

Power Relay Series 功率继电器系列-- BT91

FEATURES特点

- Up to 30A or 40A contact switching capability
高达 30A / 40A 触点切换能力
- 4kV dielectric strength (between coil and contacts)
线圈与触点间介质耐压4kV
- sealed types and opened types
可提供密封型或敞开型
- Provide multiple installation methods
可提供多种安装方式



CONTACT PARAMETERS触点参数



Contact Form触点形式	A-1组常开	B-1组常闭	C-1组转换
Rating Load (Resistive) 额定负载	NO: 30A/277VAC 30A/30VDC NC: 30A/277VAC		NO: 40A/277VAC 30A/30VDC NC: 30A/277VAC
Max. Switching Current最大切换电流	30A		40A
Max. Switching Voltage最大切换电压	277VAC/30VDC		277VAC/30VDC
Max. Switching Power最大切换功率	7500VA/900W		10000VA/900W

CHARACTERISTICS性能参数

Contact Materials触点材料	Ag Alloy银合金		
Contact Resistance接触电阻	100mΩ Max		
Operate Time吸合时间	15ms. Max		
Release Time释放时间	10ms. Max		
Insulation Resistance绝缘电阻	100MΩ Min.(DC500V)		
Initial Dielectric Strength介质耐压	between open contacts: 触点与触点间:	AC1,000V,50/60Hz 1Min	
	between contacts and coil: 触点与线圈间:	AC2,500V,50/60Hz 1Min	
Vibration Resistance抗振动	Damage limits: 耐久:	10～55Hz Double Amplitude双振幅1.5mm	
	Malfunction: 误动作:	10～55Hz Double Amplitude双振幅1.5mm	
Shock Resistance抗冲击	Damage limits: 耐久:	100G Min	
	Malfunction: 误动作:	10G Min	
Life寿命	Mechanical Life (10800 per hour) 机械寿命（每小时10800次）	5 x10 ⁷	
	Electrical Life (600 per hour) 电气寿命（每小时600次）	5 x10 ⁴	
Ambient Temperature环境温度	-40℃～+105℃（No condensation）（不冷凝）		
Unit Weight单位重量	约Approx.27.0g		

备注: 4KV dielectric strength (between Coil and contacts) needs to be noted in the order
4KV电介质强度 (线圈和触点之间) 需要订单备注

COIL RATINGS (at23°C) 线圈参数 (在23°C)

Coil Nominal Voltage 额定电压 (VDC)	Nominal Current 额定电流 ±10%(mA)	Coil Resistance 线圈电阻 ±10% (Ω)	Max. Continuous Voltage 最大连续外加电压	Pick-Up Voltage 吸合电压 (Max)	Drop-Out Voltage 释放电压 (Min)	Rated power 额定功率
5	180.00	27	Coil Nominal Voltage 130% 额定电压的 130%	Coil Nominal Voltage 75% 额定电压的 75%	Coil Nominal Voltage 10% 额定电压的 10%	About 0.90W 约0. 90W
6	150.00	40				
9	100.00	90				
12	75.00	160				
15	60.00	250				
18	50.00	360				
24	37.50	640				
48	18.75	2,560				
110	8.20	13,400				

ORDERING INFORMATION 订货标记

BT91-SS-1 12 DM F 40 1 S (XXX)
1 2 3 4 5 6 7 8 9 10

1. Model Number 基本型号 BT91 2. Encapsulation form: SS - Plastic Sealed 封装形式: SS - 塑封型 3. Number or pole : 1 - 1 pole 触点组数: 1—1组触点 4. Coil Voltage 线圈规格 (VDC): DC5V, DC6V, DC9V, DC12V, DC15V, DC24V, DC48V 5. Contact form: DM - FormA DB - FormB D - FormC 触点形式: DM - 常开型 DB - 常闭型 D - 转换型 6. Insulation level: F - CLASS F Nil - Standard products 绝缘等级: F - Class F 无 - 标准品	7. load / 负载: Nil (无) - 30A 40 - 40A 8. Shell type / 外壳类型: 无 - 标准品 (快插端子全包无法兰) 1 - 快插端子半包有法兰安装支架 2 - 快插端子全包有法兰安装支架 3 - 快插端子不包有法兰安装支架 9. Initial Dielectric Strength (between Coil and contacts): Nil - Standard products 2500V S - 4000V 介质耐压 (线圈与触点间) 无 - 标准品 2500V S - 耐压 4000V 10. Customer Special Code :XXX- Customer Special Requirements No - Standard Type 客户特性号: XXX-客户特殊要求, 无-标准型
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SAFETY STANDARD 安规认证

AuthType Basic 认证类别	UL/C__UL	TUV	CQC
Authentication Load 认证负载 (30A)	NO: 30A/250VAC/30VDC NC: 20A/250VAC/30VDC	NO: 30A/277VAC/30VDC NC: 30A/277VAC	NO: 30A/277VAC/30VDC NC: 30A/277VAC
Authentication Load 认证负载 (40A)	正在申请中	NO: 40A/277VAC 30A/30VDC NC: 30A/277VAC	NO: 40A/277VAC 30A/30VDC NC: 30A/277VAC

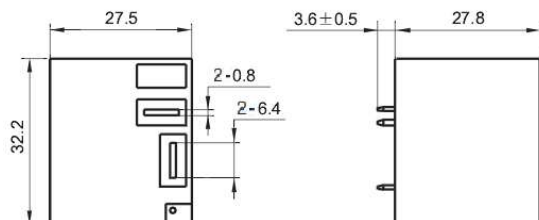
TYPICAL USE 典型用途

- Thermostat. ● Heaters and ventilation ● Air Condition ● Household appliances
- 温控器 ● 加热器和通风装置 ● 空调 ● 家用电器

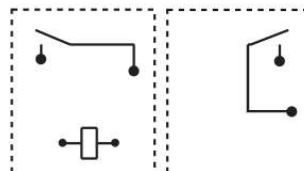
OUTLINE DIMENSIONS (UNIT:mm)外形尺寸 (单位: mm)

BT91 标准型

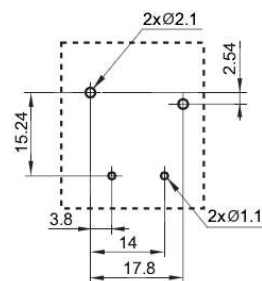
一组常开 1 Form NO



外形图
Outline Dimensions

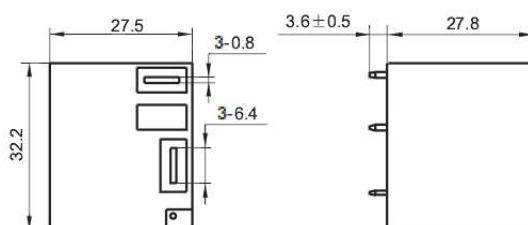


(底视图) (底视图)
接线图
Wiring Diagram(Bottom view)

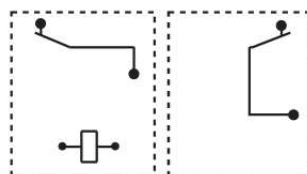


安装孔位图
(Bottom view)

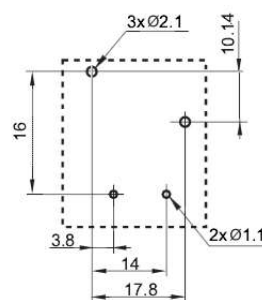
一组常闭 1 Form NC



外形图
Outline Dimensions

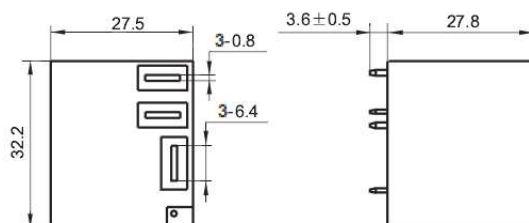


(底视图) (底视图)
接线图
Wiring Diagram(Bottom view)

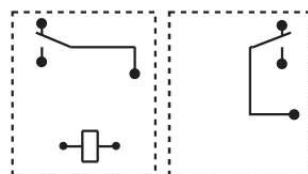


安装孔位图
(Bottom view)

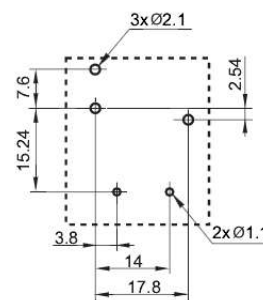
一组转换 1 Form NO/NC



外形图
Outline Dimensions



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



安装孔位图
(Bottom view)

备注:

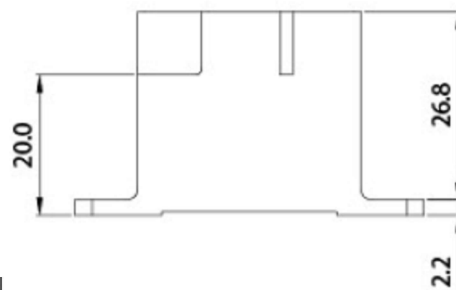
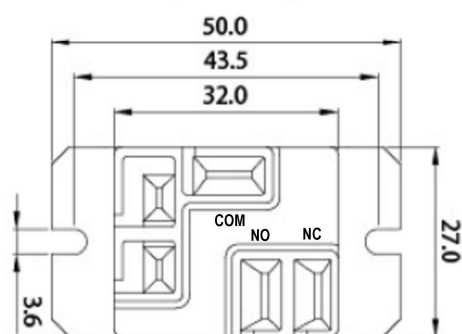
- (1) 产品部分外形尺寸未注尺寸公差, 当外形尺寸 $\leq 1\text{mm}$, 公差为 $\pm 0.2\text{mm}$; 当外形尺寸在 $1\sim 5\text{mm}$ 之间时, 公差为 $\pm 0.3\text{mm}$; 当外形尺寸 $> 5\text{mm}$ 时, 公差为 $\pm 0.4\text{mm}$;
- (2) 安装孔尺寸中未注尺寸公差的均为 $\pm 0.1\text{mm}$ 。

REMARK:

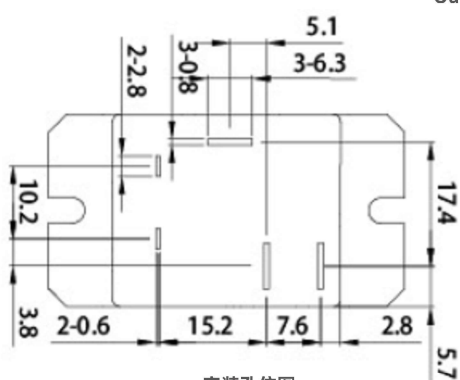
- (1) In case of no tolerance shown in outline dimension: outline dimension $\leq 1\text{mm}$, tolerance should be $\pm 0.2\text{mm}$; outline dimension $> 1\text{mm}$ and $\leq 5\text{mm}$, tolerance should be $\pm 0.3\text{mm}$; outline dimension $> 5\text{mm}$, tolerance should be $\pm 0.4\text{mm}$;
- (2) The tolerance without indicating for PCB layout is always $\pm 0.1\text{mm}$.

OUTLINE DIMENSIONS (UNIT:mm)外形尺寸（单位：mm）

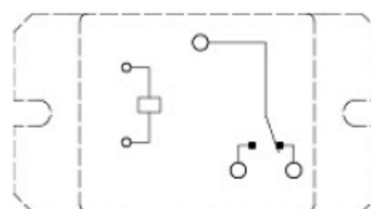
BT91 1型



外形图
Outline Dimensions

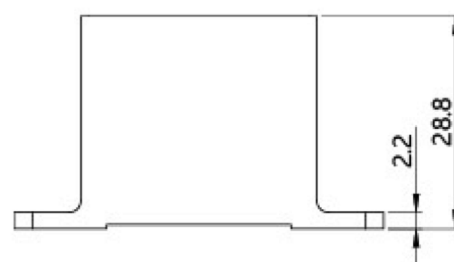
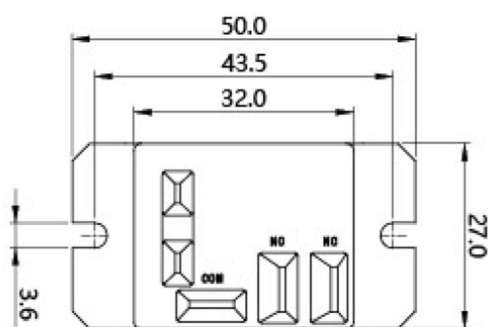


安装孔位图
(Bottom view)

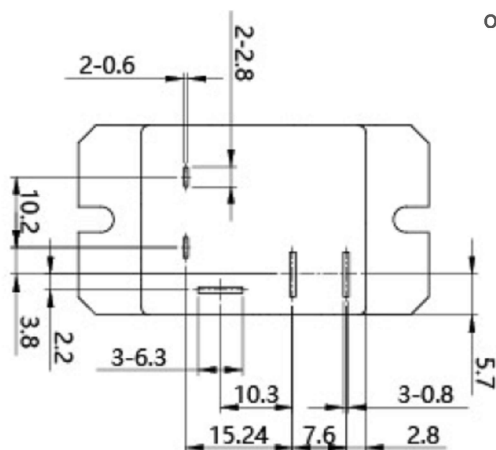


接线图
Wiring Diagram(Bottom view)

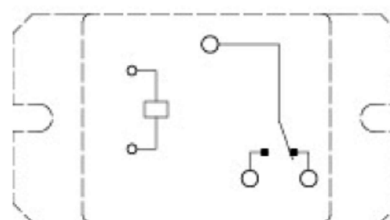
BT91 2型



外形图
Outline Dimensions



安装孔位图
(Bottom view)



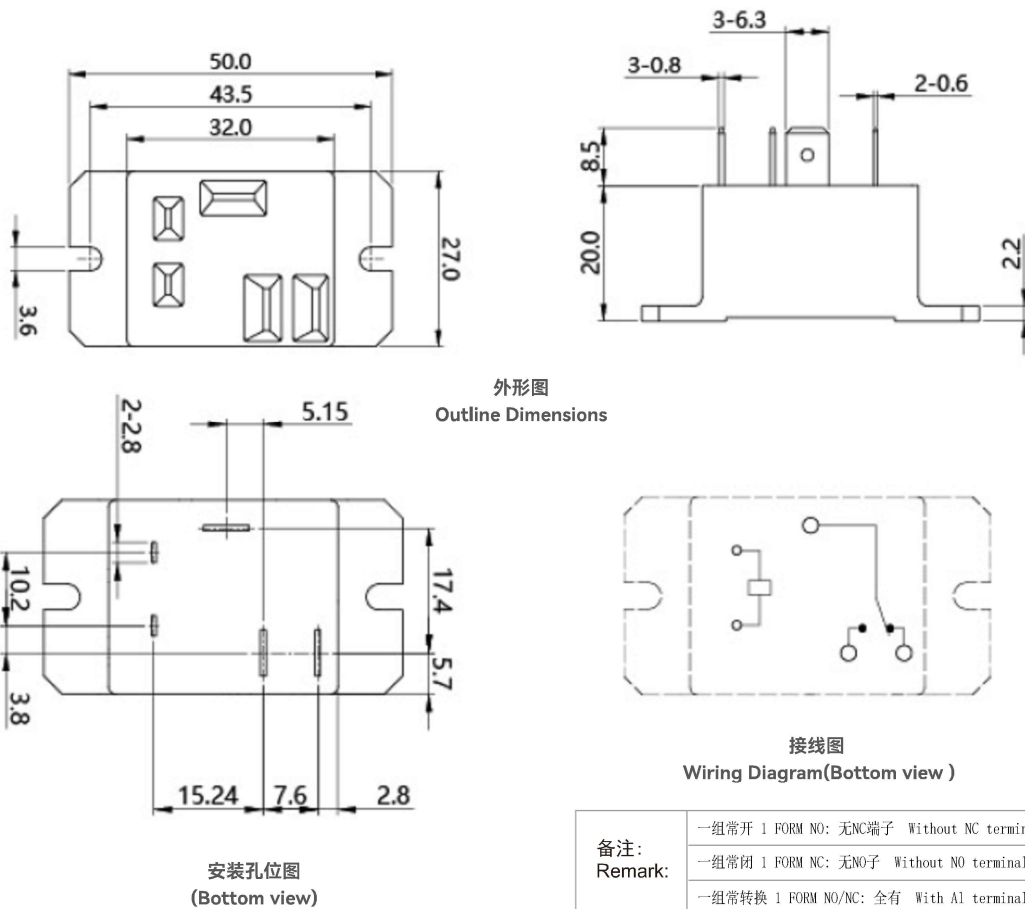
接线图
Wiring Diagram(Bottom view)

备注:
Remark:

- 组常开 1 FORM NO: 无NC端子 Without NC terminal
- 组常闭 1 FORM NC: 无NO子 Without NO terminal
- 组转换 1 FORM NO/NC: 全有 With A1 terminal

OUTLINE DIMENSIONS (UNIT:mm)外形尺寸（单位：mm）

BT91 3型



备注:

(1) 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 $> 5\text{mm}$ 时, 公差为 $\pm 0.4\text{mm}$;

(2) 安装孔尺寸中未注尺寸公差均为 $\pm 0.1\text{mm}$ 。

REMARK:

(1) In case of no tolerance shown in outline dimension: outline dimension $\leq 1\text{mm}$, tolerance should be $\pm 0.2\text{mm}$;

outline dimension $> 1\text{mm}$ and $\leq 5\text{mm}$, tolerance should be $\pm 0.3\text{mm}$; outline dimension $> 5\text{mm}$, tolerance should be $\pm 0.4\text{mm}$;

(2) The tolerance without indicating for PCB layout is always $\pm 0.1\text{mm}$.

PERFORMANCE CHART性能曲线图

