

HFP On & Off Grid Hybrid Solar Inverter

1.3KW - 12.3KW >>

Technical specifications



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

Product Features

- ◆ **High-Frequency Design:** High power density, compact size, and overall high efficiency.
- ◆ **Bidirectional Energy Storage Design:** Enables bidirectional flow control of electrical energy, allowing both photovoltaic and mains electricity to charge the battery.
- ◆ **Ultra-Wide MPPT Range:** Minimum of **40Vdc** (24V models) / **80Vdc** (48V models).
- ◆ **Configurable Working Modes:** Supports grid-connected, off-grid, and hybrid modes.
- ◆ **Grid-Connected Current Setting:** Allows customization of the grid-connected current.
- ◆ **Output Priority Setting:** Enables setting of output priority.
- ◆ **Charging Priority Setting:** Allows setting of charging priority.
- ◆ **Lithium Battery BMS Communication:** Supports communication with the battery management system (BMS) for lithium batteries.
- ◆ **Battery-Less Operation Mode:** Supports operation without a battery.

Model : HFP	13212	18224	23224	33224	43224	63248	83248	103248	123248	
PV	Max PV Input Power (at the lowest temperature)	2000W	2500W	3000W	5000W	5000W	7000W	4500W*2	6000W*2	6000W*2
	MPPT Tracking Voltage Range (VDC)	30-240	40-450	40-450	40-450	40-450	80-450	80-450	80-450	80-450
	Rated Voltage (VDC)	180	360	360	360	360	360	360	360	360
	Max PV Input Voltage Voc (Input Routed)	300	500	500	500	500	500	500	500	500
	Max PV Input Current (A)	15	15	15	18	18	27	18*2	22*2	27*2
	MPPT Tracking Channels	1 Routed	1 Routed	1 Routed	1 Routed	1 Routed	1 Routed	2 Routed	2 Routed	2 Routed
Battery & Charging	Battery Type	Lead-acid Battery / Lithium Battery Custom Battery (Charging and discharging parameters of different types of batteries can be set through the operation board)								
	Rated Battery Voltage (VDC)	12	24	24	24	24	48	48	48	48
	Battery Voltage Range (VDC(default))	10.5-15	21-30	21-30	21-30	21-30	42-60	42-60	42-60	42-60
	Max PV Charging Current (A)	80	60	80	120	150	120	150	180	200
	Max AC Charging Current (A)	50	35	50	80	100	80	100	120	140
	Max Charging Current (A)	80	60	80	120	150	120	150	180	200
On-Grid Operation	Rated Output Power	1300W	1800W	2300W	3300W	4300W	6300W	8300W	10.3KW	12.3KW
	Rated Output Voltage (VAC)	220 / 230 / 240								
	Grid Voltage Range (VAC)	187 ~ 264								
	Rated Output Frequency	50Hz / 60Hz								
On-Grid Output (AC)	Frequency Range	47Hz ~ 52Hz(50Hz), 57Hz ~ 62Hz(60Hz)								
	Rated Output Current (A)	5.9/5.6/5.4	8.1/7.8/7.5	10.4/10/9.5	14.5/13.9/13.3	19.5/18.7/17.9	28.6/27.4/26.2	37.7/36.1/34.6	46.7/44.9/42.9	55.9/53.5/51.3
	Power Factor	> 0.98(Rated Power)								
	Rated Input Voltage (VAC)	220 / 230 / 240								
Off-Grid Operation	Mains Input Voltage Range (VAC)	165-280 / 120-280(Can be set)								
	Rated Input Frequency	50Hz / 60Hz								
	Input Frequency Range	45Hz ~ 55Hz(50Hz), 55Hz ~ 65Hz(60Hz)								
	Rated Output Power	1300W	1800W	2300W	3300W	4300W	6300W	8300W	10.3KW	12.3KW
Off-Grid Output (AC)	Rated Output Voltage (VAC)	220 / 230 / 240								
	Output Voltage / Output Frequency Accuracy	±2% / ±1%								
	Rated Input Frequency	50Hz / 60Hz								
	Output Wave	Pure Sine Wave								
Hybrid Operation (complementary Model)	Rated Input voltage (VAC)	220 / 230 / 240								
	Mains Input Voltage Range (VAC)	187 ~ 264								
	Rated Input Frequency	50Hz / 60Hz								
	Input Frequency Range	47Hz ~ 52Hz (50Hz), 57Hz ~ 62Hz (60Hz)								
Hybrid Operation (complementary Model)	Rated Output Power	1300W	1800W	2300W	3300W	4300W	6300W	8300W	10.3KW	12.3KW
	Rated Voltage Rated (VAC)	220 / 230 / 240								
	Output Current (A)	5.9 / 5.6 / 5.4	8.1 / 7.8 / 7.5	10.4 / 10 / 9.5	14.5 / 13.9 / 13.3	19.5 / 18.7 / 17.9	28.6 / 27.4 / 26.2	37.7 / 36.1 / 34.6	46.7 / 44.9 / 42.9	55.9 / 53.5 / 51.3
	Maximum Conversion Efficiency(Battery Discharge)	94%(Peak Value)								
Regular Parameters	MPPT Tracking Efficiency	≥ 99.9								
	Transfer Time	10ms(Typical Value)								
	Display	LCD + LED								
	Cooling Method	Cooling fan in intelligent control								
	Communication	RS485 / Mobile APP(WIFI Monitoring or GPRS monitoring)(Optional)								
	Protection Degree	IP20								
Protection Degree	Installation	Wall-Mounted								
	Battery Low Voltage Alarm(VDC (default value))	11	22	22	22	22	44	44	44	44
	Battery Low Voltage Protection(VDC (default value))	10.5	21	21	21	21	42	42	42	42
	Anti-islanding Protection	≤ 2S								
	Overload Power / Inverter Output Short Circuit Protection	Automatic Protection (battery mode),Circuit Breaker or Insurance (AC mode)								
	Temperature Protection	>90 C(Turn off inverter and charging)								
Environment	Operating / Storage Temperature	-10 C ~ 50 C / -15 C ~ 60 C								
	Noise	≤ 55dB								
	Elevation	2000m (Exceeding the limit requires derating)								
	Humidity	0% ~ 95%, No condensation								
Dimension and Weight	Product Size(L*W*Hmm)	285*250*91	285*250*91	285*250*91	325*275*102	375*297*102	390*320*112	515*365*117	535*462*117	630*540*130
	Package Size(L*W*Hmm)	360*305*156	360*305*156	360*305*156	400*330*167	450*352*167	465*375*187	615*460*212	630*557*212	730*635*225
	N.W.(kg)	4	4.2	4.5	5.5	6.7	8	13	14.7	22
	G.W.(kg)	5	5.2	5.5	6.5	8	9.5	15	17	25