



SOLAREGE RESIDENTIAL POWER OPTIMISERS

POWER OPTIMISER MODULE ADD-ON P370, P401 & P505

The SolarEdge Power Optimiser is a DC/DC converter which connects to a single panel to monitor and control its individual performance.

This level of control mitigates panel mismatch losses due to partial shading and improves the performance of the PV system. It also allows for more flexible system designs and greater roof space utilisation.



solar*edge*



**PANEL LEVEL
MONITORING**

RESIDENTIAL - P370 / P401[^]

[^] For long-string design



COMMERCIAL APPLICATIONS - P505

HOW YOU BENEFIT



HIGH EFFICIENCY

Superior efficiency of up to 99.5%, generating more power from your PV system.



FLEXIBLE DESIGN

Individual panel monitoring and management allows flexible designs and increased power production.



SAFE OPERATION

Automatic panel-level voltage shutdown feature for installer and firefighter safety.



INNOVATIVE

Next generation maintenance with panel-level monitoring.



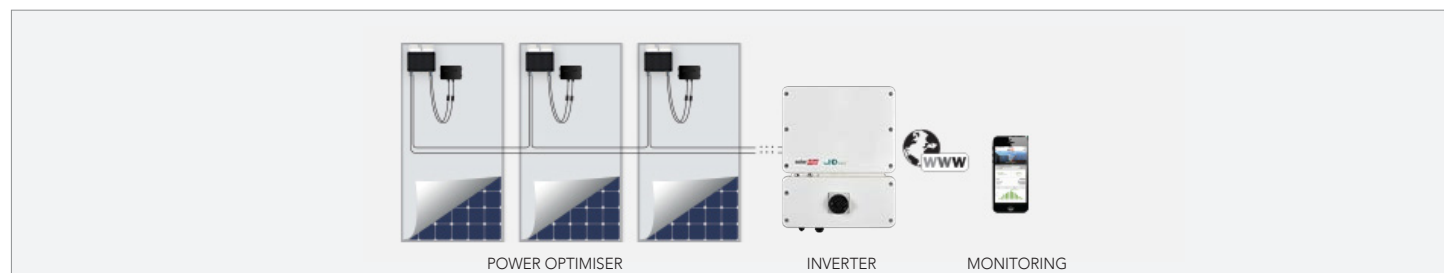
SOLAHART WARRANTY

Enjoy a 12-year warranty, for peace of mind.*

Technical Data

POWER OPTIMISER TECHNICAL DATA		P370	P401	P505
Input (DC)				
Rated input DC power ⁽¹⁾	370 W	400 W	505 W	
Absolute maximum input voltage (Voc at lowest temperature)	60 Vdc		83 Vdc	
MPPT operating range	8 - 60 Vdc		12.5 - 83 Vdc	
Maximum short circuit input current (Isc)	11 Adc	11.75 Adc	14 Adc	
Maximum efficiency	99.5%			
Weighted efficiency	98.8%			
Overvoltage category	II			
Output During Operation (when connected to operating SolarEdge inverter)				
Maximum DC output current	15 Adc			
Maximum DC output voltage	60 Vdc	85 Vdc		
Output During Standby (when disconnected from SolarEdge inverter or inverter off)				
Safety output voltage per Power Optimiser	1 ± 0.1 Vdc			
Installation Specifications				
Maximum allowed system voltage (DC)	1000 Vdc			
Weight (including cables)	655 g	1064 g		
Dimensions (W x H x D)	129 x 153 x 27.5 mm	129 x 153 x 29.5 mm	129 x 162 x 59 mm	
Input connector	MC4			
Input wire length	0.16 m			
Output connector	MC4			
Output wire length	1.20 m			
Operating temperature range	-40°C to +85°C			
Protection rating	IP68 / NEMA6P			
Relative humidity	0 - 100%			
Product Details				
SolarEdge part number	P370	P401	P505	
Solahart Warranty	12 years*			
Standard Compliance				
EMC	FCC Part 15 Class B, IEC 61000-6-2, IEC 61000-6-3			
Safety	IEC 62109-1 (class II safety), UL1741			
RoHS	Yes			
Fire safety	VDE-AR-E 2100-712:2013-05			

PV System Design using a SolarEdge Inverter		Minimum string length (Power optimisers)	Maximum string length (Power optimisers)	Maximum power per string (W)	Parallel strings of different lengths or orientations
Single-Phase HD Wave Inverter	P370	8	25	5700 ⁽²⁾ (6000 with SE8250H, SE10000H)	Yes
	P401	8			
	P505	6			
Single-Phase Inverter	P370	8	25	5250 ⁽²⁾	Yes
	P401	8			
	P505	6			
Three-Phase Residential Inverter	P370	9	25	5625 ⁽²⁾	Yes
	P401	9			
	P505	8			
Three-Phase Commercial Inverter	P370	16	50	11250 ⁽³⁾	Yes
	P401	16			
	P505	14			



⁽¹⁾ Rated STC Power of the Module. Module of up to +5% power tolerance allowed. ⁽²⁾ When using P401, if the inverter rated AC power ≤ maximum nominal power per string, then the maximum power per string will be able to reach up to the inverter max input DC power. Refer to: <https://www.solaredge.com/sites/default/files/se-power-optimizer-single-string-design-application-note.pdf>. ⁽³⁾ It is allowed to install up to 13,500W per string when the maximum power difference between each string is 2,000W.

*For full details see Solahart Owner's Guide & Installation Instructions.

Specifications and designs included in this data sheet are subject to change without notice.

Solahart Australia 1300 769 475 | www.solahart.com.au

Reorder code: SHDS/PV_SE_OPT

IH0113_SOLAREDGE_POWER OPTIMISERS_P370, P401 & P505_Mar 2021