

OPTIMUM SERIES 8-12KW HYBRID SOLAR INVERTER WITH IP65 RATING



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

- Colorful touch LCD
- IP65 protection degree
- Max. charging/discharging current of 250A
- Ac coupling to retrofit existing solar system
- Max. 16 pcs parallel for on-grid and off-grid operation
- Support multiple batteries parallel
- 6 time periods for battery charging/discharging
- Support storing energy from diesel generator
- Wifimonitoring

SPECIFICATIONS

MODEL	NPS-0848H65	NPS-1048H65	NPS-1248H65
Rated Power	8000W	10000W	12000W
AC Input data	Max AC Input Power	8800W	11000W
	AC Input Rated Current	36.4A	45.5A
	Max Continuous AC Passthrough	50A	60A
	Power Factor	0.8 leading to 0.8 lagging	
	Peak Power (offgrid)	2 times of rated power, 10 S	
	AC Input Frequency and Voltage	50/60Hz; 220/230Vac	
	Grid Type	Single Phase	
	Total Harmonics Current Distortion (THDi)	<3% (of nominal power)	
AC Output data	Max AC Output Power	8800W	11000W
	AC Output Rated Current	34.8A	43.5A
	Max Continuous AC Passthrough	50A	60A
	Power Factor	0.8 leading to 0.8 lagging	
	Peak Power (offgrid)	2 times of rated power, 10 S	
	AC Frequency and Voltage	50/60Hz; 220/230Vac	
	Grid Type	Single Phase	
	Total Harmonics Current Distortion (THDi)	<3% (of nominal power)	
PV string Input	DC Current Injection	<0.5% (Rated current)	
	Max. DC Input Power	10400W	13000W
	PV Input Voltage(V)	370V (125V~500V)	
	MPPT Range(V)	150~425V	
	Full Load DC Voltage Range	200~425V	
	Start-up Voltage(V)	125V	
	PV Input Current(A)	20+20	26+26+26
	No.of MPP Trackers	2	3
No.of Strings per MPP Tracker	1+1	1+1+1	

OPTIMUM SERIES

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SPECIFICATIONS

MODEL		NPS-0848H65	NPS-1048H65	NPS-1248H65
Battery	Battery type	Lead-acid battery / Lithium battery		
	Battery voltage	40~60V		
	External Temperature Sensor	Yes		
	Charging curve	3 Stages / Equalization		
	Charging Strategy for Li-Ion Battery	Self-adaption to BMS		
	Max. Charging Current	190A	220A	250A
	Max. Discharging Current	190A	220A	250A
Efficiency	Max. Efficiency	97.6%		
	Euro Efficiency	96.5%		
	MPPT Efficiency	>99%		
Protection	Integrated	PV Arc Fault Detection, PV Input Lightning Protection, Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Over Voltage Category		
	IP rating	IP65		
	Surge Protection	DC TYPE II/ AC TYPE III	DC Type II/ AC Type II	DC Type II/ AC Type II
	Overvoltage Category	DC TYPE II/ AC TYPE III	DC Type II/ AC Type III	DC Type II/ AC Type III
Physical features	Dimension (W*H*D) (mm)	426*526*255 (EXCLUDING CONNECTORS AND BRACKETS)	446*576*254 (EXCLUDING CONNECTORS AND BRACKETS)	
	Net Weight (kg)	29	31	
System specification	Communication with BMS	RS485/CAN		
	Monitoring mode	WiFi/ APP		
	Operating Temperature Range (°C)	-40~60°C, >45°C Derating		
	Cooling	Smart cooling		
	Noise	≤55dB		
	Installation Style	Wall-mounted		
Certification and Standad	Grid Regulation: IEC 61727/IEC 62116, EN 50549-1; Safety EMC / Standard: IEC/EN 61000-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2			

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

ORDERING INFORMATION

Part Number	Description
NPS-0848H65	8kW Hybrid Solar Inverter IP65 Rating
NPS-1048H65	10kW Hybrid Solar Inverter IP65 Rating
NPS-1248H65	12kW Hybrid Solar Inverter IP65 Rating