#### Introduction

In DC/AC inversionmode, users can set this series of inverters to normal working mode or sleepmode. In utility mode, it has Auto Voltage Regulation (AVR) function, utilitycharging function (AC first model) and UPS function. This multifunctional lowfrequency pure sine wave inverter has the advantages of stable quality, strong load-carrying ability and long service life. It also can work in poor environment. It is the second generation of our low frequencypure sine wave inverter I-P-XD-series.

#### **Features**

1 pure sine waveoutput, full power

 $2 \square CPU\ control, intelligent control, modular\ design$ 

3 LCD display various parameters

4□Multifunction design(AVR, UPS), extra charger is not needed and electric appliances can be protected.

5 External battery connection, it's convenient for users to expand use time and back-up power time

6 With superload carrying ability and high load capacity, this series of inverters can not only drive resistance load; but also various kinds of inductive loads, such as motor, air conditioner, electric drills, fluorescent lamp, gas lamp.

7 Low frequency circuit design, stable quality, low failure rate and longservice life (under proper operation, it can last at least 5 years)

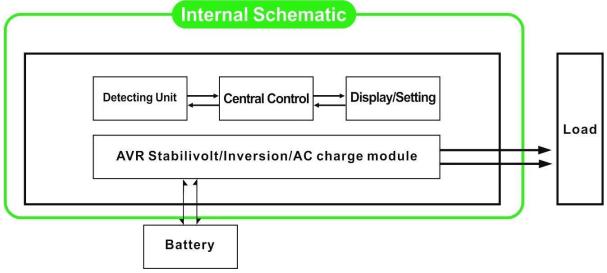
8 Perfect protection: low voltage protection, highvoltage protection, over temperature protection, short-circuit protection, overload protection, alarm alert

9⊓CE / EMC / LVD/RoHS Approvals

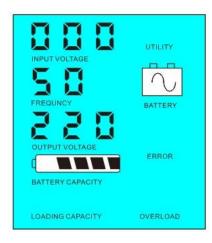
10 \textsup Two years warranty, life-long technical support

#### **Function**

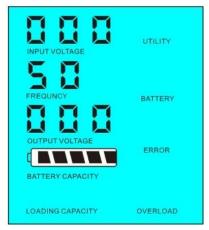
 $1\square DC$  to AC inversionfunction in inversion mode (only connected with batteries and loads) ,users canset it to normal working mode or sleep mode



1.1 Normal working mode FREQUNCY in the LCD display is set to 01. No matter it's connected AC loads or not, the inverteral ways convert DC to AC. It's ready to supply power to the AC loads. In this mode, the LCD will display output voltageas bellow:



1.2 Sleep mode FREQUNCYin the LCD display is set as 02. If the power of the connected AC loads is lowerthan 5% of the inverter's rated power, there will be no output from theinverter. Only the chip of inverter is working. The power consumption of the inverter is only 1-6W. The LCD shows the output voltage 0. If the power of the connected loads is over 5%, then the inverter will automatically convert DC to AC to supply power for the loads within 5s. The LCD shows the output voltage. As shown below:



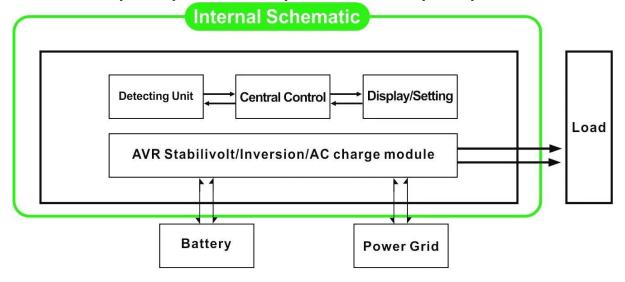


Load's

power 5% of inverter's rated power

Load'spower∏5%of inverter's rated power

2 UPS function When the inverter is connected to battery and utility, users can set it to utility first (AC first) battery standby mode or battery first (DC first) utility standy mode.

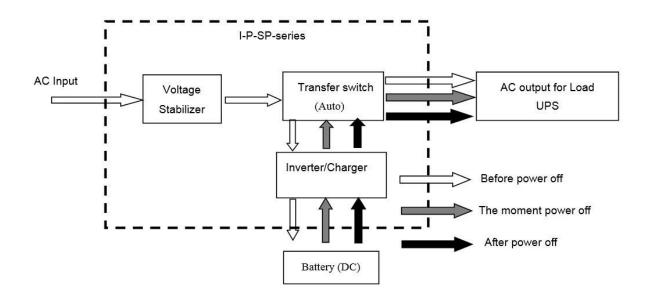


2.1 Utility first (AC first) batterystandby mode: FREQUENCY in the LCD display is set to 01. When utility and batteryare connected to the inverter, utility will supply power to the loads prior. When utility is cut off, the battery will automatically continue supply power via power inverter.

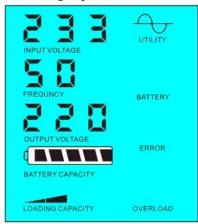
Steps are as follows:

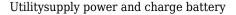
- Step 1: When utility is available, it will drive the loads directly after voltage being stabilized and at the same time chargebatteries via power inverter.
- Step 2: When utility is cut off, theinverter will convert DC to AC automatically to ensure uninterrupted powersupply within 5ms.
- Step 3: When utility is available again, inverter will automatically transfer to utility supplying power to loads and charge batteries via power inverter at the same time.

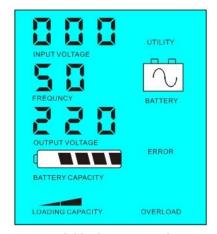
See Workflow asbelow.



### LCD displayed as bellow:







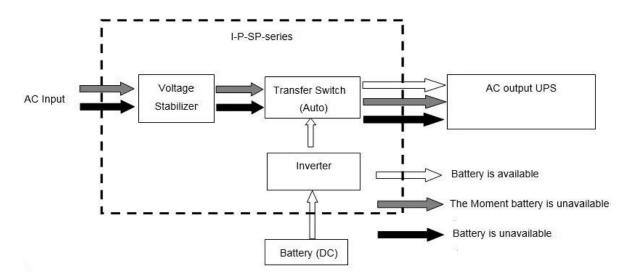
Utility is unavailable, battery supply power

2.2 Battery first (DC first)utility standby UPS mode: FREQUENCYin the LCD display is set as 03. When utility and battery are connected to theinverter, battery will supply power to the loads prior to utility. When batterycapacity is not enough, utility will continue to supply power automatically.

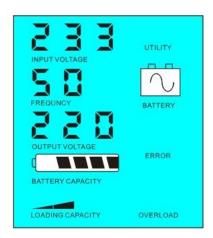
Steps are as follows:

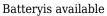
- Step 1: When battery is available, it will drive the AC loadsvia power inverter.
- Step 2: When battery does not have enough power, it willautomatically transfer to utility supplying power to the loads
- Step 3: After the battery is fully charged (e.g. by solar orwind charge controller), it will automatically transfer to battery supplying power to the loads via power inverter.

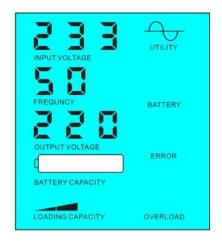
## See Workflow as below



# LCD displayed as bellow:







Battery is not available, utility supply power

### Parameter

Model Parameter	2000VA
Rated Output Capacity	1500W
Peak Power	3000W
Battery Voltage(DC)	24V/48V/96V(optional)
Size W×D×H(mm)	350*220*460
Packing Size W×D×H(mm)	370*240*480
Net Weight (kg)	20
Gross Weight (kg)	22

General Parameter		
Working Mode	1	Utility first (AC first) battery standby mode
□Setting□	2	Sleep Mode,no utility,load's power higher than 5% of inverter rated output power,it will start to work automatically
	3	Battery first (DC first)utility standby UPS mode
AC Input	Voltage	220V±35% or 110V+35%[optional]
	Frequency	50Hz±3% or 60Hz±3% [optional]
AC Output	Voltage	220V±3% or 230V±3 or 240V±3% or 100V±3% or 110V±3% (optional)
	Frequency	50Hz±0.5 or 60Hz±0.5 (optional)
Battery charge	AC Charge Current	0~15A
	Charge Time	Depend on battery capacity and quantity
	Battery	Automatic detection, Charge and discharge
	Protection	protection[Intelligent Management
Display	Display Mode	LCD
	Display Information	Input voltage[]output voltage[]output frequency[]battery capacity[]Load condition[]Status Information
Output Wave Type		Pure sine wave output, Total Harmonic Distortion THD≤3
Overload Ability		□120% 1 min□□130% 10s
Power	Sleep Mode	1~6W
Consumption	Normal Mode	1~3A
Conversion Efficiency		80%~90%
Transfer Time		□5ms □AC to DC / DC to AC□
Protection		Overload ,Short-circuit,High input voltage,Low input voltage,Overheat
Environment	Temperature	-10°C∏50°C
	Humidity	10%[]90%
	Altitude	≤4000m

The above is our standard parameter. Subject to change without prior notice. We have our own professional inverter and controller R&D team and we provide technical support and OEM ODM service.

# $Others \square$

Please see the outline of the design, technical documents, user manuals, product brochures, etc. Research and development department made 2th edition on May 5, 2014.