



RPI M6A

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
- Wide input voltage range
- Suitable for indoor and outdoor applications (IP65)
- Compact design for simplified installation – exceptional power density-to-size ratio

Maximum profitability

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

6.0 kVA transformerless solar inverters

Technical data RPI M6A

INPUT (DC)	RPI M6A
Max. recommended PV power	7.5 kW _P ¹⁾
Maximum power	6.6 kW ²⁾
Voltage range	200 ... 1000 V
MPP operating voltage range	200 ... 1000 V
Startup voltage	250 V
Voltage range for maximum power	315 ... 800 V: with symmetrical load (50/50 %)
Max. current	20 A (10 A per MPP tracker)
Max. number of MPP trackers	Parallel inputs: 1 MPP tracker Separate inputs: 2 MPP trackers
Input load	≤ 4.25 kW per MPP tracker; symmetrical and asymmetrical (40/60 %)

OUTPUT (AC)	
Max. apparent power	6.3 kVA ³⁾
Nominal apparent power	6.0 kVA ³⁾
Voltage range	230 ± 20% / 400 V ± 20% ⁴⁾ 3 phase + PE or 3 phase + N + PE
Nominal current	8.7 A
Nominal frequency	50 / 60 Hz
Frequency range	50 / 60 Hz ± 5 Hz ⁴⁾
Power factor adjustable	0.8 cap ... 0.8 ind
Total harmonic distortion (THD)	< 3 % @ nominal apparent power

GENERAL SPECIFICATION

Model name	RPI M6A
Part number Delta	RPI602FA0E1000
Max. efficiency	98.3 %
Efficiency EU	97.6 %
Operating temperature	-25 ... +60 °C
Full power without derating	-25 ... +40 °C
Storage temperature	-25 ... +60 °C
Humidity	0 ... 100 % non-condensing
Max. operating altitude	2000 m (above sea level)
Standard guarantee	5 years (guarantee extension available upon request)

MECHANICAL DESIGN

Size (W x H x D)	510 × 445 × 177 mm
Weight	25 kg
Cooling	Convection cooling
AC connector	Amphenol C16-3
DC connector	2 pairs of Multi-Contact MC4
Communication interfaces	2 x RS485, 1 x dry contact, 1 x emergency power-off (EPO), 6 x digital inputs
AC / DC disconnect	Integrated
Display	2 LEDs, 4-line LCD

SAFETY / STANDARDS	RPI M6A
Protection degree	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; ÖNORM E8001-4-712 + A1 : 04/2014; UTE C 15-712-1 VDE 0126-1-1/A1 VFR 2014; French Islands 50 Hz
EMC	EN61000-6-2; EN61000-6-3; EN61000-3-2; EN61000-3-3
Safety	IEC62109-1 / -2; CE compliance

1) When operated with balanced DC inputs (50/50 %)

2) Maximum 4.25 kW per DC input with asymmetrical load (40/60 %)

3) Cos Phi = 1 (VA = W)

4) AC voltage and frequency range will be programmed according to the individual country requirements.