




VH/ 华兴变压器制造厂有限公司
WAH HING TRANSFORMER MFY. LTD.

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SPECIFICATION FOR APPROVAL

Customer: Ivent Solutions Limited		
Customer P/N:	Customer Rev.: C	
Customer Model No.:	Customer ID: I051	
Wah Hing Model No.: S01722A	Wah Hing Rev.: 03	
Article: SWITCHING POWER SUPPLY(AC-DC)		
Standard: AS/NZS60950-1	Safety No.:	
Catalog No.: EFS00600500100AU	Date: 14-May-19	
<i>Remarks:</i> Please note items listed in page.2 that requires your consent for deviation.		
 Designed/Maker	 Checked by	 Approved by

Please evaluate the samples, sign this approval sheet and return to WAH HING

Approved
 Rejected
 Conditional Approved

Comments:

Customer Approved by : _____

Signature & Date

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1.0 INTRODUCTION

The document specifies the AC/DC switching power supply with one output, the total output power is 5 W Max. The unit meet ROHS directive of the European Union. The unit meet Energy Star V.

2.0 INPUT CHARACTERISTICS

2.1 Input Voltage	:	AC100-240 V	Performance guarantee
Input Voltage Range	:	AC90-264V	
2.2 Input Current	:	0.4Arms max.	@ AC100-240 V full load
2.3 Operating Frequency	:	50-60 Hz	
Operating Frequency Range	:	47-63Hz	
2.4 Standby Power	:	≤0.3W	@ AC115-230 V 50/60Hz
2.5 Input Fuse	:	10 Ω 1W	fusible resistor
2.6 Input Connector	:	SAA Plug	

3.0 OUTPUT CHARACTERISTICS

3.1 Output Voltage	:	DC5.0V+/-5%	@ AC100-240 V at 0A
	:	DC5.0V+/-5%	@ AC100-240 V at 1000mA
3.2 Output Current			
Rated loading current	:	1000 mA	
Minimum loading current	:	0 A	
3.3 Ripple and Noise	:	200 mV _{p-p} max.	@ AC100-240 V full load Ambient temp. 25°C

The measurement for differential ripple and noise the output will be using oscilloscope, with 20MHz bandwidth. A 47uF electrolytic capacitor and a 0.1uF ceramic capacitor should be parallel with output load.

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3.4 Efficiency : 68.17 % min. @ AC115/230V

After temperature is saturated, measurement be made at USB output terminals.

3.5 Line Regulation : $\pm 1\%$ @ AC100-240 V full load

3.6 Load Regulation : $\pm 5\%$ @AC100-240V 50/60Hz

3.7 Hold-up Time : 10mS min @ AC100 -240V full load

When the power supply turns off the output voltage shall hold up more than 10mS.

3.8 Start up time : 3S max @AC100-240V 50/60Hz

During turn on output voltage shall not exceed its nominal voltage by more than 10% and all output shall reach their steady state values within 3seconds of turn on

4.0 PROTECTION FUNCTION

4.1 Over-current Protection : 1.4A min @AC100-240V 50/60Hz

The power supply shall be hiccupped when any output operating in overload condition (set@ MIN 1.4A) under any line condition for an indefinite period of time the power supply shall be auto recovered when the fault condition is removed.

4.2 Short circuit protection :

The power supply shall be hiccupped and no damage shall be occurred when any output operating in over temperature conditions under any line conditions for an indefinite period of time the power supply shall be auto recovered when the fault condition is removed.

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4.3 Over Temperature Protection :

The power supply shall be hiccupped and no damage be occurred when any output operating in over temperature conditions under any line conditions for an indefinite period of time. The power supply shall be auto recovered when the fault condition is removed.

5.0 ENVIRONMENTAL CONDITION

5.1 Non-operation

5.1.1 Ambient temperature : -20-70 °C

5.1.2 Relative humidity : 20-80 %

The power supply shall be capable of withstanding the above environmental conditions for extended periods of time, without sustaining electrical and/or mechanical damage and subsequently operational deficiencies.

5.2 Operating

5.2.1 Ambient temperature : 0-45 °C

5.2.2 Relative humidity : 20-80 %

The power supply shall be capable of operating continuously in any mode without performance deterioration in the above environmental condition.

6.0 SAFETY AND EMC STANDARD

6.1 Safety standard : AS/NZS60950-1

6.2 EMC Standard : CISPR22 Class B

6.3 Immunity to electrostatic discharge(ESD) according : EN61000-4-2

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6.4 Immunity to radiated electromagnetic field according : EN61000-4-3

6.5 Immunity to electrical fast transients(burst) according : EN61000-4-4

6.6 Surge capability according : EN61000-4-5

6.7 Immunity to conducted disturbances,induced by radio frequent fields according : EN61000-4-6

6.8 Immunity to voltage dips short interruptions and voltage variations, test according : EN61000-4-11

6.9 Dielectric strength

Primary to secondary : AC3000V 60S Cut off current 5mA

6.10 Insulation Resistance

Primary to secondary : DC500V 60S 10MΩ MIN

7.0 RELIABILITY AND QUALITY CONTROL

7.1 Burn-in

7.1.1 Burn-in Ambient temperature : 40 °C

7.1.2 Burn-in Time : 2-4 hr.

AC source 230Vac/50Hz, 80-100% loading.

7.2 Drop Test

Dropped the specimen from 1M height, 1 times each for a different sides onto a concrete floor at least 64 mm thick and covered with a 3.2 mm thick vinyl tile. There shall be no problem on appearance, structure, performance and safety.

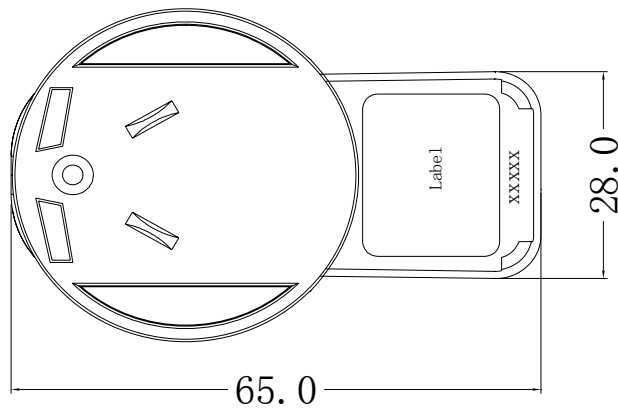
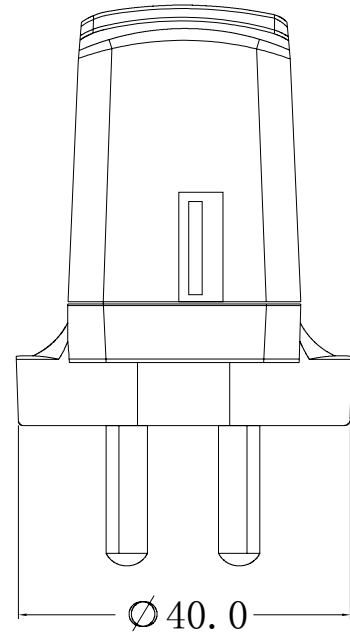
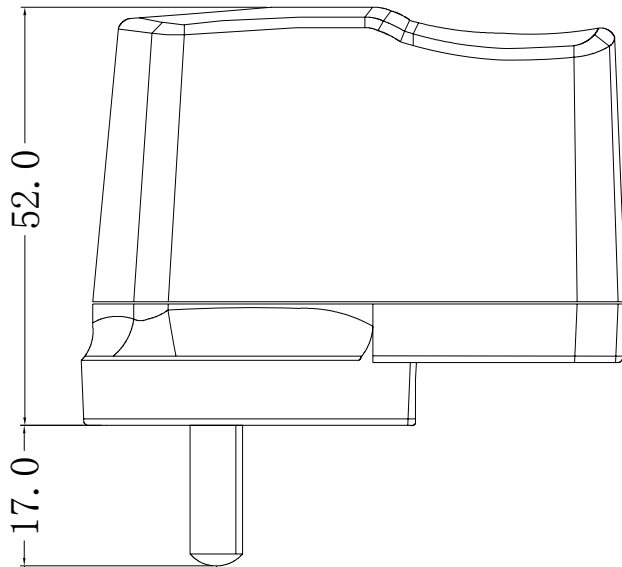
7.3 MTBF

Adapter's MTBF is 50000Hr,at condition of input AC230V 50Hz / output DC 1.0A load / environmental temperature 25 °C.

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8.7 Dimensions And Diagram



Notice:

1. Unit: mm
2. Tolerance: X: ± 1.0 ; X.X: ± 0.3 ; X.XX: ± 0.10
3. 09605(XXXXX) is date code Oct is A Nov is B Dec is C

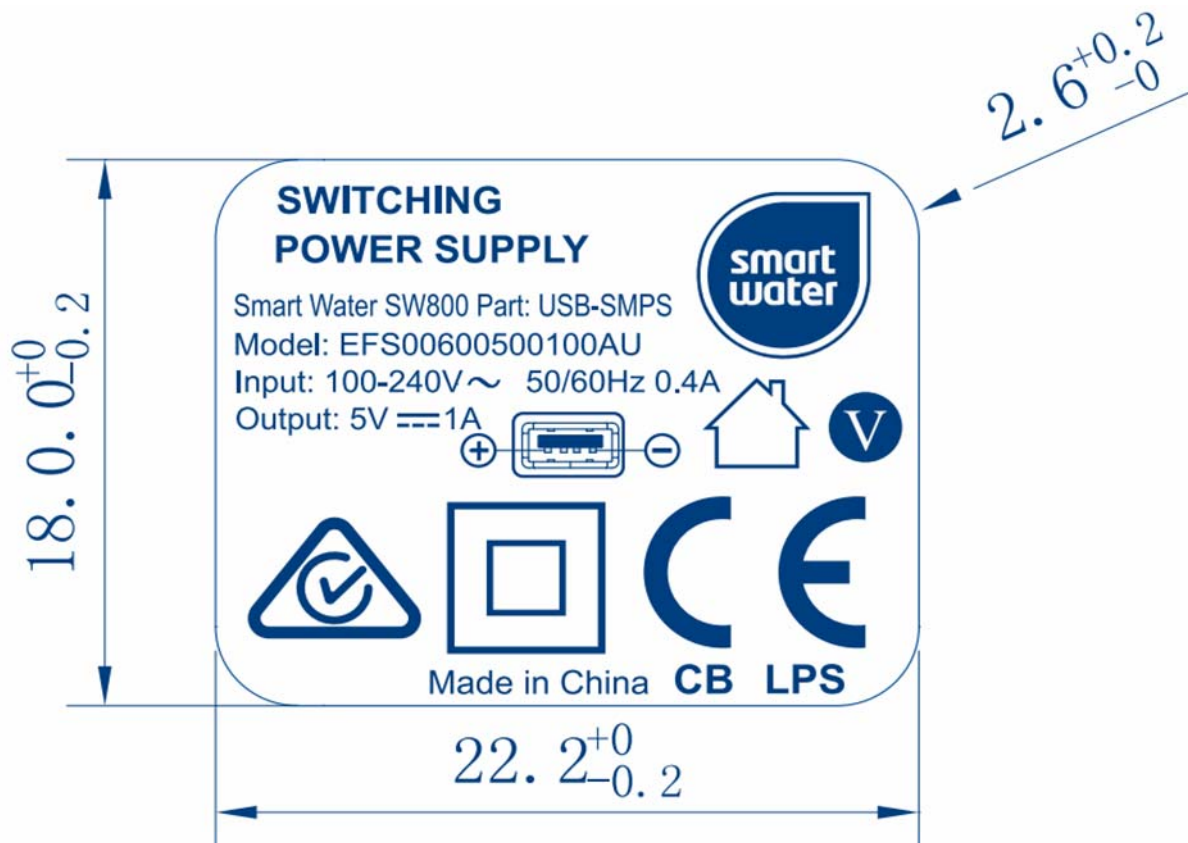
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 Year: 2009 Date: 05
 Month: June, 1-9: Jan-Sep, A-C: Oct-Dec

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9.0 PROPOSED ARTWORK MARKING



Notice:

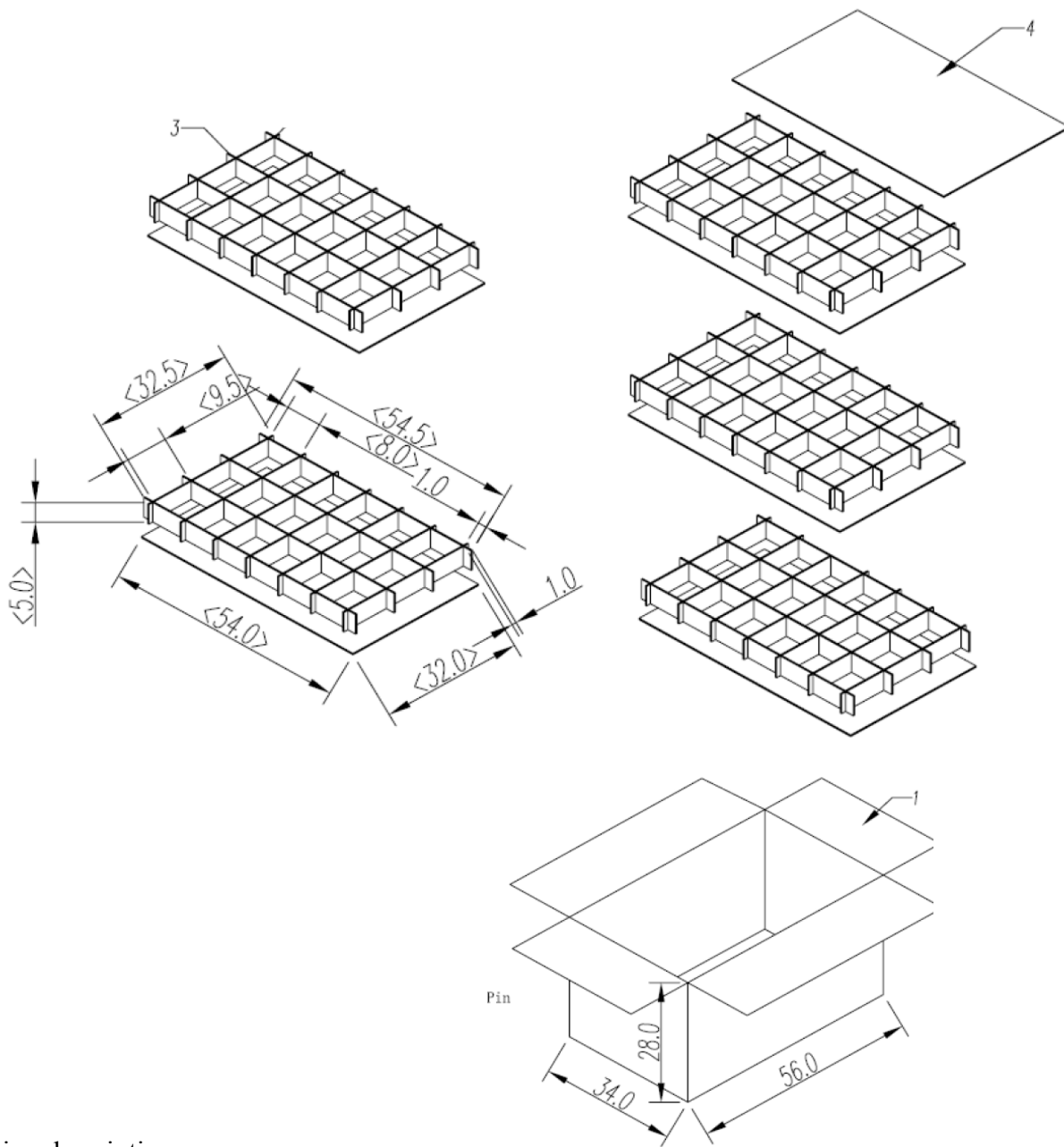
1. Unit : mm
2. Scale : None
3. Material : Polyester, Blue, 0.2 mm thick
4. Colour : Letter Blue, background in Silver

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10.0 APPENDIX
 10.1 Packing



Packing description:

	L	W	H
Size (cm)	54	32	26
Tolerance	+2/-0	+2/-0	+2/-0
QTY (pcs)	90		
G. W. (Kg)	8.3		

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