

# OPTIMUM SERIES 8-12KW HYBRID SOLAR INVERTER



The hybrid solar inverter intelligently prioritizes solar energy for primary usage, draws from battery storage when solar input is insufficient, and uses grid power only when necessary. By efficiently managing power from solar panels, batteries, and the utility grid, it delivers a flexible, reliable, and energy-efficient solution- ideal for larger homes, small commercial buildings, and rural enterprises requiring consistent and cost-effective power



## General Features

- Dual outputs for smart load management
- Smart LCD setting (Working modes, Charge Current, Charge Voltage, etc)
- Built-in two MPPT's solar charge controller
- Enables lithium battery activation via AC or PV input
- Combining solar system, AC utility, and battery power source to supply continuous power
- Overload, short circuit and Deep discharge protection
- Cold start function
- Supports BMS communication for lithium batteries
- Support USB, RS485 monitoring function
- Can communicate with lithium batteries
- Parallel operation with up to 6 units
- WIFI remote monitoring (optional)
- Wide MPPT voltage range is 90~450V, the maximum PV input voltage can reach 500V

## SPECIFICATIONS

MODEL	NPS-0848H	NPS-1048H	NPS-1248H	
Rated Power	8000VA/8000W	10000VA/10000W	12000VA/12000W	
Surge Power	16000W	20000W	24000W	
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)		
Battery	Normal voltage	48VDC		
	Floating Charge Voltage	54.8VDC		
	Overcharge Protection	60VDC		
Solar charger and AC charger	Maximum PV Array Open Circuit Voltage	500VDC		
	Charging Algorithm	3-Step (Flooded Battery, AGM/GEL/LEAD Battery), 4-Step (Li)		
	Maximum PV Array Power	4000W*2	5000W*2	6000W*2
	PV Array MPPT Voltage Range	90-430VDC		
	Maximum Solar Charge Current	120A	150A	
	Maximum AC Charge Current	120A	150A	
Physical features	Maximum Charge Current	120A	150A	
	Dimension (W*H*D) (mm)	425*527*145		
	Net Weight (kg)	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-0848H	8kW Hybrid Solar Inverter
NPS-1048H	10kW Hybrid Solar Inverter
NPS-1248H	12kW Hybrid Solar Inverter