

INV500-90

Micro-Inverter



Description

The AEconversion Micro-Inverter INV500-90 converts the generated energy into grid-compliant alternating current. For this, the INV500-90 is directly connected to one or two modules. The Individual conversion allows optimal utilization of solar energy.

The micro-inverter INV500-90 operates up to a maximum power of 500W with a maximum PV input voltage of 90V.

In systems with central or string inverters, the series connection of the PV modules often causes energy losses. If the output from a module drops, for example through shading, it reduces the performance of the whole string. This problem is solved by micro-inverters, because in systems with these inverters, the modules work independently and guarantee the highest possible return.



Input

- Maximum PV power: 500 W
- Maximum DC voltage: 90 V
- Min./Max. start voltage: 40 V / 90 V
- MPP range: 40 ... 80 V
- Maximum DC current: 11 A

Output

- Maximum AC Power: 480 W
- Nominal Current: 2.1 A
- Power factor: > 0.99

Efficiency

- Peak inverter efficiency: 95.0 %
- European efficiency: 94.0 %
- Nominal MPP efficiency: 99.8 %

Features

- Communication Versions: Powerline / RS-485 / NoCom
- MSD integrated acc. to VDE AR-N 4105
- Safety class: Class I

Mechanical Data

- Operating Temperature: -25 °C ... +70 °C
- Night time power consumption: 30 mW
- Max. altitude a.s.l.: 2000 m

Housing

- 314 mm x 267 mm x 66.5 mm (BxHxT)
- Weight: 2.5 kg
- Cooling: natural convection
- Enclosure material: aluminum
- Protection Degree:
IP65 (50Hz-Version) / NEMA 4 (60Hz-Version)

50 Hz-Version

- Nominal AC voltage: 230 V
- Nominal AC voltage range: 184 V ... 264 V
- Frequency: 50.0 Hz
- Frequency range: 47.5 Hz ... 51.5 Hz
- Productsafety: IEC 62103:2003, IEC 62109-1:2010, IEC 55011B, EN 50178:1997
- EMC: EN 61000-6-2, EN 61000-6-3

60 Hz-Version

- Nominal AC voltage: 208 V or 240 V
- Nominal AC voltage range: 184 V ... 264 V
- Frequency: 60.0 Hz
- Frequency range: 59.5 Hz ... 60.3 Hz
- Productsafety: UL 1741:2010, IEEE 1547:2003, CSA C22.2
- EMC: FCC Part 15 Class B