



## All-in-one Solar Inverter / Charger

PHSD3500EBL24



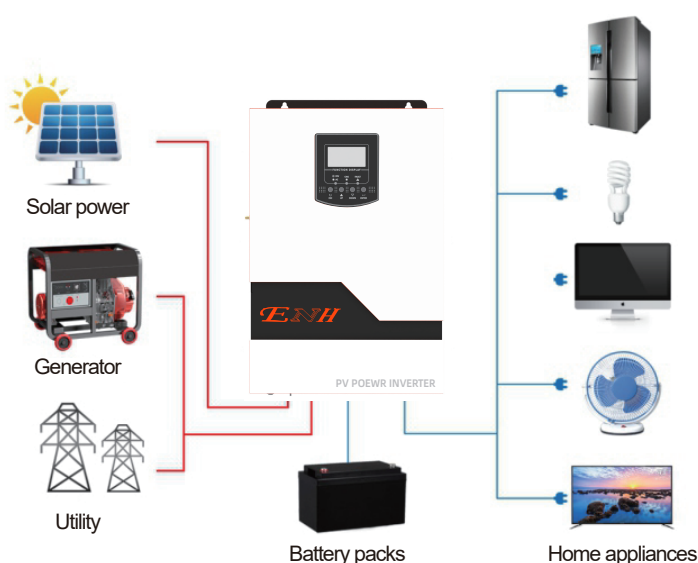
### Product introduction

PHSD series is a new hybrid inverter charger, integrating functions of inverter, solar charger and battery charger to offer uninterruptible power support with portable size. It is controlled by DSP and has the characteristics of high response speed, high reliability and high industrialization standard through advanced control algorithm.

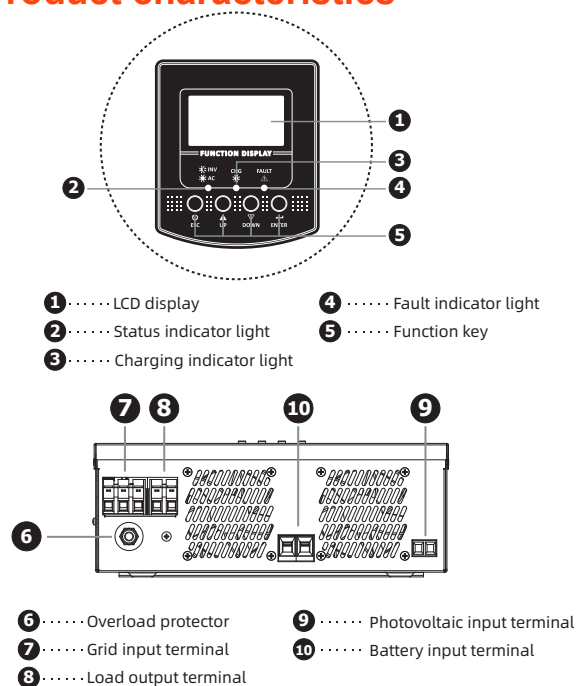
### Product features

- Multiple protection functions, 360 ° all-round protection.
- Two output modes: mains bypass and inverter output, works as uninterrupted power supply.
- Four selectable charging modes: solar energy only, mains power priority, solar energy priority and hybrid charging.
- Power saving mode function to reduce no-load loss.
- Complete protections: short circuit protection, over-voltage and low-voltage protection, overload protection, reverse charging protection, etc.
- Adopt full digital voltage and current double closed loop control, advanced SPWM technology, and output pure sine wave.
- Intelligent adjustable speed fan is used to dissipate heat efficiently and prolong the service life of the system.
- Advanced MPPT technology, which efficiency is up to 99.9%.
- With lithium battery activation function, it supports both lead-acid battery and lithium battery.
- Both AC and PV can activate lithium battery.
- ON/OFF rocker switch controls AC output.
- LED display panel and LED indicators, dynamic display of system data and operation status.

### Connection diagram



### Product characteristics



## Technical parameters >>>

MODEL	PHSD3500EBL24
<b>Utility mode</b>	
Input Voltage Waveform	Sinusoidal (utility or generator)
Nominal Input Voltage	230Vac
Low Loss Voltage	170Vac±7V (UPS) ; 90Vac±7V(Appliances)
Low Loss Return Voltage	180Vac±7V (UPS) ; 100Vac±7V (Appliances)
High Loss Voltage	280Vac±7V
High Loss Return Voltage	270Vac±7V
Max AC Input Voltage	300Vac
Nominal Input Frequency	50Hz/60Hz
Low Loss Frequency	40±1Hz
Low Loss Return Frequency	42±1Hz
High Loss Frequency	65±1Hz
High Loss Return Frequency	63±1Hz
Output Short Circuit Protection	Circuit Breaker
Transfer Time	<10ms(UPS); <20ms(Appliances)
<b>Inverter Mode</b>	
Rated Output Power	3.5KVA
Output Voltage	230Vac±5%
Output Frequency	50Hz
Overload Protection	5s@>130% Load; 10s@105%~130% load
Surge Capacity	2*Rated power for 5 seconds
Nominal DC Input Voltage	24.0Vdc
Cold Start Voltage	23.0Vdc
Low DC Warning Voltage	
@load < 50%	23.0Vdc
@load > 50%	22.0Vdc
Low DC Warning Return Voltage	
@load < 50%	23.5Vdc
@load > 50%	23.0Vdc
Low DC Cut-off Voltage	
@load < 50%	21.5Vdc
@load > 50%	21.0Vdc
High DC Cut-off Voltage	33.0Vdc
High DC Recovery Voltage	32.0Vdc
No Load Power Consumption	≤35W
<b>Utility Charging Mode</b>	
Charging Algorithm	3-Step
AC Charging Current (Max)	100A
Bulk Charging Voltage	29.2Vdc; 28.2Vdc
Floating Charging Voltage	27Vdc
<b>MPPT Solar Charging Mode</b>	
Max. PV Array Power	4000W
Nominal PV Voltage	240Vdc
Start-up Voltage	150Vdc
PV Array MPPT Voltage Range	120~450Vdc
Max. PV Array Open Circuit Voltage	500Vdc
Max Charging Current	100Amp
<b>General Specifications</b>	
Heat dissipation	Forced air cooling, wind speed adjustable
Temperature	Operating: -10 °C ~ 50°C ; Storage: -15 °C ~60 °C
Humidity	5% -93%, Non-condensing
Dimension	302x114x470mm
Net Weight	8.8Kg
Safety Certification	CE