

N3 Plus Series

RENAC

High Voltage Hybrid Inverter

15-30kW, Three Phase

18A

Max. PV input current

<10ms

Transfer time

100%

Unbalanced Loads



- ▶ IP66 outdoor design
- ▶ Support AC retrofit application
- ▶ Generator-compatible to extend backup
- ▶ 110% AC overloading

Model	N3-15K	N3-20K	N3-25K	N3-30K
PV Input				
Max. Recommended PV Power [Wp]	30000	40000	45000	45000
Max. PV Power for Single MPPT [Wp]	15000	15000	15000	15000
Max. PV Input Voltage [V]			1000	
MPPT Voltage Range [V]			180 ~ 960	
Rated PV Input voltage [V]			700	
Start-up Voltage [V]			200	
No. of MPP Trackers			3	
No. of Input Strings per Tracker			2 / 2 / 2	
Max. PV Input Current [A]			36 / 36 / 36	
Max. Short-circuit Current [A]			46 / 46 / 46	
AC Output				
Max. AC Output Apparent Power [VA]	16500 ^[1]	22000 ^[2]	27500	33000 ^[3]
Rated AC Output Power [W]	15000 ^[1]	20000 ^[2]	25000	30000 ^[3]
Max. AC Output Current [A]	25	33.4 ^[2]	41.7	50
Rated AC Output Current [A]	22.8	30.3 ^[2]	37.9	45.5
Rated AC Voltage [V]			3 / N / PE, 220 / 380, 230 / 400	
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 Power [VA]	30000	40000	41500	41500
Max. AC Input Current [A]	45.5	60.6	63.0	63.0
Rated AC Voltage [V]			3 / N / PE, 220 / 380, 230 / 400	
Grid Frequency [Hz]			50 / 60	
Battery				
Battery Type			Lithium	
Battery Voltage Range [V]			180 ~ 800	
Max. Charging / Discharging Current [A]			50 / 50	
Max. Charging / Discharging Power [W]	30000 / 15000	30000 / 20000	30000 / 25000	30000 / 30000
Communication Interface			CAN	
Backup Output (With Battery)				
Rated Power [W]	15000	20000	25000	30000
Rated Voltage[V]			3 / N / PE, 220 / 380, 230 / 400	
Rated Frequency [Hz]			50 / 60	
Rated Current [A]	22.8	30.3	37.9	45.5
Output THDv (@Linear Load)			< 3%	
Automatic Switch Time [ms]			< 10	
Peak Apparent Power, Duration [VA, s]	22500, 10 ^[4]	30000, 10 ^[4]	37500, 10 ^[4]	45000, 10 ^[4]
Efficiency				
Max. Efficiency	98.1%	98.1%	98.1%	98.1%
Euro Efficiency	97.7%	97.7%	97.7%	97.7%
Max. Battery Charge / Discharge Efficiency	97.6%	97.6%	97.6%	97.6%
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 (Type II)	
AC Surge Protection			Integrated (Type II)	
RSD			Optional	
AFCI Protection			Optional	
DC Switch			Integrated	
General Data				
Dimensions (W * H * D) [mm]			630 * 514 * 239	
Weight [kg]			48	
Display			LED + LCD	
Communication			RS485, USB Update, 4 × DI, 2 × DO, Optional: WiFi or 4G or Ethernet	
Ambient Temperature Range [°C]			-30 ~ +60	
Relative Humidity			0 ~ 100%	
Operating Altitude [m]			≤ 2000	
Standby Self-consumption [W]			< 15	
Topology			Non-isolated	
Cooling		Natural		Fan
Ingress Protection			IP66	
Certifications & Standards				
Grid Regulation			IEC 61727, IEC 62116, EN 50549-1, EN 50549-PL, PPDS	
Safety Regulation			IEC 62109-1, IEC 62109-2	
EMC			EN IEC 61000-6-1, EN IEC 61000-6-2, EN IEC 61000-6-3, EN IEC 61000-6-4, EN 62920	

[1]: The AC output power of the N3-14.9K for the AS 4777 is limited to 14900 VA.

[2]: The Max. AC output apparent power & Max. AC output current of N3-19.9K is 19900VA & 30.2A.

[3]: The AC output power of the N3-29.9K for the AS 4777 is limited to 29900 VA.

[4]: It can be reached only if PV and battery power is sufficient. For inductive loads such as refrigerators, air conditioners, washing machines, etc., ensure that their start power does not exceed Peak Apparent Power.