

# SPECIFICATION FOR APPROVAL

## 產品確認書/製品仕様書

|                       |   |
|-----------------------|---|
| FILE SERIAL NO./文件序號: | XSG2010526050010-L01                        |
| CUSTOMER / 客 戶:       |   |
| ARTICLE / 品 名:        | SWITCHING POWER SUPPLY                      |
| MODEL NO. / 機種型號:     | XSEC0501000                                 |
| PARAMETER / 規 格:      | 5V 1A Level VI                              |
| CERTIFICATE/認證:       | CB,UL,cUL,FCC,PSE,CE,GS,RCM,C-TICK,SAA,ROHS |
| ISSUE DATE / 發行日期:    | 2020/10/5                                   |

**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<br>客戶確認 |            |             |
|-----------------------------|------------|-------------|
| Approved by                 | Checked by | Prepared by |
|                             |            |             |

| SUPPLIER AUTHORIZED<br>供方確認 |            |             |
|-----------------------------|------------|-------------|
| Approved by                 | Checked by | Prepared by |
| 李麗敏                         | 賀子豐        | 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<br>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。



## ELECTRICAL PERFORMANCE / 電器性能

### 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<br>證書 | Country<br>國家 | Standard/安規標準                           | Certificate<br>證書 | Country<br>國家           | Standard/安規標準                                    |
|-------------------|---------------|---|-------------------|-------------------------|--|
| ■ UL/CUL          | USA/CA<br>北美  | UL/CSA62368-1;<br>UL/CSA60950-1;        | ■ FCC             | USA                     | FCC Part 15 Sub-part B                           |
| ■ LVD/ GS         | Germany<br>德國 | EN60950; EN62368<br>EN 61558;EN60335    | ■ CE              | Europe<br>歐洲            | EN55032;EN55024;<br>EN55020;EN61000;<br>EN55014; |
| ■ CB              | Global<br>全球  | IEC62368;IEC60950;<br>IEC61558;IEC60335 | ■ UKCA            | United<br>Kingdom<br>英國 | BS EN 62368                                      |
| ■ PSE             | Japan<br>日本   | J60950-1; J61558                        | ■ 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: 0.6A max.&100-240Vac. 最大輸入電流0.6A(輸入條件100-240Vac)
- 2.5 INRUSH CURRENT: 35A max. at 100-240Vac input for a cold start at 25 °C.在准開機條件下，最大浪湧電流不超過35A (輸入條件100-240Vac).
- 2.6 EFFICIENCY: higher than 73.6% at 100-240Vac input and output full load. 效率高於73.6% (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 0.1W. 輸入115/230V交流，在空載時，輸入功耗小於0.1W.

### 3.OUTPUT/輸出特性

| RATED OUTPUT / 額定輸出         | SPEC. LIMIT / 規格限定 |            | REMARK / 備註                                    |
|-----------------------------|--------------------|------------|--|
|                             | Min. value         | Max. value |  |
| Output regulation / 輸出電壓規格  | 4.7VDC             | 5.3VDC     | 5V±6%  |
| Output load / 輸出負載規格        | 0.0A               | 1A         |  |
| Ripple and Noise / 輸出紋波及雜訊  | —                  | <150mVp-p  | 20MHz Bandwidth 10uF Ele. Cap.& 0.1uF Cer. Cap |
| Output Overshoot / 輸出過沖幅度   | —                  | 10%        |  |
| Line regulation / 電壓調整率     | —                  | ±1%        |  |
| Load regulation / 負載調整率     | —                  | ±5%        |  |
| Turn-on delay time / 開機延遲時間 | —                  | 3000mS     |  |
| Hold up time / 關機維持時間       | 10mS               | —          | Input voltage:115Vac                           |
|                             | 20mS               | —          | Input voltage:230Vac                           |

|                |          |             |            |
|----------------|----------|-------------|------------|
| <b>EDITION</b> | <b>D</b> | <b>PAGE</b> | <b>3/9</b> |
|----------------|----------|-------------|------------|

**4.1 IELECTRIC WITHSTANDING STRENGTH(HI-POT) / 絕緣介電強度 (耐壓)**

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分種，量產測試3秒鐘.

**5.PROTECTION FEATURE / 保護特性**

**5.1 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 120~180% ) 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電源的（120~180%）時，電源供應器將進入打嗝模式，當故障被移走後，電源要能自動恢復到正常。

**5.2 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，電源供應器將進入打嗝模式，當故障消失後，電源要能自動恢復正常。

**6.ENVIRONMENTAL CONDITIONS / 環境條件**

**6.1 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，電源供應器要能夠連續操作在各種模式，且不能造成性能的退化。

6.1.1 Operating Temperature: -25℃~40℃ 環境測度：-25℃~40℃

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

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

6.1.4 Cooling: The power supply will operate with convection cooling. Blocking of vents must not cause damage to the power supply..

電源供應器將操作在對流冷卻的環境下，即使將通風口阻塞電源也不允許有任何損傷發生。

**6.2 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.

電源供應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

6.2.1 Storage Temperature: -30℃~70℃ 環境溫度：-30℃~70℃

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

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

|                |          |             |            |
|----------------|----------|-------------|------------|
| <b>EDITION</b> | <b>D</b> | <b>PAGE</b> | <b>4/9</b> |
|----------------|----------|-------------|------------|

**6.2.4 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.

電源供應器出貨的包裝設計，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。

**6.2.5 Dropping Packed / 跌落試驗：**

X-Y-Z direction 90cm,one time with each direction

X-Y-Z三個方向高度0.9m每個方向各一次

**7.EMC STANDARDS / 電磁相容性標準**

**7.1 EMI STANDARDS / EMI 標準**

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

本電源供應器符合輻射及傳導要求，滿足FCC CLASS B, EN55022 CLASS B.

**7.2 EMS STANDARDS / EMS 標準**

The power supply shall meet the following EMS standards: 本電源供應器滿足下列EMS標準

7.2.1 EN61000–4–2: 1995 / A1: 1998 Electrostatic Discharge(ESD)

7.2.2 EN61000–4–3: 1996 / A1: 1998 Radiated Electromagnetic Fields(RS)

7.2.3 EN61000–4–4: 1995 Electrical Fast Transient / Burst(EFT)

7.2.4 EN61000–4–5: 1995 Lighting Surge Attachment. Line to Neutral: 2KV

**8 RELIABILITY AND QUALITY CONTROL / 可靠性及品質控制**

**8.1 BURN–IN / 老化**

The power supply shall undergo a minimum of 4 hours Burn –In test under full load at 40°C ~ ±5°C

電源應在40°C ~ ±5°C和滿載條件下老化4 小時。

**8.2 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。

**9.WEIGHT / 重量**

The weight of the power supply shall be about 100 g.. 電源的重量大約為 100g。

**10.MECHANICAL REQUIREMENT / 結構參數**

The power supply size: L63.8\*W40\*H38.5mm..外殼尺寸： L63.8\*W40\*H38.5mm

**11.INSULATION RESISTANCE / 絕緣阻抗**

Input to output: 50M OHM(500VDC)輸入對輸出50兆歐姆（500VDC）

|                |          |             |            |
|----------------|----------|-------------|------------|
| <b>EDITION</b> | <b>D</b> | <b>PAGE</b> | <b>5/9</b> |
|----------------|----------|-------------|------------|

## ELECTRICAL PERFORMANCE / 電器性能

### 12.LEAKAGE CURRENT / 漏電流

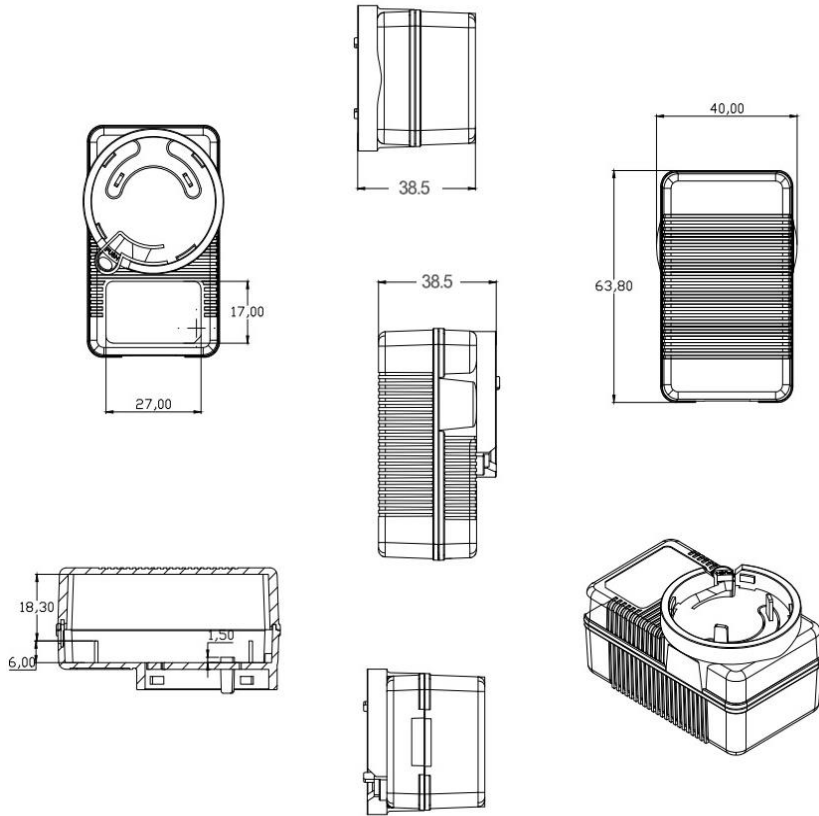
The leakage current shall be less than 0.25mA for class II when power supply is operated maximum input voltage and maximum load. 當電源供應器操作在最大輸入及最大負載情況下，其漏電流應小於0.25mA, 滿足class II等級。

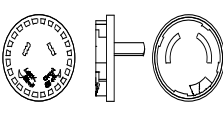
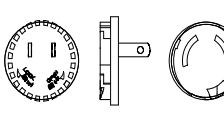
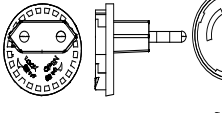
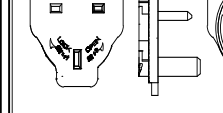
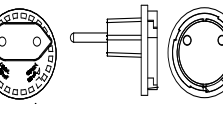
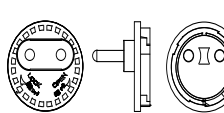
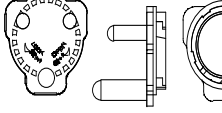
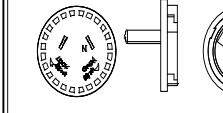
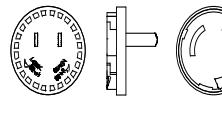
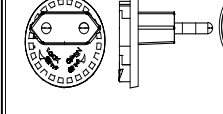
### 13.MAJOR MEASURE EQUIPMENT / 主要測量設備; VERIFIED BY THE THIRD LAB/外校

- |   |  |                          |   |
|---|--|--------------------------|---|
| A | AC SOURCE / 交流輸入充電器: AFC-500W,校準頻次: 1次/年                 | <input type="checkbox"/> | ✓ |
| B | POWER METER / 充電器功率計: CHROMA 2100,校準頻次: 1次/年             | <input type="checkbox"/> | ✓ |
| C | ELECTRONIC LOAD / 電子負載: PRODIGIT 3310C,校準頻次: 1次/年        | <input type="checkbox"/> | ✓ |
| D | OSCILLOSCOPE / 存儲示波器: TDS-2012B,校準頻次: 1次/年               | <input type="checkbox"/> | ✓ |
| E | DIGITAL MULTIMETER / 數字式萬用表: Fluke 4.5,校準頻次: 1次/年        | <input type="checkbox"/> | ✓ |
| F | DC POWER / 直流輸入充電器: WYK-6030,校準頻次: 1次/年                  | <input type="checkbox"/> | ✓ |
| G | HI-POT TESTER / 耐壓測試儀: LANKE 7112,校準頻次: 1次/年             | <input type="checkbox"/> | ✓ |
| H | INSULATION RESISTANCE TESTER / 絕緣電阻表: YD2681A,校準頻次: 1次/年 | <input type="checkbox"/> | ✓ |

|                |          |             |            |
|----------------|----------|-------------|------------|
| <b>EDITION</b> | <b>D</b> | <b>PAGE</b> | <b>6/9</b> |
|----------------|----------|-------------|------------|

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



|  |  |   |  |
|--|--|---|--|
| <br>澳規插腳<br>AU PLUG<br><input checked="" type="checkbox"/> (40*40*27) | <br>美規/日規插腳<br>US/JP PLUG<br><input checked="" type="checkbox"/> (40*40*27) | <br>歐規插腳<br>EU PLUG<br><input checked="" type="checkbox"/> (40*40*47) | <br>英規/新加坡規插腳<br>UK/SG PLUG<br><input checked="" type="checkbox"/> (49*46*32.5) |
| <br>巴西規插腳<br>BR PLUG<br><input type="checkbox"/> (40*40*47.5)         | <br>印度規插腳<br>IN PLUG<br><input type="checkbox"/> (40*40*30.5)               | <br>大南非插腳<br>ZA PLUG<br><input type="checkbox"/> (44*45.5*39)         | <br>阿根廷規插腳<br>AR PLUG<br><input type="checkbox"/> (40*40*26.7)                  |
| <br>中國插腳<br>CN PLUG<br><input type="checkbox"/> (40*40*27)           | <br>韓規插腳<br>KR PLUG<br><input type="checkbox"/> (40*40*47)                |   |  |

Material/材料: PC

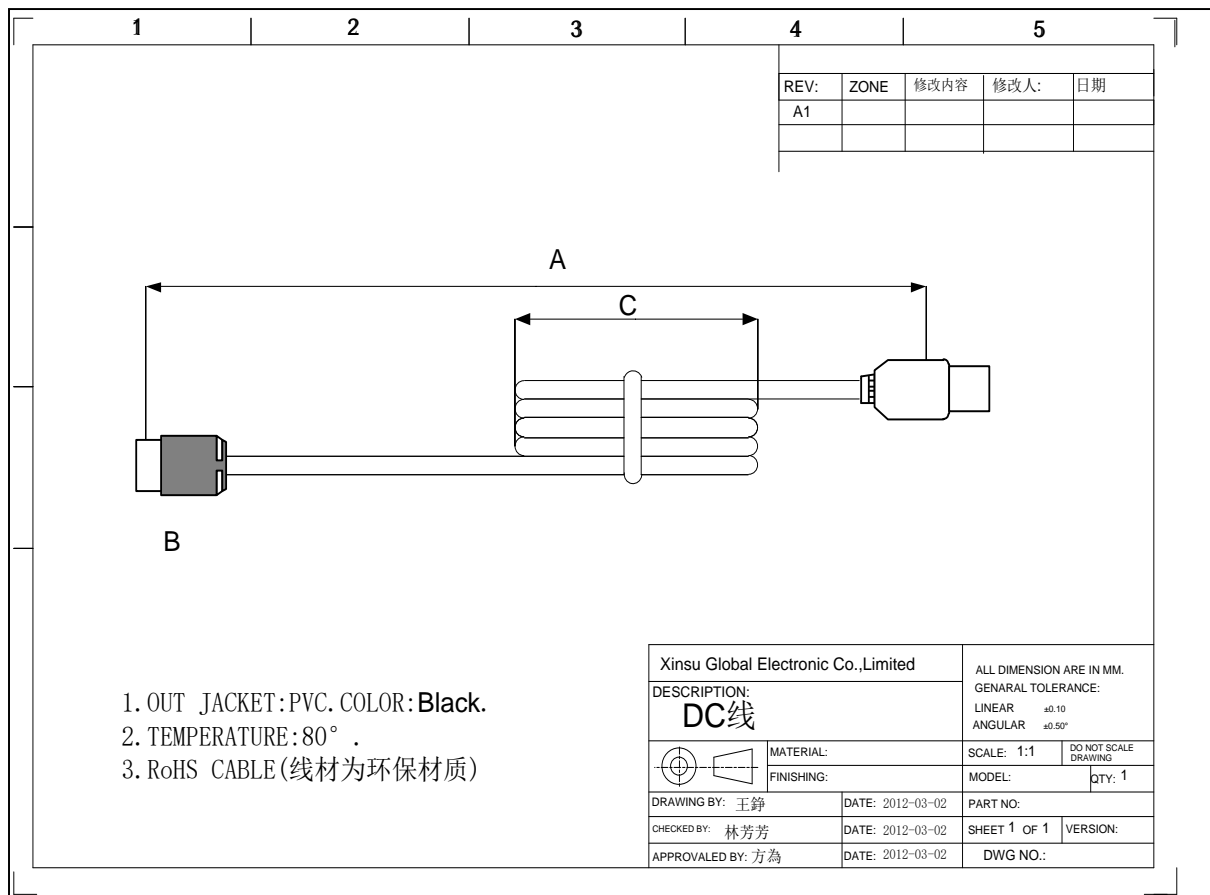
Brand/品牌: GE

Fireproof Class/防火等級: UL94V-0

Color/顏色: Black/黑色

|         |   |      |     |
|---------|---|------|-----|
| EDITION | D | PAGE | 7/9 |
|---------|---|------|-----|

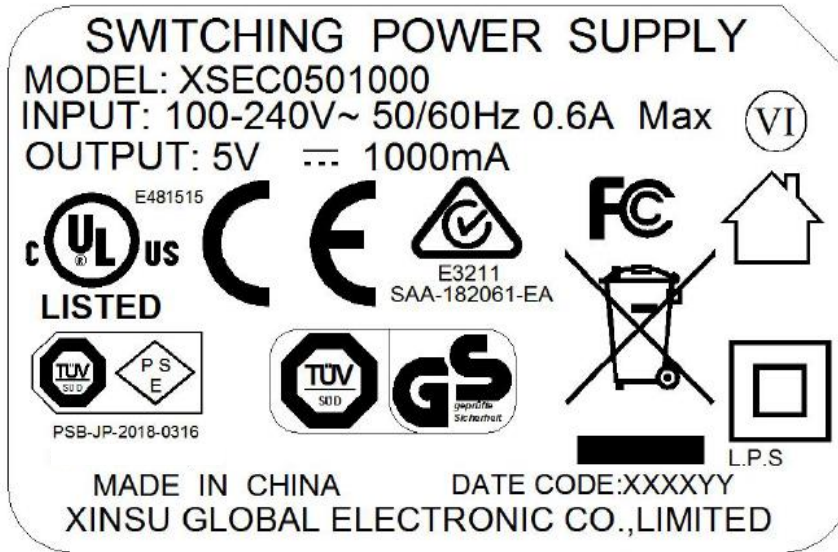
# DC CORD / 輸出線材



| Cable Specification/線材規格               |                              |                  |
|--|------------------------------|------------------|
| DC cable: 24AWG*2C USB to Type C, 1.2M |                              |                  |
| Item No                                | Part Name (部件名稱)             | Description (描述) |
| A                                      | Length of DC cord(DC線長度)     | 1.2M             |
| B                                      | Size of DC connector (DC頭尺寸) | Type C           |
| C                                      | Length of coil (線包長度)        | 70MM±10          |

|                |          |             |            |
|----------------|----------|-------------|------------|
| <b>EDITION</b> | <b>D</b> | <b>PAGE</b> | <b>8/9</b> |
|----------------|----------|-------------|------------|





Print/印刷

Laser Carving/鐳雕

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

|                |          |             |            |
|----------------|----------|-------------|------------|
| <b>EDITION</b> | <b>D</b> | <b>PAGE</b> | <b>9/9</b> |
|----------------|----------|-------------|------------|