

**99.0%**

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
- 2 x integrated mechanical DC disconnectors
- 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 99.0%
- 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  $\pm 0.9$
- Maximum apparent power 140 kVA
- High DC input voltage up to 1500 Vdc
- AC cable within 50 mm<sup>2</sup> up to 185 mm<sup>2</sup> (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) <sup>1)</sup>                 |
| Voltage range                          | 860 ... 1500 V                                      |
| MPP operating voltage range            | 860 ... 1450 V <sup>2)</sup>                        |
| Voltage range for nominal power        | 860 ... 1450 V                                      |
| Nominal voltage                        | 1050 V                                              |
| Max. current                           | 150 A                                               |
| Night time consumption                 | < 3.5 W <sup>3)</sup>                               |
| Max. number of MPP trackers            | 1                                                   |
| String Fuse Protection                 | 20 A / 1500 V <sup>4)</sup>                         |
| Surge Protection Devices <sup>4)</sup> | Type 2, replaceable (EN 50539-11) / Type 1 optional |

| OUTPUT (AC)                     |                                                       |
|---------------------------------|-------------------------------------------------------|
| Max. apparent / active power    | 140 kVA / 125 kW                                      |
| Nominal apparent power          | 125 kVA <sup>5)</sup>                                 |
| Voltage range                   | 600 V -36% ... +15% <sup>6)</sup><br>3 phase + PE (Δ) |
| Max. output current             | 135 A                                                 |
| Nominal frequency               | 50 / 60 Hz                                            |
| Frequency range                 | 50 / 60 Hz ± 5 Hz <sup>6)</sup>                       |
| 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.      | 99.0% / 98.6%                             |
| 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 <sup>2</sup> up to 185 mm <sup>2</sup> (Cu or Al wire) terminated with ring terminator nut, M10 nut for connection |
| DC connection type       | 20 pairs of H4 UTX 4/6mm <sup>2</sup> 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                  | 3 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 Type 2 (replaceable) / Type 1 optional | String Fuses + Current Monitoring | Mechanical DC Disconnecter |
|------------|---------------------------------------------------|-----------------------------------|----------------------------|
| M125HV_110 | X                                                 | X                                 | X                          |



### United Kingdom

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

### International

Email: [sales.europe@solar-inverter.com](mailto:sales.europe@solar-inverter.com)  
Tel: +49 7641 455 547