

99.2%

World leading
peak efficiency



M125HV

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

Versatile applications

- Aluminium housing ensures long lasting protection against moisture and corrosion
- Suitable for indoor and outdoor applications (IP65)
- Easy cooling fan module removal for cleaning
- Communication compatibility with Sunspec protocol via RS485
- 600 V nominal AC voltage
- Mechanical DC disconnect
- 2*20 string fused inputs with individual current monitoring
- Wiring box certified to protection class II (IEC 61439-2)
- IT earthing scheme permitted

Maximum profitability

- Peak efficiency of 99.2%
- Convenient wiring box available with built-in Type 2 AC and DC SPDs (EN 61463-11, EN 50539-11) & optional Type 1
- 125 kW with power factor up to ± 0.9
- Maximum apparent power 140 kVA
- High DC input voltage up to 1500 Vdc
- AC cable within 50 mm² up to 185 mm² (Cu or Al wire) terminated with ring terminator nut, M10 nut for connection

140 kVA transformerless solar inverters

Technical data M125HV

INPUT (DC)	M125HV
Max. voltage	1600 V (sporadically) ¹⁾
Voltage range	860 ... 1500 V
MPP operating voltage range	860 ... 1450 V ²⁾
Voltage range for nominal power	860 ... 1450 V
Nominal voltage	1050 V
Max. current	150 A
Night time consumption	< 3.5 W ³⁾
Max. number of MPP trackers	1
String Fuse Protection	20 A / 1500 V ⁴⁾
Surge Protection Devices ⁴⁾	Type 2, replaceable (EN 50539-11) / Type 1 optional

OUTPUT (AC)	M125HV
Max. apparent / active power	140 kVA / 125 kW
Nominal apparent power	125 kVA ⁵⁾
Voltage range	600 V -36% ... +15% ⁶⁾ 3 phase + PE (Δ)
Max. output current	135 A
Nominal frequency	50 / 60 Hz
Frequency range	50 / 60 Hz ± 5 Hz ⁶⁾
Power factor adjustable	0.8 cap ... 0.8 ind (1 ... 0.9 at maximum power)
Total harmonic distortion (THD)	< 3% @ nominal apparent power
Surge Protection Devices	Type 2, replaceable (EN 61463-11) / Type 1 optional

GENERAL SPECIFICATION

Model	M125HV_110
Delta part number	RPI124M110000
Max. efficiency / EU eff.	99.2% / 99.0%
Operating temperature	-25 ... +60 °C
Nominal power without derating	-25 ... +50 °C
Storage temperature	-25 ... +60 °C
Humidity	0 ... 100 % non-condensing
Max. operating altitude	3000 m (above sea level)
Standard guarantee	5 years (guarantee extension is possible)

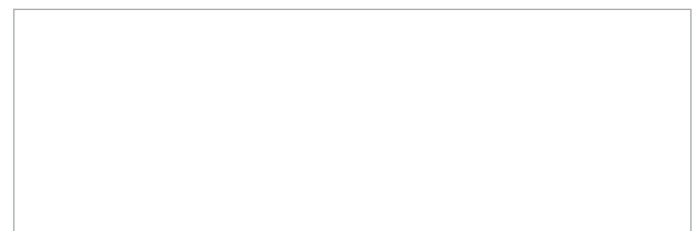
MECHANICAL DESIGN

Size (L x W x D)	663 × 940 × 334 mm
Weight	80 kg
Cooling	Fans with removable fan module
AC connection type	AC cable within 50 mm ² up to 185 mm ² (Cu or Al wire) terminated with ring terminator nut, M10 nut for connection
DC connection type	20 pairs of H4 UTX 4/6mm ² connectors
Communication interfaces	RS485, dry contacts x 2, EPO x 1, VCC, Digital inputs x 6
Communication	RS485, Sunspec
DC disconnectors	2 x integrated mechanical DC disconnectors
Display	2 LEDs, Data visualization via gateway / commissioning software
Installation type	Wall-mountable or ground-mountable with included brackets

SAFETY / STANDARDS	M125HV
Protection degree	IP65
Safety class	I
Configurable trip parameters	Yes
Insulation monitoring	Yes
Overload behavior	Current limitation, power limitation
Anti-islanding protection / Grid regulation	UTE C15-712 ERDF-RES-PRO_64E, VDE-AR-N 4110
EMC	EN61000-6-2, EN61000-6-3, EN61000-3-11, EN61000-3-12
Safety	IEC62109-1 / -2, CE compliance

- 1) The max withstand voltage is 1600 Vdc. (the inverter stops to operate when the PV voltage is over 1500 Vdc)
- 2) Ambient: < 0 °C : 860...1450 V, < 25 °C : 860...1350 V or < 40 °C : 860...1250 V
- 3) Night time consumption with standby communication
- 4) The value when the internal temperature of the inverter is 25 °C
- 5) Cos Phi = 1 (VA = W)
- 6) AC voltage and frequency range will be programmed according to the individual country requirements.

	DC/AC SPDs (replaceable)	String Fuses + Current Monitoring	Mechanical DC Disconnect
M125HV_110	X	X	X



United Kingdom

Email: sales.uk@solar-inverter.com
Tel: 0800 051 4280 (Free Call)

International

Email: sales.europe@solar-inverter.com
Tel: +49 7641 455 547