

## 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.

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.



### Easy to Install

- Lightweight and simple
- Faster installation with improved, lighter two-wire cabling
- Built-in rapid shutdown compliant (NEC 2014, 2017 & 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, 3<sup>rd</sup> Ed.)

\* The IQ7X is required to support 96-cell modules.



# IQ7X Microinverter

<b>INPUT DATA (DC)</b>	<b>IQ7X-96-2-US</b>	
Commonly used module pairings <sup>1</sup>	320W - 460W	
Module compatibility	96-cell PV modules	
Maximum input DC voltage	79.5V	
Peak power tracking voltage	53V - 64V	
Operating range	25V - 79.5V	
Min/Max start voltage	33V/79.5V	
Max DC short circuit current (module I <sub>sc</sub> )	10A	
Overvoltage class DC port	II	
DC port backfeed current	0A	
PV array configuration	1 x 1 ungrounded array; No additional DC side protection required; AC side protection requires max 20A per branch circuit	
<b>OUTPUT DATA (AC)</b>	<b>@ 240VAC</b>	<b>@ 208VAC</b>
Peak output power	320VA	
Maximum continuous output power	315VA	
Nominal (L-L) voltage/range <sup>2</sup>	240V/211-264V	208V/183-229V
Maximum continuous output current	1.31A (240VAC)	1.51A (208VAC)
Nominal frequency	60 Hz	
Extended frequency range	49 - 68 Hz	
AC short circuit fault current over 3 cycles	5.8 Arms	
Maximum units per 20A (L-L) branch circuit <sup>3</sup>	12 (240VAC)	10 (208VAC)
Overvoltage class AC port	III	
AC port backfeed current	18 mA	
Power factor setting	1.0	
Power factor (adjustable)	0.85 leading ... 0.85 lagging	
<b>EFFICIENCY</b>	<b>@240VAC</b>	<b>@208VAC</b>
CEC weighted efficiency	97.5 %	97.0 %
<b>MECHANICAL DATA</b>		
Ambient temperature range	-40°C to +60°C	
Relative humidity range	4% to 100% (condensing)	
Connector type (IQ7X-96-2-US)	MC4 (or Amphenol H4 UTX with optional Q-DCC-5 adapter)	
Dimensions (WxHxD)	212 mm x 175 mm x 30.2 mm (without bracket)	
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	
Environmental category/UV exposure rating	NEMA Type 6/outdoor	
<b>FEATURES</b>		
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 required by NEC 690.	
Compliance	CA Rule 21 (UL 1741-SA), IEEE 1547:2018 (UL 1741-SB, 3 <sup>rd</sup> Ed.) 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 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. 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.

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

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