



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 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, and 2020)

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 maximum input DC voltage and maximum module I_{sc} listed below. 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			10			
Overtoltage class DC port				II			
DC port backfeed current	mA			0			
PV array configuration		1 x 1 ungrounded array; no additional DC side protection required; AC side protection requires maximum 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	Arms			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 x W x D)	mm (in)			212 (8.3) x 175 (6.9) x 30.2 (1.2)			
Weight	kg (lbs)			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, 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 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-00208-1.0	September 2023	Updated module compatibility specification

Previous releases
