

Enphase IQ 7, IQ 7+, and IQ 7X Microinverters

The high-powered smart grid-ready **Enphase IQ Series Micros™** achieve the highest system efficiency.

Part of the Enphase IQ System, the IQ 7, IQ 7+, and IQ 7X Micro integrate perfectly with the Enphase Envoy-S™, and the Enphase Enlighten™ monitoring and analysis software.

The IQ Series Micros 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.



Easy to Install

- Lightweight and simple
- Faster installation with improved, lighter two-wire cabling

Productive and Reliable

- Optimized for high powered 60-cell, 72-cell* and 96-cell* modules
- More than a million hours of testing
- Class II double-insulated enclosure

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

* The IQ 7+ Micro is required to support 72-cell modules, and the IQ 7X is required to support 96-cell modules.

Enphase IQ 7, IQ 7+, and IQ 7X Microinverters

INPUT DATA (DC)	IQ7-60-2-INT	IQ7PLUS-72-2-INT	IQ7X-96-2-INT
Commonly used module pairings	235 W - 350 W + ¹	235 W - 440 W + ^{1,2}	320 W - 460 W + ^{1,2}
Module compatibility	60-cell PV modules only	60-cell & 72-cell PV modules	96-cell PV modules only
Maximum input DC voltage	48 V	60 V	79.5 V
Peak power tracking voltage	27 V - 37 V	27 V - 45 V	53 V - 64 V
Operating range	16 V - 48 V	16 V - 60 V	25 V - 79.5 V
Min/Max start voltage	22 V / 48 V	22 V / 60 V	33 V / 79.5 V
Max DC short circuit current (module I _{sc})	15 A	15 A	10 A
Overvoltage class DC port	II	II	II
DC port backfeed under single fault	0 A	0 A	0 A
OUTPUT DATA (AC)	IQ 7 Microinverter	IQ 7+ Microinverter	IQ 7X Microinverter
Peak output power	250 VA	295 VA	320 VA
Maximum continuous output power	240 VA	290 VA	315 VA
Nominal (L-N) voltage/range ³	230 V / 184-276 V	230 V / 184-276 V	230 V / 184-276 V
Maximum continuous output current	1.04 A	1.26 A	1.37 A
Nominal frequency	50 Hz	50 Hz	50 Hz
Extended frequency range	45 - 55 Hz	45 - 55 Hz	45 - 55 Hz
Maximum units per 20 A (L-N) branch circuit ⁴	16 (230 VAC)	13 (230 VAC)	12 (230 VAC)
Overvoltage class AC port	III	III	III
AC port backfeed current	0 A	0 A	0 A
Power factor setting	1.0	1.0	1.0
Power factor (adjustable)	0.8 leading ... 0.8 lagging	0.8 leading ... 0.8 lagging	0.8 leading ... 0.8 lagging
EFFICIENCY	@230 V	@230 V	@230 V
EN 50530 (EU) weighted efficiency	96.5 %	96.5 %	96.5 %
MECHANICAL DATA			
Ambient temperature range	-40°C to +65°C	-40°C to +65°C	-40°C to +60°C
Relative humidity range	4% to 100% (condensing)		
Connector type	MC4 (or Amphenol H4 UTX with additional Q-DCC-5 adapter)		
Dimensions (WxHxD)	212 mm x 175 mm x 30.2 mm (without bracket)		
Weight	1.08 kg		
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 (pending)	AS 4777.2, RCM, IEC/EN 61000-6-3, IEC/EN 62109-1, IEC/EN 62109-2		

1. No enforced DC/AC ratio in NZ. In Australia, CEC design guidelines state inverter continuous AC power output cannot be less than 75% of the array peak power.
2. Maximum DC input limited to 350 W at 25°C as per AU/NZS 5033:2014 4.3.12(d).
3. Nominal voltage range can be extended beyond nominal if required by the utility.
4. 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 +DRM

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 on up to three phases, 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*
- AS/NZS 4777.2:2105 DRM (Demand Response Mode) ready*

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

*When used with the Enphase S-Series Microinverter™ and/or Enphase AC Battery™.



Enphase Envoy-S Metered

MODEL NUMBER	
Envoy-S Metered + DRM ENV-S-WM-230	Enphase Envoy-S communications gateway with integrated PV and consumption metering. Includes two CTs (100A limit). Production and consumption meter: +/-1% accuracy.
ACCESSORIES (Order Separately)	
Current transformers (CTs) CT-100-SPLIT	Lead length 4 m, extendable to 213 m depending on wire type (see installation manual). WxHxD: 61 mm x 51 mm x 35 mm. 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 multiphase PV 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
DRM	Terminal block connections for Demand Response Enabling Device (DRED)

1. Software upgrade may be required for advanced function support.

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