

## Specification

CUSTOMER: 1119 P/N:VA60B-120400  
PART NO.: DESCRIPTION: **AC ADAPTER**  
REF: VA60B-120400 DATE: 2008/7/31 REV.: 1.0

WRITED BY	CHECK BY	APPROVED BY



## CHECK LIST

- 1Cover /**
- 2Check list /**
- 3Recode of revision /**
- 4Electrical performance /**
- 5Engineering drawing**

## RECORD OF REVISION

NO.	REASON	DESCRIPTION OF CHANGES	REMARKS	DATE



## General

The specification defines the performance characteristics of a 48.0 Watt , +12.0V Output level switching power supply for \_\_\_\_\_ . The power supply has designed highly reliable and meet interaction safety and radiation requirements.

### 1. Input requirements

#### 1.1 Input voltage range

Type	Input voltage range	
AC supply power	100Vac	240Vac
AC Operation range	90Vac	264Vac
Frequency	47-63Hz sine wave	47-63Hz sine wave

#### 1.2 Input Current

1.5A	At AC input voltage 100v and DC output full load AC 100Vac DC
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#### 1.3 Input protection

2.0A Fuse	The power supply shall be protected from any abnormal condition
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#### 1.4 Input Inrush current

Less than 60A	The Initial input current, Ambient temperature 25
Without AC output	

#### 1.5 Efficiency

Not Less Than 80%	Output with full loading at AC input 100Vac240Vac
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#### 1.6 Power Saving

Not more than 0.5W	At AC 100Vac240Vac input and output min load.
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#### 1.7. Power factor

Test condition			Design Requirement
AC input	DC output		
100Vac240Vac	+12.0V	4.0A	0.50

## 1 Output Requirements

### 1.7 Turn on delay

2000ms max	At AC 100Vac240Vac input and output full load
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\* Test on delay is measured from 0 voltage output to the main output regulation.

### 1.8 DC Output Regulation

Voltage	Loading(A)			Tolerance Range	Adjustable voltage Range
	No Loading	Full loading	Peak Current	Total Regulation	
12.0V	0A	4.0A	4.0A	5%	11.4V12.6V

\* Total regulation involved line regulation load regulation cross regulation --- etc.

\* Line regulation is measured from 100Vac240Vac

\* Load regulation is measured all output from min load to max load at 100Vac240Vac nominal AC input voltage.

### 1.9 .Output Combine Regulation & Ripple/Noise test

Test condition			Design Requirement	
AC input	DC output		Ripple/Noise	Regulation
100v240Vac	+12.0V	4.0A	200mVp~p	11.4V12.6V

Note 1: The ripple/noise voltage of the outputs shall be Measured at the pins of the mating output connect.

Note 2: A high frequency 0.1uf multi-layer(type X7R) and 47uf electrolytic(low ESR) Capacitor shall be used to terminate each output at the measurement point.

### 1.10 Led Indicator

LED Indicator Light	Status
Light	
No Light	

## 2 Protection

### 2.7 .Over Voltage Protection

The power supply should shutdown fro any cause of over voltage conditions before output exceeds its limits below.

Nominal Output Voltage ( V )	Over Voltage ( V )
+12.0	<b>+18.0</b>

The power supply is latched and power on reset is required.

### 3.1. Short circuit protection

Testcondition		Design Requirement
AC Input	DC Output	
<b>100Vac240Vac</b>	Short output Terminal of DC Plug +and -	Shutdown and Autorecovery

### 3.2. Over Current Protection

The power supply shall provide over current protection on output. Maximum current inception point on output shall be limited to the following values:

Output Voltage( V )	Over Current Protection( A )
+12.0V	6.5A +5%

The power supply will recover automatically after the overload is removed. Power on reset is not required.

## 3 Cooling method

Cooling method	
By ____ mm Fan Force Air Cooling	
By Nature Air	

## 5.Ground Leakage Current

The power supply ground leakage current shall be less than 500 uA (max) 240Vac Input and earth ground open.

## 6.HI-POT Test

Apply DC 3KV on primary to secondary for 60 sec. No components damage, No arting, No noise, and the cut off current shall below 5mA.

## 7. Insulation resistance

Apply DC 500V to primary-secondary and measured the resistance shall be large than 100M ohms.

## 8.Electro Magnetic Compatibility

Power supply for use with the host system will be tested to conform with the following emission standards.

### 8.1.EMI

### 8.1.1. CISPR Requirements CE

Power supply shall conform to the Class B" requirements of CISPR 22.

### 8.1.2. VCCI Requirements FCC

Power supply shall conform to the Class II requirements of VCCI.

## 8.2. EMS

The power supply shall meet below EMS requirement.

### 8.2.1. EN61000-4-2 ESD

Air Discharge  $\pm 15\text{KV}$ , Contact discharge  $\pm 8\text{KV}$ .

## 9. Safety Requirements

The power supply must comply with the following national standards:

IEC60950 (

IEC60065 (

IEC60335 ( )

UL 1310 (

GB4943

GB8898

## 10. Environment

### 10.1 Temperature and Humidity

Operating Temperature	0°C ~ 40 °C
Storage Temperature	-10°C ~ 60 °C
Operating Humidity	20% ~ 90% RH.
Storage Humidity	8% ~ 95% RH.

## 11. M.T.B.F

Shall be 35000 power on hours on greater under 25 degrees C of ambient temperature MTBF under evaluated under.

## 12. Mechanical

### 12.1 Dimension unit :(mm)

L( $\pm 0.5\text{mm}$ )	W( $\pm 0.5\text{mm}$ )	H ( $\pm 0.5\text{mm}$ )
116.0	60.0	34.0

### 12.2 Weight (g)

300.0g

工程开模图

样品需求图

正式发行图

2008/07/31

Date

A

B

C

D

E

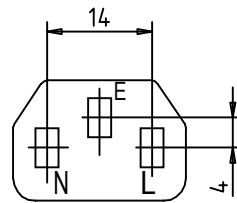
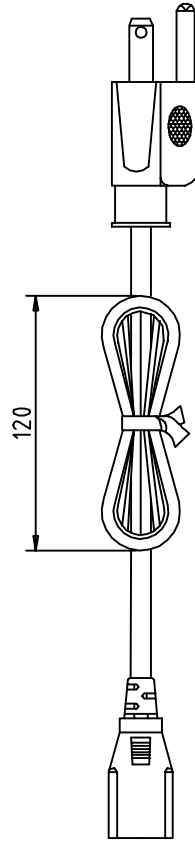
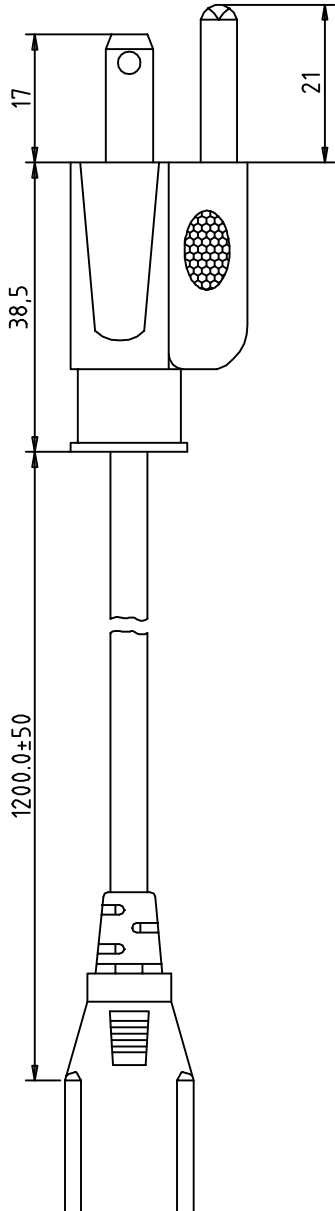
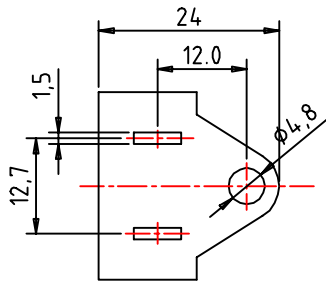
A

B

C

D

E



插头规格：美规三插

线材材料：SVT VW-1 105° 3x18AWG

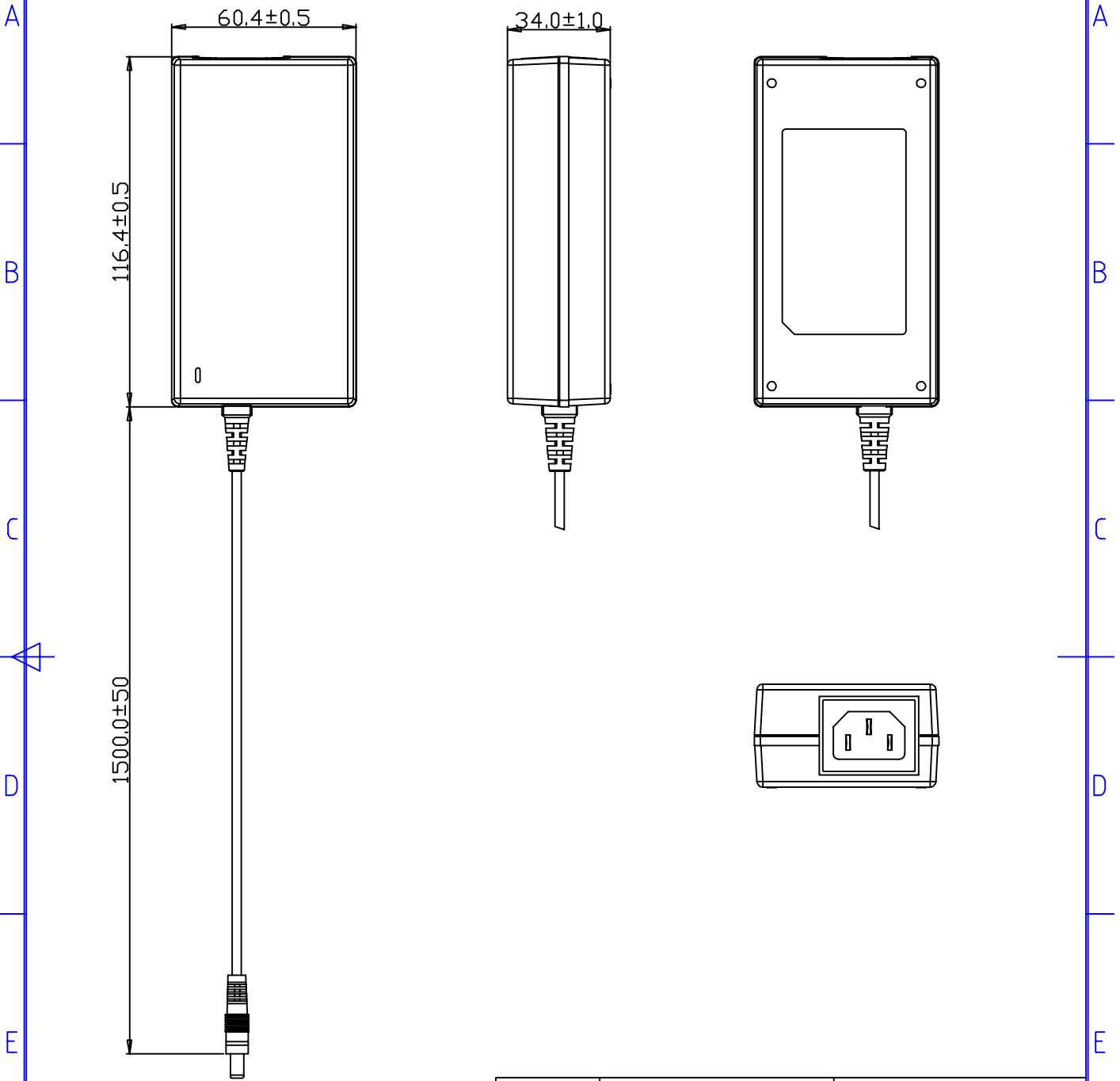
线材颜色：黑色 线材长

TOLERANCE			
CLASS	A	B	C
0-5	±0.10	±0.15	±0.20
5-20	±0.15	±0.20	±0.30
20-50	±0.20	±0.30	±0.40
50-100	±0.30	±0.40	±0.60
100-UP	±0.50	±0.60	±1.00
ANGLE	±40'	±90'	±180'

Tolerance: C		Material:		Unit: mm	Project:	
Designed by Qiu WeiQiang		Checked by	Approved by - date	File name	Model VAxxA	Scale 1:1
				Title <b>WIRE</b>		
				Part no.	Edition 1.0	Sheet 1/1

1 2 3 4

Date



线材规格	UL 1185 #18AWG	DC 头 规	
线材颜色	黑色 线材	外径	格
		内径	5.5
			2.1



TOLERANCE			
CLASS	A	B	C
0-5	±0.10	±0.15	±0.20
5-20	±0.15	±0.20	±0.30
20-50	±0.20	±0.30	±0.40
50-100	±0.30	±0.40	±0.60
100-UP	±0.50	±0.60	±1.00
ANGLE	±40'	±90'	±180'

Tolerance: A		Material:		Unit: mm	Project:	
Designed by	Checked by	Approved by - date		File name	Model	Scale
Qiu WeiQiang					VA60B	1:2
				Title VA60B 外观尺寸图		
				Part no.	Edition	Sheet
					1.0	1/1

RevNo	Revsien note	Date	Signature	Checked
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41.00 mm

70.00 mm


**AC ADAPTER**  
电源适配器

MODEL/型号: VA60B-120400

INPUT / 输入: 100 - 240V ~ 1.5A


50~60Hz

E304219




LISTED  
35NW


Q070693




CE




CCC



FC

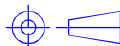


CB  
Scheme



Dating code: \_\_\_\_\_

MADE IN CHINA  
中国制造

TOLERANCE				Tolerance: A	Material:	Unit: mm	Project: 		
CLASS DIVISION	A	B	C						
0-5	±0.10	±0.15	±0.20	Designed by	Checked by	Approved by - date	File name	Model	Scale
5-20	±0.15	±0.20	±0.30					VA60B	1 : 1
20-50	±0.20	±0.30	±0.40	Title VA60B Series Model La					
50-100	±0.30	±0.40	±0.60						
100-IP	±0.50	±0.60	±1.00	Part no. <input type="text"/>					
ANGLE	±0°	±90°	±100°						
				1 / 1					