

Residential Hybrid Inverter







N1 HV Series

3kW / 3.68kW / 5kW / 6kW



Features

Single Phase, 2 MPPTs

-  150% PV input oversizing
-  Up to 6000W charging / discharging rate
-  Charging / discharging efficiency >97%
-  Remote firmware upgrade & setting
-  Support AC retrofit application
-  Virtual Power Plant integrated



Model	N1-HV-3.0	N1-HV-3.68	N1-HV-5.0	N1-HV-6.0
PV Input				
Max. Recommended PV Power [Wp]	4500	5500	7500	9000
Max. PV Power for Single MPPT [Wp]			4500	
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 [A]			17 / 17	
AC Output				
Max. AC Output Apparent Power [VA]	3000	3680	5000 ^[1]	6000
Rated AC Output Power [W]	3000	3680	5000 ^[1]	6000
Max. AC Output Current [A]	13	16	21.7 ^[1]	26.1
Rated AC Output Current [A]	13	16	21.7 ^[1]	26.1
Rated AC Voltage [V]			220 / 230 / 240	
Grid Frequency [Hz]			50 / 60	
Adjustable Power Factor [cosφ]			0.8 leading ~ 0.8 lagging	
Output THDi (@Rated Output)			< 2%	
AC Input				
Max. AC Input Apparent Power [VA]	3000	3680	5000	6000
Max. AC Input Current [A]	13	16	21.7	26.1
Rated AC Voltage [V]			220 / 230 / 240	
Grid Frequency [Hz]			50 / 60	
Battery				
Battery Type			Lithium	
Battery Voltage Range [V]			80 ~ 450	
Max. Charging / Discharging Current [A]			25 / 25	
Max. Charging / Discharging Power [W]	4500 / 3000	5500 / 3680	6000 / 5000	6000 / 6000
Communication Interface			CAN	
Backup Output (With Battery)				
Rated Output Power [W]	3000	3680	5000	6000
Rated Output Voltage [V]			220 / 230	
Rated Frequency [Hz]			50 / 60	
Rated Output Current [A]	13	16	21.7	26.1
Output THDv (@Linear Load)			< 3%	
Automatic Switch Time [s]			< 0.5	
Peak Apparent Power, Duration [VA, s]	4500, 10	5520, 10	7500, 10	9000, 10
Efficiency				
Max. Efficiency	97.4%	97.5%	97.5%	97.5%
Euro Efficiency	97.2%	97.2%	97.2%	97.2%
Max. Battery Charge / Discharge Efficiency	97.2%	97.2%	97.2%	97.2%
Protection				
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	
DC Switch			Integrated	
General Data				
Dimensions (W * H * D) [mm]			520 * 412 * 172	
Weight [kg]			20	
Display			LED + OLED	
Communication			CAN, RS485, USB Upgrade, Optional: WiFi, 4G, Ethernet	
Ambient Temperature Range [°C]			-30 ~ +60	
Relative Humidity			0 ~ 100%	
Operating Altitude [m]			≤ 2000	
Standby Self-consumption [W]			< 15	
Topology			Transformerless	
Cooling			Natural	
Ingress Protection			IP65	
Noise [dB]			< 35	
Certifications & Standards				
Grid Regulation	AS 4777, EN 50549-1, EN 50549-GR, EN 50549-PL, EN 50549-IE, IEC 61727/IEC 62116, VDE 0126, UNE 217002/RD647, CEI 0-21, C10/C11, ORDINANCE No.140			
Safety Regulation	IEC 62109-1, IEC 62109-2			
EMC	EN / IEC 61000-6-1, EN / IEC 61000-6-3			

[1]: The AC output power for VDE-AR-N 4105, VDE 0126 and NRS 097-2-1 is limited to 4600VA&20A, for AS / NZS 4777.2 is limited to 4999VA & 21.7A.