Data Sheet Enphase Microinverters Region: AMERICAS

# Enphase IQ 7A Microinverter

The high-powered smart grid-ready Enphase IQ 7A Micro<sup>™</sup> dramatically simplifies the installation process while achieving the highest system efficiency for systems with 60-cell and 72-cell modules.

Part of the Enphase IQ System, the IQ 7A Micro integrates with the Enphase IQ Envoy<sup>™</sup>, Enphase IQ Battery<sup>™</sup>, and the Enphase Enlighten<sup>™</sup> 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 366 VA @ 240 VAC and 295 VA @ 208 VAC

#### Easy to Install

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

#### Efficient and Reliable

- Optimized for high powered 60-cell and 72-cell 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 ridethrough requirements
- Envoy and Internet connection required
- Configurable for varying grid profiles
- Meets CA Rule 21 (UL 1741-SA)



## Enphase IQ 7A Microinverter

INPUT (DC)	IQ7A-72-2-US		
Commonly used module pairings <sup>1</sup>	295 W-460 W +		
Module compatibility	60-cell and 72-cell PV modules		
Maximum input DC voltage	58 V		
Maximum input DC current	10.2 A		
Peak power tracking voltage	38 V-43 V		
Operating range	18 V-58 V		
Min/Max start voltage	30 V / 58 V		
Max DC short circuit current (module lsc)	15 A		
Overvoltage class DC port	l		
DC port backfeed current	0 A		
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)	@ 240 VAC		@ 208 VAC
Peak output power	366 VA		295 VA
Maximum continuous output power	349 VA		290 VA
Nominal (L-L) voltage/range <sup>2</sup>	240 V / 211-264 V		208 V / 183-229 V
Maximum continuous output current	1.45 A (240 VAC)		1.39 A (208 VAC)
Nominal frequency	60 Hz		
Extended frequency range	47–68 Hz		
AC short circuit fault current over 3 cycles	5.8 Arms		
Maximum units per 20 A (L-L) branch circuit <sup>3</sup>	11 (240 VAC)		11 (208 VAC)
Overvoltage class AC port	111		
AC port backfeed current	18 mA		
Power factor setting	1.0		
Power factor (adjustable)	0.85 leading 0	).85 lagging	
EFFICIENCY	@240 VAC		@208 VAC
CEC weighted efficiency	97.0 %		96.5 %
MECHANICAL			
Ambient temperature range	-40°C to +60°C		
Relative humidity range	4% to 100% (condensing)		
Connector type: DC (IQ7A-72-2-US)	MC4		
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		
FEATURES			
Communication	Power Line Communication (PLC)		
Monitoring	Enlighten Manager and MyEnlighten monitoring options Compatible with Enphase IQ Envoy		
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) UL 62109-1, UL1741/IEE1547, 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 and NEC-2017 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.		

No enforced DC/AC ratio. See the compatibility calculator at <u>https://enphase.com/en-us/support/module-compatibility</u>.
Voltage range can be extended beyond nominal if required by the utility.
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

© 2019 Enphase Energy, All rights reserved. All trademarks or brands used are the property of Enphase Energy, Inc. Data subject to change. 2019-08-07

