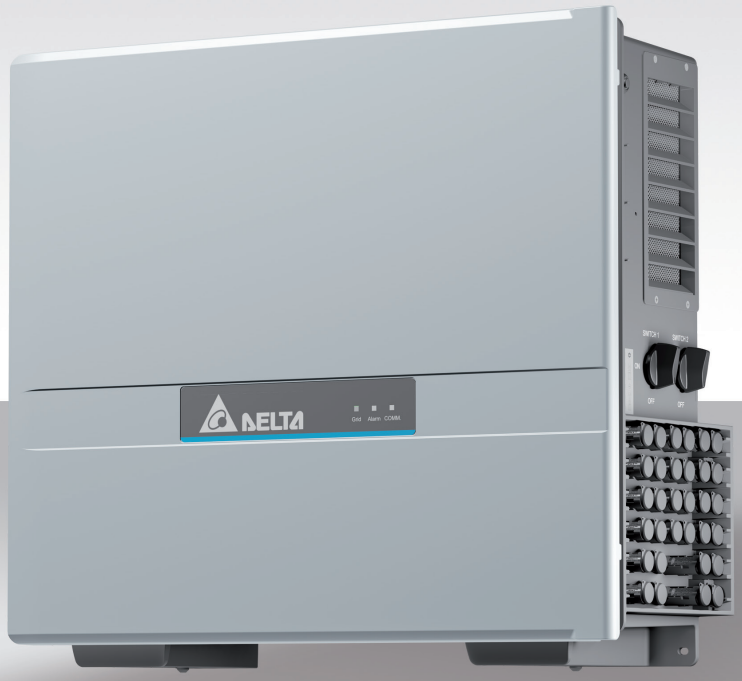
8 MPP Trackers
Ideal for Commercial Rooftop or Ground-Mounted PV Systems



M100A Flex

High efficiency 3-phase solar inverters for the EMEA market – Perfect choice for large-scale solar PV systems, such as those used in the commercial or utility sectors.

Features

- 8 MPP trackers for easy handling of shaded areas and different module orientations
- Lightweight and IP66 housing for harsh environmental conditions
- Built-in DC disconnectors, AC and DC surge protection devices
- Integrated string monitoring function
- Peak efficiency of 98.7%
- No string fuses required
- Optional Sub-1G and Wi-Fi communications
- Reactive power compensation in night operation, Anti-PID
- Flexible mounting on the wall or directly on the floor (optional)

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110 kVA solar inverters

Technical Data

INPUT (DC)	M100A
Max. input voltage	1100 V_{DC} [1]
Input voltage range	200 to 1000 V_{DC}
MPP operating voltage range (full power)	520 to 840 V_{DC}
Nominal voltage	600 V_{DC}
Max. current	185 A total, 30 A per MPP tracker
Max. short-circuit current I_{SC}	50 A per MPP tracker
Night time consumption	< 3.5 W [3]
Max. number of MPP trackers	8
DC Surge Protection Devices	Type 2, replaceable (EN 50539-11), optional with combined Type 1+2

OUTPUT (AC)	
Max. apparent power	110 kVA [3]
Max. active power	110 kW [3] [4]
Nominal apparent power	100 kVA [3]
AC voltage range	400 V -20% / +20%; [5] 3 Phase + PE (Δ) or 3 Phase + N + PE (Y)
Max. AC output current	168 A at 400 V
Frequency range	50 / 60 Hz ± 5 Hz [5]
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 (EN 61463-11)

GENERAL SPECIFICATION	
Delta model name	M100A_280
Peak efficiency	98.7%
EU efficiency	98.4%
Operating temperature	-25 to +60 °C
Operating temperature 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)
Noise level	65.2 dB(A) [6]
Standard guarantee	5 years (guarantee extension is possible)
Topology	Without transformer

MECHANICAL DESIGN	
Dimensions (W x H x D)	699 × 629 × 264 mm
Weight	77 kg
Cooling	Replaceable fan module
AC connection type	Terminal block, Max. 240 mm² Cu and Al conductor
AC cable specification	Single-conductor cable or multi-conductor cable
• Wire cross section	Cu : 70 to 240 mm², Al : 70 to 240 mm²
• Cable diameter	42 to 75 mm / 12 to 27 mm (single-conductor cable)
DC connection type	16 pairs of Amphenol H4 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, Sub-1G (optional), Wi-Fi (optional)
Disconnectors	2 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	M100A
Protection degree	IP66
Safety class	II
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) The max withstand voltage is 1100 V_{DC}. The inverter starts to operate when the PV voltage drops below 1000 V_{DC}.
2) Night time consumption with standby communication
3) Cos Phi = 1 (VA = W)
4) Power of 100KW with a temperature ≤ 50 °C (600 VDC and Power Factor =1)
5) AC voltage and frequency range will be programmed according to the individual country requirements.
6) At 1 m, 25 °C

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