

# HP High frequency inverter/Hybrid Solar Inverter

## Product Description

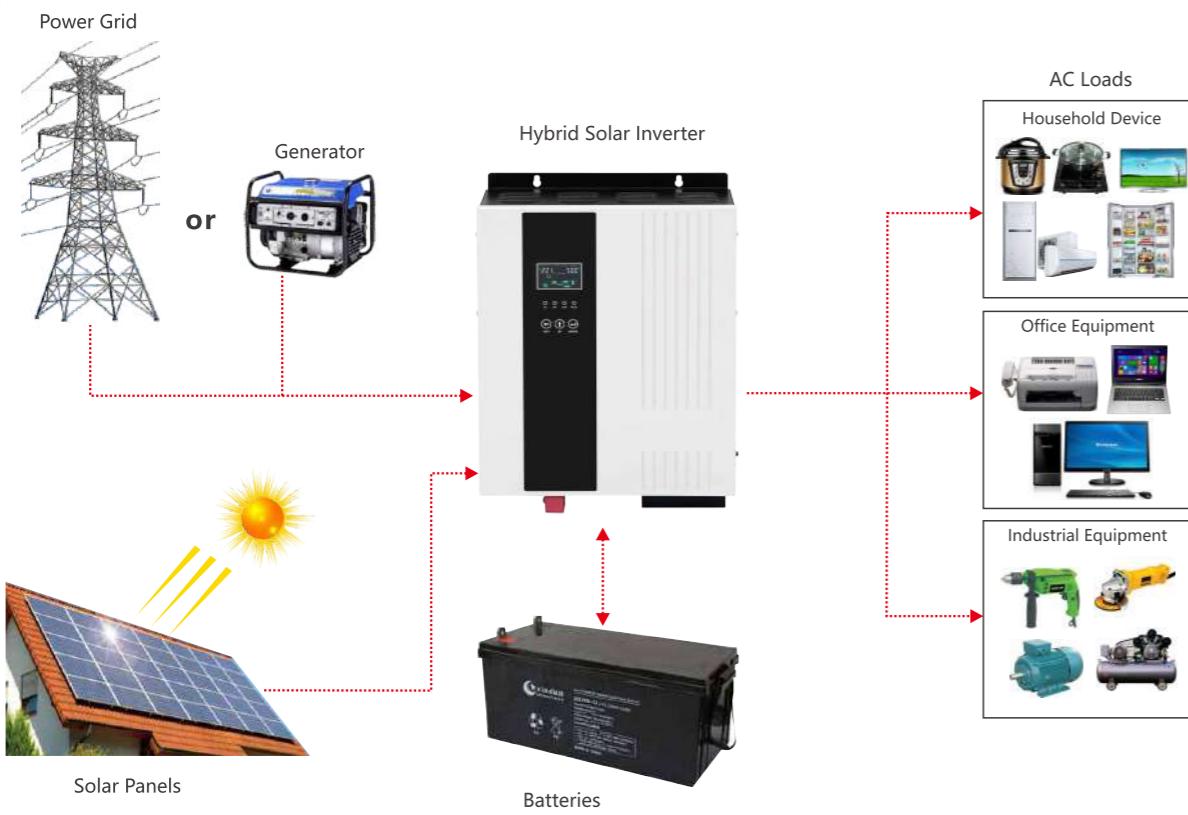
- High frequency design, high power density, small size, high efficiency, low no-load loss.
- Built-in MPPT or PWM solar charge controller optional.
- Pure sine wave output, any types of loads adaptable.
- Battery charge and discharge voltage parameters adjustable, suitable for different types of batteries, can prolong the life of the battery and improve system performance.
- AC charge current 0~60A adjustable, battery capacity configuration more flexible.
- Three working modes adjustable: AC first, Battery first, PV first.
- Output voltage/frequency adjustable function, adapt to different grid environment.
- Extra wide voltage and frequency input range, support mains or generator.
- LED+LCD display, easy operation and data checking, can set each function and data directly;
- Multi-protection function (overload, over temperature, short circuit protection and so on)
- RS485 communication port/APP optional.

## Application Area

- Office and public facilities, household system, network transmission equipment, manufacturing, control system, solar energy system, oil field, drilling field operation, etc.
- Provide stable, reliable and safe solutions for families, islands, ships and other small photovoltaic power systems



## System Application Diagram



## Technical Parameters

Model: HP/HP-T	10212	15224	32224	50248	72248
Rated Power	1000W	1500W	3200W	5000W	7200W
Peak Power (20ms)	3000VA	4500VA	9600VA	15KVA	21.6KVA
Battery Voltage	12VDC	24VDC	24VDC	48VDC	48VDC
Product Size (L*W*Hmm)	434x283x88		476x350x118		538x388x118
Package Size (L*W*Hmm)	459x347x152		502x414x172		561x457x172
N.W (Kg)	7	7	11.5	11.8	16
G.W (Kg)	8	8	12.5	12.8	17.5
Installation Method			Wall-Mounted		
Inside MPPT Solar controller (Optional)	Charging Mode		MPPT		
	Rated PV input voltage		360VDC		
	MPPT tracking voltage range		120V-450V		
	Max PV Input Voltage Voc (At the lowest temperature)		500V		
	PV Array Maximum Power	2000W	2000W	4000W	6000W
	MPPT tracking channels (input channels)		1		2
Inside PWM Solar controller (Optional)	Charging Mode		PWM		
	Charging current	30A		60A/120A	
	PV Input Voltage Range	15-44V	30-44V	30-44V	60-88V
	Max PV Input Voltage Voc (At the lowest temperature)	50V		100V	
	PV Array Maximum Power	420W	840W	1680W/3360W	3360W/6720W
	PV input channels	1		1 or 2	
Input	DC Input Voltage Range	10.5VDC-15VDC	21VDC-30VDC		42VDC-60VDC
	Rated AC input voltage		220VAC / 230VAC / 240VAC		
	AC Input Voltage Range		170VAC~280VAC (UPS mode) / 120VAC~280VAC (INV mode)		
	AC Input Frequency Range		45Hz~55Hz (50Hz), 55Hz~65Hz (60Hz)		
Output	Output efficiency(Battery/PV Mode)		94% (Peak value)		
	Output Voltage(Battery/PV Mode)		220VAC±2% / 230VAC±2% / 240VAC±2%		
	Output Frequency(Battery/PV Mode)		50Hz±0.5 or 60Hz±0.5		
	Output Wave(Battery/PV Mode)		Pure Sine Wave		
	Efficiency(AC Mode)		≥99%		
	Output Voltage(AC Mode)		Follow input		
	Output Frequency(AC Mode)		Follow input		
	Output waveform distortion Battery/PV Mode)		≤3%(Linear load)		
	No load loss(Battery Mode)		≤1% rated power		
	No load loss(AC Mode)		≤0.5% rated power(charger does not work in AC mode)		
Battery	Battery Type	VRLA Battery	Charge Voltage :13.8V; Float Voltage:13.7V(Single battery voltage)		
	Customize battery		Charging and discharging parameters of different types of batteries can be customized according to user requirements (charging and discharging parameters of different types of batteries can be set through the operation panel)		
	Max AC Charging Current	60A	40A	60A	60A
	Max PV Charging Current (Built-in MPPT controller model)	80A	60A	100A	100A
	Maximum charging current (mains + PV) (Built-in MPPT controller model)	80A	60A	100A	100A
	Maximum charging current (mains + PV) (Built-in PWM controller model)	Mains60A+ PWM controller charging current	Mains40A+ PWM controller charging current	Mains60A+ PWM controller charging current	Mains80A+ PWM controller charging current
Protection	Charging method		Three-stage (constant current, constant voltage, floating charge)		
	Battery low voltage alarm		Battery undervoltage protection value+0.5V(Single battery voltage)		
	Battery low voltage protection		Factory default: 10.5V(Single battery voltage)		
	Battery over voltage alarm		Constant charge voltage+0.8V(Single battery voltage)		
	Battery over voltage protection		Factory default: 17V(Single battery voltage)		
	Battery over voltage recovery voltage		Battery overvoltage protection value-1V(Single battery voltage)		
	Overload power protection		Automatic protection (battery mode), circuit breaker or insurance (AC mode)		
	Inverter output short circuit protection		Automatic protection (battery mode), circuit breaker or insurance (AC mode)		
Working Mode	Temperature protection		>90°C(Shut down output)		
			Mains priority/Solar priority/Battery priority(Can be set)		
	Transfer Time		≤4ms		
	Display		LCD+LED		
	Thermal method		Cooling fan in intelligent control		
	Communication(Optional)		RS485/APP(WIFI monitoring or GPRS monitoring)		
Environment	Operating temperature		-10°C~40°C		
	Storage temperature		-15°C~60°C		
	Noise		≤55dB		
	Elevation		2000m(More than derating)		
	Humidity		0%~95% (No condensation)		

Note: 1. The working mode of the built-in MPPT controller model supports PV priority/battery priority/mains priority, and the working mode of the built-in PWM controller model only supports battery priority/mains priority;

2. All specifications are subject to change without prior notice.