

CUSTOMER



**SPECIFICATION FOR APPROVAL**

**AC/DC ADAPTOR**

CUSTOMER SPEC:INPUT:100-240V AC 50/60Hz OUTPUT: 5VDC 4000mA

CUSTOMER DWG./PART NO. \_\_\_\_\_

**Ktec** PART NO.   KSAFE0500400T1M2(LEAD FREE)  

SAMPLE NO:   S31066   REV.:   A   ISSUE DATE:   2008-07-04  

PRODUCT NO:   KS015257  

Unit Color: Black



White



APPROVED SIGNATURES/客户确认		
核准/APPROVED BY	审核/CHECKED BY:	检测/TESTED BY:

Manufacturer/制造商			
业务/SALES	品管/QE	核准/APPROVED BY	制样/DESIGNED BY
PETER	周松平	魏忠	毛银娥

**KUANTECH (SHEN ZHEN) CO., LTD.**

**冠德科技(深圳)有限公司**

地址:中国广东省深圳市光明新区公明街道第二工业区风景中路 6 号 518106

ADD:6th Fengjing Rd, Gongming Street, Guangming New District  
ShenZhen city, China 518106

TEL:86-755-27160388 FAX:86-755-27160145

[Http://www.globalsources.com/kuantech.com](http://www.globalsources.com/kuantech.com)

[E-Mail:Sales@twktec.com](mailto:Sales@twktec.com) ; [Http://www.twktec.com](http://www.twktec.com)



冠德科技(深圳)有限公司  
 KUANTECH(SHEN ZHEN) COMPANY LIMITED

Switching power supply specification(class B)

KUANTECH P/N:

CUSTOMER P/N:

KSAFE0500400T1M2

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## 1 GENERAL

### 1.1 Description

This specification defines the performance characteristics for a class II adapter., single-phase 20 watts. Single output level power supply.

- Simple design philosophy.
- Overload Latch-Off protection during either (a) specified power threshold requirements or (b) short circuit condition.
- Reliability level of 50K hours MTBF & 0.5% annual field failure rate @ 25° C.
- DC output voltage must be Safe Extra Low Voltage (SELV) & Limited Power as defined by IEC60950 3<sup>rd</sup> edition.

The maximum room ambient temperature ( $T_{mra}$ ), as mentioned in clause 1.4.12 of IEC 60950 3<sup>rd</sup> edition, for the external power supply is 30 °C.

- Cooling: natural convection.

## 2 INPUT REQUIREMENTS

### 2.1 Input Conditions

The Supply shall operate over the voltage ranges as follows:

Rated input voltage	<b>100-240Vac</b>
Operating range	<b>90-264Vac</b>
Rated input frequency	<b>50/60Hz +/- 3Hz</b>
Rated input current	<b>0.6A max.</b>
Maximum input power	<b>30.77W</b>
Input current (no loading)	<b>≤35mA</b>
Power consumption (no loading)	<b>Max. 0.7W</b>
Primary current protection	An adequate internal fuse on the AC input line is provide.
Configuration	<u>2</u> Conductor

### 2.2 AC Inrush Current

Peak inrush current shall be limited to 35 A for a cold start. Under both cold & warm start conditions, there shall be no immediate damage or long term impact on the reliability of the Supply. The conformance test for this requirement shall be performed at +12.5% of the rated input voltage. Voltage and current waveforms will be observed on an oscilloscope following closure of the external power switch. Switch closure will be repeated until the waveforms show closure coincident with a voltage peak. The current measured during this occurrence will be defined as the peak inrush current.

## 3 OUTPUT REQUIREMENTS

3.1	Nominal dc output voltage	<b>+ 5.0 V</b>
3.2	Minimum load current	<b>0.05A</b>
3.3	Rating load current	<b>4.0A</b>

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3.4	Peak load current	/
3.5	Rating output power	<b>20W</b>
3.6	Line regulation	The line regulation is less than <u>±7%</u> while measuring at rated load and +/-10% of input voltage changing.
3.7	Load regulation	The load regulation for <u>+5.0V</u> is less than <u>+/-7%</u> , at measured output load from 10% to 100% rated load .
3.8	Peak load regulation	The peak load regulation for <u>+5.0V</u> is less than <u>/</u> , at measured output load from 30% to 100% rated load.
3.9	Ripple and noise	<b>100 mVp-p</b>
		At 20 MHz, and output parallel with a 100nF ceramic capacitor and a 10μF electrolytic capacitor to ground temperature at 25 °C, and nominal AC input voltage
3.10	Switching efficiency	<b>65%</b> minimum
		At nominal input voltage and full load
3.11	Turn on delay time	<b>2000 mS</b> At nominal input AC voltage and full load
3.12	Rise time	The Supply shall have a start-up rise time of less than <b>20 mS</b> to rise to within regulation limits for all DC outputs.
3.13	Hold up time	<b>10 mS</b> minimum At nominal input AC voltage and full load
3.14	Output over-shoot	Less than <u>7%</u> of nominal voltage value
3.15	Temperature coefficient	Output voltage temperature coefficient ±0.05%/°C
3.16	LED indication function	/
3.17	Protection function	
	Over-voltage protection	<u>7.5V</u> max.The output voltage shall be clamped by internal protection zener.
	Short-circuit protection	The adapter shall <b>not damage and with auto recovery function</b> by short the DC output to Ground.
	Over current protection	The power supply will be protection when output power over <b>200%</b> of all rated dc output

**4 MECHANICAL**

**4.1 Enclosure And Layout**

Plastic case: **UL94V-1**  
 Weight : **210 g** (Max.)  
 Dimensions: **105x48.5x35.2mm**  
 Color : **Black**

**4.2 Input and Output Configuration**

Input pin: **MINI 2PIN**  
 Output connector : dc plug type: **5.5\*2.1\*11mm**  
 Polarity: **Center “+”**

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Cable: 1.8M VW-1 80°C 300V 2468 18AWG 2C BLACK+WHITE (LEAD FREE)

**5 REGULATORY COMPLIANCE**

**5.1 Safety Requirements and Certification**

**5.1.1 Regulatory Standard**

The power supply shall comply the following international regulatory standards

for short	Country	Certified Status	Standard/标准
UL	USA/美国	Meet	UL 60950
CSA	Canada/加拿大	Meet	CSA C22.2 NO.950
TUV	Europe/欧洲	Meet	TUV/VDE-EN60950
CE	Europe/欧洲	Meet	Declared& CE Mark
PSE	Japan/日本	Meet	J60950(H14)/J55001(H14)
BSMI	Taiwan/台湾	Meet	CNS13438
CCC	CHINA	Meet	GB4943-2001
UK	Britain/英国	Meet	EN60950:2000

**5.1.2 Additional Safety Requirements**

- ⊙ Dielectric Withstand Voltage, Primary(input AC short)-to-Secondary(output DC short): **3000 Vac, 10m A, 1 minute.**
- ⊙ Insulation Resistance, Input to output: **10M Ω at 500 VDC.**
- ⊙ Reinforced insulation system, Primary-to-Ground and Primary-to-Secondary.
- ⊙ The leakage current shall not exceed **0.25mA.**

**6 ENVIRONMENTAL REQUIREMENTS**

**6.1 Temperature**

- ⊙ Operating: **0 °C +30 °C**
- ⊙ Non-Operating: **-20 °C +80 °C**

**6.2 Humidity**

- ⊙ Operating: 10%~90% (Non Condensing)
- ⊙ Non-Operating: 10%~90% (Non Condensing)

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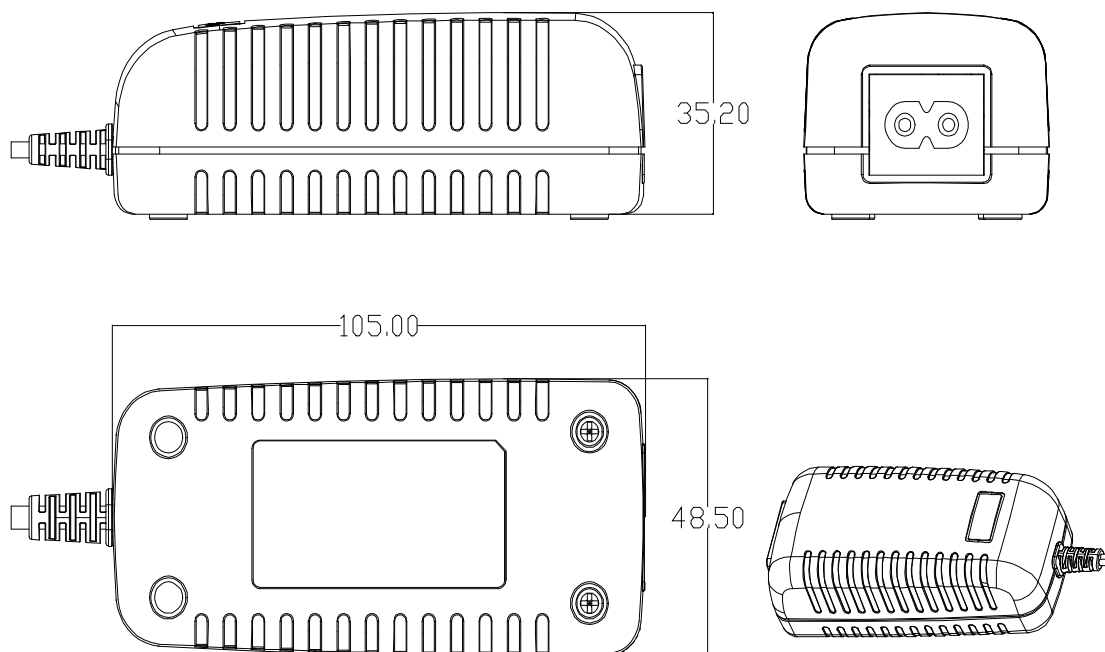
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7 APPEARANCE DRAWING: (Unit: mm)



- NOTE:1. Case cover & chassis material:  
PPHOX (UL94V-1) BLACK(NO KTEC)  
2. AC PIN MATERIAL:BRASS (NI PLATED)  
3. LEAD FREE

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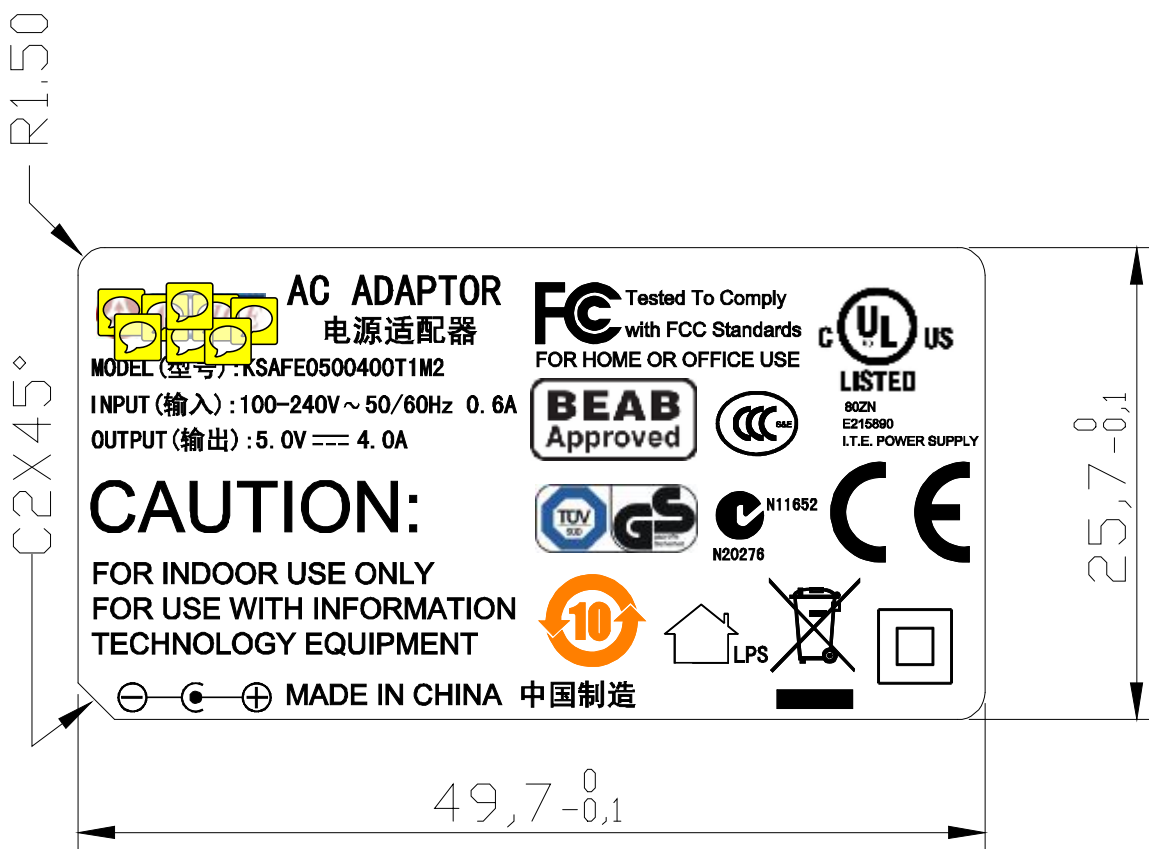
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8 NAME PLATE:



- Note:**
1. **MATERIAL: POLYESTER+PVC; COATING:0.25+-0.05mm**
  2. **Black characters White background**
  3. **LEAD REE**
  4. **China Control Pollution Marking:**  
 Size: 5mmX5mm min; Font :Impact; Color: Orange (C:0, M:75, Y:99, K:0);  
 Ratio of the number height to inner and outer diameters of the circle is 5:8:12

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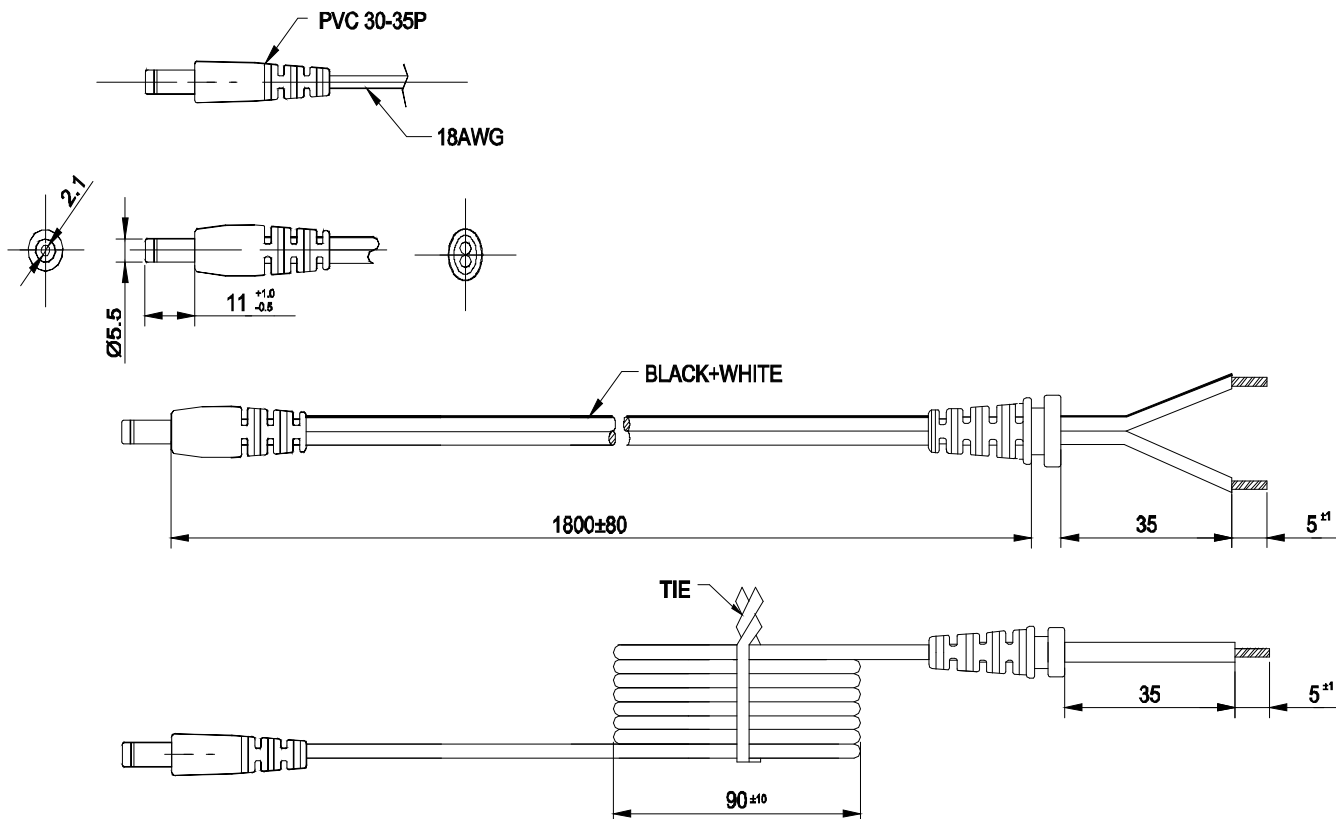
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9 DIMENSION OF OUTPUT PLUG & DC CORD (Unit: mm)



NOTE: (unit:mm)

1).WIRE TYPE:2468 VW-1 80°C 300V L=1800mm 2C 18AWG BLACK+WHITE

BLACK and WHITE—Positive BLACK----Negative

2).WIRE JACKET MATERIAL:PVC (94V-0)

3).THE POLARITY: ⊖ — ⊙ — ⊕

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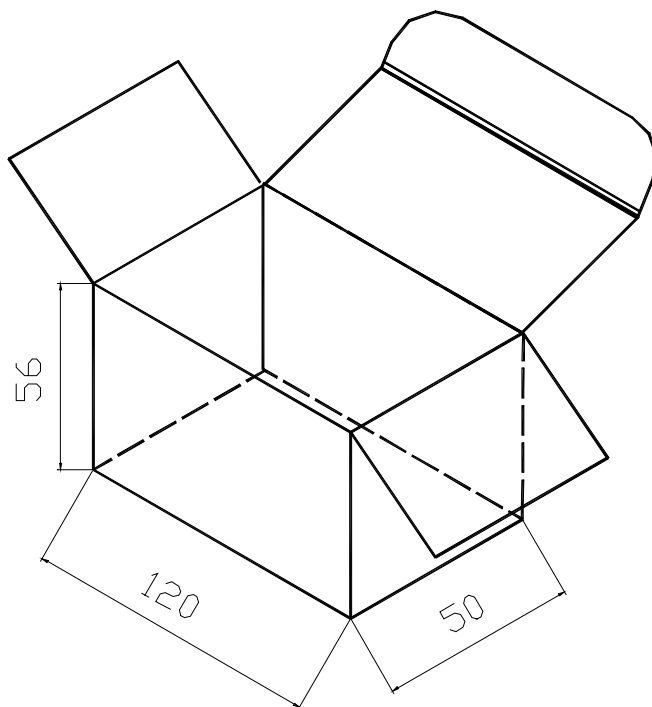
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10 BOX DRAWING



**NOTE: WHITE BOX: 120\*50\*\*56mm  
MATERIAL:400g (LEAD FREE)**

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11. 有毒有害物质或元素名称及含量标识格式

部件名称 Part Name	有毒有害物质或元素 Toxic or hazardous Substances and Elements					
	铅 Lead (Pb)	汞 Mercury (Hg)	镉 Cadmium (Cb)	六价铬 Hexavalent Chromium (Cr <sup>6+</sup> )	多溴联苯 Polybrominated biphenyls (PBB)	多溴联苯醚 Polybrominated diphenyl ethers (PBDE)
铁粉芯 CORE	○	○	○	○	○	○
铜线 Copper wire	○	○	○	○	○	○
骨架 Bobbin	○	○	○	○	○	○
胶带 Mylar Tape	○	○	○	○	○	○
保险丝 Fuse	X	○	○	○	○	○
外壳 Enclosure	○	○	○	○	○	○
AC插脚 AC Pin	X	○	○	○	○	○
DC线 DC Cord	○	○	○	○	○	○
DC插头 DC Plug	X	○	○	○	○	○
二极管 Diode	X	○	○	○	○	○
电解电容 Capacitor	○	○	○	○	○	○
电路板 PCB	○	○	○	○	○	○
铭板 Nameplate	○	○	○	○	○	○
IC	X	○	○	○	○	○

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散热片 Fe parcel	○	○	○	○	○	○
铁夹 Fe nip	○	○	○	○	○	○
Y电容 Y Capacitor	○	○	○	○	○	○
X电容 X Capacitor	○	○	○	○	○	○
突破器 MOV	○	○	○	○	○	○
金属跳线 Metal line	○	○	○	○	○	○
螺丝螺母 Nut	○	○	○	○	○	○
电阻 Resistance	X	○	○	○	○	○
光耦 Optocoupler	X	○	○	○	○	○
稳压二极管 Zener-Diode	X	○	○	○	○	○
陶瓷电容 C/CAP	X	○	○	○	○	○

○: 表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T11363-2006标准规定的限量要求以下。  
Indicates that this toxic or hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in SJ/T11363-2006.

X:  
表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T11363-2006标准规定的限量要求.在ROHS豁免范围内。  
Indicates that this toxic or hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in SJ/T11363-2006. Inside the range of ROHS exempted.

Marking Styles for Names and Contents of Toxic or Hazardous Substances or Elements

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**RoHS Specification**

1. Except for the specific applications of lead specifically listed in section figure 11, all materials, parts, components, and/or products and accessories may not contain RoHS restricted substances as a homogenous material greater than:
- (1) Lead (Pb): in quantity limit of 0.1% by weight or 1000 PPM.
  - (2) Mercury (Hg): in quantity limit of 0.1% by weight or 1000 PPM.
  - (3) Hexavalent Chromium (Cr<sup>VI</sup>): in quantity limit of 0.1% by weight or 1000 PPM.
  - (4) Poly Brominated Biphenyls (PBB): in quantity limit of 0.1% by weight or 1000 PPM.
  - (5) Poly Brominated Diphenyl Ethers (PBDE): in quantity limit of 0.1% by weight or 1000 PPM.
  - (6) Cadmium (Cd): in quantity limit of 0.01% by weight or 100 PPM.
11. The materials, parts, components, and/or products and accessories must meet the specification listed in section Figure 1, General Compliance as applicable except for the following application specific examples listed below. This is not intended to be a comprehensive list. For a comprehensive list, please see European Union's Directive 2002/95/EC, Restriction of Hazardous Substance: Annex of 4(1). "Applications of Lead, Mercury, and Cadmium, and Hexavalent Chromium which are exempt from the requirements".
- (a) *Leaded glass used in cathode ray tubes, electronic components, and fluorescent tubes.*
  - (b) Lead (Pb) in steel (0.35% or 3500 PPM), aluminum alloys (0.4% or 4000PPM), or copper alloys (including bronzes, brasses, 4.0% or 40,000 PPM).
  - (c) Lead (Pb) in high melting temperature type solders (e.g. tin-lead solder alloys containing more than 8.5% lead).
  - (d) Lead (Pb) in electronic ceramic parts (e.g. piezoelectric devices).

Approved By:



Checkde By:



Prepared By:





# 中国国家强制性产品认证证书

证书编号: 2004010907115395

## 申请人名称及地址

冠德科技(深圳)有限公司  
广东省深圳市宝安区公明镇第五工业区红花路六号

商标: Ktec

## 制造商名称及地址

冠德科技(深圳)有限公司  
广东省深圳市宝安区公明镇第五工业区红花路六号

## 生产企业名称及地址

冠德科技(深圳)有限公司  
广东省深圳市宝安区公明镇第五工业区红花路六号

## 产品名称和系列、规格、型号

电源适配器

KSAFEXXXYYT1M2 (输入: 100-240V, 50/60Hz, 0.6A; XXX=030-480, 表示输出电压为 3.0-48.0V; YYY=0002-0410, 表示输出电流为0.02-4.10A; 输出功率不大于30.24W)

## 产品标准和技术要求

GB4943-2001, GB9254-1998, GB17625.1-2003

上述产品符合强制性产品认证实施规则的要求, 特发此证。

发证日期: 2004年4月26日

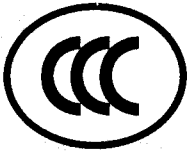
本证书的有效性依据发证机构的定期监督获得保持。



主任:

李怀林





# CERTIFICATE FOR CHINA COMPULSORY PRODUCT CERTIFICATION

No. : 2004010907115395

## NAME AND ADDRESS OF THE APPLICANT

KUANTECH (SHEN ZHEN) CO.,LTD.  
6th Hong Hua Rd.,Gong Ming, ShenZhen,China

TRADE MARK: Ktec

## NAME AND ADDRESS OF THE MANUFACTURER

KUANTECH (SHEN ZHEN) CO.,LTD.  
6th Hong Hua Rd.,Gong Ming, ShenZhen,China

## NAME AND ADDRESS OF THE FACTORY

KUANTECH (SHEN ZHEN) CO.,LTD.  
6th Hong Hua Rd.,Gong Ming, ShenZhen,China

## NAME, MODEL AND SPECIFICATION

Switching Power Supply

KSAFEXXXXXYYT1M2 (输入:100-240V, 50/60Hz, 0.6A; XXX=030-480, 表示输出电压为 3.0-48.0V; YYY=0002-0410, 表示输出电流为0.02-4.10A; 输出功率不大于30.24W)

## THE STANDARDS AND TECHNICAL REQUIREMENTS FOR THE PRODUCTS

GB4943-2001, GB9254-1998, GB17625.1-2003

THIS IS TO CERTIFY THAT THE ABOVE MENTIONED PRODUCTS HAVE QUALIFIED FOR THE REQUIREMENTS OF IMPLEMENTATION RULES FOR COMPULSORY CERTIFICATION

ISSUED DATE: Apr. 26, 2004

THE VALIDITY OF THE CERTIFICATE DEPEND ON THE FOLLOW UP INSPECTION BY THE CERTIFICATION BODY AT REGULAR INTERVALS



President:

李怀林

Li Huailin





**UL International Services Ltd.**  
**Taiwan Branch**

香港商優力安全測驗有限公司台灣分公司  
 UL International Services Ltd. Taiwan Branch  
 台北市 112 北投區大業路 260 號 1 樓  
 1st Fl 260 Da-Yeh Road Peltou Taipei City Taiwan 112  
 tel: 886-2-2896-7790 fax: 886-2-2891-7644  
 http://www.ul.com.tw

**NOTICE OF AUTHORIZATION TO APPLY THE UL MARK**

**TAIWAN OFFICE - May 8, 2004**

TO : Kuantech Co., Ltd.  
 8th Fl Room 816 Metro Centre Phase II 21 Lam Hing St  
 Kowloon Bay Hong Kong  
 Attention: Mr. Cheng Chun Cheng  
 Our Reference: File E215890 Project 04CA16291  
 Product: For UL and C-UL Investigation, Switching Power Supply, Models KSAFExxyyyT1M2 Series,  
 KSAFExxyyyW1US Series,

Gentlemen:

Any information and documentation provided to you involving UL Mark services are provided on behalf of Underwriters Laboratories Inc.

UL's investigation of your products has been completed under the above project number and the subject products were determined to comply with the applicable requirements.

This letter temporarily supplements the UL Follow-Up Services Procedure and serves as authorization to apply the UL Listing Mark only at the factory under UL's Follow-Up Services Program to the subject products which are constructed as described below:

Identical to Switching Power Supply, Models KSAFExxyyyT1M2 Series, KSAFExxyyyW1US Series which were submitted to UL for this investigation. The UL records covering the products will be in the Follow-Up Services Procedure, File E215890, Volume XI.

To provide the manufacturer with the intended authorization to use the UL Marks, the addressee must send a copy of this Notice and all attached material to each manufacturing location as currently authorized in File E215890, Volume XI.

This authorization is effective from the date of this Notice and only for products at the indicated manufacturing locations. Records in the Follow-Up Services Procedure covering the products are now being prepared and will be sent to the indicated manufacturing locations in the near future. Please note that Follow-Up Services Procedures are sent to the manufacturers only unless the Applicant specifically requests this document.

Products that bear the UL Mark shall be identical to those that were evaluated by UL and found to comply with UL's requirements. If changes in construction are discovered, appropriate action will be taken for products not in conformance with UL's requirements and continued use of the UL Mark may be withdrawn.

Very truly yours,

Reviewed by:

Ian Chen (Ext. 62263)  
 Project Engineer  
 Conformity Assessment Services, 3000ATPI

Joe Lin (Ext. 62239)  
 Associate Project Engineer  
 Conformity Assessment Services, 3000ATPI

CC: ATT Product Service Co., Ltd.  
 Fax.: +86-769-5356141  
 Attn: Mr. Jack Huang

An independent organization working for a safer world with integrity, precision and knowledge.



ZERTIFIKAT ◆ CERTIFICATE ◆ CERTIFICADO ◆ CERTIFIKAT ◆ 認証証書 ◆ CERTIFICATE ◆ ZERTIFIKAT



Product Service

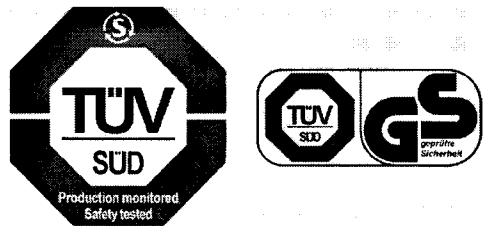
# CERTIFICATE

No. Z1A 06 09 48694 287

**Holder of Certificate:** **Kuantech (Shenzhen) Co., Ltd.**  
6th Honghua Road, Gongming Town  
Baoan District, Shenzhen  
PEOPLE'S REPUBLIC OF CHINA

**Factory(ies):** 48694

**Certification Mark:**



**Product:** **Switch mode power supplies**

**Model(s):** **KSAFEXXXYYYYT1M2**  
**(XXX=030-480, YYYY=0002-0410)**  
**XXX=030-480 means output voltage**  
**3,0-48,0 V d.c., YYYY=0002-0410**  
**means output current 0,02-4,1 A.**

<b>Parameters:</b>	Rated voltage:	100-240 V
	Rated frequency:	50/60 Hz
	Rated current:	0,6 A
	Rated output voltage:	3,0-48,0 V d.c.
	Rated output current:	0,02-4,1 A
	Protection class:	II
	Degree of protection:	IPX0
Remark:	see page 2-16 for output details	

**Tested according to:** EN 60950-1/A11:2004

The product meets the requirements of the German Equipment and Product Safety Act. The Certification marks shown above can be affixed on the product. The certification marks must not be altered in any way. The use of the GS-Mark is permitted until the listed date, the use of the TÜV-Mark is unlimited, unless it is cancelled. See also notes overleaf.

**Test report no.:** 64210375403

**GS-Mark valid until:** 2011-09-19

**Date,** 2006-09-19

Page 1 of 16







Product Service

# EC-Attestation of Conformity

No. N8 06 09 48694 288

**Holder of Certificate:** **Kuantech (Shenzhen) Co., Ltd.**

6th Honghua Road, Gongming Town  
 Baoan District, Shenzhen  
 PEOPLE'S REPUBLIC OF CHINA

**Product:** **Switch mode power supplies**

**Model(s):** **KSAFEXXXYYYYT1M2**  
 (XXX=030-480, YYYY=0002-0410)  
 XXX=030-480 means output voltage  
 3,0-48,0 V d.c., YYYY=0002-0410  
 means output current 0,02-4,1 A.

<b>Parameters:</b>	Rated voltage:	100-240 V
	Rated frequency:	50/60 Hz
	Rated current:	0,6 A
	Rated output voltage:	3,0-48,0 V d.c.
	Rated output current:	0,02-4,1 A
	Protection class:	II
	Degree of protection:	IPX0
Remark:	see page 2-16 for output details	

**Tested according to:** EN 60950-1/A11:2004

This EC-Attestation of Conformity is issued on a voluntary basis according to the Low Voltage Directive 73/23/EEC relating to electrical equipment designed for use within certain voltage limits. It confirms that the listed equipment complies with the principal protection requirements of the directive. It refers only to the particular sample submitted for testing and certification. See also notes overleaf.

**Test report no.:** 64210375403



**Date,** 2006-09-19

**CE** After preparation of the necessary technical documentation as well as the conformity declaration the required CE marking can be affixed on the product. Other relevant directives have to be observed.



## PRODUCT APPROVAL CERTIFICATE

This is to certify that


**Kuantech (Shenzhen) Company**  
of  
**6th Honghua Road, Gongming Town, Baoan  
District, Shenzhen, P. R. China**

is authorised to use the APPROVAL MARK set out below, on the following goods

<b>Product</b>	<b>AC Adaptor</b>
<b>Brand Name</b>	<b>Ktec</b>
<b>Model or Type No.</b>	<b>KSAFEXXXYYYYT1M2 - Please see page 2</b>
<b>Principal Characteristics</b>	<b>100-240V ac, 0.6A, Class II</b>
<b>Approval Standard</b>	<b>EN60950-1: 2001 + A11</b>
<b>Test Report No.</b>	<b>085-375403-000</b>

This Certificate is issued in accordance with the Certification Regulations governing its use and in reliance on the undertaking given by the Licensee and only extends to the use in respect of the goods produced to an acceptable degree of compliance with the Approval Standard. This Certificate is not transferable and remains the property of ASTA BEAB Certification Services.

This approval will be reviewed at the review date, or earlier if preceded by the withdrawal of the Standard on which the Approval of the product was based. <b>Limitations:</b>	Certificate No.	L8623
	Issue No.	2
	Review Date	5 January 2010
	BEAB Reference No.	ITE 0277
	Issue Date	5 January 2007

  
Authorising Engineer



  
Authorising Director



Continuation

BEAB Reference No: ITE 0277 Cert No: L8623 Category: L

**Model Details**

XXX = 030-480, Indicating output voltage range 3.0-48.0 Volts

YYYY = 0002-0410, Indicating output current range 0.02-4.1 Amps

**Issue : 2**

**Page : 2**

**Dated : 5 January 2007**

# CERTIFICATE OF APPROVAL

ISSUED PURSUANT TO SECTION 21C OF THE ELECTRICITY SAFETY ACT 1945

**ISSUED TO:**

Kuantech [Shenzhen] Co Ltd

**CLASS OF ARTICLE:**

Extra Low Voltage Power Supply Unit

**DESCRIPTION OF ARTICLE:**

AC Adapter  
[Plug-mounted (insulated live pin) switched mode power supply  
housed in a thermoplastic enclosure]  
Trade Name: 'KTEC'  
Input: 100-240V, 50Hz  
Output: 2.8V, dc, 0.05A  
Class II

**EXAMINED FOR COMPLIANCE WITH:** AS/NZS 60950 : 2000 A1

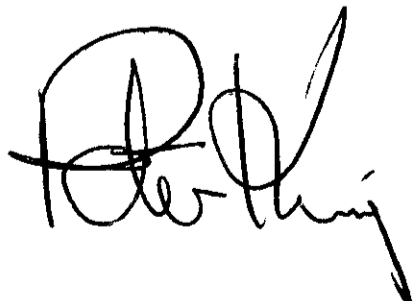
**TYPE REFERENCE CODE:** Model No. KSAFB0280005W1AU

**APPROVAL MARK:**

Each electrical article of the abovementioned type shall be marked with Approval Number N20276

**DATE OF APPROVAL:** 02 July 2004

This approval expires 02 July 2009 unless suspended, cancelled, renewed or extended.



for Commissioner for Fair Trading

ADDENDUM TO CERTIFICATE OF APPROVAL No 20276

Particulars of Modification(s)

1. Series KSAFB\*\*\*####WIAU being similar to Model No. KSAFB0280005WIAU except where:-
  - (a) The maximum output is 5W.
  - (b) '\*\*\*' can vary from 028 to 240 to denote a rated output voltage from 2.8 to 24V dc.
  - (c) '####' can vary from 0001 to 0100 to denote a rated output current from 0.01 to 1.0A
  
2. Series KSAFC\*\*\*#### WIAU being similar to Model KSAFB888####WIAU except:-
  - (a) The maximum output is 10W.
  - (b) '####' can vary from 0001 to 0200 to denote a rated output from 0.01 to 2A.
  - (c) A change in external dimensions.
  
3. Series KSAFD\*\*\*####WIAU being similar to Model No. KSAFB\*\*\*####WIAU except:-
  - (a) The maximum output is 15W.
  - (b) '####' can vary from 0001 to 0300 to denote a rated output from 0.01A to 3A.
  - (c) A change in external dimensions.
  
4. Series KSAFE\*\*\*####WIAU being similar to Model No. KSAFB\*\*\*####WIAU except:-
  - (a) The maximum output is 30W.
  - (b) '\*\*\*' can vary from 030 to 480 to denote a rated voltage of 3 to 48V, dc.
  - (c) '####' can vary from 0002 to 0400 to denote a rated output current from 0.02A to 4A

Approved: 02 July 2004



for Commissioner for Fair Trading



**OFFICE OF FAIR TRADING**

NSW Consumer Protection Agency  
Department of Commerce

The Manager  
Kuantech [Shenzhen] Co Ltd  
C/- Mr J Diong  
Testing & Certification Australia  
14 Nelson Street  
CHATSWOOD 2067

File Ref: N20276/1  
Contact: Liz Whitehead  
Telephone: (02) 9895 0702  
Facsimile: (02) 9895 0423

Dear Sir/Madam

**CERTIFICATE OF APPROVAL NUMBER: 20276 AND MODIFICATION/S**

**Extra Low Voltage Power Supply Unit**

---

Please find enclosed a Certificate of Approval and addendum as sought by your application.

Articles of the approved type/s may now be marketed in any State or Territory of Australia, provided they are marked with-

- (a) the mark (or marks) shown on the Certificate; or
- (b) the Regulatory Compliance Mark (RCM) provided that the requirements of all relevant parts of AS/NZS 4417 applicable to the article are fulfilled.

**THE APPROVAL EXPIRES ON THE DATE SHOWN ON THE CERTIFICATE**  
unless it is renewed, extended, suspended or cancelled.

Any sample/s held by the Department should be collected within fifteen (15) days of this letter or the sample/s will be destroyed.

Yours faithfully

for Commissioner for Fair Trading  
02 July 2004



**OFFICE OF FAIR TRADING**

*NSW Consumer Protection Agency*  
Department of Commerce

The Manager  
Kuantech [Shenzhen] Co Ltd  
C/- Mr J Diong  
Testing & Certification Australia  
14 Nelson Street  
CHATSWOOD 2067

File Ref: Ref: N20276/3  
Contact: Liz Whitehead

Dear Sir/Madam

**MODIFICATION TO CERTIFICATE OF APPROVAL NUMBER:20276**

**Power Supply or Charger**

---

Please find enclosed an addendum to the certificate as sought in your application.

Approved articles may now be marked with either

- (a) the mark (or marks) as shown on the Certificate; or
- (b) the Regulatory Compliance Mark (RCM) provided that the requirements of all relevant parts of AS/NZS 4417 applicable to the article are fulfilled.

Any sample/s held by the Office should be collected within fifteen (15) days of this letter or the sample/s will be destroyed.

Yours faithfully

for Commissioner of Fair Trading  
03 August 2005



**OFFICE OF FAIR TRADING**

NSW Consumer Protection Agency  
Department of Commerce

**ADDENDUM TO CERTIFICATE OF APPROVAL No 20276**

**Particulars of Modification(s)**

1. Model No. KSAFC\*\*\*####W1AU max output rating now 12W in lieu of 10W for a rated output voltage of 12.0V - 24.0V.
2. Model No. KSAFD\*\*\*####W1AU max output rating now 18W in lieu of 15W for a rated output voltage of 12.0V - 24.0V.
3. Model No. KSAFE\*\*\*####W1AU output rating modified from 30W to:-
  - (a) 16VA Max for a rated voltage output of 3.0V - 4.0V.
  - (b) 24VA Max for a rated voltage output of 4.1V - 6.0V.
  - (c) 25VA Max for a rated voltage output of 6.1V - 11.9V.

4. **General Modification:**

The use of the suffix 'UV' in lieu of 'AU' to indicate the use of a detachable plug portion and enclosure, in lieu of a standard enclosure with integral pins.

Approved: 03 August 2005

for Commissioner



The Manager  
Kuantech [Shenzhen] Co Ltd  
C/- Mr J Diong  
Testing & Certification Australia  
14 Nelson Street  
CHATSWOOD 2067

File Ref: Ref: 20276/4  
Contact: Admin Clerk  
Telephone: 02 8467 4464  
Fax: 02 8846 4446

Dear Sir/Madam

**MODIFICATION TO CERTIFICATE OF APPROVAL:20276**

**Power Supply or Charger**

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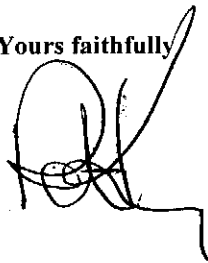
Please find enclosed an addendum to the certificate as sought in your application.

Approved articles may now be marked with either

- (a) the mark (or marks) as shown on the Certificate; or
- (b) the Regulatory Compliance Mark (RCM) provided that the requirements of all relevant parts of AS/NZS 4417 applicable to the article are fulfilled.

Any sample/s held by the Office should be collected within fifteen (15) days of this letter or the sample/s will be destroyed.

Yours faithfully



for Commissioner for Fair Trading  
18 August 2005

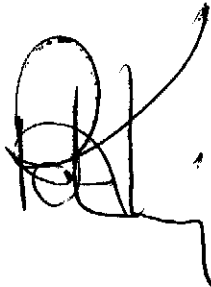
Ref: 20276/4

**ADDENDUM TO CERTIFICATE OF APPROVAL 20276**

**Particulars of Modification(s)**

1. Model No. KSAFB\*\*\*\*###W1AU-1 being similar to original Model No. KSAFB\*\*\*\*###W1AU except for the use of a different enclosure.
2. Model No. KSAFC\*\*\*\*###W1AU-1 being similar to modification Model No. KSAFC\*\*\*\*###W1AU except for the use of a different enclosure.

Approved: 18 August 2005



for Commissioner for Fair Trading

Ref: 20276/5

**ADDENDUM TO CERTIFICATE OF APPROVAL 20276****Particulars of Modification(s)**

1. Model No. KSAFE\*\*\*\*###T1M1 being similar to modification Model No. KSAFE\*\*\*\*###W1AU except for the use of a C8 appliance inlet in lieu of an integral Australian plug portion.
2. Model No. KSAFH\*\*\*\*###W1AU being similar to modification Model No. KSAFE\*\*\*\*###W1AU except for:-
  - (a) '\*\*\*\*' can vary from 050 to 240 to denote a rated voltage of 5 to 24V, dc.
  - (b) '####' can vary from 0100 to 0500 to denote a rated output current from 1 to 5A.
  - (c) Max 'VA' ratings as follows:-
    - 27.5VA Max for a rated voltage output of 5.0 - 5.5V.
    - 35VA Max for a rated voltage output of 5.6 - 7.0V.
    - 39.5VA Max for a rated voltage output of 7.1 - 7.9V.
    - 52.5VA Max for a rated voltage output of 8.0 - 10.5V.
    - 55VA Max for a rated voltage output of 10.6 - 11.6V.
    - 60VA Max for a rated output voltage of 12.0 - 24.0V.
3. Model No. KSAFH\*\*\*\*###T1M2 being similar to modification Model No. KSAFH\*\*\*\*###W1AU except for the use of a C8 appliance inlet in lieu of an integral Australian plug portion.
4. Model No. KSAFH\*\*\*\*###T1M3 being similar to modification Model No. KSAFH\*\*\*\*###W1M2 except for:-
  - (a) The use of a C6 in lieu of a C8 appliance inlet; and
  - (b) Class I in lieu of Class II construction.

Approved: 21 November 2005



for Commissioner for Fair Trading

The Manager  
Kuantech [Shenzhen] Co Ltd  
C/- Mr J Diong  
Testing & Certification Australia  
14 Nelson Street  
CHATSWOOD 2067  
Dear Sir/Madam

File Ref: Ref: 20276/5  
Contact: Admin Clerk  
Telephone: 02 8467 4464  
Fax: 02 8846 4446

**MODIFICATION TO CERTIFICATE OF APPROVAL:20276**

**Power Supply or Charger**

---

Please find enclosed an addendum to the certificate as sought in your application.

Approved articles may now be marked with either

- (a) the mark (or marks) as shown on the Certificate; or
- (b) the Regulatory Compliance Mark (RCM) provided that the requirements of all relevant parts of AS/NZS 4417 applicable to the article are fulfilled.

Any sample/s held by the Office should be collected within fifteen (15) days of this letter or the sample/s will be destroyed.

Yours faithfully



for Commissioner for Fair Trading  
21 November 2005

The Manager  
Kuantech [Shenzhen] Co Ltd  
C/- Mr J Diong  
Testing & Certification Australia  
14 Nelson Street  
CHATSWOOD 2067  
Dear Sir/Madam

File Ref: Ref: 20276/6  
Contact: Admin Clerk  
Telephone: 02 8467 4464  
Fax: 02 8467 4446

**MODIFICATION TO CERTIFICATE OF APPROVAL:20276**

**Power Supply or Charger**

---

Please find enclosed an addendum to the certificate as sought in your application.

Approved articles may now be marked with either

- (a) the mark (or marks) as shown on the Certificate; or
- (b) the Regulatory Compliance Mark (RCM) provided that the requirements of all relevant parts of AS/NZS 4417 applicable to the article are fulfilled.

Any sample/s held by the Office should be collected within fifteen (15) days of this letter or the sample/s will be destroyed.

Yours faithfully



for Commissioner for Fair Trading  
28 March 2006

**ADDENDUM TO CERTIFICATE OF APPROVAL 20276**

**Particulars of Modification(s)**

**Model No. KSAFE\*\*\*####T1M1 to be alternatively identified as Model No. KSAFE\*\*\*####T1M2.**

**Approved: 28 March 2006**

A handwritten signature in black ink, appearing to be 'D.K.' with a flourish at the end.

**for Commissioner for Fair Trading**