

# SPECIFICATION FOR APPROVAL

## 產品確認書/製品仕様書

|                      |  |
|----------------------|--|
| FILE SERIAL NO./檔序號: | XSG20230720005-T01                               |
| CUSTOMER / 客 戶:      |  |
| ARTICLE / 品 名:       | SWITCHING POWER SUPPLY                           |
| MODEL NO. / 機種型號:    | XSG4203000                                       |
| PARAMETER / 規 格:     | 42.0V3.0A  |
| CERTIFICATE/認證:      | SAA,RCM,CE,CB,PSE,GS,UL,cUL,ETL,FCC,LVD,EMC,UKCA |
| ISSUE DATE / 發行日期:   | 2023/7/20  |

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)        |           | 2023/7/20          | 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 證書                                 | Country 國家       | Standard/安規標準   | Certificate 證書                              | Country 國家   | Standard/安規標準                                    |
|--|------------------|---|---|--------------|--|
| <input checked="" type="checkbox"/> UL/cUL     | USA/CA<br>北美     | UL62368-1;<br>ETL/UL 62368                            | <input checked="" type="checkbox"/> FCC     | USA          | FCC Part 15<br>Sub-part B                        |
| <input checked="" type="checkbox"/> LVD / UKCA | Eu / UK<br>欧盟 英国 | EN62368 BSEN 62368<br>EN 61558;EN60335                | <input checked="" type="checkbox"/> CE      | Europe<br>歐洲 | EN55032;EN55035;<br>EN55024;EN61000;<br>EN55022; |
| <input checked="" type="checkbox"/> CB         | Global<br>全球     | IEC62368;IEC61558;<br>IEC60335: IEC60601:<br>IEC60529 | <input type="checkbox"/> KC                 | Korea<br>韓國  | K60950-1   |
| <input checked="" type="checkbox"/> PSE        | Japan<br>日本      | J62368;J60335   | <input checked="" type="checkbox"/> SAA/RCM | AU 澳洲        | AS/NZS 62368.1:2018                              |
| <input checked="" type="checkbox"/> GS         | Germany<br>德国    | EN 62368-1;EN61558<br>EN 60335                        | <input type="checkbox"/> CCC                | CN<br>中國     | GB 17625.1-2012;GB<br>4943.1-2011                |

### 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: 3.0A max.&100-240Vac. 最大輸入電流3.0A (輸入條件100-240Vac)
- 2.5 INRUSH CURRENT: 45A 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45A (輸入條件100-240Vac).
- 2.6 EFFICIENCY: higher than 88% at 100-240Vac input and output full load. 效率高於88% (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 0.21W. 輸入115/230V交流，在空載時，輸入功耗

### 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  | 40VDC              | 44.1VDC    | 42V±5%   |
| Output load / 輸出負載規格        | 0.0A               | 3A         | Peak Current:3.6A                              |
| Ripple and Noise / 輸出紋波及雜訊  | —                  | <200mVp-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     | —                  | ±3%        |  |
| 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                           |

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## ELECTRICAL PERFORMANCE / 電器性能

### 4.4 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: -20°C~40°C 工作溫度：-20°C~40°C**

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°C~70°C 儲存溫度：-30°C~70°C**

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**

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## ELECTRICAL PERFORMANCE / 電器性能

### 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。

## 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, EN55032 CLASS B.

本電源供應器符合輻射及傳導要求，滿足FCC CLASS B, EN55032 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

7.2.1 EN61000-4-2: 2009 / A1: 1998 Electrostatic Discharge(ESD)

7.2.2 EN61000-4-3: 2010 / A1: 1998 Radiated Electromagnetic Fields(RS)

7.2.3 EN61000-4-4: 2012 Electrical Fast Transient / Burst(EFT)

7.2.4 EN61000-4-5: 2014 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 500g 電源的重量大約為500g。

## 10.MECHANICAL REQUIREMENT / 結構參數

The power supply size: L153\*W61\*L39mm.外殼尺寸: L153\*W61\*L39mm

## 11.INSULATION RESISTANCE / 絕緣阻抗

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

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## ELECTRICAL PERFORMANCE / 電器性能

### 12.LEAKAGE CURRENT / 漏電流

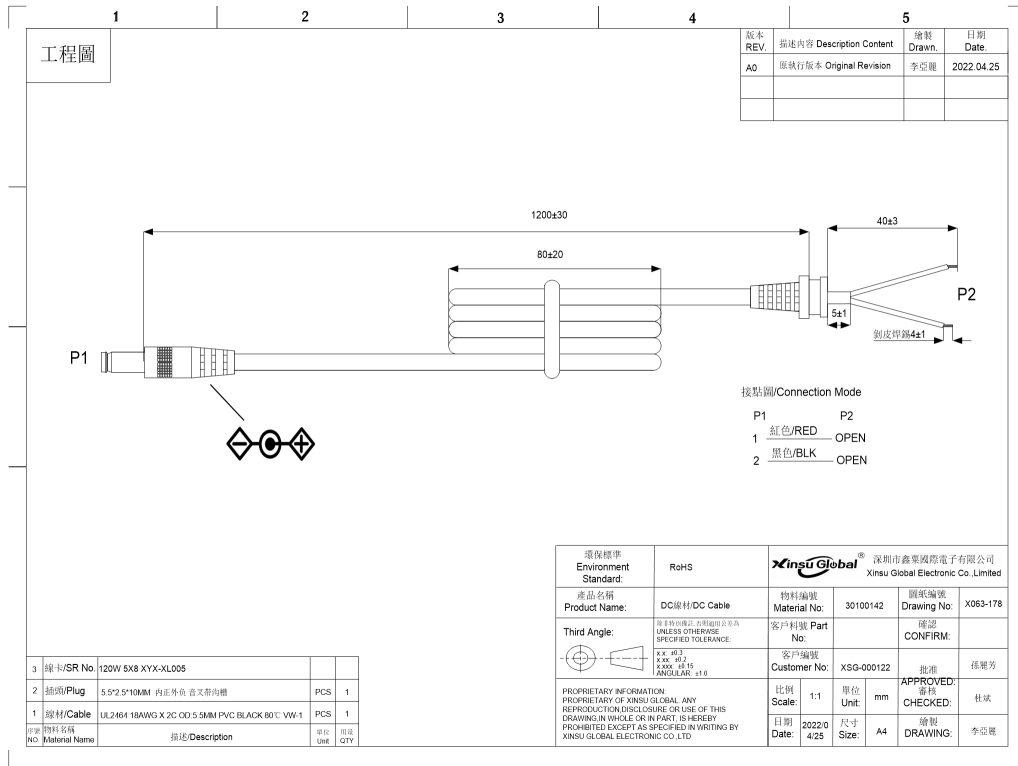
The leakage current shall be **less than 0.25mA for class II** when power supply is operated maximum input voltage and maximum load. 當電源供應器操作在最大輸入及最大負載情況下，其漏電流應**小於0.25mA, 滿足class II等級**。

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

- A AC SOURCE / AC變頻電源: 固緯/GWINSTEK APS-7100E,校準頻次: 1次/年  ✓
- B DIGITAL POWER METER / 數字功率計功率儀: 固緯/GWINSTEK GPM-8213,校準頻次: 1次/年  ✓
- C ELECTRONIC LOAD / 開編程電子負載儀: 美爾諾/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: 福祿克(FLUKE) F12E+校準頻次: 1次/年  ✓
- F DC POWER / 直流電源: 麥創 (MATRIX) MPS-6030D校準頻次: 1次/年  ✓
- G HIPOT AND INSULATION RESISTANCE TESTER / 耐壓安規測試儀:  ✓  
固緯/GWINSTEK GPT-9803 ,校準頻次: 1次/年
- H NSULATION RASISTANCE TESTER / 絕緣電阻表: YD2681A,校準頻次: 1次/年  ✓
- I MULTI CHANNEL TEMPERATURE SENSOR / 多路溫度測試儀  ✓  
艾維泰科/IVYTECH IV380-16校準頻次: 1次/年

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## DC CORD / 輸出線材

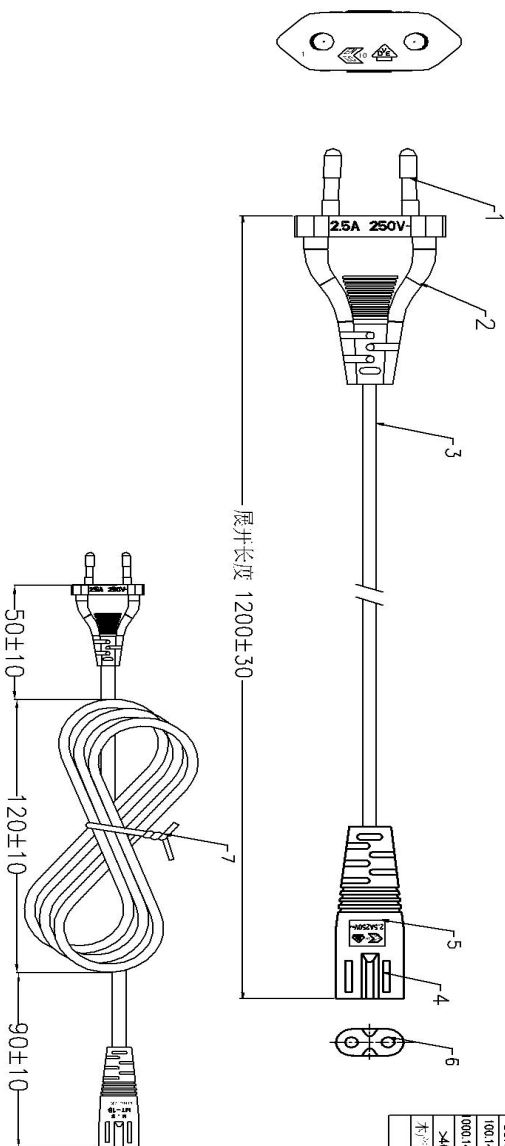


| Cable Specification/線材規格                           |                                |                            |
|--|--------------------------------|----------------------------|
| UL2464 Round Wire, 18AWG*2C L=1.2M Black 80°C,300V |                                |                            |
| 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 ) | 5.5*2.5*10mm直頭內正外負, 音叉帶溝槽。 |
| C  | Length of coil ( 線包長度 )        | 70MM±10                    |
| D  | SR NO(線卡編號)                    | XYX-XL005                  |
| E  | Length of inlet wire ( 出線長度 )  | 30MM±1                     |
| F  | Tinned length ( 吃錫長度 )         | 4MM±1                      |

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# AC CORD/输入线材

|                |              |                      |              |
|----------------|--------------|----------------------|--------------|
| Version: 版本: A | Customer: 鑫聚 | Customer P/N: X16001 | Customer: 鑫聚 |
| Drawing NO: 图号 | X16001       | Customer P/N: ACH电源线 | Customer: 鑫聚 |



|          |  |       |            |   |         |     |
|----------|--|-------|------------|---|---------|-----|
| 线材<br>印字 | KEMA-KEUR VDE REC 60227-5 300/300V H03VH2-F 2X0 75mm <sup>2</sup> CABB0<br>FLEXIVEL PLANO IEMMEQU  + + + + + N14440 NEW SQUARE | 油印    | 电印         | √ |         |     |
| 7        | 导线 (Wire & cable)  | 黑色    | 包PVC绝缘线    | 1 | 140     |     |
| 6        | 插座端子 (Terminal of end plug)  |       | φ2.35 葫芦铜管 | 2 |         | 磷铜色 |
| 5        | 插座脚套 (Type of end plug)  | BK001 | 89A PVC    | 1 |         | 黑色  |
| 4        | 尾帽衬套 (Zero specification)  | 黑色    | 八字尾帽套      | 1 |         |     |
| 3        | 导线绝缘 (Type of plug)  | BK001 | 80A PVC    | 1 | 1185-28 | 黑色  |
| 2        | 插头脚套 (Pin of plug)   | BK001 | 89A PVC    | 1 |         | 黑色  |
| 1        | 插头五金 (NAME 名称)   | 黑色    | 欧式架五金      | 1 |         | 镀锌  |

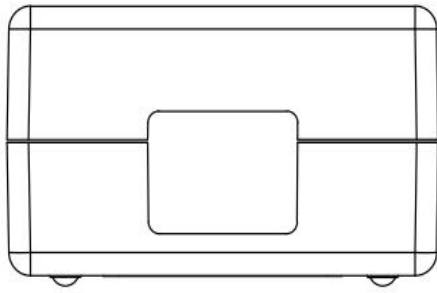
|    |      |    |
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| 规格 | 更改内容 | 工程 |
| 标注 |      | 签字 |
| 日期 |      | 日期 |


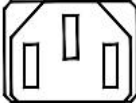


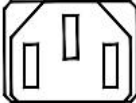

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| Draw: ZHAN | 2015-10-06 |
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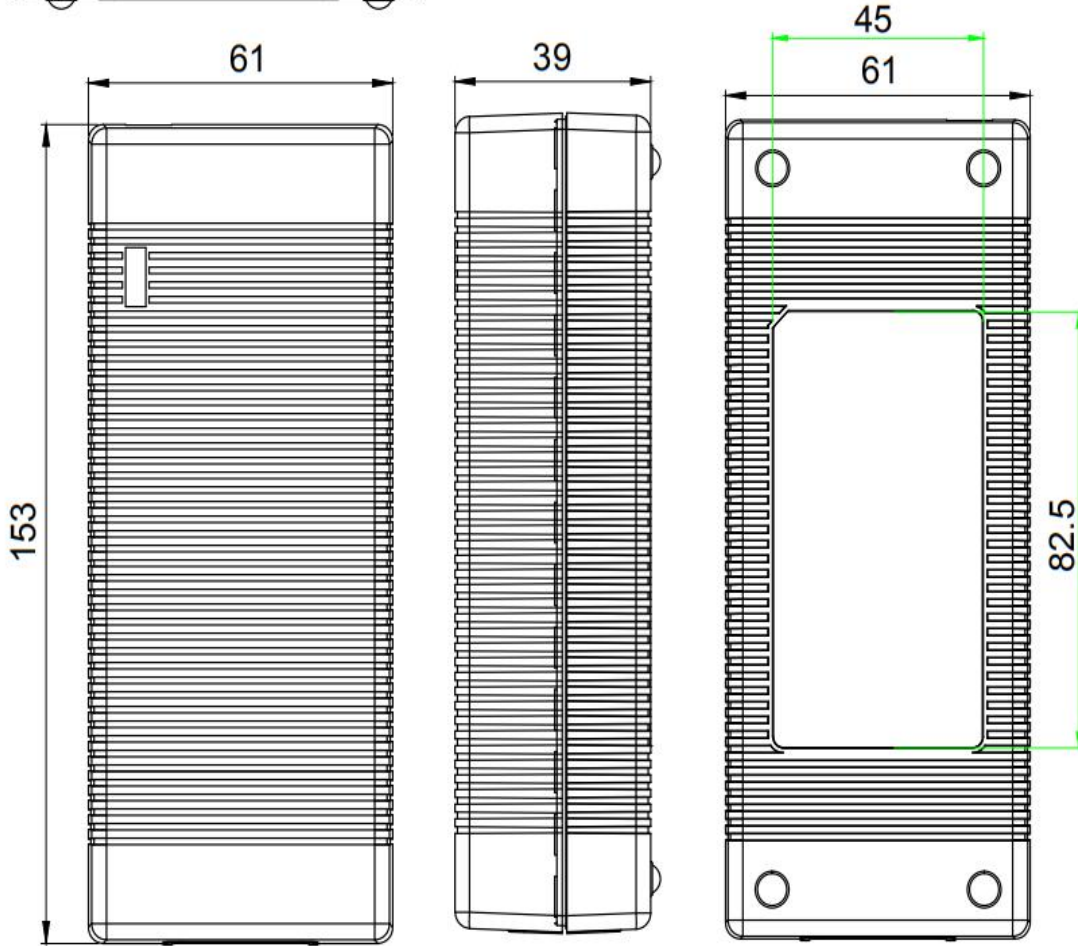
赣州永德电业制品有限公司



**PRODUCT OUTLINE DIMENSION / 產品外觀尺寸**



|               |  |   |   |
|---------------|--|---|---|
| AC Inlet Type | IEC 320-C6   | IEC 320-C14   | IEC 320-C8  |
| AC入力コネクタ      |  |  |  |
| AC輸入類型        |  |  |  |



**Material/材料:** PC

**Brand/品牌:** SABIC / 沙伯

**Fireproof Class/防火等級:** UL94V-0

**Color/顏色:** Black/黑色

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RATING LABEL / 銘牌



标贴仅供参考

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

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