EHD Series
On-Grid Hybrid Inverter

Overview

The EHD series split-phase high-voltage on-grid hybrid inverter supports flexible charging methods, including utility, generators, and solar energy. It also provides versatile power supply mode, such as grid bypass, off-grid operation, and on-grid feeding power.

The series features comprehensive and efficient energy management functions. It supplies power for daily use, stores excess power, and exports the remaining power to the grid. These benefits help to reduce electricity costs, decrease dependence on the grid, and improve power reliability.

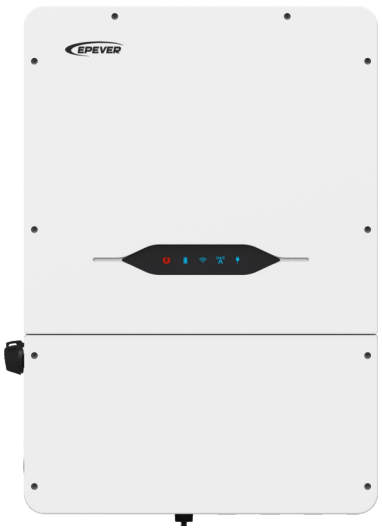
Features

High Efficiency
- 150% PV oversizing capability; Max. PV input power: 18,000W
- 4 MPPTs; Max. PV input voltage: 580VDC; Input current per string: 16A

Smart Power Management
- Dedicated interface: For generator connection,smart load management, and on-grid inverter access
- UPS-level switching <10ms
- Supports 100% unbalanced loads in off-grid mode
- Parallel operation: Supports up to 6 pcs
- Zero export function; Feed-in power control

Reliable & Safe
- Natural cooling; Maintenance-free; Ultra-quiet
- NEMA 3R-rated protection
- Built-in Type II SPD
- Optional function: RSD, AFCI

User-Friendly & Intelligent Monitoring
- Optional LCD display
- Standard RS485 communication port, WiFi / GPRS (optional)



Technical Specifications

Model	EHD6K	EHD8K	EHD10K	EHD12K
Battery input （DC）				
Battery type	Lithium battery			
Voltage range	85–480V			
Rated voltage	310V			
Charging rule	BMS command			
Max. charging and discharge current	50A			
PV input （DC）				
Max. input power	9,000W	12,000W	15,000W	18,000W
Max. input voltage	580V			
Start-up voltage	100V			
Rated input voltage	360V			
Max. input current per MPPT	16A			
MPPT voltage range	90–550V			
Number of MPPTs	3		4	
Number of strings per MPPT	1			
Generator input（AC）				
Rated input power	6,000VA	8,000VA	10,000VA	12,000VA
Rated input current	25A	33.3A	41.7A	50A
Rated input voltage	L1/L2/N/PE 120/240V			
Rated input frequency	50/60Hz			
AC output(On-grid)				
Max.output apparent power	6,000VA	8,000VA	10,000VA	12,000VA
Rated output current	25A	33.3A	41.7A	50A
Max. input current from grid	50A	66.6A	80A	80A
Rated output voltage	L1/L2/N/PE 120/240V (208V 2/3 phase)			
Rated output frequency	50/60Hz			
THDi	< 3%			
Power factor	≈1 (Adjustable from 0.8 leading to 0.8 lagging)			
AC output (Off-grid)				
Rated output power	6,000W	8,000W	10,000W	12,000W
Peak power (VA), time (s)	1.5* Rated power, 60s			
Overload power (VA), time (s)	1.25* Rated power, 300s			
Rated output current	25A	33.3A	41.7A	50A
Rated output voltage	L1/L2/N/PE 120/240V (208V 2/3 phase)			
Rated output frequency	50/60Hz			
THDu （@Linear loads）	< 3%			
Switch time	10ms			
Efficiency				
Max. Efficiency	97.56%	97.66%	97.72%	97.75%
CEC Efficiency	96.7%	96.9%	96.9%	97.0%
Max. discharging efficiency	97.0%	96.9%	96.9%	97.1%
Protection				
Basic protection	• PV reverse polarity • PV insulation resistance • PV string current monitoring	• AC output overvoltage • AC output overcurrent • AC output short circuit	• Anti-islanding • Grid monitoring • Residual current (RCD) detection	
AFCI	Optional			
DC switch	Integrated			
SPD	DC Type II/AC Type III			
Rapid shutdown（RSD）	Optional			
Environment parameters				
Opereating temperature	-30°C to 60°C			
Relative humidity	5% to 95%			
Altitude	4,000m (> 2,000m Derating)			
Ingress protection	3R			
Noise emission	< 35dB			
Mechanical Parameters				
Dimension （L×W×H） (mm)	238 × 513 × 737			
Weight (kg)	45			
Others				
Generator auto start-up	2 Wire start - integrated			
Standby losses (W)	< 20			
Topology	Non-isolation			
Cooling method	Natural			
Mounting method	Wall mounted			
Communication with BMS	RS485/CAN			
Communication with meter	RS485			
Communication with protal	WiFi/Bluetooth (External)			
Display	LED & APP			
Certifications	UL1741；IEEE1547；UL1998；IEEE2030； CEC-300；UL1699B；FCC；HECO SRD；CPUC SRD			

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