BAOZHU
ELECTRIC APPLIANCE
宝珠电器

TB05 型热保护器
技术规格书

TECHNICAL SPECIFICATION
FOR THERMAL PROTECTOR TB05

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TB05 型热保护器技术规格书

Technical Specification Of TB05 Thermal Protector

1 产品用途 Usage

TB05 型热保护器具有体积小、外壳绝缘、动作灵敏、寿命长等特点，广泛适用于电池组、分马力电机、电热器具、荧光灯镇流器、变压器、汽车马达、集成电路及一般电气设备的过热过流双重保护作用。

TB05 thermal protector possess the benifits of miniature size、shell insulation、sensitive in action、long life etc.Widely used in electric power points 、 electrical appliances 、 fluorescent ballasts 、 transformers 、 automobile motor、integrated circuit and general electric equipment of dual hot flow protection function.

2 外形和结构 Appearance and structure：

塑壳尺寸 Plastic Shell Size	15mm (L) *7.Omm (W) *3.5mm (H) 18mm (L) *7.Omm (W) *3.5mm (H) 16mm (L) *7.Omm (W) *3.5mm (H)
铁壳尺寸 Metal Shell Size	15mm (L) *6.5mm (W) *3.1mm (H) 20mm (L) *6.9mm (W) *3.5mm (H) 16mm (L) *6.5mm (W) *3.1mm (H)

3 性能 Performance

3.1 额定电流 Rated Current

10A/DC24V、10A/AC115V、5A/AC250V

3.2 动作温度 Action temperature：30℃～155℃ 复位温度 Reset temperature20℃～110℃(详见图纸 Detailed drawings)。

3.3 抗拉力试验:产品的引线端应能承受大于或等于 20N 拉力,导线无断裂、滑出。

Ant-tension test:Product test pins should with no fault, sliding out when bearing ＞＝20N.

3.4 绝缘电压 Insulation voltage:

a.产品在断开时的引线之间应能承受 AC660V,历时 1min 而无击穿闪络现象;

a. Products in the lead when disconnect between AC660V shall withstand, 1min without breakdown flashover phenomenon;

b.产品引线与绝缘外壳之间能承受 AC1800V,历时 1S 而无击穿闪络现象;

b. Product leads and insulated shell, between AC1800V can withstand 1S without breakdown flashover phenomenon.

3.5 绝缘电阻:在正常条件下,引线与绝缘外壳之间的绝缘电阻在 100MΩ以上。(所用表计为 DC500V 兆欧表)

Insulation resistance: under normal conditions, fuses and insulation shell insulation resistance in 100MΩ above. (used forDC500V meter)

3.6 接触电阻:产品的接触电阻应不大于 50mΩ。

Contact resistance:Pproduct contact resistance shall not be more than 50mΩ

3.7 耐高温试验:High temperature resistant test:

a.产品置于高于额定动作温度 20℃的空气环境中保持 96h;

a.The action temperature the should keep in 96h in temperature of 20℃ rated movements in air environment.

b.5 分钟极限温度为 180℃

b. 5 min limit temperature 180℃

3.8 耐低温试验:产品置于-40℃空气环境中保持 96h。

Low temperature resistance test: product should keep in 96h when in air environment - 40℃

3.9 抗振试验: 热保护器应能承受振幅 1.5mm,频率变化 10～55Hz，扫描变化周期 3～5 次/min，振动方向 X、Y、Z，每个方向各连续振动 2h。

Ant-vibration test: thermal protectors shall withstand amplitude, frequency changing 1.5mm 10~55Hz, scanning change cycle 3-5 times/min, vibration directionX,Y,Z, in each direction, each successive 2h vibration.

3.10 跌落试验:产品自 0.7m 高度自由落下 1 次，动作/复位温度无明显漂移。

Drop test: the product is free to fall 1 time from 0.7 m height, and the action / reset temperature has no obvious drift.

3.11 抗压试验:产品应能承受 100N 静压力 1min。

Compression test: products shall stand 1min in100N static pressure.

3.7,3.8,3.9,3.10,3.11 项试验后应满足下列条件:

3.7,3.8,3.9,3.10,3.11should meet the following requirements:

a 断开温度变化应在初期值的+7℃以内;

a.Disconnect temperature charges in the inditial value should be within ±7℃

b.接触电阻应在 100mΩ以下;

b.contact resistance should be below 100mΩ;

c.外形应无明显变形;

c.appearance should be no bovious deformation;

d.导线无开裂损伤。

d.wires should without cracking damage.

4 寿命 Life

产品在额定电压、电流、功率因数为 0.7 的条件下（在交流电路中，电压与电流之间的相位差(Φ)的余弦叫做功率因数，用符号 cosΦ表示，在数值上，功率因数是有功功率和视在功率的比值，即 cosΦ=P/S）,外加 热源使其动作 6000 次,应满足下面条件:

Products in the rated voltage, current, power factor for 0.7 conditions （ The cosine of the phase difference (Φ) between voltage and current is called power factor, which is expressed by the symbol cos Φ. In numerical value, power factor is the ratio of active power to apparent power, that is, cosΦ=P/S） plus 6,000 times that the action of heat, should satisfy as below:

a.断开温度变化应在初始值的+5℃以内;

a.Disconnect temperature changes in the initial value should be within + 5℃

b.接触电阻应在 100mΩ以下;

b.Ccontact resistance should be belowin100mΩ

继续试验至 10000 次后能动作。

continue experiment in 10000times after action

5.其它事项:Othere items:

5.1 断开温度检测的升温速率应控制为 1℃/1min;

Disconnect the temperature detection heating rate should be controlled for 1℃/1min, Use process cannot bear strong impact and stress.

5.2 使用过程中产品不能承受强烈冲击力及压迫力;

In the process of use, the product can not withstand strong impact force and compression force;

5.3 型号规格说明 Model specifications:

5.3.1 常闭型 Normal closed type

TB05-BB5D——塑壳产品型号　　TB05-BB1D——铁壳产品型号

XXX℃——额定断开温度　　XXX℃——额定断开温度

TB05-BB5D——Model of Plastic Shell Product　　TB05-BB1D——Type of Iron Shell Product

XXX℃—— Rated disconnect temperature　　XXX℃——Rated disconnect temperature

5.3.2 常开型 Normal open type

TB05-KA5D——塑壳产品型号　　TB05-KA1D——铁壳产品型号

XXX℃——额定闭合温度　　XXX℃——额定闭合温度

TB05-KA5D—— Model of Plastic Shell Products　　TB05-KA1D——Type of Iron Shell Product

XXX℃—— Rated closing temperature　　XXX℃—— Rated closing temperature

6.获取证书 Certifications:

VDE 证书号 Certification NO：40024884/40030505　　TUV 证书号 Certification NO：R50441281

CQC 证书号 Certification NO：CQC06002017310　　KC Certification NO:ZU02062-15001

CB 证书号 Certification NO：CN31934　　UL 证书号 Certification NO：E258703/E305764

ISO9001 证书号 Certification NO：00120Q34918R5M/3200

7. 温度参数表：Table of temperature parameters

序号	动作温度	复位温度	序号	动作温度	复位温度
30	30±5℃	≥20℃	95	95±5℃	70±15℃
35	35±5℃	≥25℃	100	100±5℃	70±15℃
40	40±5℃	≥30℃	105	105±5℃	75±15℃
45	45±5℃	≥33℃	110	110±5℃	75±15℃
50	50±5℃	≥35℃	115	115±5℃	80±15℃
55	55±5℃	42±6℃	120	120±5℃	85±15℃
60	90±5℃	45±8℃	125	125±5℃	85±15℃
65	65±5℃	48±12℃	130	130±5℃	90±15℃
70	70±5℃	50±14℃	135	135±5℃	95±15℃
75	75±5℃	53±15℃	140	140±5℃	100±15℃
80	80±5℃	55±15℃	145	145±5℃	105±15℃
85	85±5℃	60±15℃	150	150±5℃	105±15℃
90	90±5℃	65±15℃	155	155±5℃	110±15℃

8. 电气曲线图 Electrical curve：