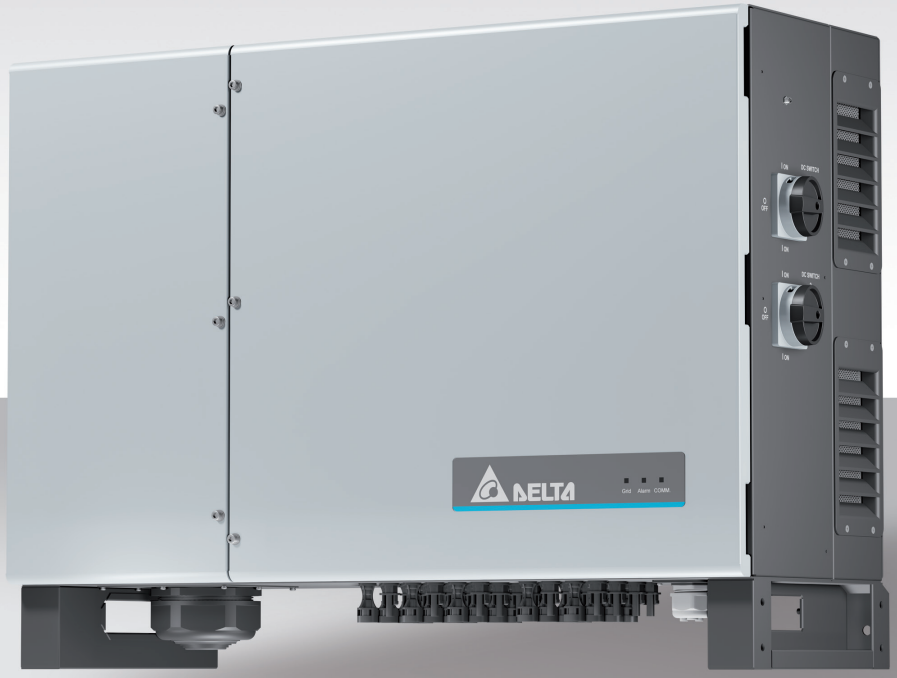
99.1%
Peak efficiency



M125HV

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

- High output voltage (600 V_{AC}) with >99% peak efficiency
- High DC input voltage up to 1500 V_{DC}
- IP65 for indoor and outdoor applications
- Separate AC wiring box for easy and safe access to the cables
- Wireless communication via optional Sub-1G (requires DC1 Data Collector)
- 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

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140 kVA solar inverters

Technical data

INPUT (DC)	M125HV Gen2
Max. input voltage	1500 V_{DC} [1]
Input voltage range	860 to 1500 V_{DC}
MPP operating voltage range (full power)	860 to 1450 V_{DC} [2]
Nominal voltage	1050 V_{DC}
Max. current	150 A
Max. short-circuit current I_{SC}	320 A
Night time consumption	< 3.5 W [3]
Max. number of MPP trackers	1
String fuse protection	20 A / 1500 V [4]
DC Surge Protection Devices	Type 2 (EN 50539-11), replaceable, optional with Type 1
OUTPUT (AC)	
Max. apparent power	140 kVA [5]
Max. active power	125 kW
Nominal apparent power	125 kVA [5]
AC voltage range	600 -36% / +15% V_{AC} [6]; 3 phases + PE (Δ)
Max. AC output current	135 A
Frequency range	50 / 60 Hz ± 5 Hz [6]
Adjustment range power factor	0.8 cap to 0.8 ind (0.9 cap to 0.9 at maximum power)
Total harmonic distortion (THD)	< 3% at nominal apparent power
AC Surge Protection Devices	Type 2 (EN 61463-11), replaceable, optional with Type 1
GENERAL SPECIFICATION	
Delta model name	M125HV_111 Gen2
Peak efficiency	99.1%
EU efficiency	98.7%
Typical noise emission	71.5 dB(A) [7]
Overall operating temperature range	-25 to +60 °C
Operating temperature range without derating	-25 to +50 °C
Storage temperature	-25 to +60 °C
Reltaive 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)	900 × 663 × 334 mm
Weight	80 kg
Cooling	Replaceable fan module
AC connection type	Screw terminals
AC cable specification	
• Wire cross section	Cu: 50 to 185 mm^2, Al: 50 to 185 mm^2
• Cable diameter	24 to 51 mm (4-wire)
DC connection type	20 pairs of Amphenol H4 Plus PV connectors;
Communication interfaces	2 x RS485, 2 x Dry contacts, 1 x EPO, 1 x 12 V_{DC}, 6 x Digital inputs
Communication	RS485, Sunspec
Disconnectors	Mechanical DC disconnectors
Status display	3 LED: On Grid, Communication, Alarm
Data visualization	via Gateway
Mounting options	Wall mounting, Ground mounting

SAFETY / STANDARDS	M125HV Gen2
Protection degree	IP65
Safety class	I
Configurable trip parameters	Yes
Insulation monitoring	Yes
Overload behavior	Current limitation, power limitation
Anti-islanding protection / Grid regulation	VUTE C15-712 ERDF-RES-PRO_64E, VDE-AR-N 4110
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) Ambient conditions: < 0 °C: 860 bis 1450 V_{DC}, < 25 °C: 860 bis 1350 V_{DC}, < 40 °C: 860 bis 1250 V_{DC}
3) Night time consumption with standby communication
4) The value when the internal temperature of the inverter is 25 °C. At higher internal temperatures, the value may drop to 10A.
5) Cos Phi = 1 (VA = W)
6) AC voltage and frequency range will be programmed according to the individual country requirements.
7) 1m distance, ambient temperature 25 °C

✓	AC/DC surge protection devices type 2, replaceable, optional type 1
✓	String fuses + string current sensors
✓	Mechanical DC disconnectors

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