

# Three Phase Residential Inverter for Australia

SE5K-AUB / SE7K-AUB / SE8.25K-AUB / SE10K-AUB

INVERTERS



## The ideal solution for residential PV installations

- Provides maximum design flexibility, enabling fewer, longer strings
- Supports optional smart energy devices and expansion of system capabilities
- Single vendor solution for seamless operation of all system components, and one address for warranty and service issues
- Built-in module-level monitoring for greater visibility into system performance
- Excellent reliability with standard 12-year warranty (extendable to 20 or 25 years)
- Advanced safety features, including SafeDC™ and integrated arc fault protection
- Quick inverter commissioning directly from a smartphone using SolarEdge's SetApp
- Suitable for outdoor or indoor installations

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	SE5K-AUB	SE7K-AUB	SE8.25K-AUB	SE10K-AUB	
<b>APPLICABLE TO INVERTERS WITH PART NUMBER SEXXX- AUBTXBNU4</b>					
<b>OUTPUT</b>					
Rated AC Power Output	5000	7000	8250	10000	VA
Maximum AC Power Output	5000	7000	8250	10000	VA
AC Output Voltage - Line to Line / Line to Neutral (Nominal)	400 / 230				Vac
AC Output Voltage - Line to Neutral Range	184 - 264.7				Vac
AC Frequency	50 ± 5%				Hz
Maximum Continuous Output Current (per Phase)	8	11.5	13.5	16	A
Grids Supported - Three Phase	3 / N / PE (WYE with Neutral)				
Utility Monitoring, Islanding Protection, Configurable Power Factor, Country Configurable Thresholds	Yes				
<b>INPUT</b>					
Maximum DC Power (Module STC)	6750	9450	11135	13500	W
Transformer-less, Ungrounded	Yes				
Maximum Array Input Voltage	450				Vdc
Maximum Voltage to Earth (DC to GND)	450				Vdc
Maximum Input Current	14	19.5	22	28	Adc
Reverse-Polarity Protection	Yes				
Ground-Fault Isolation Detection	350kΩ Sensitivity				
Maximum Inverter Efficiency	97.8				%
European Weighted Efficiency	96.3	97	97.1	97.4	%
Nighttime Power Consumption	< 4				W
Short Circuit Current from the PV Array	14	19.5	22	28	Adc
<b>ADDITIONAL FEATURES</b>					
Supported Communication Interfaces <sup>(1)</sup>	2 x RS485, Ethernet, Wi-Fi <sup>(2)</sup> , ZigBee for Smart Energy (optional) <sup>(3)</sup>				
Inverter Commissioning	With the SetApp mobile application using built-in Wi-Fi access point for local connection				
Smart Energy Management <sup>(4)</sup>	Export Limitation, Home Energy Management (Device Control)				
<b>STANDARD COMPLIANCE</b>					
Safety	IEC62109, AS/NZS3100				
Grid Connection Standards	AS/NSZ 4777.2:2015, EN 50549-1				
Emissions	IEC61000-6-2, IEC61000-6-3, IEC61000-3-11, IEC61000-3-12				
RoHS	Yes				
<b>INSTALLATION SPECIFICATIONS</b>					
AC Output Conduit Size / Wire Cross Section	20mm minimum / 3-13mm <sup>2</sup>				
DC Input Conduit Size / Wire Cross Section	20mm conduit size minimum				
DC Input	Single DC terminal block				
Dimensions with Safety Switch (H x W x D)	775 x 315 x 260				mm
Weight	30				kg
Operating Temperature Range	-40 to +60 <sup>(5)</sup>				°C
Cooling	Fan (user replaceable)				
Noise	< 50				dBA
Protection Rating	IP65 - outdoor and indoor				
Mounting	Bracket provided				
Number of Power Optimisers per String	8 <sup>(6)</sup> /9 to 25				
Maximum Power per String	5625				W

(1) Refer to Datasheets -> Communications category in Downloads page for specifications of optional communication options: <http://www.solaredge.com/groups/support/downloads>

(2) Wi-Fi connectivity requires connection of an additional Wi-Fi component, ordered separately. For more details ask your SolarEdge sales person or refer to: <https://www.solaredge.com/aus/products/communication>

(3) For more information refer to: <https://www.solaredge.com/sites/default/files/se-zigbee-plug-in-wireless-communication-for-setapp-datasheet-au.pdf>

(4) An export meter is required for export limitation and most of home energy management functions

(5) For power de-rating information refer to: <https://www.solaredge.com/sites/default/files/se-temperature-derating-note.pdf>

(6) When using P404/P485/P505 power optimisers only, minimum required per string is eight

# 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
<b>INPUT</b>			
Rated Input DC Power <sup>(1)</sup>	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
<b>OUTPUT DURING OPERATION</b>			
Maximum Output Current	15		Adc
Maximum Output Voltage	60		Vdc
<b>OUTPUT DURING STANDBY (POWER OPTIMISER DISCONNECTED FROM INVERTER OR INVERTER OFF)</b>			
Safety Output Voltage per Power Optimiser	1		Vdc
<b>STANDARD COMPLIANCE</b>			
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		
<b>INSTALLATION SPECIFICATIONS</b>			
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 <sup>(2)</sup>		
Input Wire Length	0.1		m
Output Connector	MC4		
Output Wire Length	(+ ) 2.3, (- ) 0.10		m
Operating Temperature Range <sup>(3)</sup>	-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 <sup>(4)</sup>	5700 (6000 with SE8250H / SE10000H)	5625	11250 <sup>(5)</sup>	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

