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# Power Optimiser For Australia Module Add-On

P370 / P401 / P404 / P485 / P500 / P505

POWEROPTIMISER



## 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

# / Power Optimiser For Australia

## Module Add-On

P370 / P401 / P404 / P485 / P500 / P505

Optimiser Model (Typical Module Compatibility)	P370 (60&70 Cell modules)	P401 (60&70 Cell modules)	P404 (for 60-cell and 72-cell, short strings)	P485 (for high- voltage modules)	P500 (for 96-cell modules)	P505 (for higher current modules)	
<b>INPUT</b>							
Rated Input DC Power <sup>(1)</sup>	370	400	405	485	500	505	W
Absolute Maximum Input Voltage (Voc at lowest temperature)	60		80	125	80	83	Vdc
MPPT Operating Range	8 - 60		12.5 - 80	12.5 - 105	8 - 80	12.5-83	Vdc
Maximum Short Circuit Current (Isc)	11	11.75	11		10.1	14	Adc
Maximum Efficiency	99.5						%
Weighted Efficiency	98.8						%
Overtoltage Category	II						
<b>OUTPUT DURING OPERATION (POWER OPTIMISER CONNECTED TO OPERATING SOLAREEDGE INVERTER)</b>							
Maximum Output Current	15						Adc
Maximum Output Voltage	60		85		60	85	Vdc
<b>OUTPUT DURING STANDBY (POWER OPTIMISER DISCONNECTED FROM SOLAREEDGE INVERTER OR SOLAREEDGE INVERTER OFF)</b>							
Safety Output Voltage per Power Optimiser	1 ± 0.1						Vdc
<b>STANDARD COMPLIANCE</b>							
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						
<b>INSTALLATION SPECIFICATIONS</b>							
Maximum Allowed System Voltage	1000						Vdc
Dimensions (W x L x H)	129 x 153 x 27.5	129 x 153 x 29.5	129 x 153 x 42.5	129 x 159 x 49.5	129 x 153 x 33.5	129 x 162 x 59	mm
Weight (including cables)	655		775	845	750	1064	gr
Input Connector <sup>(2)</sup>	MC4 <sup>(2)</sup>			Single or Dual MC4 <sup>(2)(3)</sup>	MC4 <sup>(2)</sup>		
Input Wire Length	0.16 / 0.9 <sup>(4)</sup>		0.16				m
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						%

<sup>(1)</sup> 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.

<sup>(2)</sup> For other connector types please contact SolarEdge.

<sup>(3)</sup> Dual version for parallel connection of 2 modules; P/N: P485-4RMDMRM. In a case of odd number of PV modules in one string it is allowed to install one P485 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.

<sup>(4)</sup> Longer inputs wire length are available for use. For 0.9m input wire length order P370/P401-xxxLxxx.

PV System Design Using a Solaredge Inverter <sup>(5)</sup>	Single Phase HD-WAVE	Single Phase	Three Phase Residential <sup>(6)</sup>	Three Phase Commercial	
Minimum String Length (Power Optimisers)	P370, P401, P500	8	8 per array	16	
	P404, P485, P505	6	7 per array	14	
Maximum String Length (Power Optimisers)		25	25 per array	50	
Maximum Power per String	5700 (6000 with SE8000H, SE10000H)	5250	5700	11250 <sup>(7)</sup>	W
Parallel Strings of Different Lengths or Orientations	Yes				
Notes	-		Connect 2 arrays	-	

<sup>(5)</sup> It is not allowed to mix P404/P485/P505 with P370/P401/P500/P650/P730/P801/P850/P800p/P950 in one string. With the three phase residential inverters, use either P404/P485/P505 power optimisers or P370/P401/P500 power optimisers on an inverter.

<sup>(6)</sup> Power 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](https://www.solaredge.com/sites/default/files/se_inverter_installation_guide_e_series_design_installation_addendum_aus.pdf)

<sup>(7)</sup> It is allowed to install up to 13,500W per string when the maximum power difference between each string is 2,000W