Three Phase Inverters with Synergy Technology

for Australia

SE50K / SE82.8K

INVERTERS

Specifically designed to work with power optimisers

- Easy two-person installation – each unit mounted separately, equipped with cables for simple connection between units
- Balance of System and labor reduction compared to using multiple smaller string inverters
- Independent operation of each unit enables higher uptime and easy serviceability
- No wasted ground area: wall/rail mounted or horizontally mounted under the modules (10˚inclination)
- Built-in module-level monitoring with Ethernet or cellular GSM
- Fixed voltage inverter for superior efficiency (98.3%) and longer strings
- Integrated Connection Unit with optional integrated DC Safety Switch
- Built-in RS485 Surge Protection, to better withstand lightning events

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	SE50K	SE82.8K	
OUTPUT			
Rated AC Power Output	50000	82800	VA
Maximum AC Power Output	50000	82800	VA
AC Output Voltage — Line to Line / Line to Neutral (Nominal)	400/230		Vac
AC Output Voltage — Line to Line Range; Line to Neutral Range	320 - 460 / 184 - 264.5		Vac
AC Frequency	50 ± 5%		Hz
Maximum Continuous Output Current (per Phase) @Vac,nom	76	120	A
Grids Supported — Three Phase	3 / N / PE (WYE with Neutral)		V
Maximum Residual Current Injection	250 per unit(1)		mA
Utility Monitoring, Islanding Protection, Configurable Power Factor, Country Configurable Thresholds	Yes		
INPUT			
Maximum DC Power (Module STC), Inverter / Unit	67500 / 33750	111780 / 37260	W
Transformer-less, Ungrounded	Yes		
Maximum Input Voltage DC to GND	415		Vdc
Maximum Input Voltage DC+ to DC-	830		Vdc
Nominal DC Input Voltage DC to GND	375		Vdc
Nominal DC Input Voltage DC+ to DC-	750		Vdc
Maximum Input Current	2 x 37	3 x 40	Adc
Reverse-Polarity Protection	Yes		
Ground-Fault Isolation Detection	350kΩ Sensitivity per Unit		
Maximum Inverter Efficiency	98.3		%
European Weighted Efficiency	98		%
Nighttime Power Consumption	< 8	< 12	W
ADDITIONAL FEATURES			
Supported Communication Interfaces(2)	RS485, Ethernet, ZigBee (optional), Cellular (optional), Wi-Fi (optional)		
RS485 Surge Protection	Built-in		
DC CONNECTION UNIT			
DC Disconnect	830V / 2 x 40A	830V / 3 x 40A	
STANDARD COMPLIANCE			
Safety	IEC-62109, AS3100		
Grid Connection Standards(3)	VDE-AR-N-4105, G59/3, AS-4777,EN 50438 , CEI-021,VDE 0126-1-1, CEI-016, BDEW		
Emissions	IEC61000-6-2, IEC61000-6-3 , IEC61000-3-11, IEC61000-3-12		
RoHS	Yes		
INSTALLATION SPECIFICATIONS			
Number of Units	2	3	
AC Output Conduit Size / Max cross section / Max PE Cross Section	40mm / 70mm^2 / 35mm^2	50mm / 95mm^2 / 50mm^2	
DC Input Conduit Size / Terminal Block Cross Section Range / Number of PV Arrays	2x25mm / 6 - 35mm^2 / 2x PV Arrays	3x25mm / 6 - 35mm^2 / 3x PV Arrays	
AC Output Wire	Aluminum or Copper; L, N: Up to 70, PE: Up to 35	Aluminum or Copper; L, N: Up to 95, PE: Up to 50	mm^2
Dimensions (H x W x D)	Primary Unit: 940 x 315 x 260; Secondary Unit: 540 x 315 x 260		mm
Weight	Primary Unit: 48; Secondary Unit: 45		kg
Operating Temperature Range	-40 to +60(4)		˚C
Cooling	Fan (user replaceable)		
Noise	< 60		dBA
Protection Rating	IP65 — Outdoor and Indoor		
Mounting	Bracket provided		

(1) If an external RCD is required, its trip value must be ≥ 300mA per unit (≥ 600mA for SE50K; ≥ 900mA for SE82.8K)
(2) Refer to Datasheets -> Communications category on Downloads page for specifcations of optional communication options: http://www.solaredge.com/groups/support/downloads
(3) For all standards refer to Certifications category on Downloads page: http://www.solaredge.com/groups/support/downloads
(4) For power de-rating information refer to: https://www.solaredge.com/sites/default/files/se-temperature-derating-note.pdf

CE RoHS