

Features

- Adopting high-frequency design, high power density, small size, and high overall efficiency;
 Bidirectional energy storage design, which can achieve bidirectional flow
- control of electrical energy, and both photovoltaic and mains electricity can
- be charged to the battery;
 Ultra wide MPPT range, with a minimum of 40Vdc(24V models) / 80Vdc (48V models);
- Capable of setting working modes (grid connected mode, off grid mode, hybrid mode);
- Equipped with grid connected current setting function;
 Equipped with output priority setting function;

- Equipped with charging priority setting function;
 Equipped with lithium battery BMS communication function;
 Support battery-less operation mode.

Product Display



Household





Airport/high-speed



Thermal power station/nuclear power station



Agricultural Irrigation



rail station



Farm use

System Application Diagram







Technical Parameters

Model: INF	18224	23224	33224
PV Input Max PV Input Power	2500W	3000W	5000W
MPPT Tracking Voltage Range	23000	40Vd c-450Vdc	3000W
Rated Voltage		240Vdc	
-			
Max PV Input Voltage voc (at the lowest temperature)	400	Vdc	500Vdc
Max PV Input Current	15A	15A	18A
MPPT Tracking Channels(Input Routed)		1 Routed	
Battery & Charging			
Battery Type		Lead-acid Battery/Lithium Battery	
	Custom Battery (Charging and discha	rging parameters of different types of batteries ca	in be set through the operation board)
Rated Battery Voltage		24Vd c	
Battery voltage Range		21~30Vdc (dafault)	
Max PV Charging Current	60A	80A	120A
Max AC Charging Current	35A	50A	80A
Max Charging Current	60A	80A	120A
On-Grid Operation (AC Output)		_	
Rated Output Power	1800W	2300W	3300W
Rated Output Voltage		220Vac / 230Vac / 240Vac	
Grid Voltage Range		187Vac ~ 264Vac	
Rated Output Frequency		50Hz / 60Hz	
Frequency Range		47Hz~52Hz (50Hz), 57Hz~62Hz (60Hz)	-
Rated Output Current	8.1A/7.8A/7.5A	10.4A/10A/9.5A	14.5A/13.9A/13.3A
Power Factor		>0.98 (Rated Power)	
Off-Grid Operation (AC Input)			
Rated Input Voltage		220V / 230V / 240V	
Mains input voltage range	165Vac~280Vac/120 Vac~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	1800W	2300W	3300W
Rated Output Voltage		220V / 230V / 240 V	
Output Voltage Acouracy		±2%	
Rated Input Frequency	50Hz/60Hz		
Output Frequency Accuracy		±1%	
Output Wave		Pure Sine Wave	
Hybrid Operation (AC Input)			
Rated Input voltage		220V / 230V / 240 V	
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	1800W	2300W	3300W
Rated Voltage		220Vac / 230Vac / 240 Vac	
Output Current	8.1A/7.8A/7.5A	10.4A/10A/9.5A	14.5A/13.9A/13.3A
Regular Parametars			
Maximum Conversion Efficiency			
(Battery Discharge)		94% (peak Value)	
		94%(peak Value) ≥ 99.9	
MPPT Tracking Efficiency			
MPPT Tracking Efficiency Transfer Time		≥ 99.9	
MPPT Tracking Efficiency Transfer Time Display		≥ 99.9 10ms (Typical Value)	
MPPT Tracking Efficiency Transfer Time Display Cooling Method	RS 485 /Mai	≥ 99.9 10ms(Typical Value) LCD+LED	g) (Optional)
MPPT Tracking Efficiency Transfer Time Display Cooling Method Communication	RS485/Mol	≥ 99.9 10ms(Typical Value) LCD+LED Cooling Fan In intelligent Control	g) (Optional)
MPPT Tracking Efficiency Transfer Time Display Cooling Method Communication Protection Degree	R S485 / Mol	≥ 99.9 10ms (Typical Value) LCD+LED Cooling Fan In intelligent Control bile APP (WIFI Monitoring or GPRS Monitoring	g) (Optional)
MPPT Tracking Efficiency Transfer Time Display Cooling Method Communication Protection Degree Installation	RS 485/Mol	≥ 99.9 10ms(Typical Value) LCD+LED Cooling Fan In intelligent Control bile APP (WIFI Monitoring or GPRS Monitoring IP20	g) (Optional)
MPPT Tracking Efficiency Transfer Time Display Cooling Method Communication Protection Degree Installation Protect	RS 485/Mol	≥ 99.9 10ms(Typical Value) LCD+LED Cooling Fan In intelligent Control bile APP (WIFI Monitoring or GPRS Monitoring IP20	g) (Optional)
MPPT Tracking Efficiency Transfer Time Display Cooling Method Communication Protection Degree Installation Protect Battery low voltage alarm	RS 485 / Mol	≥ 99.9 10ms(Typical Value) LCD+LED Cooling Fan In intelligent Control bile APP (WIFI Monitoring or GPRS Monitoring IP20 Wall-Mounted	g) (Optional)
MPPT Tracking Efficiency Transfer Time Display Cooling Method Communication Protection Degree Installation Protect Battery low voltage alarm Battery low voltage protection	RS485/Mol	≥ 99.9 10ms(Typical Value) LCD+LED Cooling Fan In intelligent Control bile APP (WIFI Monitoring or GPRS Monitoring IP20 Wall-Mounted 22Vdc (dafault Value)	g) (Optional)
MPPT Tracking Efficiency Transfer Time Display Cooling Method Communication Protection Degree Installation Protect Battery low voltage alarm Battery low voltage protection Anti-islanding protection		≥ 99.9 10ms(Typical Value) LCD+LED Cooling Fan In intelligent Control bile APP (WIFI Monitoring or GPRS Monitoring IP20 Wall-Mounted 22Vdc (dafault Value) 21Vdc (dafault Value) ≤25	
MPPT Tracking Efficiency Transfer Time Display Cooling Method Communication Protection Degree Installation Protect Battery low voltage alarm Battery low voltage protection Anti-islanding protection Overload power protection	Automatic Prot	≥ 99.9 10ms(Typical Value) LCD+LED Cooling Fan In intelligent Control bile APP (WIFI Monitoring or GPRS Monitoring IP20 Wall-Mounted 22Vdc (dafault Value) 21Vdc (dafault Value) ≤25 ection (battery model), Circuit Breaker or insu	irance (AC mode)
MPPT Tracking Efficiency Transfer Time Display Cooling Method Communication Protection Degree Installation Protect Battery low voltage alarm Battery low voltage protection Anti-islanding protection Overload power protection Output short circuit protection	Automatic Prot	≥ 99.9 10ms(Typical Value) LCD+LED Cooling Fan In intelligent Control bile APP (WIFI Monitoring or GPRS Monitoring IP20 Wall-Mounted 22Vdc (dafault Value) 21Vdc (dafault Value) ≤25 ection (battery model), Circuit Breaker or insuection (battery mode), Circuit Breaker or Insuection (batter	irance (AC mode)
MPPT Tracking Efficiency Transfer Time Display Cooling Method Communication Protection Degree Installation Protect Battery low voltage alarm Battery low voltage protection Anti-islanding protection Overload power protection Output short circuit protection Temperature protection	Automatic Prot	≥ 99.9 10ms(Typical Value) LCD+LED Cooling Fan In intelligent Control bile APP (WIFI Monitoring or GPRS Monitoring IP20 Wall-Mounted 22Vdc (dafault Value) 21Vdc (dafault Value) ≤25 ection (battery model), Circuit Breaker or insu	irance (AC mode)
MPPT Tracking Efficiency Transfer Time Display Cooling Method Communication Protection Degree Installation Protect Battery low voltage alarm Battery low voltage protection Anti-islanding protection Overload power protection Output short circuit protection Temperature protection Environment	Automatic Prot	≥ 99.9 10ms(Typical Value) LCD+LED Cooling Fan In intelligent Control bile APP (WIFI Monitoring or GPRS Monitoring IP20 Wall-Mounted 22Vdc (dafault Value) 21Vdc (dafault Value) ≤2S ection (battery model), Circuit Breaker or insutection (battery mode), Circuit Breaker or Insu	irance (AC mode)
MPPT Tracking Efficiency Transfer Time Display Cooling Method Communication Protection Degree Installation Protect Battery low voltage alarm Battery low voltage protection Anti-Islanding protection Overload power protection Output short circuit protection Temperature protection Environment Operating temperature	Automatic Prot	≥ 99.9 10ms(Typical Value) LCD+LED Cooling Fan In intelligent Control bile APP (WIFI Monitoring or GPRS Monitoring IP20 Wall-Mounted 22Vdc (dafault Value) 21Vdc (dafault Value) ≤25 ection (battery model), Circuit Breaker or insuection (battery mode), Circuit Breaker or Insuection (batter	irance (AC mode)
MPPT Tracking Efficiency Transfer Time Display Cooling Method Communication Protection Degree Installation Protect Battery low voltage alarm Battery low voltage protection Anti-Islanding protection Overload power protection Output short circuit protection Temperature protection Environment Operating temperature Storage temperature	Automatic Prot	≥ 99.9 10ms(Typical Value) LCD+LED Cooling Fan In intelligent Control bile APP (WIFI Monitoring or GPRS Monitoring IP20 Wall-Mounted 22Vdc (dafault Value) 21Vdc (dafault Value) ≤2S ection (battery mode), Circuit Breaker or insutection (battery mode), C	irance (AC mode)
MPPT Tracking Efficiency Transfer Time Display Cooling Method Communication Protection Degree Installation Protect Battery low voltage alarm Battery low voltage protection Anti-islanding protection Overload power protection Output short circuit protection Temperature protection Environment Operating temperature Storage temperature Noie	Automatic Prot	≥99.9 10ms(Typical Value) LCD+LED Cooling Fan In intelligent Control bile APP (WIFI Monitoring or GPRS Monitoring IP20 Wall-Mounted 22Vdc (dafault Value) 21Vdc (dafault Value) ≤2S ection (battery model), Circuit Breaker or Insu >90oC (turn of inverter and charging) - 10C~50oC -15C~60oC	irance (AC mode)
Transfer Time Display Cooling Method Communication Protection Degree Installation Protect Battery low voltage alarm Battery low voltage protection Anti-islanding protection Overload power protection Output short circuit protection Temperature protection Environment Operating temperature Storage temperature Noie Elevation	Automatic Prot	≥ 99.9 10ms(Typical Value) LCD+LED Cooling Fan In intelligent Control bile APP (WIFI Monitoring or GPRS Monitoring IP20 Wall-Mounted 22Vdc (dafault Value) 21Vdc (dafault Value) ≤2S ection (battery model), Circuit Breaker or insutection (battery mode), Ci	irance (AC mode)
MPPT Tracking Efficiency Transfer Time Display Cooling Method Communication Protection Degree Installation Protect Battery low voltage alarm Battery low voltage protection Anti-islanding protection Output short circuit protection Temperature protection Environment Operating temperature Storage temperature Noie Elevation Humidity	Automatic Prot	≥99.9 10ms(Typical Value) LCD+LED Cooling Fan In intelligent Control bile APP (WIFI Monitoring or GPRS Monitoring IP20 Wall-Mounted 22Vdc (dafault Value) 21Vdc (dafault Value) ≤2S ection (battery model), Circuit Breaker or Insu >90oC (turn of inverter and charging) - 10C~50oC -15C~60oC	irance (AC mode)
MPPT Tracking Efficiency Transfer Time Display Cooling Method Communication Protection Degree Installation Protect Battery low voltage alarm Battery low voltage protection Anti-Islanding protection Overload power protection Output short circuit protection Temperature protection Environment Operating temperature Storage temperature Noie Elevation Humidity Dimensions And Weight	Automatic Prot Automatic PRot	≥ 99.9 10ms(Typical Value) LCD+LED Cooling Fan In intelligent Control bile APP (WIFI Monitoring or GPRS Monitoring IP20 Wall-Mounted 22Vdc (dafault Value) 21Vdc (dafault Value) ≤2S ection (battery model), Circuit Breaker or insultection (battery mode), Circuit Breaker or Insultection (turn of inverter and charging) - 10C~50oC -15C~60oC ≤55db 2000m (More than derating) 0%~95%, No condensation	irance (AC mode) irance (AC mode)
MPPT Tracking Efficiency Transfer Time Display Cooling Method Communication Protection Degree Installation Protect Battery low voltage alarm Battery low voltage protection Anti-islanding protection Overload power protection Output short circuit protection Temperature protection Environment Operating temperature Storage temperature Noie Elevation Humidity Dimensions And Weight Product Size(L*W*Hmm)	Automatic Prot Automatic PRot 285	≥ 99.9 10ms(Typical Value) LCD+LED Cooling Fan In intelligent Control bile APP (WIFI Monitoring or GPRS Monitoring IP20 Wall-Mounted 22Vdc (dafault Value) 21Vdc (dafault Value) ≤25 ection (battery model). Circuit Breaker or insuestection	irance (AC mode) irance (AC mode) 325*275*102
MPPT Tracking Efficiency Transfer Time Display Cooling Method Communication Protection Degree Installation Protect Battery low voltage alarm Battery low voltage protection Anti-islanding protection Overload power protection Output short circuit protection Temperature protection Environment Operating temperature Storage temperature Noie Elevation Humidity	Automatic Prot Automatic PRot 285	≥ 99.9 10ms(Typical Value) LCD+LED Cooling Fan In intelligent Control bile APP (WIFI Monitoring or GPRS Monitoring IP20 Wall-Mounted 22Vdc (dafault Value) 21Vdc (dafault Value) ≤2S ection (battery model), Circuit Breaker or insultection (battery mode), Circuit Breaker or Insultection (turn of inverter and charging) - 10C~50oC -15C~60oC ≤55db 2000m (More than derating) 0%~95%, No condensation	irance (AC mode) irance (AC mode)