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UNINTERRUPTED SWITCHING POWER SUPPLY

1. GLOBTEK USPS Characteristic

Item	GLOBTEK USPS GAUPX-250-P4 SERIES	
Capacity	250W	
Input Voltage	115 or 230VAC or 115/230VAC selected	
Input Frequency	60/50Hz	
Input Power Factor	0.65	
Surge Protection	Yes	
Output AC Voltage	115 or 230VAC	
Output DC Current	+ 12 V / 8 A	Total output power is 125W.
	+ 5 V / 20 A	
	+3.3 V / 14A	
	-12 V / 2.0A	
	-5 V / 0.4A	
	+5V Stand By / 0.75A	
Weight	5 KGs (with BP5C-2425 battery Pack)	
Dimension	USPS Main body : ATX Power Supply Case 150 x 145 x 86 mm	
Battery Pack and type	BP-5C 210 x 145 x 42 mm ³ , 2.8KGs	
Dimension	Lead Acid (Maintenance free) 24V/2.5Ah PL25-12 / 178 x 35 x 61 mm ³ (Per Unit)	
Designed	MOSFET IC with copyright Hybride IC design	
Inrush Current	50A for 110VAC, 25A for 230VAC Full load	
Over Voltage protection	Yes	
Over Power Protection	Yes >105%~135%	

UPS Mode / Function Specification



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Capacity	500VA
AC Output Voltage (To monitor)	115VAC / 230VAC
AC Output Waveform	Step Sine Wave
AC Input Voltage Transfer Point (Undervolt) Half Load	From Normal to backup : 85V / 170 VAC From backup to normal : 95V / 190VAC
AC Input Voltage Transfer Point (Overvolt)	Protection by FUSE
Transfer time	0 ms for DC output(computer)
System backup time (Backup for a PC system)	10 minutes for longer backup time can use other battery pack
Recharge time	10~15 hours
Battery Voltage monitoring	LED display, Buzzer

SAFTY : UL, c-UL(CSA), CE APPROVED.

2. Input Characteristics:

Input Voltage Range : 90~130 or 180~260VAC , single phase.

Input Frequency Range : 47 Hz to 63 Hz.

Max. Input AC current : 6.5A Max. @ 115VAC or 3.5A Max. @230VAC, Full load.

Inrush Current : At 130/264 VAC, Full load condition, no damage occur, input
fuse shall not blow.

Efficiency : 65% Min. at nominal line input fill load.

3. Output Characteristics:

Static Output Characteristics:

DC	Line & Frequency Regulation	Load Regulation	Ripple & Noise mV P-P (Max.)
+12V	+/-5%	+/-5%	120/240
+5V	+/-5%	+/-5%	100/200
+3.3V	+/-5%	+/-5%	100/200
-12V	+/-5%	+/-10%	120/240
-5V	+/-5%	+/-10%	120/240

Note: 1. Noise Test : Noise Bandwidth is from DC to 10Mhz

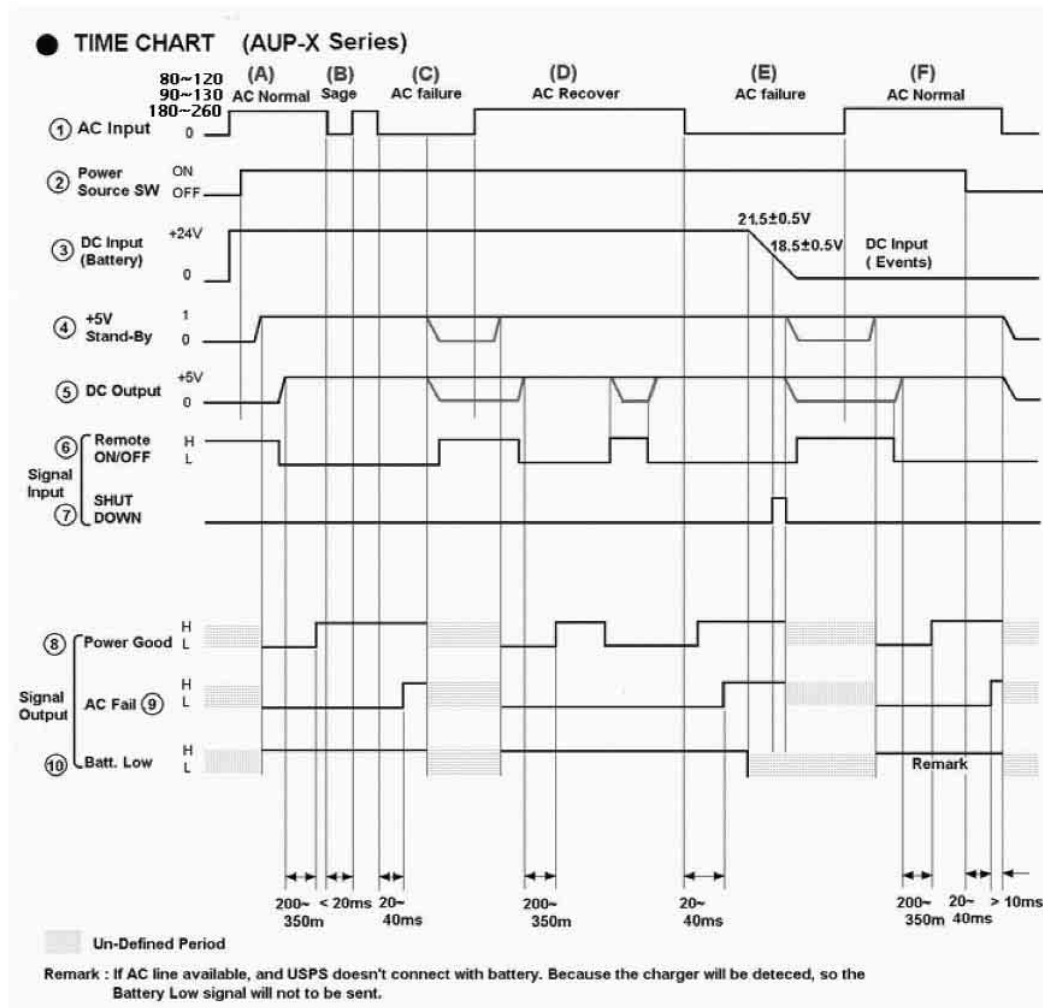


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Time Chart



(A) ② Turn On Computer Power System, the conditions of each point are as below:

- ① AC Line Normal
- ③ Battery / DC support normal
- ④ 5VSB output normal
- ⑥ Remote On/Off stay in HI condition, it's also in standby mode.

When active Remote On, ⑤ DC O/P will up and ⑧ PG delay for 200~350ms then it also up, then the computer go into normal operation.

(B) If the AC Line has any changing, but timing shorter than 20ms. Then, it won't effect to DC outputs and all signals are as normal.

(C) If the AC line brown out than 20ms, then all points will be affected. (For Red line



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(D) If the AC recover, then all signals will be recover to normal, too.

(E) and (F) are repeat above procedures.

If ③ DC INPUT (Battery Pack) voltage drop to $21.5 \pm 0.5V$, then ⑩ will send a signal "Battery Low" to PC system.

If ③ DC INPUT voltage drop to $18.5 \pm 0.5V$, then ⑩ will send a signal

⑦ "Shut Down" to PC system

Dynamic Output Characteristics:

Rise time : 100ms Max. at nominal line full load.

Hold up time : 16ms Min. for +5V output at nominal line full load.

Transient Overshoot : 10% Max. of steady state after load change of 25% within the range of 50% to 100% of full load.

Temperature coefficient : 0.03% per° /Max.

Min. Load

DC Output	+12V	+5V	+3.3V	+5Vsb
Current	0.5A	3A	1A	0.1A

Over Voltage Protection (O.V.P.)

When the major output voltage are over OVP as below. The USPS will auto shutdown.

DC Output	+12VDC	+5VDC	+3.3VDC
OVP	15.0	6.5	4.2

Over-Load Protection (O.L.P.)

For over-load, **SPS** load over105%~135% will auto-shutdown.

Short Circuit Protection

USPS can protect all DC outputs on the switching power supply if short circuit is happened.

4. Environment

Operating Temperature : 0° to 50° , linear departing to 50% load at 70° .

Operating Relative Humidity : 20% to 90%.

Storage Temperature : -20° to +60° .

Storage Relative Humidity : 5% to 95%

Altitude : Operate properly at any altitude between 0 to 10,000 ft.

Storage Altitude : 40,000 feet.

Vibration : 0.38 m/m, 5-55-5 Hz, 7 minutes per cycle; 30 minutes



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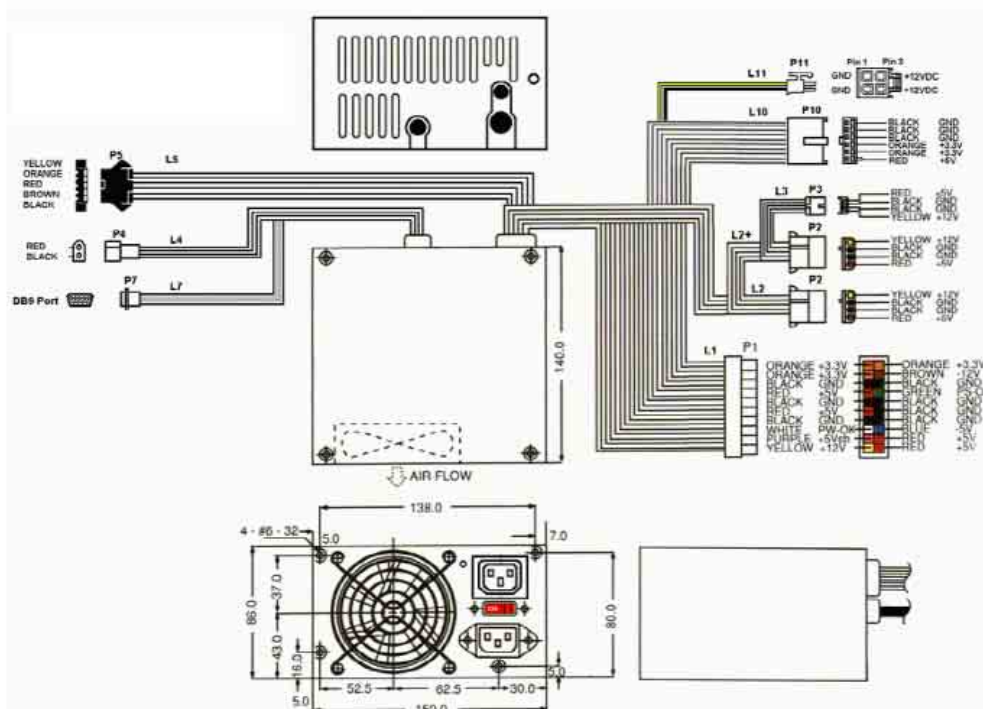


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	for each axis(X,Y,Z)
Burn-In	: 45• max. Load 24 hours.
M.T.B.F.	: 50,000 hr.

5. Dimension

AUP-X-300B-P4 USPS Main Body



CABLE PIN ASSIGNMENT

CABEL	COLOR	Assignment	CABEL	COLOR	Assignment
(P4)	BLACK	GND	(P10)	BLACK	GND
	RED	+24VDC		ORANGE	+3.3VDC
(P5)	RAINBOW	LED		RED	+5VDC
(P7)	GREEN	Pin 2 (AC Fail)	(P11)	BLACK	GND
	ORANGE	Pin 4 (GND)		YELLOW	+12VDC
	YELLOW	Pin 5 (Bat. Low)			
	RED	Pin 6 (Shutdown)			
	BROWN	Pin 7 (GND)			



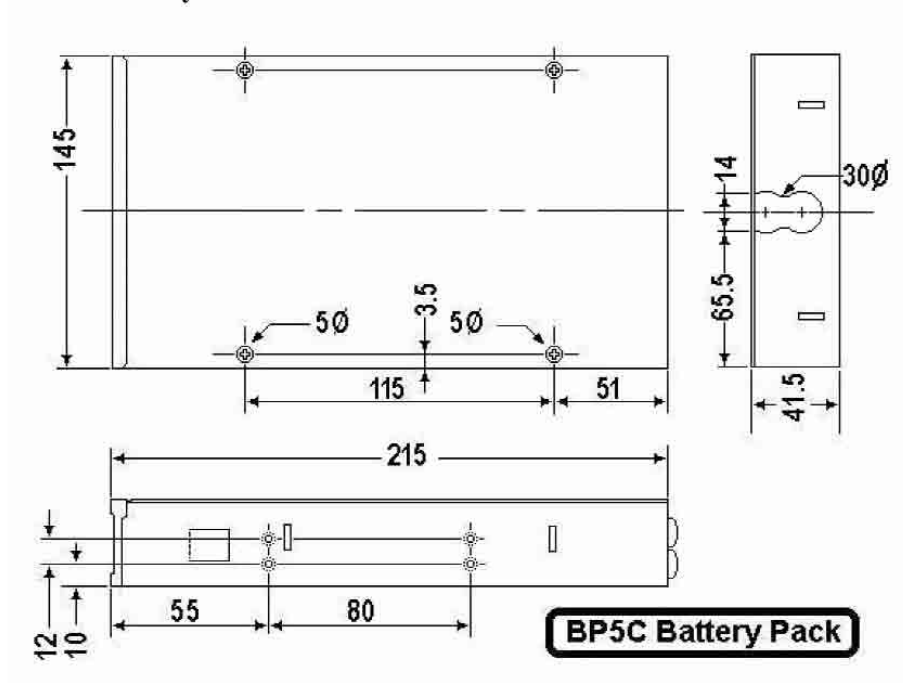


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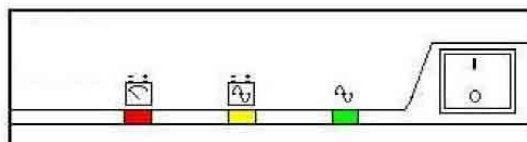
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BP-5C Battery Pack



BP-5C Panel



BATTERY PACK : BP-5C

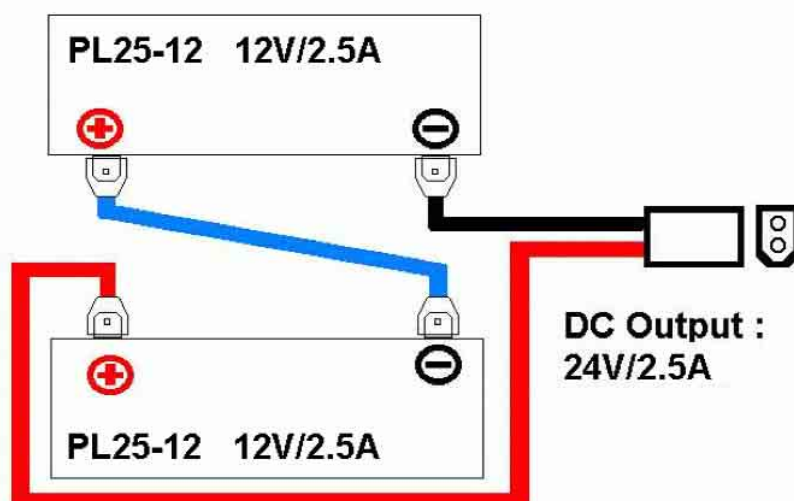
BP-5C LED Indication and Alarm Table

Utility States	LED Indicator state	Buzzer state
Normal		
Blackout, UPS On (24~21.5V)		Beep.. Beep.. Beep .. (3 seconds Interval)
Battery Low (21.5~18.5V)		Beep..... (sounds quickly and short)
AC Normal / Battery Fail		

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Battery Pack Inside connection



BATTERY Specification



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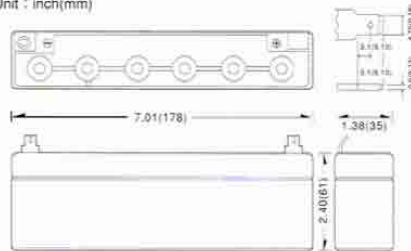
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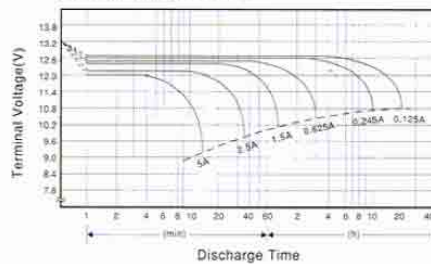
Specifications

Nominal Voltage	12V
Rated Capacity (20 hour rate)	2.5 Ah
Dimensions	Total Height (with terminals) 2.60 inches (66 mm) Height 2.40 inches (61 mm) Length 7.01 inches (178 mm) Width 1.38 inches (35 mm)
Weight	Approx. 1.76 lbs (800g)

Unit : inch(mm)



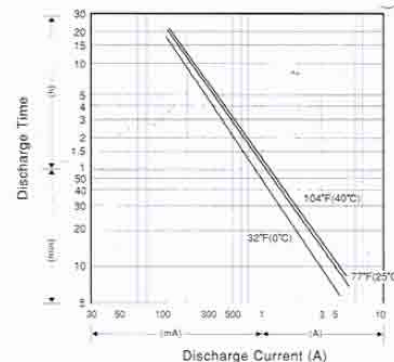
Discharge curves 77°F(25°C)*



Characteristics

Capacity*	20 hour rate (125 mA) 2.50Ah 10 hour rate (245 mA) 2.45Ah 5 hour rate (400 mA) 2.00Ah 1 hour rate (1630 mA) 1.63Ah
	1.5 hour discharge to 10.5V 1.2Ah
Internal Resistance	Full Charged Battery 77°F(25°C) 35mΩ
Capacity affected by Temperature (20hour rate)	104°F (40°C) 102% 77°F (25°C) 100% 32°F (0°C) 80% 5°F (-15°C) 62%
Self-Discharge 77°F (25°C)	Capacity after 3 month storage 91% Capacity after 6 month storage 80% Capacity after 9 month storage 62%
Charge (Constant Voltage)	Cycle Initial Charge Current less than 0.9 A Stand By Voltage 14.6~15.0V / 12V 77°F(25°C) Voltage 14.0~14.5V / 12V 77°F(25°C)

Discharging Current & Discharge Duration Time



*The above data are average values, and can be obtained within 3 charge / discharge cycles. These are not minimum values.

RUPS Backup Utility Hardware Configuration

(1) Pin Assignment of Pin ②⑤⑥

Pin	Normal	Active
②	High (1.7~1.8V)	Low (0V)
⑤	High (1.7~1.8V)	Low (0V)
⑥	Low (0V)	+12V input

Pin ② : Normal High (1.7V~1.8V), the LED PF (**Green**) is ON. If AC failure, it will change to LOW (0V) and LED PF will OFF.

Pin ⑤ : Normal High (1.7V~1.8V), the LED BL (**Red**) is ON. If Battery low (21.5VDC), it will change to LOW (0V) and LED BL will OFF.

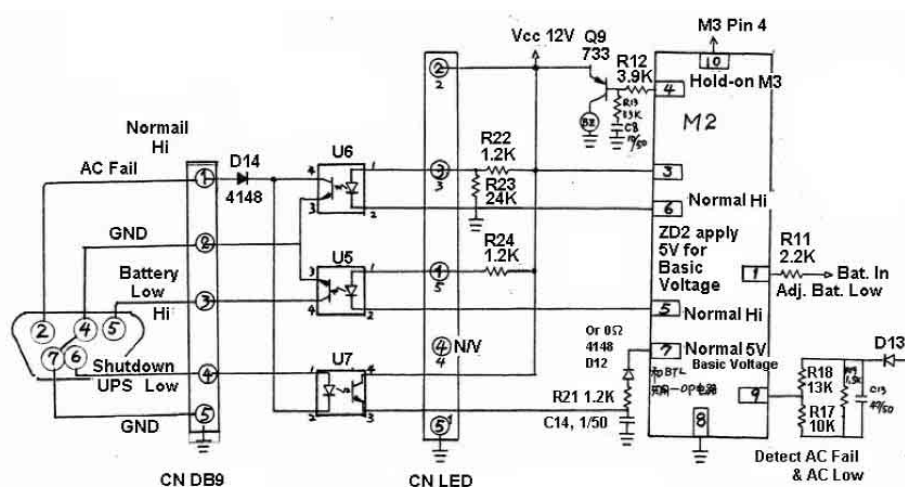
Pin ⑥ : Normal Low (0V), the LED SD (**Yellow**) is ON. If AC failure and UPS is working, if it get a High Voltage (+12VDC) signal then the UPS can be shutdown.



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Remark :

All of information are only for reference, the correct information will be confirm again with customer.

