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^{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 /120-half-cell, 72-cell / 144-half-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 / 144-half-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 / 120-half-cell | 60 & 72-cell (120 & 144-half-cell) | 96-cell |
| 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 circuit ⁴ | 16 (230 VAC) | 13 (230 VAC) | 12 (230 VAC) |
| Overvoltage class AC port | III | III | III |
| AC port backfeed current | 18mA | 18mA | 18mA |
| 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 (HxWxD) | 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 | | | <u> </u> |
| Communication | Power Line Communication (PLC) | | |
| Monitoring | Enlighten Manager, Enlighten Mobile 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.

