## Three Phase Inverter with Synergy Technology



## INVERTERS

## Specifically designed to work with power optimizers

- 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 – eliminates the need for external DC isolators
- Built-in RS485 Surge Protection, to better withstand lightning events
- Advanced safety features integrated arc fault protection and optional rapid shutdown



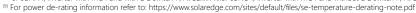
## / Three Phase Inverter with Synergy Technology

SE50K / SE55K / SE82.8K

	SE50K <sup>(1)</sup>	SE55K	SE82.8K	
OUTPUT		'		
Rated AC Power Output	50000 <sup>(2)</sup>	55000	82800	VA
Maximum AC Power Output	50000(2)	55000	82800	VA
AC Output Voltage — Line to Line / Line to Neutral (Nominal)	380/220 ; 400/230		,	Vac
AC Output Voltage — Line to Line Range / Line to Neutral Range	304 - 437 / 176 - 253 ; 320 - 460 /184 - 264.5			Vac
AC Frequency	50/60 ± 5			Hz
Maximum Continuous Output		1		
Current (per Phase) @Vac,nom	76	80	120	Α
Grids Supported — Three Phase	3 / N / PE (WYE with Neutral)			V
Maximum Residual Current Injection	250 per unit <sup>(3)</sup>			mA
Utility Monitoring, Islanding Protection, Configurable Power Factor, Country Configurable Thresholds	Yes			
INPUT				
Maximum DC Power (Module STC), Inverter / Unit	67500 / 33750	74500 / 37250	111750 / 37250	W
Transformer-less, Ungrounded	Yes			
Maximum Input Voltage	1000			Vdc
Nominal DC Input Voltage	750			Vdc
Maximum Input Current	2 x 37 2 x 40 3 x 40		Adc	
Reverse-Polarity Protection	Yes			
Ground-Fault Isolation Detection	350kΩ Sensitivity per Unit <sup>(4)</sup>			
Maximum Inverter Efficiency	98.3			%
European Weighted Efficiency	98			%
Nighttime Power Consumption	< 12			W
ADDITIONAL FEATURES				
Supported Communication Interfaces <sup>(5)</sup>	RS485, Ethernet, GSM plug-in (optional)			
RS485 Surge Protection	Built-in			
Rapid Shutdown	Optional <sup>(6)</sup> (Automatic upon AC Grid Disconnect)			
Cable Covers	Ordered separately with part number: DCD-SGY-COVER-LP (for SE50K and SE55K) DCD-SGY-COVER-HP (for SE82.8K); Dimensions (H x W x D) – 314.3 x 343.7 x 134.5 mm			
CONNECTION UNIT	<u>'</u>			
DC Disconnect (optional)	1000V /	2 x 40A	1000V / 3 x 40A	
STANDARD COMPLIANCE				
Safety		IEC-62109, AS3100		
Grid Connection Standards <sup>(7)</sup>	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		)	3	
AC Output Cable	Cable gland — diameter 22-32; PE gland diameter 10-16		Cable gland — diameter 30-38; PE gland diameter 10-16	mm
DC Input <sup>(8)</sup>		6 strings, 4-10mm2 DC wire, gland outer diameter 5-10mm / 3 MC4 pairs per unit		
AC Output Wire	Aluminum or Copper; L, I	N: Up to 70, PE: Up to 35	Aluminum or Copper; L, N: Up to 95, PE: Up to 50	mm²
Dimensions (H x W x D)	Primary Unit: 940 x 315 x 260; Secondary Unit: 540 x 315 x 260		nit: 540 x 315 x 260	mm
Weight	Primary Unit: 48; Secondary Unit: 45			kg
Operating Temperature Range	-40 to +60 <sup>(9)</sup>		°C	
Cooling	Fan (user replaceable)			
Noise	< 60		dBA	
Protection Rating	IP65 — Outdoor and Indoor			
Mounting	Bracket provided			

 $<sup>^{(1)}</sup> A vailable \ in \ some \ countries. \ Refer \ to: \ https://www.solaredge.com/sites/default/files/se_inverters_supported\_countries.pdf$ 

<sup>©</sup> Inverter to Datasneets -> Communications category on Downloads page for specifications or optional confinding on pricing specifications are optional confinding or pricing specifications are optional confined or pricing specificati





Advantable in spin countries. Acceptable in the UK and a spin on the UK is an external RCD is required, its trip value must be  $\geq$  300mA per unit ( $\geq$  600mA for SE50K/SE55K;  $\geq$  900mA for SE82.8K)

<sup>(4)</sup> Where permitted by local regulations
(5) Refer to Datasheets -> Communications category on Downloads page for specifications of optional communication options: http://www.solaredge.com/groups/support/downloads