

# IQ EV Charger 2

The IQ EV Charger 2 offers reliable, safety-certified hardware and smart software for efficient home and commercial EV charging. It optimizes charging through features like real-time solar tracking and dynamic load balancing, reducing cost and minimizing carbon footprint. The IQ EV Charger 2 seamlessly connects with third-party energy management systems and charging station management systems (CSMS) via custom APIs and OCPP for scalable, smart operations.



## Key specifications

Output power (maximum)	Up to 19.2 kW at 240 VAC, up to 22.1 kW at 277 <sup>1</sup> VAC
Operating voltage	208/240/277 <sup>1</sup> VAC, 60 Hz
Connector type	Type 1 (J1772)/NACS (J3400) <sup>1</sup>
Cable length	25 ft
Enclosure rating	NEMA 4
Communication	Cellular, Wi-Fi, Bluetooth, Ethernet
Access control	App/RFID
Operating temperature	-40°F to 131°F (-40°C to 55°C)
Input cable entry options	Bottom/Rear
Cable and connector holster	Included
Mounting options	Wall/Pedestal

### Smart

- Connectivity through cellular, Wi-Fi, Bluetooth, and Ethernet
- Enhanced integration capability via OCPP, API
- Custom firmware support
- Localized green charging tracks solar every 30 seconds and regulates current in 1 A increments
- Dynamic load balancing avoids main panel upgrade and prevents tripping
- Seamless integration with any third-party PV system
- App-based or RFID-based authentication for access control

### Robust

- NEMA 4-rated enclosure and UL certification for safe outdoors or indoors installations
- Rugged connector cables for extreme weather conditions and high-traffic use
- Industry-leading 5-year warranty

### User friendly

- Rear and bottom cable entry options
- Quick installation in less than 10 minutes and commissioning in less than 3 minutes
- Field replaceable connector cable

Electrical specifications (Wi-Fi, BT models)	IQ-EVSE-NA-1050-0110-1120	IQ-EVSE-NA-1060-0101-1120	IQ-EVSE-NA-1060-0100-1120
Operating voltage	208/240 VAC (±10%), single-phase/split-phase	208/240/277 VAC (±10%), single-phase/split-phase	208/240 VAC (±10%), single-phase/split-phase
Rated output current	6–40 A	6–48 A	
Maximum charging power (configurable)	Up to 9.6 kW	Up to 11.5 kW at 240 V Up to 13.2 kW at 277 V	Up to 11.5 kW
Input cable type/gauge	Prewired NEMA 14–50, 8 AWG (L1, L2), 10 AWG (Ground)	Hardwired	
Connector type	Type 1 (J1772)	NACS (J3400)	Type 1 (J1772)
Input cable length	~33" (850 mm)	–	–
Electrical specifications (cellular models)	IQ-EVSE-NA-1060-0100-1420	IQ-EVSE-NA-1080-0100-1420	IQ-EVSE-NA-1100-0100-1420
Operating voltage	208/240/277 <sup>1</sup> VAC (±10%), single-phase/split-phase	208/240/277 <sup>1</sup> VAC (±10%), single-phase/split-phase	208/240/277 <sup>1</sup> VAC (±10%), single-phase/split-phase
Rated output current	6–48 A	6–64 A	6–80 A
Maximum charging power (configurable)	Type 1 (J1772): Up to 11.5 kW NACS (J3400): Up to 13.3 kW <sup>1</sup>	Type 1 (J1772): Up to 15.4 kW NACS (J3400): Up to 17.7 kW <sup>1</sup>	Type 1 (J1772): Up to 19.2 kW NACS (J3400): Up to 22.1 kW <sup>1</sup>
Input cable type/gauge	Hardwired		
Connector type	Type 1 (J1772) (factory-installed) NACS (J3400) (sold separately) <sup>1</sup>		
Mechanical specifications (applicable to all models)			
Enclosure dimensions (L × W × D)	14.5" (370 mm) × 9.8" (250 mm) × 4.64" (118 mm)		
Weight	IQ-EVSENA-1050-0110-1120	27.94 lb/12.70 kg	
	IQ-EVSENA-1060-0100-1120	27.39 lb/12.45 kg	
	IQ-EVSENA-1060-0101-1120	25.52 lb/11.60 kg	
	IQ-EVSENA-1060-0100-1420	27.39 lb/12.45 kg	
	IQ-EVSENA-1080-0100-1420	31.92 lb/14.51 kg	
	IQ-EVSENA-1100-0100-1420	33.68 lb/15.31 kg	
Supply cable entry options	Bottom/Rear		
Environmental specifications (applicable to all models)			
Relative humidity range	5% to 95%		
Altitude	<2500 m		
Enclosure rating	NEMA 4		
Operating temperature	–40°F to 131°F (–40°C to 55°C)		
Storage temperature	–40°F to 185°F (–40°C to 85°C)		
Communication options (applicable to all models)			
Wireless network	2.4/5 GHz, Wi-Fi (802.11ax)		
Bluetooth	BT 5.3		

<sup>1</sup>Select SKUs of the IQ EV Charger 2, which are factory-equipped with a Type 1 (SAE J1772) connector cable, are eligible for field replacement of the cable. A compatible NACS (SAE J3400) connector cable is available for purchase separately, offering adaptable charging solutions. The IQ EV Charger 2 with NACS (J3400) connector supports AC charging at 277 V.

Communication options (applicable to all models)	
Wired communication	Ethernet, wired control communication (CAN)
EV communication	ISO 15118-2, ISO 15118-20
Integration support	OCPP 2.0.1 and APIs
Communication options (only for cellular models)	
Cellular	4G LTE
Features (applicable to all models)	
LED indicator	Yes
Display	Yes
Open protocol (OCPP) and API support	Enables enhanced smart charging, comprehensive device management, and seamless third-party integrations
Custom firmware	Ability to install containerized custom firmware enables seamless integration with partner infrastructure and applications
ANSI C12.1 metering <sup>2</sup>	Revenue-grade metering accuracy enhances trust and credibility
CTEP compliance <sup>2</sup>	Ensures compliance with California-specific metering regulations
Self-consumption <sup>3</sup>	When integrated with Enphase PV or any other PV system (through the IQ Gateway), the charger tracks surplus solar every 30 seconds and redirects it to the EV in 1 A increments
AI optimization <sup>3</sup>	Optimizes charging with dynamic tariff rates and excess solar power
Savings <sup>3</sup>	Optimizes charging patterns while saving money and minimizing carbon footprint
Green charging <sup>3</sup>	Localized green charging tracks solar every 30 seconds to ensure the efficient consumption of excess solar
Scheduled charging <sup>3</sup>	Charges EV based on user-configurable custom or off-peak schedules
Dynamic load balancing <sup>3</sup>	Automatically adjusts EV charging power based on variations in solar production and site consumption to prevent tripping and avoid upgrades to the main panel
Storm Guard	If enabled, charges EV at full power level during an active storm alert
Safety and compliance (applicable to all models)	
Compliance	NEC Article 625, SAE J1772, NACS, ENERGY STAR, UL 2594, CSA C22.2 No. 280-22, NMX-J-677-ANCE-2022 (NOM-001-SCFI) <sup>2</sup> , UL 2251, CSA C22.2 No. 282, NMX-J-678-ANCE <sup>2</sup> , UL 2231-1, UL 2231-2, CSA C22.2 No. 281.1, CSA C22.2 No. 281.2, NMX-J-668/1-ANCE, NMX-J-668/2-ANCE <sup>2</sup> , U 1998, UL 991, UL 3141 PCS-LC <sup>2</sup> , CSA C22.2 No. 0.8, FCC 15B, ICES-003, FCC 15C, RSS-210, FCC 15C, RSS-247, IFT-008-2015 (NOM-208-SCFI-2018) <sup>2</sup> , ANSI C12.1 <sup>2</sup> , NIST HB 44-2025 (CTEP) <sup>2</sup>
Safety features	Short-circuit protection, relay weld detection, surge protection, ground fault protection integral, CCID 20 mA, auto fault reset, overcurrent protection
Built-in sensors	Ambient light, temperature, humidity, tilt
Metering accuracy	±1%, ANSI C12.1 <sup>2</sup> , CTEP compliant <sup>2</sup>
Warranty (applicable to all models)	
Warranty duration	5 years

<sup>2</sup> Certification in progress.

<sup>3</sup> Typically available in residential configurations when integrated with Enphase PV systems or other PV systems via the Enphase IQ Gateway.

# Revision history

Revision	Date	Description
DSH-00847-3.0	November 2025	Updated the " Electrical specifications" section.
DSH-00847-2.0	September 2025	Updated the cover image.
DSH-00847-1.0	August 2025	Preliminary release.