EV Charging Single Phase Inverter

SE3680H, SE4000H, SE5000H, SE6000H

INVERTERS

2-in-1 EV Charger and Solar Inverter, Speeds Up Installation and EV Charging

- Combines solar and grid power for EV charging up to 2.5 times faster than a typical mode 2 charger
- Maximizes self-consumption and optimizes use of renewable energy
- Designed to work specifically with SolarEdge power optimizers
- Record-breaking 99% efficiency and high reliability, powered by HD-wave technology
- Built-in module-level monitoring
- Small, lightweight, and as easy to install and commission as a standard SolarEdge inverter
- Advanced safety features, including integrated arc fault protection
- Flexible selection of charger cable types and lengths (cable and holder ordered separately)
- Built-in 6mA DC-RCD, compliant with IEC 62752:2016, for reduced labor and installation cost

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INVERTER SPECIFICATIONS:

	SE3680H	SE4000H	SE5000H	SE6000H	
OUTPUT — AC (LOADS / GRID)					
Rated AC Power Output	3680	4000	5000[1]	6000	VA
Maximum AC Power Output	3680	4000	5000[1]	6000	VA
AC Output Voltage (nominal)	220 / 230				Vac
AC Output Voltage Range	184 - 264.5				Vac
AC Frequency (nominal)	50 / 60 ± 5				Hz
Maximum Continuous Output Current	16	18.5	23	27.5	A
Maximum output fault current and duration	16 / 20	18.5 / 20	23 / 20	27.5 / 20	A / ms
Residual Current Detector / Residual Current Step Detector	300 / 30				mA
Inrush current AC (Peak/ Duration)	2.8 / 20				Aac (rms) / ms
Maximum output over current protection	38				A
Power factor range	1 (adjustable from -0.9 to +0.9)				
Total harmonic distortion	< 3				%
Protective class	Class I				
Utility Monitoring, Islanding Protection, Country Configurable Thresholds	Yes				
Overvoltage category	III				
INPUT — DC					
Maximum DC Power	5700	6200	7750	9300	W
Transformer-less, Ungrounded	Yes				
Maximum Input Voltage	480				Vdc
Nominal DC Input Voltage	380				Vdc
Maximum Input Current	10.5	11.5	13.5	16.5	Adc
Reverse-Polarity Protection	Yes				
Ground-Fault Isolation Detection	600kΩ Sensitivity				
Maximum Inverter Efficiency	99.2				%
European Weighted Efficiency	99				%
Nighttime Power Consumption	< 2.5				W
ADDITIONAL FEATURES					
Supported Communication Interfaces	RS485, Ethernet, Wi-Fi (requires antenna)[2], ZigBee for Smart Energy (optional[3]), Cellular (optional)				
Smart Energy Management	Export Limitation and Excess Solar Charging[4]				
Inverter Commissioning	With the SetApp mobile application using built in Wi-Fi access point for local connection				
Arc Fault Protection	Integrated, User Configurable (According to UL1699B)				
STANDARD COMPLIANCE					
Safety - Inverter	IEC-62109-1/2				
Grid Connection Standards	UTE C15-712, G83/2, G59/3, CEI-021, EN 50438, IEC 61727, IEC 62116, ÖNORM, TF3.2.1, C10-11, NRS 097-2-1, , VDE-AR-N-4105, VDE 0126-1-1, AS-4777				
Emissions	IEC61000-6-2, IEC61000-6-3, IEC61000-3-11, IEC61000-3-12, FCC Part 15 Class B				
RoHS	Yes				
INSTALLATION SPECIFICATIONS					
AC Output — Supported Cable Diameter	9 - 16				mm
AC — Supported Wire Cross Section	1 - 13				mm^2
DC Input [5]	1 x MC4 pair	2 x MC4 pair			
Dimensions with Connection Unit (H x W x D)	450 x 370 x 174				mm
Weight with Connection Unit	10	11.4		11.9	kg
Noise	<25				dBA
Cooling	Natural Convection				
Operating Temperature Range	-40 to +60[6]				˚C
Ambient air pressure	minimum 860hPa - 1060hPa				
Protection Rating	IP65 — Outdoor and Indoor (inverter with connection unit)				

[1] 4600VA in Germany
[2] Wi-Fi connectivity requires an external antenna. For more information refer to: https://www.solaredge.com/sites/default/files/se-wifi-zigbee-antenna-datasheet.pdf
[3] For more information refer to: https://www.solaredge.com/sites/default/files/se-zigbee-plug-in-wireless-communication-for-setapp-datasheet.pdf
[4] Import/Export meter is required for Export Limitation and for controlled Excess Solar charging
[5] Connection of additional strings in parallel to a single input is allowed as long as the cumulative current does not exceed 45A
[6] Full power up to at least 50°C. For power de-rating information refer to: https://www.solaredge.com/sites/default/files/se-temperature-derating-note.pdf

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EV CHARGER AND EV CHARGER CABLE SPECIFICATIONS:

OUTPUT — AC (EV CHARGER)		
Charging Mode	AC Mode 3 Connection to the SolarEdge monitoring platform is required for first EV charging	
Rated AC Power Output (grid & PV)	7400	W
Nominal AC Output Voltage	230	Vac
Nominal AC Frequency	50 / 60	Hz
Maximum Continuous Output Current @230V (grid & PV)	32	Aac
Residual Current Detector (AC)	30	mA rms
Residual Current Detector (DC)	6	mAdc
ADDITIONAL FEATURES		
EV Charger Status LEDs, Fault Indicator	Yes	
EV Charger Ground Connection Monitoring	Yes, continuous	
EV Charger Configuration	Via the monitoring app; Ethernet, Wi-Fi or ZigBee connection is required [7]	
EV Charger Unplugging Detection	Yes, current termination according to IEC62196	
STANDARD COMPLIANCE		
Safety	IEC 61851, IEC 62752:2016	
EV Charger	IEC 62196	
INSTALLATION SPECIFICATIONS		
EV Charger Connector	IEC 62196 Type 1 or Type 2	
EV Charger Cable Length [8]	7.6 (4.5 option)	m
EV Charger Cable Weight	5.7 (3.5 for 4.5m option)	kg
EV Charger Cable Operating Temperature Range	-30 to +50	˚C
Protection Rating (connected to EV or with dust cap)	IP54	

[7] Cellular connection may be used; requires a SIM card with a 1GB data plan that should be purchased from a cellular provider
[8] EV charger cable ordered separately

CE RoHS

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