

BRT3-25A

小型大功率继电器
Small high power relay



专利证书:ZL 2020 215857526

产品特点

- 超小型 (29x12.9x15.6mm) 标准印刷板引出脚
Subminiature(29x12.9x15.6)standard pinting plate lead out pin
- 高触点容量 25A触点切换能力
High contact capacity 25A contact switching capability
- 满足加强绝缘要求
Meet the requirements for strengthened insulation
- 满足105℃的环境工作温度要求
Meet the environmental working temperature requirement of 105℃
- 符合REACH ROHS 指令.
Compliant with REACH ROHS instructions
- 体积小, 仅15.6mm高度
Small volume, only 15.6mm high
- 爬电距离达10mm, 耐压可达5000伏 (线圈触点间)
耐10KV浪涌电压
Creepage distance up to 10mm, withstand voltage up to 5000V (between coil contacts) withstand voltage 10KV surge voltage

触点负载 Contact Rating	
触点形式 contact form	1A
触点材料 contact material	银合金
额定负载(阻性) Rated load (Resistance)	25A 250VAC
最大切换电压 Max. switching Voltage	250VAC
最大切换电流 Max. switching	25A
最大切换功率 Max. switching power	6250VA
电耐久性 Electrical	1×10 ⁴ 次 (25A 250VAC 阻性负载室温1S ON/9S OFF)
机械耐久性Mechanical	1×10 ⁷ 次 每小时10800次

备注: 备注: 1. 上述值为初始值
2. 对于塑封型产品试验时, 应打开外壳上的透气孔
1.remarks:The above values are initial values
2.When experimenting with plastic encapsulated products, the vent holes on the housing should be opened

安规认证 Safety certification

CQC CQC23001392194	25A 250VAC
-----------------------	------------

性能参数Performance Parameter		
接触电阻 Contact Resistance		≤100mΩ (6VDC/1A)
吸合时间 (额定电压下) Operate Time		≤15ms
释放时间 (额定电压下) Release Time		≤8ms
介质耐压 Dielectric Strength	触点与触点间BOC	1000VAC 50/60Hz 1分钟
	触点与线圈间BCC	5000VAC 50/60Hz 1分钟
浪涌电压 (线圈与触点间) Surge voltage (BCC)		10KV (1.2/50us)
绝缘电阻 Insulation resistance		1000MΩ (500VDC)
工作环境温度Temperature Range		-40℃~105℃ (不结冰)
湿度范围humidity		5~85%RH
抗振动vibration		10HZ~55HZ双振幅1.5mm
抗冲击 Shock	耐久Endurance	981m/s ² Min
	误动作 Error Operation	98.1m/s ² Min
重量Weight		约13克about13g
封装方式Type of Sealing		塑封型、防焊剂型

典型用途 Typical use

- 工业控制、仪器仪表等.
- Industrial control instruments and meters, etc
- 家用电器, 空调、洗衣机、微波炉、音响显示器等
- Household appliances, air conditioner, audio display, etc

BRT3-25A

小型大功率继电器
Small high power relay

线圈参数Coil Specification (at 20 °C)

线圈灵敏度 Coil sensitivity	额定电压 Nominal Voltage (VDC)	额定电流 Rated current (mA)	线圈电阻 Coil Resistance ($\Omega \pm 10\%$)	额定功率 Rated power (w)	吸合电压 Pull-In Voltage (Max)	释放电压 Drop-Out Voltage (Min)	最大电压 Maximum Voltage (Max)
BRT3-DMG	5	80	62.5	约0.4W about	额定电压的 Rated voltage 75%	额定电压的 Rated voltage 10%	额定电压的 Rated voltage 130%
	6	66.6	90				
	9	44.4	202.5				
	12	33.3	360				
	15	26.7	562.5				
	24	16.6	1440				
	48	8.3	5760				

备注：1. 上述值为初始值

remarks:The above values are initial values

2. 最大电压是指继电器线圈在短时间内能够承受的最大值

The maximum voltage refers to the maximum value that the relay coil can withstand in a short time

订货标记

BRT3 - SS - I 05 D M F G XXX
I II III IV V VI VII VIII IX

I. 继电器型号 BRT3

II. 密封形式

-SS: 防焊剂型

III. 触点组数

1:1 组触点

IV. 线圈电压

05:5VDC, 06:6VDC, 09:9VDC, 12:12VDC,

15:15VDC, 24:24VDC, 48:48VDC

V. 线圈功率

D: 标准功耗 约 0.4W

VI. 触点形式

M: 常开触点 - NO

VII. 绝缘等级

F: F级

无: F级

VIII. 负载类型

G: 高负载型

IX. 特性号

无-标准型;

字母或数字-特殊要求

备注：

一、1. 在洁净环境（不含H2S、SO2、NO2、粉尘等污染物）下使用时，推荐使用防焊剂型产品

2. 在污染环境（含一定量 的H2S、SO2、NO2 粉尘等污染物）下使用时建议选用塑封型产品，并在实际使用中进行确认。

二、对于需要符合“IEC 60079系列”防爆要求的产品，下单时请在型号规格后备注[EX]，我司会在产品外壳加印“EX”标识加以区分因不是所有规格产品都具有防爆认证，有需要时请与我司联系，以便确定合适的产品。

三、当继电器装入PCB板焊接后，如需进行整体清洗或表面处理，请与我司联系，以便商定合适的焊接条件、合适的产品规格。

remarks:

(1)When using in clean environment (without H2S SO2 NO2 dust and other pollutants), it is recommended

to Use flux resistant products. When using in polluted environment (with a certain amount of H2S

SO2 NO2 dust and other pollutants), it is recommended to use plastic encapsulated products. please confirm in actual use

(2)After the relay is installed into the PCB board for welding, if it needs overall cleaning or surface treatment,

please Contact me to negotiate the appropriate welding conditions and product specifications.

BRT3-25A

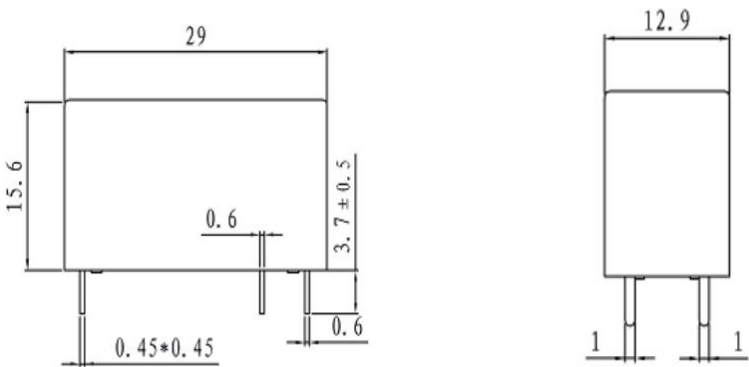
小型大功率继电器
Small high power relay

类型

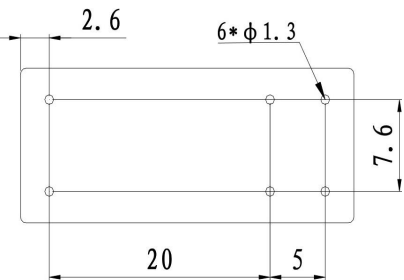
型号	BRT3
线圈灵敏度 Coil sensitivity	标准直流线圈 Standard DC coil
	1A
防焊剂型 The flux type	BRT3-SS-1□□DMG

外形尺寸、接线、安装孔位图Overall dimension,wiring and installation hole bitmap

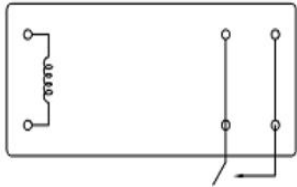
外形尺寸
Outline Dimensions



安装孔位图(底视图)
PCB Layout
(Bottom view)



接线图(底视图)
Wiring Diagram
(Bottom view)



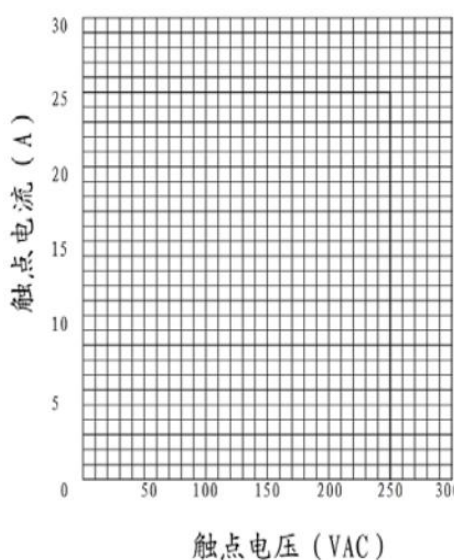
备注:

- 产品外形图的引脚标注尺寸为沾锡前尺寸（沾锡后会变大），安装孔尺寸为推荐的PCB板孔的设计尺寸，具体PCB板孔设计尺寸可根据产品实物进行测绘、调整。
 - 产品部分外形尺寸未注尺寸公差，当外形尺寸 $\leq 1\text{mm}$ ，公差为 $\pm 0.2\text{mm}$ ；当外形尺寸在 $(1\sim 5)\text{mm}$ 之间时，公差为 $\pm 0.3\text{mm}$ ；当外形尺寸 $> 5\text{mm}$ ，公差为 $\pm 0.4\text{mm}$
 - 安装孔尺寸中未注尺寸公差为 $\pm 0.1\text{mm}$
- 1.The pin dimension in the outline drawing or the product is the dimension before dipping tin(It gets bigger when stained with tin)The size of mountin hole is the recommended design size of PCB hole The specific PCB hole design size can be mapped and adjusted according to the actual product
- 2.The overall dimension of the product il not marked with dimensional tolerance,when teh overall dimension $\leq 1\text{mm}$ Tolerance is $\pm 0.2\text{mm}$ When the overall dimension is $(1\sim 5)\text{mm}$ Between Tolerance is $\pm 0.3\text{mm}$ When the overall dimension $> 5\text{mm}$,Tolerance is $\pm 0.4\text{mm}$
- 3.The dimension tolerance of mounting hole without dimension injection is $\pm 0.1\text{mm}$

性能曲线图 Performance Curve

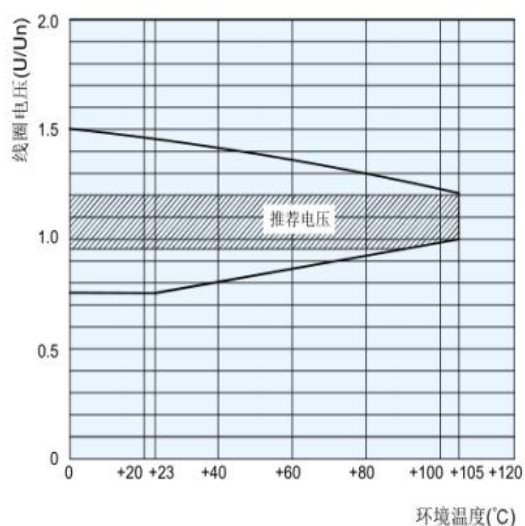
Max.switching power

最大切换功率



Coil operating temperature curve

线圈工作温度曲线(DC)



备注：继电器使用过程中，如果激励电压超过额定电压将会导致继电器电耐久性降低。在推荐电压范围内，对电耐久性的影响会小一些。超过图中曲线规定的上限值，继电器线圈的绝缘有可能会被损坏。

备注：

具体参数型号和产品性能以我司承认书为准，本产品规格书仅作参考，若有更改，恕不另行通知。

对科信而言，不可能评定继电器在每个具体应用领域的所有性能参数要求，因而客户应该根据具体的使用条件，选择与之相匹配的产品。若有疑问，请与科信联系 以便获取更多的技术支持。但产品选型责任仅由客户负责。

DISCLAIMER:

The specific parameters, models, and product performance shall be subject to our company's acceptance letter. This product specification sheet is for reference only and is subject to change without prior notice.

For AFE, it is not possible to assess all performance requirements for relays in each specific application area and therefore the customer should select a suitable product for each specific application, please contact AFE for additional technical support. But the responsibility of product selection is only the responsibility of the customer.