N1 LV Series

RENAC

Low Voltage Hybrid Inverter

N1-LV-4K-8K, Single Phase

20A Max. PV input current

<10ms Transfer time

Supports diesel generator and smart load integration



- Supports AC coupling for easy system expansion
- 200%PV input oversizing
- Max. charging / discharging current up to 190A
- Remote firmware upgrade & setting

Model	N1-LV-4K	N1-LV-5K	N1-LV-6K	N1-LV-8K
PV Input				
Max. PV Access Power [Wp]	8000	10000	12000	16000
Max. PV Input Power [W]	6400	8000	9600	12800
Max. PV Input Voltage [V]	500			
MPPT Voltage Range [V]	90 ~ 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			2 / 2
Max. PV Input Current [A]	20 / 20			40 / 40
Max. Short-circuit Current [A]	25 / 25			50 / 50
AC Output				
Max. AC Output Apparent Power [VA]	4400	5500	6600	8800
Rated AC Output Power [W]	4000	5000	6000	8000
Max. AC Output Current [A]	20 / 19.1	25 / 24	30 / 28.7	40 / 38.3
Rated AC Output Current [A]	18.2 / 17.4	22.8 / 21.8	27.3 / 26.1	36.4 / 34.8
Rated AC Voltage [V]	L / N / PE, 220 / 230			
Grid Frequency [Hz]	50 / 60			
Adjustable Power Factor [cosφ]	0.8 leading ~ 0.8 lagging			
Output THDi (@Rated Output)	< 3%			
AC Input				
Max. AC input apparent power [VA]	8000	10000	12000	16000
Max. AC input current[A]	36.4 / 34.8	45.5 / 43.5	54.5 / 52.2	72.7 / 69.6
Rated AC Voltage [V]	L / N / PE, 220 / 230			
Grid Frequency [Hz]	50 / 60			
Battery				
Battery Type	Lead-acid/Lithium-ion			
Battery Voltage Range [V]	40 ~ 60			
Max. Charging / Discharging Current [A]	100	100	120	190
Communication Interface	CAN			
Backup Output (With Battery)				
Rated Output Power [W]	4000	5000	6000	8000
Rated Output Voltage [V]	L / N / PE, 220 / 230			
Rated Frequency [Hz]	50 / 60			
Rated Output Current [A]	18.2 / 17.4	22.8 / 21.8	27.3 / 26.1	36.4 / 34.8
Output THDv (@Liner Load)	< 3%			
Automatic Switch Time [ms]	< 10			
Load Motor Capacity	3HP	4HP		5HP
Efficiency				
Max. Efficiency	97.6%			
Euro Efficiency	97.0%			
MPPT Effciency	>99%			
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 Overvoltage Protection	Integrated			
AC Short-circuit Protection	Integrated			
DC Surge Protection	Integrated (Type II)			
AC Surge Protection	Integrated (Type II)			
DC Switch	Integrated			
AFCI Protection	Optional			
General Data				
Num. of Parallel [units]	1 ~ 6			
Dimensions (W * H * D) [mm]	588 * 364 * 246.5			
Weight [kg]	27			
Display	LED + LCD			
Communication	RS485, CAN, Dry contact, Optional: WiFi or 4G or Ethernet			
Ambient Temperature Range [℃]	-30~+60 （Derating Above 45°C）			
Relative Humidity	0 ~ 100%			
Operating Altitude [m]	< 2000			
Standby Self-consumption [W]	< 15			
Topology	Non-isolated			
Cooling	Natural		Fan	
Noise [dB]	<30		<50	
Ingress Protection	IP65			
Certifications & Standards				
Grid Regulation	IEC 61727, IEC 62116, PEA. MEA			
Safety Regulation	IEC 62109-1, IEC 62109-2			
EMC	EN IEC 61000-6-1, EN IEC 61000-6-3, EN 62920			