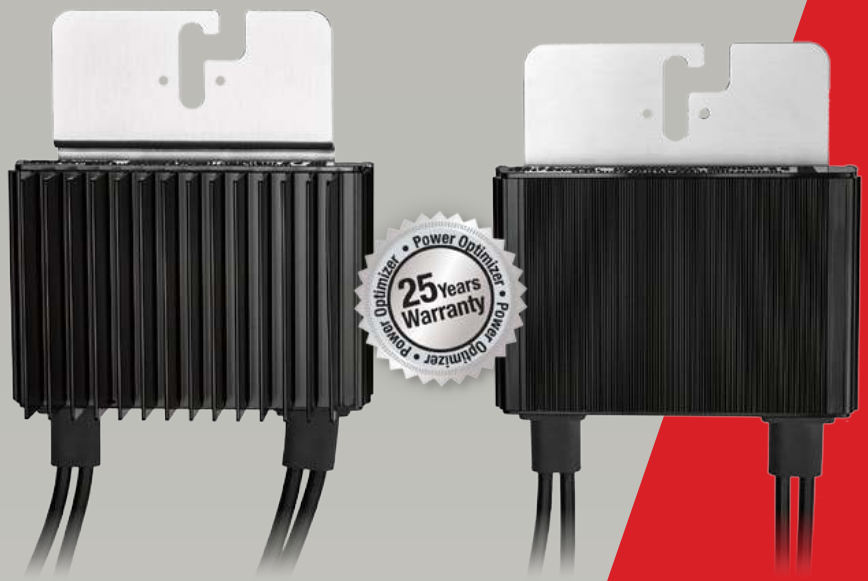
SolarEdge Power Optimiser

for Australia

Module Add-On

P300 / P370 / P404 / P405 / P500 / P505

POWER OPTIMISER



PV power optimisation at the module-level

- Specifically designed to work with SolarEdge inverters
- Up to 25% more energy
- Superior efficiency (99.5%)
- Mitigates all types of modules mismatch-loss, from manufacturing tolerance to partial shading
- Flexible system design for maximum space utilization
- Fast installation with a single bolt
- Next generation maintenance with module level monitoring
- Module-level voltage shutdown for installer and firefighter safety

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Module Add-On P300 / P370 / P404 / P405 / P500 / P505

Optimiser model (typical module compatibilty)	P300 (for 60-cell modules)	P370 (for high-power 60 and 72-cell modules)	P500 (for 96-cell modules)	P404 (for 60-cell and 72-cell, short strings)	P405 (for thin film modules)	P505 (for higher current modules)	
INPUT							
Rated Input DC Power[1]	300	370[2]	500[2]	405[2]	405[2]	505[2]	W
Absolute Maximum Input Voltage (Voc at lowest temperature)	48	60	80	80	125	83	Vdc
MPPT Operating Range	8 - 48	8 - 60	8 - 80	12.5 - 80	12.5 - 105	12.5-83	Vdc
Maximum Short Circuit Current (Isc)	11		10.1			14	Adc
Maximum Efficiency	99.5						%
Weighted Efficiency	98.8						%
Overvoltage Category	II						
OUTPUT DURING OPERATION (POWER OPTIMISER CONNECTED TO OPERATING SOLAREDGE INVERTER)							
Maximum Output Current	15						Adc
Maximum Output Voltage	60			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 B, IEC61000-6-2, IEC61000-6-3						
Safety	IEC62109-1 (class II safety), UL1741						
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)	128 x 152 x 28		128 x 152 x 36		128 x 152 x 50	128 x 152 x 59	mm
Weight (including cables)	630	655	750	775	845	1064	gr
Input Connector	MC4[3]				Single or Dual MC4[4]	MC4[3]	
Output Connector	MC4						
Output Wire Length	0.95	1.2					m
Operating Temperature Range	-40 - +85						˚C
Protection Rating	IP68 / NEMA6P						
Relative Humidity	0 - 100						%

[1] Rated STC power of the module. Module of up to +5% power tolerance allowed.
[2] When connecting modules with rated STC power >350Wp, labels with optimiser de-energising instructions may need to be attached to the optimisers.
For details refer to: http://www.solaredge.com/sites/default/files/se_optimizer_deenergizing_guide_aus.pdf
[3] For other connector types please contact SolarEdge.
[4] Dual version for parallel connection of 2 thin film modules; P/N: P405-5RMDMRM. In a case of odd number of PV modules in one string it is allowed to install one P405 dual version power optimiser connected to one PV module. When connecting a single module seal the unused input connectors with the supplied pair of seals.

PV SYSTEM DESIGN USING A SOLAREDGE INVERTER[6]		SINGLE PHASE HD-WAVE	SINGLE PHASE	THREE PHASE RESIDENTIAL[7]	THREE PHASE COMMERCIAL	
Minimum String Length (Power Optimisers)	P300, P370, P500	8		8 per array	16	
	P404, P405, P505	6		7 per array	13	
Maximum String Length (Power Optimisers)		25		25 per array	50	
Maximum Power per String		5700 (6000 with SE8000H, SE10000H)	5250	5700	11250	W
Parallel Strings of Different Lengths or Orientations		Yes				
Notes				Connect 2 arrays		

[6] It is not allowed to mix P404/P405/P505 with P300/P370/P500/P600/P700/P800 in one string. With the three phase residential inverters, use either P404/P405/P505 optimisers or P300/P350/P500 optimisers on an inverter.
[7] Optimisers must be connected in two separate arrays. For complete design guidelines for the three phase residential inverters refer to: https://www.solaredge.com/sites/default/files/se_inverter_installation_guide_e_series_design_installation_addendum_aus.pdf

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