



# IQ7 and IQ7+ Microinverters

The high-powered, smart grid-ready IQ7 and IQ7+ Microinverters 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.



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 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 manufacturer's instructions.

## Easy to install

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

## Productive and reliable

- Optimized for high powered 60-cell/120-half-cell and 72-cell/144-half-cell PV modules
- 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.)

# IQ7 and IQ7+ Microinverters

INPUT DATA (DC)	UNITS	IQ7-60-2-US	IQ7PLUS-72-2-US
Commonly used module pairings <sup>1</sup>	W	235–350	235–440
Module compatibility		60-cell/120-half-cell and 54-cell/108-half-cut-cell PV modules	60-cell/120-half-cell, 66-cell/132-half-cell, 54-cell/108-half-cut-cell, and 72-cell/144-half-cell PV modules
MPPT voltage range	V	27–37	27–45
Operating range	V	16–48	16–60
Minimum/Maximum start voltage	V	22/48	22/60
Maximum input DC voltage	V	50	60
Maximum continuous input DC current	A	10	12
Maximum input DC short-circuit current	A		25
Maximum module I <sub>sc</sub>	A		20
Overvoltage 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	IQ7-60-2-US	IQ7PLUS-72-2-US
Peak output power	VA	250	295
Maximum continuous output power	VA	240	290
Nominal (L-L) voltage/Range <sup>2</sup>	V	240/211–264, 208/183–229	
Maximum continuous output current	A	1.0 (240 V)/1.15 (208 V)	1.21 (240 V)/1.39 (208 V)
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 <sup>3</sup>		16/13	13/11
Total harmonic distortion	%	<5	
Overvoltage 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	%	97.6 (240 V)	97.5 (240 V)/97.3 (208 V)
CEC weighted efficiency	%	97	
Nighttime power consumption	mW	60	

MECHANICAL DATA			
Ambient temperature range		–40°C to 65°C (–40°F to 149°F)	
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)		212 mm (8.3") × 175 mm (6.9") × 30.2 mm (1.2") without bracket	
Weight		1.1 kg (2.4 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	

COMPLIANCE	
Certifications	CA Rule 21 (UL 1741-SA), UL 62109-1, IEEE 1547:2018 (UL 1741-SB 3 <sup>rd</sup> Ed.), HEI Rule 14H SRD 2.0, 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. 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.

# Revision history

REVISION	DATE	DESCRIPTION
DSH-00174-1.0	July 2023	Updated Module compatibility with 60-cell/120-half-cell and 54-cell/108-half-cut-cell PV modules and 60-cell/120-half-cell, 66-cell/132-half-cell, 54-cell/108-half-cut-cell, and 72-cell/144-half-cell PV modules

Previous releases