

# OPTIMUM SERIES

## 4-6.2KW HYBRID SOLAR INVERTER



The hybrid solar inverter intelligently prioritizes solar energy for primary usage, draws from battery storage when solar power is limited, and uses grid power only as a backup. By efficiently managing power from solar panels, batteries, and the utility grid, it delivers a flexible, reliable, and energy-efficient solution-ideal for residential homes, small offices, and retail outlets seeking consistent and cost-effective energy supply.



### General Features

- Pure sine wave output
- Smart LCD setting (Working modes, Charge Current, Charge Voltage, etc)
- Built-in MPPT solar charge controller
- MAX PV Array Open Circuit Voltage: 500V
- Combining solar system, AC utility, and battery power source to supply continuous power
- Overload, short circuit and Deep discharge protection
- Cold start function
- Dual outputs for smart load management
- Support USB, RS485 monitoring function
- Can communicate with lithium batteries
- Parallel operation with up to 6 units
- Can provide the power to the load without battery
- WIFI remote monitoring (optional)

### SPECIFICATIONS

MODEL	NPS-0424H	NPS-0648H	NPS-6248H	
Rated Power	4000VA/4000W	6000VA/6000W	6200VA/6200W	
Surge Power	8000W	12000W	12400W	
Input	Voltage	230VAC		
	Selectable Voltage Range	170~280VAC(UPS)/90-280VAC(APL)/184~253VAC(VDE)		
	Frequency Range	50Hz/60Hz (Auto sensing)		
Output	Waveform	Pure sine wave		
	AC Voltage Regulation (Batt.Mode)	230VAC±5% (Setting)		
	Inverter Efficiency (Peak)	92%		
	Transfer Time	10ms(UPS/VDE4105)/20ms(APL)/ < 50ms typical (For parallel operation)		
Battery	Normal voltage	24VDC	48VDC	
	Floating Charge Voltage	27.4VDC	54.8VDC	
	Overcharge Protection	30VDC	60VDC	
Solar charger and AC charger	Maximum PV Array Open Circuit Voltage	500VDC (450V for parallel)		
	Charging Algorithm	3-Step (Flooded Battery, AGM/GEL/LEAD Battery), 4-Step (Li)		
	Maximum PV Array Power	5000W	6000W	4000W*2
	PV Array MPPT Voltage Range	90-430VDC	120~430 VDC	90~430VDC
	Maximum Solar Charge Current	100A	120A	
	Maximum AC Charge Current	80A	100A	
Physical features	Maximum Charge Current	100A	120A	
	Dimension (W*H*D) (mm)	322*486 134	309*505*147	425*473*145
	Net Weight (kg)	9.5	12.5	
System specification	Humidity	5% to 95% Relative Humidity (Non-condensing)		
	Operating Temperature	0°C~50°C		
	Storage Temperature	-15°C~60°C		
	Certification and Standard	CE-EMC+LVD (EN6100-6-3:2007, EN6100-6-1:2017+EN IEC62109-1:2010, EN IEC62109-2:2011) EN IEC62368-1:2020+A11:2020 CE-LVD (IEC62109-1:2010, EN IEC62109-2:2011)EN IEC62368-1:2018, EN IEC62109-1:2010, EN IEC62109-2:2011		

\*Product specifications and appearance are subject to change without further notice.

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### ORDERING INFORMATION

Part Number	Description
NPS-0424H	4kW Hybrid Solar Inverter
NPS-0648H	6kW Hybrid Solar Inverter
NPS-6248H	6.2kW Hybrid Solar Inverter