

12 MPP Trackers

Ideal for Utility-Size
Ground-Mounted
PV Systems



M250HV

High-efficiency 3-phase solar inverters for the EMEA market. –
The perfect choice for very large solar PV systems,
such as those used in the utility sector.

Features

- High input voltages (up to 1500 V_{DC}) and output voltages (800 V_{AC})
- Excellent efficiency: >99% peak & 98.8% EU efficiency
- IP66 housing for harsh environmental conditions
- Separate AC wiring box for easy and safe access to the cables
- Integration wireless communication with Sub-1G
- MyDeltaSolar App for quick commissioning
- Without string fuses
- 12 MPP trackers, ultra-wide MPP operating voltage range
- Reactive power compensation in night operation

Product Highlights

- The design with 12 MPPT trackers and ultra-wide MPP operating voltage range (820 to 1350 V_{DC}) provides the flexibility needed to maximize the yield of your PV system.
- Delta's M250HV reaches a peak efficiency of 99.0% (EU efficiency: 98.8%).

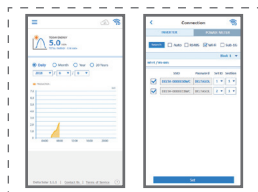
Product Overview

Sub-1G Communication / MyDeltaSolar App

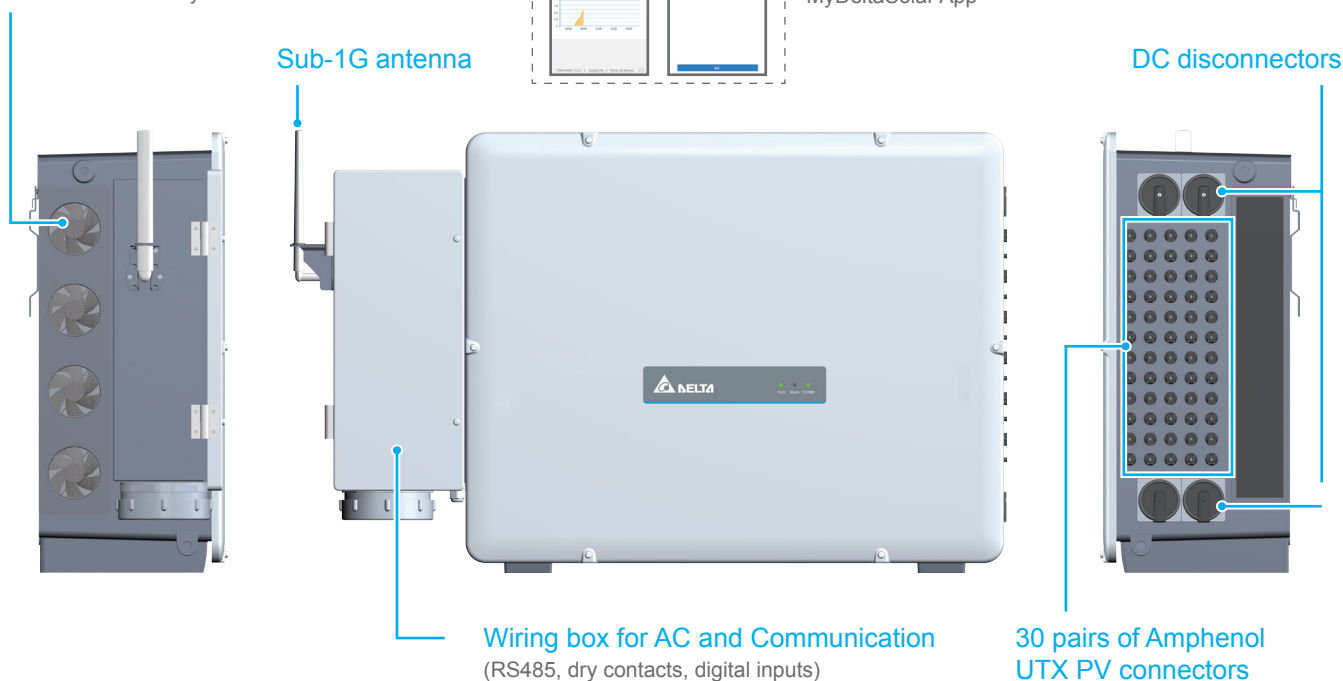
In conjunction with the DC1 data collector, the MyDeltaSolar App enables easy on-site commissioning and complete system monitoring.

Replacable fan module

The intelligent cooling system improves the overall performance of the system and minimizes noise.



MyDeltaSolar App



Flexible Mounting

The M250HV can be mounted on the wall (mounting plate included) or on the floor (mounting feet sold separately). Four transport handles are also included in the scope of delivery, allowing two people to easily lift up the inverter.



250 kVA transformerless solar inverters

Technical data

INPUT (DC)	M250HV
Maximum input voltage	1500 V _{DC}
Input voltage range	550 to 1500 V _{DC}
MPP operating voltage range (full power)	820 to 1350 V _{DC}
Nominal voltage	1150 V _{DC}
Maximum current	Total: 312 A
Maximum allowed array (I _{sc})	480 A
Night time consumption	< 2 W ¹⁾
Max. number of MPP trackers	12 (fuses only required when using 3 pairs per MPPT)
DC Surge Protection Devices	Type 2, replaceable (EN 50539-11)

OUTPUT (AC)	
Max. apparent power	250 kVA ²⁾
Nominal apparent power	250 kVA ²⁾
AC voltage range	640 to 920 V _{AC} ³⁾ ; 3-phase + PE (Δ) or 3-phase + N + PE (Y)
Maximum AC output current	180 A
Nominal frequency	50 / 60 Hz
Frequency range	50 / 60 Hz ± 5 Hz ³⁾
Power factor adjustable	0.8 cap to 0.8 ind
Total harmonic distortion (THD)	< 3% at nominal apparent power
AC Surge Protection Devices	Type 2, replaceable (EN 61463-11)

GENERAL SPECIFICATION

Delta model name	M250HV
Peak efficiency	99.0%
EU efficiency	98.8%
Operating temperature	-25 to +60 °C
Nominal power without derating	-25 to +50 °C
Storage temperature	-25 to +60 °C
Relative humidity	0 to 100 %, non-condensing
Max. operating altitude	4000 m (above sea level)
Standard guarantee	5 years (guarantee extension is possible)

MECHANICAL DESIGN

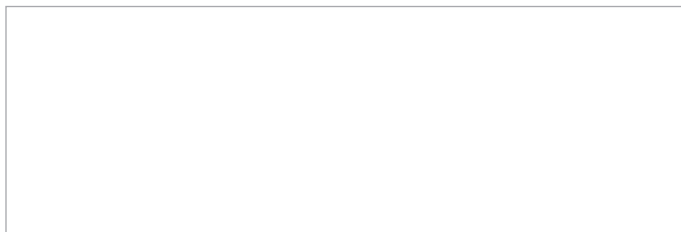
Dimensions (W x H x D)	990 × 643 × 275 mm
Weight	90 kg
Cooling	Replaceable fan module
AC connection type	Screw terminals
DC connection type	Total 30 pairs of Amphenol UTX PV connectors; 6x 2 pairs per MPP + 6x 3 pairs per MPP
Communication interfaces	2 x RS485, 2 x Dry contacts, 1 x EPO, 1 x 12 V _{DC} , 6 x Digital inputs
Communication	RS485, Wi-Fi (optional), Sub-1G (optional)
Disconnectors	4 x integrated mechanical DC disconnectors
Status display	3 LED: On Grid, Communication, Alarm
Data visualization	via Gateway
Mounting options	Wall mounting, Ground mounting (optional)

SAFETY / STANDARDS	M250HV
Protection degree	IP66
Safety class	I
Configurable trip parameters	Yes
Insulation monitoring	Yes
Overload behavior	Current limitation, power limitation
Anti-islanding protection / Grid regulation	VFR 2019 C10/11, VDE 0124-100, VDE-AR-N 4105, VDE-AR-N 4110, EN 50549-1/-2
EMC	EN 61000-6-2, EN 61000-6-3, EN 61000-3-11, EN 61000-3-12
Safety	IEC 62109-1 / -2, CE compliance

1) Night time consumption with standby communication

2) Cos Phi = 1 (VA = W)

3) AC voltage and frequency range will be programmed according to the individual country requirements.



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