Data Sheet Enphase Microinverters Region: AMERICAS

Enphase IQ 7AS Microinverter

The high-powered smart grid-ready **Enphase IQ 7AS Micro**[™] dramatically simplifies the installation process while achieving the highest system efficiency for systems with 66-cell modules.

Part of the Enphase IQ System, the IQ 7AS Micro integrates with the Enphase IQ Envoy[™], Enphase IQ Battery[™], and the Enphase Enlighten[™] 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)

Efficient and Reliable

- Optimized for high powered 66-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 ride-through requirements
- Remotely updates to respond to changing grid requirements
- Configurable for varying grid profiles
- Meets CA Rule 21 (UL 1741-SA)

* The IQ 7AS is required to support 66-cell modules.





Enphase IQ 7AS Microinverter

INPUT (DC)	IQ7AS-66-ACM-US	
Commonly used module pairings ¹	295 W-450 W +	
Module compatibility	66-cell PV modules	
Maximum input DC voltage	58 V	
Peak power tracking voltage ²	34 V-48 V	
Operating range	18 V-58 V	
Min/Max start voltage	18 V / 58 V	
Max DC short circuit current (module lsc)	15 A	
Overvoltage class DC port	II	
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 ³	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 ⁴	11 (240 VAC)	11 (208 VAC)
Overvoltage class AC port		
AC port backfeed current	0 mA	
Power factor setting	1.0	
Power factor (adjustable)	0.85 leading 0.85 lagging	
Harmonics (I-THD)	2.57%	
Harmonics (V-THD)	0.03%	
Self-consumption at night	<60mW	
EFFICIENCY	@240 VAC	@208 VAC
CEC weighted efficiency	97%	97%
MECHANICAL		
Ambient temperature range	-40°C to +60°C	
Relative humidity range	4% to 100% (condensing)	
Connector type: DC (IQ7AS-66-ACM-US)	MC4	
Connector type: AC (IQ7AS-66-ACM-US)	MC4	
Dimensions (HxWxD)	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	NEMA Type 07 Outdoor	
Communication	Power Line Communication (PLC)	
Monitoring	Enlighten Manager and MyEnlighten monitoring options	
Disconnecting means	Compatible with Enphase IQ Envoy 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/IEEE1547, 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>.
Works for a wider voltage range at lower efficiency.
Nominal 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

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