

# Single Phase PV String Inverter

## 7-10 kW



The Afore HNS Series Single-phase inverters are designed for residential PV system applications, rating from 7kW to 10kW. 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.

						
<b>ANTI-FLOW</b> Anti-Feed-in Function	<b>Max. 1.5</b> Max. 1.5 time PV Oversize Capacity	<b>PROTECTION</b> Multiple intelligent Protections	<b>SMART</b> Smart IV Curve Scanning	<b>Wi-Fi</b> Wi-Fi Standard Ethernet/GPRS Optional	<b>CONFIGURATION</b> Quick & Easy Config. via Wi-Fi	<b>MODBUS</b> MODBUS Communication Ready

MPPT efficiency > 99.9%



No fans design



Two MPPT design



Quick and easy installation



Active and reactive power compensation, adjust power factor



High-quality power output and low THDI



Technical Data	HNS7000TL	HNS8000TL	HNS9000TL	HNS10000TL
<b>PV Input Data</b>				
Max. DC Power ( W )	9800	11200	12600	14000
Max. DC Voltage ( V )			600	
MPPT Voltage Range ( V )			70-550	
MPPT Full Power Voltage Range ( V )			220-550	
Rated Input Voltage ( V )			360	
Start-up Voltage ( V )			70	
Max. Input Current ( A )	14+26		26+26	
Max. Short Current ( A )	18+35		35+35	
No. of MPP Tracker / No. of PV String	2/3		2/4	
Input Connector Type			MC4	
<b>AC Output Data</b>				
Max. Output Power ( VA )	7700	8800	9900	11000
Nominal Output Power ( W )	7000	8000	9000	10000
Max. Output Current ( A )	33.6	38.3	45	50
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%	
<b>Efficiency</b>				
Max. Efficiency	98.20%	98.20%	98.32%	98.40%
Euro Efficiency	97.95%	98.00%	98.00%	98.10%
<b>Protection</b>				
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	
<b>General Data</b>				
Dimensions (W x H x D, mm)	370 x 510 x 192		370 x 535 x 192	
Weight ( kg )	17		18	
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		Intelligent fan cooling
Noise Emission ( db )			<40	
Night Power Consumption ( W )			<1	
Max. Operation Altitude ( m )			4000	
<b>Certifications and Standards</b>				
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			