



RPI M30A

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

Versatile applications

- Aluminium housing ensures long lasting protection against moisture and corrosion
- Wide input voltage range
- Suitable for indoor and outdoor applications (IP65)

Maximum profitability

- Peak efficiency of 98.5 %
- 2 MPP trackers for increased flexibility and maximum yield
- Symmetrical and asymmetrical loading possible (33/67 %)
- Nominal apparent power 30 kVA (33 kVA max. apparent power possible ⁴⁾)

30 kVA transformerless solar inverters

Technical data RPI M30A

INPUT (DC)	RPI M30A
Max. recommended PV power	38 kW _P ¹⁾
Max. input power	35 kW
Nominal power	31.5 kW ²⁾
Voltage range	200 ... 1000 V
MPP operating voltage range	200 ... 1000 V
Startup voltage	250 V
Voltage range for maximum power	520 ... 800 V with symmetrical load (50/50 %)
Max. current	60 A (30 A per MPP tracker)
Max. number of MPP trackers	Parallel inputs: 1 MPP tracker Separate inputs: 2 MPP trackers
Input load	≤ 21 kW per MPP tracker; symmetrical and asymmetrical

OUTPUT (AC)

Max. apparent power	33 kVA ^{3) 4)}
Nominal apparent power	30 kVA ³⁾
Voltage range	230 V ± 10% / 400 V ± 10 % ⁵⁾ 3 phase + PE or 3 phase + N + PE
Nominal current	43.5 A
Nominal frequency	50 / 60 Hz
Frequency range	50 / 60 Hz ± 5 Hz ⁵⁾
Power factor adjustable	0.8 cap ... 0.8 ind
Total harmonic distortion (THD)	< 3 % @ nominal apparent power

GENERAL SPECIFICATION

Model name	RPI M30A_121
Part number Delta	RPI303FA0E1100
Max. efficiency	98.5 %
Efficiency EU	98.2 %
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 is possible)

MECHANICAL DESIGN

Size (L x W x D)	625 x 612 x 278 mm
Weight	48.5 kg
Cooling	Fans
AC connector	China Aviation Optical-Electrical Technology Co. PVE5T50KP73 (included)
DC connector	6 pairs Multi-Contact MC4 (included)
Communication interfaces	2 x RS485, 2 x Dry contacts, 1 x EPO, 6 x Digital inputs
AC/DC disconnect	Integrated
Display	2 LEDs, 4-line LCD

SAFETY / STANDARDS	RPI M30A
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/A1; UTE C15-712-1 VDE 16 1-1 A1 VFR 2013/VFR 2014; VDE-AR-N 4105; BDEW
EMC	EN61000-6-2; EN61000-6-3; EN61000-3-11; EN61000-3-1
Safety	IEC62109-1 / -2; CE conformity

- 1) When operated with symmetrical DC inputs (50/50 %)
- 2) Maximum 21 kW per DC input with asymmetrical load
- 3) Cos Phi = 1 (VA = W)
- 4) 33 kVA / 48 A_{AC} is possible under the following conditions: DC input voltage > 580 V with symmetrical load and ambient temp. is < 40 °C.
- 5) AC voltage and frequency range will be programmed according to the individual country requirements.



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