

M10A

High efficiency 3-phase transformerless inverters for the European market -
Perfect choice for residential or small commercial PV systems

Versatile applications

- Aluminium housing ensures long lasting protection against moisture and corrosion
- Wireless and RS485 communication
- Wide input voltage range
- Suitable for indoor and outdoor applications (IP65)
- Compact design for simplified installation

Maximum profitability

- Peak efficiency of 98.3%
- Fanless design for reduced maintenance costs
- 2 MPP trackers for system design flexibility and maximum yield

10 kVA transformerless solar inverters

Technical data RPI M10A

INPUT (DC)	M10A
Recommended maximum PV power	12.5 kW _P ¹⁾
Maximum power	11,0 kW ²⁾
Voltage range	200 ... 1000 V
MPP operating voltage range	200 ... 1000 V
Startup voltage	250 V
MPP operating voltage range with full power	415 ... 800 V: with symmetrical load (50% / 50%)
Maximum input current	15 A for DC1 input / 10 A for DC2 input
Max. number of MPP trackers	Parallel inputs: 1 MPP tracker Separate inputs: 2 MPP trackers
Input load	Symmetrical and asymmetrical (60% / 40%)

OUTPUT (AC)	M10A
Maximum apparent power	10.5 kVA ³⁾
Nominal apparent power	10.0 kVA ³⁾
Voltage range	230 V ± 20% / 400 V ± 20% ⁴⁾ 3 phase + PE or 3 phase + N + PE
Nominal current (per phase)	14.5 A
Nominal current	50 / 60 Hz
Nominal frequency	50 ± 5 Hz / 60 ± 5 Hz ⁴⁾
Power factor adjustable	0.8 cap ... 0.8 ind
Total harmonic distortion (THD)	< 3% at nominal apparent power

GENERAL SPECIFICATION

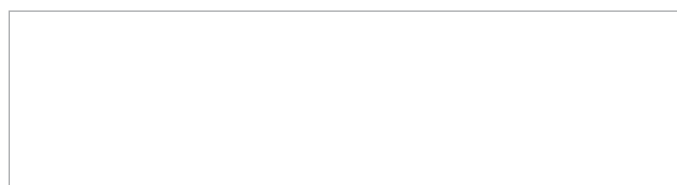
Model name	M10A
Part number Delta	RPI103FA0E1000
Maximum efficiency	98.3%
Efficiency EU	98.0%
Operating temperature range	-25 ... +60 °C
Full power without derating	-25 ... +40 °C
Storage temperature range	-25 ... +60 °C
Relative humidity	0 ... 100%, non-condensing
Maximum operating altitude	2,000 m (above sea level)
Standard guarantee	5 years (guarantee extension available upon request)

MECHANICAL DESIGN

Dimensions (W x H x D)	445 x 510 x 177 mm
Weight	26 kg
Cooling	Convection cooling
AC connector	Amphenol C16-3
DC connector	3 pairs of Multi-Contact MC4
Communication interfaces	2 x RS485, 1 x dry contact, 1 x external power-off (EPO), 6 x digital inputs
Communication	RS485, Wi-Fi
AC/DC disconnecter	Integrated
Display	2 LEDs, 4-line LCD, data visualization via mobile device app

SAFETY / STANDARDS	M10A
Protection degree	IP65
Protection 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; ÖNORM E8001-4-712 + A1 : 04/2014; UTE C 15-712-1; VDE 0126-1-1/A1; VFR 2014; 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 operated with symmetrical DC inputs (50% / 50%)
- 2) Maximum 7.0 kW für DC1 input and 5.4 kW for DC2 input
- 3) Cos Phi = 1 (VA = W)
- 4) AC voltage and frequency range will be programmed according to the individual country requirements.



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