

Three Phase Inverter with Synergy Technology

For Brazil

SE75K / SE100K / SE120K



INVERTERS

Powered by unique pre-commissioning process for rapid system installation

- Pre-commissioning feature for automated validation of system components and wiring during the site installation process and prior to grid connection
- Easy 2-person installation with lightweight, modular design (each inverter consists of 2 or 3 Synergy Units and one Synergy Manager)
- Independent operation of each Synergy Unit enables higher uptime and easy serviceability
- Built-in thermal sensors detect faulty wiring ensuring enhanced protection and safety
- Built-in arc fault protection and optional rapid shutdown
- Built-in PID mitigation for maximized system performance
- Monitored* and field-replaceable surge protection devices, to better withstand surges caused by lightning or other events: integrated RS485 and Type 2 DC SPDs, optional Type 2 AC SPD
- Optional integrated DC safety switch eliminates the need for external DC isolators
- Built-in module-level monitoring with Ethernet or cellular communication for full system visibility

*Applicable only for DC and AC SPDs

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Applicable to Inverter with Part Number	SExxK-xxx0lxxx		SExxK-xxx8lxxx	
	SE75K for 220/127V and 380/220V	SE100K for 380/220V	SE120K for 480/277V	
OUTPUT				
Rated AC Active Output Power	55150 @ 220/127v 75000 @ 380/220v	100000	120000	W
Maximum AC Apparent Output Power ⁽¹⁾	55150 @ 220/127v 75000 @ 380/220v	100000	120000	VA
AC Output Voltage — Line to Line / Line to Neutral (Nominal)	380 / 220 ; 220 / 127	380 / 220	480 / 277	Vac
AC Output Voltage — Line to Line Range / Line to Neutral Range	304 - 437 / 176 - 253 ; 176 - 253 / 102 - 146	304 - 437 / 176 - 253	432 - 529 / 249 - 305	Vac
AC Frequency	60 ± 5%			Hz
Maximum Continuous Output Current (per Phase)	145 @ 220/127v 120 @ 380/220v	145		Aac
AC Output Line Connections	3W + PE, 4W + PE			
Supported Grids	WYE: TN-C, TN-S, TN-C-S, TT, IT; Delta: IT			
Maximum Residual Current Injection ⁽²⁾	300			mA
Utility Monitoring, Islanding Protection, Configurable Power Factor, Country Configurable Thresholds	Yes			
Total Harmonic Distortion	≤ 3			%
Power Factor Range	+/-0.8 to 1			
INPUT				
Maximum DC Power (Module STC) Inverter / Synergy Unit	82725 / 27575 @ 220/127v 112500 / 37500 @ 380/220v	142950 / 47650	180000 / 60000	W
Transformer-less, Ungrounded	Yes			
Maximum Input Voltage DC+ to DC-	400 - 600 @220/127v 680 - 1000 @380/220v ; 480/277v			Vdc
Maximum Input Current	3 x 48,25 @ 220/127v 3 x 40 @ 380/220v	3 x 48,25		Adc
Reverse-Polarity Protection	Yes			
Ground-Fault Isolation Detection	167kΩ Sensitivity per Synergy Unit ⁽³⁾			
Maximum Inverter Efficiency	98.3		98.1	%
European Weighted Efficiency	98			%
Nighttime Power Consumption	< 8	< 12		W
ADDITIONAL FEATURES				
Supported Communication Interfaces ⁽⁴⁾	2 x RS485, Ethernet, Wi-Fi (optional), Cellular (optional)			
Smart Energy Management	Export Limitation			
Inverter Commissioning	With the SetApp mobile application using built-in Wi-Fi access point for local connection			
Arc Fault Protection	Built-in, user configurable (according to UL1699B)			
Rapid Shutdown	Optional (automatic upon AC Grid Disconnect)			
PID Rectifier	Nighttime, built-in			
RS485 Surge Protection (ports 1+2)	Type II, field replaceable, integrated			
DC Surge Protection	Type II, field replaceable, integrated			
AC Surge Protection	Type II, field replaceable, optional			
DC Fuses (Single Pole)	25A, optional			
DC Disconnect Switch	Optional			
STANDARD COMPLIANCE				
Safety	IEC-62109-1, IEC-62109-2			
Grid Connection Standards ⁽⁵⁾	VDE-AR-N-4105, AS-4777, EN 50549-1, EN 50549-2, CEI-021, VDE 0126-1-1, CEI-016			
Emissions	IEC61000-6-2, IEC61000-6-3 Class A, IEC61000-3-11, IEC61000-3-12			
RoHS	Yes			

(1) Maximum power considered for the temperature up to 50°C, for derating additional information please access: <https://www.solaredge.com/sites/default/files/se-temperature-derating-note.pdf>

(2) If an external RCD is required, its trip value must be ≥ 200mA for SE66.6K; ≥ 300mA for SE100K/SE120K

(3) Where permitted by local regulations

(4) For specifications of the optional communication options, visit <https://www.solaredge.com/products/communication> or the Resource Library webpage: <https://www.solaredge.com/resource-library>, to download the relevant product datasheet

(5) For all standards and certificates download, refer to the Certifications category on the Resource Library webpage: <https://www.solaredge.com/resource-library>

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INSTALLATION SPECIFICATIONS

Number of Synergy Units per Inverter	3	
AC Wire Cross Section and Outer Diameter: Line/PE (Aluminum or Copper)	Cross section up to 120 / 70 mm ² ; outer diameter 30-50 / 12-20 mm	
DC Input: Inverter / Synergy Unit ⁽⁵⁾⁽⁶⁾	12 / 4 MC4 pairs	
	Gland, 3 pairs / 1 pair, Cross section up to 50 mm ² , aluminum or copper cable outer diameter 12-20 mm	
Dimensions (H x W x D)	Synergy Unit: 558 x 328 x 273 Synergy Manager: 360 x 560 x 295	mm
Weight	Synergy Unit: 32 Synergy Manager: 18	kg
Operating Temperature Range	-40 to +60	°C
Cooling	Fan (user replaceable)	
Noise	< 67	dBA
Protection Rating	IP65 — outdoor and indoor	
Mounting	Brackets provided	

(6) DC input is available with MC4 or Gland connection under the inverter part number. For more information, contact SolarEdge

(7) Only MC4 connectors manufactured by Staubli are approved for use