



IQ7X Microinverter

The high-powered, smart grid-ready IQ7X Microinverter dramatically simplifies the installation process while achieving the highest system efficiency for systems with 96-cell modules.



Part of the Enphase Energy System, the IQ7X Microinverter integrates with the IQ Gateway, IQ Battery, and the Enphase Installer App monitoring and analysis software.



Connect PV modules quickly and easily to IQ7X Microinverters using the included Q-DCC-2 adapter cable with plug-and-play MC4 connectors.



The IQ 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.*



IQ7X Microinverters are UL Listed as PV rapid shutdown equipment and conform with various regulations when installed according to the manufacturer's instructions.

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

To learn more about Enphase offering, visit [Enphase.com](https://enphase.com)

Easy to install

- Lightweight and simple
- Faster installation with improved, lighter two-wire cabling
- Built-in rapid shutdown compliant (NEC 2014, 2017, 2020, and 2023)

Efficient and reliable

- Optimized for high powered 96-cell modules
- Highest CEC efficiency of 97.5%
- 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.)

IQ7X Microinverters

INPUT DATA (DC)		UNITS	IQ7X-96-2-US	
Commonly used module pairings ¹		W	320–460	
Module compatibility		—	To meet compatibility, PV modules must be within the following maximum input DC voltage and maximum module I_{sc} . Module compatibility can be checked at https://enphase.com/installers/microinverters/calculator .	
MPPT voltage range		V	53–64	
Operating range		V	25–79.5	
Minimum/Maximum start voltage		V	33/79.5	
Maximum input DC voltage		V	79.5	
Maximum continuous input DC current		A	6.5	
Maximum module I_{sc}		A	25	
Overtoltage class DC port		—	II	
DC port backfeed current		mA	0	
PV array configuration		—	1 × 1 ungrounded array; no additional DC side protection required; AC side protection requires a maximum of 20 A per branch circuit.	
OUTPUT DATA (AC)		UNITS	IQ7X-96-2-US@240 VAC	IQ7X-96-2-US@208 VAC
Peak output power		VA	320	
Maximum continuous output power		VA	315	
Nominal grid voltage (L-L)		V	240, split-phase (L-L), 180°	208, single-phase (L-L), 120°
Minimum and Maximum grid voltage ²		V	211–264	183–229
Maximum continuous output current		A	1.31	1.51
Nominal frequency		Hz	60	
Extended frequency range		Hz	49–68	
AC short-circuit fault current over three cycles		A_{rms}	5.8	
Maximum units per 20 A (L-L) branch circuit ³		—	12	10
Overtoltage class AC port		—	III	
AC port backfeed current		mA	18	
Power factor setting		—	1.0	
Grid-tied power factor (adjustable)		—	0.85 leading ... 0.85 lagging	
CEC weighted efficiency		%	97.5	97.0
MECHANICAL DATA		UNITS		
Ambient temperature range		°C (°F)	–40 to 60 (–40 to 140)	
Relative humidity range		%	4 to 100 (condensing)	
DC connector type		—	MC4 (or Amphenol H4 UTX with additional Q-DCC-5 adapter)	
Dimensions (H × W × D)		mm (in)	212 (8.3) × 175 (6.9) × 30.2 (1.2)	
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	
COMPLIANCE				
Compliance			CA Rule 21 (UL 1741-SA), IEEE® 1547:2018 (UL 1741-SB 3 rd Ed.), 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, NEC 2020, and NEC 2023 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.	

(1) Pairing PV modules with wattage above the limit may result in additional clipping losses.

(2) Nominal voltage range can be extended beyond nominal if required by the utility.

(3) Limits may vary. Refer to local requirements to define the number of microinverters per branch in your area.

Revision history

REVISION	DATE	DESCRIPTION
DSH-00208-3.0	March 2024	Updated maximum module I_{sc} value to 25 A.
DSH-00208-2.0	November 2023	Included NEC 2023 specification in the "Compliance" section.
DSH-00208-1.0	September 2023	Updated module compatibility specification.
Previous releases.		