

LPR-H6.5K-NAS-48PR

LPR-H12K-NAS-48PR

6.5kW/12kW

● LPR-H6.5K-NAS-48PR is a 48V split-phase hybrid solar storage inverter for homes, farms, telecom sites and light commercial backup. It delivers 6.5kW output, IP65 outdoor protection, dual MPPT solar input and lithium battery BMS communication. Its compact hybrid design supports grid, generator, PV and battery operation in one unit.

LPR-H12K-NAS-48PR is a higher-power 48V split-phase hybrid inverter for larger homes, rural properties, small businesses and backup power systems. It provides 12kW output, IP65 protection, parallel expansion and dual MPPT solar charging. With up to 6HP motor load capacity, it is better suited for demanding appliances and pump loads.

Recommended Applications

LPR-H6.5K-NAS-48PR

🏠 Ideal For Homes/Telecom Sites/Farms/Countryside Houses / Island Systems Needing Solar Storage/Grid Backup/Generator Support

LPR-H12K-NAS-48PR

🏢 Recommended For Larger Homes/Workshops/Farms / Pump-Load Systems Requiring Stronger Backup Capacity/ Expandable Hybrid Solar Storage



Features

⚡ 120/240V Split Phase

Supports split-phase power for markets using 120/240Vac systems, making it suitable for household loads, backup circuits, pumps, tools and common regional electrical layouts.

🏠 IP65 Outdoor

IP65 protection gives stronger outdoor installation flexibility than indoor-only models, helping the inverter handle dust and water exposure in farms, islands and rural sites.

🔌 Hybrid Power Input

Works with solar, battery, grid and generator input, allowing users to reduce grid dependence while keeping backup options during outages or unstable utility supply.

☀️ Dual MPPT Solar

Dual MPPT inputs improve solar design flexibility for different roof orientations or PV strings, helping capture more usable energy across changing sunlight conditions.

⚙️ Parallel Expansion

Supports up to 6 units in parallel, allowing the system to scale for larger homes, farms or business loads without changing the entire inverter platform.

📶 Smart Monitoring

RS485, CAN, USB, dry contact and optional Wi-Fi/GPRS support enable battery communication, remote monitoring and easier system management for installers and users.

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Parameter	LPR-H6.5K-NAS-48PR	LPR-H12K-NAS-48PR
SYSTEM TYPE		
System Type	Hybrid solar storage inverter	
AC OUTPUT		
Rated Output Power	6500W	12,000W
Single-phase Unbalanced Load	4500W	
Max. Peak Power	2 x rated power for 10s	24,000VA
Rated Output Voltage	120/240Vac split phase; 120/208Vac three-phase	120/240Vac single-phase / split-phase / three-phase (parallel)
Rated Output Current	27.1A @240V / 31.3A @208V	50A @240V
Load Motor Capacity		6HP
Rated AC Frequency	50/60Hz	
Waveform	Pure sine wave	
AC OUTPUT (GRID)		
Rated Grid Output Power	6500W	12,000W
Max. Apparent Power	7000VA	24,000VA
Rated Grid Output Current	27.1A @240V / 31.3A @208V	50A @240V
Power Factor	0.99 (0.8 leading / 0.8 lagging)	
THD	<3%	
BATTERY		
Battery Type	Lithium-ion / Lead-acid / User-defined	Lead-acid / Li-ion / User-defined
Rated Battery Voltage	48Vdc	
Battery Voltage Range	40-60Vdc	
Max. Grid / Generator Charging Current	140A	Grid: 120A; Generator: 60A
Max. Hybrid Charging Current	140A	200A
PV INPUT		
No. of MPPT Trackers	2	
Max. PV Input / Array Power	6000W + 6000W	6600W + 6600W
Max. PV Input Current	32A + 32A	25A + 25A
Max. PV Open-circuit Voltage	600Vdc / 600Vdc	550Vdc + 550Vdc
MPPT Operating Voltage Range	120-500Vdc / 120-500Vdc	125-450Vdc
GRID / GENERATOR INPUT		
Rated Input Phase Voltage	120Vac	
Input Phase Voltage Range	65-140Vac	90-140Vac
Input Frequency Range	50/60Hz	
Bypass Phase Current	60Aac	
EFFICIENCY		
MPPT Tracking Efficiency	99.9%	
Max. Efficiency	97.6%	
CEC Efficiency	96.5%	
GENERAL DATA		
Parallel Capacity	1-6 units (3-phase output available with 2 or more units)	1-6 units
Dimensions (W x H x D)	400 x 760 x 250 mm	750 x 440 x 240 mm
Weight	42kg	
Protection Degree	IP65	
Operating Temperature Range	-40°C to 60°C, >45°C derated	-25°C to 60°C, >45°C derated
Humidity Range	0-100%	
Noise	<60dB	
Cooling Method	Intelligent air cooling + heat sink	Intelligent air-cooling
Warranty	5 years	
COMMUNICATION		
Embedded / Communication Interfaces	RS485 / CAN / USB / Dry Contact	
External Modules (Optional)	Wi-Fi / GPRS	
NOTES		
Model-specific Parameters	Some specifications vary by power rating and are shown in the applicable model column.	
CERTIFICATION		
Certified Specifications	IEC 62109-1/-2, EN 61000	UL1741 & IEEE1547.1-2020, CEC, RULE 21, HECO, FCC 15 class B, RoHS

• Specifications are subject to change without prior notice.
• Product images are for reference only. Actual product appearance may vary depending on configuration.
• Battery compatibility should be confirmed according to BMS protocol and system configurations.
• PV string design must follow the maximum PV open-circuit voltage, MPPT voltage range and maximum PV input current limits.
• Parallel system design should use matching inverter models, shared battery bank and proper AC/DC protection devices.