

SPECIFICATION FOR APPROVAL

產品確認書/製品仕様書

FILE SERIAL NO./文件序號:

XSG20210608546037-L01

CUSTOMER / 客 戶:

ARTICLE / 品 名:

SWITCHING POWER SUPPLY/CHARGER

MODEL NO. / 機種型號:

XSG5463750

PARAMETER / 規 格:

54.6V 3.75A

CERTIFICATE/認證:

CB,UL,cUL,FCC,CE,GS,CB,RCM,SAA,PSE,KC,PSB,CCC,RoHS

ISSUE DATE / 發行日期:

2021/6/8

Please to sign back after you confirm

承認書確認後請回簽一份

この仕様書をご確認とご署名の上、対象の営業窓口にご返信いただきますよう宜しくお願い致します。

CUSTOMER AUTHORIZED 客戶確認		
Approved by	Checked by	Prepared by

SUPPLIER AUTHORIZED 供方確認		
Approved by	Checked by	Prepared by
李麗敏	梁金鼎	張文娟

*感謝您的支持，我們十分珍惜每次合作機會

*Thank you for your support,we will treasure the opportunity to cooperate with you

Rev.版本	Description of change/ 變更內容描述		Changed Date 日期	Approved
	Before(變更前)	After/變更後		
A	Original Release(初次發行)		2007/8/26	李麗敏
B	Label updated(標貼版本變更)		2010/6/20	王曉
C	Certificates updated(證書更新)		2018/1/22	李麗敏



* Make practical and safe power supply, Be enterprise with honesty and responsibility

* 提供實用安全的電源，做誠信負責的企業

* 実用的、安全な電源を提供し、誠実と信用、責任を持つ企業。

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1.SAFETY STANDARD / 安規標準

- 1.1 The green mode power supply shall be certified by the following international regulatory standards: 充電器應符合下列的國際標準:

Certificate 證書	Country 國家	Standard/安規標準	Certificate 證書	Country 國家	Standard/安規標準
☒ UL/CUL	USA/CA 北美	UL/CUL62368-1; UL/CUL60950-1;	☒ CCC	CHINA 中國	GB4943
☒ LVD/ GS	Germany 德國	EN60950; EN62368 EN 61558; EN60335	☒ CE	Europe 歐洲	EN55032; EN55035; EN55024; EN61000; EN55022;
☒ CB	Global 全球	IEC62368; IEC60950; IEC61558; IEC60335	☒ UKCA	United Kingdom 英國	BS EN 62368
☒ PSE	Japan 日本	J60950-1; J55022; J3000	☒ SAA/RCM	AU 澳洲	AS/NZS 60950

2.INPUT FEATURE / 輸入特性

- 2.1 INPUT VOLTAGE RANGE: 90Vac to 264Vac. 輸入電壓範圍可以從90Vac到264Vac.
- 2.2 RATED INPUT VOLTAGE: 100Vac to 240Vac. 額定輸入電壓從100Vac到240Vac.
- 2.3 INPUT FREQUENCY RANGE: 47Hz to 63Hz. 輸入頻率範圍從47Hz到63Hz.
- 2.4 INPUT CURRENT: 3A max.&100-240Vac. 最大輸入電流3A(輸入條件100-240Vac)
- 2.5 INRUSH CURRENT: 60A max. at 100-240Vac input for a cold start at 25℃. 在准開機條件下, 最大浪湧電流不超過60A (輸入條件100-240Vac).
- 2.6 EFFICIENCY: higher than 87% at 100-240Vac input and output full load. 效率高於87% (輸入100-240Vac和輸出滿載條件).
- 2.7 No-Load Input Power Dissipation/輸入空載功率損耗: Input 115Vac or 230Vac, output no load, the input power loss is less than 0.5W. 輸入115/230V交流, 在空載時, 輸入功耗小於0.5W.

3.OUTPUT/輸出特性

Charging Status 充電狀態	Charging Stage 充電階段	Output current 輸出電流(A)	Output voltage 輸出電壓(V)	LED indicator 指示燈
1.Charging 充電中	Constant Current 恒流	3.75A±0.2A	32.5-54.6±0.3V	Red
	Constant Voltage 恒壓	3.75A->0.4A	54.6V±0.3V	Red
2.Charged full 充滿	Trickle Charging 涓流	0.4A>0	54.6V±0.3V	Green

4.Work Status of LED indicator/LED燈工作狀態顯示

No load output: Green Light 空載輸出: 綠燈



In Process of Charging: Red Light 充電中: 紅燈

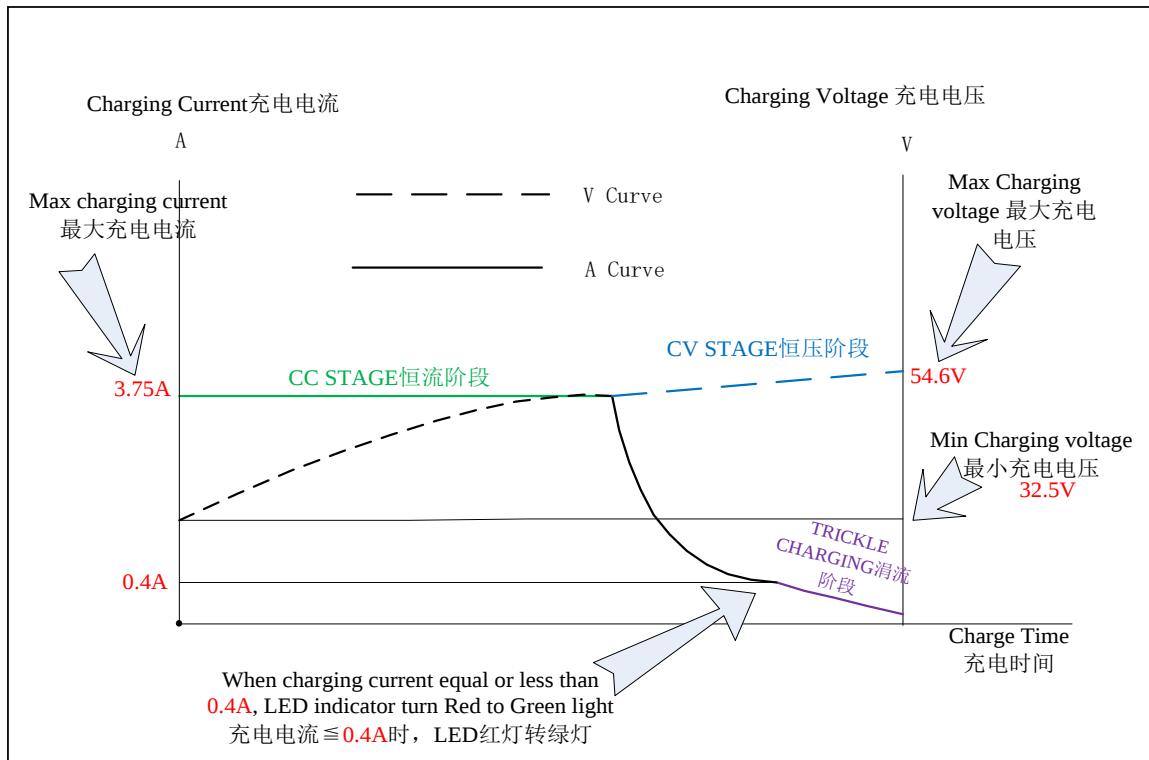


Charged Full: Green Light 充滿: 綠燈



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5.CHARGING CURVE/充電曲線圖:



6.PROTECTION FEATURE / 保護特性

6.1 OVER—CURRENT PROTECTION / 過電流保護:

The green mode power supply shall be hiccup when any output operating in overload condition (set@ Max load 100~180%) under any line condition for an indefinite period of time. The power supply shall be self—recovery when the fault condition is removed. 在任何時候任何輸入條件，當輸出操作在超載條件最大充電器的（100~180%）時，充電器將進入打嗝模式，當故障被移走後，充電器要能自動恢復到正常。

6.2 SHORT—CIRCUIT PROTECTION / 輸出短路保護:

The power supply shall be hiccup and no damage shall occur when any output operating in a short circuit condition under any line condition for an indefinite period of time. The power supply shall be self—recovery when the fault condition is removed. 在任何時候，任何輸入條件下，當輸出操作在短路情況下，充電器將進入打嗝模式，當故障消失後，充電器要能自動恢復正常。

6.3 REVERSE POLARITY PROTECTION/防反接保護(Optional)

6.3.1. To use Fool-Proof type DC plug. 建議使用防呆式設計的DC連接頭

6.3.2. When Connect wrong polarity, the charger will be self-recovery when fault condition is removed. this function is optional, customer could choose it in according to real requirement.

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ELECTRICAL PERFORMANCE / 電器性能

當錯誤操作，反向連接時，充電器進入保護狀態，直到故障解除.此為選配功能，客戶可根據實際情況選擇。

6.4 OVER VOLTAGE PROTECTION: / 輸出过压保護:

The power supply shall protect itself from any over voltage condition. 电源在过压情况下可自动保护。

7.ENVIRONMENTAL CONDITIONS / 環境條件

7.1 OPERATING / 操作條件:

The power supply shall be capable of operating continuously in any mode without performance deterioration in the following environmental conditions.在下列環境條件下，充電器要能夠連續操作在各種模式，且不能造成性能的退化。

7.1.1 Operation Temperature: -20℃~40℃ 工作溫度: -20℃~40℃

7.1.2 Relative Humidity: 10%~90% 相對濕度: 10%~90%

7.1.3 Vibration: 1.0mm, 10—25Hz, 15 minutes per cycle for each axis (X, Y, Z)

7.1.4 Cooling: The power supply will operate with convection cooling. Blocking of vents must not cause damage to The power supply. 充電器將操作在對流冷卻的環境下，即使將通風口阻塞充電器也不允許有任何損傷發生。

7.2 NON—OPERATING / 非操作條件:

The power supply shall be capable of withstanding the following environmental conditions extended periods of time, without sustaining electrical or mechanical damage and subsequent operational deficiencies:
充電器要能夠長期的經受下列的環境條件，且不允許有電氣級機械方面的損傷和併發的操作的缺失

7.2.1 Storage Temperature: -30℃~70℃ 儲存溫度: -30℃~70℃

7.2.2 Relative Humidity: 10%~90%相對濕度: 10%~90%

7.2.3 Color of case and cable / 外殼及線材顏色: Black / 黑色

7.2.4 Vibration and Shock / 振動和衝擊

The power supply shall be designed to withstand normal transportation vibration per MIL—STD—810D,method 514 and procedures X, as it s mounted in the chassis assembly and packed for shipping.

充電器出貨的包裝設計，均要能承受正常運輸的振動，並符合MIL—STD—810D方法514 和程式X。

7.2.5 Dropping Testing / 跌落試驗:

X-Y-Z direction 100cm,one time with each direction

X-Y-Z三個方向高度1m每個方向各一次。

8.EMC STANDARDS / 電磁相容性標準

8.1 EMI STANDARDS / EMI 標準

The power supply met the radiated and conducted emission requirements for FCC CLASS B, EN55022 CLASS B.

本充電器符合輻射及傳導要求，滿足FCC CLASS B, EN55022 CLASS B.

8.2 EMS STANDARDS / EMS 標準

The power supply shall meet the following EMS standards:

本充電器滿足下列EMS標準

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ELECTRICAL PERFORMANCE / 電器性能

- 8.2.1 EN61000—4—2: 2009 / A1: 1998 Electrostatic Discharge(ESD)
- 8.2.2 EN61000—4—3: 2010 / A1: 1998 Radiated Electromagnetic Fields(RS)
- 8.2.3 EN61000—4—4: 2012 Electrical Fast Transient / Burst(EFT)
- 8.2.4 EN61000—4—5: 2014 Lighting Surge Attachment. Line to Neutral: 2KV

9.RELIABILITY AND QUALITY CONTROL / 可靠性及品質控制

- 9.1 **BURN—IN / 老化** The power supply shall undergo a minimum of 6 hours Burn—In test under full load at 40℃
~±5℃. 充電器應在40℃~±5℃和滿載條件下老化6小時。
- 9.2 **COMPONENT DERATING / 元件溫度要求** Semiconductor junction temperatures shall not exceed the manufacturer's maximum thermal rating.半導體結溫不允許超過其製造商要求的最大溫度值。
- IELECTRIC WITHSTANDING STRENGTH(HI-POT) / 絕緣介電強度（耐壓）**
- 9.3 **Primary to Secondary AC3000V, 10mA, 1 minute for type test, 3 second for production.**
一次側對二次側：AC3000V, 10mA標準測試1分鐘，量產測試3秒鐘。

10.WEIGHT / 重量 The weight of the power supply shall be about 700 g. 充電器的重量大約為 700 g

11.MECHANICAL REQUIREMENT / 結構參數

The power supply size: L176*W80*H47MM. 外殼尺寸: L176*W80*H47MM

12. INSULATION RESISTANCE / 絕緣阻抗 Input to output: 50M OHM(500VDC)輸入對輸出50兆歐姆(500VDC)

13.LEAKAGE CURRENT / 漏電流

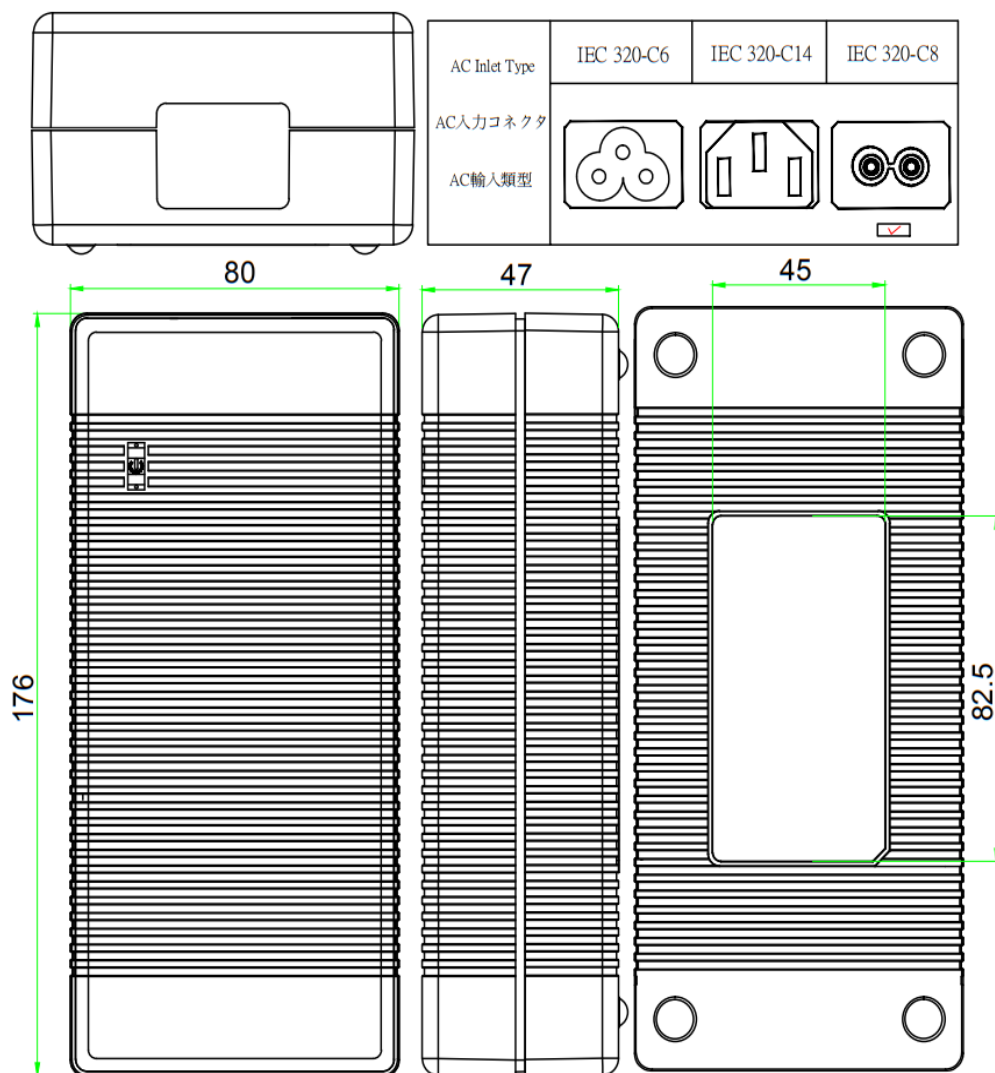
The leakage current shall be less than 0.25mA for class II when power supply is operated maximum input voltage and maximum load. 當充電器操作在最大輸入及最大負載情況下，其漏電流應小於0.25mA，滿足class II等級。

14.MAJOR MEASURE EQUIPMENT / 主要測量設備; VERIFIED BY THE THIRD LAB/外校

- | | |
|---|----------------------------|
| A AC SOURCE / AC变频电源: 固纬/GWINSTEK APS-7100E,校準頻次: 1次/年 | ☐ ✓ |
| B DIGITAL POWER METER / 数字功率计功率仪: 固纬/GWINSTEK GPM-8213,校準頻次: 1次/年 | ☐ ✓ |
| C ELECTRONIC LOAD / 开编程电子负载仪: 美尔诺/MAYNUO M9713,校準頻次: 1次/年 | ☐ ✓ |
| D OSCILLOSCOPE / 存儲示波器: 泰科/TEKTRONIX TBS1102B,校準頻次: 1次/年 | ☐ ✓ |
| E DIGITAL MULTIMETER / 數字式萬用表: 福禄克(FLUKE) F12E+校準頻次: 1次/年 | ☐ ✓ |
| F DC POWER / 直流电源: 麦创 (MATRIX) MPS-6030D校準頻次: 1次/年 | ☐ ✓ |
| G HIPOT AND INSULATION RESISTANCE TESTER / 耐压安规测试仪:
固纬/GWINSTEK GPT-9803 ,校準頻次: 1次/年 | ☐ ✓ |
| H INSULATION RASISTANCE TESTER / 絕緣電阻表: YD2681A,校準頻次: 1次/年 | ☐ ✓ |
| I MULTI CHANNEL TEMPERATURE SENSOR / 多路温度测试仪
艾维泰科/IVYTECH IV380-16校準頻次: 1次/年 | ☐ ✓ |

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PRODUCT OUTLINE DIMENSION / 產品外觀尺寸(mm)



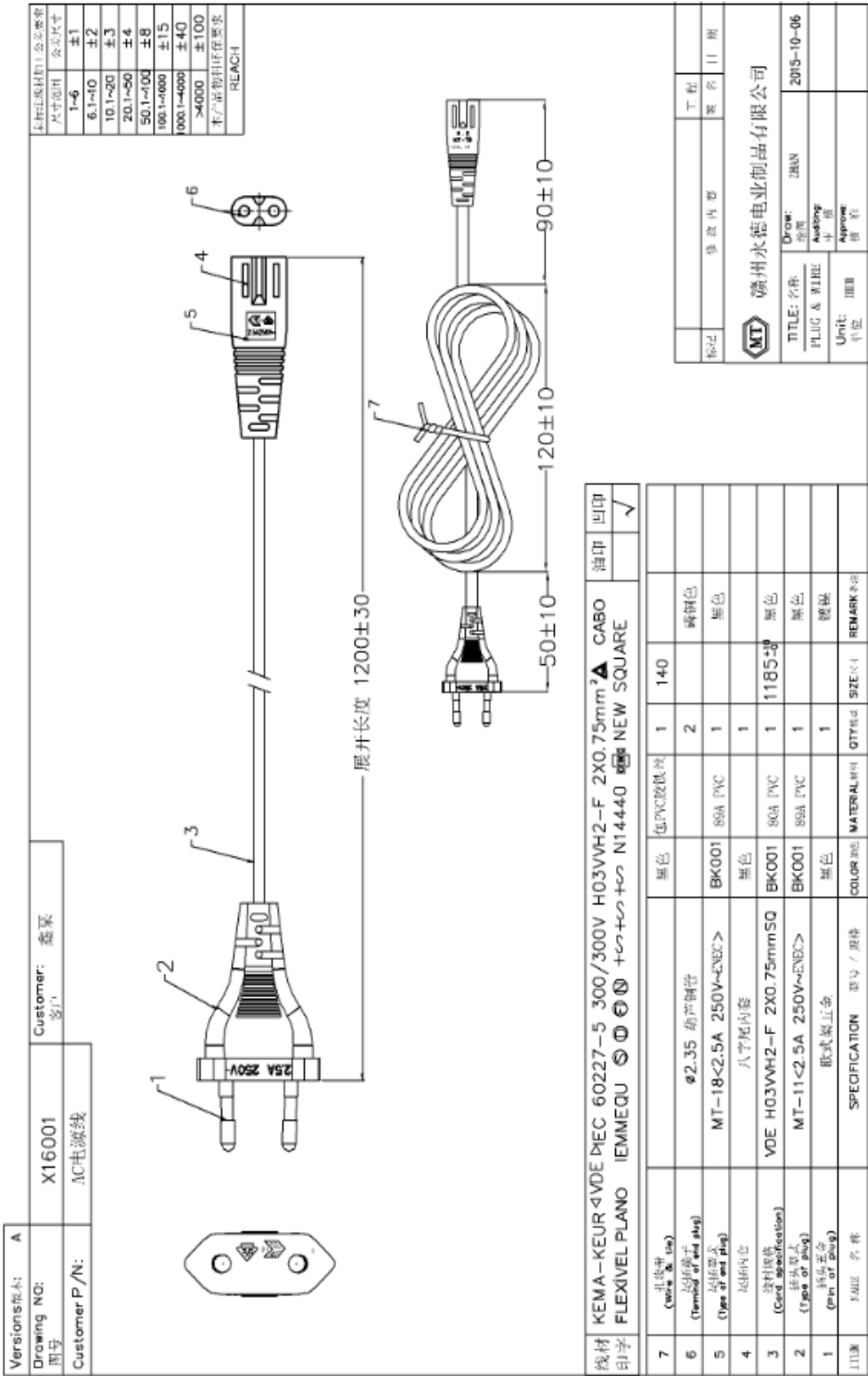
Material/材料: PC

Brand/品牌: GE

Fireproof Class/防火等級: UL94V-0

Color/顏色: Black/黑色

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线材

印字

KEMA-KEUR 4VDE DEC 60227-5 300/300V H03VVH2-F 2X0.75mm² CABO NEW SQUARE

FLEXIVEL PLANO IEMMEQU

7	孔位中 (core & she)	黑色	色PVC胶体线	1	140				油印	回印	√
6	起扭端子 (terminal of end plug)			2							
5	起扭端子 (type of end plug)	MT-18<2.5A 250V~ENEC>	85A PVC	1							
4	起扭内套	八字尾内套	黑色	1							
3	线材规格 (Cord specification)	VDE H03VVH2-F 2X0.75mmSQ	85A PVC	1	1185±3						
2	线材型号 (type of plug)	MT-11<2.5A 250V~ENEC>	85A PVC	1							
1	转扭正合 (pin of plug)	卧式转扭正合	黑色	1							
标题	名称	SPECIFICATION	型号 / 规格	COLOR 颜色	MATERIAL 材料	QTY 数量	SIZE 尺寸	REMARK 备注			

修改内容

日期

工号

赣州永德电业制品有限公司

Draw: 2015-10-06

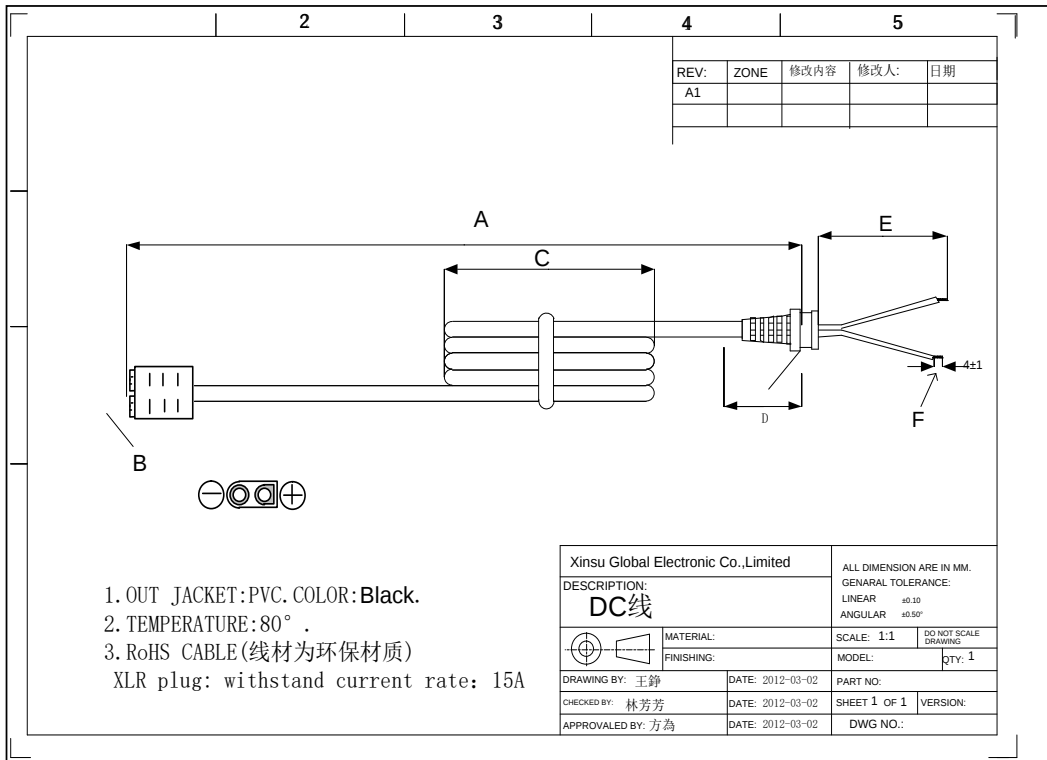
Auth: 2015-10-06

Unit: 单位

Remark: 备注

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DC CORD / 輸出 線材

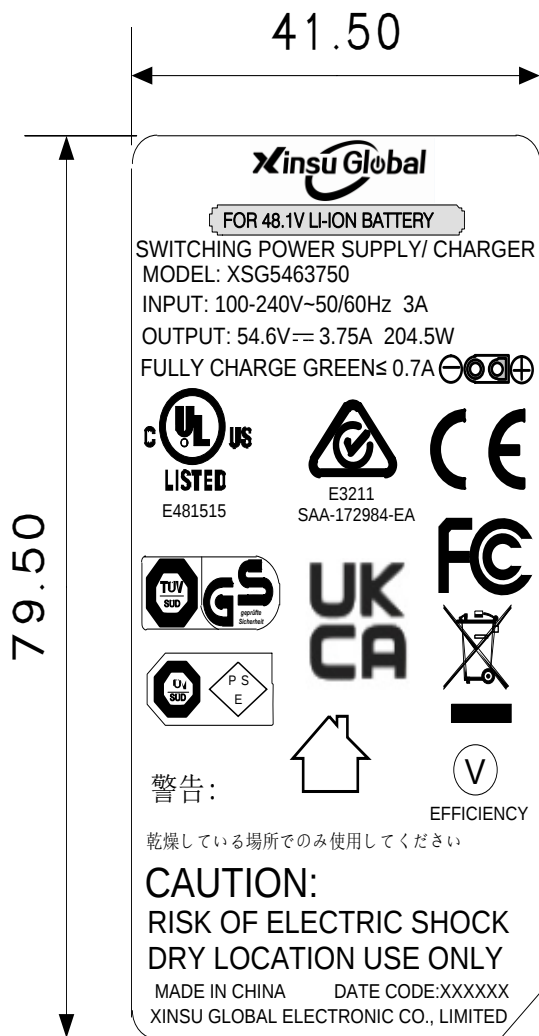


Cable Specification/線材規格

UL2464 Round Wire, 18AWG*2C L=1.2M Black

Item No	Part Name (部件名稱)	Description (描述)
A	Length of DC cord(DC線長度)	1.2M
B	Connection method	XT60HM, Square +, Round -
C	Length of coil (線包長度)	90MM±10
D	SR NO(線卡編號)	XYX-XL007
E	Stripped length(剥皮長度)	30MM±20
F	Tinned length (吃錫長度)	4MM±3

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Print/印刷 ☐ Laser Carving/鐫雕 ☒

- 1.Silver text on black background黑底銀字
- 2.Material: PET 底材為消銀龍.
- 3. Clear Printing, Wipe Resistance絲印清晰，耐擦拭.
- 4.Gum Permanent永久背膠.
- 5.Meet Requirements of Environmental Protection符合環保要求

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