

CUSTOMER: H280

PART NUMBER: 101700275



**APPROVAL
SHEET**

FOR

SWITCHING ADAPTER

MODEL NO.

DSA-12PFG-12 FUK 120100

ORDER NO: SPSH-036280-2

承認書確認后請簽回一份

CUSTOMER APPROVED SIGNATURE

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DEE VAN ENTERPRISE CO., LTD (Head-Quarter)

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DEE VAN ELECTRONICS (JIA SHAN) CO., LTD

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75395855-5

【生产厂编号:A063872】

CONTENT OF APPROVAL SHEET

0. REVISION CONTROL LIST -----	3
1. SPECIFICATION -----	4-7
0. REVISION CHANGE DESCRIPTION -----	4
1. GENERAL DESCRIPTION -----	4
2. INPUT REQUIREMENT -----	4
3. OUTPUT REQUIREMENT -----	5
4. MECHANICAL REQUIREMENT -----	5
5. ENVIRONMENTAL REQUIREMENT-----	6
6. SAFETY REQUIREMENT -----	6
7. RELIABILITY -----	7
2. RATING LABEL DRAWING -----	8-10
3. DC OUTPUT CORD DRAWING -----	11
4. PRODUCT OUTLINE DRAWING -----	12
5. PACKING DRAWING -----	13-14
6. SAFETY LICENSE -----	15-20

APPROVAL BY	SAFETY	DIRECTOR	ENGINEER	PREPARED
	陳樂 2013/12/04	汪建新 2013/12/03	黃友權 2013/12/03	黃秋蘭 2013/11/29

0. REVISION CONTROL LIST

-- 1 / 1

DATE	REVISION CONTROL ITEMS						
	CONTENT OF APPROVAL SHEET	SPECIFICATION	RATING LABEL DRAWING	DC OUTPUT CORD DRAWING	PRODUCT OUTLINE DRAWING	PACKING DRAWING	SAFETY LICENSE
2012.05.18	A	A	A	A	A	A	A
2013.01.07	B	A	A	A	A	B	A
2013.11.29	B	A	A	A	A	B	A

REVISION CHANGE DESCRIPTION

ITME	REV	DESCRIPTION
	B	UPDATE PACKING DRAWING

1. SPECIFICATION

-- 1 / 4

0. REVISION CHANGE DESCRIPTION

Revision	Description	Date
A	Initial release	2012.05.18

1. GENERAL DESCRIPTION

This specification defines the input, output, performance characteristics, environment, noise and safety requirements for a 12 watts switching type power adapter.

The adapter input/output are full range AC input and +12V DC with 12 watts maximum output.

2. INPUT REQUIREMENT

2-1 AC INPUT VOLTAGE

MINIMUM	NOMINAL	MAXIMUM
90VAC	100-240 VAC	264 VAC

2-2 AC INPUT FREQUENCY

MINIMUM	NOMINAL	MAXIMUM
47 Hz	50 / 60 Hz	63 Hz

2-3 AC INPUT CURRENT

NOMINAL AC INPUT VOLTAGE	0.5 A maximum
--------------------------	---------------

2-4 AC INRUSH CURRENT

AT FULL LOAD, 25 DEGREE C, COLD START

NOMINAL AC INPUT VOLTAGE	No damage shall be occurred and the input fuse shall not be blown up.
--------------------------	---

2-5 CONFIGURATION

Wall-mount type, UK-pin, 3 Conductors, < Live, Neutral >

2-6 POWER CONSUMPTION

115VAC/230VAC INPUT , power consumption less than 0.3W

1. SPECIFICATION

-- 2 / 4

3. OUTPUT REQUIREMENT

3-1	DC OUTPUT VOLTAGE	+12 V
3-2	MINIMUM LOAD CURRENT	0 A
3-3	NOMINAL LOAD CURRENT	1 A
3-4	NOMINAL OUTPUT POWER	12W
3-5	OUTPUT REGULATION	+/-5%
3-6	RIPPLE AND NOISE	120 mVp-p maximum
		At 20 MHz, and output parallel with 0.1uF & 10uF capacitors to ground Temperature at 25 °C, and nominal input voltage
3-7	AVERAGE EFFICIENCY	77.76% minimum
		At 115/230VAC input voltage and meet cec:V
		ERP :2009/125/EC
3-8	RISE TIME	100mS maximum at nominal input voltage
3-9	TURN-ON DELAY	3 Seconds maximum at nominal input voltage
3-10	PROTECTION	
	SHORT-CIRCUIT PROTECTION	Short circuit protection is to be included in the construction of the adaptor. The adaptor is designed to withstand continuous current of a short circuit on the output. The adaptor will be short circuit tolerant for an indefinite period.
	OVER-CURRENT PROTECTION	2.5A maximum with auto-recovery function
	OVER-VOLTAGE PROTECTION	24VDC maximum
3-11	REMARK	Unless otherwise specification output load Must set at CR mode.

4. MECHANICAL REQUIREMENT

4-1 DIMENSION

70 (L) * 49.2 (W) * 72.7 (H) mm maximum

4-2 WEIGHT

140 g maximum

4-3 INPUT PLUG TYPE

Wall-mount type, UK-pin, 3 Conductors, < Live, Neutral >

4-4 OUTPUT CORD

WIRE: 22AWG/2C 2468, 1500mm

PLUG: JACK PLUG 5.5*2.1*10mm

1. SPECIFICATION

-- 3 / 4

5. ENVIRONMENTAL REQUIREMENT

5-1 COOLING

Cooling shall be with natural convection cooling

5-2 OPERATING TEMPERATURE

0 °C TO 40 °C

5-3 STORAGE TEMPERATURE

-20 °C TO +70 °C

5-4 OPERATING HUMIDITY

20 ~ 85 % RH. NON-CONDENSING

5-5 STORAGE HUMIDITY

5 ~ 95 % RH. NON-CONDENSING

5-6 VIBRATION TEST REQUIREMENT

(Non-operating, with packing) Reference to IEC 68-2-6

Test conditions		Acceptance criteria
1.Frequency	5 ~ 500 Hz	Normal functional test should be satisfied after the test
2.Sweep	2hour. For each axis (X, Y, Z)	
3.Acceleration	0.6G (5~50 Hz, peak - peak), 1.5G (50~500 Hz, peak - peak)	
4.Displacement	0.4 mm (5~50 Hz)	

6. SAFETY REQUIREMENT

6-1 DIELECTRIC WITHSTANDING VOLTAGE TEST (HI-POT TEST)

Primary To Secondary: 3000VAC 10mA 1minute or 4242VDC 10mA 1minute

6-2 LEAKAGE CURRENT

0.25mA maximum, at nominal AC input voltage and frequency

6-3 SAFETY STANDARD

Designed to meet T-LICENSE(BS EN60950-1)

6-4 EMI STANDARD

Designed to meet CE(EN55022)

1. SPECIFICATION

-- 4 / 4

7. RELIABILITY

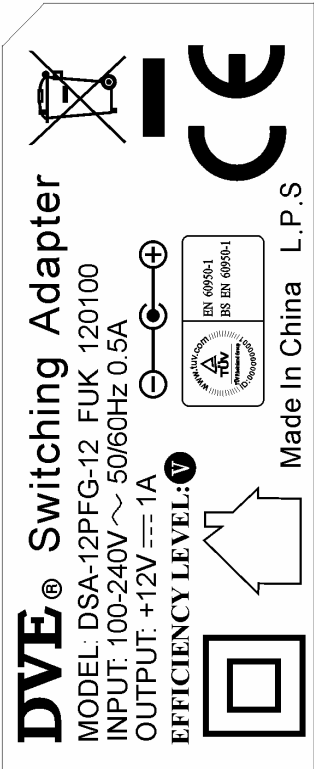
7-1 MEAN TIME BETWEEN FAILURE (MTBF)

The power supply shall be designed and Prediction to have a mean time between failures (MTBF) of 50000 operating hours minimum and conditions: @115VAC/230VAC, full load, 0°C ~40°C, MTBF calculation meet Telcordia Technologies Special Report SR-332 (Issue 2).

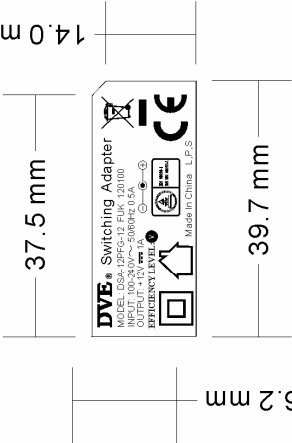
2. RATING LABEL DRAWING

-- 1 / 3

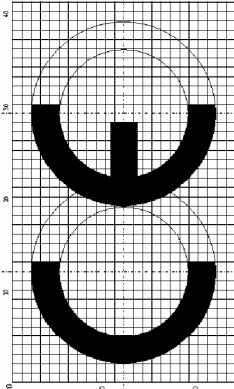
FROM NO.: 1 COMPUTER NO.:	
REV. ZONE	DESCRIPTION
A	
DATE	BY
12/05/18	ZQ



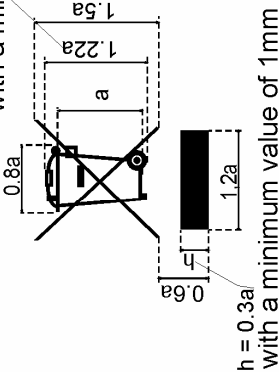
DVE® Switching Adapter
 MODEL: DSA-12PFG-12 FUK 120100
 INPUT: 100-240V ~ 50/60Hz 0.5A
 OUTPUT: +12V --- 1A
 EFFICIENCY LEVEL: **V**
 Made In China L.P.S



DVE® Switching Adapter
 MODEL: DSA-12PFG-12 FUK 120100
 INPUT: 100-240V ~ 50/60Hz 0.5A
 OUTPUT: +12V --- 1A
 EFFICIENCY LEVEL: **V**
 Made In China L.P.S



with a minimum value of 4mm



with a minimum value of 1mm

NOTE:

- 顏色: 銀底黑字
- 材質: 消銀龍加亮面 (UL, CSA APPROVAL)
- 處理: 永久背膠
- 須由 UL, CSA 合格廠商承制
- 儲存溫度: -20°C 及 +70°C 之範圍
- 待業務確認安規等各項再行制作生產
- 回形及 CE LOGO 高度最小需達到 5mm

DEPART MENT	UNIT	CASE	PART NO.	SALE	備註
R&D SPS	mm				
APPD. BY	CHD. BY	DWG. BY	DRAWING NO.	SAFETY	備註

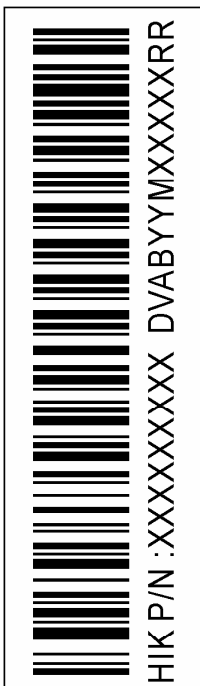
MODEL NO.: DSA-12PFG-12 FUK 120100	PAGE 1 OF 1
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FM-336(A)


2. RATING LABEL DRAWING

-- 2 / 3

FROM NO.:1 COMPUTER NO.:	
REV ZONE	DESCRIPTION
A	13/11/07
BY SUHD	



HIK P/N :XXXXXXXXX DVABYMXXXXXRR



10 mm
35 mm
1:1

3:1 Bar Code 128

HIK P/N :XXXXXXXXXX---依工令印制
 DVABYMXXXXXRR
 DV:供方代碼,固定不變。
 AB:產品型號代碼,例如:60。
 M---生產月份,一個大寫字母表示,A~L代表數字1~12,例如1月用A表示。
 YY---生產年份,兩個大寫字母表示,A~J代表數字0~9,例如:2011年用BB表示。
 XXXXX---流水號,00001~99999,不同月份從頭開始。
 RR:產品版本代碼,例如:01。

工單號碼: **FFS1-000010164** 客戶: **H280**

DEPART M ENT	UNIT	CASE	PART NO.	SALE	DIMENSIONAL TOLERANCE
R&D SPS	mm		89V600012-25H		+0-0.2mm
APPD. BY	CHD. BY	DWG. BY	DRAWING NO.	SAFETY	備注
		SUHD	FO-S2013		

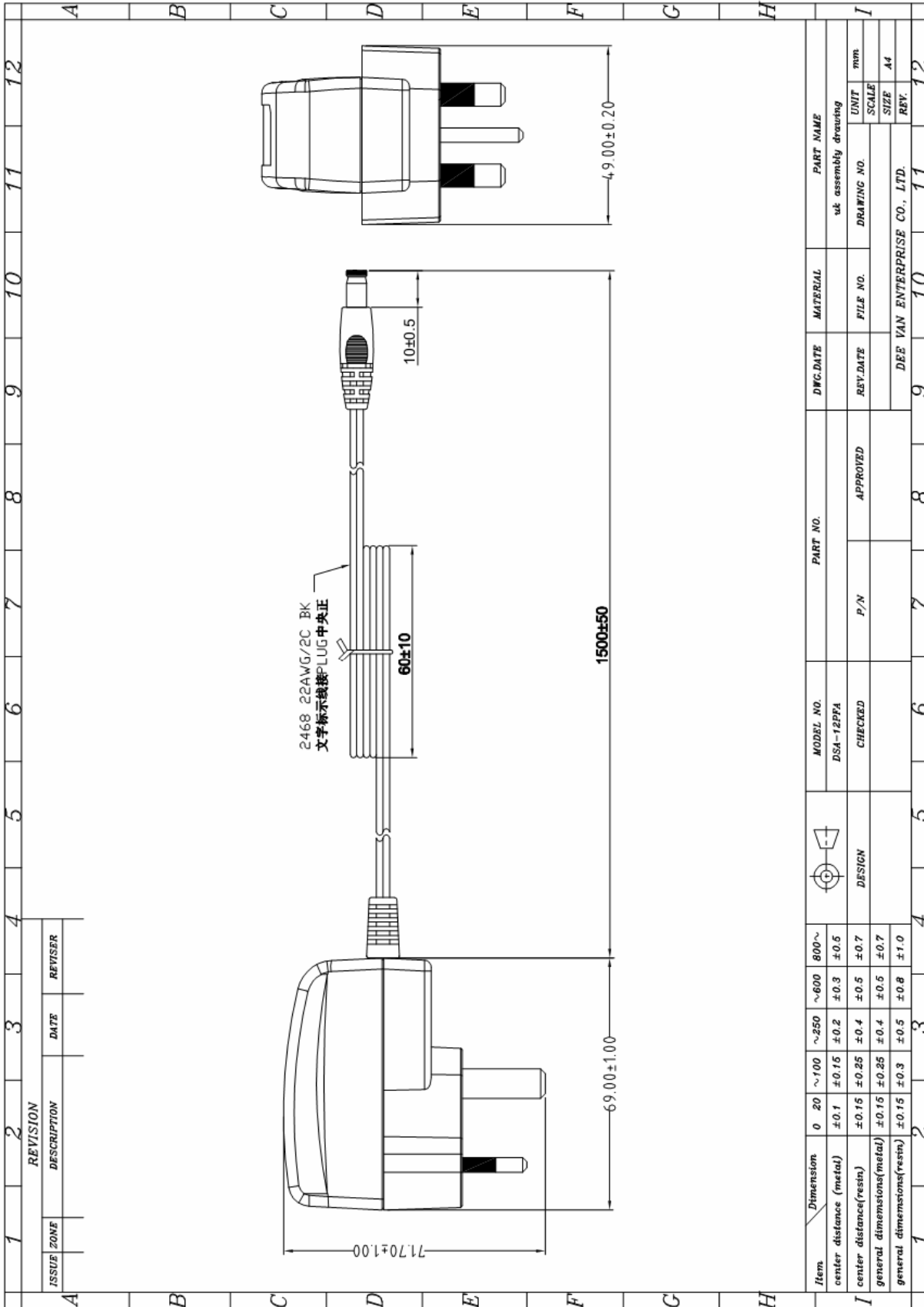
MODEL NO.: DSA-12PFG-12 PAGE 10F1

MR-381 (V0)

- NOTE:**
1. 顏色:白底黑字
 2. 銅板紙+亮面(UL, CSA APPROVAL) 環保材料
 3. 處理:永久背膠
 4. 須由UL, CAS合格廠商承制
 5. 儲存溫度:-20°C及+90°C之範圍
 6. 待業務確認安規等各項再行制作生產
 7. 禁止使用DVE所禁用之危害物質
 8. LABEL厚度為0.12+/-0.02mm

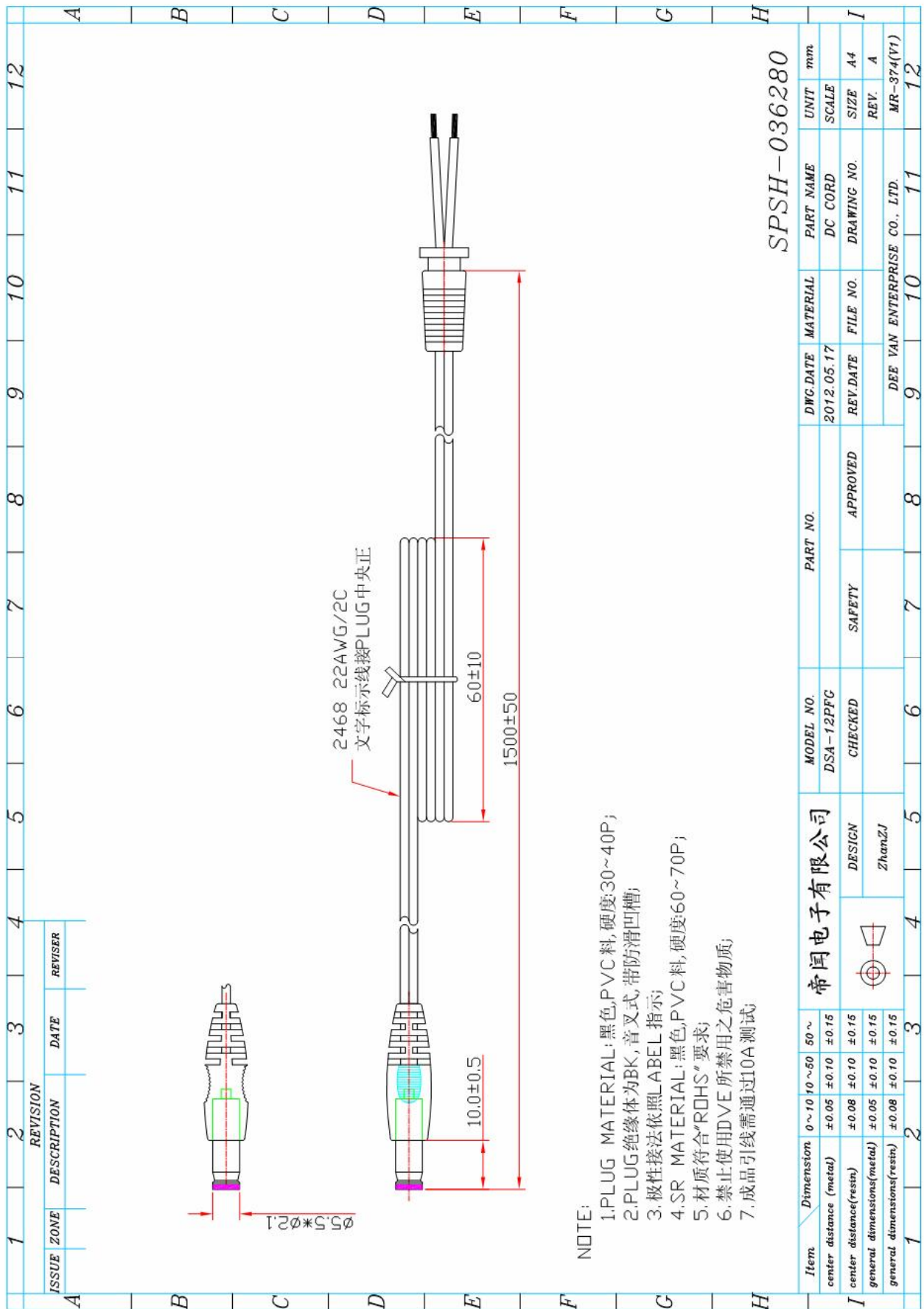
2. RATING LABEL DRAWING

-- 3 / 3



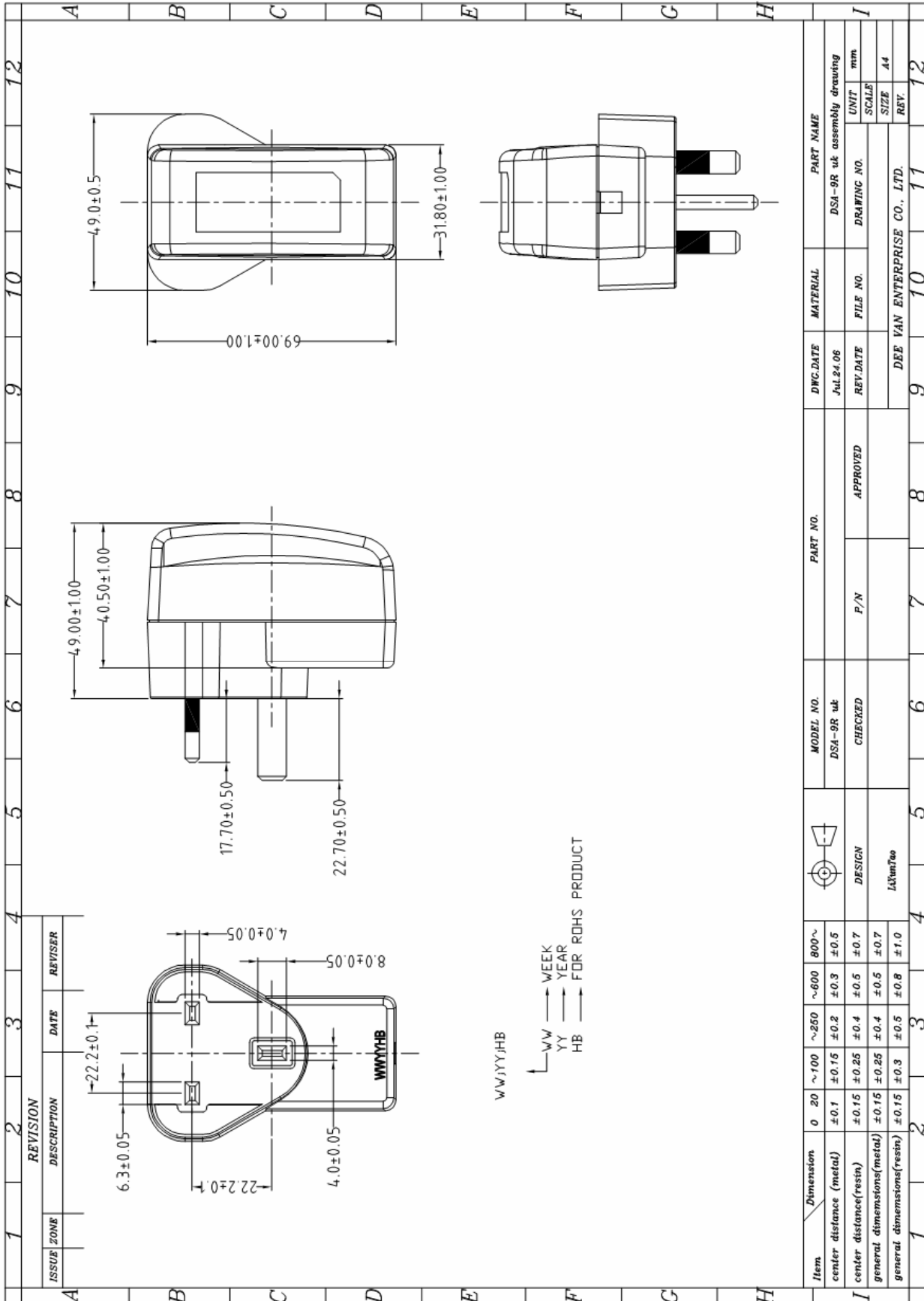
3. DC OUTPUT CORD DRAWING

-- 1 / 1



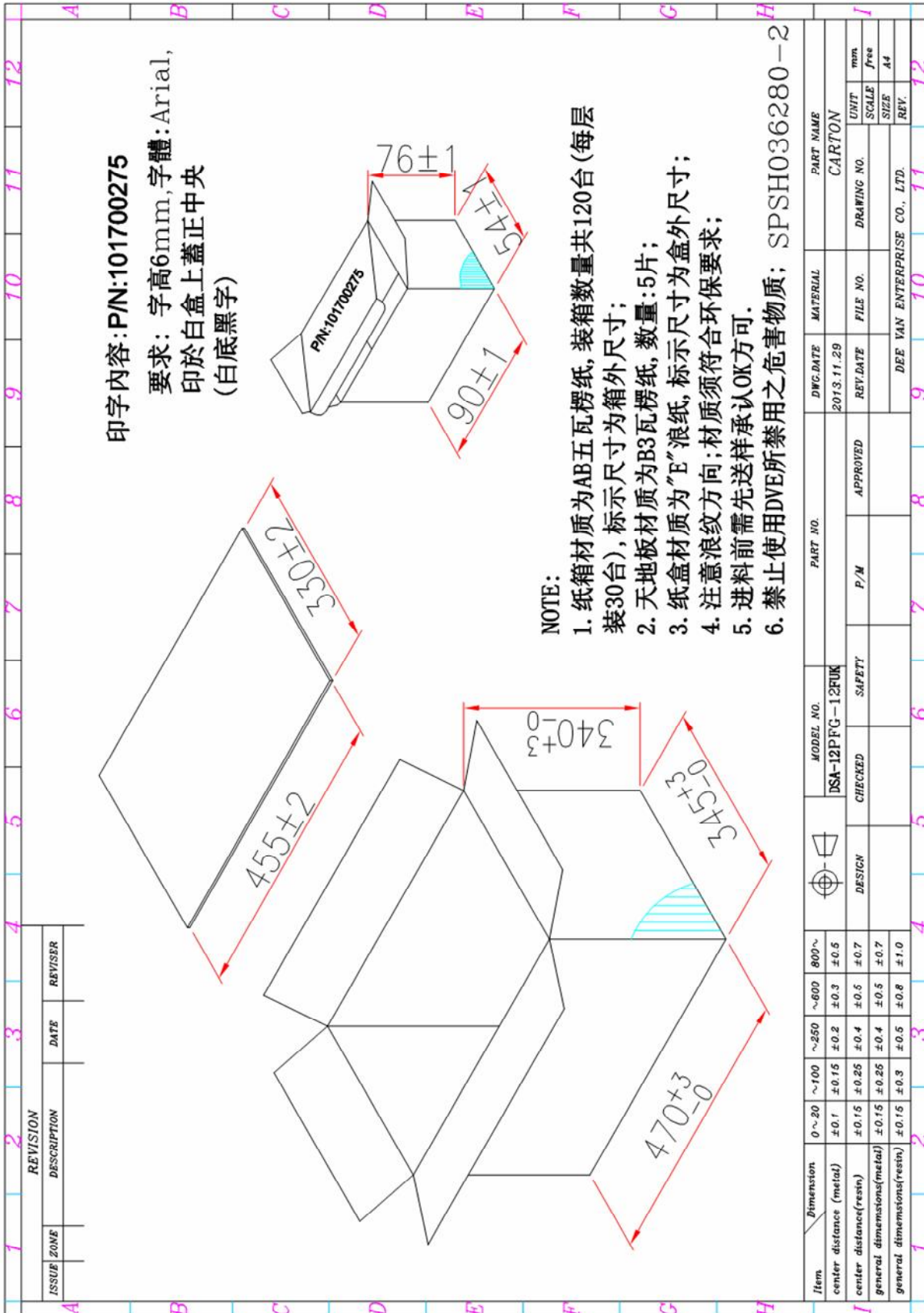
4. PRODUCT OUTLINE DRAWING

-- 1 / 1



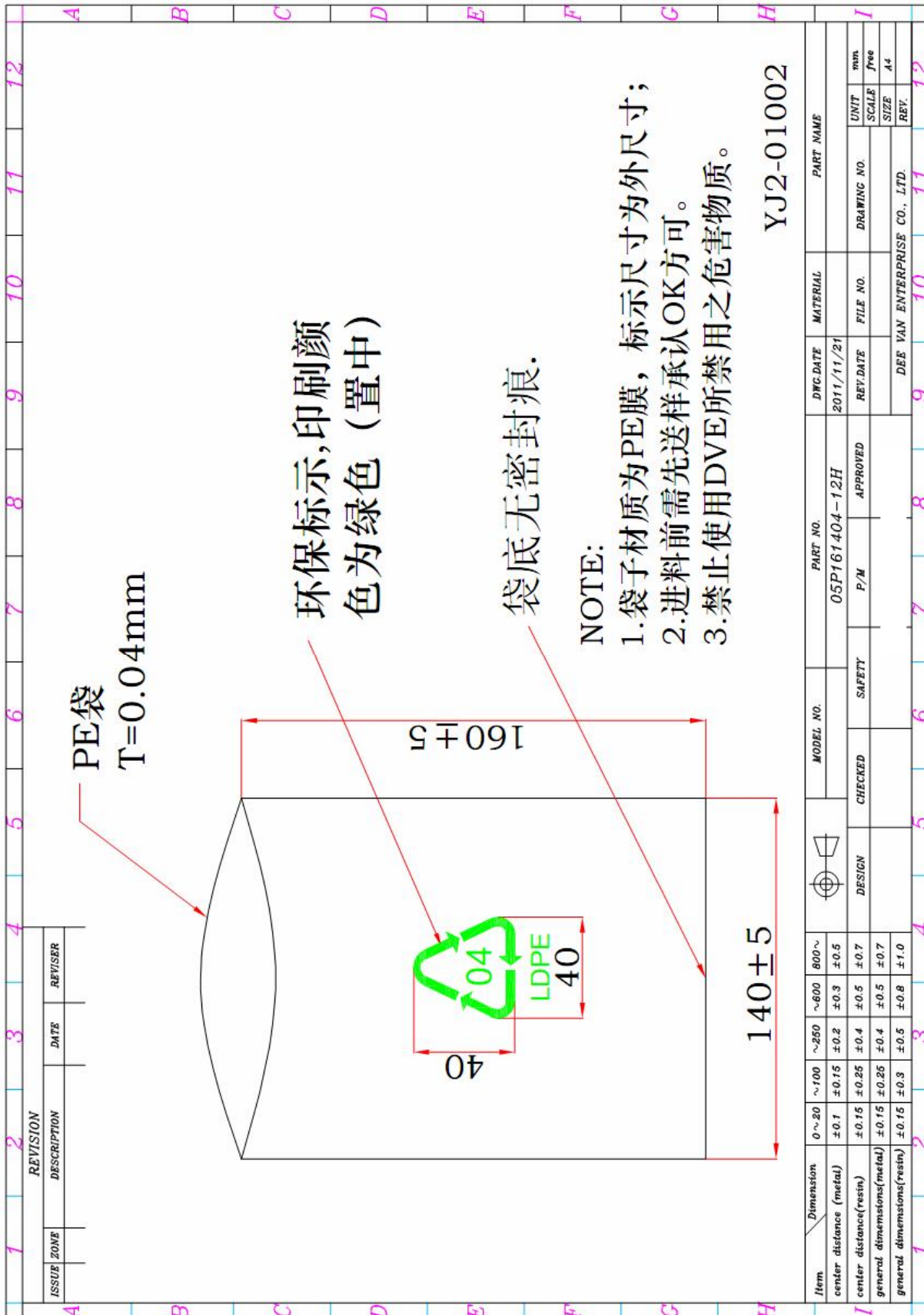
5. PACKING DRAWING

-- 1 / 2



5. PACKING DRAWING

- 2 / 2



6. SAFETY LICENSE (T-LICENSE)

-- 1 / 6

Certificate



Certificate no.

T 50246432 01

License Holder:
 Dee Van Enterprise Co., Ltd.
 No. 5, Pao-Kao Road
 Hsin Tien, Taipei 231
 Taiwan

Manufacturing Plant:
 Dee Van Electronics (Longchuan)
 Co., Ltd.
 Meichun Industrial District
 Longchuan Country
 Heyuan, Guangdong 517300
 P.R. China

Test report no.: BEZ 16031401 002

Client Reference: 174007506

Tested to: EN 60950-1:2006+A11+A1+A12
 BS EN 60950-1:2006+A1+A12

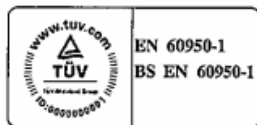
Certified Product: Switching Adapter

License Fee - Units

Series Type Designation : Rated Input Values : 15
 DSA-12PFG-12 AUK de AC 200-240V, 50/60Hz, 0,5A
 DSA-12PFG-12 FUK de AC 100-240V, 50/60Hz, 0,5A
 d = 090-120, Is a 3 digit numerical code, which represents
 output voltage in Volt after dividing the number by 10.
 e = 001-100, Is a 3 digit numerical code, which represents
 output current in A after dividing the number by 100.
 Rated Output Values : DC 9,0-12,0V; 1,0A max.
 Protection Class : II
 Ambient Temperature : 40°C
 Continuation on page 02

15

Licensed Test mark:



TÜV Rheinland/CCIC (Qingdao) Co., Ltd.
 Signature

Pony Xiong





Date of Issue
 (day/mo/yr)
 /01/2013



TÜV Rheinland/CCIC (Qingdao) Co., Ltd., No.175 Zhuzhou Rd., Qingdao 266101, P.R.China
 Tel: +86-532-8578-1778, Fax: +86-532-8578-1079



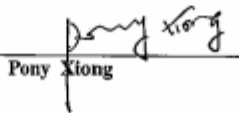

6. SAFETY LICENSE (T-LICENSE)

-- 2 / 6

<h1>Certificate</h1>		
Certificate no. T 50246432 02		
License Holder: Dee Van Enterprise Co., Ltd. No. 5, Pao-Kao Road Hsin Tien, Taipei 231 Taiwan	Manufacturing Plant: Dee Van Electronics (Longchuan) Co., Ltd. Meichun Industrial District Longchuan Country Heyuan, Guangdong 517300 P.R. China	
Test report no.: BEZ 16031401 002	Client Reference: 174007506	
Tested to: EN 60950-1:2006+A11+A1+A12 BS EN 60950-1:2006+A1+A12		
Certified Product: Switching Adapter		License Fee - Units
as page 01 Continuation		
Remark: Output voltage and -current have values in steps of 0,1V resp. 0,01A. By multiplication of both values the type designations are limited through the max. output power. The equipment is also tested and complied with sub-clause 2.5 of the applied standard as limited power source.		
Licensed Test mark:  EN 60950-1 BS EN 60950-1	TÜV Rheinland/CCIC (Qingdao) Co., Ltd. Signature  Pony Xiong	Date of Issue (day/mo/yr) 28/01/2013 
TÜV Rheinland/CCIC (Qingdao) Co., Ltd., No.175 Zhuzhou Rd., Qingdao 266101, P.R.China Tel: +86-532-8578-1778, Fax: +86-532-8578-1079		

6. SAFETY LICENSE (T-LICENSE)



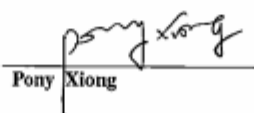

-- 3 / 6

<h1>Certificate</h1>				
Certificate no. T 50246432 03				
License Holder: Dee Van Enterprise Co., Ltd. No. 5, Pao-Kao Road Hsin Tien, Taipei 231 Taiwan	Manufacturing Plant: Dee Van Technology (Longchuan) Co., Ltd. Meichun Industrial District Longchuan Country Heyuan, Guangdong 517300 P.R. China			
Test report no.: BEZ 16031401 002 Client Reference: 174007506				
Tested to: EN 60950-1:2006+A11+A1+A12 BS EN 60950-1:2006+A1+A12				
Certified Product: Switching Adapter		License Fee - Units		
as page 01				
Addition				
Factory : see above				
Licensed Test mark:	TÜV Rheinland/CCIC (Qingdao) Co., Ltd. Signature	Date of Issue (day/mo/yr) 28/01/2013		
 <table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">EN 60950-1</td> </tr> <tr> <td style="padding: 2px;">BS EN 60950-1</td> </tr> </table>	EN 60950-1	BS EN 60950-1	 Pony Xiong	
EN 60950-1				
BS EN 60950-1				
TÜV Rheinland/CCIC (Qingdao) Co., Ltd., No.175 Zhuzhou Rd., Qingdao 266101, P.R.China Tel: +86-532-8578-1778, Fax: +86-532-8578-1079				

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6. SAFETY LICENSE (T-LICENSE)



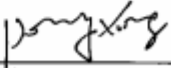
-- 4 / 6

<h1>Certificate</h1>		
Certificate no. T 50246432 04		
License Holder: Dee Van Enterprise Co., Ltd. No. 5, Pao-Kao Road Hsin Tien, Taipei 231 Taiwan	Manufacturing Plant: Dee Van Electronics (Jiashan) Co., Ltd. Sanqi Electronics Information Industry District Jiashan Economy Development Zone, Jiashan Town Jiaxing, Zhejiang 314100 P.R. China	
Test report no.: BEZ 16031401 002 Client Reference: 174007506		
Tested to: EN 60950-1:2006+A11+A1+A12 BS EN 60950-1:2006+A1+A12		
Certified Product: Switching Adapter		License Fee - Units
as page 01		
Addition		
Factory : see above		
Licensed Test mark:	TÜV Rheinland/CCIC (Qingdao) Co., Ltd. Signature	Date of Issue (day/mo/yr) 28/01/2013
 <div style="border: 1px solid black; padding: 2px; display: inline-block;"> EN 60950-1 BS EN 60950-1 </div>	 Pony Xiong	
TÜV Rheinland/CCIC (Qingdao) Co., Ltd., No.175 Zhuzhou Rd., Qingdao 266101, P.R.China Tel: +86-532-8578-1778, Fax: +86-532-8578-1079		

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6. SAFETY LICENSE (T-LICENSE)

-- 5 / 6

C E R T I F I C A T E		
of Conformity Low Voltage Directive 2006/95/EC		
Registration No.:	AN 50246433 0001	
Report No.:	16031401 002	
Holder:	Dee Van Enterprise Co., Ltd. No. 5, Pao-Kao Road Hsin Tien, Taipei 231 Taiwan	
Product:	Power Supply Switching Adapter	
Identification:	Series Type Designation : DSA-12PFG-12 AUK de DSA-12PFG-12 FUK de For a detailed listing of the variables d, e refer to license T 50246432 01-04. Serial No.: n.a. (Issued in conjunction with the above mentioned TÜV Rheinland license.)	
<p>This certificate of conformity is based on an evaluation of a sample of the above mentioned product. Technical Report and documentation are at the Licence Holder's disposal. This is to certify that the tested sample is in conformity with all revision of Annex I of Council Directive 2006/95/EC, in its latest amended version, referred to as the Low Voltage Directive. This certificate does not imply assessment of the series-production of the product and does not permit the use of a TÜV Rheinland mark of conformity. The holder of the certificate is authorized to use this certificate in connection with the EC declaration of conformity according to Annex III of the Directive.</p>		
		Certification Body
Guangzhou, <u>28.01.2013</u>		 Pony Xiong
TÜV Rheinland Guangdong - Guangzhou Science City - Guangzhou - P.R.China		
CE The CE marking may be used if all relevant and effective EC Directives are complied with. CE		

6. SAFETY LICENSE (CE)

-- 6 / 6

Certificate of Conformity

No. ESTE-E1311041

The following products have been tested by us with the listed standards and found in compliance with the council EMC directive 2004/108/EC. It is demonstrative for the compliance with this EMC Directive.

Applicant : Dee Van Enterprise Co., Ltd
 Address : No.5 Pao-Kao Road, Hish-Tien City, Taipei, Taiwan, China
 Trade Name : DVE
 Product : Switching Adapter
 Model No :

No	MODEL	INPUT	OUTPUT	
		V, A	V dc	Max. A
1	DSA-12PFG-12 Ac de	200-240VAC, 50/60Hz, 0.5A	9.0-12.0	1.0
2	DSA-12PFG-12 Bc de	100-120VAC, 50/60Hz, 0.5A	9.0-12.0	1.0
3	DSA-12PFG-12 Fc de	100-240VAC, 50/60Hz, 0.5A	9.0-12.0	1.0

“c” can be EU, UK, US, CH, IN, AU, KR, JP or AR

“d” is 3 digit number(090 to 120) which represents the output voltage

“e” is 3 digit number (from 001 to 100) which represents the output current

Test Standards :	
EN 55022:2010 CISPR 22:2008	Limits and methods of measurement of radio disturbance characteristics of information technology equipment
EN 61000-3-2:2006+A1:2009+A2:2009	Electromagnetic compatibility (EMC) -- Part 3-2: Limits - Limits for harmonic current emissions (equipment input current up to and including 16 A per phase)
EN 61000-3-3:2008	Electromagnetic compatibility (EMC) -- Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection
EN 55024:2010 CISPR 24:2010	Information technology equipment-Immunity characteristics limits and methods of measurement



EST Technology Co., Ltd

<http://www.gdest.cn> TEL:86-769-83081888

Chilingxiang, Qishantou, Santun, Houjie, Dongguan, Guangdong, China

The statement is based on a single evaluation of one sample of above mentioned products. It does not imply an assessment of the whole production and does not permit the use of the test lab's logo.