



SAFTTY  
ELECTRONIC TECHNOLOGY  
安的電子

## 产 品 承 认 书

兹经本公司确定

We hereby confirm

生产者/Manufactory 广州安的电子科技有限公司

产品/品名/Products： 热保护器

型号/料号/Part No： ST07

客户名称/Customer：

生效日期/Effective Date：

广州安的电子  
技术有限公司  
工程部章

适用于本公司产品

It is applicable to your products

产品品名/Products：

型号/料号/Part No：

确认者 / Confirmed by：

确认公司 /Company：

确认日期 /Date：

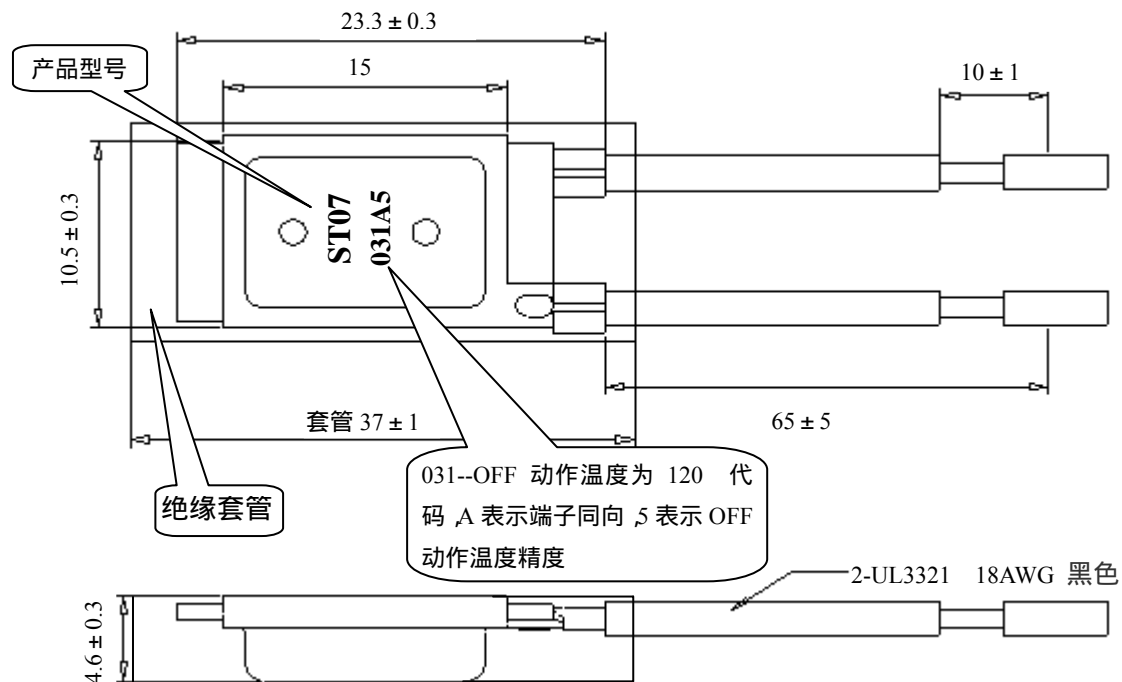
## 1. 结构及安装尺寸 Structure and dimension

### 1.1 如图纸（特殊温度规格及导线根据客户需求制订）

Please refer to attached file (special temperature and lead wire spec. could be made according to customer's requirement)

## 2. 型号规格说明 Model specification explanation

### 2.1 如图 Please refer to attached file



## 3. 性能 Capabilities

产品性能符合标准：DIN EN60730-2-2、DIN EN60730-2-9、UL2111、GB/T14536.3、GB/T14536.4 GB/T14536.10

注：以下测试应在室温（ $20 \pm 5$ ）环境下进行。

Note: the following test should be done at room temperature ( $20 \pm 5$ ).

### 3.1 产品额定电气参数及触点形式：Rating parameters and contact form:

产品可用于 AC270V/10A AC120V/22A DC16V/20A 电路工作。

It could be used in the circuit of AC270V/10A AC120V/22A DC16V/20A .

### 3.2 额定动作温度 Rated open temperature

产品的标准动作温度和允许公差应符合表中的动作温度规格的要求，客户有特殊要求的除外。

The standard action temperature and tolerance should be accord with the action temperature specifications in Table one unless customers have special requirements.

### 3.3 复位温度 Reset temperature

产品的复位温度和允许公差应符合表中的复位温度规格的要求,客户有特殊要求的除外。  
The reset temperature and tolerance should be accord with the reset temperature specifications in Table one unless customers have special requirements.

ST07 系列热保护器动作/复位温度及允许公差表:

Table one: ST07 series thermal protector action/reset temperature and tolerance table:

| 序号 | 动作温度 ( ) | 复位温度 ( ) | 序号 | 动作温度 ( ) | 复位温度 ( ) |
|----|----------|----------|----|----------|----------|
| 1  | 50 ± 5   | 30~45    | 14 | 115 ± 5  | 75 ± 15  |
| 2  | 55 ± 5   | 30~45    | 15 | 120 ± 5  | 75 ± 15  |
| 3  | 60 ± 5   | 45 ± 15  | 16 | 125 ± 5  | 80 ± 15  |
| 4  | 65 ± 5   | 50 ± 15  | 17 | 130 ± 5  | 85 ± 15  |
| 5  | 70 ± 5   | 50 ± 15  | 18 | 135 ± 5  | 85 ± 15  |
| 6  | 75 ± 5   | 55 ± 15  | 19 | 140 ± 5  | 90 ± 15  |
| 7  | 80 ± 5   | 55 ± 15  | 20 | 145 ± 5  | 95 ± 15  |
| 8  | 85 ± 5   | 60 ± 15  | 21 | 150 ± 5  | 95 ± 15  |
| 9  | 90 ± 5   | 60 ± 15  | 22 | 155 ± 5  | 95 ± 15  |
| 10 | 95 ± 5   | 65 ± 15  | 23 | 160 ± 5  | 105 ± 15 |
| 11 | 100 ± 5  | 65 ± 15  | 24 | 165 ± 5  | 110 ± 15 |
| 12 | 105 ± 5  | 70 ± 15  | 25 | 170 ± 5  | 115 ± 15 |
| 13 | 110 ± 5  | 70 ± 15  | 26 | 175 ± 5  | 120 ± 15 |
|    |          |          | 27 | 180 ± 5  | 125 ± 15 |

### 3.4 电气强度 Dielectric strength

3.4.1 产品在分断状态时触点之间应能承受 AC500V,历时 1min 而无击穿闪烁现象。

When the product is in the breaking state, the contacts should be able to withstand AC500V lasting for 1min without breakdown flashover.

3.4.2 产品引线 (端子) 与外壳之间能承受 AC1500V,历时 1min 而无击穿闪络现象;

3.4.2. It should be able to withstand AC1500V between the lead wire (terminal) and the case, and keep 1min without breakdown flashover;

### 3.5 绝缘电阻 Insulation resistance

3.5.1. 在正常条件下, 引线 (端子) 与外壳之间的绝缘电阻在 100M 以上。(所用表计为 DC500V 兆欧表)

3.5.1 Under normal condition, the insulation resistance between leads (terminal) and case should be more than 100M by ohmmeter of DC500V.

3.5.2. 热分断后的触点之间的绝缘电阻在 2M 以上。

3.5.2. In breaking state, the insulation resistance between the contacts should be more than 2M .

### 3.6 接触电阻 Contact resistance

产品初始接触电阻小于 50m 。

The initial contact resistance of the product should be less than 50mΩ.

### 3.7 引线拉力测试 Pull endure testing of leads with terminal

产品的两引线(端子)应能承受水平方向 30N 的静拉力并保持 1 分钟,而不断裂或松动。  
Terminal & leads should endure more than 30N axes direction pull lasting for 1 minute without break or loose.

### 3.8 耐低温试验 Low temperature endurance test

产品在-40 的恒温箱中放置 2 小时,取出放置 2 小时后测温,产品的额定动作温度和复位温度值应在标称允差内。

Keep the thermal protector in a -40 incubator for two hours, and test it two hours later after taking out from the incubator, at that time, the rated action temperature and reset temperature should be within the nominal tolerance.

### 3.9 耐高温试验 High temperature endurance test

产品在比最大工作温度高 30 的恒温箱中放置 16 小时,取出放置 2 小时后测温,产品的额定动作温度和复位温度值应在标称允差内。

Keep the thermal protector in a 30 incubator for sixteen hours, and test it two hours later after taking out from the incubator, at that time, the rated action temperature and reset temperature should be within the nominal tolerance.

### 3.10 极限短路试验 Limit short-circuit test

产品在串接 RL1-15A 熔断器的电路中承受 100A 的极限短路电流时,应不引起包裹在保护器上的棉花燃烧。

When the thermal protector is in series with RL1-15A fuse in the circuit to withstand short circuit current limit of 100A, it should not cause the cotton burned which is wrapped in it.

### 3.11 跌落试验 Drop test

将产品从 700mm 的高度,自由跌落在水泥平面或其它坚固的水平面上,产品的温度性能不应超过初始值的  $\pm 5$  或  $\pm 5\%$  (两者值取最大值)。

Let the thermal protector fall free in the cement or other solid surface from a height of 700mm, its temperature performance should not exceed the initial value of  $\pm 5$  or  $\pm 5\%$  (take the larger from the two values).

### 3.12 耐潮湿试验 Moisture endurance test

产品在  $40 \pm 3$ 、相对湿度 91%~95% 的恒温箱中放置 48 小时,绝缘体与外壳之间的绝缘电阻在 10M 以上。

Keep the thermal protector in a  $40 \pm 3$  and relative humidity 91%~95% incubator for 48 hours, the insulation resistance between the terminal and case should be more than 10M .

### 3.13 耐久性 Durability

产品在额定电压、电流条件下,外加热源使其动作 10,000 次后,保护器应能正常通断。

Under the condition of rated voltage and current, the thermal protector operates 10,000 cycles by plus heat, it should be still able to operate properly.

## 4 .其它事项 Other matters

## 4.1 外壳防护等级 IP00

Degress of protection provided by enclosures IP00

## 4.2 产品在安装使用时不能承受大的冲击。

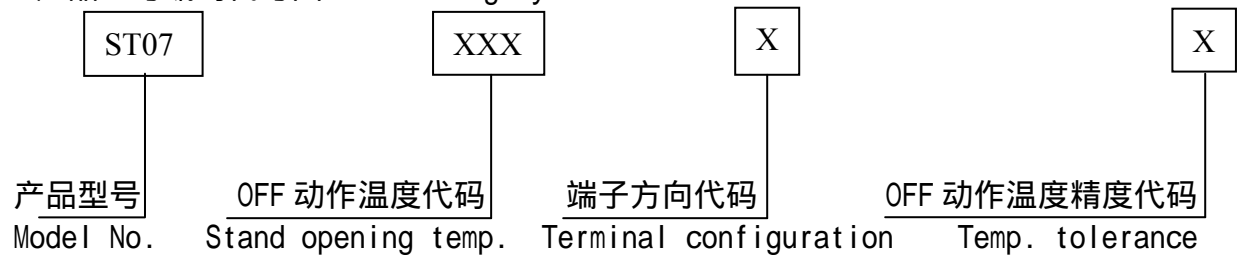
In installation, the thermal protectors could not afford a big impact.

## 4.3.如客户对动作、复位温度及导线规格有特殊要求，可以另行协商。

If customers have special requests for the open and reset temperature and lead wire, we could consult accordingly.

附表：

## 1. 产品型号编码代号图：Numbering system



| 动作温度<br>Opening temp. | 代码<br>Code | 动作温度<br>Opening temp. | 代码<br>Code |
|-----------------------|------------|-----------------------|------------|
| 55                    | 018        | 120                   | 031        |
| 60                    | 019        | 125                   | 032        |
| 65                    | 020        | 130                   | 033        |
| 70                    | 021        | 135                   | 034        |
| 75                    | 022        | 140                   | 035        |
| 80                    | 023        | 145                   | 036        |
| 85                    | 024        | 150                   | 037        |
| 90                    | 025        | 155                   | 038        |
| 95                    | 026        | 160                   | 039        |
| 100                   | 027        | 165                   | 040        |
| 105                   | 028        | 170                   | 041        |
| 110                   | 029        | 175                   | 042        |
| 115                   | 030        | 180                   | 043        |

| 代码 Code | 端子 Terminal |
|---------|-------------|
| A       | 同向 Same end |

| 代码 Code | 精度 Tolerance |
|---------|--------------|
| 5       | ± 5          |
| 7       | ± 7          |
| 10      | ± 10         |