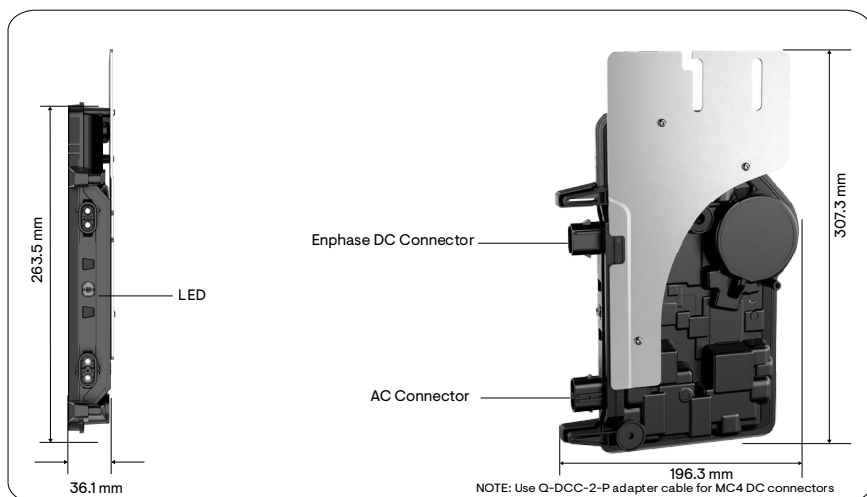


IQ8P Microinverter

The IQ8P Microinverter^{1,2} is the latest higher powered addition to the Enphase family of IQ8 Microinverters. The brain of the semiconductor-based microinverter is our proprietary, application-specific integrated circuit (ASIC), which enables the microinverter to operate reliably in grid-tied mode.



Key specifications	IQ8P-72-2-US
Peak output power	480 VA
Nominal grid voltage (L-L)	230 V
Nominal frequency	60 Hz
CEC weighted efficiency	97%
Maximum input DC voltage	65 V
MPPT voltage range	36–55 V
Maximum module I_{sc}	20 A
Ambient temperature range	-40°C to 65°C (-40°F to 149°F)



Compatible

- Supports latest high-current PV modules
- Supports all common PV module powers and cell architectures

Easy to install

- Compatible with existing IQ7 systems. Seamlessly expand your solar capacity as your energy requirements increase¹
- Lightweight and compact
- Fast installation with simple AC cabling

Reliable

- More than one million power-on hours of reliability testing
- Patented Burst Mode technology provides increased energy production
- Low-voltage DC and rapid shutdown for the ultimate fire safety

¹ IQ8 Series Microinverters can be added to existing IQ7 systems on the same IQ Gateway in Solar Only grid-tied configurations.

² IQ7 Series Microinverters cannot be added to a site with existing IQ8 Series Microinverters on the same gateway.

Input data (DC)	Units	IQ8P-72-2-US
Commonly used module pairings ³	W	430–670
Module compatibility	—	To meet compatibility, PV modules must be within the following maximum input DC voltage and maximum module I_{sc} . Module compatibility can be checked at https://enphase.com/en-ph/installers/microinverters/calculator .
MPPT voltage range	V	36–55
Operating range	V	16–65
Minimum/Maximum start voltage	V	22/65
Maximum input DC voltage	V	65
Maximum continuous input DC current	A	14
Maximum input DC short-circuit current	A	25
Maximum module I_{sc}	A	20
Overvoltage class DC port	—	II
DC port backfeed current	mA	2
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	IQ8P-72-2-US
Peak output power	VA	480
Maximum continuous output power	VA	475
Nominal voltage (L-L)	V	230
Minimum and maximum grid voltage ⁴	V	202 - 253
Maximum continuous output current	A	2.07
Nominal frequency	Hz	60
Extended frequency range	Hz	47–68
AC short-circuit fault current over three cycles	A_{rms}	2.29
Maximum units per 20 A (L-L) branch circuit ⁵	—	8
Total harmonic distortion	%	<5
Overvoltage class AC port	—	III
AC port backfeed current	mA	2
Power factor setting	—	1.0
Grid-tied power factor (adjustable)	—	0.85 leading ... 0.85 lagging
Peak efficiency	%	97.6
CEC weighted efficiency	%	97.0
Nighttime power consumption	mW	100
Mechanical data		IQ8P-72-2-US
Ambient temperature range		–40°C to 65°C (–40°F to 149°F)
Relative humidity range		4% to 100% (condensing)
DC connector type		Supplied with Stäubli MC4 adapter

³ No enforced DC/AC ratio.

⁴ Nominal voltage range can be extended beyond nominal if required by the utility.

⁵ Limits may vary. Refer to local requirements to define the number of microinverters per branch in your area.

Mechanical data	IQ8P-72-2-US
Dimensions (H × W × D)	263.5 mm (10.4 in) × 196.3 mm (7.7 in) × 36.1 mm (1.4 in) (without mounting brackets)
Weight	1.6 kg (3.5 lb)
Cooling	Natural convection—no fans
Approved for wet locations; Pollution degree	Yes; PD3
Enclosure	Class II double-insulated, corrosion-resistant polymeric enclosure
Environmental category/UV exposure rating	NEMA Type 6; outdoor - IPX6/IP67
Compliance	IQ8P-72-2-US
Certifications	<p>CA Rule 21, UL 62109-1, IEEE 1547:2018 (UL 1741-SB 3rd Ed.), CAN/CSA-C22.2 NO. 107.1-01.</p> <p>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.</p>

Components of the Enphase Energy System



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.



IQ Gateway

The IQ Gateway is a device that performs energy management, provides internet connectivity, and integrates with the IQ Series Microinverters to provide complete control and insights into the Enphase Energy System.

Revision history

Revision	Date	Description
DSH-00384-3.0	February 2025	Updated information on backward compatibility with IQ7 Series Microinverters.
DSH-00384-2.0	September 2024	<ol style="list-style-type: none">1. Changed the high power modules image.2. Updated the warranty from 15 years to 25 years.
DSH-00384-1.0	January 2024	Initial release.