

ENPHASE MICRO INVERTER

IQ8 SERIES



Don't let old-fashioned technology dictate your roof layout or savings potential. Single inverter solar systems can have significant installation limitations that require costly workarounds. However, Enphase IQ Microinverters allow panel arrays to be installed across multiple roof areas and orientations. This level of flexibility lets you capture the maximum sunlight and means that your system expansion options are only limited by your roof space. Plus, Enphase IQ Microinverters are compatible with virtually every solar panel available.

Enphase IQ Microinverters can last up to three times longer than traditional string inverter systems and are backed by an industry-leading 15 year limited warranty, extendable to 25 years. Plus, Enphase IQ Microinverters are IP67-certified - which is just a technical way of saying that they can endure almost anything Mother Nature sends their way.

How you benefit:



HIGH EFFICIENCY

Up to 97% Max. Efficiency.



FLEXIBLE DESIGN

Enphase microinverters allow for maximum flexibility, which means you can install the maximum number of panels on complex roofs to help future proof your energy needs.



SAFE OPERATION

Enphase systems includes built-in Rapid Shutdown so that, in the event of an emergency, your solar power can be turned off instantly and easily, keeping you safe.



INNOVATIVE

Easily add on Solahart Home Energy Management System (HEMS) to control and optimise more appliances such as EV chargers etc.



SOLAHART WARRANTY

Enjoy a 15 year warranty when connected to the Enphase monitoring portal. 25 year upgradeable warranty also available.

INPUT DATA (DC)		UNITS	IQ8AC-72-M-INT
Minimum/maximum input voltage	U_{dcmin}/U_{dcmax}	V	18/60
Start-up input voltage	$U_{dcstart}$	V	22
Rated input voltage	$U_{dc,r}$	V	36.5
Minimum/maximum MPP voltage	U_{mppmin}/U_{mppmax}	V	28/45
Minimum/maximum operating voltage	U_{opmin}/U_{opmax}	V	18/49
Maximum input current	I_{dcmax}	A	14
Maximum short-circuit DC input current	I_{scmax}	A	25 Maximum short-circuit current for modules (I_{sc}) allowed being paired with IQ8 Series Microinverters: 20 A (calculated with 1.25 safety factor as per IEC 62548).
Maximum input power ^{1,2}	P_{dcmax}	W	480
OUTPUT DATA (AC)		UNITS	IQ8AC-72-M-INT
Maximum apparent power	$S_{ac,max}$	VA	366
Rated apparent power	$P_{ac,r}$	VA	360
Nominal grid voltage	U_{acnom}	V	230
Minimum/maximum grid voltage	U_{acmin}/U_{acmax}	V	184/276
Rated/maximum output current	I_{acmax}	A	1.57/1.59
Nominal frequency	f_{nom}	Hz	50
Minimum/maximum frequency	f_{min}/f_{max}	Hz	45/55
Maximum units per single-phase 20 A circuit			11 (L+N) Single-phase
Maximum units per multi-phase 25 A circuit			39 (3L+N) Multi-phase
Recommended maximum units per single/multi-phase IQ Cable section to reduce voltage rise in IQ Cable			For IQ Cable with 2.5 mm ² stranded conductors and using a 1.20 safety factor. The safety factors applied may vary based on local regulations or best practices, also upon the characteristic the OCPD selected. 8 (L+N) Single-phase 18 (3L+N) Multi-phase
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	η_{max}	%	97.3
European weighted efficiency	η_{EU}	%	96.6
Inverter topology			Isolated (HF Transformer)
Nighttime power loss		mW	50
Ambient air temperature range			-40°C to 60°C (-40°F to 140°F)
Relative humidity range			4% to 100% (condensing)
Overvoltage class AC port/DC port			III/II
MECHANICAL DATA			IQ8AC-72-M-INT
Number of input DC connectors (pairs) per single MPP-tracker			1
AC connector type			IQ Cabling
DC connector type			Stäubli MC4
Dimensions (H × W × D)			212 mm (8.3") × 175 mm (6.9") × 30.2 mm (1.2") (without mounting brackets)
Weight (with mounting plate)			1.1 kg (2.4 lbs)
Cooling			Natural convection - no fans
Enclosure			Class II double-insulated, corrosion-resistant polymeric enclosure
IP rating			Outdoor - IP67
Altitude			< 2,600 m
Calorific value			37.5 MJ/unit

(1) Installer should not exceed the small-scale technology certificate (STC) limit on PV module wattage for claiming the STC.

(2) Pairing PV modules with wattage above the limit may result in additional clipping losses. See the compatibility calculator at <https://enphase.com/en-au/installers/microinverters/calculator>.

(3) At STC within MPP range.

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

*Refer Solahart Warranty for details of the product warranty and Solahart Owner's Guide & Installation Instructions for installation details.

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