

Enphase M250

The versatile **Enphase M250 Microinverter™** performs in both residential and commercial solar PV installations and is compatible with both 60-cell and 72-cell modules. With its all-AC approach and integrated grounding, the M250 delivers increased energy harvest and reduces design and installation complexity.

The Enphase M250 Microinverter integrates seamlessly with the Enphase Engage™ Cable, the Enphase Envoy™ communications gateway, and Enphase Enlighten™ monitoring and analysis software.

Productive

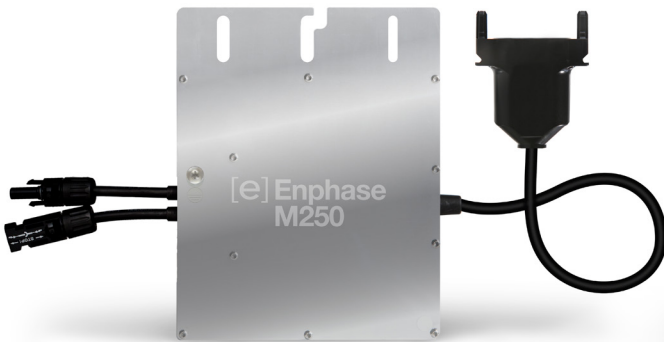
- Designed for a wide range of modules
- Maximizes energy production
- Minimizes impact of shading, dust, and debris

Simple

- No DC design or string calculation required
- No GEC needed for microinverter
- Easy installation with Engage cable

Reliable

- 4th-generation product
- More than 1 million hours of testing and millions of units shipped
- Industry-leading warranty, up to 25 years



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Enphase M250 Microinverter

INPUT DATA (DC)	MODELS: M250-60-2LL-S22, M250-60-2LL-S25	MODELS: M250-72-2LL-S22, M250-72-2LL-S25
Commonly used module pairings ¹	210 - 350+ W	210 - 350+ W
Compatibility	60-cell PV modules	60-cell and 72-cell PV modules
Maximum input DC voltage	48 V	62 V
Peak power tracking voltage	27 V - 39 V	27 V - 48 V
Operating range	16 V - 48 V	16 V - 60V
Min/Max start voltage	22 V / 48 V	22 V / 48 V
Max DC short circuit current	15 A	15 A
OUTPUT DATA (AC)		
Peak output power	250 W	
Maximum continuous output power	240 W	
Nominal output current	1.15 A @ 208 VAC 1.0 A @ 240 VAC	
Nominal voltage/range	208 V / 183-229 V @ 208 VAC 240 V / 211-264 V @ 240 VAC	
Nominal frequency/range	60.0 / 57-61 Hz	
Extended frequency range ²	57-62.5 Hz	
Power factor	>0.95	
Maximum units per 20 A branch circuit	24 (three-phase 208 VAC) 16 (single phase 240 VAC)	
Maximum output fault current	850 mA rms for 6 cycles	
EFFICIENCY		
CEC weighted efficiency	96.5%	
Peak inverter efficiency	96.5%	
Static MPPT efficiency (weighted, reference EN50530)	99.4%	
Night time power consumption	65 mW max	
MECHANICAL DATA		
Ambient temperature range	-40°C to +65°C	
Dimensions (WxHxD)	171 mm x 173 mm x 30 mm (without mounting bracket)	
Weight	1.6 kg (3.4 lbs)	
Cooling	Natural convection - No fans	
Enclosure environmental rating	Outdoor - NEMA 6	
Connector type	MC4: M250-60-2LL-S22 and M250-72-2LL-S22 Amphenol H4: M250-60-2LL-S25 and M250-72-2LL-S25	
FEATURES		
Communication	Power line	
Integrated ground	The DC circuit meets the requirements for ungrounded PV arrays in NEC 690.35. Equipment ground is provided in the Engage Cable. No additional GEC or ground is required. Ground fault protection (GFP) is integrated into the microinverter.	
Monitoring	Enlighten Manager and MyEnlighten monitoring options	
Transformer design	High frequency transformers, galvanically isolated	
Compliance	UL 2703 recognized, UL1741/IEEE1547, FCC Part 15 Class B, CAN/CSA-C22.2 NO. 0-M91, 0.4-04, and 107.1-01 This product is UL Listed as PV Rapid Shut Down Equipment and conforms with NEC-2014 and NEC-2017 section 690.12 and C22.1-2015 Rule 64-218 Rapid Shutdown of PV Systems, for AC and DC conductors, when installed according manufacturer's instructions.	

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

2. Frequency ranges can be extended beyond nominal if required by the utility.

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