

Smart EV Charger

For North America

SMART ENERGY



Smart EV Charging with SolarEdge

- Wi-Fi enabled, level 2 charging station, with up to 40A (9.6kW) charging power
 - Control and monitoring via app - including remote operations, smart scheduling and charging history
 - Industry-leading 5-year warranty⁽¹⁾
 - Rated for indoor or outdoor use
 - Plug-in unit, easily modified to support hardwired installations⁽²⁾
 - Suitable for use with or without a SolarEdge PV system
- Optimized charging, when connected to a SolarEdge inverter⁽³⁾:**
- Charges EV with up to 100% renewable energy by using excess-solar mode⁽⁴⁾
 - Synchronizes with the full SolarEdge ecosystem (PV, home backup, and smart home devices), all managed by a single mobile app
 - Faster charging with the unique Solar Boost mode, utilizing both grid and available PV simultaneously⁽³⁾

(1) For additional information regarding the EV charging cable warranty terms please refer to: <https://www.solaredge.com/warranty>

(2) Hardwired installation by professional installer only

(3) Supports AC connection to Energy Hub and HD-Wave inverters only. A dedicated solar boost kit (SE-EV-KIT-V3UPG-01) is required for connection to standard HD-Wave inverters

(4) SolarEdge import/export meter and communication connectivity with the SolarEdge inverter are required for controlled excess solar charging

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EV CHARGER SPECIFICATIONS		
Charging Mode	AC Level 2	
Rated AC Power Output	9.6	kW
Maximum Continuous Output Current @240Vac	40 ⁽¹⁾	A
Nominal AC Output Voltage @240Vac	240 ⁽²⁾	Vac
Nominal AC Frequency	60	Hz
Ground Fault Detection Threshold	5	mA
Supported Communication Interfaces	Wi-Fi (built-in antenna included) ⁽³⁾ , Ethernet, RS485 and Cellular (optional) ⁽⁴⁾	

CABLE SPECIFICATIONS		
EV Connector	SAE J1772-2009	
Length	25 / 7.6	ft / m
Weight	12.5 / 5.7	lb / kg

FEATURES SUPPORTED WITH COMPATIBLE SOLAREEDGE INVERTERS		
Smart Energy Management	Smart schedules, excess solar charging ⁽⁵⁾ , solar boost mode	

ADDITIONAL FEATURES		
Status LEDs, Fault Indicator	Yes	
Unplugging Detection	Yes, current termination according to SAE J1772	
Ground Connection Monitoring	Yes, continuous	
Monitoring and Control	Installer commissioning via SetApp Homeowner configuration, controls and monitoring via mySolarEdge mobile app	

STANDARD COMPLIANCE		
EMC	FCC Part 15 Class B	
Safety	UL2594, UL2231-1, UL2231-2, NEC Article 625 compliant, CSA C22.2#280	
Energy Star™	Certified - SE-EV-SA-US-40	

INSTALLATION SPECIFICATIONS		
AC input	NEMA 6-50 / NEMA 14-50 / Hardwired	
Dimensions (H x W x D)	12 x 7.3 x 6 / 309 x 190 x 154	in / mm
Weight	6.3 / 2.85	lb / kg
Protection Rating (connected to EV or with dust cap)	NEMA 3R	
Operating Temperature Range	-22 to +122 / -30 to +50	

(1) Additional available settings: 16A, 24A, 32A and 40A

(2) Connected to L1, L2, G; No need for neutral

(3) To extend Wi-Fi communication, use optional Wi-Fi antenna. For antenna specification refer to: <https://www.solaredge.com/sites/default/files/se-wifi-zigbee-wireless-antenna-datasheet-na.pdf>

(4) Optional cellular kit can be ordered

(5) When Smart EV Charger is connected to the inverter, an import/export meter is required for controlled excess solar charging

ORDERING INFORMATION	
Product Number	Description
SE-EV-SA-KIT-LJ40N	Smart EV Charger- including cable and holder. NEMA 14-50 AC plug
SE-EV-SA-KIT-LJ40P	Smart EV Charger- including cable and holder. NEMA 6-50 AC plug
SE-EV-KIT-25J40-2	Replacement EV charging cable
SE-EV-HLD-T1-V2	Replacement cable holder