

EV Charging Single Phase Inverter

for North America

SE3800H-US / SE7600H-US



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		SE7600H-US	
OUTPUT			
Rated AC Power Output	3800	7600	VA
Max. AC Power Output	3800	7600	VA
AC Output Voltage Min.-Nom.-Max.	211 - 240 - 264		Vac
AC Frequency (Nominal)	59.3 - 60 - 60.5 ⁽¹⁾		Hz
Maximum Continuous Output Current	16	32	A
GFDI Threshold	1		A
Utility Monitoring, Islanding Protection, Country Configurable Thresholds	Yes		
INPUT			
Maximum DC Power	5900	11800	W
Transformer-less, Ungrounded	Yes		
Maximum Input Voltage	480		Vdc
Nominal DC Input Voltage	380	400	Vdc
Maximum Input Current	10.5	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 (HI)		
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	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 4X (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	°F / °C
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