

## ➤ TN1-5.0

- High Reliability
- High Efficiency
- Operating at Harsh Environment
- Smart and Easy Monitoring
- Fast and Easy Installation
- Compatible with High Power PV Panels
- 5 Years Guarantee and 20 Years After-Sale Responsibilities



DC Input Data	
Max. Recommended PV Generator Power	7.5 kW
MPP Voltage Range at Rated Power	175 - 500 V
Operating Range	125 - 600 V
Rated Input Voltage / Start Voltage	360 V / 180 V
Max. N_Load Input Voltage	620 V
Number of Independent MPP Inputs	2
Number of PV Strings Per MPPT	1 / 1
Max. PV Input Current	2x16 A or 1x30 A in Parallel MPPT Mode
Max. DC Short-Circuit Current	2x24 A
AC Output Data	
Rated AC Output Power	5 kW
Max. AC Output Apparent Power	5.2 kVA
Rated AC Voltage	230 VAC Single Phase
AC Voltage Range (Ph-N)	180 - 265 VAC
Rated Frequency (Range)	50 Hz / 60 Hz (±5 Hz)
Max. AC Output Current	25 A(rms)
Power Factor at Rated Power/Adjustable Power Factor	> 0.99 0.8 Leading & 0.8 Lagging
Total Harmonic Distortion (THD)	< % 3
Connection Phases	1 Ph

General Data	
Max. Efficiency	97.7 %
European Efficiency	97.2 %
Standby Consumption	< 1 W
Topology	Transformerless
Operating Ambient Temperature	-25 °C to 60 °C (Derating: Over 45 °C)
Relative Humidity (Non-Condensing)	0 – 100 %
Max. Operating Altitude	3000m
Cooling Method	Natural
Display	LCD + LED Indicator
Communication	RS485 & GPRS/GSM
Degree of Protection (Acc. to IEC60529)	IP65
Mounting Method	Wall-Mounting Bracket
Dimensions (W×H×D)	436×436×166 mm
Weight	≈ 18.6 Kg
Protection and Function	
Grid Monitoring	Yes
DC Reverse Polarity Protection	Yes
AC Short-Circuit Protection	Yes
Leakage Current Protection	Yes
Surge Protection	Yes
Ground Fault Monitoring	Yes
DC Switch	Yes
PV String Current Monitoring	Yes
Standards Compliance	
Safety	IEC 62109-1:2010, IEC 62109-2:2011
Grid Connection	IEC 61727:2004, IEC 62116:2014 VDE-0126-1-1:2013 VDE-AR-N4105:2011
Electromagnetic Compatibility	IEC 61000-6-1/-2/-3/-4 IEC 61000-3-2/-3/-11/-12

