

# 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

Model	N1-HV-3.0	N1-HV-3.68	N1-HV-5.0	N1-HV-6.0
<b>PV Input Data</b>				
Recommended Max. 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. Input Current per MPPT [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)				< 3%
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
AC Surge Protection				Integrated
<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 ~ 100%
Operating Altitude [m]				≤ 2000
Standby Self Consumption [W]				< 15
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.