

Single Phase PV String Inverter

3-6 kW



The Afore HNS Series Single-phase inverters are designed for residential PV system applications, rating from 3kW to 6kW. All models have unibody housings with aluminum structure which is anodized, increasing durability and effectively prevents corrosion. Equipped with external inductors, the unibody housings 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%

Two MPPT design

Active and reactive power compensation, adjust power factor







No fans design

Quick and easy installation

High-quality power output and low THDI







■ Technical Data	HNS3000TL	HNS3600TL	HNS4000TL	HNS4950TL	HNS5000TL	HNS6000TL
PV Input Data						
Max. DC Power (W)	4500	5400	6000	7000	7000	8400
Max. DC Voltage (V)	600	600	600	600	600	600
MPPT Voltage Range (V)	70-550	70-550	70-550	70-550	70-550	70-550
MPPT Full Power Voltage Range (V)	110-550	130-550	145-550	180-550	180-550	220-550
Rated Input Voltage (V)	360					
Start-up Voltage (V)	70					
Max. Input Current (A)	14 x 2					
Max. Short Current (A)	18 x 2					
No. of MPP Tracker / No. of PV String	2/2					
Input Connector Type	MC4					
AC Output Data						
Max. Output Power (VA)	3300 *2	3960 *2	4400 *2	4950	5500 *2	6600 *2
Nominal Output Power (W)	3000	3600	4000	4950	5000	6000
Max. Output Current (A)	15	17.5	20	24	24	28.7
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						
Max. Efficiency	98.20%	98.20%	98.20%	98.20%	98.20%	98.20%
Euro Efficiency	97.80%	97.82%	97.85%	97.90%	97.90%	97.92%
Protection						
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						
Dimensions (W x H x D, mm)	358 x 360 x 142					
Weight (kg)	10					
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)	<28					
Night Power Consumption (W)	<1					
Max. Operation Altitude (m)	4000					
Certifications and Standards						
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, IEC61727					

*1. HNS4950TL model is exclusive for Belgium
*2. For Belgium Max. Output Power (VA) HNS3000TL is 3000; HNS3600TL is 3600; HNS4000TL is 4000; HNS5000TL is 5000; HNS6000TL is 6000