

OPTIMUM SERIES 8-12KW OFF GRID SOLAR INVERTER



A solar inverter is a crucial component in a solar power system that converts direct current (DC) electricity generated by solar panels into alternating current (AC) electricity, which is suitable for use in homes and businesses. The primary function of a solar inverter is to transform the variable and intermittent DC power produced by solar panels into stable and synchronized AC power that can be fed into the electrical grid or used locally



GENERAL FEATURES

- Built-in MPPT solar charge controller 100A/200A
- MPPT efficiency max 98%
- Powerful charge rate up to 140Amp
- DC start & Automatic Self-Diagnostic Function
- WIFI / USB monitoring function (wifi optional)
- Smart LCD
- Inside BMS function
- Supporting AGS, BTS port

SPECIFICATIONS

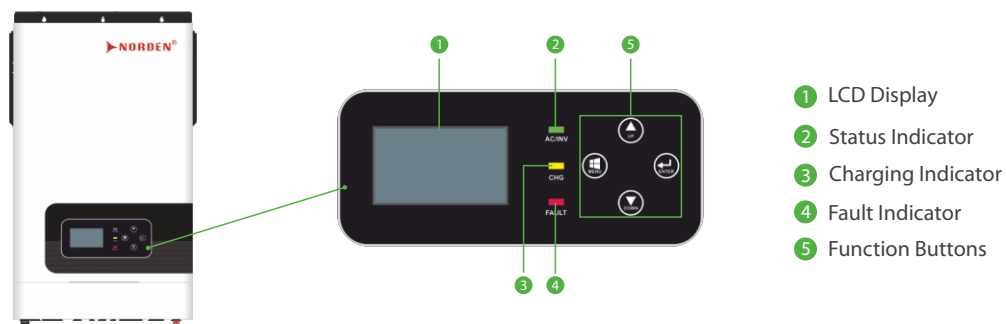
MODEL	NPS-0848IO		NPS-1048IO		NPS-1248IO		
Inverter Output	Nominal battery system voltage	48VDC		48VDC		48VDC	
	Rated power (kW)	8kW		10kW		12kW	
	Surge power	24000W		30000W		36000W	
	Waveform	Pure sine wave / same as input (bypass mode)					
	Nominal output voltage RMS	220V / 230V / 240VAC (±10%RMS)					
	Output frequency	50Hz / 60Hz ± 0.3Hz					
	Inverter efficiency	>88%					
	Line mode efficiency	>95%					
	Power factor	1					
AC Input	Typical transfer time	20ms(max)					
	Voltage	230VAC					
	Selectable voltage range	90-280 VAC (APL)					
Battery	Frequency range	50Hz / 60Hz					
	Low battery voltage cutoff	40-48VDC for 48VDC mode					
	Low battery voltage recovers	42-50VDC for 48VDC mode					
	High battery voltage cutoff	60VDC for 48VDC mode					
	High battery voltage recovers	57VDC for 48VDC mode					
AC Charger	Idle consumption-search mode	<80W when power saver on					
	Output voltage	Depends on battery type					
	Charger AC input breaker rating	80A		100A			
	Overcharge protection S.D.	62.8VDC for 48VDC mode					
Bypass & Protection	Maximum charge current	100A		120A		140A	
	Input voltage waveform	Sine wave (grid or generator)					
	Nominal input frequency	50Hz or 60Hz					
	Overload protection (SMPS Load)	Circuit breaker					
	Output short circuit protection	Circuit breaker					
	Bypass breaker rating	80A		100A			
Solar Charger	Max bypass current	36A		45A		54.5A	
	Maximum PV charge current	100A(200A optional)					
	DC voltage	48V					
	Maximum PV array power	5000W(10000W for 200A optional)					
	MPPT range @ operating voltage(VDC)	64~235VDC					
	Maximum PV array open circuit voltage	250VDC					
Solar Charger	Maximum efficiency	>98%					
	Standby power consumption	<2W					

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Mechanical Specifications			
Mounting	Wall mount		
Dimensions (W x H x D)	674x402x222mm		
Net weight (kg)	69	75	
Shipping dimensions (W x H x D)	884x618x443mm		
Shipping weight (kg)	82	89	92
Environmental			
Operation temperature range	0°C to 40°C		
Storage temperature	-15°C to 60°C		
Audible noise	60dB MAX		

*Product specifications are subject to change without further notice.



ORDERING INFORMATION

Part Number	Description
NPS-0848IO	8kW Off Grid Solar Inverter
NPS-1048IO	10kW Off Grid Solar Inverter
NPS-1248IO	12kW Off Grid Solar Inverter