

**Single Phase
PV String Inverter**
1-3 kW



**Single Phase
PV String Inverter**
3-6 kW



**Single Phase
PV String Inverter**
7-10 kW



■ Technical Data	HNS1000TL-1	HNS1500TL-1	HNS2000TL-1	HNS2500TL-1	HNS3000TL-1	HNS3000TL	HNS3600TL	HNS4000TL	HNS4950TL*1	HNS5000TL	HNS6000TL	HNS7000TL	HNS8000TL	HNS9000TL	HNS10000TL	
PV Input Data																
Max. DC Power (W)	1500	2250	3000	3750	4200	4500	5400	6000	7000	7000	8400	9800	11200	12600	14000	
Max. DC Voltage (V)	500	500	500	500	500	600	600	600	600	600	600	600	600	600	600	
MPPT Voltage Range (V)	50-500	50-500	50-500	50-500	50-500	70-550	70-550	70-550	70-550	70-550	70-550	70-550	70-550	70-550	70-550	
MPPT Full Power Voltage Range (V)	70-500	110-500	145-500	180-500	220-500	110-550	130-550	145-550	180-550	180-550	220-550	220-550	220-550	220-550	220-550	
Rated Input Voltage (V)			360					360						360		
Start-up Voltage (V)			50					70						70		
Max. Input Current (A)			14					14 x 2				14+26		26+26		
Max. Short Current (A)			18					18 x 2				18+35		35+35		
No. of MPP Tracker / No. of PV String			1/1					2/2				2/3		2/4		
Input Connector Type			MC4					MC4						MC4		
AC Output Data																
Max. Output Power (VA)	1100*2	1650*2	2200*2	2750*2	3300*2	3300*2	3960*2	4400*2	4950	5500*2	6600*2	7700	8800	9900	11000	
Nominal Output Power (W)	1000	1500	2000	2500	3000	3000	3600	4000	4950	5000	6000	7000	8000	9000	10000	
Max. Output Current (A)	6	9	12	13	15	15	17.5	20	24	24	28.7	33.6	38.3	45	50	
Nominal Output Voltage (V)			L/N/PE, 220Vac, 230Vac, 240Vac					L/N/PE, 220Vac, 230Vac, 240Vac					L/N/PE, 220Vac, 230Vac, 240Vac			
Grid Voltage Range			180Vac-276Vac (According to local standard)					180Vac-276Vac (According to local standard)					180Vac-276Vac (According to local standard)			
Nominal Output Frequency (Hz)			50/60					50/60					50/60			
Grid Frequency Range			45-55Hz/54-66Hz (According to local standard)					45-55Hz/54-66Hz (According to local standard)					45-55Hz/54-66Hz (According to local standard)			
Output Power Factor			1 default (adjustable from 0.8 leading to 0.8 lagging)					1 default (adjustable from 0.8 leading to 0.8 lagging)					1 default (adjustable from 0.8 leading to 0.8 lagging)			
Output Current THD			<3%													
Efficiency																
Max. Efficiency	97.50%	97.80%	98.10%	98.10%	98.13%	98.20%	98.20%	98.20%	98.20%	98.20%	98.20%	98.20%	98.20%	98.32%	98.40%	
Euro Efficiency	96.60%	96.70%	96.80%	97.23%	97.56%	97.80%	97.82%	97.85%	97.90%	97.90%	97.92%	97.95%	98.00%	98.00%	98.10%	
Protection																
PV Reverse Polarity Protection			YES					YES						YES		
PV Insulation Resistance Detection			YES					YES						YES		
AC Short Circuit Protection			YES					YES						YES		
AC Over Current Protection			YES					YES						YES		
AC Over Voltage Protection			YES					YES						YES		
Anti-Islanding Protection			YES					YES						YES		
Residual Current Detection			YES					YES						YES		
Over Temperature Protection			YES					YES						YES		
Integrated DC switch			YES					YES						YES		
Surge Protection			Integrated (Type III)					Integrated (Type III)					Integrated (Type III)			
Smart IV Curve Scanning			YES					YES						YES		
Quick Arc Fault Circuit interruption			Optional					Optional						Optional		
General Data																
Dimensions (W x H x D, mm)			280 x 260 x 116					358 x 360 x 142					370 x 510 x 192		370 x 535 x 192	
Weight (kg)			6					10					17		18	
Protection Degree			IP65					IP65					IP65			
Enclosure Material			Aluminum					Aluminum					Aluminum			
Ambient Temperature Range (°C)			-25 - + 60					-25 - + 60					-25 - + 60			
Humidity Range			0-100%					0-100%					0-100%			
Topology			Transformerless					Transformerless					Transformerless			
Communication Interface			RS485 / WiFi / Wire Ethernet / GPRS (optional)					RS485 / WiFi / Wire Ethernet / GPRS (optional)					RS485 / WiFi / Wire Ethernet / GPRS (optional)			
Cooling Concept			Convection					Convection					Convection		Intelligent fan cooling	
Noise Emission (db)			<21					<28					<40			
Night Power Consumption (W)	<0.2	<0.2	<1	<1	<1			<1						<1		
Max. Operation Altitude (m)			4000					4000					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						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						IEC 60068, UL1741, EN62109							
Grid-connection			IEEE1547, CSA C22, EN50549, VDE4105, VDE0126, RD1699, ABNT NBR16149 & 16150, AS4777.2, NB/T32004, G98/G99, IEC61727						IEEE1547, CSA C22, EN50549, VDE4105, VDE0126, RD1699, ABNT NBR16149 & 16150, AS4777.2, NB/T32004, G98/G99, IEC61727							

*1. HNS4950TL model is exclusive for Belgium

*2. For Belgium Max. Output Power(VA) HNS1000TL-1 is 1000; HNS1500TL-1 is 1500; HNS2000TL-1 is 2000; HNS2500TL-1 is 2500; HNS3000TL-1 is 3000; HNS3000TL is 3000; HNS3600TL is 3600; HNS4000TL is 4000; HNS5000TL is 5000; HNS6000TL is 6000