

■ 客戶/ Customer :

深圳市順海科技有限公司

■ 日期/ Date :

2023.5.22

■ 產品型號/ Type Number :

MTT 20A250V

■ 產品描述/ Type Description :
Ceramic Tube Fuses

Size : 6.9x32.75 mm , Time-Lag Type

With   Approved

■ 特殊需求/ Customer Request :

色環+引腳成型
(MTT-T20A0V2T06089BHG)

客戶確認
Customer Confirmation

客戶/ Part No:

客戶簽章/ Signature

蘇州工廠 / Suzhou Factory

蘇州華德電子有限公司/Suzhou Walter Electronic Co., Ltd
江蘇省蘇州市吳江區汾湖高新技術產業開發區新黎路99號
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台北營運所 / Taipei Office

10449 台北市中山區民權西路48號9樓
9F., No.48, Minquan W. Rd., Zhongshan Dist.,
Taipei 10449, Taiwan
Tel: 886-2-25637770
Fax: 886-2-25637701



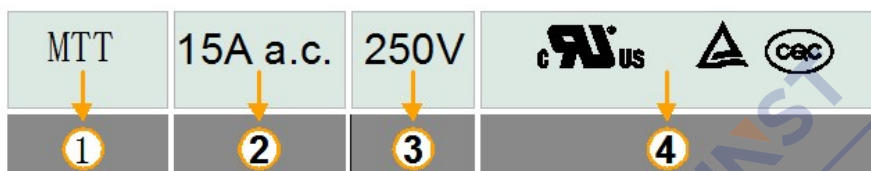
1. 適用範圍 / SCOPE

MTT 系列保險絲，適用於一般電子電氣設備。

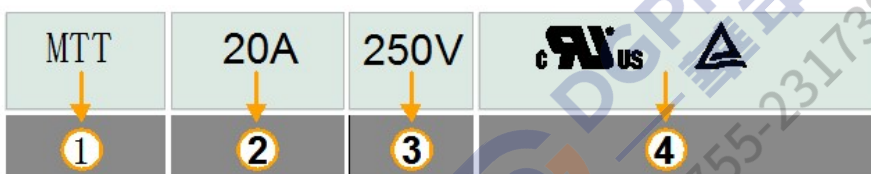
MTT series Fuse, In regard to electrical and electronic equipment in general.

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



- 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:

15A、20A、25A、30A

額定電壓 / Rated Voltage:

250V AC

4. 標示 / MARKING

保險絲兩端銅帽上需有下列標示 / The fuses cap shall have the following marking:

① 規 格：額定電流+額定電壓

Specification : Rated Current + Rated Voltage

15A、20A、25A、30A： ___ A 250V

② 商 標：製造工廠的商標+系列號+認證符號

Trade mark : The Manufacture's Logo + Part Number + Approved Symbol.

20A、25A、30A：  MTT  

15A：  MTT   

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、明顯的汗斑。

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

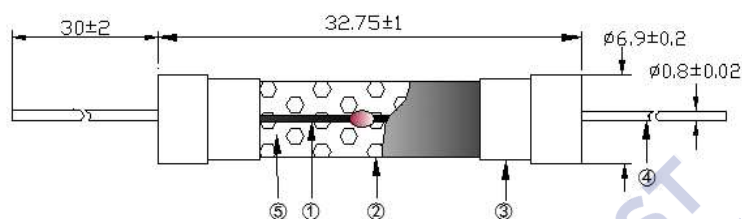
5-2 形狀：帶腳的小型保險絲。

Configuration: Axial Leded Miniature-Fuse.

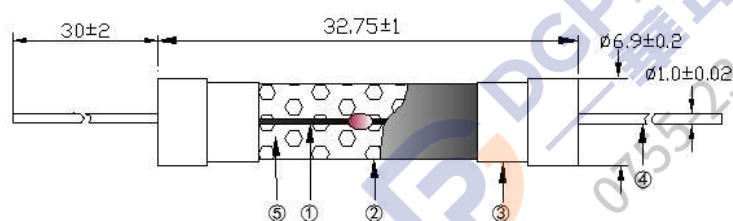
6.工程圖和結構 / OUTLINE DRAWING AND STRUCTURE

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

15A:



20A~30A:



6-2 結構 / Structure

| 編號 No. | 元件 Component | 材質 Material | 數量 Quantity |
|-----------|-----------------|----------------------------------|----------------|
| ① | 熔絲 Wire | 合金線點錫球 Alloy wire solder ball | 1 |
| ② | 本體 Body | 陶瓷管 Ceramic Tube | 1 |
| ③ | 銅帽 Cap | 黃銅鍍鎳 Brass with nickel plated | 2 |
| ④ | 引線 Lead | 鍍錫銅線 Tinned Copper wire | 2 |
| ⑤ | 填充物 Filler | 石英砂 Quartz sand | |

備注: 25A/30A 採用含鉛量 85%以上的高溫錫絲焊接 (RoHS 豁免)。

Remarks: 25A/30A Welding with high-temperature tin wire containing 85% or more lead (RoHS exemption).

7. 產品特性 / PRODUCT CHARACTERISTICS

7-1 拉力測試 / Tensile test

軸向拉力 10 牛頓, 持續 10 ± 1 秒 / Pulling the cap of the fuse with 10N at axial direction keep 10 ± 1 sec.

7-2 推力測試 / Thrust test

軸向推力 2 牛頓, 持續 10 ± 1 秒 / Thrust two cap's bottom of the fuse with 2N at axial direction keep 10 ± 1 sec.

7-3 可焊性 / Solderability

波峰焊/Wave : 260°C · ≤ 3s

烙鐵焊/Soldering Iron: 350 ± 10°C · ≤ 3s

7-4 耐焊接熱 / Soldering Heat Resistance

波峰焊/Wave : 260°C · 10s

烙鐵焊/Soldering Iron: 350°C · 5s.

8. 電氣特性 / ELECTRICAL CHARACTERISTICS

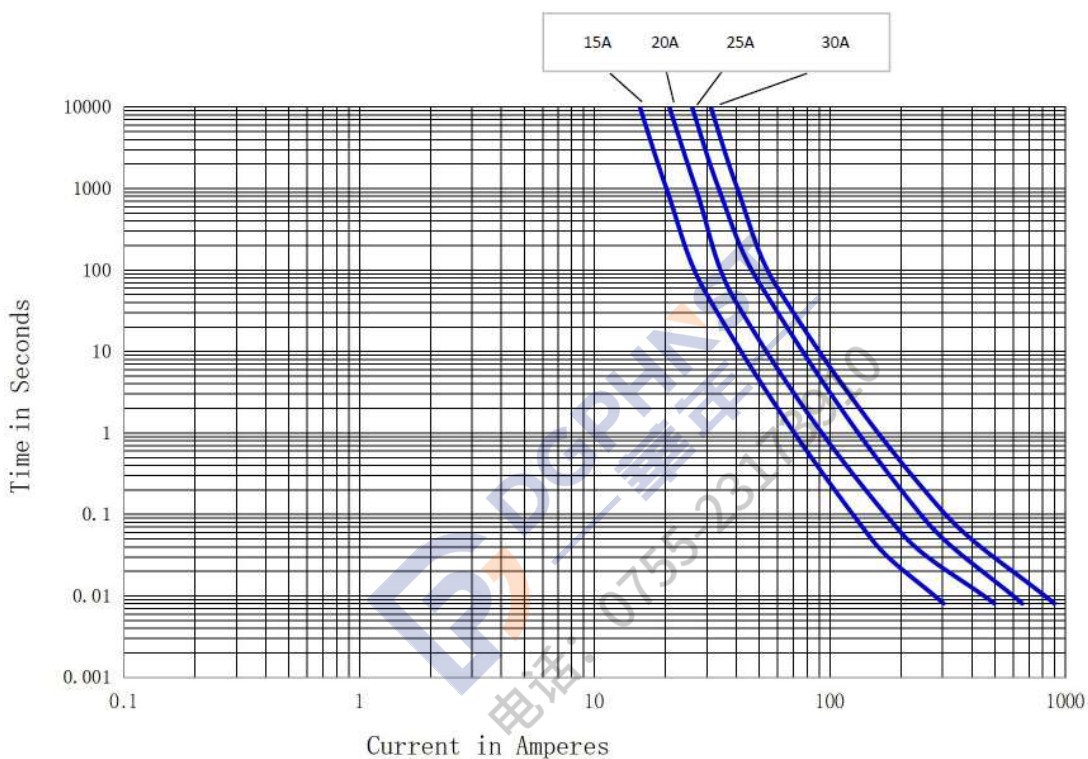
8-1 熔斷/電流特性 : Pre-Arcing Time / Current Characteristic

| RATED CURRENT | 1.35 IN | 2 IN | 10 IN |
|-----------------|---------|-------|-------|
| 15A、20A、25A、30A | Max. | Max. | Max. |
| | 1 Hour | 120 s | 150ms |

8-2 產品規格/Specification

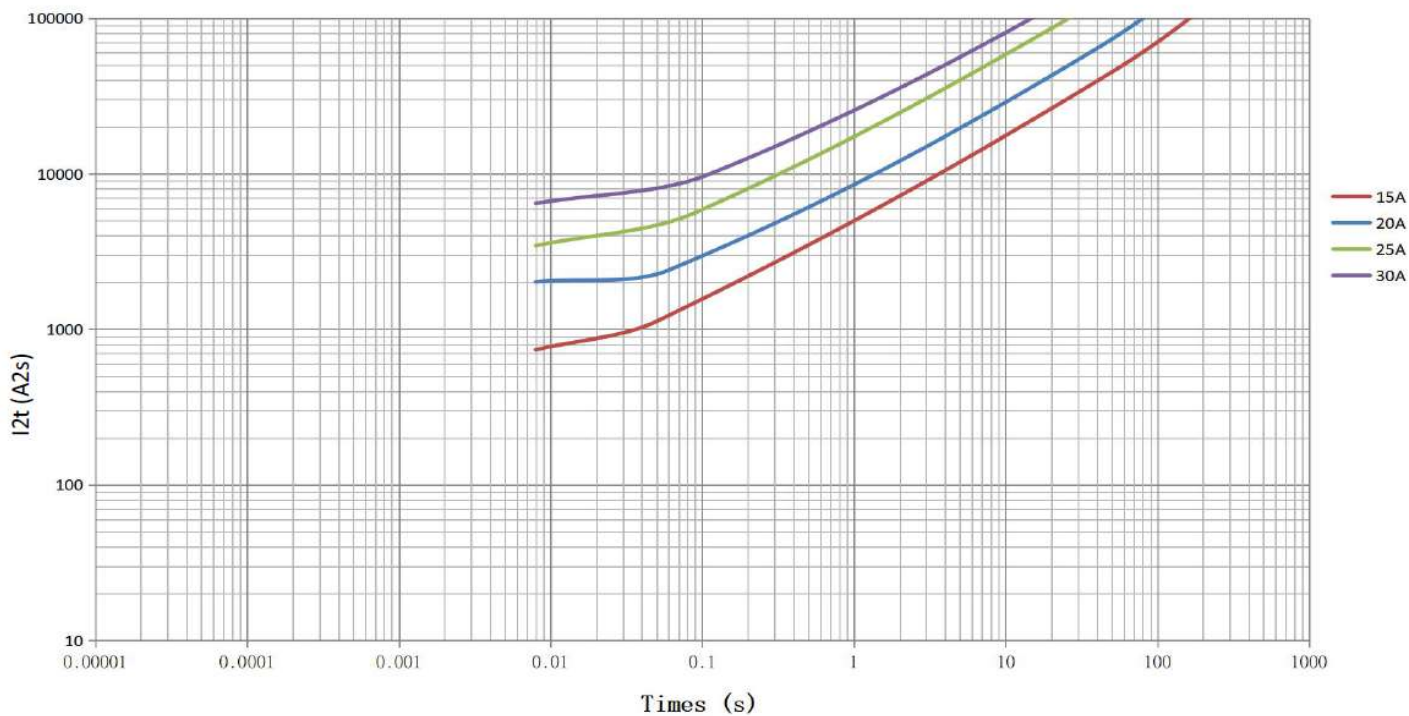
| 額定電流 Rated Current | 冷電阻 Cold resistance | 最大電壓降 Max Voltage Drop (mV) | 最大功耗 Max Power Dissipation (mW) | I ² T 值 I ² T Value (A ² Sec@8ms) |
|-----------------------|------------------------|----------------------------------|--------------------------------------|---|
| 15A | 4.72mΩ | 180 | 4000 | 740 |
| 20A | 3.90mΩ | 180 | 4000 | 2020 |
| 25A | 3.00mΩ | 180 | 4000 | 3450 |
| 30A | 2.30mΩ | 180 | 4000 | 6450 |

8-3 時間電流曲線/Time-Current Curve



8-4 I²t-T 曲线图/I²t-T Curve

I²t vs. t Curves (MTT series)



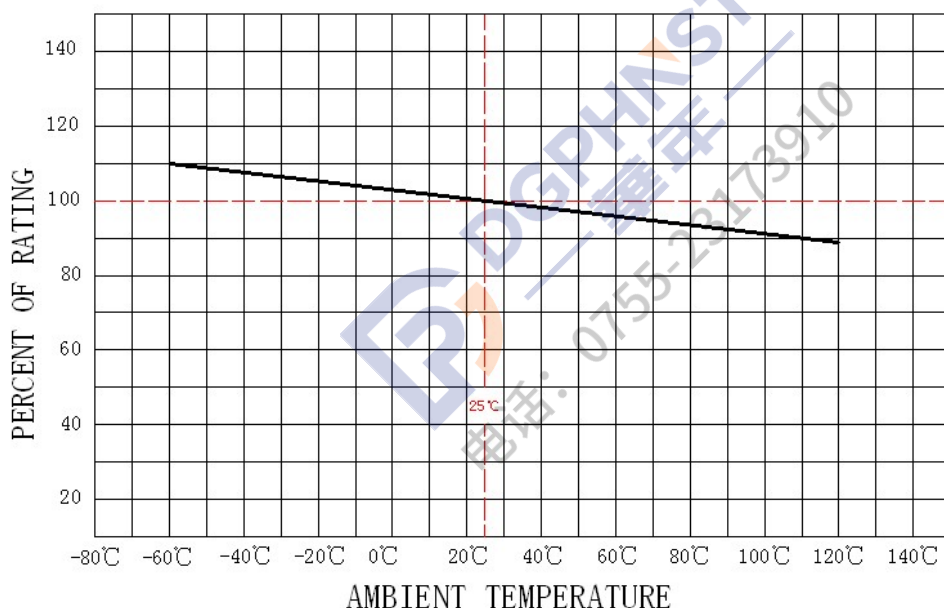
9.環境特性 / ENVIRONMENTAL CHARACTERISTIC

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 $25 \pm 5^\circ\text{C}$ 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 $20 \sim 30^\circ\text{C}$, 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 $+10^\circ\text{C} \sim 60^\circ\text{C}$ 、相對濕度 $\leq 75\%$ 的密閉條件下可存放 3 年。

Under airtight in temperature $+10^\circ\text{C} \sim 60^\circ\text{C}$ 、relative humidity $\leq 75\%$ can store 3 years.

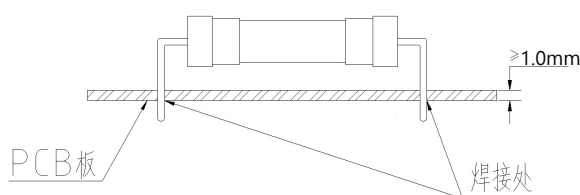
在溫度 $+10^\circ\text{C} \sim 60^\circ\text{C}$ 、相對濕度為 95%的非露天下最多可存放 30 天。

Without dew in temperature $+10^\circ\text{C} \sim 60^\circ\text{C}$ 、relative humidity be 95% maximum value for 30days.

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

10-1 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.



10-2 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°C Max

焊接時間 / Solder Dwell Time: 2~5s

手工焊參數 / Hand-Solder Parameters:

烙鐵溫度 / Solder Iron Temperature: 350±5°C

焊接時間 / Heating Time: 5 s Max

11.其他使用注意事項 / OTHER NOTICE IN USED

如果需在保險絲上加熱縮套管，烘烤溫度與時間需參照以下規定。

If need to add heat draws back the sleeve pipe on the fuse, it needs to consult the following regulation to toast temperature and time.

| 溫度 temperature | 120°C | 130°C | 140°C | 150°C | 160°C | 170°C | 180°C |
|-------------------|------------|------------|------------|------------|------------|------------|------------|
| 時間 time | Max 80s | Max 75s | Max 70s | Max 65s | Max 60s | Max 55s | Max 50s |

12.安全認證及編號 / STANDARDS AND APPROVALS

| | |
|-----|---------------------|
| UL | E56092(15A-30A) |
| TUV | J50454541(15A-30A) |
| CQC | CQC19012234233(15A) |

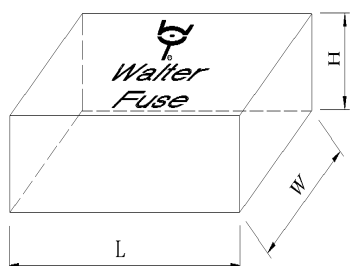
13. 包裝 / PACKING

13-1 包裝數量 / Packing Quantity

A : 每內盒裝 250 保險絲 /250 pcs per inner box .

B : 每外箱裝 20 內盒保險絲/20 inner boxes per outer box .

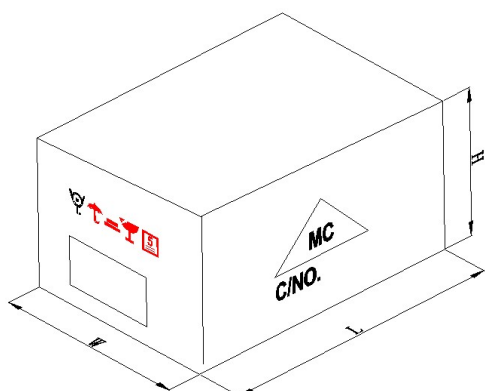
13-2 內包裝盒/Inner box of packing



單位/Unit : mm

| L | W | H |
|-------|-------|------|
| 157±3 | 124±3 | 84±2 |

13-3 外包裝箱/Outer box of packing



單位/Unit : mm

| L | W | H |
|-------|-------|-------|
| 451±5 | 345±5 | 275±5 |

14.其他 / OTHERS

14-1 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.

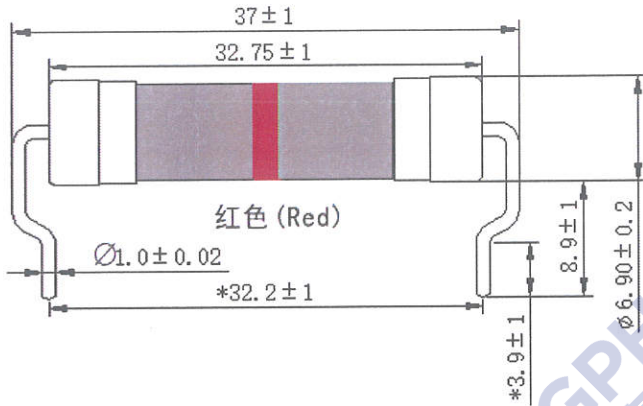
14-2 如果本規格書有不適當的情況，必須通過雙方協商並由本公司修改。

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

| 版次 | 製作 | 確認 | 審核 |
|-----|-------------------|------------------|-------------------------|
| 第4版 | 程正永 2022/05/27 | 饒紅 2022/05/27 | Russel.Hsu 2022/5/27 |

MTT 特殊需求項目 / Special requirements of MTT Series

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



DGPHYST
— 華年 —
电话: 0755-23173910

| 版次 | 製作 | 確認 | 審核 | 核准 |
|-----|-------------------|------|-----|---------------|
| 第1版 | 程正永 2023/05/19 | 趙阿拉月 | 王維新 | 王維新2023/05/22 |



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

MTT

Supplemental fuses: pigtail leads, filled-tube, cartridge enclosed

| <u>Size</u> mm(in) | <u>Amps</u> (A) | <u>Volts</u> (V) | <u>Interrupting</u> <u>Rating</u> (A) |
|----------------------------|--------------------|---------------------|--|
| 6.83 x 32.75 (0.27 x 1.29) | 15 - 30 | 250Vac | 1000 |
| | 15 - 20 | 250Vac | 1500 |

Report Date: 2019-11-29

Last Revised: 2019-11-29

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DGPHAST
— 華年 —
电话: 0755-23173910

Zertifikat
mit überwachter Konformität

Certificate
of surveyed conformity



Zertifikat Nr. *Certificate No.*
J 50454541

Blatt *Sheet*
0001

| Ihr Zeichen <i>Client Reference</i> | Unser Zeichen <i>Our Reference</i> | Ausstellungsdatum <i>Date of Issue</i> | <i>(day/mo/yr)</i> |
|-------------------------------------|------------------------------------|--|--------------------|
| | 05-xieb-50308265 001 | 18.12.2019 | |

| Genehmigungsinhaber <i>License Holder</i> | Fertigungsstätte <i>Manufacturing Plant</i> |
|--|--|
| Suzhou Walter Electronic Co., Ltd. Fenhu Technic Development Zone, Luxu Wujiang City, Jiangsu P. R. China | Suzhou Walter Electronic Co., Ltd. Fenhu Technic Development Zone, Luxu Wujiang City, Jiangsu P. R. China |

Prüfzeichen *Test Mark*



Geprüft nach *Tested acc. to*

EN 60127-1:2006+A1+A2
EN 60127-7:2016

**Zertifiziertes Produkt (Geräteidentifikation)
*Certified Product (Product Identification)***

**Lizenzentgelte - Einheit
*License Fee - Unit***

(Miniature Fuse-links)

| | | |
|-------------------------|---|----|
| Type Designation | : MTT | 11 |
| Trademark | : Walter (logo) | |
| Rated Voltage | : AC 250V | |
| Rated Current | : 15A, 20A, 25A, 30A | |
| T/I Characteristic | : see appendix 1 | |
| Rated Breaking Capacity | : 1000A (for all rated current) 1500A (only for 15A and 20A) | |
| Dimension | : 6,83mmx32,75mm, with pigtail | |

Remark : The labelling requirements acc. to EU Directive 2001/95 have to be observed for distribution within the EEA. The installation has to be carried out according to installation instruction accompanying the products.

11

ANLAGE (Appendix): 1

*Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde.
Das Produkt entspricht den o.g. Anforderungen, die Herstellung wird überwacht.
This certificate is based on our Testing and Certification Regulation. The product fulfills above mentioned requirements, the production is subject to surveillance.*

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg
Tel.: +49 221 806-1371 e-mail: cert-validity@de.tuv.com
Fax: +49 221 806-3935 http://www.tuv.com/safety





产品认证证书

证书编号：CQC19012234233

申请人名称及地址

苏州华德电子有限公司
江苏省吴江市汾湖经济技术开发区(芦墟)

制造商名称及地址

苏州华德电子有限公司
江苏省吴江市汾湖经济技术开发区(芦墟)

生产企业名称及地址

苏州华德电子有限公司(V005437)
江苏省吴江汾湖经济开发区新黎路99号

产品名称和系列、规格、型号

特殊应用的小型熔断体(带引线管状)
MTT 15A a.c. 250V(额定分断能力：1500A, 主要尺寸：Φ6.3mm×32mm)

产品标准和技术要求

GB/T 9364.1-2015;GB/T 9364.7-2016

认证模式

产品型式试验+初次工厂检查+获证后监督

上述产品符合 CQC11-462125-2018 认证规则的要求，特发此证。

发证日期：2019年12月23日

本证书的有效性依据发证机构的定期监督获得保持。

本证书为变更证书，证书首次颁发日期：2019年12月18日

主任：_____

陆楠



中国质量认证中心

中国·北京·南四环西路188号9区100070

<http://www.cqc.com.cn>

C 0180647



PRODUCT CERTIFICATE

CERTIFICATE NO.: CQC19012234233

NAME AND ADDRESS OF THE APPLICANT

Suzhou Walter Electronic Co., Ltd.
Fenhu Technic Development Zone, Luxu, Wujiang City, Jiangsu

NAME AND ADDRESS OF THE MANUFACTURER

Suzhou Walter Electronic Co., Ltd.
Fenhu Technic Development Zone, Luxu, Wujiang City, Jiangsu

NAME AND ADDRESS OF THE FACTORY

Suzhou Walter Electronic Co., Ltd. (V005437)
South of Xinli Road, Fenhu Technic Development Zone, Luxu, Wujiang City, Jiangsu

PRODUCT NAME, MODEL AND SPECIFICATION

Miniature Fuse-links for Special applications
MTT 15A a.c. 250V(额定分断能力: 1500A, 主要尺寸: $\Phi 6.3\text{mm} \times 32\text{mm}$)

THE STANDARDS AND TECHNICAL REQUIREMENTS FOR THE PRODUCTS

GB/T 9364.1-2015;GB/T 9364.7-2016

TYPE OF CERTIFICATION SCHEMES

Type Testing of Product + Initial Factory Inspection + Follow up Factory Inspection

This is to certify that the above mentioned product(s) complies with the requirements of certification rules of CQC11-462125-2018 .

Valid from: Dec.23,2019

The validity of the certificate is subject to positive result of the regular follow up inspection by issuing certification body.

Date of original issued: Dec.18,2019

President: _____

Lu Mei



CHINA QUALITY CERTIFICATION CENTRE

Section 9, No.188, Nansihuan Xilu, Beijing 100070 P.R.China
<http://www.cqc.com.cn>

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