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 Isc)[3]	15 A
Overvoltage 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)
Overvoltage 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**

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ENPHASE

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

with EN4 bulkhead

The high-powered smart grid-ready **Enphase IQ Series Micros**™ with Enphase EN4 bulkhead dramatically simplify the installation process while achieving the highest system efficiency.

Part of the Enphase IQ System, the IQ 7, IQ 7+, and IQ 7X 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
- Integrated Enphase EN4 bulkhead may allow for direct connection to PV modules

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

CERTIFIED SAFETY

To learn more about Enphase offerings, visit **enphase.com/au**

ENPHASE

Enphase IQ 7, IQ 7+, and IQ 7X Microinverters with EN4 bulkhead

INPUT DATA (DC)	IQ7-60-E-INT	IQ7PLUS-72-E-INT	IQ7X-96-E-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 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/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	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	Enphase EN4 bulkhead with integrated TE Connectivity PV4-S DC connectors		
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			
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. 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.

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