

Enphase IQ 8D Microinverter

Dual PV module support

The high-powered, smart-grid-ready **Enphase IQ 8D™** microinverter is our most advanced microinverter to date.

Each IQ 8D microinverter supports two series-connected PV modules and integrates with the Enphase IQ Commercial Envoy and the Enphase Enlighten monitoring and analysis software.

With simplified design, improved energy harvest, and advanced monitoring, the IQ 8D microinverter offers true peace of mind during operation and maintenance.



Safe

- All AC cabling system without high-voltage DC that can cause arc-fault fires
- Built-in rapid shutdown capability allows microinverters to shutdown safely and automatically
- Safer in extreme outdoor conditions, with NEMA 6 rating

Powerful

- Higher energy production with distributed architecture
- Patented burst mode for additional energy generation in low light conditions
- 8th generation, software-driven inverter architecture with SWIFT ASIC

Reliable

- Higher system uptime with no single point of failure
- Industry-leading 25-year standard warranty
- Million hours of rigorous power-on testing

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INPUT DATA (DC)		IQ8D-72-E-US
Commonly used modules for pairing ¹	235 W - 440 W + (two modules per microinverter)	
Module compatibility ¹	60-cell and 72-cell PV modules with full or split cell configuration	
Maximum input DC voltage	119 V	
Peak power tracking voltage	60 V - 95 V	
Operating range	30 V - 119 V	
Min/Max start voltage	35 V / 119 V	
Max DC short circuit current (module Isc)	15 A	
Oversvoltage class DC ports	II	
DC port backfeed current	0 A	
PV array configuration	2 x 1 ungrounded array; No additional DC side protection required; AC side protection requires max 20 A per three-phase branch circuit	
OUTPUT DATA (AC)		
Peak output power	640 VA	
Maximum continuous output power	633 VA	
Nominal (L-L) voltage/range ²	208 V / 183-229 V	
Maximum continuous output current	3.04 A (208 V)	
Nominal frequency	60 Hz	
Extended frequency range	50 - 68 Hz	
AC short circuit fault current over 3 cycles	5.8 Arms	
Maximum microinverters per 20 A branch circuit ³	9	
Oversvoltage class AC port	III	
AC port backfeed current	18mA	
Power factor setting	1.0	
Power factor (adjustable)	0.7 - 1.0, leading or lagging	
EFFICIENCY @208 V		
MPPT efficiency	99.5 %	
CEC weighted efficiency	97.5 %	
MECHANICAL DATA		
Ambient temperature range	-40°C to +60°C (-40°F to +140°F) ⁴	
Relative humidity range	4% to 100% (condensing)	
DC connector type	Enphase EN4 bulkhead	
Dimensions (HxWxD)	287 mm x 250 mm x 38 mm (11.2" x 9.8" x 1.5") without bracket	
Weight	1.55 kg (3.4 lbs)	
Cooling	Natural convection	
Approved for wet locations	Yes	
Enclosure	Class II double-insulated, corrosion resistant polymeric enclosure	
Environmental category / UV exposure rating	IP67 / Sunlight resistant	
FEATURES		
Communication	Power Line Communication (PLC)	
Monitoring	Enlighten Manager and MyEnlighten monitoring options. Both options require installation of an Enphase IQ Commercial Envoy.	
Disconnecting means	The AC and DC connectors have been evaluated and approved by UL for use as the load-break disconnect required by NEC 690 and C22.1-2018 Rule 64-220.	
Compliance (pending)	CA Rule 21 (UL 1741-SA) UL 62109-1, UL1741/IEEE1547, FCC Part 15 Class B, ICES-0003 Class B, UL 3741 UL Standard for Safety, Photovoltaic Hazard Control (Pending), UL 1699B UL Standard for Safety, Photovoltaic (PV) Arc-Fault Circuit Protection (Pending), CAN/CSA-C22.2 NO. 107.1-01 This product will be UL listed as PV Hazard Reduction System Component. When installed in accordance with the rapid shutdown PV array listing or field labeling instructions the resulting array complies with the requirements for rapid shutdown in accordance with NEC Section 690.12 (B) (2) (1).	

1. No enforced DC/AC ratio. See the compatibility calculator at <https://enphase.com/en-us/support/module-compatibility>.

2. Nominal voltage range can be configured if required by the utility.

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

4. Full power to 50°C, derate after.

To learn more about Enphase offerings, visit enphase.com