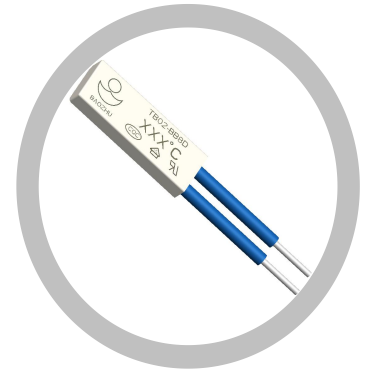




BAOZHU
ELECTRIC APPLIANCE
宝珠电器



TB02 型热保护器 技术规格书

TECHNICAL SPECIFICATION FOR THERMAL PROTECTOR TB02

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TB02型热保护器技术规格书

Technical Specification Of TB02 Thermal Protector

1 产品用途 Usage

TB02 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。

TB02 thermal protector possess the benefits of miniature size、shell insulation、sensitive in action、long life etc.It is widely used in battery pack, fractional horsepower motor, electric heating appliance, fluorescent lamp ballast, transformer, automobile motor, integrated circuit and general electrical equipment.

2 外形和结构: Appearance and structure:

塑壳尺寸 Plastic Shell Size	15mm (L) *5.4mm (W) *2.4mm (H) 13.5mm (L) *5.4mm (W) *2.4mm (H) 12mm (L) *5.0mm (W) *2.0mm (H)
铁壳尺寸 Metal Shell Size	14mm (L) *5.0mm (W) *2.4mm (H) 11.5mm (L) *5.0mm (W) *2.4mm (H)

3 性能 Property

3.1 额定电流 Voted current

4A/DC12V、3A/DC24V、3A/AC115V、2A/AC250V

3.2 断开温度: 60°C~155°C 复位温度 45°C~110°C(详见图纸)。

Disconnect temperature: 60 ~ 155°C ,reset temperature45 ~ 110°C degrees Celsius (see drawing).

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。

Tensile test: The leads end of the product shall be able to withstand a tension force $\geq 50N$, and the lead shall not break or slip out.

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;

It should be able to withstand AC660V between leads when the product disconnected, lasting for 30S without breakdown and flashover

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. It should be withstand AC1800V between the leads and insulation shell, lasting for 1S without breakdown and flashover;

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 100M Ω 以上。(所用表计为 DC500V 兆欧表)

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

3.6 接触电阻:产品的接触电阻 $\leq 100m\Omega$ 。

Contact resistance:product contact resistance shall not be more than 100m Ω 。

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°C的空气环境中保持 96h;

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

b.5 分钟极限温度为 180°C

b.The limit temperature of 5 minutes is 180 °C

3.8 耐低温试验:产品置于-40°C空气环境中保持 96h。

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

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 1.5 mm 10 ~ 55Hz, scanning change cycle 3-5 times/min, vibration direction X,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: products high free fall from 0.7 m.

3.11 抗压试验:产品应能承受 100N 静压力 1min。

Compression test: products shall stand 1min in 100N static pressure.

3.7,3.8,3.9,3.10,3.11 项试验后应满足下列条件:

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

a.断开温度变化应在初始值的+7°C以内;

a.Disconnect temperature changes in the initial value should be within +7°C

b.外形应无明显变形;

b.appearance should be no obvious deformation;

c.导线无开裂损伤。

c.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 $\cos \Phi$ 表示,在数值上,功率因数是有效功率和视在功率的比值,即 $\cos \Phi = P/S$),外加热源使其动作 6000 次,应满足下面条件:

Under the condition of rated voltage, current and power factor of 0.7 (in AC circuit, the cosine of phase difference (Φ) between voltage and current is called power factor, which is expressed by the symbol $\cos \Phi$. In numerical value, power factor is the ratio of active power to apparent power, i.e. $\cos \Phi = P / S$), and the external heat source makes it operate for 6000 times. The following conditions shall be met:

断开温度变化应在初始值的+5°C以内;

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

继续试验至 10000 次后能动作。

continue experiment in 10000times after action.

其它事项:Other items:

5.1 断开温度检测的升温速率应控制为 1°C/1min;

Disconnect the temperature detection 5.1 heating rate should be controlled for 1 ° c / 1min,

5.2 使用过程中产品不能承受强烈冲击力及压迫力;

Use process cannot bear strong impact and stress.

5.3 型号规格说明:Models of specifications

5.3.1 常闭型 Normally closed type

TB02-BB8D—塑壳产品 (长 15mm/12mm)

XXX°C——额定断开温度

TB02-BB1D—铁壳产品 (长 14.0mm)

XXX°C——额定断开温度

TB02-BB8D—Plastic Type (length15mm/12mm)

XXX°C——voted disconnect temperature

TB02-BB1D—Metal Type (length 14.0mm)

XXX°C——voted disconnect temperature

TB02-BB8D—塑壳产品 (长 13.5mm)

XXX°C——额定断开温度

TB02-BB1D—铁壳产品 (长 11.5mm)

XXX°C——额定断开温度

TB02-BB8D—Plastic Type (length13.5mm)

XXX°C——voted disconnect temperature

TB02-BB1D—Metal Type (length 11.5mm)

XXX°C——voted disconnect temperature

5.3.2 常开型 Normally Open type

TB02-KA8D—塑壳产品 (长 15mm/12mm)

XXX°C——额定断开温度

TB02-KA1D—铁壳产品 (长 14.0mm)

XXX°C——额定断开温度

TB02-KA8D—Plastic Type (length15mm/12mm)

XXX°C——voted disconnect temperature

TB02-KA1D—Metal Type (length 14.0mm)

XXX°C——voted disconnect temperature

TB02-KA8D—塑壳产品 (长 13.5mm)

XXX°C——额定断开温度

TB02-KA1D—铁壳产品 (长 11.5mm)

XXX°C——额定断开温度

TB02-KA8D—Plastic Type (length13.5mm)

XXX°C——voted disconnect temperature

TB02-KA1D—Metal Type (length 11.5mm)

XXX°C——voted disconnect temperature

6. 获取证书:Certifications:

VDE Certification NO:40016121

CQC Certification NO: CQC05002013372

ISO9001 Certification NO: 00120Q34918R5M/3200

KC certification No: ZU02062-14001B

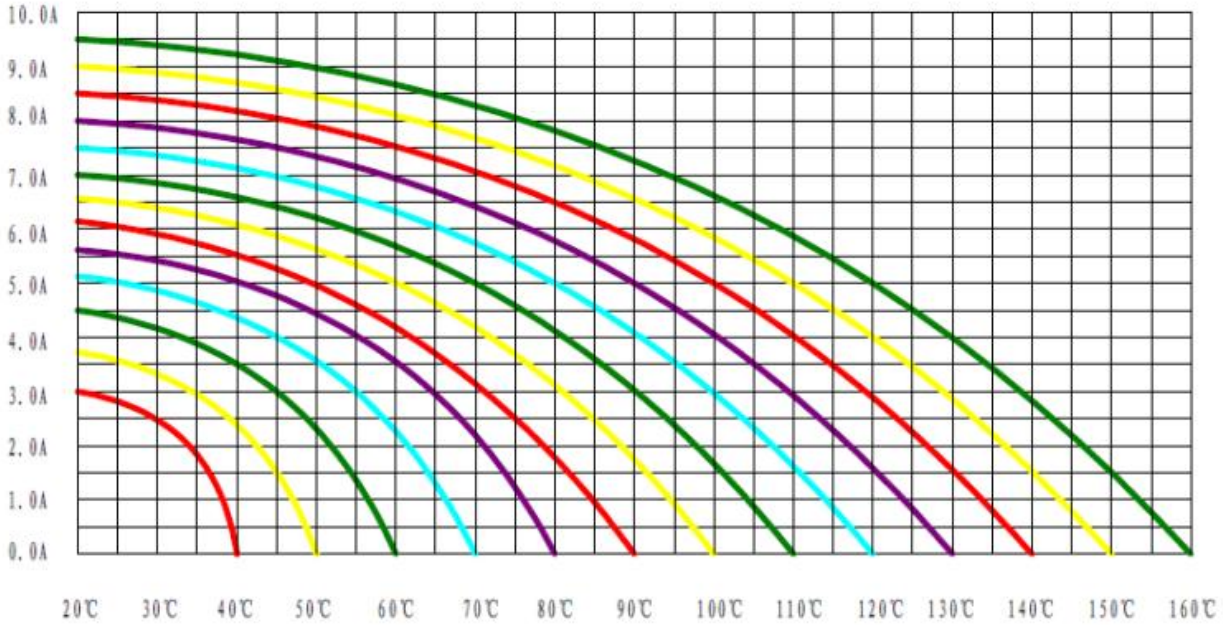
CB Certification NO: CN50847

UL Certification NO: E305764

TUV Certification NO:R50109800/R50110965

7. 温度电流曲线图 The electrical diagram

TB02温度-电流曲线图



8. 温度参数表: Table of temperature parameters

NO	OPEN	CLOSE	NO	OPEN	CLOSE
30	30 ± 3°C	≥20°C	95	95 ± 5°C	70 ± 15°C
35	35 ± 3.5°C	≥25°C	100	100 ± 5°C	70 ± 15°C
40	40 ± 4°C	≥30°C	105	105 ± 5°C	75 ± 15°C
45	45 ± 4.5°C	≥33°C	110	110 ± 5°C	75 ± 15°C
50	50 ± 5°C	≥35°C	115	115 ± 5°C	80 ± 15°C
55	55 ± 5°C	42 ± 6°C	120	120 ± 5°C	85 ± 15°C
60	60 ± 5°C	45 ± 8°C	125	125 ± 5°C	85 ± 15°C
65	65 ± 5°C	48 ± 10°C	130	130 ± 5°C	90 ± 15°C
70	70 ± 5°C	50 ± 12°C	135	135 ± 5°C	95 ± 15°C
75	75 ± 5°C	53 ± 14°C	140	140 ± 5°C	100 ± 15°C
80	80 ± 5°C	55 ± 15°C	145	145 ± 5°C	100 ± 15°C
85	85 ± 5°C	60 ± 15°C	150	150 ± 5°C	105 ± 15°C
90	90 ± 5°C	65 ± 15°C	155	155 ± 5°C	110 ± 15°C