# 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- $S^{\text{TM}}$ , 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 + <sup>1, 2</sup>
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 Isc)	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/range³	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 circuit⁴	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		

<sup>1.</sup> 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.



<sup>2.</sup> Maximum DC input limited to 350 W at 25°C as per AU/NZS 5033:2014 4.3.12(d).

<sup>3.</sup> Nominal voltage range can be extended beyond nominal if required by the utility.

<sup>4.</sup> Limits may vary. Refer to local requirements to define the number of microinverters per branch in your area.