

# Energy Storage Products

# N1 HV Series

3kW / 3.68kW / 5kW / 6kW

Single Phase, 2 MPPTs

High Voltage Hybrid Inverter



## FEATURES



150% DC input oversizing



Charging / discharging efficiency >97%



Support VPP / FFR function



Up to 6000W charging / discharging rate



Remote firmware upgrade & work mode setting



EU standard certified by TÜV Rheinland

# N1 HV Series

Model	N1-HV-3.0	N1-HV-3.68	N1-HV-5.0	N1-HV-6.0
<b>PV Input Data</b>				
Max. Recommended PV Power [Wp]	4500	5500	7500	9000
Max. PV Input Voltage [V]			600	
MPPT Voltage Range [V]			120 ~ 550	
Rated PV Input Voltage [V]			360	
Start-up Voltage [V]			150	
No. of MPP Trackers			2	
No. of Input Strings per Tracker			1	
Max. PV Input Current [A]			13.5 / 13.5	
Max. Short-circuit Current per MPPT [A]			17 / 17	
DC Switch			Integrated	
<b>AC Input / Output Data (On-grid)</b>				
Rated AC Power [W]	3000	3680	5000 <sup>[1]</sup>	6000
Rated AC Current [A]	13	16	21.7 <sup>[1]</sup>	26.1
Rated AC Voltage / Range [V]			220 / 230; 160 ~ 290	
Grid Frequency / Range [Hz]			50 / 60; ±5	
Adjustable Power Factor [cosφ]			0.8 leading ~ 0.8 lagging	
Output THDi (@Rated Output)			< 2%	
<b>Battery Data</b>				
Battery Type			Lithium	
Battery Voltage Range [V]			80 ~ 450	
Max. Charging / Discharging Current [A]			25	
Max. Charging / Discharging Power [W]	4500 / 3000	5500 / 3680	6000 / 5000	6000 / 6000
Communication Interface			CAN	
<b>EPS Output Data (With Battery)</b>				
EPS Rated Power [W]	3000	3680	5000	6000
EPS Rated Voltage [V]			220 / 230	
EPS Rated Frequency [Hz]			50 / 60	
EPS Rated Current [A]	13	16	21.7	26.1
Output THDi (@Rated Output)			< 2%	
Automatic Switch Time [s]			< 0.5	
Peak Apparent Power, Duration [VA, s]	3600, 600	4416, 600	6000, 600	7200, 600
<b>Efficiency</b>				
Max. Efficiency	97.42%	97.45%	97.50%	97.50%
Euro Efficiency	97.15%	97.17%	97.20%	97.20%
Battery Charge / Discharge Efficiency	97.15%	97.17%	97.20%	97.20%
<b>Protection</b>				
DC Insulation Monitoring			Integrated	
Input Reverse Polarity Protection			Integrated	
Anti-island Protection			Integrated	
Residual Current Monitoring			Integrated	
Over-heat Protection			Integrated	
AC Overcurrent Protection			Integrated	
AC Short-circuit Protection			Integrated	
AC Overvoltage Protection			Integrated	
DC Surge Protection			Integrated (Type III)	
AC Surge Protection			Integrated (Type III)	
<b>General Data</b>				
Size (Width * Height * Depth) [mm]			506 * 386 * 170	
Weight [kg]			20	
User Interface			LED + OLED	
Communication			RS485 and USB or Wifi or 4G (Optional)	
Ambient Temperature Range [°C]			-30 ~ +60	
Relative Humidity			0 ~ 95%	
Operating Altitude [m]			≤ 2000	
Standby Self Consumption [W]			< 15 for hot standby, < 3 for cold standby	
Topology			Transformerless	
Cooling			Natural	
Enclosure			IP65	
Noise [dB]			< 35	
Warranty [years]			5 / 7 / 10	
<b>Certifications &amp; Standards</b>				
Grid Regulation			AS 4777, EN 50549, IEC 61727, CEI 0-21, IEC 62116, IEC 60068, IEC 61683	
Safety Regulation			IEC 62109-1, IEC 62109-2, IEC 62040, EN 61000-6-2, EN 61000-6-3	
EMC			EN 61000-4-16, EN 61000-4-18, EN 61000-4-29	

[1]: The AC output power for VDE-AR-N 4105, VDE0126 and NRS097-2-1 is limited to 4600VA&20A, for AS/NZS 4777.2 is limited to 4999VA & 21.7A.