HP&HP-PV Series

Pure Sine Wave Inverter/Charger

- High Output Capacity up to 12KW
- Ultra Low THD, Typically 7% Under Full Linear Load
- Battery Temperature Sensing For Increased Charging Precision
- Powerful Charge Rate up to 120Amp, Selectable From 0%-100%
- Auto Gen Start Function For Off Grid System With Generator As Backup Power
- MPPT Solar Charger Controller Available

HIGH POWER 12000W AVAILABLE | **Low Idle Consumption**

Application

Household Appliance

Marine & RV

Solar System

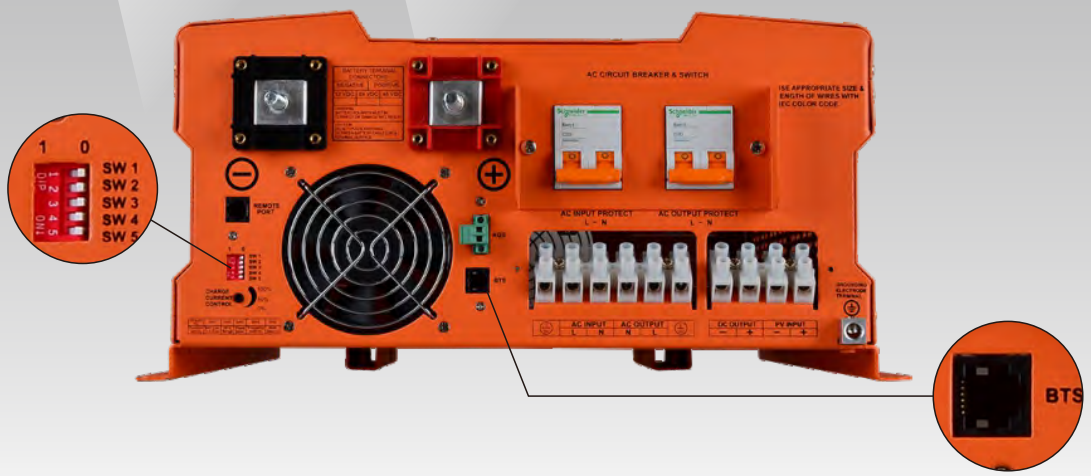
Office Equipment

Product Description

Features

- Smart Remote Control
- Support Solar Panel with MPPT Function
- Designed to Operate under Harsh Environment
- DC Start & Automatic Self- Diagnostic Function
- Compatible with Both Linear & Non-Linear Load
- Easy to Install & Easy to Operate & Easy to Solve
- Low DC Voltage Supports Home & Office Appliances
- Powerful Charge Rate Up to 120Amp, Selectable From 0%-100%
- High Efficiency Design & "Power Saving Mode" to Conserve Energy
- Battery Priority Mode, Designates the Inverter-Preferred UPS Configuration
- 13 Vdc Battery Recover Point, Dedicated for Renewable Energy Systems
- 8 Pre Set Battery Type Selector Plus De-sulphation for Totally Flat Batteries
- 4-step Intelligent Battery Charging, PFC (Power Factor Correction) for Charger
- 8 ms Typical Transfer Time Between Utility & Battery, Guarantees Power Continuity
- 15s Delay Before Transfer when AC Resumes, Protection for Load when Used with Generator

Product Dominance



On the rear panel of inverter, there are 5 DIP switches which enable users to customize the performance of the device.

Switch NO	Switch Function		Position: 0	Position: 1
SW1	Low Battery Trip Volt		10.0VDC For Deep-Cycle Battery	10.5VDC For Starting Battery
			*2 for 24Vdc,*4 for 48Vdc	
SW2	AC Input Range/(AVR)	AC Source	For Utility Mode	For Generator Mode
		230Vac HV	184-253Vac/(176-276Vac)	154-253Vac/(150-276Vac)
		120Vac LV	100-135Vac/(92-144Vac)	90-135Vac/(78-144Vac)
SW3	Power Saver Auto Setting		Night Charger Function	Detect Load Per 3Secs
SW4	O/P Frequency Setting		50Hz	60Hz
SW5	Solar / AC Priority Setting		Utility Priority	Battery Priority

Low Battery Trip Volt:
The Low Battery Trip Volt is set at 10.0VDC by default. It can be customized to 10.5VDC

AC Input Range:
There are different acceptable AC input ranges for different kinds of loads. It can be customized from 184-253VAC to 154-253VAC.

Load Sensing Cycle:
The inverter is factory defaulted to detect load for 250ms in every 30 seconds. This cycle can be customized to 3 seconds thru the SW3 on DIP switch.

Frequency adjust:
The frequency of the inverter is arranged by the Sw4.
The factory default configuration for 220/230/240VAC inverter is 50Hz,and 60Hz for 100/110/120VAC inverter. While the output freq can be easily changed once a qualified freq is applied to the inverter.

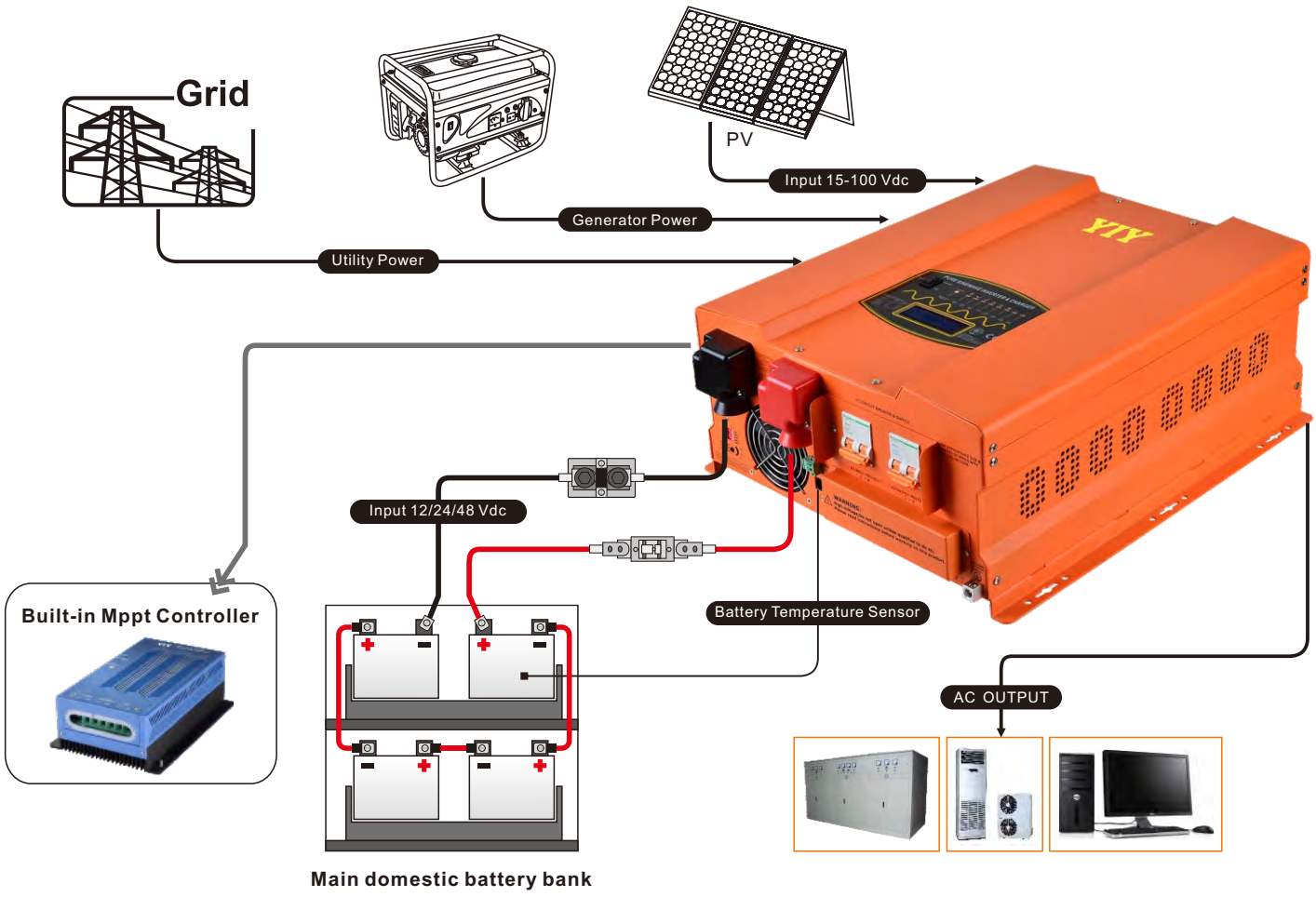
Solar / AC Priority Setting:
Our inverter is designed AC priority by default. This means, when AC input is present, the battery wil be charged first, and the inverter will transfer the input AC to power the load.
The AC Priority and Battery Priority switch is available upon request. When you choose battery priority, the inverter will inverting from battery despite the AC input. I

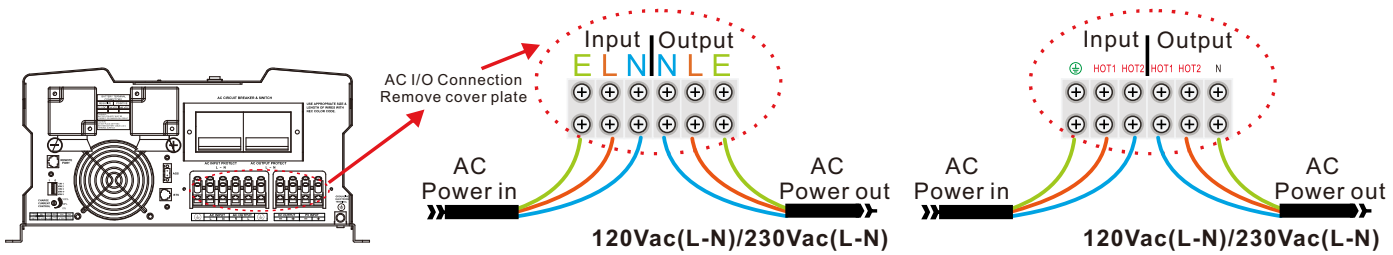
Specification

HP Pure Sine Wave Inverter/Charger											
Inverter Output	Model	1.0KW	1.5KW	2.0KW	3.0KW	4.0KW	5.0KW	6.0KW	8.0KW	**10.0KW**	**12.0KW**
	Continuous Output Power	1.0KW	1.5KW	2.0KW	3.0KW	4.0KW	5.0KW	6.0KW	8.0KW	**10.0KW**	**12.0KW**
	Surge Rating (20Secs)	3.0KW	4.5KW	6.0KW	9.0KW	12.0KW	15.0KW	18.0KW	24.0KW	**30.0KW**	**36.0KW**
	Output Waveform	Pure Sine wave/Same as input (Bypass Mode)									
	Nominal Efficiency	>88% (Peak)									
	Line Mode Efficiency	>95%									
	Power Factor	0.9-1.0									
	Nominal Output Voltage rms	100-110-120Vac / 220-230-240Vac									
	Output Voltage Regulation	±10%RMS									
	Output Frequency	50Hz ± 0.3Hz / 60Hz ± 0.3Hz									
	Short Circuit Protection	Yes (1sec after fault)									
	Typical transfer Time	10ms (Max)									
	THD	< 10%									
DC Input	Nominal Input Voltage	12.0Vdc / 24.0Vdc / 48.0Vdc					24.0Vdc / 48.0Vdc		48.0Vdc		
	Minimum Start Voltage	10.0Vdc / 10.5Vdc for 12Vdc Mode					*2 for 24Vdc, *4 for 48Vdc ;				
	Low Battery Alarm	10.5Vdc / 11.0Vdc for 12Vdc Mode									
	Low Battery Trip	10.0Vdc / 10.5Vdc for 12Vdc Mode									
	High Voltage Alarm	16.0Vdc for 12Vdc Mode									
	Low Battery Voltage Recover	15.5Vdc for 12Vdc Mode									
	Idle Consumption-Search Mode	< 25W When Power Saver On. (Refer to Table)									
Charger	Output Voltage	Depends on battery type (Refer to Table 2.5.2)									
	Charger Breaker Rating	20A	20A	20A	25A	32A	40A	40A	50A	80A	80A
	Max Charge Power Rate	1/3 Rating Power (Refer to Table 2.5.3)									
	Battery Initial Voltage for start	10-15.7Vdc for 12Vdc Mode					*2 for 24Vdc, *4 for 48Vdc ;				
	Over Charge Protection S.D.	15.7Vdc for 12Vdc Mode									
BTS	Battery Temperature Sensor (Optional)	Yes (Refer to the table) Variances in Charging Voltage & S.D Voltage Base on the Battery Temperature.									
Bypass & Protection	Input Voltage Waveform	Sine wave (Grid or Generator)									
	Nominal Voltage	100-110-120Vac / 220-230-240Vac									
	Max Input AC Voltage	150Vac For 120Vac LV Mode ; 300Vac For 230Vac HV Mode ;									
	Nominal Input Frequency	50Hz or 60Hz									
	Low Freq Trip	47±0.3Hz for 50Hz, 57±0.3Hz for 60Hz									
	High Freq Trip	55±0.3Hz for 50Hz, 65±0.3Hz for 60Hz									
	Overload protection (SMPS load)	Circuit Breaker									

HP Pure Sine Wave Inverter/Charger											
Bypass & Protection	Output Short Circuit Protection	Circuit Breaker									
	Bypass Breaker Rating	20A	20A	20A	25A	32A	40A	40A	50A	80A	80A
	Transfer Switch Rating	30Amp for UL & TUV				40Amp for UL			80Amp for UL		
	Bypass Without Battery Connected	Yes (Optional)									
	Max Bypass Current	30Amp				40Amp			80Amp		
Solar Charger (Optional)	Rated Voltage	12Vdc / 24Vdc / 48Vdc									
	Solar Input Voltage Range	15-45Vdc / 30-70Vdc / 60-100Vdc									
	Rated Charge Current	40 or 60A									
	Rated Output Current	15A									
	Self Consumption	< 10mA									
	Bulk Charge (Default)	14.5Vdc for 12Vdc Mode									
	Floating Charge (Default)	13.5Vdc for 12Vdc Mode									
	Equalization Charge (Default)	14.0Vdc for 12Vdc Mode									
	Over Charge Disconnection	14.8Vdc for 12Vdc Mode									
	Over Charge Recovery	13.6Vdc for 12Vdc Mode									
	Over Discharge Disconnection	10.8Vdc for 12Vdc Mode									
	Over Discharge Reconnection	12.3Vdc for 12Vdc Mode									
	Temperature Compensation	-13.2mV / °C for 12Vdc Mode									
		*2 for 24Vdc, *4 for 48Vdc ;									
	Ambient Temperature	0~40 °C (Full load) 40~60 °C (Derating)									
Mechanical Specifications	Mounting	Wall Mount									
	Inverter Dimensions (L*W*H)	388*415*200mm				488*415*200mm			588*415*200mm		
	Inverter Weight (Solar Chg) KG	21+2.5	22+2.5	23+2.5	27+2.5	38+2.5	48+2.5	49+2.5	60+2.5	66+2.5	70+2.5
	Shipping Dimensions(L*W*H)	550*520*310mm				650*520*310mm			750*520*310mm		
	Shipping Weight (Solar Chg) KG	23+2.5	24+2.5	25+2.5	29+2.5	40+2.5	50+2.5	51+2.5	62+2.5	68+2.5	72+2.5
	Display	Status LEDs / Status LEDs+LCD									
	Standard Warranty	1 Years									

Wiring





MPPT SOLAR CHARGE & DISCHARGE CONTROLLER

- High converting efficiency higher than **97%**
- Reversed **current protection** for preventing equipment damage
- Automatic **battery temperature** compensation for long-term reliability
- **Three stage** charge control system (bulk, absorption, and float mode) with temperature compensation