

## **PSW7 Series**

### **Pure Sine Wave Inverter/Charger**

#### ◆ **On Inverter**

- High overload ability up to 300% rated power(20 sec.).
- Low quiescent current, power saver mode

#### ◆ **On Battery Charger**

- 3- step intelligent battery charging
- Uses PFC(power factor correction) for charger

#### ◆ **On Transfer**

- 10ms typical transfer time
- 15s delay before transfer when AC resumes

#### ◆ **Option**

- Battery/AC priority switch Available for off grid solar/ wind system
- Auto Generator Starter
- Remote Control
- Battery Temperature Sensor



## **Application**



Household Appliance



Marine & RV



Solar System



Office Equipment

## Product Description

### ● Feature of PSW7 Series Inverter&Charger

- ◆ High overload ability of our PSW7 charger is up to 300% rated power(20 sec)
- ◆ PSW7 pure sine wave inverter adopts low quiescent current, and power saver mode to reduce power consumption to 10W(3s sensing cycle)/3W. It can extract max. power from various batteries with different protections, and low voltage trip can be selected (10V/10.5V or 10.5V/11V).
- ◆ Uses PFC(power factor correction) for charger, which has less power consumption than conventional units.
- ◆ It has 15s delay before transfer when AC resumes, and overload protection when our PSW7 pure sine wave inverter equips with generator.
- ◆ 10ms typical transfer time between battery and AC, which guarantees power continuity of PSW7 charger. Uses selectable input AC voltage (184-253V or 140-270V) for different kinds of loads.
- ◆ Our PSW7 charger allows start up and through power with depleted batteries. Its powerful charge rate up to 90Amp.
- ◆ It can offer 3-step intelligent battery charging, and equipped with 8 preset battery type selector for totally flat batteries.
- ◆ LCD status display, battery/AC priority switch, RS232 communication port are available for our PSW7 pure sine wave inverter, it also has 17 alarms/warnings for easier operation and trouble-shooting, and ability to switch the unit on/off. In addition, select/deselect power saver mode can be used too.



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,* for 48Vdc	
SW2	AC Input Range	AC Source	For Utility Mode
		230Vac HV	184-253Vac
		120Vac LV	140-270Vac
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 140-270VAC.

#### Load Sensing Cycle:

The inverter is factory defaulted to detect load for 250ms in every 3 seconds when SW3 setting position1. In NIGHT CHARGER position, the inverter will stay in standby mode without sensing loads. It won't output any power even if a load is turned on when working on battery mode.

#### AC/Battery Priority:

Our inverter is designed AC priority by default. This means, when AC input is present, the battery will 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.



## Specification

PSW7 Pure Sine Wave Inverter/Charger								
Inverter Output	Model	PSW7	PSW7	PSW7	PSW7	PSW7	PSW7	PSW7
		1000W	1500W	2000W	3000W	4000W	5000W	6000W
	Continuous Output Power	1000W	1500W	2000W	3000W	4000W	5000W	6000W
	Surge Rating ( 20S )	3000W	4500W	6000W	9000W	12000W	15000W	18000W
	Capable of Starting Electric Motor	1HP	1.5HP	2HP	3HP	4HP	5HP	6HP
	Output Waveform	Pure Sine wave / Same as input ( Bypass Mode )						
	Nominal Efficiency	>85% ( 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, Current Limit Function ( Fault after 1sec )						
	Typical transfer Time	10ms ( Max )						
	THD	< 10%						
DC Input	Nominal Input Voltage	12.0Vdc						
		( *2 for 24Vdc, *4 for 48Vdc )						
	Minimum Start Voltage	10.0Vdc						
	Low Battery Alarm	10.5Vdc / 11.0Vdc						
	Low Battery Trip	10.0Vdc / 10.5Vdc						
	High Voltage Alarm & Fault	16.0Vdc						
	High DC Input Recovery	15.5Vdc						
	Low Battery voltage recover	13.0Vdc						
	Idle Consumption-Search Mode	< 25 W when Power Saver On						
Charger	Input Voltage Range	Wide: 90~135VAC / 164~243VAC ; Narrow: 100~135VAC / 194~243VAC ;						
	Output Voltage	Depends on battery type						
	Charger Breaker Rating	10A	10A	10A	20A	20A	30A	30A
	Max Charge Rate	35A / 70-90A Max ( Charger Current Control )						
	Over Charge Protection Shutdown	15.7V for 12Vdc ( *2 for 24Vdc, *4 for 48Vdc )						
	Charger curve ( 4 stage constant current )	Battery types ( *2 for 24Vdc, *4 for 48Vdc )						
	4 Step Digital Controlled Progressive Charge							
	Battery type	Fast Vdc				Float Vdc		
	Gel U.S.A	14				13.7		
	A.G.M 1	14.1				13.4		
	A.G.M 2	14.6				13.7		
	Sealed Lead Acid	14.4				13.6		
	Gel Euro	14.4				13.8		
	Open Lead Acid	14.8				13.3		
	Calcium	15.1				13.6		
	De-sulphation	15.5 for 4hrs						
	Remote Control	Yes. Optional						

PSW7 Pure Sine Wave Inverter/Charger								
Bypass & Protection	Input Voltage Waveform	Sine wave (Grid or Generator)						
	Nominal Voltage	120Vac				230Vac		
	Low Voltage Trip	80V/90V±4%				184V/154V±4%		
	Low Voltage re engage	90V/100V±4%				194V/164V±4%		
	High Voltage Trip	140V±4%				253V±4%		
	High Voltage re engage	135V±4%				243V±4%		
	Max Input AC Voltage	150VAC				270VAC		
	Nominal Input Frequency	50Hz or 60Hz (Auto detect)						
	Low Freq Trip	47±0.3Hz for 50Hz, 57±0.3Hz for 60Hz						
	Low Freq re engage	48±0.3Hz for 50Hz, 58±0.3Hz for 60Hz						
	High Freq Trip	55±0.3Hz for 50Hz, 65±0.3Hz for 60Hz						
	High Freq re engage	54±0.3Hz for 50Hz, 64±0.3Hz for 60Hz						
	Output Short circuit protection	Circuit breaker						
	Bypass breaker rating	10A	15A	20A	30A	30A	40A	40A
Transfer switch rating	30amp for UL & TUV				270VAC			
Max bypass current	30amp				40amp			
Mechanical Specification	Mounting	Wall mount						
	Inverter Dimensions(L*W*H)	382*218*179mm		442*218*179mm		598*218*179mm		
	Inverter Weight	16KG	17KG	20KG	24KG	35KG	45KG	45KG
	Shipping Dimensions(L*W*H)	520*315*300mm		580*315*300mm		740*315*300mm		
	Shipping Weight	18KG	19KG	22KG	26KG	37KG	47KG	47KG
	Display	Status LEDs / Status LEDs+LCD						
	Standard Warranty	1 Year						

## Wiring

