EV CHARGING SINGLE PHASE INVERTER

The world's first EV charging inverter

Increase your revenue by offering homeowners a SolarEdge single phase inverter with an integrated EV charger. It offers users the ability to charge electric vehicles up to six times faster than a standard Level 1 charger through an innovative solar boost mode that utilizes grid and PV charging simultaneously. This product is the world's first EV charging PV inverter.

By installing the EV charging single phase inverter, your customers benefit from the reduced hassle of installing separately a standalone EV charger and a PV inverter. Furthermore, you benefit by eliminating the need for additional wiring, conduit and a breaker installation. By installing an EV charger that is integrated with an inverter, an additional dedicated circuit breaker is not needed, saving space and eliminating a potential main distribution panel upgrade.

Whether your customer owns an EV now or just wants to be EV-ready, drive your business into the future with SolarEdge.

solaredge

KEY BENEFITS

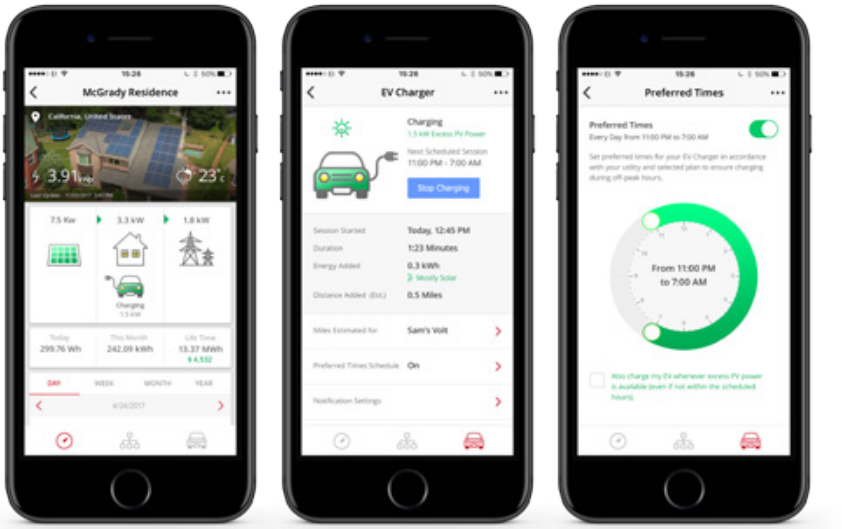
- Combines sun and grid power for charging up to six times faster than standard EV chargers using existing electricity infrastructure
- Fully integrated with SolarEdge monitoring platform
- Reduces workload and costs of installing a standalone EV charger and a PV inverter
- Built-in meter enables separate tracking of EV power usage for visibility and control
- 12-year warranty [(1)], extendable to 20 or 25 years
- Optional built-in Revenue Grade Meter (RGM)
- Saves space on main distribution panel to avoid potential upgrade
- Demand-Response ready

FULL VISIBILITY AND CONTROL

The SolarEdge EV charging single phase inverter supports full network connectivity and integrates seamlessly with the SolarEdge monitoring platform. Homeowners can track their charging status, control vehicle charging, and set charging schedules.

FEATURE HIGHLIGHTS

> Smart-scheduling for use with Time of Use (TOU) rates — charge from the grid during off-peak hours
> Track PV, EV, and grid consumption for visibility and control of household energy usage
> Remote operation via mobile app — turn charging on and off directly from your smartphone
> View charging duration, charge energy, and percent charge from PV



EV CHARGING COMPARISON

	EV Charger Level 1 (1.44 kW 12A@120Vac)	SolarEdge EV Charger Level 2 with Solar Boost Mode Charging speed depends on PV production (Maximum 9.6 kW 40A@ 240Vac)[2]
Added miles per 1 hour of charging [3]	5 miles	25 to 30 miles
Charge time needed to meet average daily mileage [3]	6.5 hours	1 to 1.5 hours

[1] Cable and connector are not included
[2] Check your car manual for maximum charge rate
[3] Assuming 3 miles/kWh and with a US household average driving distance of 29 miles per day (source: https://www.bts.gov/statistical-products/surveys/national-household-travel-survey-daily-travel-quick-facts)

EV Charging Single Phase Inverter

for North America SE3800H-US / SE5000H-US/ SE6000H-US / SE7600H-US

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)	3	-	3	-	Vac
AC Output Voltage Min.-Nom.-Max. (211 - 240 - 264)	3	3	3	3	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	600kΩ 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	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-US000NNC2
[3] For power de-rating information refer to: https://www.solaredge.com/sites/default/files/se-temperature-derating-note-na.pdf
[4] -40 version P/N: SExxxxH-US000NNU4

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 (15 / 4.6 option)	ft / m
EV Charger Cable Weight	12.5 / 5.7 (7.7 / 3.5 for 15ft / 4.6m option)	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 1GB data plan that should be purchased from a cellular provider
[6] Pending certification
[7] EV charger cable ordered separately

Date: 07/2018/V01/ENG NAM. Subject to change without notice.

RoHS