Enphase Microinverters

Enphase® M250

Reviewed for Code Compliance
Inspections Division
Approved with Conditions

Date: 01/05/16

The Enphase Energy Microinverter System improves energy harvest, increases reliability, and dramatically simplifies design, installation, and management of solar power systems.

The Enphase System includes the microinverter, the Enphase® Envoy, and Enlighten,® Enphase's monitoring and analysis software.

PRODUCTIVE

- Optimised for higher-power modules
- Maximises energy production
- Minimises impact of shading, dust, and debris

RELIABLE

- 4th-generation product
- More than one million hours of testing
- System availability greater than 99.8%

SMART

- Quick and simple design, installation, and management
- 24/7 monitoring and analysis

SAFE

- Extra low-voltage DC reduces fire risk
- No single point of system failure
- Easy installation with Engage Cable

[e] enphase ENERGY

Reviewed for Code Compliance
Inspections Division
Approved with Conditions

Date: 01/05/16

INPUT DATA (DC)	Model: M250-60-230-S22	Model: M250-72-2LN
Recommended input power (STC)	210 - 310 W	210 - 310 W
Maximum input DC voltage	48 V [Note 1]	60 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	258 W	258 W
Rated output power	250 W	250 W
Rated output current	1.09 A	1.09 A
Nominal voltage	230 V	230 V
Nominal frequency	50.0 Hz	50.0 Hz
Power factor	>0.95	>0.95
Maximum units per 20 A branch circuit	14 (Ph + N), 42 (3Ph + N)	14 (Ph + N), 42 (3Ph + N)
Maximum units per cable section	14 (Ph + N), 24 (3Ph + N)	14 (Ph + N), 24 (3Ph + N)
AC backfeed current to module	0 mA	0 mA
EFFICIENCY		
EN 50530 (EU) efficiency	95.7%	95.7%
Static MPPT efficiency (weighted, reference EN50530)	99.6%	99.5%
Night time power consumption	0.055 W	0.065 W
MECHANICAL DATA		
External operating temperature range (ambient)	-40°C to +65°C	
Internal operating temperature range	-40°C to +85°C	
Enclosure environmental rating	Outdoor - IP67	
Connector type	MC4	
Dimensions (WxHxD)	179 mm x 217 mm x 28 mm (with bracket)	
Weight	1.66 kg	
Cooling	Natural convection - No fans	
FEATURES		
Compatibility	60-cell PV Modules [Note 2]	60- or 72-cell PV Modules
Communication	Power line communication	
Monitoring	Enlighten Manager and MyEnlighten monitoring options	
Transformer design	High frequency transformers, galvanically isolated	
Compliance	AS4777, C10/11, CEI_0-21, EN50438, EN62109-1, EN62109-2, ERDF-NOI-RES_13E_V5, G59/2, G83/2, VDE-0126-1-1 + A1, VDE AR-N 4105	
Automatic disconnect	Automatic disconnect according to OVE / ÖNORM E 8001-4-712	

Note 1: Recommended maximum DC operating input voltage. The M250-60-230-S22 may be used with PV modules with Voc up to 51 V under limited circumstances. Contact Enphase Energy technical support for details and approval.

Note 2: Compatibility may be extended to modules with higher cell counts under limited circumstances. Contact Enphase Energy technical support for details and approval.

To learn more about Enphase microinverter technology, visit enphase.com/au.

© 2015 Enphase Energy. All rights reserved. All trademarks or brands in this document are registered by their respective owner.