

12 MPP Trackers
Ideal for Utility-Scale
Ground-Mounted
PV Systems



M250HV

Very powerful high-efficiency three-phase solar inverters. –
The perfect choice for very large ground-mounted PV systems,
such as those used in the utility sector.

Features

- 12 MPP trackers, ultra-wide MPP operating voltage range
- High output voltage (800 V_{AC}) with >99% peak efficiency
- IP66 housing for harsh environmental conditions
- Separate AC wiring box for easy and safe access to the cables
- Wireless communication via Sub-1G (optional, requires DC1 data collector with Sub-1G module) or Wi-Fi (optional)
- Pro-EL Electroluminescence feature
- Reactive power compensation 24/7
- Data point collection for string monitoring and I-V curve creation
- Arc fault and reverse polarity protection, Anti-PID feature
- Flexible mounting on the wall or on the floor (optional)

250 kVA solar inverters

Technical data

INPUT (DC)	M250HV
Max. permissible input voltage	1500 V _{DC} ¹⁾
Input voltage range	500 to 1500 V _{DC}
MPP operating voltage range	820 to 1350 V _{DC} ²⁾
Nominal voltage	1150 V _{DC}
Max. current	312 A total, 26 A per MPP tracker
Max. supported short circuit current per input stage	40 A per MPP tracker ³⁾
Night time consumption	< 5 W ⁴⁾
Max. number of MPP trackers	12
DC Surge Protection Devices	Type 2 (EN 50539-11), replaceable

OUTPUT (AC)	
Max. apparent power	250 kVA ⁵⁾
Max. active power	250 kW ^{5) 6)}
Nominal apparent power	250 kVA ⁵⁾
AC voltage range	640 to 920 V _{AC} ⁷⁾ ; 3 phases + PE (Δ)
Max. AC output current	180.5 A
Frequency range	50 / 60 Hz ± 5 Hz ⁷⁾
Adjustment range power factor	0.8 cap to 0.8 ind
Total harmonic distortion (THD)	< 3% at nominal apparent power
AC Surge Protection Devices	Type 2 (EN 61463-11), replaceable

GENERAL SPECIFICATION

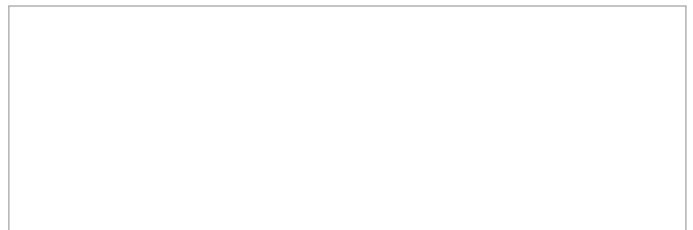
Delta model name	M250HV
Peak efficiency	99.0%
EU efficiency	98.8%
Overall operating temperature range	-25 to +60 °C
Operating temperature range without derating	-25 to +50 °C ⁸⁾
Storage temperature range	-25 to +60 °C
Relative humidity	0 to 100 %, non-condensing
Max. operating altitude	4000 m (above sea level)
Standard guarantee	5 years (guarantee extension is possible)
Topology	Without transformer

MECHANICAL DESIGN

Dimensions (W x H x D)	993 × 644 × 284 mm
Weight	101 kg ± 2 kg
Cooling	Replaceable fan module
AC connection type	Screw terminals
AC cable specification	
• Wire cross section	Cu: 95 to 300 mm ² , Al: 120 to 300 mm ²
• Cable diameter	33 to 77 mm (4-wire), 22 to 31 mm (1-wire, optional)
DC connection type	Total 30 pairs of Amphenol H4 Plus PV connectors; 6 MPP x 2 pairs + 6 MPP x 3 pairs
Communication interfaces	2 x RS485, 2 x Dry contacts, 1 x EPO, 1 x 12 V _{DC} , 6 x Digital inputs
Communication	RS485, optional Sub-1G & Wi-Fi
Disconnectors	Mechanical
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	Enedis-PRO-RES_10E, Enedis-PRO-RES_64E, VDE-AR-N 4110, VDE-AR-N 4120
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) The maximum voltage withstand is 1600 V_{DC}. The inverter starts to work when the PV voltage drops below 1500 V_{DC}.
- 2) With max. active power, at 25 °C ambient temperature
- 3) The short-circuit maximum current of PV string or PV array as defined in IEC 60364-7-712
- 4) Night time consumption with standby communication
- 5) Cos Phi = 1 (VA = W)
- 6) The active power can be limited.
- 7) AC voltage and frequency range will be programmed according to the individual country requirements.
- 8) <35 °C: 820 to 1350 V; <40 °C: 1000 to 1350 V; <50 °C: 1200 to 1250 V_{DC}



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