

## **SolarEdge Power Optimiser**

for Australia
Module Add-On

P300 / P370 / P404 / P405 / P500 / P505



## 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



## SolarEdge Power Optimiser for Australia

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		- 1		, , ,						
Rated Input DC Power <sup>(1)</sup>	300	370 <sup>(2)</sup>	500 <sup>(2)</sup>	405(2)	405 <sup>(2)</sup>	505 <sup>(2)</sup>	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 Weighted Efficiency		99.5 98.8				• • • • • • • • • • • • • • • • • • • •	% %			
Overvoltage Category										
OUTPUT DURING OPERATION (POWER	OPTIMISER CON	NNECTED TO OPE	RATING SOLAR	EDGE INVERTER	)					
Maximum Output Current		15								
Maximum Output Voltage		60 85								
OUTPUT DURING STANDBY (POWER OP	TIMISER DISCO	NNECTED FROM	SOLAREDGE IN	VERTER OR SOL	AREDGE INVERT	ER OFF)				
Safety Output Voltage per Power Optimise	r	1 ± 0.1								
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 1	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		M	Single or Dual MC4 <sup>(4)</sup>	MC4 <sup>(3)</sup>						
Output Connector		MC4								
Output Wire Length	0.95	0.95								
Operating Temperature Range Protection Rating		-40 - +85 IP68 / NEMA6P								
Relative Humidity		0 - 100								

<sup>&</sup>lt;sup>107</sup> For other connector types please contact solar toge.

(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 <sup>(6)</sup>		SINGLE PHASE HD-WAVE	SINGLE PHASE	THREE PHASE RESIDENTIAL <sup>(7)</sup>	THREE PHASE COMMERCIAL	
Minimum String Length	P300, P370, P500	8		8 per array	16	
(Power Optimisers)	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		

<sup>(6)</sup> 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



<sup>(1)</sup> 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.

 $<sup>^{(7)}</sup>$  Optimisers must be connected in two separate arrays. For complete design guidelines for the three phase residential inverters  $refer to: \underline{https://www.solaredge.com/sites/default/files/se\_inverter\_installation\_guide\_e\_series\_design\_installation\_addendum\_aus.pdf$