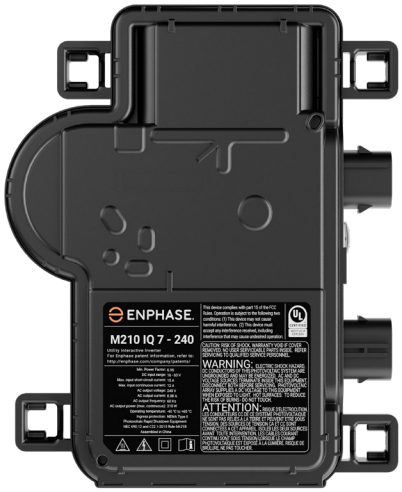
IQ7-based M210 Series Microinverters

The IQ7-based M210 Microinverters on IQ7 platform allow easy replacement and site expansion* of 240 VAC M Series PV installations.

The DC circuit is isolated and insulated from ground, so no Ground Electrode Conductor (GEC) is required for the microinverter. This simplifies installation, enhances safety, and saves on labor and materials costs.

The IQ7-based M210 Microinverters integrates perfectly with the IQ Cables, the Envoy/IQ Gateway communications gateway, and Enphase monitoring and analysis software.

The IQ platform microinverters extend reliability standards set forth by previous generations and undergo over a million hours of testing, enabling Enphase to provide an industry-leading warranty of up to 15 years.



Productive
- Maximizes energy production
- Minimizes the impact of shading, dust, and debris
- No single point of system failure

Simple
- Lighter weight than earlier M Series Microinverters
- No GEC needed for microinverter
- No DC design or string calculation required
- Easy installation with IQ Cable

Reliable
- Envoy/IQ Gateway and internet connection required
- Configurable for varying grid profiles
- Built-in rapid shutdown compliant (NEC 2014 & 2017)
- UL Listed

* Refer to AHJ and utility regulations for allowed system expansions

IQ7-based M210 Series Microinverters

INPUT DATA (DC)	M210240-IQ7-S22-US
Commonly used module pairings[1]	180–250 W
Module compatibility	72-cell PV modules only
Maximum input DC voltage	62 V
Peak power tracking voltage	31–50 V
Operating range	16–60 V
Minimum/maximum start voltage	38 V/62 V
Maximum DC short-circuit current (module Isc)	12 A
Overvoltage class DC port	II
DC port backfeed current	0 A
Maximum input current	10 A
OUTPUT DATA (AC)	**M210240-IQ7-S22-US**
Peak output power	210 VA
Maximum continuous output power	210 VA
Nominal (L-L) voltage/range[2]	240 V/211-264 V
Nominal output current	0.88 A (A_{rms} at nominal duration)
Nominal frequency/range	60 Hz/57–61 Hz
Extended frequency range	57–63 Hz
AC short-circuit fault current over 3 cycles	5.8 A_{rms}
Maximum units per 20 A (L-L) branch circuit[3]	13
Overvoltage class AC port	III
AC port backfeed current	18 mA
Power factor setting	>0.95
Power factor (adjustable)	0.85 leading ... 0.85 lagging
EFFICIENCY	**@240 V**
Peak efficiency	96%
CEC weighted efficiency	95.5%
Static MPPT efficiency (weighted, ref. EN50530)	99.6%
MECHANICAL DATA	**M210240-IQ7-S22-US**
Ambient temperature range	-40—65ºC (-40—149ºF)
AC connector type	Q-EC-M-240 adapter
DC connector type	Q-DCC-2 (MC-4 dongle)
Weight	4.4 lb
Dimensions (H × W × D)	8” × 5.25” × 1.25” (without bracket)
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	
Communication	Power line communication (PLC)
Monitoring	Enphase Installer Portal and Enphase App; requires installation of an Envoy/IQ Gateway
Disconnecting means	AC and DC connectors evaluated/approved by UL as load-break disconnect (NEC 690, C22.1-2018 Rule 64-220)
Integrated ground	Equipment ground provided in IQ Cable; no additional GEC required; GFP integrated into microinverter
Compliance	UL 1741/IEEE1547, FCC Part 15 Class B, Listed as PV Rapid Shutdown equipment meeting NEC-2014/2017 690.12
FEATURES	
Warranty	15 years

Revision history

Revision	Date	Description
DSH-00902-01	December 2025	Initial release.

1. No enforced DC/AC ratio. See the compatibility calculator at https://enphase.com/installers/microinverters/calculator.
2. Nominal voltage range can be extended beyond nominal if required by the utility.
3. 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**

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