

M10A

High-efficiency three-phase solar inverters for residential and small commercial PV systems.

200 V↑

Wide input voltage range (200 to 1000 V)

- IP65 aluminium housing for long-lasting protection against moisture and corrosion
- Wide input voltage range
- Integrated display

98.3%

Peak efficiency

- Low noise emission due to fanless design
- Commissioning with smartphone app via Wi-Fi

10.5 kVA solar inverter

Input (DC)	M10A
Operating voltage range	200 to 1000 V_{DC}
MPP voltage range	200 to 1000 V_{DC}
MPP voltage range with max. power at sym. load [1]	415 to 800 V_{DC}
Switch-on voltage	250 V_{DC}
Maximum current (per MPP tracker / total) [2]	DC1: 15 A, DC2: 10 A / 25 A
Maximum number of MPP trackers	Parallel inputs: 1; separate inputs: 2
Input load	Symmetrical and asymmetrical (60%/40%)

Output (AC)	M10A
Max. Apparent power [3]	10.5 kVA
Nominal apparent power [3]	10.0 kVA
Voltage range [4]	230 V_{AC} ± 20% / 400 ± 20%; 3 phases + PE or 3 phases + N + PE
Nominal current per phase	14.5 A
Frequency range [4]	50 / 60 Hz ± 5 Hz
Adjustment range of power factor	0.8 cap to 0.8 ind
Total harmonic distortion (THD)	< 3% at rated apparent power

General Specifications	M10A
Delta model name	RPI M10A
Delta part number	RPI103FA0E1000
Peak efficiency	98.3%
Efficiency EU	98.0%
Operating temperature range	-25 to +60°C
Temperature range without power derating	-25 to +40°C
Storage temperature range	-25 to +60°C
Relative humidity	0 to 100%, non-condensing
Maximum operating altitude	2000 m (above sea level)
Standard guarantee	5 years (warranty extension available upon request)

Mechanical design	M10A
Physical dimensions (H x W x D)	445 × 510 × 177 mm
Weight	26 kg
Cooling	Natural convection, without fans
Mounting options	Wall mounting [5]
Disconnectors	1x mechanical AC/DC disconnector
Connection type AC side	1 AC plug Amphenol C16-3 [6]
Connection type DC side	2 pairs DC plugs Multi-Contact MC4 [6]

Communication	M10A
Communication interfaces	2 x RS485, 1 x dry contact, 1 x external power-off, 6 x digital inputs, Wi-Fi
Display	Monochrome 4-line LCD
Data visualization	DeltaSolar app, MyDeltaSolar Cloud
Display of operating status	Display, 3 LEDs

Safety / Standards	M10A
Protection class	IP65
Safety class	I
Configurable trip parameters	Yes
Insulation monitoring	Yes
Overload behavior	Current limitation, power limitation
Anti-islanding protection / Grid regulation	VDE 0126-1-1; VDE-AR-N 4105; EN 50438:2007; Synergrid C10/C11 06/2012; UTE C 15-712-1; VDE 0126-1-1/A1; French islands 50 Hz
EMC	EN 61000-6-2; EN 61000-6-3; EN 61000-3-2; EN 61000-3-3
Safety	IEC 62109-1/-2; CE compliance

1) When operating with symmetrical DC inputs (50% / 50%)
2) Maximum 7.0 kW for input DC1 and 5.4 kW for input DC2
3) Cos Phi = 1 (VA = W)
4) AC voltage and frequency range are programmed according to the respective country regulations.
5) Mounting plate included in scope of delivery
6) Included in scope of delivery

Email: solarsales.emea@deltaww.com

Telephone: +49 7641 455 547 (phone number in Germany)