



HF SERIES

ON&OFF GRID HYBRID SOLAR INVERTER

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Pure sine wave
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WiFi
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Two-way energy storage design
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Configurable working mode
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Support working without battery
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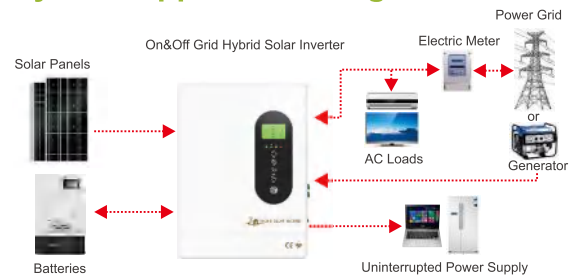
RS485



Features

- Adopting high-frequency design, high power density, small size and high overall efficiency;
- Bidirectional energy storage design can realize bidirectional flow control of electric energy, and both photovoltaic and mains power can charge the battery;
- Ultra-wide MPPT range, as low as 80Vdc;
- The working mode can be set (on-grid mode, off-grid mode, hybrid mode);
- Equipped with output priority setting function;
- With charging priority setting function;
- Equipped with lithium battery BMS communication function;
- Support battery-less operation mode;
- Supports the use of smart meters to prevent backflow when running on the grid.

System Application Diagram



Product Display

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Household
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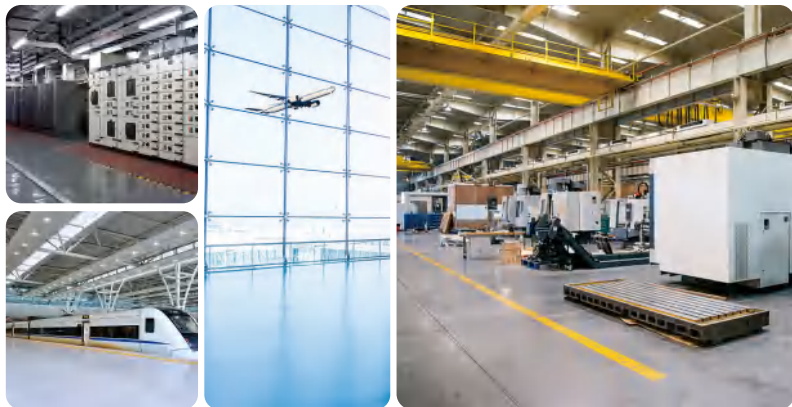
Industrial and commercial energy storage
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Airport/high-speed rail station
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Thermal power station/nuclear power station
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Agricultural Irrigation
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Farm use



Technical Parameters

Model: HF	50248	60248	80248	10348	12348
PV Input					
Maximum Photovoltaic Input Power	6000W	6000W	4500W*2	6000W*2	6000W*2
MPPT Tracking Voltage Range	80Vdc~450Vdc				
Rated Input Voltage	360Vdc				
Max PV Input Voltage(Voc) (at the lowest temperature)	500Vdc				
Maximum Photovoltaic Input Current	27A		18A*2	27A*2	
MPPT Tracking Number Of Channels (input number of channels)	1		2		
Charging Batteries					
Battery Type	Valve hole lead-acid battery/lithium battery				
	Customized battery (charge and discharge parameters of different types of batteries can be set through the operation panel)				
Rated Battery Voltage	48Vdc				
Battery Voltage Range	42~60Vdc (default value)				
Maximum Photovoltaic Charging Current	120A		150A	180A	200A
Maximum Mains Charging Current	80A		100A	120A	140A
Maximum charging current	120A		150A	180A	200A
On-Grid Operation (AC Output)					
Rated Output Power	5000W	6000W	8000W	10KW	12KW
Rated Output Voltage	220Vac / 230Vac / 240Vac				
Output Voltage Range	187Vac ~ 264Vac				
Rated Output Frequency	50Hz / 60Hz				
Output Frequency	47Hz~52Hz(50Hz), 57Hz~62Hz(60Hz)				
Rated Output Current	22.7A/21.7A/20.8A	27.3A/26.1A/25A	36.4A/34.8A/33.3A	45.5A/43.5A/41.7A	54.5A/52.2A/50A
Power Factor	>0.98 (rated power)				
Off-Grid Operation (AC Input)					
Rated Input Voltage	220V / 230V / 240V				
Mains Input Voltage Range	165Vac~280Vac / 120Vac~280Vac (can be set)				
Rated Input Frequency	50Hz / 60Hz				
Input Frequency Range	45Hz~55Hz(50Hz), 55Hz~65Hz(60Hz)				
Off-Grid Operation (AC Output)					
Rated Output Power	5000W	6000W	8000W	10KW	12KW
Rated Output Voltage	220V / 230V / 240V				
Output Voltage Accuracy	±2%				
Rated Output Frequency	50Hz / 60Hz				
Output Frequency Accuracy	±1%				
Output Waveform	sine wave				
Hybrid Operation (AC Input)					
Rated Input Voltage	220V / 230V / 240V				
Mains Input Voltage Range	187Vac~264Vac				
Rated Input Frequency	50Hz / 60Hz				
Input Frequency Range	47Hz~52Hz(50Hz), 57Hz~62Hz(60Hz)				
Hybrid Operation (AC Output)					
Rated Output Power	5000W	6000W	8000W	10KW	12KW
Rated Voltage	220Vac / 230Vac / 240Vac				
Rated Output Current	22.7A/21.7A/20.8A	27.3A/26.1A/25A	36.4A/34.8A/33.3A	45.5A/43.5A/41.7A	54.5A/52.2A/50A
Regular Parameters					
Maximum Conversion Efficiency (Battery Discharge)	94% (peak)				
Mppt Tracking Efficiency	≥99.9				
Conversion Time	10mS (Typical value)				
Panel Display	LCD+LED				
Heat Dissipation Method	Smart fan control				
Communication Function	RS485/dry contact/mobile phone APP (WIFI monitoring or GPRS monitoring) (optional)				
Protection Level	IP20				
Installation Method	Wall-mounted				
Protect					
Battery Low Voltage Alarm	44Vdc (default)				
Battery Undervoltage Protection	42Vdc (default)				
Anti-Islanding Protection	≤2S				
Overload Power Protection	Automatic protection (battery mode), circuit breaker or fuse (mains mode)				
Output Short Circuit Protection	Automatic protection (battery mode), circuit breaker or fuse (mains mode)				
Over Temperature Protection	>90°C (turn off inverter and charging)				
Environment					
Operating Temperature	-10C~50°C				
Storage Temperature	-15C~60°C				
Noise	≤55dB				
Altitude	2000m (If it exceeds the limit, derating is required)				
Relative Humidity	0%~95%, no condensation				
Dimensions And Weight					
Product Size(L*W*Hmm)	430*325*112.5mm		515*365*117mm	630*540*130mm	
Package Size(L*W*Hmm)	510*380*178mm		600*430*192mm	715*605*205mm	
N.W.(kg)	10.5	10.5	13	23	23.5
G.W.(kg)	12	12	15	25	25.5

Note: 1. Specifications are subject to change without prior notice; 2. Special voltage and power requirements can be customized according to the actual situation of users.