



IQ7AM Microinverter

The high-powered, smart grid-ready IQ7AM Microinverter dramatically simplifies installation while achieving the highest system efficiency for systems with 60-cell and 72-cell modules.

The IQ Series Microinverters extend the reliability standards set forth by previous generations and undergo over a million hours of power-on testing.



Part of the Enphase Energy System, IQ7 Series Microinverters integrate with the IQ Battery, IQ Gateway, and the Enphase App monitoring and analysis software.



IQ7 Series Microinverters redefine reliability standards with more than a million cumulative hours of power-on testing, enabling an industry-leading limited warranty of up to 25 years.



Connect PV modules quickly and easily to IQ7 Series Microinverters using the included Q-DCC-2 adapter cable with plug-and-play MC4 connectors.



IQ7 Series Microinverters are UL listed as PV Rapid Shutdown Equipment and conform with various regulations when installed according to the manufacturer's instructions.

High power

- Peak output power 335 VA @ 220 VAC

Easy to install

- Lightweight and simple
- Faster installation with improved, lighter two-wire cabling
- Built-in rapid shutdown compliant (NEC 2014, 2017, and 2020)

Efficient and reliable

- Optimized for high-powered 60-cell/120-half-cell and 72-cell/144-half-cell PV modules
- Highest CEC efficiency of 96.5%
- More than a million hours of testing
- Class II double-insulated enclosure
- UL listed
- Meets CA Rule 21 (UL 1741-SA) and IEEE 1547:2018 (UL 1741-SB, 3rd Ed.)

Smart grid-ready

- Complies with advanced grid support, voltage, and frequency ride-through requirements
- IQ Gateway and internet connection required
- Configurable for varying grid profiles

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INPUT DATA (DC)		UNITS	IQ7AM-72-2-US
Commonly used module pairings ¹		W	295–460
Module compatibility			60-cell/120-half-cell and 72-cell/144-half-cell PV modules
MPPT voltage range ²		V	18–58
Operating range		V	18–58
Min./max. start voltage		V	33/58
Max. input DC voltage		V	58
Max. continuous input DC current		A	10.2
Max. input DC short-circuit current (module I _{sc}) ³		A	25
Max. module I _{sc}		A	20
Oversvoltage class DC port			II
DC port back-feed current		mA	0
PV array configuration			1 × 1 ungrounded array; No additional DC side protection required; AC side protection requires max 20 A per branch circuit
OUTPUT DATA (AC)		UNITS	IQ7AM-72-2-US
Peak output power		VA	335
Max. continuous output power		VA	330
Nominal (L-L) voltage/range ⁴		V	220/98–242
Max. continuous output current		A	1.44
Nominal frequency		Hz	60
Extended frequency range		Hz	47–68
AC short circuit fault current over three cycles		Arms	5.8
Max. units per 20 A (L-L) branch circuit ⁵			11
Total harmonic distortion		%	<5
Oversvoltage class AC port			III
AC port back-feed current		mA	18
Power factor setting			1.0
Grid-tied power factor (adjustable)			0.85 leading ... 0.85 lagging
Peak efficiency		%	97.1
CEC weighted efficiency		%	96.5
Nighttime power consumption		mW	<60
MECHANICAL DATA			
Ambient temperature range			-40°C to 60°C (-40°F to 140°F)
Relative humidity range			4% to 100% (condensing)
DC connector type			MC4
Dimensions (H × W × D)			212 mm (8.3") × 175 mm (6.9") × 30.2 mm (1.2")
Weight			1.08 kg (2.38 lbs)
Cooling			Natural convection—no fans
Approved for wet locations			Yes
Pollution degree			PD3
Enclosure			Class II double-insulated, corrosion-resistant polymeric enclosure
Environ. 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 3 rd Ed.), FCC Part 15 Class B, ICES-0003 Class B, CAN/CSA-C22.2 NO. 107.1-01, NOM-001-SCFI-2018, ABNT NBR 16149:2014, ABNT NBR 16150-2013, ABNT NBR IEC 62116:2012. This product is UL Listed as PV Rapid Shutdown Equipment and conforms with NEC 2014, NEC 2017, and NEC 2020 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.		

(1) Pairing PV modules with wattage above the limit may result in additional clipping losses. See the compatibility calculator at <https://link.enphase.com/module-compatibility>. (2) CEC peak power tracking voltage range is 38 V to 43 V.

(3) Maximum continuous input DC current is 10.2 A. (4) 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.