NORTH AMERICA | PRELIMINARY | DATA SHEET

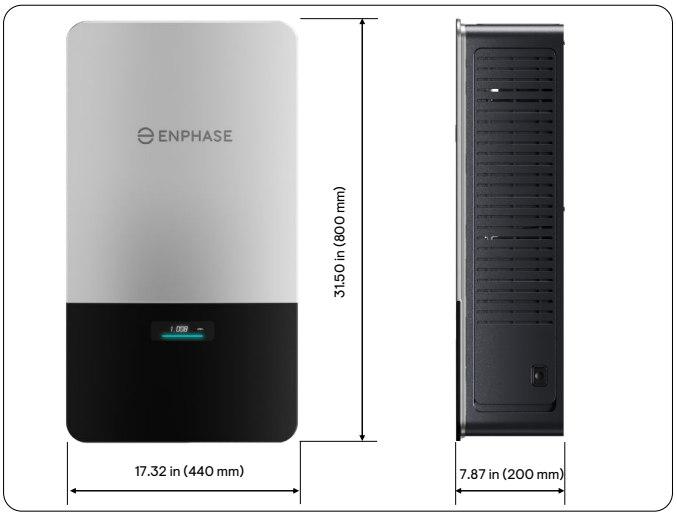
IQ Bidirectional EV Charger

This next-generation EV charger turns your EV into a flexible energy resource. Power flows in both directions: charging the vehicle from solar or the grid, and discharging stored energy to power the home or support the grid. Paired with the IQ Meter Collar, it delivers EV charging, whole-home backup, and intelligent energy management in one integrated system—enabling smarter energy use, greater resilience during outages, and ways to lower costs and participate in grid services.



Enphase 10 year limited warranty

Key specifications	IQ Bidirectional EV Charger
Order code	IQ-EVSE-NA-1060-1101-1430/ IQ-EVSE-NA-1060-1102-1430
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	24.61 ft (7.5 m)
Enclosure rating	NEMA 3R
Communication	Wi-Fi, Bluetooth, Ethernet, 4G LTE
Operating temperature	-22°F to 131°F (-30°C to 55°C)
Operating modes	V2H, V2G, Dark Start, Emergency Backup
Warranty	10 years



Universal compatibility

- Integrates with the IQ Meter Collar to enable bidirectional charging across different homes
- Designed for existing and upcoming bidirectional compatible EVs
- Utility-approved microinverters support grid-code compliance across various grid profiles

Smart energy management

- Charges the EV when electricity costs less and discharges from the EV battery when rates rise
- Automatically switches to home backup mode during an outage
- Powers your entire home, including high-power appliances like air conditioning
- Follows the sun and the home's demand to help maximize the use of solar energy for EV charging
- During high demand, the charger exports energy to the grid through applicable utility programs[1]

Reliability

- Prevents overheating while keeping operation quiet
- Enphase provides expert support from home assessment through installation and ongoing use

[1] Grid export and earnings depend on utility, tariff, location and program eligibility.

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Electrical specifications	Units	IQ-EVSE-NA-1060-1101-1430	IQ-EVSE-NA-1060-1102-1430
Operating voltage range (AC)	VAC	240 ±15% single-phase/split-phase	
Maximum current at 240 V	A	48 A single-phase/split-phase	
Rated AC interconnection (charging and discharging)	kW	Up to 11.5	
Supported DC voltage range	VDC	200–1000, 40 A	
Operating frequency	Hz	57–63	
Peak efficiency	%	~97	
Input electrical connection	—	Hardwired (L1, L2, N, Ground)	
Charging equipment components			
Connector cable length	ft (m)	24.61 (7.5)	
Connector cable type	—	NACS	Type 1 CCS
Cable and connector holster	—	Included	
Mechanical specifications			
Enclosure dimensions (L × W × D)	in (mm)	31.5 × 17.32 × 7.87 (800 × 440 × 200)	
Weight	lb (kg)	104.7 (47.5)[2]	
Enclosure rating	—	NEMA 3R	
Supply cable entry options	—	Bottom and rear	
Environmental specifications			
Relative humidity range	%	5–95 (non-condensing)	
Altitude	ft (m)	Up to 9843 (3000)	
Operating temperature	°F (°C)	-22 to 131 (-30 to 55)	
Storage temperature	°F (°C)	-40 to 176 (-40 to 80)	
Communication options			
Cellular		4G LTE	
Wireless network		Wi-Fi	
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			
Vehicle-to-home (V2H)		Allows your electric vehicle to act as a home battery, powering your house during power outages or lowering peak energy costs	
Vehicle-to-grid (V2G)		Exports stored EV battery energy to the grid during peak demand or instability, supporting grid resilience, demand response, and energy cost savings	
Dark 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)	

[2] Modular components (Enclosure ~20 kg + microinverters ~8 kg each) allow single-person handling and installation.

Features	
AI optimization	Optimizes charging with dynamic tariff rates and excess solar power and EV-specific profiles
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 the EV based on user-configurable 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 charging
LED indicator	Provides real-time visual indication of both operational status and error conditions, enabling quick system diagnostics without additional test equipment
Access control	App/RFID
Safety and compliance	
Compliance[3]	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, NEC 625, FCC, Energy Star
Safety features	Weld detection, isolation monitoring, anti-islanding
Built-in sensors	Ambient light, temperature, humidity, and tilt
Metering accuracy	±1%. Revenue-grade metering available for both AC and DC power.
Warranty	
IQ Bidirectional EV Charger	10-year limited warranty

[3] Certification in progress.

Components of the Enphase Energy System



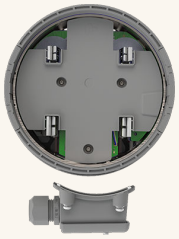
IQ Gateway

The IQ Gateway is the platform for energy management and integrates with IQ Microinverters and IQ Batteries to provide complete control and insights into the Enphase Energy System.



IQ Combiner 6C

IQ Combiner 6C consolidates interconnection equipment into a single enclosure and streamlines IQ Series Microinverters and IQ Battery G5 installation by providing a consistent, pre-wired solution for residential applications.



IQ Meter Collar

IQ Meter Collar enables full home backup with IQ Battery G5, Enphase PV, and IQ Combiner 6C.



IQ System Controller 4

The IQ System Controller 4 is a compact, service-entrance-rated device that integrates grid interconnection, automatic grid/backup transfer, and system metering in a single enclosure. Its built-in MID supports whole- or partial-home backup, and it integrates with the IQ Combiner 6C while including a pre-installed generator connection kit for simplified installation.

Revision history

Revision	Date	Description
DSH-00848-3.0	October 2026	Updated the document structure, product features, and incorporated editorial updates.
DSH-00848-2.0	September 2026	• Updated the SKUs. • Editorial updates.
DSH-00848-1.0	July 2025	Preliminary release.