



IQ7HS Microinverter

The high-powered, smart grid-ready IQ7HS Microinverter with integrated MC4 connectors dramatically simplifies installation while achieving the highest system efficiency.



Part of the Enphase Energy System, the IQ7HS Microinverters integrate with the IQ Gateway, IQ Battery, and the Enphase Installer App monitoring and analysis software.



IQ7HS 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 of up to 25 years.



Connect PV modules quickly and easily to the IQ7HS Microinverters that have integrated MC4 connectors.



IQ7HS Microinverters are UL Listed as PV rapid shutdown equipment and conform with various regulations when installed according to the manufacturer's instructions.

Easy to install

- Lightweight and simple
- Faster installation with improved, lighter two-wire cabling
- Built-in rapid shutdown compliant (NEC 2014, 2017, 2020, and 2023)

Productive and reliable

- Optimized for high powered 60-cell/120-half-cut-cell, 66-cell/132-half-cut-cell, and 72-cell/144-half-cut-cell PV modules
- More than a million hours of testing
- Class II double-insulated enclosure
- UL Listed

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
- Meets CA Rule 21 (UL 1741-SA) and IEEE 1547:2018 (UL 1741-SB, 3rd Ed.) for single-phase systems

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INPUT DATA (DC)		UNITS	IQ7HS-66-M-US
Commonly used module pairings ¹	W		320–460
Module compatibility	—	60-cell/120-half-cut-cell, 66-cell/132-half-cut-cell, and 72-cell/144-half-cut-cell PV modules	
Maximum input DC voltage	V		59
Peak power tracking voltage	V		38–43
Operating range	V		20–59
Minimum/Maximum start voltage	V		30/59
Maximum input DC short-circuit current	A		25
Maximum module I_{sc}	A		20
Overvoltage class DC port	—		II
DC port back-feed current	A		0
PV array configuration	—	1 × 1 ungrounded array; no additional DC side protection required; AC side protection requires max. 20 A per branch circuit	
OUTPUT DATA (AC)			
Peak output power	VA		384 @ 240 VAC, 369 @ 208 VAC
Maximum continuous output power	VA		384 @ 240 VAC, 369 @ 208 VAC
Nominal (L-L) voltage/Range ²	V		240/211–264, 208/183–229
Maximum continuous output current	—		1.60 A (240 V), 1.77 A (208 V)
Nominal frequency	Hz		60
Extended frequency range	Hz		47–68
AC short-circuit fault current over three cycles	Arms		4.82
Maximum units per 20 A (L-L) branch circuit ³	—		10 (240 VAC), 9 (208 VAC)
Overvoltage class AC port	—		III
AC port back-feed current	mA		18
Power factor setting	—		1.0
Power factor (adjustable)	—		0.85 leading ... 0.85 lagging
EFFICIENCY			
CEC weighted efficiency	%		97.0 @ 240 V, 96.5 @ 208 V
MECHANICAL DATA			
Ambient temperature range	°C (°F)		–40 to 60 (–40 to 140)
Relative humidity range	%		4 to 100 (condensing)
DC connector type	—		Stäubli MC4
Dimensions (H × W × D)	mm (in)		212 (8.3) × 175 (6.9) × 30.2 (1.2) without bracket
Weight	kg (lb)		1.1 (2.4)
Cooling	—		Natural convection—no fans
Approved for wet locations	—		Yes
Pollution degree	—		PD3

MECHANICAL DATA

Enclosure	—	Class II double-insulated, corrosion-resistant polymeric enclosure
Environmental category/UV exposure rating	—	NEMA type 6/Outdoor

FEATURES

Communication	Power line communication (PLC)
Monitoring	Enphase Installer App and monitoring options 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 means required by NEC 690 and C22.1-2018 Rule 64-220.
Compliance	CA Rule 21 (UL 1741-SA), IEEE 1547:2018 (UL 1741-SB 3 rd Ed.) for single-phase systems HEI Rule 14H SRD 2.0 UL 62109-1, FCC Part 15 Class B, ICES-0003 Class B CAN/CSA-C22.2 NO. 107.1-01 This product is UL Listed as PV rapid shutdown equipment and conforms with NEC 2014, NEC 2017, and NEC 2020 section 690.12 and C22.1-2018 Rule 64-218 rapid shutdown of PV systems for AC and DC conductors, when installed according to manufacturer's instructions.

Revision history

REVISION	DATE	DESCRIPTION
DSH-00562-1.0	August 2024	Initial release.