

Power Optimiser For Australia

S440, S500



POWER OPTIMISER

PV power optimisation at the module-level

- Specifically designed to work with SolarEdge inverters
- Detects abnormal PV connector behavior, preventing potential safety issues*
- Module-level voltage shutdown for installer and firefighter safety
- Superior efficiency (99.5%)
- Mitigates all types of modules mismatch-loss, from manufacturing tolerance to partial shading
- Flexible system design and compatible with bifacial PV modules for maximum space utilization
- Faster installations with simplified cable management and easy assembly using a single bolt
- Next generation maintenance with module safety

* Functionality subject to inverter model and firmware version

/ Power Optimiser For Australia

S440, S500

	S440	S500	Unit
INPUT			
Rated Input DC Power ⁽¹⁾	440	500	W
Absolute Maximum Input Voltage (Voc)	60		Vdc
MPPT Operating Range	8 - 60		Vdc
Maximum Short Circuit Current (Isc) of connected PV Module	14.5	15	Adc
Maximum Efficiency	99.5		%
Weighted Efficiency	98.8		%
Overvoltage Category	II		
Input Overcurrent Protection	15		Adc
OUTPUT DURING OPERATION			
Maximum Output Current	15		Adc
Maximum Output Voltage	60		Vdc
OUTPUT DURING STANDBY (POWER OPTIMISER DISCONNECTED FROM INVERTER OR INVERTER OFF)			
Safety Output Voltage per Power Optimiser	1		Vdc
STANDARD COMPLIANCE			
EMC	FCC Part 15 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)	129 x 155 x 30		mm
Weight (including cables)	655 / 1.5		gr / lb
Input Connector	MC4 ⁽²⁾		
Input Wire Length	0.1		m
Output Connector	MC4		
Output Wire Length	(+) 2.3, (-) 0.10		m
Operating Temperature Range ⁽³⁾	-40 to +85		°C
Protection Rating	IP68 / NEMA6P		
Relative Humidity	0 - 100		%

(1) Rated power of the module at STC will not exceed the Power Optimiser Rated Input DC Power. Modules with up to +5% power tolerance are allowed

(2) For other connector types please contact SolarEdge

(3) For ambient temperature above +70°C / +158°F power de-rating is applied. Refer to Power Optimisers Temperature [De-Rating Technical Note](#) for more details

PV System Design Using a SolarEdge Inverter	Genesis / Energy Hub	Three Phase Residential	Three Phase Commercial	
Minimum String Length	8	9	16	
Maximum String Length	25		50	
Maximum nominal power per string ⁽⁴⁾	5700 (6000 with SE8250H / SE10000H)	5625	11250 ⁽⁵⁾	W

4) If the inverters rated AC power \leq maximum nominal power per string, then the maximum power per string will be able to reach up to the inverters maximum input DC power

Refer to: <https://www.solaredge.com/sites/default/files/se-single-string-power-optimizer-application-note-aus.pdf>

5) When using more than a single string, it is allowed to install up to 13500W per string when the maximum power difference between each string is up to 2000W

6) It is not allowed to mix S-series and P-series Power Optimisers in new installations

