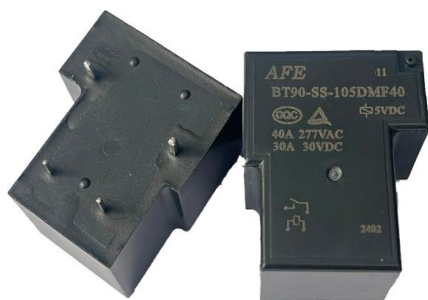


BT90-40A系列 Series

小型大功率继电器 Small high power relay



专利证书: ZL 2019207392098

产品特点

- 高触点容量40A触点切换能力, 产品类型结构为1A/1B/1C
High contac capacity40A Contact switching capability, The product type structure is 1A/1B/1C
- 可供触点或线圈间耐压达4000VAC耐浪涌电压6000VAC(1.2/50US)的特殊继电器
It can be used as a special relay with withstand voltage of 4000VAC and surge voltage of 6000VAC(1.2/50US)
- 超小型 (31.8×27.4×19.5)标准印刷版引出脚
small scale(31.8×27.4×19.5)standad pinting plate lead out pin
- 塑封型和防焊剂型可选择
plastis sealing type and anti flux type are optional
- 选择耐高温环保材料, 更好的提高产品稳定性
Select high temperature resistant and environment-friendly materials to better improee the stability of products
- 符合REACH ROHS 指令, UL绝缘等级: F级
Comply with reach RoHS Directive. UL insulation coass F

触点负载 Contact Rating	
触点形式 contact form	1A 1B 1C
触点材料 contact material	银合金 AgSnO2
额定负载(阻性) Rated load (Resistance)	NO:40A 277VAC 30A 30VDC NC:30A 277VAC
最大切换电压 Max. switching Voltage	277VAC 30VDC
最大切换电流 Max. switching Current	40A/30A
最大切换功率 Max. switching power	11080VA/900W
电耐久性 Electrical durability	1A:1×10 ⁴ 次 40A 277VAC 阻性, 室温1S ON/9S OFF
机械耐久性Mechanical	1×10 ⁷ 次 每小时10800次

备注: 1. 上述值为初始值
2. 禁止在40A条件下长期载流工作
3. 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.It is forbidden to carry current for a long time under the condition of 40A
3.When experimenting with plastic encapsulated products, the vent holes on the housing should be opened

安规认证 Safety certification

CQC CQC11002061851	NO:40A 277VAC 30A 30VDC NC:30A 277VAC
TUV R 50267516	NO:40A 277VAC 30A 30VDC NC:30A 277VAC

性能参数Performance Parameter		
绝缘电阻 Insulation resistance		1000MΩ (500VDC)
吸合时间(额定电压下) Operate Time		≤15ms
释放时间(额定电压下) Release Time		≤10ms
介质耐压 Dielectric Strength	断开的触点间BOC	1500VAC 50/60Hz 1分钟
	触点与线圈间BCC	2500VAC 50/60Hz 1分钟 (可供AC4000V高耐压)
湿度 humidity		5%~85%RH
温度范围Temperature Range		-40℃~85℃(不结冰) (NO freezing)
冲击 Shock	稳定性 Error Operation	98.1m/s ² Min
	强度Endurance	981m/s ² Min
浪涌电压(线圈与触点间) Surge voltage(BCC)		6KV(1.2/50us)
接触电阻 Contact Resistance		≤100mΩ (1A 6VDC)
振动vibration		10Hz~55Hz 1.5mm双振幅
封装方式Type of Sealing		防焊剂型The flux type
重量Weight		约23克 about23g

典型用途 Typical use

- 空调、家用电器.
- Home appliances
- 汽车、加热器和通风装置
- Automobiles, heaters and ventilators

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Small high power relay

线圈参数Coil Specification (at 23 °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)
BT90-DF40 BT90-DMF40 BT90-DBF40	5	180	27.7	约0.9W 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	150	40				
	9	100	90				
	12	75	160				
	24	37.5	640				
	48	18.8	2560				

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Ordering Information

BT90	-	SS	-	1	12	D	M	F	40	XXX	XXX:特性号: 字母或数字-特殊要求: 无: 标准型 40:40A 无: 标准型
											绝缘等级: F: F 级 无: F 级
											触点形式: M: 常开型 B: 常闭型 无: 转换型
											线圈功耗: D: 标准直流线圈 (约0.9)
											线圈电压: 05: 5V, 06: 6V, 09: 9V 12: 12V, 24: 24V, 48: 48V
											触点组数: 1: 一组
											密封方式: SS: 防焊剂型
											品名: BT90

备注:

- 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
- 在污染焊剂 (含一定量的H₂S、SO₂、NO₂粉尘等污染物) 下使用时建议选用塑封产品, 并请在实际使用中进行确
- 当继电器装入PCB版焊接后, 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、合格的产品规格。

remarks:

- (1)When using in clean enbironment (without H₂S SO₂ NO₂ dust and other pollutants),it is recommended to Use flux resistant products
- (2). When using in polluted environ ment(with a certain amount of H₂S SO₂ NO₂dust and other pollutants), it is recom mended to use plastic encapsulated products.please confirm in actual use.
- (3)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.

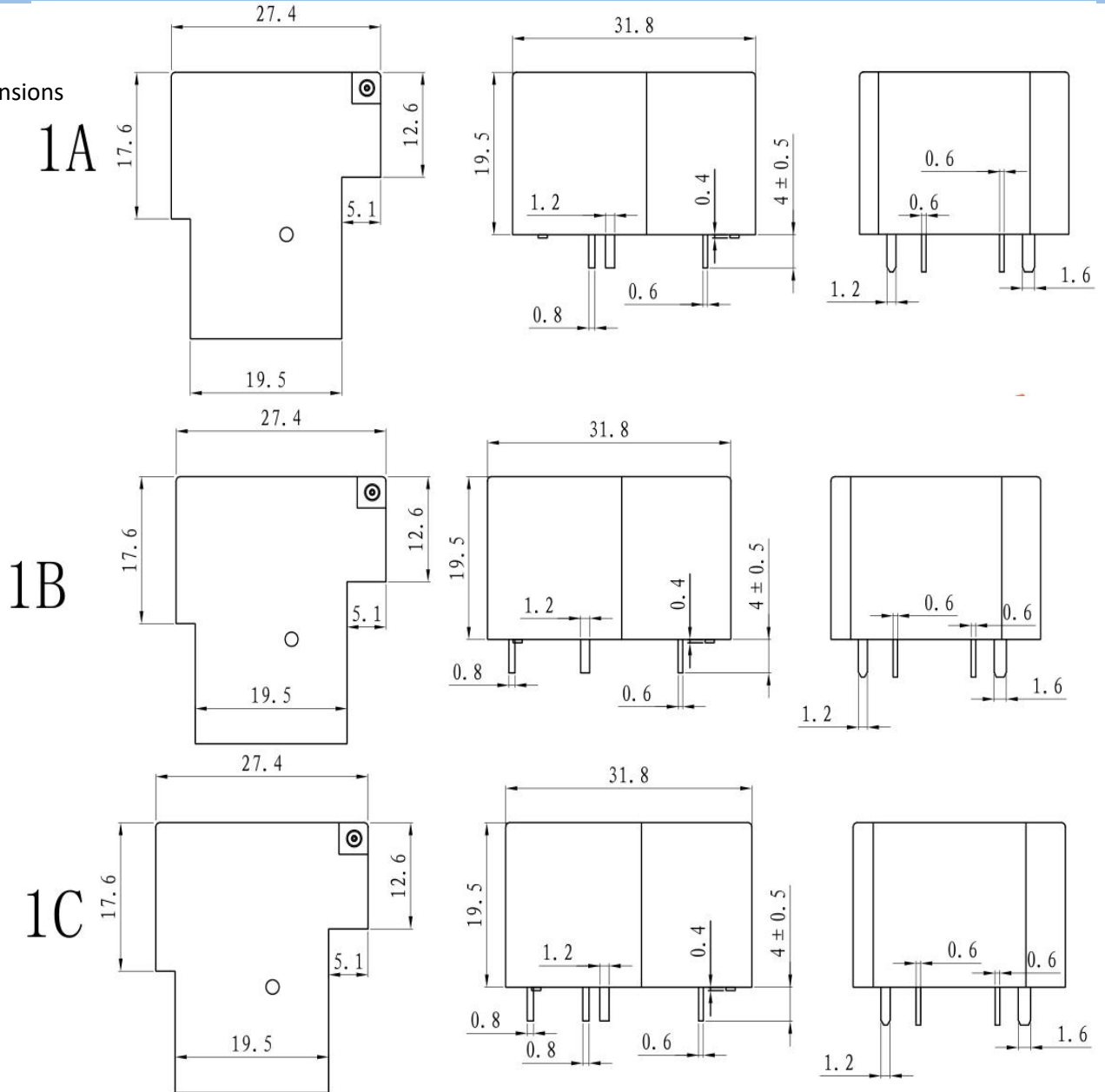
类别 category

型号	BT90-40A		
线圈灵敏度 Coil sensitivity	标准直流线圈 Standare DC coil		
	1C	1A	1B
防焊剂型 The flux type	BT90-SS-1□□DF40	BT90-SS-1□□DMF40	BT90-SS-1□□DBF40

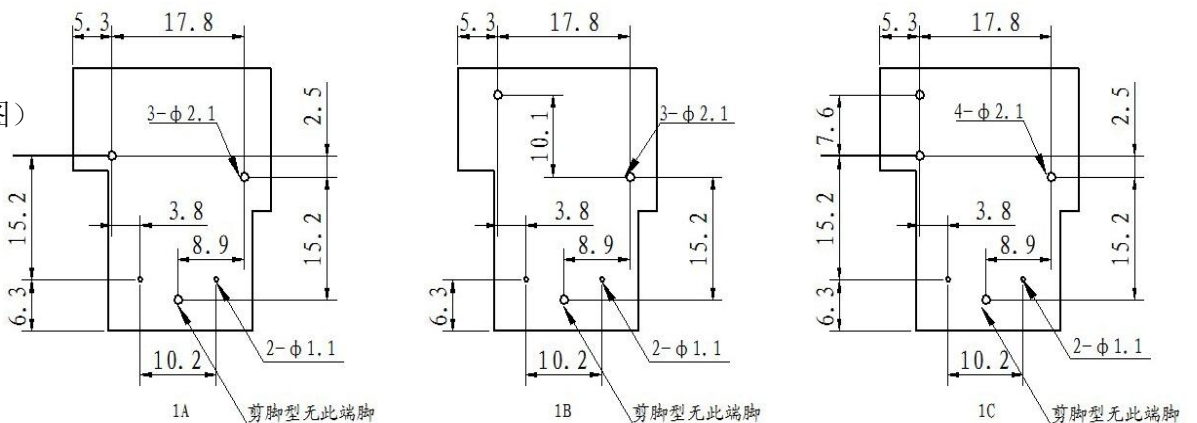
外形尺寸、接线、安装孔位图

Overall dimension, wiring and installation hole bitmap

外形尺寸
Outline Dimensions



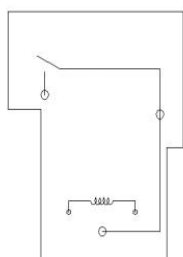
安装孔位图(底视图)
PCB Layout
(Bottom view)



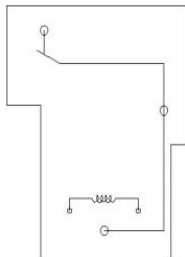
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小型大功率继电器
Small high power relay

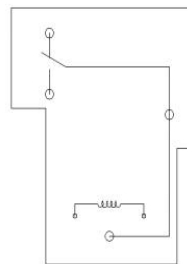
接线图(底视图)
Wiring Diagram
(Bottom view)



1A



1B



1C

备注:

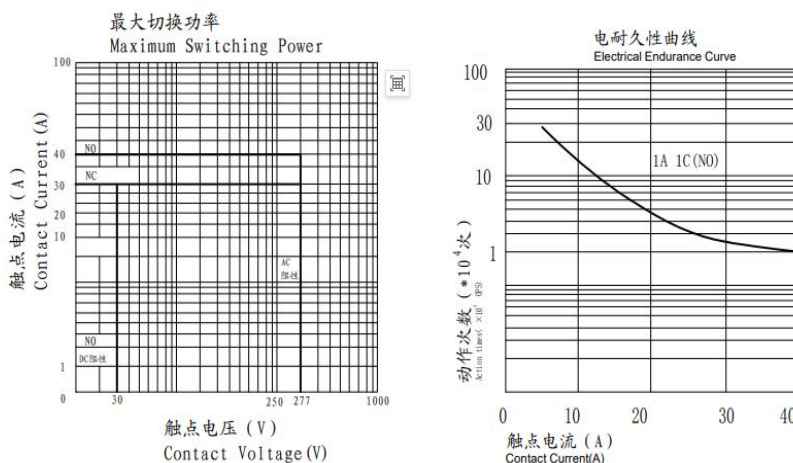
1. 产品外形图的引脚标注尺寸为沾锡前尺寸（沾锡后会变大），安装孔尺寸为推荐的PCB板孔的设计尺寸，具体PCB板孔设计尺寸可根据产品实物进行测绘、调整。
2. 产品部分外形尺寸未注尺寸公差，当外形尺寸 $\leq 1\text{mm}$ ，公差为 $\pm 0.2\text{mm}$ ；当外形尺寸在 $(1\sim 5)\text{mm}$ 之间时，公差为 $\pm 0.3\text{mm}$ ；当外形尺寸 $> 5\text{mm}$ ，公差为 $\pm 0.4\text{mm}$
3. 安装孔尺寸中未注尺寸公差为 $\pm 0.1\text{mm}$

DISCLAIMER:

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 mounting 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 if not marked with dimensional tolerance, when the 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



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.