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

To learn more about Enphase offerings, visit enphase.com
Enphase IQ 8D Microinverter

**INPUT DATA (DC)**

- **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
- **Overvoltage 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
- **Overvoltage 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**: -40ºC to +60ºC (-40ºF to +140ºF)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.

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 50ºC, derate after.

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