

IQ Bidirectional EV Charger

This next generation EV Charger provides safe and reliable bidirectional energy flow while optimizing charge and discharge patterns through our predictive intelligence algorithms. Acting as a smart enabler, it transforms the EV into a source of power for automatic home backup during outages, and seamlessly transitions between home backup (V2H), grid export (V2G), and EV charging modes.



Key specifications	IQ-EVSE-NA-1060-1102-1300/ IQ-EVSE-NA-1060-1101-1300
Operating voltage range, max. current at 240 V	240 VAC, ±15%, 48 A
Rated AC interconnection (charging and discharging)	Up to 11.5 kW
Connector cables	Type 1 CCS/NACS
Cable length	25 ft
Enclosure rating	NEMA 3R
Communication	Wi-Fi 6, Bluetooth, Ethernet, 4G LTE
Operating temperature	-22°F to 131°F (-30°C to 55°C)
Operating modes and profiles	V2H (emergency backup), V2G, Black Start, green charging, AI optimized charging
Warranty	10 years

Future ready

- Designed to ISO 15118 standards for universal compatibility
- Integrated with IQ Microinverter for global adaptability to all grid profiles

Smart

- Dynamic adjustment of charge, discharge algorithms based on tariffs and forecasts
- Instantaneous home backup with the Black Start battery inside the charger
- Seamless transition between V2H and V2G modes
- Integrates with Enphase Energy System or functions as a powerful standalone charger
- Dynamic load balancing avoids main panel upgrade and prevents tripping

Robust

- NEMA 3R rated enclosure and UL certification for safe installation
- Industry-leading 10-year warranty
- DC power flow between charger and EV, AC power flow between home and charger

Electrical specifications	IQ-EVSE-NA-1060-1102-1300		IQ-EVSE-NA-1060-1101-1300	
Operating voltage range (AC), max. current (A) at 240 V	240 VAC ±15%, 48 A single-phase/split-phase			
Rated AC interconnection (charging and discharging)	Up to 11.5 kW			
Supported DC voltage range	200 VDC–1000 VDC, 40 A			
Operating frequency	57 Hz–63 Hz			
Efficiency	>98%			
Input electrical connection	Hardwired (L1, L2, N, Earth)			
Charging equipment components				
Connector cable length	25 ft (7.5 m)			
Connector cable type	Type 1 CCS		NACS	
Cable and connector holster	Included			
Mechanical specifications				
Enclosure dimensions (L × W × D)	650 mm (25.5 in) × 400 mm (15.7 in) × 180 mm (7 in)			
Weight	<50 lb (<23 kg)			
Enclosure rating	NEMA 3R			
Supply cable entry options	Bottom and rear			
Environmental specifications				
Relative humidity range	5% to 95% non-condensing			
Altitude	<9843 ft (<3000 m)			
Operating temperature	–22°F to 131°F (–30°C to 55°C)			
Storage temperature	–40°F to 176°F (–40°C to 80°C)			
Communication options				
Cellular	4G LTE			
Wireless network	Wi-Fi 6			
Bluetooth	BLE 5.2			
Wired communication	Ethernet, CAN, RS485			
EV communication	ISO 15118-2 and ISO 15118-20, DIN 70121			
Integration support	OCPP 1.6, 2.0.1, 2.1, and IEEE 2030.5			
Features				
LED indicator	Yes			
Vehicle-2-home (V2H)	Enables your EV to serve as a backup power source during grid outages			
Vehicle-2-grid (V2G)	Exports stored EV battery energy to the grid during peak demand or instability, supporting grid resilience, demand response, and energy cost saving			
Black Start	Enables the system to power up a completely de-energized home during a power outage when installed with a Grid Islanding device (IQ Meter Collar)			
AI optimization	Optimizes charging with dynamic tariff rates and excess solar power and EV-specific profiles			

Features	
Self-consumption	When integrated with Enphase PV or any other PV system (through the IQ Gateway), the charger tracks surplus solar and redirects it to the EV
Savings	Optimizes charging patterns while saving money and minimizing the carbon footprint
Scheduled charging	Charges EV based on user-configurable custom or custom schedules
Green charging	Localized green charging tracks solar to ensure efficient consumption of excess solar
Dynamic load balancing	Automatically adjusts EV charging power based on variations in solar production and home consumption to prevent tripping and avoid upgrades to the main panel
Storm Guard	During an active storm alert, EV charges to 100% from excess solar, followed by grid
Access control	App/RFID
Safety and compliance	
Compliance	UL 2231-1 and 2, UL 1998, UL 2202, UL 1741, UL 62109-1, UL 1998/IEC 60730, UL 9741, UL 3141, UL 2594, IEEE 1547-2018 (Cat B and Cat III), IEEE 2030.5 2018, CA Rule 21 Feb 2019, HECO Rule 14H SRD V1.1, IEC 61851, IEC 62116, NEC 625, FCC, Energy Star
Safety features	Weld detection, isolation monitoring, anti-islanding
In-built sensors	Ambient light, temperature, humidity, and tilt
Metering accuracy	±1%. Revenue grade metering available for both AC and DC power.
Warranty	
Warranty duration	10 years

Revision history

Revision	Date	Description
DSH-00848-1.0	July 2025	Preliminary release.