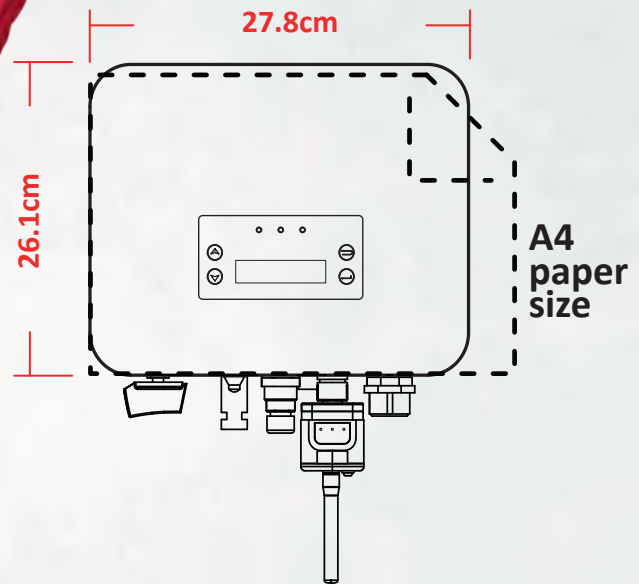


Residential HNS series

HNS-TL1

1-3 kW



The Afore HNS Series Single-phase inverters are designed for residential PV system applications, rating from 1kW to 3kW. All models have unibody housings with aluminum structure which is anodized, increasing durability and effectively prevents corrosion. The unibody housing can ensure efficient heat dissipation, which significantly improves the reliability and extends the life of the inverters.

The inverter menu is activated by sensor touch buttons. Communication implements are via the Wi-Fi module (can be changed to Ethernet / GPRS). Check the system status anytime and anywhere via online portal or APP.



ANTI-FLOW
Anti-Feed-in Function



PV OVERSIZE
Max. 1.5 time
PV Oversize Capacity



PROTECTION
Multiple intelligent
Protections



SMART
Smart IV Curve Scanning



Wi-Fi
Wi-Fi Standard
Ethernet/GPRS Optional



CONFIGURATION
Quick & Easy
Config. via Wi-Fi



MODBUS
MODBUS
Communication Ready

MPPT efficiency > 99.9%



No fans design

Compact and light body design



Quick and easy installation

Active and reactive power compensation, adjust power factor



AC output 1.1x continuous operation

| PV Input Data | HNS1000TL-1 | HNS1500TL-1 | HNS2000TL-1 | HNS2500TL-1 | HNS3000TL-1 |
|--|-------------|-------------|-------------|-------------|-------------|
| Max. DC Power (W) | 1500 | 2250 | 3000 | 3750 | 4200 |
| Max. DC Voltage (V) | 500 | 500 | 500 | 500 | 500 |
| MPPT Voltage Range (V) | 50-500 | 50-500 | 50-500 | 50-500 | 50-500 |
| MPPT Full Power Voltage Range (V) | 70-500 | 110-500 | 145-500 | 180-500 | 220-500 |
| Rated Input Voltage (V) | 360 | | | | |
| Start-up Voltage (V) | 50 | | | | |
| Max. Input Current (A) | 14 | | | | |
| Max. Short Current (A) | 18 | | | | |
| No. of MPP Tracker / No. of PV String | 1/1 | | | | |
| Input Connector Type | MC4 | | | | |

| AC Output Data | HNS1000TL-1 | HNS1500TL-1 | HNS2000TL-1 | HNS2500TL-1 | HNS3000TL-1 |
|---------------------------------|--|-------------|-------------|-------------|-------------|
| Max. Output Power (W) | 1100 | 1650 | 2200 | 2750 | 3300 |
| Nominal Output Power (W) | 1000 | 1500 | 2000 | 2500 | 3000 |
| Max. Output Current (A) | 6 | 9 | 12 | 13 | 15 |
| Nominal Output Voltage (V) | L/N/PE, 220Vac, 230Vac, 240Vac | | | | |
| Grid Voltage Range | 180Vac-276Vac (According to local standard) | | | | |
| Nominal Output Frequency (Hz) | 50/60 | | | | |
| Grid Frequency Range | 45-55Hz/54-66Hz (According to local standard) | | | | |
| Output Power Factor | 1 default (adjustable from 0.8 leading to 0.8 lagging) | | | | |
| Output Current THD | <3% | | | | |

| Efficiency | HNS1000TL-1 | HNS1500TL-1 | HNS2000TL-1 | HNS2500TL-1 | HNS3000TL-1 |
|-----------------|-------------|-------------|-------------|-------------|-------------|
| Max. Efficiency | 97.50% | 97.80% | 98.10% | 98.10% | 98.13% |
| Euro Efficiency | 96.60% | 96.70% | 96.80% | 97.23% | 97.56% |

| Protection | HNS1000TL-1 | HNS1500TL-1 | HNS2000TL-1 | HNS2500TL-1 | HNS3000TL-1 |
|--------------------------------------|-----------------------|-------------|-------------|-------------|-------------|
| PV Reverse Polarity Protection | YES | | | | |
| PV Insulation Resistance Detection | YES | | | | |
| AC Short Circuit Protection | YES | | | | |
| AC Over Current Protection | YES | | | | |
| AC Over Voltage Protection | YES | | | | |
| Anti-Islanding Protection | YES | | | | |
| Residual Current Detection | YES | | | | |
| Over Temperature Protection | YES | | | | |
| Integrated DC switch | YES | | | | |
| Surge Protection | Integrated (Type III) | | | | |
| Smart IV Curve Scanning | YES | | | | |
| Quick Arc Fault Circuit Interruption | Optional | | | | |

| General Data | HNS1000TL-1 | HNS1500TL-1 | HNS2000TL-1 | HNS2500TL-1 | HNS3000TL-1 |
|----------------------------------|--|-------------|-------------|-------------|-------------|
| Dimensions (H x W x D, mm) | 260 x 280 x 116 | | | | |
| Weight (kg) | 6 | | | | |
| Protection Degree | IP65 | | | | |
| Enclosure Material | Aluminum | | | | |
| Ambient Temperature Range (°C) | -25 to 60 | | | | |
| Humidity Range | 0-100% | | | | |
| Topology | Transformerless | | | | |
| Communication Interface | RS485 / WiFi / Wire Ethernet / GPRS (optional) | | | | |
| Cooling Concept | Convection | | | | |
| Noise Emission (db) | <21 | | | | |
| Night Power Consumption (W) | <0.2 | | <1 | | |
| Max. Operation Altitude (m) | 4000 | | | | |

| Certifications and Standards | HNS1000TL-1 | HNS1500TL-1 | HNS2000TL-1 | HNS2500TL-1 | HNS3000TL-1 |
|------------------------------|---|-------------|-------------|-------------|-------------|
| EMC Standard | EN/IEC 61000-6-2, EN/IEC 61000-6-3, EN61000-3-2, EN61000-3-3, EN61000-3-11, EN61000-3-12 | | | | |
| Safety Standard | IEC 60068, UL1741, EN62109 | | | | |
| Grid-connection | IEEE1547, CSA C22, EN50549, VDE4105, VDE0126, RD1699, ABNT NBR16149 & 16150, AS4777.2, NB/T32004, G98/G99, IEC61727 | | | | |