僑威科技股份有限公司
寧波冠碩電子有限公司
NING BO ISO ELECTRONIC CO.,LTD.

SPECIFICATION FOR APPROVAL

產品規格承認書

CUSTOMER APPROVAL(客戶簽章)
DATE(日期):

CUSTOMER(客戶):
PART NO(料號): G99-ABU120F-N033 **REV:** D
DESCRIPTION(類別): 电源适配器
***PLEASE SIGN AND RETURN ONE COPY.**
***ALL PRODUCTION UNITS WILL BE BUILT ACCORDING TO THIS SPECIFICATIONS.**
***請客戶簽名並返回一份復本給我司，後續生產交貨依此份承認書為准**

PREPARED(制定)	CHECKED(確認)	APPROVED(核准)
管典锋	李赞	郑斌
DATE : 2020/4/7	DATE : 2020/4/7	DATE : 2020/4/7

MODEL NO(產品型號): **2ABU120F 12V/10A 120W 10748#14 5.5*2.5*11 1200mm 180° [LEVEL 6]**

WEB SITE(網址):Http://www.cwtnb.com.cn
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E-mail(電子郵件):SALES@cwtnb.com.cn
ADDRESS:10,Chuang-ye Rd,The West of Ningbo Free Trade Zone,Ningbo, Zhejiang,P.R. China.
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TEL(電話):0574-86879335
FAX(傳真):0574-86879078

DATE(日期)： 2020/4/7
FILE(文件)： HISTORY(修訂記錄)
REV.(版本)： D
MODEL.(機種)： 2ABU120F

REVISION HISTORY
修 訂 記 錄

NO	DATE	REV.	DESCRIPITION	APPROVED	CHECKED	PREPARED
序號	日期	版本	描述	核准	確認	制訂
1	2016.09.14	A	新制訂	鄭斌	李赞	潘小琪
2	2018.08.15	B	更新大贴纸	鄭斌	李赞	潘小琪
3	2019.08.22	C	更新型号标签	鄭斌	李赞	管典锋
4	2020.04.07	D	更新包装箱图纸, 更新型号标签(符合ERP最新要求)	鄭斌	李赞	管典锋

TABLE OF CONTENTS

1 SCOPE

This document describes basic electrical characteristics and mechanical requirements of Model No.____ 2ABU120F__ switching power supply.

2 ELECTRICAL SPECIFICATION

2.1 INPUT REQUIREMENT

2.1.1 INPUT VOLTAGE RANGE

Power supply shall operate within specification from 90 to 264Vrms or provide automatic switching in two ranges. The table below shows common input voltage range.

Input Range	Minimum	Nominal	Maximum	Unit
	90	100-240	264	Vac, rms

Table 1 - Input Voltage Range

2.1.2 INPUT FREQUENCY RANGE

The power supply shall operate within specification from 47 to 63 Hz.

2.1.3 AC INRUSH CURRENT

It shall be limited to a level below the I^2t of the fuse and the bridge diode. No damage.

2.1.4 INPUT CURRENT

Maximum steady state input current shall not exceed ____2.0____A for any line voltage specified in 2.1.1.

2.1.5 LOW POWER CONSUMPTION

Vin	Load	Power consumption
230Vac / 50Hz	0A	< 0.15 W

2.1.6 POWER FACTOR

PF > 0.9 (at 115V/230VAC with Full load)

2.2 INPUT PROTECTION

2.2.1 INPUT CURRENT PROTECTION

A fuse with rating of 3.15 A / 250 V(Time Lag) shall be installed on the input line side near the input connector to provided protection to the power supply.

2.2.2 INPUT CURRENT HARMONIC

Input current harmonic of the power supply should meet IEC 61000-3-2 requirement.

2.3 OUTPUT REQUIREMENT

2.3.1 OUTPUT POWER

Unit total output power, under steady state conditions, shall not exceed 120 W .

2.3.2 OUTPUT VOLTAGE AND CURRENT

Under any combination of line and load variation and environmental conditions, all outputs shall remain within tolerance defined in Table 2. Output voltage(s) shall be measured at the load side of output connector.

	Output Voltage	Voltage Range		Current Range		
		Lower Limit	Upper Limit	Minimum Load	Full rated load	Peak Load
1	+12V	11.4V	12.6V	0A	10A	13A@10s (115/230VAC)

Table 2 - Output Voltage and Current

2.3.3 RIPPLE AND NOISE

Measurements shall be made with an oscilloscope with minimum of 20MHz bandwidth. Output shall be bypassed at the connector with a 0.1μF ceramic disk capacitor and a 10μF electrolytic capacitor for general testing purpose.

Output Voltage	Maximum Ripple & Noise (Vp-p)
+12V	240mV

Table 3 – Ripple and Noise

2.3.4 OVER VOLTAGE PROTECTION

The power supply shall be provided with over voltage protection such that under any single component failure, output channel shall exceed the voltages specified, the first will clamp, second will latch minimum load 0.1A.

Output Voltage	Maximum OVP Trip Voltage
+12V	+22V

Table 4 – Over Voltage Protection

Note : In the event of latch an over - voltage condition on output voltage, the power supply shall shutdown and require remove the AC mains.

2.3.5 OVER CURRENT PROTECTION

Over current protection shall be operated within specify 14.5A (min) ~ 20A (Max) , defined in section 2.3.1 at 100~240Vac line input or temperature conditions.

2.3.6 OVERSHOOT AND UNDERSHOOT

During turn on, turn off condition, the output overshoot shall not exceed nominal voltage by more than 10 %, and output shall not change its polarity with respect to its return line.

2.3.7 SHORT CIRCUIT PROTECTION

Power supply shall have self-limiting protection to protect against short circuit or overload conditions. No damage to the supply shall result from a continuous or intermittent short circuit condition.

2.3.8 AUDIBLE NOISE

There is no audible noise can be heard when it works at rated spec

2.4 PERFORMANCE REQUIREMENT

2.4.1 EFFICIENCY

Efficiency (watt out / watt in) shall be a minimum of 89% with average mode at 115V/60Hz & 230Vac/50Hz input

Shall comply with DOE level 6

European CoC - EPS Version 5 Tier 2

2.4.2 TURN ON DELAY TIME

Output shall reach steady state in 3 seconds after turn on.

2.4.3 HOLD-UP TIME

Hold-up time shall be a minimum of 8 ms at 45 degrees, 115Vac / 60Hz of input.

Hold-up time shall be a minimum of 8 ms at 45 degrees, 230Vac / 50Hz of input.

2.4.4 DYNAMIC LOAD

Power supply shall operate within regulation defined at following conditions:

Rate output voltage: +/-10%

Step load change: from 0 to 5A and 5 to 10A on the output

Dwell Time: 100Hz & 1 KHz 50% duty.

Slew rate: 2.5A/usec

3 ENVIRONMENTAL SPECIFICATION

3.1 TEMPERATURE

Operation within specification: 0 to 40 degrees C.

Storage: -20 to 80 degrees C

3.2 HUMIDITY

Operation: 10% to 90% relative humidity, non-condensation.

Storage: 5% to 95% relative humidity, including condensation.

3.3 VIBRATION

Operating: 10-250Hz, 0.25G peak to peak, 3 axes, 15 min sweep.

Storage: 10-300Hz, 2.0G peak to peak, 3 axes, 15 min sweep.

3.4 ALTITUDE

Power supply shall operate to an altitude of 5000 m

3.5 CALCULATED MEAN TIME BETWEEN FAILURES (MTBF)

The MTBF for the power shall equal or exceed 200,000 hours when operated at full rated load and AC110V or AC230V in an ambient temperature of 40 ℃ by Telcordia SR-332, issue 2.

Minimum E-capacitor lifetime is 3 years at 25°C at AC 110V/230V and with 100% nominal load.

4 REGULATORY COMPLIANCE

4.1 EMC SPECIFICATION

4.1.1 FCC REQUIREMENTS

Power supply shall comply with the radiated and conducted emission requirements for FCC Class B.

4.1.2 CISPR REQUIREMENTS

Power supply shall comply with the radiated and conducted emission requirements for CISPR 22 Class B.

4.2 IMMUNITY

4.2.1 ELECTROSTATIC DISCHARGE (ESD), EN 61000-4-2

The power supply shall compliance to EN61000-4-2, withstand the following ESD conditions at any point on the power supply enclosure when tested as following condition.

+/- 8KV discharge by air & +/- 4KV discharge by contact, no damage.

The storage capacitance shall be 150 pF and the discharge resistance shall be 330 ohms. The power supply shall meet all discharge requirements for the CE Mark designation.

4.2.2 RADIATED FIELD IMMUNITY, EN 61000-4-3

Power supply shall withstand following condition:

Frequency Range: 80 - 1000MHz

Field Strength: 3 V/m with 80% amplitude modulation of 1 kHz

4.2.3 FAST TRANSIENT IMMUNITY, EN 61000-4-4

Power supply shall withstand EN 61000-4-4 +/-1kV requirements.

4.2.4 SURGE IMMUNITY, EN 61000-4-5

Power supply shall withstand 1kV (L – L) and 2kV (L – PE) without functional failure.

4.2.5 CONDUCTED IMMUNITY, EN 61000-4-6

Power supply shall withstand following condition:

Frequency Range: 0.15 - 80MHz

Field Strength: 3 V/m with 80% amplitude modulation of 1 kHz

4.2.6 VOLTAGE DIPS AND INTERRUPTIONS, EN 61000-4-11

Power supply shall meet EN61000-4-11 requirements.

4.3 AGENCIES CERTIFICATIONS

Unless otherwise specified, the supply is designed to meet IEC 60950-1 and/or equivalent safety standards for use in Information Technology Equipment. For desktop universal adapter, CB certificate will identify and support worldwide deviations. Specific agency certifications will be applied at customer's request and cost.

4.3.1 PRODUCT SAFETY COMPLIANCE

Agency	Countries
(cUL)	Canada
(UL)	USA
(TUV)	Europe

Table 5 - Safety Compliance

4.3.2 LEAKAGE CURRENT

Power supply touch current shall not exceed 3.5 mA at input voltage of 264Vac / 60Hz.

4.3.3 DIELECTRIC STRENGTH

The power supply shall withstand following Hi-pot test without breakdown.

4242 Vdc input(L & N) to output for 3 seconds.

2121 Vdc primary(L & N) to PE(primary earth ground) for 3 seconds.

4.3.4 *INSULATION RESISTANCE*

It shall be more than 50M ohm 500VDC 60S, between primary and secondary. 25℃ /55%RH.

5 MECHANICAL

5.1 INPUT CONNECTOR AND OUTPUT CABLE

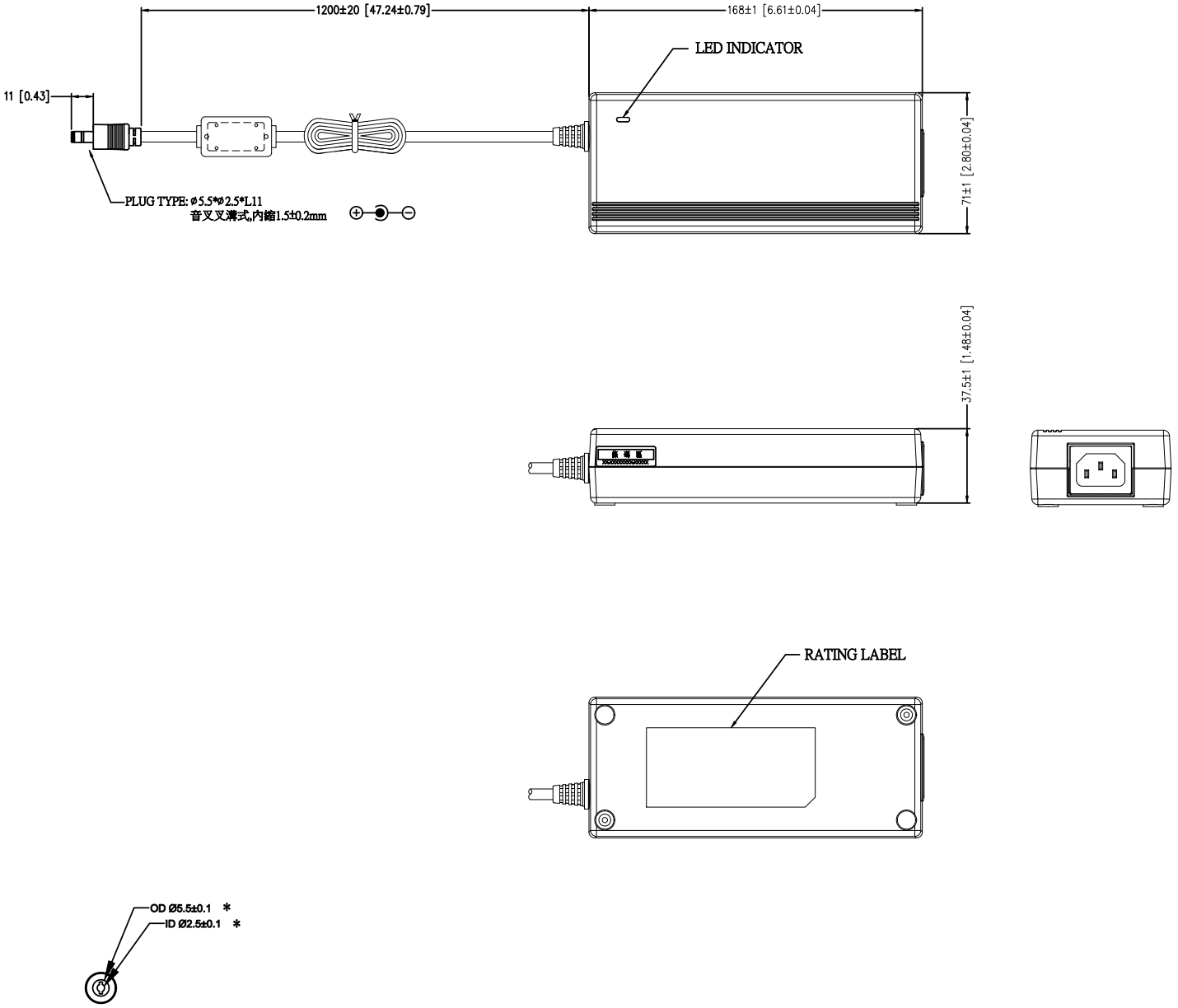
5.1.1 INPUT CONNECTOR

AC Input connector shall be an IEC60320 C14 power connector (International Class I Plug Style).

5.1.2 OUTPUT CABLE:

Refer to Refer to drawing.

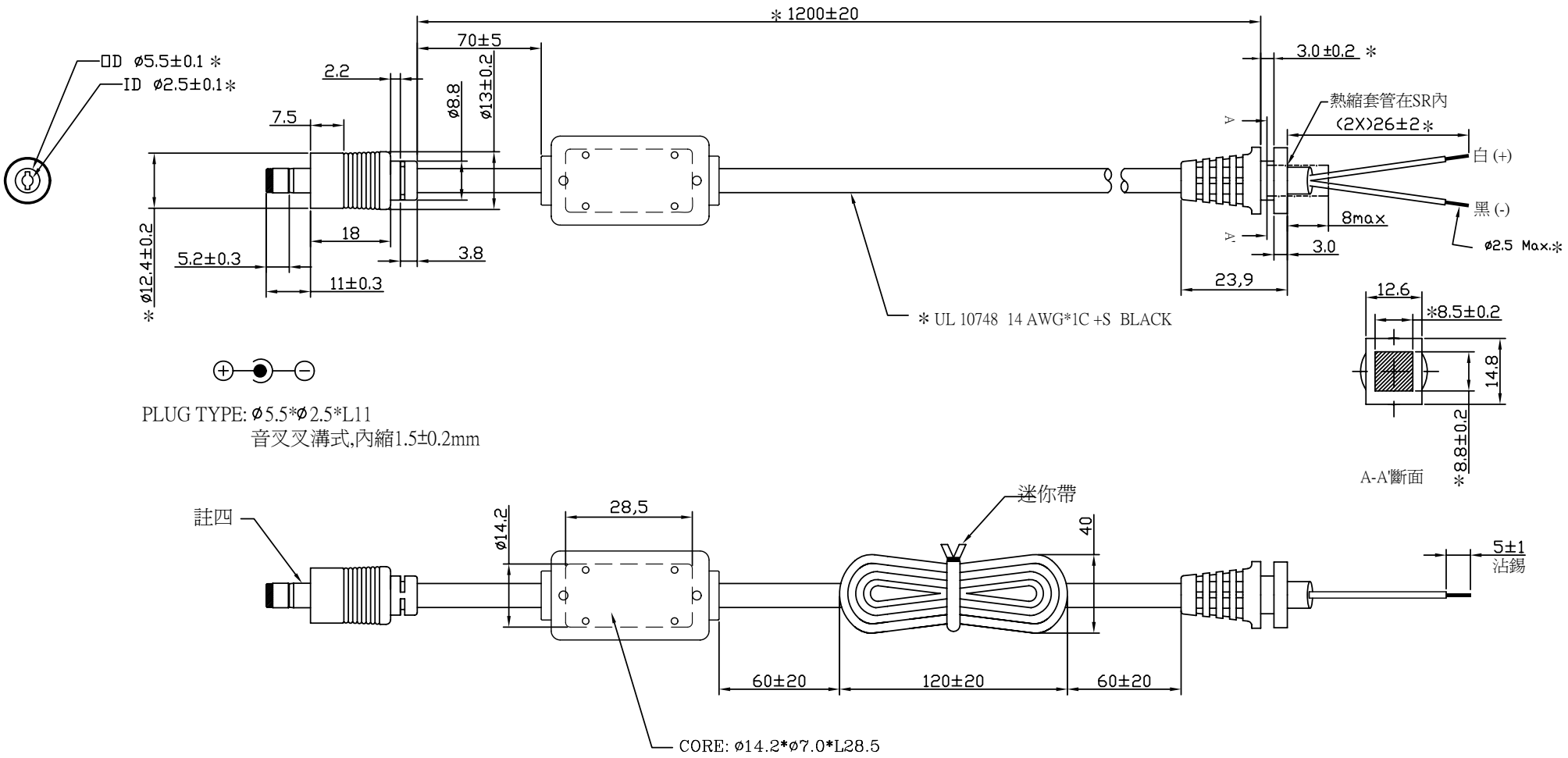
版本	修訂內容	修訂者	日期
A01	新製	Shoulo	2016-01-30



NOTES:

1. CASE & CABLE COLOR : BLACK
2. INLET:IEC320-C14
3. CABLE SPEC.:CABLE ARE UL 10748 14AWG

CWT *Channel Well Technology CO., LTD.*	APPROVED Tiger	DATE 2016-01-30	DRAWING NO.	UNIT INCHES (MM)	REV. A01
TITLE Desktop Switching Adapter	DESIGNED Ch Wang	DRAWING Shoulo	MODEL NO. 2ABU-C140003	TOLERANCES: .XX = ± .10 .XXX = ± .010	SHEET 1/1



註:

一.電性測試:
1.耐電壓:AC 500V/秒,測試無異常.
2.絕緣抵抗:DC 500V 50MΩ以上.
3.導通測試:無斷線、短路、極性反(芯線接內極).

二.拉力測試:電線與S/R間吊重 9Kg經過1分鐘
無斷線脫落等異常.

三.折曲測試:
電線吊重300g,左右各 60°往復搖擺,45次/分,
往復3,000 回後,不完全斷線且外觀無脫落、
斷裂等異常.

四. PLUG 需耐10A,深圳泰及電子有限公司 NUMBER
SF552250240-01 5.5X2.5X24音叉長叉溝,或同等級.

標註 " * " 爲IQC 必須檢驗的尺寸或內容.

環保材料標準:

No	有害物質名稱	含量標準
1	鎘(Cd)	<75ppm
2	鉛(Pb)	<800ppm
3	汞(Hg)	<800ppm
4	六價鉻(Cr)	<800ppm
5	多溴聯苯(PBB)	<800ppm
6	多溴二苯醚 (PBDE)	<800ppm
7	鎘,鉛,汞,六價鉻,(包裝總含量	<100ppm

SHEET METAL TOLERANCE (UNLESS OTHERWISE SPECIFIED)

DIMENSION	PIERCING	BENDING	ANGULAR
X < 8	±0.1	±0.15	±0.3°
8 ≤ X < 25	±0.1	±0.2	±0.5°
25 ≤ X < 100	±0.15	±0.25	±0.5°
100 ≤ X < 300	±0.2	±0.3	±1°
300 ≤ X < 800	±0.3	±0.5	±1.5°

REV	DESCRIPTION
0.1	在G18-B3W112A-M300上修改DC頭爲5.5*2.5*11

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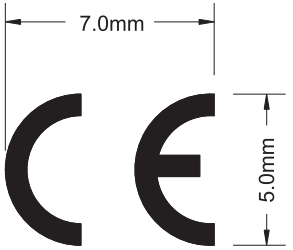
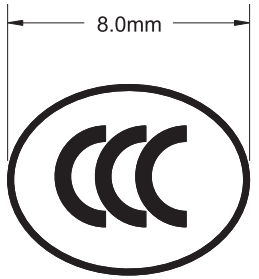
UNIT: mm	MODEL NO.: 120W (12V)	
MATERIAL	PART NO.: G18-B3W112A-M400	
	DRAWING NO.:2012CBL060 DC CABLE	
DESIGNED: jh huang 2012.10.30	CHECKED: xq wu 2012.10.30	APPROVED: DATE:
SCALE:	SHEET 1 OF 1	M/A3
THIRD ANGLE PROJECTION		



MIN. DIMENSIONS OF MARKS ONLABEL



CCC Mark SCALE2:1

NOTES:

1. MATERIAL:
   Base on grid 50# Dumb white PET/網格底50#啞白PET
   WITH ADHESIVE ON THE BACK.
   THE BACK ADHESIVE MUST CONFORM TO THE UL REQUIREMENT.
   THE LABEL IS NOT ALLOWED TO CURL UPWARDS OR WINKLE
   AT 80 C FOR 2 HOURS.
2. PRINTED:
   BLACK BACKGROUND WITH WHITE CHARACTERS.
3. Factory ID (製造廠代碼): G (貴冠廠)
4. SURFACE TREATMENT(表面處理): DUMB FILM(啞膜).

環保材料標准:

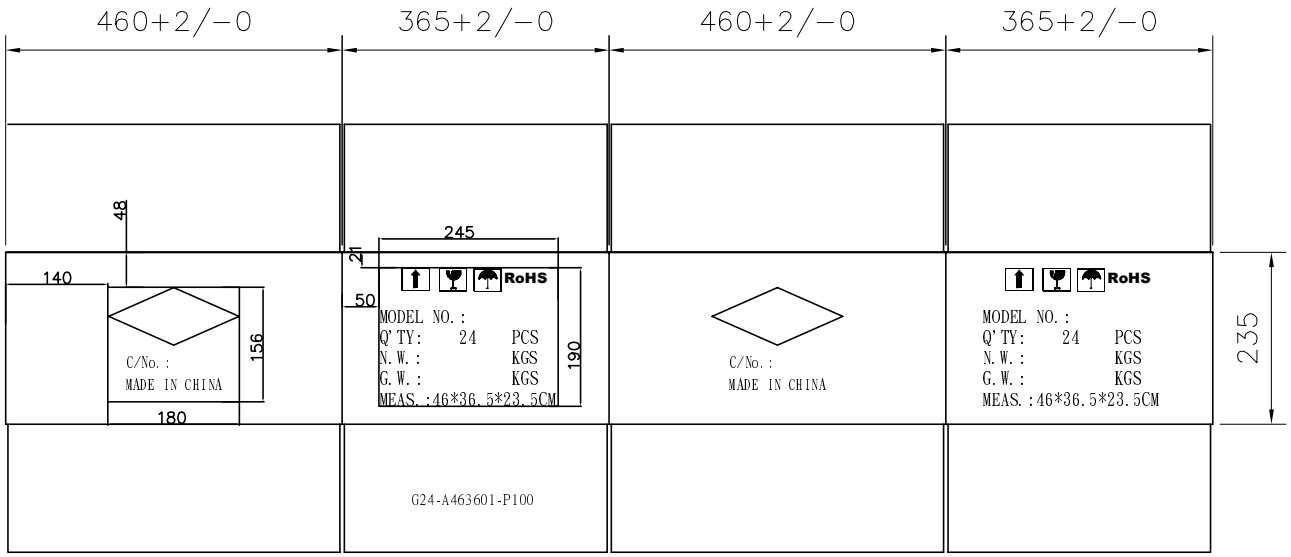
No	有害物質名稱	含量標準
1	鎘 (Cd)	< 75 ppm
2	鉛 (Pb)	< 800 ppm
3	汞 (Hg)	< 800 ppm
4	六價鉻 (Cr)6	< 800 ppm
5	多溴聯苯 (PBB)	< 800 ppm
6	多溴二苯醚 (PBDE)	< 800 ppm
7	鎘,鉛,汞,六價鉻,(包裝材料)	總含量 < 100 ppm

SHEET METAL TOLERANCE
(UNLESS OTHERWISE SPECIFIED)

DIMENSION	PIERCING	BENDING	ANGULAR
X < 8	± 0.1	± 0.15	± 0.3°
8 ≦ X < 20	± 0.1	± 0.2	± 0.5°
25 ≦ X < 100	± 0.15	± 0.25	± 0.5°
100 ≦ X < 300	± 0.2	± 0.3	± 1°
300 ≦ X < 800	± 0.3	± 0.5	± 1.5°

REV.	DESCRIPTION
04	2020.03.04 依歐盟ERP最新要求更新OUTPUT規格
03	更新TUV ID,DC PLUG為菱形,更新RoHS及3C符號 20190410 Arnan
02	修改材質為網格底50#啞白PET 20170506 蔡春燕
01	新製

CWT 儁威科技				UNIT: mm	MODEL NO.: 2ABU120F
				MATERIAL	PART NO.: G35-D018786-P400
					DRAWING NO.:
APPROVED	SAFETY	CHECKED	DESIGNED		
ZY.HUANG	JESSE	ZY.HUANG	YL.WANG	SCALE:	SHEET 1 OF 1
DATE: JUNE.16.16	DATE: JUNE.16.16	DATE: JUNE.16.16	DATE: JUNE.16.16	THIRD ANGLE PROJECTION	M / A4 L



RoHS

以上印刷為紅色
其它文字及圖框印刷為黑色

綠色方框與字體無需印刷

NOTES:

1.材質：五層瓦楞紙A//A(B+C楞)，破裂強度11.0KGS(MIN);
抗壓強度310KGS(MIN);邊壓強度4.5KN/M(MIN),最大堆疊層數 7 層.
2.厚度：6±0.5mm.
3.搭配誤差：與格板之間間隙要大於2mm,小於6mm.
4.警告標志及ROHS印刷顏色：紅色(PANTONE 1788C),
其它字體印刷黑色.
5.虛線為預折壓痕.
6.請依圖面標示尺寸制作.
7.公差:其它未標注公差
★ 圖形及字體公差:10mm以下為+/-1mm,11~50mm為+/-3mm,
51mm以上為+/-5mm,特殊情況除外.
★ 偏移公差:10mm以下為+/-2mm,11~50mm為+/-3mm,
51mm以上為+/-5mm,特殊情況除外.
8.結合方式（一體成形):打釘.
外箱最少要打三排釘;外箱尺寸較高時,打釘數要保
證兩釘之間的距離要小於100mm,且間距保持基本均
勻(公差+10/-10mm)
9.所有材料需符合RoHS環保要求.
10.每箱裝 24 PCS.

環保材料標准:

No	有害物質名稱	含量標准
1	鎘(Cd)	<5
2	鉛(Pb)	<1
3	汞(Hg)	<1
4	六價鉻(Cr VI)	<1
5	多溴聯苯(PBB)	<1
6	多溴二苯醚; (PBDE)	<1
7	鄰苯二甲酸二(2-乙基己基)酯(DEHP)	<1
8	鄰苯二甲酸丁苄酯(BBP)	<1
9	鄰苯二甲酸二丁酯(DBP)	<1
10	鄰苯二甲酸二異丁酯(DIBP)	<1
11	鎘,鉛,汞,六價鉻,(包裝材料)	總含量<100
12	PAHS多環芳香族化合物	NA

SHEET METAL TOLERANCE (UNLESS OTHERWISE SPECIFIED)			
DIMENSION	PIERCING	BENDING	ANGULAR
X < 8	±0.1	±0.15	±0.3°
8 ≤ X < 25	±0.1	±0.2	±0.5°
25 ≤ X < 100	±0.15	±0.25	±0.5°
100 ≤ X < 300	±0.2	±0.3	±1°
300 ≤ X < 800	±0.3	±0.5	±1.5°

REV.	DESCRIPTION
0.1	

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APPROVED	CHECKED	DESIGNED
zy.huang	JC.ZOU	liniro
DATE: 2018-06-23	DATE: 2018-06-23	DATE: 2018-06-23

UNIT: mm
MATERIAL
MODEL NO.: CAD120
PART NO.: G24-A463601-P100
DRAWING NO.:
SCALE:
THIRD ANGLE PROJECTION
SHEET 1 OF 1
M/A3