



Kenweiipc Technology Co.,LTD

SPECIFICATION

MODEL NO: 1600W

1600 WATTS SWITCHING POWER SUPPLY

VERSION: 8M

(JUN 6,2017)

DESCRIPTION	SPECIFICATION FOR 1650W POWER SUPPLY		
MODEL NO.	1600W		
APPROVED BY	CHECKED BY	DESIGNED BY	PREPARED BY
	--		范艳庭

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1.0 INPUT:

1.1 VOLTAGE

MINIMUM	NOMINAL	MAXIMUM	UNITS
180	200-240	264	Vrms

1.2 FREQUENCY

47Hz ~ 63Hz

1.3 CURRENT

230Vac/10A max.

1.4 INRUSH CURRENT

Power no damage at AC input 230Vac and 25°C cold start.

1.5 POWER EFFICIENCY

Meet 90 plus Gold requirement at 230Vac input.

Loading	+12V	+5V	+3.3V	-12V	+5Vsb	Required minimum efficiency
20%	24.4A	3.03A	3.03A	0.06A	0.48A	87%
50%	60.9A	7.56A	7.56A	0.14A	1.21A	90%
100%	121.8A	15.13A	15.13A	0.29A	2.41A	87%

1.6 LEAKAGE CURRENT

3.5mA max.

1.7 POWER FACTOR

PF > 0.96 at 230Vac input and full load

1.8 ErP REQUIREMENT

BP1600A meet ErP2010

BP1600B meet ErP2010

2.0 OUTPUT:

Voltage	+5V	+3.3V	+12V	-12V	+5Vsb
* ① Max load	24.0A	24.0A	137.5A	0.5A	2.5A
Min load	0.5A	0.3A	1.0A	0.0A	0.0A
Peak load	--	--	--	--	3.0A
* ① Combined power	150W		1600	--	--
* ③ Regulation	+5,-5%	+5,-5%	+5,-5%	+10,-10%	+5,-5%
* ② Ripple & Noise	50mV	50mV	150mV	120mV	50mV

* ① The continuous total output power is 1600W max.

- The combined power of +5V and +3.3V is 150W max.
- Peak currents may last up to 12 seconds with not more than one occurrence per minute.

* ② Add 0.1uF and 10uF capacitors across output terminal during ripple & noise test.

* ③ LOAD REGULATION TEST TABLE:

	+5V	+12V	+3.3V	-12V	+5Vsb
LOAD1	0.5A	1.0A	0.3A	0.0A	0.0A
LOAD2	5.0A	1.0A	5.0A	0.0A	0.1A
LOAD3	10.0A	5.0A	10.0A	0.1A	0.5A
LOAD4	10.0A	80.0A	10.0A	0.2A	1.0A
LOAD5	15.0A	120.0A	15.0A	0.2A	1.5A
LOAD6	20.0A	20.0A	20.0A	0.3A	2.5A
LOAD7	20.0A	100.0A	1.0A	0.3A	0.5A
LOAD8	0.5A	2.0A	0.3A	0.0A	0.0A

2.1 REMOTE ON/OFF

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

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

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

2.2 HOLD-UP TIME

10msec (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 OVERSHOOT

DC output transient step sizes as below table:

Output voltage	+5V	+3.3V	+12V
Max. step size	30%	30%	30%

Load-changing repetition rate of 10m seconds.

At dynamic loading,regulation at the +5V,+3.3V,+12V outputs can go to -8%+5%

Load slew rated 1.0A/ μS and capacitive load as below :

+5V	+3.3V	+12V	-12V	+5Vsb
10000 μF	10000 μF	10000 μF	470 μF	10000 μF

2.7 RISE TIME

20ms max at full load.

3.0 PROTECTION:

When OVP ,OPP 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 VOLTAGE PROTECTION

+3.3V output 4.5 Vmax.

+5.0V output 7.0 Vmax.

+12.0V output 15.6 Vmax.

3.2 SHORT PROTECTION

All output to GND.

3.3 OVER POWER PROTECTION

Foldback at 110%~150% over peak load

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:

5.1 PRIMARY TO SECONDARY

1800Vac for 1 minute

6.0 SAFETY AND EMC REQUIREMENTS

6.1 CONDUCTED EMI

1. MEET CISPR 22 : Class B

6.2 SAFETY STANDARDS

1. MEET TUV (EN60950)
2. MEET CB (IEC 950)
- 3. MEET CE
4. MEET CCC

6.3 HARMONIC

MEET IEC61000-3-2,Class D

7.0 MTBF at 25°C(demonstrated)

100K hrs minimum

8.0 DIMENSIONS

WxLxH=150x160x86mm 140*25mm FAN x1 ON CASE TOP

ATX 1600W (WIRE FOR Black Sleeving)

12V-1600W (NO Sleeving)