IQ8D-BAT Microinverters

The high-powered smart grid-ready IQ8D-BAT Microinverter is an integral part of the Enphase IQ Battery system. The IQ8D-BAT Microinverter resides in the IQ Battery and integrates with the Enphase App monitoring and analysis software.

Enphase 15 year limited warranty

UL CERTIFIED SAFETY

Key specifications	IQ8D-BAT	
Maximum input DC voltage	100 V	
Operating DC voltage range	60–87 V	
Maximum AC continuous output power	640 VA @240 VAC	555 VA @208 VAC
Rated AC continuous output current	2.67 A	
Extended frequency range	50–68 Hz	
Environmental category/UV exposure rating	NEMA Type 6/Outdoor	

Reliable

- More than a million cumulative hours of testing[1]
- Class II double-insulated enclosure
- Built-in rapid shutdown compliant (NEC 2014 & 2017)
- UL Listed[2]

Microgrid-forming

- Complies with advanced grid support, voltage, and frequency ride-through requirements
- Remotely updates to respond to changing grid requirements
- Configurable for varying grid profiles
- Meets CA Rule 21 (UL 1741-SA)

[1] IQ8 Series Microinverters redefine reliability standards with more than one million cumulative hours of power-on testing, enabling an industry-leading limited warranty of up to 15 years.
[2] IQ8D-BAT Series Microinverters are UL Listed as PV rapid shutdown equipment and conform with various regulations when installed according to the manufacturer's instructions.

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Input data (DC)	Units	IQ8D-BAT
Maximum input DC voltage	V	100
Operating DC voltagerange	V	60–87
Maximum DC short circuit current	A	15
Overvoltage class - DC port	—	II

Output data (AC)	Units	@240 VAC	@208 VAC
Maximum continuous output power	VA	640	555
Maximum output power (for 10 s)	VA	1024	887
Nominal (L-L) voltage/range[3]	V	240/211–264	208/183-229
Rated continuous output current	A	2.67	
Peak output current (for 10 s)	A	4.27	
Nominal frequency	Hz	60	
Extended frequency range	Hz	50–68	
Maximum units (L-L) per branch circuit	#	6 (20 A circuit), 12 (40 A circuit), 24 (80 A circuit)	
Overvoltage class - AC port	—	III	
Power factor (off-grid)	—	-1 to 0 to 1	
Power factor (grid-tied)	—	-0.8 ... 0.85	

Efficiency	Units	IQ8D-BAT
Charging efficiency (CEC weighted)	%	96
Discharging efficiency (CEC weighted)	%	96.5

Mechanical data	Units	IQ8D-BAT
Ambient air temperature range	°F (°C)	-40 to 140 (-40 to 60)
Relative humidity range	—	4K4H/4% to 100%
Connector type	—	Enphase designed QDC bulkhead connector
Dimensions (W × H × D)	mm	265 × 200 × 40
Weight	lb (kg)	3.39 (1.54)
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	—	NEMA Type 6/Outdoor

Features	IQ8D-BAT
Communication	Power line communication (PLC)
Monitoring	Enphase App monitoring and analysis software. Compatible with IQ Gateway
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.
Compliance	CA Rule 21 (UL 1741 SB and SA).

[3] Nominal voltage range can be extended beyond nominal if required by the utility.

Features	IQ8D-BAT
	UL 62109-1, UL 1741/IEEE® -1547:2018 FCC Part 15 Class B, ICES-0003 Class B, CAN/CSA-C22.2 NO. 107.1-01 UL 3741 Standard for Safety Photovoltaic Hazard Control (Rapid Shutdown) HECO Rule 14H, UL 1998/IEC 60730

Warranty	IQ8D-BAT
Limited warranty	15-year

Revision history

Revision	Date	Description
DSH-00145-3.0	November 2024	Updated output power information.
DSH-00145-2.0	November 2023	Editorial updates.
DSH-00145-1.0	July 2023	Initial release.