



EV Charging Single Phase Inverter

for North America

SE3800H-US / SE5000H-US / SE6000H-US / SE7600H-US

INVERTERS



Optimized installation with HD-Wave technology and EV Charger

- Specifically designed to work with power optimizers
- Record-breaking efficiency
- Fixed voltage inverter for longer strings
- Integrated arc fault protection and rapid shutdown for NEC 2014 and 2017, per article 690.11 and 690.12
- UL1741 SA certified, for CPUC Rule 21 grid compliance
- Extremely small and easy to install outdoors or indoors
- EV charger cable and holder ordered separately for flexible cable length selection
- Integrated Level 2 EV charger with solar boost mode charging (grid & PV)
- Built-in module-level monitoring
- Optional: Revenue grade data, ANSI C12.20 Class 0.5 (0.5% accuracy)





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INVERTER SPECIFICATIONS:

	SE3800H-US	SE5000H-US	SE6000H-US	SE7600H-US	
OUTPUT					
Rated AC Power Output	3800 @ 240V 3300 @ 208V	5000	6000 @ 240V 5000 @ 208V	7600	VA
Max. AC Power Output	3800 @ 240V 3300 @ 208V	5000	6000 @ 240V 5000 @ 208V	7600	VA
AC Output Voltage Min.-Nom.-Max. (183 - 208 - 229)	✓	-	✓	-	Vac
AC Output Voltage Min.-Nom.-Max. (211 - 240 - 264)	✓	✓	✓	✓	Vac
AC Frequency (Nominal)	59.3 - 60 - 60.5 ⁽¹⁾				Hz
Maximum Continuous Output Current 208V	16	-	24	-	A
Maximum Continuous Output Current @240V	16	21	25	32	A
GFDI Threshold	1				A
Utility Monitoring, Islanding Protection, Country Configurable Thresholds	Yes				
INPUT					
Maximum DC Power @240V	5900	7750	9300	11800	W
Maximum DC Power @208V	5100	-	7750	-	
Transformer-less, Ungrounded	Yes				
Maximum Input Voltage	480				Vdc
Nominal DC Input Voltage	380		400		Vdc
Maximum Input Current 208V	9	-	13.5	-	
Maximum Input Current @240V	10.5	13.5	16.5	20	Adc
Max. Input Short Circuit Current	45				Adc
Reverse-Polarity Protection	Yes				
Ground-Fault Isolation Detection	600k Ω Sensitivity				
Maximum Inverter Efficiency	99.2				%
CEC Weighted Efficiency	99				%
Nighttime Power Consumption	< 2.5				W
ADDITIONAL FEATURES					
Supported Communication Interfaces	RS485, Ethernet, ZigBee (optional), Cellular (optional)				
Revenue Grade Data, ANSI C12.20	Optional ⁽²⁾				
Rapid Shutdown - NEC 2014 and 2017 690.12	Automatic Rapid Shutdown upon AC Grid Disconnect				
STANDARD COMPLIANCE					
Safety	UL1741, UL1741 SA, UL1699B, CSA C22.2, Canadian AFCI according to T.I.L. M-07				
Grid Connection Standards	IEEE1547, Rule 21, Rule 14 (H)				
Emissions	FCC Part 15 Class B				
INSTALLATION SPECIFICATIONS					
AC Output Conduit Size / AWG Range	3/4" minimum / 20-4 AWG				
DC Input Conduit Size / # of Strings / AWG Range	3/4" minimum / 1-2 strings / 14-6 AWG				
Dimensions with Safety Switch (HxWxD)	17.7 x 14.6 x 6.8 / 450 x 370 x 174				in / mm
Weight with Safety Switch	22 / 10	25.1 / 11.4	26.2 / 11.9		lb / kg
Noise	< 25		< 50		dBA
Cooling	Natural Convection				
Operating Temperature Range	-13 to +140 / -25 to +60 ⁽³⁾ (-40°F / -40°C option) ⁽⁴⁾				°F / °C
Protection Rating	NEMA 3R (Inverter with Safety Switch)				

⁽¹⁾ For other regional settings please contact SolarEdge support

⁽²⁾ Revenue grade inverter P/N: SExxxxH-US000NNW2

⁽³⁾ For power de-rating information refer to: <https://www.solaredge.com/sites/default/files/se-temperature-derating-note-na.pdf>

⁽⁴⁾ -40°C version P/N: SExxxxH-US000NNV4



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EV CHARGER AND EV CHARGER CABLE SPECIFICATIONS:

OUTPUT — AC		
Charging Level	AC Level 2	
	Connection to the SolarEdge monitoring platform is required for first EV charging	
Rated AC Power Output (grid & PV)	9600	W
Nominal AC Output Voltage	240	Vac
Nominal AC Frequency	60	Hz
Maximum Continuous Output Current @240V (grid & PV)	40	Aac
Ground Fault Detection Threshold	5	mA
ADDITIONAL FEATURES		
EV Charger Status LEDs, Fault Indicator	Yes	
EV Charger Unplugging Detection	Yes, current termination according to SAE J1772	
EV Charger Ground Connection Monitoring	Yes, continuous	
EV Charger Configuration	Via the monitoring app; Ethernet or ZigBee connection is required ⁽⁵⁾	
STANDARD COMPLIANCE		
Safety ⁽⁶⁾	UL2594, UL2231-1, UL2231-2, NEC Article 625 compliant	
EV Charger	SAE J1772-2009	
INSTALLATION SPECIFICATIONS		
EV Charger Connector	SAE J1772-2009	
EV Charger Cable Length ⁽⁷⁾	25 / 7.6	ft / m
EV Charger Cable Weight	12.5 / 5.7	lb / kg
EV Charger Cable Operating Temperature Range	-22 to 122 / -30 to +50	
Protection Rating (connected to EV or with dust cap)	NEMA 3R	

⁽⁵⁾ Cellular connection may be used; requires a SIM card with a 50MB data plan that should be purchased from a cellular provider; a SolarEdge data plan supports activation only

⁽⁶⁾ Pending certification

⁽⁷⁾ EV charger cable ordered separately

