



RPI H4A

High efficiency single phase transformerless inverters for the European market -
Perfect choice for residential 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

Maximum profitability

- Peak efficiency of 97.5 %
- Fanless design for reduced maintenance costs
- 2 MPP trackers for system design flexibility and maximum yield

4.0 kVA transformerless solar inverters

Technical data RPI H4A

INPUT (DC)	RPI H4A
Max. recommended PV power	5.0 kW _P ¹⁾
Maximum power	4.32 kW
Nominal power	4.2 kW
Max. power per MPP tracker	3.2 kW ²⁾
Voltage range	100 ... 550 V
Startup voltage	100 V
Max. ratio for asymmetrical load	80/20 %; 20/80 %
Full power MPP range	180 ... 500 V with symmetrical load 266 ... 500 V with asymmetrical load
Max. current	24 A (12 A per MPP tracker)
Max. number of MPP trackers	Parallel inputs: 1 MPP tracker Separate inputs: 2 MPP trackers

OUTPUT (AC)	RPI H4A
Maximum apparent power	4 kVA ^{3) 4) 5)}
Nominal apparent power	4 kVA ⁴⁾
Voltage range	230 -20%/+22%, 1 Phase (L, N, PE) ⁶⁾
Nominal current	17.39 A (16 A for UK)
Nominal frequency	50 / 60 Hz
Frequency range	50 / 60 Hz ± 5 Hz ⁶⁾
Power factor adjustable	0.8 cap ... 0.8 ind
Total harmonic distortion (THD)	< 3 % @ nominal apparent power

GENERAL SPECIFICATION

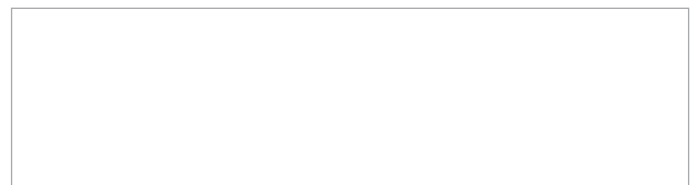
Model name	RPI H4A
Part number Delta	RPI402N55E0000
Max. efficiency	97.5 %
Efficiency EU	97.0 %
Operating temperature	-25 ... +60 °C
Full power without derating	-25 ... +40 °C
Storage temperature	-25 ... +60 °C
Humidity	0 ... 100 % non-condensing
Max. operating altitude	2000 m (above sea level)
Standard guarantee	5 years (guarantee extension available upon request)

MECHANICAL DESIGN

Size (H x W x D)	414 x 475 x 155 mm
Weight	21 kg
Cooling	Convection cooling
AC connector	Amphenol C16-3 2 + PE (C016 20E002 800 1)
DC connector	2 pairs of Multi-Contact MC4
Communication interfaces	2 x RS485, 1 x dry contact, 4 x digital inputs
DC disconnect	Integrated
Display	2 LEDs, 2-line LCD

SAFETY / STANDARDS	RPI H4A
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; Synergrid C10/C11 06/2012 / VDE 126 A1; VFR 2013 / 2014; VDE 16 1-1 A1; UTE 15-712; French Islands 50 Hz; EN 50438; UK G83-2
EMC	EN61000-6-2; EN61000-6-3
Safety	IEC62109-1 / -2; CE compliance

- 1) When operated with symmetrical load
- 2) At MPP input voltage range with maximum power for asymmetrical load
- 3) 3.68 kW for United Kingdom
- 4) Cos Phi = 1 (VA = W)
- 5) The maximum AC apparent power indicates the power an inverter is able to deliver. This maximum apparent power may not necessarily be reached.
- 6) AC voltage and frequency range will be programmed according to the individual country requirements.



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