DATA SHEET



IQ7A Microinverter with integrated MC4 connectors

The high-powered, smart grid-ready IQ7A Microinverters with integrated MC4 connectors dramatically simplify installation while achieving the highest system efficiency.



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

Enphase 25 year limited warranty

IQ7 Series Microinverters extend the reliability standards set forth by previous generations and undergo over a million hours of power-on testing, enabling Enphase to provide an industry-leading warranty of up to 25 years.



Connect PV modules quickly and easily to IQ7 Series Microinverters using the integrated MC4 connectors.

UL CERTIFIED SAFETY

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 366 VA @ 240 VAC and 295 VA @ 208 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, 66-cell/ 132-half-cell, and 72-cell/ 144-half-cell PV modules
- Highest CEC efficiency of 97%
- More than a million hours of testing
- Class II double-insulated enclosure
- UL Listed

Smart grid-ready

- Complies with advanced grid support, voltage, and frequency ride-through requirements
- Remotely updates to respond to changing grid requirements
- Configurable for varying grid profiles
- Meets CA Rule 21 (UL 1741-SA) and IEEE 1547:2018 (UL 1741-SB, 3rd Ed.) - for single-phase systems

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IQ7A Microinverters with integrated MC4 connectors

INPUT (DC)	UNITS	IQ7A-72-M-US	
Commonly used module pairings[1]	W	295–460	
Module compatibility	—	60-cell/120-half-cell, 66-cell/132-half-cell and 72-cell/144-half-cell PV modules	
Maximum input DC voltage	V	58	
Power point tracking voltage range[2]	V	18–58	
Minimum/Maximum start voltage	V	33/58	
Maximum input DC short-circuit current[3]	A	25	
Maximum module I_{sc}	A	20	
Overvoltage class DC port	—	II	
DC port back-feed current	A	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 (AC)	**UNITS**	**@ 240 VAC**	**@ 208 VAC**
Peak output power	VA	366	295
Maximum continuous output power	VA	349	290
Nominal (L-L) voltage/Range[4]	V	240/211–264	208/183–229
Maximum continuous output current	A	1.45	1.39
Nominal frequency	Hz	60	
Extended frequency range	Hz	47–68	
AC short-circuit fault current over three cycles	Arms	5.8	
Maximum units per 20 A (L-L) branch circuit[5]	A	11	11
Overvoltage class AC port	—	III	
AC port back-feed current	mA	18	
Power factor setting	—	1.0	
Power factor (adjustable)	—	0.85 leading … 0.85 lagging	
EFFICIENCY		**@240 VAC**	**@ 208 VAC**
CEC weighted efficiency	%	97.0	96.5
MECHANICAL DATA			
Ambient temperature range	°C (°F)	-40 to 65 (-40 to 149)	
Relative humidity range	%	4 to 100 (condensing)	
DC connector type	—	Stäubli MC4	
Dimensions (H × W × D)	mm (in)	212 (8.3) × 175 (6.9) × 30.2 (1.2) without bracket	
Weight	kg (lb)	1.1 (2.4)	
Cooling	—	Natural convection–no fans	
Approved for wet locations	—	Yes	
Pollution degree	—	PD3	
Enclosure	—	Class II double-insulated, corrosion-resistant polymeric enclosure	
Environmental category/UV exposure rating	—	NEMA type 6/Outdoor	

[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.

FEATURES	
Communication	Power line communication (PLC)
Monitoring	Enphase Installer App and monitoring options Compatible with IQ Gateway
Disconnecting means	The AC and DC connectors have been evaluated and approved by UL for use as the load-break disconnect means required by NEC 690.
Compliance	CA Rule 21 (UL 1741-SA), IEEE 1547:2018 (UL 1741-SB 3rd Ed.) - for single-phase systems HEI Rule 14H SRD 2.0 UL 62109-1, FCC Part 15 Class B, ICES-0003 Class B CAN/CSA-C22.2 NO. 107.1-01 This product is UL Listed as PV Rapid Shutdown Equipment and conforms with NEC 2014, NEC 2017, and NEC 2020 section 690.12 and C22.1-2015 Rule 64-218 Rapid Shutdown of PV Systems for AC and DC conductors, when installed according to the manufacturer's instructions.

Revision history

REVISION	DATE	DESCRIPTION
DSH-00478-1.0	June 2024	Updated the UL description.
Previous releases.		

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