

Enphase IQ 7A Microinverter

The high-powered smart grid-ready **Enphase IQ 7A Micro™** dramatically simplifies the installation process while achieving the highest system efficiency for systems with 60-cell / 120-half-cell and 72-cell / 144-half-cell modules.

Part of the Enphase IQ System, the IQ 7A Micro integrates with the Enphase Envoy-S™, 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.



High Power

- Peak output power 366 VA

Easy to Install

- Lightweight and simple
- Faster installation with improved, lighter two-wire cabling
- Built-in rapid shutdown compliant

Efficient and Reliable

- Optimized for high powered 60-cell / 120-half-cell and 72-cell / 144-half-cell modules
- Highest EU efficiency of 96.5%
- More than a million hours of testing
- Class II double-insulated IP67 enclosure

Smart Grid Ready

- Complies with advanced grid support, voltage and frequency ride-through requirements
- Envoy and Internet connection required
- Configurable for varying grid profiles

Enphase IQ 7A Microinverter

INPUT (DC)	IQ7A-72-2-INT	
Commonly used module pairings ¹	295 W–460 W +	
Module compatibility	60-cell / 120-half-cell and 72-cell / 144-half-cell modules	
Maximum input DC voltage	58 V	
PV input operating voltage range ²	18 V–58 V	
Min/Max start voltage	33 V / 58 V	
Max DC short circuit current (module I _{sc}) ³	15 A	
Overtoltage class DC port	II	
DC port backfeed current	0 A	
OUTPUT (AC)		
Peak output power	366 VA	
Maximum continuous output power	349 VA	
Nominal (L-N) voltage/range ⁴	230 V / 219–264 V	
Maximum continuous output current	1.52 A	
Nominal frequency	50 Hz	
Extended frequency range	45–55 Hz	
AC short circuit fault current over 3 cycles	5.8 Arms	
Maximum units per 20 A (L-N) branch circuit ⁵	11 (single-phase)	
Overtoltage class AC port	III	
AC port backfeed current	18 mA	
Power factor setting	1.0	
Power factor (adjustable)	0.8 leading ...	0.8 lagging
EFFICIENCY		
EN 50530 (EU) weighted efficiency	96.5 %	
MECHANICAL		
Ambient temperature range	-40°C to +60°C	
Relative humidity range	4% to 100% (condensing)	
Maximum altitude	2000 m	
DC connector type	Bulkhead with MC4 locking type connector	
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	Outdoor - IP67	
FEATURES		
Communication	Power Line Communication (PLC)	
Monitoring	Enlighten Manager and MyEnlighten monitoring options Compatible with Enphase Envoy-S	
Compliance	AS/NZS 4777.2, RCM, IEC/EN 61000-6-3, IEC/EN 62109-1, IEC/EN 62109-2, EN 50549, G98/G99, VDE-AR-N-4105	

1. No enforced DC/AC ratio. See the compatibility calculator at <https://enphase.com/en-au/support/module-compatibility>.

2. EU peak power tracking voltage range is 38 V to 43 V.

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/au

Enphase Envoy-S Metered

The **Enphase Envoy-S Metered™** communications gateway delivers solar production and energy consumption data to Enphase Enlighten™ monitoring and analysis software for comprehensive, remote maintenance and management of the Enphase System.

With production metering and consumption monitoring options, Envoy-S is the platform for total energy management and integrates with the Enphase AC Battery™.



Smart

- Enables web-based monitoring and control
- Bidirectional communications for remote upgrades
- Power export limiting and phase imbalance management

Simple

- Easy system configuration using the Enphase Installer Toolkit™ mobile app
- Flexible networking with Wi-Fi, Ethernet, or mobile
- DIN rail mount

Reliable

- Designed for installation indoors or in an outdoor enclosure
- Five-year warranty

Enphase Envoy-S Metered

MODEL NUMBER	
Envoy-S Metered - ENV-S-WM1-230	Enphase Envoy-S communications gateway with integrated PV and consumption metering. Includes two CTs (200A limit).
ACCESSORIES (Order Separately)	
Current transformers (CTs) CT-200-SPLIT	Lead length 4 m, extendable to 213 m depending on wire type (see installation manual). LxWxH: 50.8mm x 35.3mm x 60.5mm. Order extra CTs if monitoring multiple phases.
Enphase Mobile Connect™ CELLMODEM-02	Plug and play industrial grade mobile modem with five-year data plan for systems up to 60 microinverters. (Available where there is adequate mobile service in the installation area.)
Power line communications phase coupler LPC-01	Required for multi-phase systems
POWER REQUIREMENTS	
Hardwired	230 VAC or 400Y/230 VAC, 50 Hz Max 20A over current protection required
CAPACITY	
Number of microinverters polled	Up to 600
MECHANICAL DATA	
Dimensions (WxHxD)	213 x 126 x 45 mm
Weight	0.5 kg
Ambient temperature range	-40° to 65° C -40° to 46° C if installed in an enclosure
Environmental rating	IP30. For installation indoors or in an IP54-rated (or better) enclosure.
Altitude	To 2000 meters
USB ports	Two USB 2.0 ports, auto-sensing, auto-negotiation
INTERNET CONNECTION OPTIONS	
Integrated Wi-Fi	802.11b/g/n (2.4 GHz, 5 GHz)
Ethernet	Optional, 802.3, Cat5E (or Cat 6) UTP Ethernet cable (not included)
Mobile	Optional, CELLMODEM-02 (not included)
COMPLIANCE	
Compliance	IEC/EN 61010-1:2010, EN50065-1, EN61000-4-5, EN61000-6-1, EN61000-6-2, C-Tick
ADVANCED FUNCTIONS¹	
Power export limiting	Configurable for zero export when installed with S-Series microinverters
Phase imbalance management	Configurable for phase imbalance management when installed with S-Series microinverters

1. Software upgrade required for advanced function support.

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