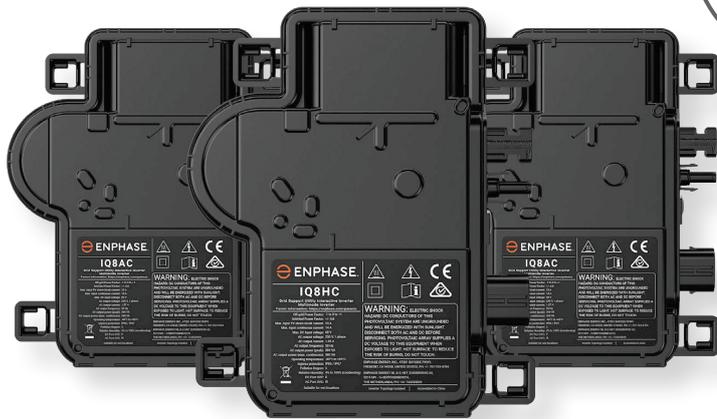


## ENPHASE MICRO INVERTER

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 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, extendable to 25 years when connected to the Enphase monitoring portal.

INPUT DATA (DC)		UNITS	IQ8AC-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 the 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 at the lowest and highest temperatures is respected. See the module compatibility calculator at: <a href="https://enphase.com/en-au/installers/microinverters/calculator">https://enphase.com/en-au/installers/microinverters/calculator</a> !	
Minimum/maximum input voltage	$U_{dcmin}/U_{dcmax}$	V	18/60	
Start-up input voltage	$U_{dcstart}$	V	22	
Rated input voltage	$U_{dcr}$	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 <sup>1,2</sup>	$P_{dcmax}$	W	480	
OUTPUT DATA (AC)		UNITS	IQ8AC-72-M-INT	
Maximum apparent power	$S_{ac,max}$	VA	366	
Rated apparent power	$P_{acr}$	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	39 (3L+N) Multi-phase
Maximum units per multi-phase 25 A circuit			For IQ Cable with 2.5 mm <sup>2</sup> 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.	
Recommended maximum units per single/multi-phase IQ Cable section to reduce voltage rise in IQ Cable			8 (L+N) Single-phase	18 (3L+N) Multi-phase
			It is recommended to centre feed the IQ Cable within microinverter branch circuits to minimize the voltage rise. These design limits should ensure voltage rise and line conductor resistance on the IQ Cable are maintained within acceptable limits. In locations with a risk of high grid voltage at the point of connection, it may be necessary to decrease the maximum number of microinverters on the IQ Cable section by as much as 50%.	
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	$\eta_{max}$	%	97.3	
European weighted efficiency	$\eta_{EU}$	%	96.6	
Inverter topology			Isolated (HF Transformer)	
Nighttime power loss		mW	50	
MECHANICAL DATA			IQ8AC-72-M-INT	
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 (refer to separate datasheet for cable and accessories)	
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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Reorder code: ENMIQ8

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