

# Enphase IQ 7 and IQ 7+ Microinverters

with Integrated MC4 connectors

The high-powered smart grid-ready **Enphase IQ Series Micros™** with Integrated MC4 connectors dramatically simplify the installation process while achieving the highest system efficiency.

Part of the Enphase IQ System, the IQ 7 and IQ 7+ Microinverters integrate with the Enphase Envoy-S™, 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.



## Easy to Install

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

## Productive and Reliable

- Optimized for high-powered 60-cell/120-half-cell and 72-cell/144-half-cell PV 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

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<b>INPUT DATA (DC)</b>	<b>IQ7-60-M-INT</b>	<b>IQ7PLUS-72-M-INT</b>
Commonly used module pairings	235 W - 350 W +	235 W - 440 W +
Module compatibility	60-cell PV modules only	60-cell/120-half-cell and 72-cell/144-half-cell PV modules.
Maximum input DC voltage	48 V	60 V
Peak power tracking voltage	27 V - 37 V	27 V - 45 V
Operating range	16 V - 48 V	16 V - 60 V
Min/Max start voltage	22 V / 48 V	22 V / 60 V
Max DC short circuit current (module I <sub>sc</sub> )	15 A	15 A
Overvoltage class DC port	II	II
DC port backfeed under single fault	0 A	0 A
<b>OUTPUT DATA (AC)</b>	<b>IQ 7 Microinverter</b>	<b>IQ 7+ Microinverter</b>
Peak output power	250 VA	295 VA
Maximum continuous output power	240 VA	290 VA
Nominal (L-N) voltage/range <sup>1</sup>	230 V / 184-276 V	230 V / 184-276 V
Maximum continuous output current	1.04 A	1.26 A
Nominal frequency	50 Hz	50 Hz
Extended frequency range	45 - 55 Hz	45 - 55 Hz
Maximum units per 20 A (L-N) branch circuit <sup>2</sup>	16 (230 VAC)	13 (230 VAC)
Overvoltage class AC port	III	III
AC port backfeed current	18mA	18mA
Power factor setting	1.0	1.0
Power factor (adjustable)	0.8 leading ... 0.8 lagging	0.8 leading ... 0.8 lagging
<b>EFFICIENCY</b>	<b>@230 V</b>	<b>@230 V</b>
EN 50530 (EU) weighted efficiency	96.5 %	96.5 %
<b>MECHANICAL DATA</b>		
Ambient temperature range	-40°C to +65°C	-40°C to +65°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	Outdoor - IP67	
<b>FEATURES</b>		
Communication	Power Line Communication (PLC)	
Monitoring	Enlighten Manager and MyEnlighten monitoring options. Both options require installation of an Enphase Envoy-S.	
Compliance	AS 4777.2, RCM, IEC/EN 61000-6-3, IEC/EN 62109-1, IEC/EN 62109-2	

1. Nominal voltage range can be extended beyond nominal if required by the utility.

2. Limits may vary. Refer to local requirements to define the number of microinverters per branch in your area.