

1. 適用範圍 / SCOPE

WM10 系列小型保險絲，適用於數字儀表。  
WM10 series Miniature-Fuse, used in Digital Measuring Instruments



2. 產品型號 / TYPE

例「example」：



- ① 系列號 / Series Number
- ② 額定電流 / Rated Current
- ③ 額定電壓 / Rated Voltage
- ④ 認證符號 / Approved Symbol

3. 額定電流和額定電壓 / RATED CURRENT AND RATED VOLTAGE

額定電流 / Rated Current: 200mA~12A

額定電壓 / Rated Voltage: 600V AC/ DC

4. 標示 / MARKING

保險絲上需有下列標示/The fuses shall have the following marking

製造工廠的標識+系列號/ Manufacture' s Logo+ Part Number:

額定電流+額定電壓/ Rated Current (A)+ Rated Voltage(V):

WM10  
\_\_A \_\_V AC  
\_\_V DC  
cULus

認證符號/ Approved Symbol

注意 / Note :

對標示的大小和位置沒有規定 / Size and position of the markings shall not be provided.

5. 外觀及形狀 / APPEARANCES AND CONFIGURATION

5-1 外觀：不應有破碎、明顯的污斑。

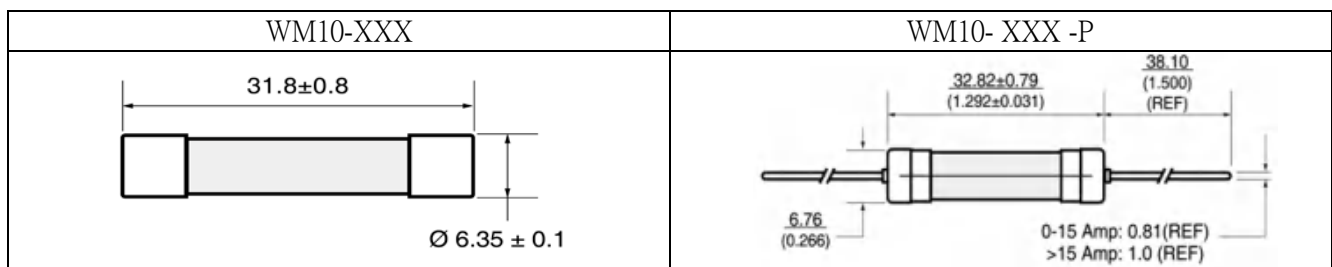
Appearances: There shall not be break up and any remarkable blotch.

5-2 形狀：小型保險絲。

Configuration: Miniature-Fuse.

6. 工程圖和結構 / OUTLINE DRAWING AND STRUCTURE

6-1 工程圖（單位：mm） / Outline Drawing and Dimensions (Unit: mm)




**7. 特性 / ELECTRICAL CHARACTERISTICS**

| Electrical Characteristics |             |              |
|----------------------------|-------------|--------------|
| Rated Current              | 1.0In       | 2.5In        |
| 200mA-12A                  | 4 hour min. | 120 sec max. |

**Specification**

| Part No.  |             | Rated Voltage |      | Rated Current | Breaking Capacity (A) |      | Typical Cold Resistance (mΩ) | Typical Voltage Drop (mV) | Typical Pre-Arcing I <sup>2</sup> t (A <sup>2</sup> Sec) |
|-----------|-------------|---------------|------|---------------|-----------------------|------|------------------------------|---------------------------|--|
|           |             | DC            | AC   |               | DC                    | AC   |                              |                           |  |
| WM10-0.2  | WM10-0.2-P  | 600V          | 600V | 200mA         | 10kA                  | 10kA | 1830                         | 780                       | 0.0031   |
| WM10-0.25 | WM10-0.25-P |               |      | 250mA         |                       |      | 1760                         | 760                       | 0.009  |
| WM10-0.4  | WM10-0.4-P  |               |      | 400mA         |                       |      | 1650                         | 700                       | 0.059  |
| WM10-0.5  | WM10-0.5-P  |               |      | 500mA         |                       |      | 1290                         | 650                       | 0.081  |
| WM10-0.6  | WM10-0.6-P  |               |      | 600mA         |                       |      | 1020                         | 600                       | 0.178  |
| WM10-1    | WM10-1-P    |               |      | 1A            |                       |      | 390                          | 560                       | 0.21   |
| WM10-1.25 | WM10-1.25-P |               |      | 1.25A         |                       |      | 300                          | 550                       | 3  |
| WM10-1.6  | WM10-1.6-P  |               |      | 1.6A          |                       |      | 180                          | 350                       | 3.72   |
| WM10-2    | WM10-2-P    |               |      | 2A            |                       |      | 110                          | 360                       | 1.5  |
| WM10-2.5  | WM10-2.5-P  |               |      | 2.5A          |                       |      | 80                           | 300                       | 4.5  |
| WM10-3    | WM10-3-P    |               |      | 3A            |                       |      | 60                           | 270                       | 7.54   |
| WM10-3.15 | WM10-3.15-P |               |      | 3.15A         |                       |      | 50                           | 250                       | 12.66  |
| WM10-4    | WM10-4-P    |               |      | 4A            |                       |      | 40                           | 230                       | 15.8   |
| WM10-5    | WM10-5-P    |               |      | 5A            |                       |      | 30                           | 200                       | 30   |
| WM10-6    | WM10-6-P    |               |      | 6A            |                       |      | 20                           | 186                       | 84.5   |
| WM10-8    | WM10-8-P    |               |      | 8A            |                       |      | 17                           | 175                       | 75   |
| WM10-10   | WM10-10-P   | 10A           | 16   | 170           | 97.7                  |      |                              |                           |  |
| WM10-12   | WM10-12-P   | 12A           | 9    | 160           | 149                   |      |                              |                           |  |

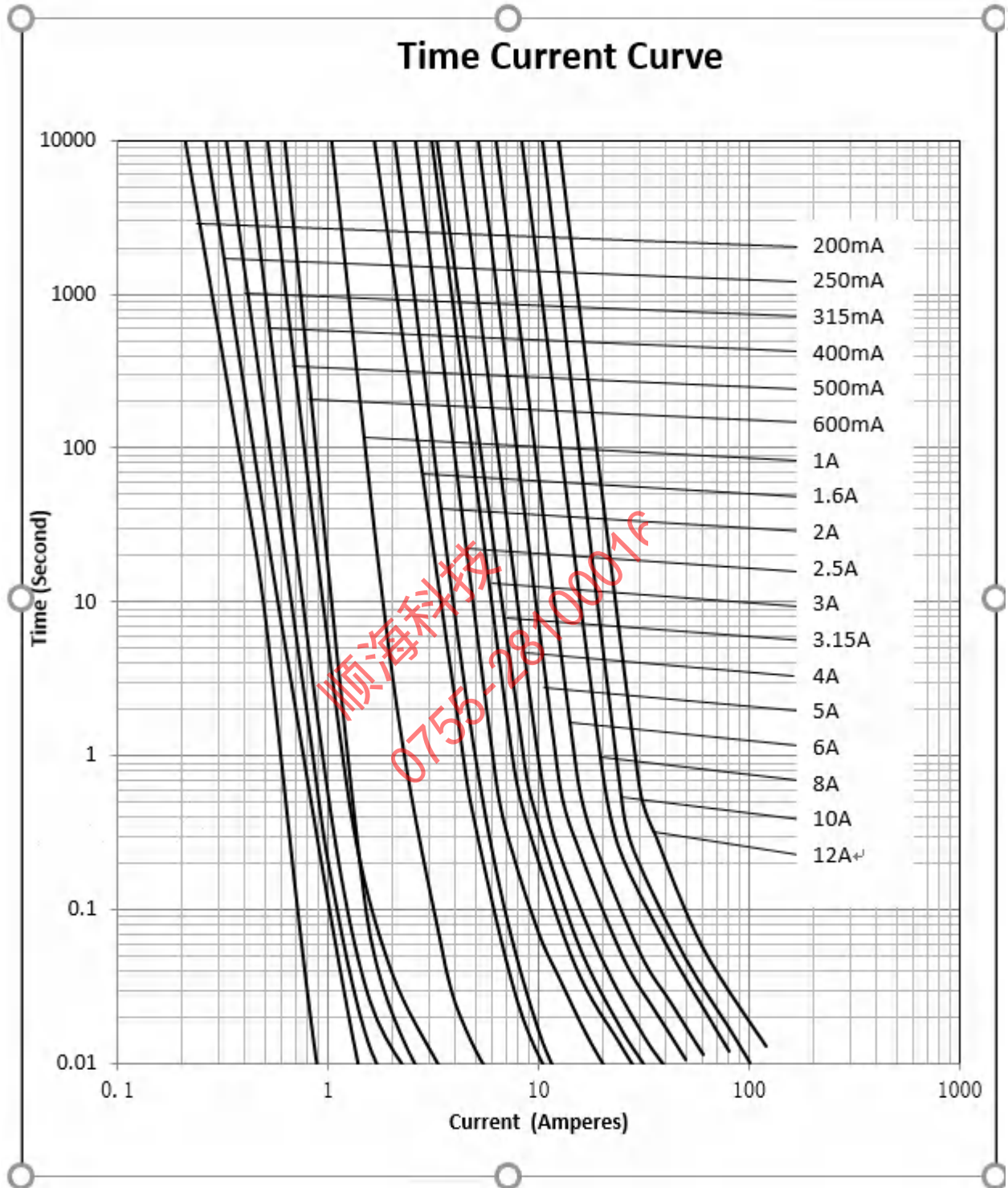
\*冷電阻在直流<10%額定電流條件下 25℃環境溫度中測量

DC Cold Resistance are measured at <10% of rated current in ambient temperature of 25℃

\* I<sup>2</sup>t 值是以 10In 電流測量

Typical Pre-arching I<sup>2</sup>t are measured at 10In Current

8. 時間電流曲線 Time-Current Curve



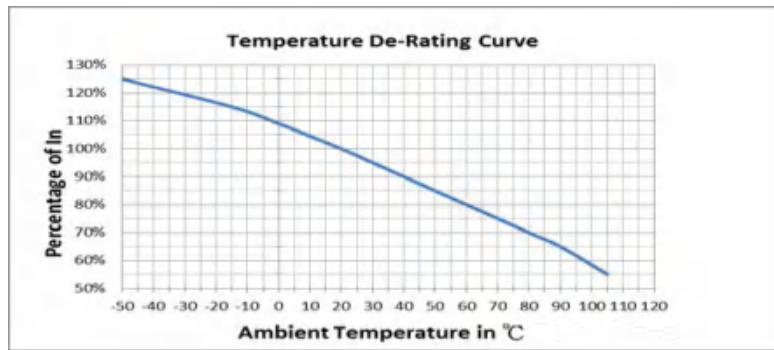
9. 環境特性 / ENVIRONMENTAL CHARACTERISTIC

9-1 操作溫度範圍: -55°C ~ 125°C / Operating Temperature: -55°C ~ 125°C

若貴司操作環境溫度超出25±5°C範圍，在選用保險絲規格時，需考慮操作環境溫度對保險絲的影響。  
請參照：溫度-電流曲線圖。

When choosing the fuse's specification, if the operating environmental temperature beyond the scope from 20~30°C, you should consider the environmental temperature's affection to fuses.

Please refer : Temperature-Current curve:



9-2 存儲條件 / Storage Conditions

在溫度+10°C ~ 60°C、相對濕度≤75%的密閉條件下可存放3年。  
Under airtight in temperature+10°C ~ 60°C、relative humidity ≤ 75% can store 3 years.

在溫度+10°C ~ 60°C、相對濕度為95%的非露天下最多可存放30天。  
Without dew in temperature+10°C ~ 60°C、relative humidity be 95% maximum value for 30days.

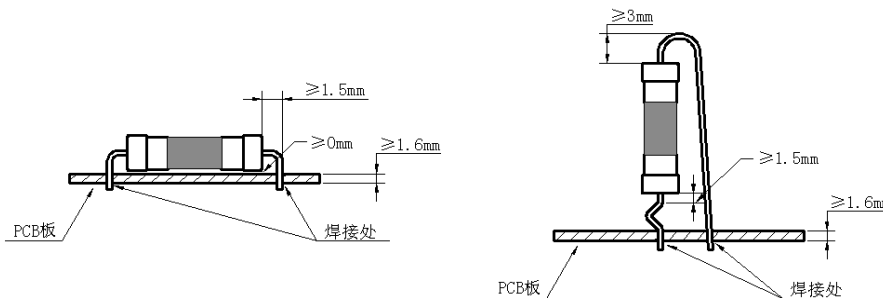
10. 安全認證及編號 / STANDARDS AND APPROVALS

|     |                        |
|-----|------------------------|
| UR  | E56092 (1A~12A JDYX2 ) |
| CUR | E56092 (1A~12A JDYX8 ) |

11. 安裝方式及條件 / INSTALLATION WAY AND PARAMETERS

11-1 建議如下圖安裝方式安裝，並滿足所要求的尺寸。

Propose that the following picture installation way is installed, and satisfied the required size.



## 11-2 建議客戶焊接參數 / Recommended Customer Soldering Parameters

波峰焊參數 / Wave Parameters:

 錫爐溫度 / Solder Pot Temperature:  $260\pm 3^{\circ}\text{C}$ 

焊接時間 / Solder Dwell Time: 10s Max

手工焊參數 / Hand-Solder Parameters:

 烙鐵溫度 / Solder Iron Temperature:  $350\pm 5^{\circ}\text{C}$ 

焊接時間 / Heating Time: 5 s Max



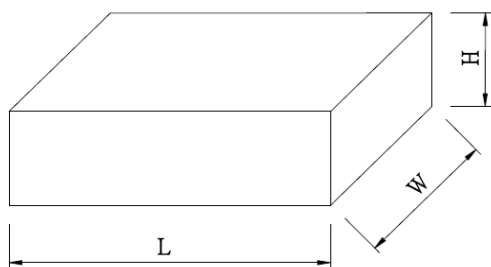
## 12. 包裝 / PACKING

## 12-1 數量/Quantity

| 規格<br>Specs                                | 袋<br>Inner polybag | 小盒<br>Inner small box . | 大盒<br>Inner big box | 外箱<br>outer carton |
|--|--------------------|-------------------------|---------------------|--------------------|
| WM10-XXX (rated current <2A)               | /                  | 20PCS                   | 240PCS              | 4320 PCS           |
| WM10-XXX (rated current $\geq 2\text{A}$ ) | 250PCS             | /                       | 250PCS              | 5000 PCS           |
| WM10-XXX-P                                 | /                  | /                       | 75PCS               | 2250 PCS           |

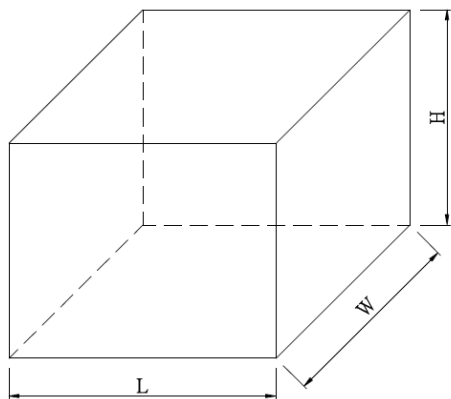
## 12-2 內盒(大) / Inner big box

單位/Unit : mm



| 规格/ Specs                                  | L           | W           | H          |
|--|-------------|-------------|------------|
| WM10-XXX (rated current <2A)               | 140 $\pm$ 3 | 105 $\pm$ 3 | 45 $\pm$ 3 |
| WM10-XXX (rated current $\geq 2\text{A}$ ) | 185 $\pm$ 3 | 75 $\pm$ 3  | 65 $\pm$ 3 |
| WM10-XXX-P                                 | 115 $\pm$ 3 | 110 $\pm$ 3 | 45 $\pm$ 3 |

12-3 外箱 / Outer carton



單位/Unit : mm

| 规格 /Specs                    | L      | W     | H     |
|------------------------------|--------|-------|-------|
| WM10-XXX (rated current <2A) | 380 ±5 | 245±5 | 200±5 |
| WM10-XXX (rated current ≥2A) | 400±5  | 380±5 | 140±5 |
| WM10-XXX-P                   | 400±5  | 380±5 | 140±5 |

13. 其他 / OTHERS

13-1 如果在使用中有超出本規格書的要求，必須經由雙方協商確認。

In the event that an impropriety is found beyond this specification, it shall be fixed by mutual agreement between the parties.

13-2 如果本規格書有不適當的情況，必須通過雙方協商並由本公司修改。

In the event that an impropriety is found in this specification, WALTER ELECTRONIC CO., LTD. shall amend it by mutual agreement between the parties.



| 版次  | 製作  | 確認  | 審核     |
|-----|-----|-----|--------|
| 第四版 | 侯愛珍 | 吳讓彬 | Andrew |





# UL iQ for Fuses



## Fuses

E56092

### Guide Information

## SUZHOU WALTER ELECTRONIC CO LTD

NO.99 Xinli Road, Fenhu Technic Development Zone, Wujiang Jiangsu 215211 CN

### WM10 followed by 0.1 to 50, followed by P

Supplemental fuses: pigtail leads, filled-tube

| <u>Size</u><br>mm(in)     | <u>Amps</u><br>(A) | <u>Volts</u><br>(V) | <u>Interrupting</u><br><u>Rating (A)</u> |
|---------------------------|--------------------|---------------------|--|
| 6.3 x 31.75 (0.25 x 1.25) | 0.1 - 50           | 250Vac              | 1000                                     |
|                           | 0.1 - 30           | 660Vac              | 1000                                     |
|                           | 0.1 - 30           | 660Vdc              | 1000                                     |
|                           | 0.1 - 12           | 600Vdc              | 10000                                    |
|                           | 0.1 - 12           | 1000Vdc             | 10000                                    |
|                           | 0.1 - 50           | 150Vdc              | 1000                                     |
|                           | 0.1 - 12           | 600Vac              | 10000                                    |
|                           | 0.1 - 12           | 1000Vac             | 10000                                    |
|                           | 0.1 - 30           | 400Vac              | 1000                                     |
|                           | 0.1 - 30           | 400Vdc              | 1000                                     |
|                           | 0.1 - 12           | 300Vac              | 10000                                    |
|                           | 0.1 - 12           | 300Vdc              | 10000                                    |

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