

# SPECIFICATION

## High Quality 80 Plus Gold Switching Power Supply

**600W ATX Output  
Universal AC Input  
Extended PS/2: 150Wx160Lx86H mm  
(14 CM Top Mounted Fan)**

**P/N: P5600C 8G**

**\*\* Specification Approval\*\***

This specification (total 9 pages including cover page) is approved in it's entirety by:

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**1.0 INPUT:**

**1.1 VOLTAGE**

MINIMUM	NOMINAL	MAXIMUM	UNITS
90	100~240	264	Vrms

**1.2 FREQUENCY**

47Hz ~ 63Hz

**1.3 CURRENT**

115Vac / 8A max. 230Vac / 4A max.

**1.4 INRUSH CURRENT**

No damage.

**1.5 POWER EFFICIENCY**

MEET 80 Plus(Gold) at 115Vac input.

**1.6 LEAKAGE CURRENT**

3.5mA max.

**1.7 POWER FACTOR**

PF > 0.9

**2.0 OUTPUT:**

Voltage	+5V	+3.3V	+12V	-12V	+5Vsb
Max load	25.0A	25.0A	48.0A	0.8A	3.0A
Min load	0.1A	0.1 A	0.1A	0.0A	0.0A
Peak load	--	--	--	--	3.5A
Regulation	+/- 3%	+/- 3%	+/- 3%	+/- 10%	+/- 5%
Ripple & Noise	50mV	50mV	120mV	120mV	50mV

The continuous total output power is 600W max.

The combined power of +5V and +3.3V is 130W max.

Peak currents may last up to 12 seconds with not more than one occurrence per minute.

Add 0.1uF and 10uF capacitors across output terminal during ripple & noise test.

**LOAD REGULATION TEST TABLE :**

	+5V	+3.3V	+12V	-12V	+5Vsb
LOAD1	0.0A	0.0A	0.0A	0.0A	0.0A
*LOAD2	2.57A	2.57A	7.88A	0.13A	0.49A
*LOAD3	6.43A	6.43A	19.71A	0.33A	1.23A
*LOAD4	12.86A	12.86A	39.42A	0.66A	2.46A
LOAD5	25A	7.5A	35.5A	0.8A	3A
LOAD6	13.5A	25A	35.5A	0.8A	3A
LOAD7	0.0A	0.0A	50A	0.1A	0.0A

“\*” 80 Plus faction of load

**2.1 REMOTE ON/OFF**

TTL High/PS-OFF; TTL Low/PS-ON

$V_L=0.8V_{max}$ ,  $I_{IL}=-1.6mA_{max}$  @  $V_{in}=0.4V$

$V_{IH}=2.0V_{min}$  @  $I_{in}=-200uA$ ,  $V_{IH}=5.25V_{max}$  @open ckt.

**2.2 HOLD-UP TIME**

18msec (minimum) at 80% of full load at 230Vac input.

**2.3 POWER GOOD DELAY**

100-500 msec.

**2.4 POWER FAIL DELAY**

>1 msec.

**2.5 TURN-ON DELAY TIME**

2000 msec max.At nominal line full load.

**2.6 TRANSIENT OVERTHOOT**

+/- 10% max with 20% load change on all outputs are 50% of the rated.

Load slew rated 0.5A/uS and capacitive load as below :

+5V	+3.3V	+12V	-12V	+5Vsb
1000uF	1000uF	2200uF	350uF	350uF

## 2.7 RISE TIME

20ms max at full load.

## 3.0 PROTECTION:

When OCP, OPP,OVP,UVP or short protection is triggered,the main outputs will be latched off. The main outputs can be reset by cycling the DC remote on/off or AC power. +5Vsb output is auto recovery when fault condition removed.

### 3.1 OVER CURRENT PROTECTION

+12V output 75Amax.

+5V output 48Amax.

+3.3V output 48Amax.

### 3.2 OVER POWER PROTECTION

Protection at 110%~150% full load.

### 3.3 OVER VOLTAGE PROTECTION

+3.3V output 4.5 Vmax.

+5.0V output 7.0 Vmax.

+12.0V output 15.6 Vmax.

### 3.4 UNDER VOLTAGE PROTECTION

+3.3V output 2.0~2.4 V.

+5.0V output 3.3~3.7 V.

+12.0V output 8.5~9.5 V.

### 3.5 SHORT PROTECTION

All output to GND.

## 4.0 ENVIRONMENT:

4.1 OPERATING TEMP. 0 °C to +50 °C

4.2 STORAGE TEMP. -20 °C to +70 °C

4.3 OPERATING HUMIDITY 20% to 90%,non-condensing

4.4 STORAGE HUMIDITY 5% to 95%, non-condensing

4.5 OPERATING ALTITUDE 0 to 10,000 feet

4.6 STORAGE ALTITUDE 0 to 50,000 feet

## **5.0 HI-POT:(Input/Output isolation)**

### **5.1 PRIMARY TO SECONDARY**

3535Vdc for 3 seconds

### **5.2 INSULATION RESISTANCE**

Primary to earth ground 500Vdc , 50M ohms Min.

## **6.0 CE REQUIREMENTS**

### **6.1 CONDUCTED EMI**

1. MEET FCC: Class B
2. MEET CISPR 22: Class B
3. MEET BSMI: Class B

### **6.2 SAFETY STANDARDS**

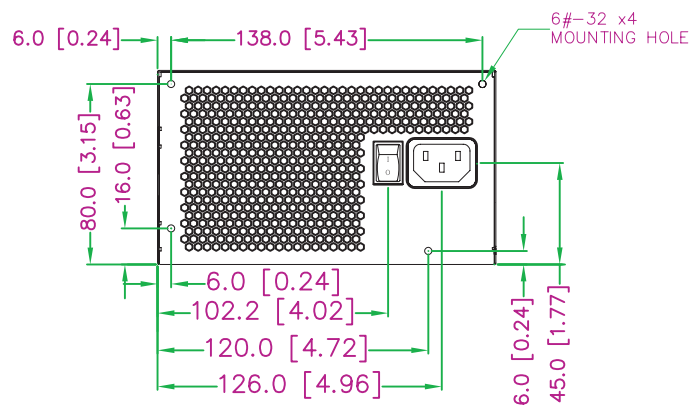
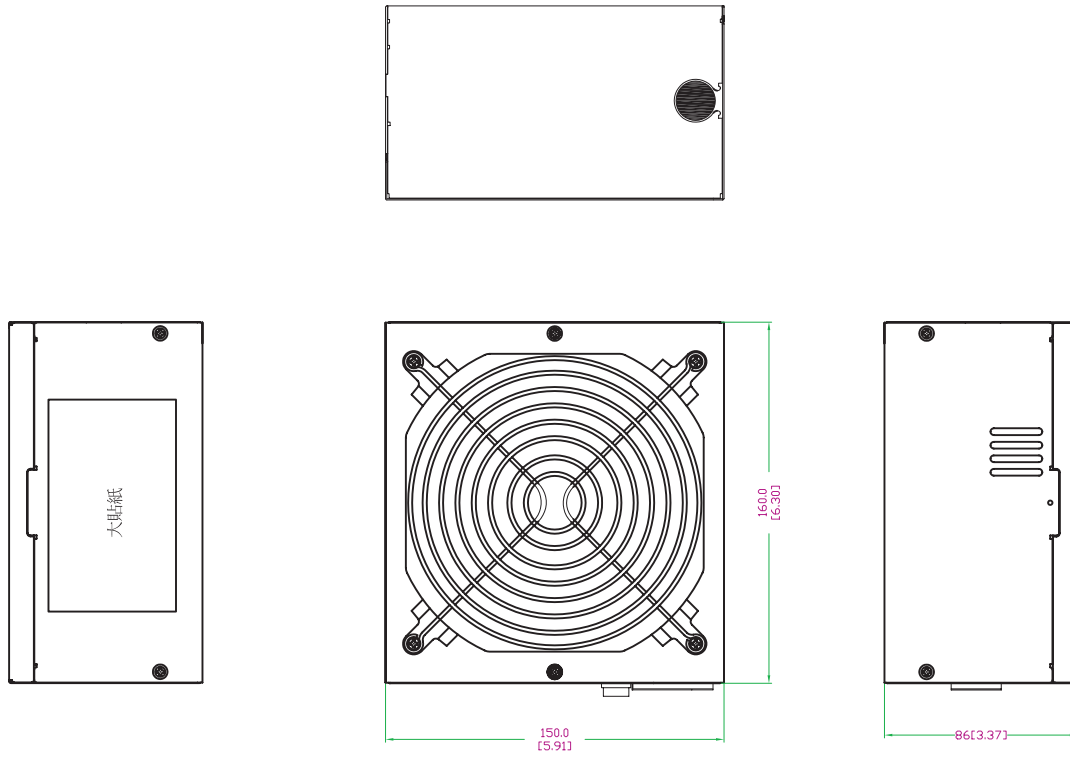
1. CUL (UL 60950)
2. TUV (En60950)
3. CB (IEC 60950)
4. CE
5. CCC

### **6.3 HARMONIC**

MEET IEC1000-3-2,Class D

## **7.0 DIMENSIONS**

Y=V WxLxH=150x160x86mm **140mm FAN x1 ON TOP**

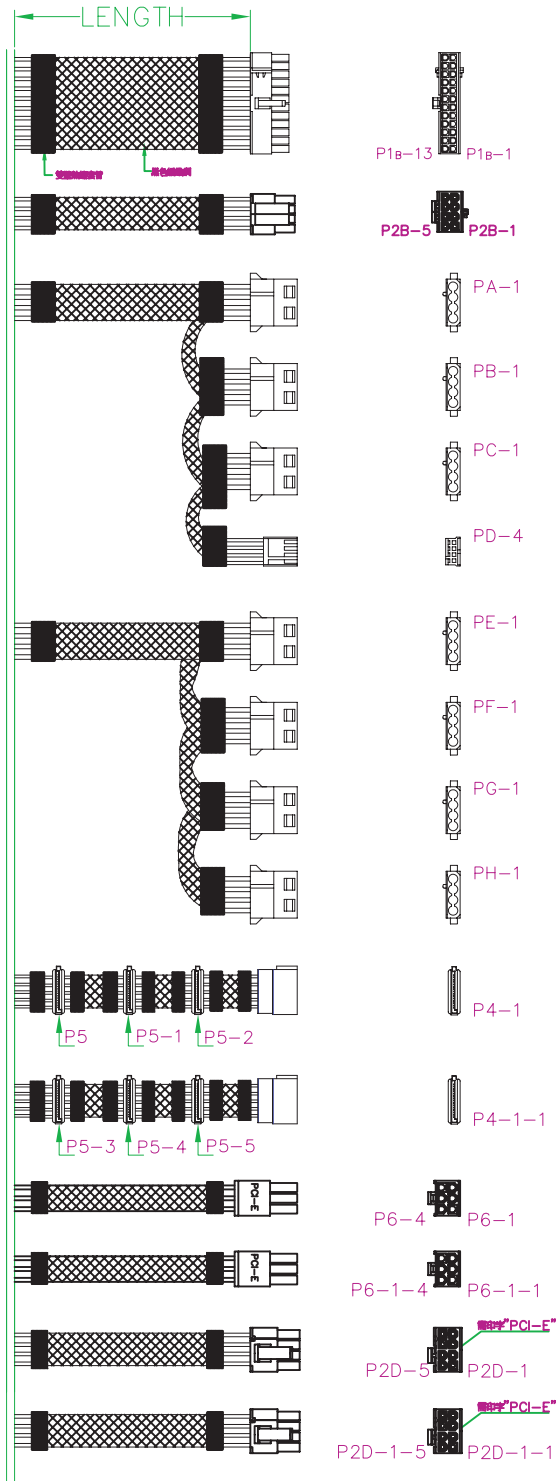


NOTE:

1. CASE TOP: G20-TCEPC09-M100
2. CASE BOT: G20-BCEPC42-M100
3. SECC T=0.8mm

TITLE CASE	DATE MAY 07. 2009	Rev. A	APPROVED RU. BOLTON	UNIT MM	REV. 0.1
			MODEL NO. P/N: P5600C 8G	TOLERANCES: .X = +0.2 .X = +/-0.15	SHEET 1/1





PART NO: G18-AT23570-M4XX(G18-AT23570-P4xx)  
 G18-AS23570-M4XX(G18-AS23570-P4xx)  
 G18-AI23570-M9XX(G18-AI23570-P9XX)  
 G18-AI23570-MB00(G18-AI23570-PB02)  
 G18-AD23570-M500(G18-AD23570-P502) \*2EA  
 G18-AA23570-M5XX(G18-AA23570-P5XX) \*2EA  
 G18-AS23570-M700(G18-AS23570-P702) \*2EA

CONN	PIN	WIRE COLOR	OUTPUT	WIRE AWG	LENGTH	
P1B	1	ORANGE	+3.3V	18	500±25 (19.7±1.0)	
	2	ORANGE	+3.3V	18		
	3	BLACK	GND	18		
	4	RED	+5V	18		
	5	BLACK	GND	18		
	6	RED	+5V	18		
	7	BLACK	GND	18		
	8	GRAY	PG	20		
	9	PURPLE	+5VSB	18		
	10	YELLOW	+12V	18		
	11	YELLOW	+12Vs	18		
	12	ORANGE	+3.3V	18		
	13	ORANGE	+3.3Vs	20		
	14	ORANGE	+3.3V	18		
	15	BLUE	-12V	18		
	16	BLACK	GND	18		
	17	GREEN	PS-ON	20		
	18	BLACK	GND	18		
	19	BLACK	GND	18		
	20	NC	NC			
	21	RED	+5V	18		
	22	RED	+5VS	20		
	23	RED	+5V	18		
	24	BLACK	GND	18		
P2B	1	BLACK	GND	18		
	2	BLACK	GND	18		
	3	BLACK	GND	18		
	4	BLACK	GND	18		
	5	YELLOW	+12V	18		
	6	YELLOW	+12V	18		
	7	YELLOW	+12V	18		
	8	YELLOW	+12V	18		
P2D	1	YELLOW	+12V	18		
	2	YELLOW	+12V	18		
	3	YELLOW	+12V	18		
	4	BLACK	GND	18		
	5	BLACK	GND	18		
	6	BLACK	GND	18		
	7	BLACK	GND	18		
	8	BLACK	GND	18		
PA,PE	1	YELLOW	+12V	18		
	2	BLACK	GND	18		
	3	BLACK	GND	18		
	4	RED	+5V	18		
P5	1	ORANGE	+3.3V	18		
	2	BLACK	GND	18		
	3	RED	+5V	18		
	4	BLACK	GND	18		
	5	YELLOW	+12V	18		
P6	1	YELLOW	+12V	18		
	2	YELLOW	+12V	18		
	3	YELLOW	+12V	18		
	4	BLACK	GND	18		
	5	BLACK	GND	18		
	6	BLACK	GND	18		
PB,PC PF,PG PH	1	YELLOW	+12V	18		
	2	BLACK	GND	18		
	3	BLACK	GND	18		
	4	RED	+5V	18		
	1	RED	+5V	20		
PD	2	BLACK	GND	20		
	3	BLACK	GND	20		
	4	YELLOW	+12V	20		
	1	ORANGE	+3.3V	18		
P4 P4-1 P5-1 P5-2 P5-4 P5-5	2	BLACK	GND	18		
	3	RED	+5V	18		
	4	BLACK	GND	18		
	5	YELLOW	+12V	18		
	1	ORANGE	+3.3V	18		

500±25  
(19.7±1.0)

150±12  
(5.9±0.5)

NOTE:

P1B	HOUSING: WST P4/P20-142002K7	OR EQU
	TERMINAL: WST 142002PS-2	
P2B	HOUSING: <b>W.H P4-142002K3A</b>	OR EQU
	TERMINAL: <b>W.H P4-142002K4A</b>	
PA,PB,PC	HOUSING: AMP 1-480424-0	OR EQU
PE,PF,PG	TERMINAL: AMP 60619-4	
PD	HOUSING: AMP 171822-4	OR EQU
	TERMINAL: AMP 170262-2	
P4	HOUSING: WST: P5-112701(插線式)	OR EQU
P4-1	TERMINAL: WST: 112701PS-00	
P5	HOUSING: WST P5-112702	OR EQU
P5-1~5	TERMINAL: WST 112702PL	
P6	HOUSING: MOLEX 5559-002	OR EQU
P6-1	TERMINAL: MOLEX 39-00-0060	
P2D	HOUSING: P6-142002K19	OR EQU
P2D-1	TERMINAL: MOLEX 39-00-0060	
P2	HOUSING: MOLEX 39-01-2040	OR EQU
	TERMINAL: MOLEX 39-00-0060	

TITLE CABLE	DATE MAY 07. 2009	Rev. A	APPROVED RU. BOLTON	UNIT MM	REV. 0.1
			MODEL NO. P/N: P5600C 8G	TOLERANCES: X = +0.2 .X = +0.15	SHEET 1/1