

IQ8 Series Microinverters

The high-powered, smart grid-ready IQ8 Series Microinverters are designed to match the latest generation high-output PV modules. The IQ8 Series Microinverter has the highest energy production and reliability standards in the industry, and with rapid shutdown functionality, it meets the highest safety standards.



Key specifications	IQ8MC-72-M-INT	IQ8AC-72-M-INT	IQ8HC-72-M-INT
Max. AC output power	330 W	366 W	384 W
Nominal grid voltage	230 V		
Nominal frequency	50 Hz		
European weighted efficiency	96.7%	96.6%	96.8%
Min./Max. voltage	18/60 V		
Min./Max. MPP voltage	25/45 V	28/45 V	29.5/45 V
Max. short-circuit DC input current	25 A		
Ambient air temperature range	-40°C to 65°C (-40°F to 149°F)		

Easy

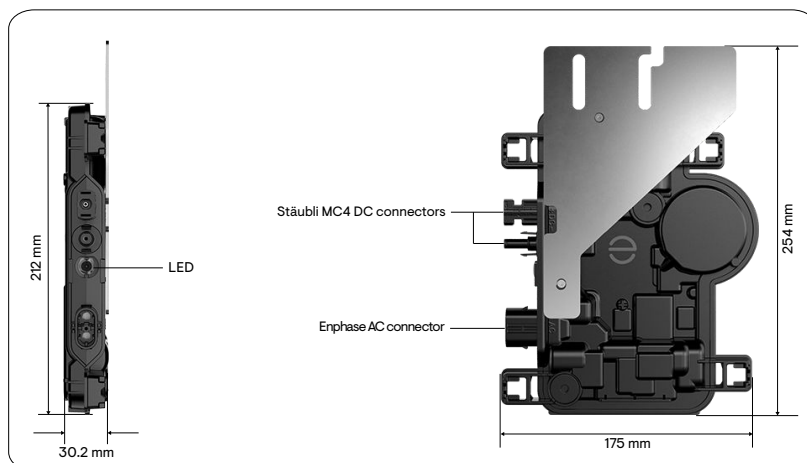
- Lightweight and compact with integrated Stäubli MC4 connectors for easy installation
- Fast installation with simple AC cabling
- Faster firmware upgrades enabled by the new integrated circuit technology

Reliable

- More than 1 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
- Industry-leading warranty of up to 25 years¹

Compatible

- Supports the latest high-current PV modules
- Compatible with existing IQ7 systems, allowing seamless expansion of your solar capacity as energy requirements grow²



¹ A 25-year warranty is valid, provided an internet-connected IQ Gateway is installed.

² For details, see the "Compatibility with IQ7 Series Microinverters" section.

Input data (DC)	Parameters	Units	IQ8MC-72-M-INT	IQ8AC-72-M-INT	IQ8HC-72-M-INT
Typical module compatibility	—	—	54-cell/108-half-cell, 60-cell/120-half-cell, 66-cell/132-half-cell, 72-cell/144-half-cell. No enforced DC/AC ratio and maximum input power. Modules can be paired as long as the maximum input voltage is not exceeded and the maximum input current of the inverter is respected at the lowest and highest temperatures. See the compatibility calculator at https://enphase.com/en-fi/installers/microinverters/calculator .		
Min./Max. voltage	Udcmin/ Udcmax	V	18/60		
Startup input voltage	Udcstart	V	22		
Rated input voltage	Udc,r	V	35.0	36,5	37,0
Min./Max. MPP voltage	Umpmin/ Umpmax	V	25/45	28/45	29.5/45
Min./Max. operating voltage	Uopmin/ Uopmax	V	18/58		
Max. input current	Idcmax	A	14		
Max. short-circuit DC input current	Iscmax	A	25 Maximum short-circuit current for modules (Isc) allowed to be paired with IQ8 Series Microinverters: 20 A (calculated with 1.25 safety factor as per IEC 62548).		
Max. input power ³	Pdcmax	W	480	530	560
Output data (AC)	Parameters	Units	IQ8MC-72-M-INT	IQ8AC-72-M-INT	IQ8HC-72-M-INT
Max. AC output power	Pac,max	W	330	366	384
Max. apparent power	Sac,max	VA	325	360	380
Rated power	Pac,r	W	325	360	380
Nominal grid voltage	Uacnom	V	230		
Min./Max. grid voltage	Uacmin/ Uacmax	V	184/276		
Max. output current	Iacmax	A	1.43	1,59	1,67
Nominal frequency	fnom	Hz	50		
Min./Max. frequency	fmin/fmax	Hz	45/55		
Max. units per single/Multi-phase 20 A circuit	16 A/ Iacmax	—	11 (L+N)/33 (3L+N)	10 (L+N)/30 (3L+N)	9 (L+N)/27 (3L+N)
Max. units per single/Multi-phase IQ Cable section	—	—	For IQ Cable with 2.5 sq.mm stranded conductors and using a 1.25 safety factor, 16 A per phase is calculated as the maximum current according to IEC 60364. Safety factors applied may vary based on local regulations or best practices, as well as upon the characteristics of the OCPD.		
Protective class (all ports)	—	—	II		
Total harmonic distortion	—	%	<5		
Power factor setting	—	—	1.0		
Power factor range	cos (phi)	—	0.8 leading ... 0.8 lagging		
Inverter maximum efficiency	ηmax	%	97.5	97.3	97.4

³ At STC within the MPP range <https://enphase.com/en-fi/installers/microinverters/calculator>.

Output data (AC)	Parameters	Units	IQ8MC-72-M-INT	IQ8AC-72-M-INT	IQ8HC-72-M-INT
European weighted efficiency	η_{EU}	%	96.7	96,6	96.8
Inverter topology	—	—	Isolated (HF transformer)		
Night-time power loss	—	mW	50		
Mechanical data			IQ8MC-72-M-INT	IQ8AC-72-M-INT	IQ8HC-72-M-INT
Ambient air temperature range			–40°C to 65°C (–40°F to 149°F)		
Relative humidity range			4% to 100% (condensing)		
Overvoltage class AC port			III		
Number of input DC connectors (pairs) per single MPP tracker			1		
AC connector type			IQ Cabling (refer to the IQ Cable and accessories data sheet)		
DC connector type			Stäubli MC4		
Dimensions (H × W × D)			212 mm × 175 mm × 30.2 mm (8.3" × 6.9" × 1.2") (without mounting brackets)		
Weight (with mounting plate)			1.1 kg (2.4 lb)		
Cooling			Natural convection—no fans		
Enclosure			Class II double-insulated, corrosion-resistant polymeric enclosure		
IP rating			Outdoor – IP67		
Altitude			<2600 m (8530 ft)		
Calorific value			37.5 MJ/unit		
Standards			IQ8MC-72-M-INT	IQ8AC-72-M-INT	IQ8HC-72-M-INT
Grid compliance (with IQ Relay)			EN 50549-1, VDE-AR-N 4105:2018, NA/EEA-NE7-CH 2020, G98, G99, G100, TOR Erzeuger Typ A, UNE 217002:2020, EN 50438:2013, DANSK 2019, EIFS 2018, VJV 2018		
Safety			EN IEC 62109-1, EN IEC 62109-2		
EMC			EN IEC 61000-3-2, EN IEC 61000-3-3, EN IEC 61000-6-2, EN IEC 61000-6-3, EN IEC 50065-1, EN IEC 50065-2-2, EN 55011 ⁴		
Product labelling			CE		
Advanced grid functions ⁵			Power export limiting (PEL), phase imbalance management (PIM), loss of phase detection (LOP), power factor control Q (U), cos (phi) (P)		
Microinverter communication			Power line communication (PLC) 110–120 kHz (Class B), narrowband 200 Hz		

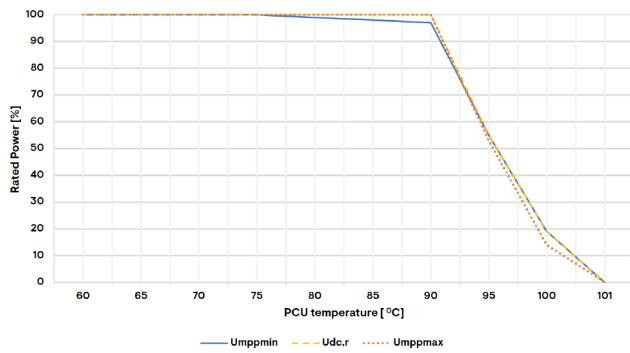
Compatibility with IQ7 Series Microinverters

- IQ8 Series Microinverters can be added to existing IQ7 systems on the same IQ Gateway/IQ Combiner/IQ System Controller only in the following configurations: (i) Solar Only or (ii) Solar + Battery (IQ Battery 3T/IQ Battery 10T or IQ Battery 5P) grid-tied or Solar + Battery (IQ Battery 5P) with backup with IQ System Controller 3 INT.
- IQ7 Series Microinverters cannot be added to a site with existing IQ8 Series Microinverters on the same gateway.
- A mixed system of IQ7 and IQ8 will not support the IQ8-specific Sunlight Jump Start feature.
- The peak power output of the IQ7 Series Microinverters, IQ8 Series Microinverters arrays must not exceed 150% of the IQ Battery's total rated power output. If the microinverter array exceeds this ratio, PV shedding must be implemented to shed excess PV when the system transitions to the off-grid mode.

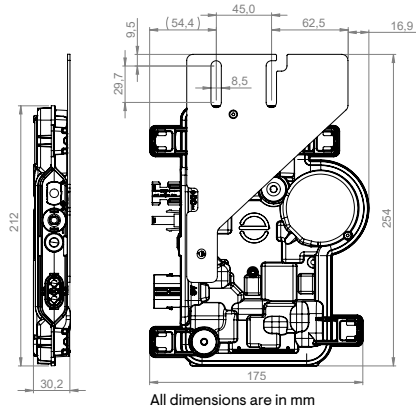
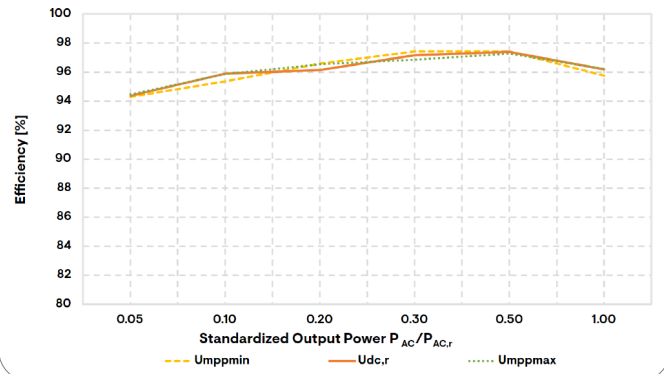
⁴ Some of these functions require an IQ Gateway Metered with current transformers and/or an IQ Relay installed.

⁵ Not used

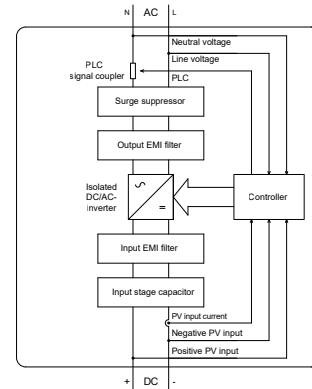
IQ8 Series Microinverters rated power vs PCU temperature



IQ8 Series Microinverters efficiency curve



IQ8 Series Microinverters



Assembled in China, India, or the U.S.

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

Importer: Enphase Energy NL B.V., Het Zuiderkruis 65, 5215MV, 's-Hertogenbosch, The Netherlands, Tel: +31 73 3035859

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 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.⁶



IQ Cabling

Install microinverters quickly and safely with IQ Cabling. With multi-phase IQ Cabling, the installed capacity is automatically distributed evenly across all three phases.



IQ Relay 1P and IQ Relay 3P

Production and storage circuit, integrated NS-protection device with PLC-phase coupler (multi-phase) and DC current injection monitoring.⁷

⁶ A 25-year warranty is valid, provided an internet-connected IQ Gateway is installed.

⁷ IQ Relay is not required in all countries. Check local grid connection requirements to confirm.

Revision history

Revision	Date	Description
DSH-00267-2.0	May 2026	Updated information on backward compatibility for IQ8/IQ7 Series Microinverters.
DSH-00267-1.0	December 2023	Initial release.