

# IQ7A Microinverter

with Integrated MC4 connectors

The high-powered, smart grid-ready **IQ7A Microinverter** with Integrated MC4 connectors dramatically simplifies the installation process while achieving the highest system efficiency.

Part of the Enphase Energy System, the IQ7A 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.



## High Power

- Peak output power 366VA @ 240VAC and 295VA @ 208VAC

## 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 60-cell/120-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, 3<sup>rd</sup> Ed.)



# IQ7A Microinverter with Integrated MC4 connectors

INPUT (DC)	IQ7A-72-M-US	
Commonly used module pairings <sup>1</sup>	295W–460W	
Module compatibility	60-cell/120-half-cell and 72-cell/144-half-cell PV modules	
Maximum input DC voltage	58V	
Power point tracking voltage range <sup>2</sup>	18V–58V	
Min/Max start voltage	33V/58V	
Max. input DC short-circuit current <sup>3</sup>	25A	
Max. module Isc	20A	
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	
OUTPUT (AC)	@ 240VAC	@ 208VAC
Peak output power	366VA	295VA
Maximum continuous output power	349VA	290VA
Nominal (L-L) voltage/range <sup>4</sup>	240V/211–264V	208V/183–229V
Maximum continuous output current	1.45A (240VAC)	1.39A (208VAC)
Nominal frequency	60 Hz	
Extended frequency range	47–68 Hz	
AC short circuit fault current over 3 cycles	5.8 Arms	
Maximum units per 20A (L-L) branch circuit <sup>5</sup>	11 (240VAC)	11 (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	
EFFICIENCY	@240VAC	@208VAC
CEC weighted efficiency	97.0 %	96.5%
MECHANICAL		
Ambient temperature range	-40°C to +60°C	
Relative humidity range	4% to 100% (condensing)	
DC Connector type	Staubli made MC4	
Dimensions (HxWxD)	212 mm x 175 mm x 30.2 mm (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	
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 required by NEC 690.	
Compliance	CA Rule 21 (UL 1741-SA), IEEE 1547:2018 (UL 1741-SB, 3 <sup>rd</sup> 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 Shut Down 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 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. CEC peak power tracking voltage range is 38V to 43V.

3. Maximum continuous input DC current is 10.2A.

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.

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

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