

Residential Hybrid Inverter

N1 LV Series



4 - 6kW

Single Phase, 2 MPPTs

48V

Max. **6 units**
Parallel

16A
PV input current

< 10ms
Switchover time



150% PV input oversizing



IP65 outdoor design



Remote firmware upgrade
& setting



Wide temperature
range of -25°C to 60°C

Model	N1-LV-4K	N1-LV-4.6K	N1-LV-5K	N1-LV-5.5K	N1-LV-6K
PV Input					
Max. Recommended PV Power [Wp]	6000	7000	8000	8000	9000
Max. PV Power for Single MPPT [Wp]	3000	3500	4000	4000	4500
Max. PV Input Voltage [V]			500		
MPPT Voltage Range [V]			120 ~ 450		
Rated PV Input Voltage [V]			300		
Start-up Voltage [V]			120		
No. of MPP Trackers			2		
No. of Input Strings per Tracker			1 / 1		
Max. PV Input Current [A]			16 / 16		
Max. Short-circuit Current [A]			27 / 27		
AC Output					
Max. AC Output Apparent Power [VA]	4000	4600	5500	5500	6000
Rated AC Output Power [W]	4000	4600	5500	5500	6000
Max. AC Output Current [A]	17.4	20	24	24	26
Rated AC Output Current [A]	17.4	20	24	24	26
Rated AC Voltage [V]			220 / 230		
Grid Frequency [Hz]			50 / 60		
Adjustable Power Factor [cosφ]			0.8 leading ~ 0.8 lagging		
Output THDi (@Rated Output)			< 3%		
AC Input					
Bypass Overload Current [A]			40		
Input Voltage Range [V]			90 ~ 280		
Rated AC Voltage [V]			220 / 230		
Grid Frequency [Hz]			50 / 60		
Battery					
Battery Type	Lead-acid / Li-ion / User defined				
Rated Battery Voltage [V]	48 (Min. start-up voltage 44V)				
Battery Voltage Range [V]	40 ~ 60				
Max. Charging / Discharging Current [A]	100 / 100	100 / 118	100 / 130	100 / 130	100 / 135
Max. PV Charging Current [A]			100		
Max. Utility Charging Current [A]			60		
Max. Generator Charging Current [A]			60		
Communication Interface	CAN / RS485				
Backup Output (With Battery)					
Rated Output Power [W]	4000	4600	5500	5500	6000
Rated Output Voltage [V]			230		
Rated Frequency [Hz]			50 / 60		
Rated Output Current [A]	17.4	20	24	24	26
Output THDi (@Rated Output)			< 3%		
Automatic Switch Time [ms]			< 10		
Load Capacity of Motors	3HP			4HP	
Peak Apparent Power, Duration [VA, s]	8000, 5	9200, 5	11000, 5	11000, 5	12000, 5
Efficiency					
Max. Efficiency	97.5%	97.5%	97.5%	97.5%	97.5%
MPP Tracking Efficiency	99.9%	99.9%	99.9%	99.9%	99.9%
Euro Efficiency	97.0%	97.0%	97.0%	97.0%	97.0%
Max. Battery Charge / Discharge Efficiency	95.0%	95.0%	95.0%	95.0%	95.0%
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				
DC Surge Protection	Integrated (Type II)				
AC Surge Protection	Integrated (Type II)				
DC Over Voltage Category	Integrated (Type II)				
AC Over Voltage Category	Integrated (Type III)				
General Data					
Num. of Parallel [units]			1 ~ 6		
Dimensions (W * H * D) [mm]			345 * 556 * 182		
Weight [kg]			22.1		
Display			LED + LCD		
Communication	RS485 / CAN / USB / Dry contact, Optional: WIFI / GPRS				
Ambient Temperature Range [°C]	-25 ~ +60 (Derating Above 45°C)				
Relative Humidity	0 ~ 100%				
Operating Altitude [m]	< 2000				
Standby Self-consumption [W]	< 100				
Topology	Non-Isolated				
Cooling	Fan				
Ingress Protection	65				
Noise [dB]	< 60				
Certifications & Standards					
Grid Regulation	EN50549-1, G99, NRS-097, VDE-ARN-4105, CEI 0-21, UNE217002				
Safety Regulation	IEC 62109-1, IEC 62109-2				
EMC	EN 61000-6-1, EN 61000-6-3, FCC15 class B				