







Residential ESS

# N3 HV Series

5kW / 6kW / 8kW / 10kW  
Three Phase, 2 MPPTs  
High Voltage Hybrid Inverter



-  Compatible with 600W+ PV modules
-  Support 100% unbalanced loads
-  ≤20ms backup power switching
-  Support up to 10 units parallel connections
-  Remote firmware upgrade & work mode setting
-  Support VPP / FFR function



Model	N3-HV-5.0	N3-HV-6.0	N3-HV-8.0	N3-HV-10.0-A	N3-HV-10.0
<b>PV Input</b>					
Max. Recommended PV Power [Wp]	7500	9000	12000	15000	15000
Max. PV Power for Single MPPT [Wp]	7500	9000	9000	9000	9000
Max. PV Input Voltage [V]			1000		
MPPT Voltage Range [V]			160 ~ 950		
Rated PV Input voltage [V]			600		
Start-up Voltage [V]			160		
No. of MPP Trackers			2		
No. of Input Strings per Tracker			1		
Max. PV Input Current [A]			18 / 18		
Max. Short-circuit Current [A]			23 / 23		
<b>AC Output</b>					
Max. AC Output Apparent Power [VA]	5500	6600	8800	10000	11000
Rated AC Output Power [W]	5000	6000	8000	10000	10000
Max. AC Output Current [A]	7.6	9.1	12.2	14.4	15.2
Rated AC Output Current [A]	7.2	8.7	11.5	14.4	14.4
Rated AC Voltage / Range [V]			3 / N / PE, 220 / 380, 230 / 400; ±20%		
Grid Frequency / Range [Hz]			50 / 60; ±5		
Adjustable Power Factor [cos φ]			0.8 leading ~ 0.8 lagging		
Output THDi (@Rated Output)			< 3%		
<b>AC Input</b>					
Max. AC Input Apparent Power [VA]	10000	12000	16000	20000	20000
Max. AC Input Current [A]	15.2	18.2	24.3	28.8	30.4
Rated AC Voltage / Range [V]			3 / N / PE, 220 / 380, 230 / 400; ±20%		
Grid Frequency / Range [Hz]			50 / 60; ±5		
<b>Battery</b>					
Battery Type			Lithium		
Battery Voltage Range [V]			160 ~ 700		
Max. Charging / Discharging Current [A]			30 / 30		
Max. Charging / Discharging Power [W]	10000 / 5000	10000 / 6000	10000 / 8000	10000 / 10000	10000 / 10000
Communication Interface			CAN		
<b>Backup Output (With Battery)</b>					
Rated Output Power [W]	5000	6000	8000	10000	10000
Rated Output Voltage [V]			3 / N / PE, 220 / 380, 230 / 400		
Rated Frequency [Hz]			50 / 60		
Rated Output Current [A]	7.6	9.1	12.2	14.4	15.2
Output THDi (@Rated Output)			< 3%		
Automatic Switch Time [ms]			≤ 20		
Peak Apparent Power, Duration [VA, s]	7500, 60	9000, 60	12000, 60	15000, 60	15000, 60
<b>Efficiency</b>					
Max. Efficiency	98.00%	98.00%	98.00%	98.00%	98.00%
Euro Efficiency	97.70%	97.70%	97.70%	97.70%	97.70%
Max. Battery Charge / Discharge Efficiency	97.60%	97.60%	97.60%	97.60%	97.60%
<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 II)		
AC Surge Protection			Integrated (Type II)		
DC Switch			Integrated		
<b>General Data</b>					
Dimensions (W * H * D) [mm]			520 * 412 * 186		
Weight [kg]			27		
Display			LED + OLED		
Communication			CAN, RS485, USB Upgrade, Optional: WiFi, 4G, Ethernet		
Operating Temperature Range [°C]			-25 ~ +60		
Relative Humidity			0 ~ 100%		
Operating Altitude [m]			≤ 2000		
Standby Self-consumption [W]			< 15		
Topology			Transformerless		
Cooling			Natural		
Ingress Protection			IP65		
Noise [dB]			< 35		
<b>Certifications &amp; Standards</b>					
Grid Regulation	AS 4777, EN 50549-1, EN 50549-PL, EN 50549-GR, EN 50549-CZ, TOR Erzeuger, CEI 0-21, C10 / C11, VDE0126, UNE 217002/RD647				
Safety Regulation	IEC 62109-1, IEC 62109-2, EN 62109-1, EN 62109-2				
EMC	EN / IEC 61000-6-1, EN / IEC 61000-6-3				