IQ8 Series Microinverters

Our newest IQ8 Microinverters[1, 2] are the industry's first microgrid-forming[3], software-defined microinverters with split-phase power conversion capability to convert DC power to AC power efficiently.



Enphase 25 year limited warranty

UL CERTIFIED

Key specifications	IQ8+	IQ8M	IQ8A	IQ8HC@240 VAC	IQ8HC@208 VAC
Peak output power	300 VA	330 VA	366 VA	384 VA	366 VA
Nominal grid voltage (L-L)	240 V split-phase (L-L), 180°				208 V single-phase (L-L), 120°
Nominal frequency	60 Hz				
CEC weighted efficiency	97%	97.5%	97%		96.5%
Maximum input DC voltage	60 V				
MPPT voltage range	27–45 V	30–45 V	32–45 V	29.5–45 V	
Maximum module I_{sc}	20 A				
Ambient temperature range	–40°C to 60°C (–40°F to 140°F)			–40°C to 65°C (–40°F to 149°F)	

Simple

- Lightweight and compact with plug-and-play connectors[4]
- Power line communication (PLC) between components
- Faster installation with simple two-wire cabling

Reliable

- Produces power even when the grid is down[3]
- More than one million cumulative hours of testing
- Industry-leading limited warranty of up to 25 years
- Class II double-insulated enclosure
- Optimized for the latest high-powered PV modules

Microgrid-forming

- Complies with the latest advanced grid support [5]
- Remote automatic updates for the latest grid requirements
- Configurable to support a wide range of grid profiles
- Meets CA Rule 21 (UL 1741-SA) and IEEE 1547:2018 (UL 1741-SB 3rd Ed.)

[1] For details, see the "Compatibility with IQ7 Series Microinverters" section.
[2] IQ Microinverters ship with default settings that meet North America's IEEE 1547 interconnection standard requirements. Region-specific adjustments may be requested by an Authority Having Jurisdiction (AHJ) or utility representative, according to the IEEE 1547 interconnection standard. Use an IQ Gateway to make these changes during installation.
[3] Meets UL 1741 only when installed with IQ System Controller 2 or 3.
[4] Compatible with existing IQ7 systems. Seamlessly expand your solar capacity as your energy requirements increase.
[5] IQ8 Series Microinverters support split-phase, 240 V. IQ8H-208 supports single-phase, 208 V only.

© 2025 Enphase Energy. All rights reserved. Enphase, the e and CC logos, IQ, and certain other marks listed at https://enphase.com/trademark-usage-guidelines are trademarks of Enphase Energy, Inc. in the U.S. and other countries. Data subject to change.

Input data (DC)	Units	IQ8PLUS-72-M-US IQ8PLUS-72-2-US	IQ8M-72-M-US IQ8M-72-2-US	IQ8A-72-M-US IQ8A-72-2-US	IQ8HC-72-M-US
Commonly used module pairings[6]	W	235–440	260–460	295–500	320–540
Module compatibility	—	To meet compatibility, PV modules must be within the following maximum input DC voltage and maximum module I_{sc} listed below. Module compatibility can be checked at https://enphase.com/en-lac/installers/microinverters/calculator.			
MPPT voltage range	V	27–45	30–45	32–45	29.5–45
Operating range	V	16–58			18–58
Min./Max. start voltage	V	22/58			
Max. input DC voltage	V	60			
Max.continuous input DC current	A	12			14
Max.input DC short-circuit current	A	25			
Max. module I_{sc}	A	20			
Overvoltage class DC port	—	II			
DC port backfeed current	mA	0			
PV array configuration	—	Ungrounded array; no additional DC side protection required; AC side protection requires a maximum of 20 A per branch circuit.			

Output data (AC)	Units	IQ8PLUS-72-M-US IQ8PLUS-72-2-US	IQ8M-72-M-US IQ8M-72-2-US	IQ8A-72-M-US IQ8A-72-2-US	IQ8HC-72-M-US @240 VAC	IQ8HC-72-M-US @208 VAC
Peak output power	VA	300	330	366	384	366
Max. continuous output power	VA	290	325	349	380	360
Nominal (L-L) grid voltage[7]	V	240, split-phase (L-L), 180°				208, single-phase (L-L), 120°
Max. continuous output current	A	1.21	1.35	1.45	1.58	1.73
Nominal frequency	Hz	60				
Min./Max. grid voltage[8]	V	211–264				183–229
Extended frequency range	Hz	47–68				
AC short-circuit fault current over three cycles	A_{rms}	2			2.7	
Maximum units per 20 A (L-L) branch circuit [9]	—	13	11		10	9
Total harmonic distortion	%	<5				
Overvoltage class AC port	—	III				
AC port backfeed current	mA	30			18	

[6] No enforced DC/AC ratio.
[7] IQ8HC can work in 230 V, single-phase (L-L), 120° grid voltage. Use ENV-S-AM1-230-60 gateway for 230 V (L-L) grid voltage.
[8] Nominal voltage range can be extended beyond nominal if required by the utility.
[9] Limits may vary. Refer to local requirements to define the number of microinverters per branch in your area.

Output data (AC)	Units	IQ8PLUS-72-M-US IQ8PLUS-72-2-US	IQ8M-72-M-US IQ8M-72-2-US	IQ8A-72-M-US IQ8A-72-2-US	IQ8HC-72-M-US @240 VAC	IQ8HC-72-M-US @208 VAC
Power factor setting	—	1.0				
Grid-tied power factor (adjustable)	—	0.85 leading ... 0.85 lagging				
Peak efficiency	%	97.7	97.8	97.7	97.3	97.2
CEC weighted efficiency	%	97	97.5	97		96.5
Nighttime power consumption	mW	25	21	22	22	26

Mechanical data		
Ambient temperature range	–40°C to 60°C (–40°F to 140°F)	–40°C to 65°C (–40°F to 149°F)
Relative humidity range	4% to 100% (condensing)	
DC connector type	Stäubli MC4	
Dimensions (H × W × D)	212 mm (8.3") × 175 mm (6.9") × 30.2 mm (1.2")	
Weight	1.1 kg (2.3 lb)	
Cooling	Natural convection—no fans	
Approved for wet locations	Yes	
Pollution degree	PD3	
Enclosure	Class II double-insulated, corrosion-resistant polymeric enclosure	
Environmental category/UV exposure rating	NEMA Type 6/Outdoor	

Compliance	
Certifications	CA Rule 21 (UL 1741-SA), UL 62109-1, IEEE 1547:2018 (UL 1741-SB 3rd Ed.), FCC Part 15 Class B, ICES-0003 Class B, CAN/CSA-C22.2 NO. 107.1-01. This product is UL Listed as PV rapid shutdown equipment and conforms with NEC 2014, NEC 2017, NEC 2020, and NEC 2023 section 690.12 and C22.1-2018 Rule 64-218 rapid shutdown of PV systems, for AC and DC conductors, when installed according to the manufacturer's instructions.

Manufacturer: Enphase Energy Inc., 47281 Bayside Pkwy., Fremont, CA, 94538, United States of America, PH: +1 (707) 763-4784

Components of the Enphase Energy System



IQ Battery

All-in-one AC-coupled storage solution that integrates seamlessly with your solar energy system, providing reliable backup power and intelligent energy management for maximum performance and energy savings.



IQ System Controller

The IQ System Controller connects the home to the grid power, IQ Batteries, generator and solar PV with microinverters.



IQ Combiner/IQ Gateway

The IQ Combiner[10], in conjunction with the IQ Gateway, combines interconnection equipment in a single box. It simplifies the installation of IQ Microinverters and storage systems, offering a coherent, pre-wired solution for the residential sector.



IQ Cable

The IQ Cable is a continuous-length 12 AWG cable with pre-installed connectors for IQ Microinverters that support faster, simpler, and more reliable installations. The cable is handled like standard outdoor-rated electrical wire, allowing it to be cut, spliced, and extended as needed.

[10] 25-year warranty is valid, provided an internet-connected IQ Gateway is installed.

Revision history

Revision	Date	Description
DSH-00412-5.0	October 2025	Editorial updates.
DSH-00412-4.0	May 2025	Updated information on backward compatibility with IQ7 Series Microinverters.
DSH-00412-3.0	July 2024	Updated the nominal (L-L) grid voltage value for 220 VAC and added a footnote.
DSH-00412-2.0	March 2024	Initial release.
DSH-00412-1.0	February 2024	Preliminary release.