

## Automotive Relay Series 汽车继电器系列 -- JYA31F

### FEATURES 特点

- Up to 40A contact switching capability  
高达40A触点切换能力
- 1 Form A、1 Form B and 1 Form C configurations  
具有一组常开、一组常闭、一组转化
- Low consumption and high availability  
低功耗高性能
- Overall dimensions (28.0X28.0X25.0) mm.  
外形尺寸 (28.0X28.0X25.0) mm。



### 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 (阻性)	40A 14VDC (A)	30A 14VDC (B)	30A 14VDC (C)
	20A 28VDC (A)	10A 28VDC (B)	10A/20A 28VDC (C)
Max. Switching Current 最大切换电流	40A		
Max. Switching Voltage 最大切换电压	75VDC		
Max. Switching Power 最大切换功率	560W (A型), 420W (C型)		

### 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	10ms. 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:	AC550V, 50/60Hz 1Min	
	between contacts and coil: 触点与线圈间:	AC500V, 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:	10G Min	
	Malfunction: 误动作:	100G Min	
Life 寿命	Mechanical Life (10800 per hour) 机械寿命 (每小时10800次)	1 × 10 <sup>7</sup>	
	Electrical Life (600 per hour) 电气寿命 (每小时600次)	1 × 10 <sup>5</sup>	
Ambient Temperature 环境温度	-40℃ ~ +125℃ (No condensation) (不冷凝)		
Unit Weight 单位重量	约Approx.37.0g (有背)	约Approx.32.0g (无背)	

**COIL RATINGS (at23°C) 线圈参数 (在23°C)**

Model 型号规格	Nominal Voltage 线圈额定电压 VDC	Coil Resistance 线圈电阻 $\Omega \pm 10\%$	Parallel Resistance 并联电阻 $\Omega \pm 5\%$	Equivalent Resistance 等效电阻 $\Omega \pm 10\%$	Operate Voltage 吸合电压 $\leq VDC$	Release Voltage 释放电压 $\geq VDC$	Coil Power 额定线圈功率 W
CMA31-DC6V	6	22.5	-	-	4.2	0.6	1.6
CMA31-DC12V	12	90.0	-	-	8.4	1.2	
CMA31-DC24V	24	360	-	-	16.8	2.4	
CMA31-DC6V(R)	6	22.5	180	20.0	4.2	0.6	1.8
CMA31-DC12V(R)	12	90.0	680	79.5	8.4	1.2	
CMA31-DC24V(R)	24	360	2700	317.6	16.8	2.4	

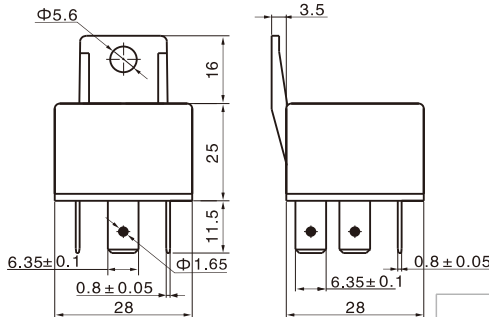
**ORDERING INFORMATION 订货标记**

JYA31F-S-DC12V-A-L-F-D-(XXX) 1 2 3 4 5 6 7 8	
1. Model Number基本型号 JYA31F 2. Encapsulation form: S-Plastic Sealed SH:Fluk proofed 封装形式: S-塑封型 SH-防焊剂型 3. Coil Voltage线圈规格 (VDC): DC5V,DC6V,DC9V,DC12V,DC18V,DC24V 4. Contact form: A-1Form A,B-1Form B,C-1Form C 触点形式: A-1组常开, B-1组常闭 C-1组转换	5. Rated Power:No-1. 6W,L-1. 8W 额定功率:无-1. 6W, L-1. 8W 6. Shell form: No - Ordinary type, F- Shell with back type 外壳形式: 无-普通型, F-外壳带背靠型 7. Parallel Electronic Component : Blank - Standard R- With Resistor D- With Diode (6V-180 $\Omega$ ,12V-680 $\Omega$ ,24V-2700 $\Omega$ ) 并联元件: 无-标准型 R- 带电阻 D- 带二极管 (6V-180 $\Omega$ ,12V-680 $\Omega$ ,24V-2700 $\Omega$ ) 8. 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

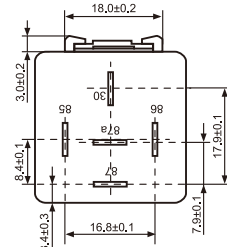
**OUTLINE DIMENSIONS (UNIT:mm)外形尺寸 (单位: mm)**

Backward type 背靠型

外形图 Outline



安装孔尺寸 Mounting Hole Layout (底视图) (Bottom View)

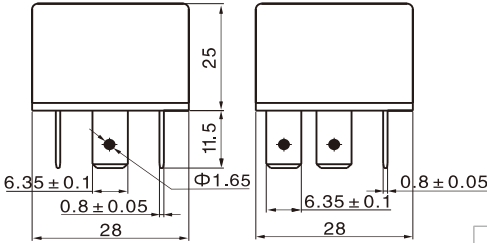


备注: Remark:

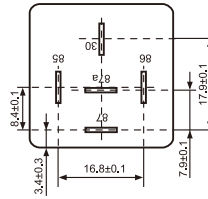
- A型无87a脚 Form A: Without 87a terminal
- B型无87脚 Form B: Without 87 terminal
- C型全有 Form C: With all terminals

Ordinary type  
普通型

外形图 Outline

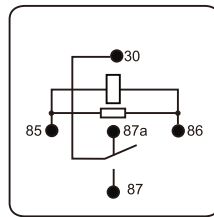
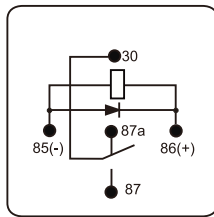
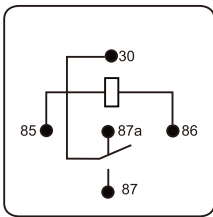


安装孔尺寸 Mounting Hole Layout  
(底视图) (Bottom View)



备注:	A型无87a脚 Form A: Without 87a terminal
Remark:	B型无87脚 Form B: Without 87 terminal
	C型全有 Form C: With all terminals

Wiring diagram (bottom view)  
接线图 (底视图)



备注:	A型无87a脚 Form A: Without 87a terminal
Remark:	B型无87脚 Form B: Without 87 terminal
	C型全有 Form C: With all terminals

Undimensioned tolerance: <1mm: ±0.2mm 1~5mm: ±0.3mm >5mm: ±0.4mm  
未标注尺寸公差: <1mm: ±0.2mm 1~5mm: ±0.3mm >5mm: ±0.4mm

Note: 1. The size of the lead foot is pre welding dimension. 注: 1、引出脚尺寸为预焊前尺寸  
2. installation hole size tolerance: +0.1mm 2、安装孔尺寸公差: ±0.1mm

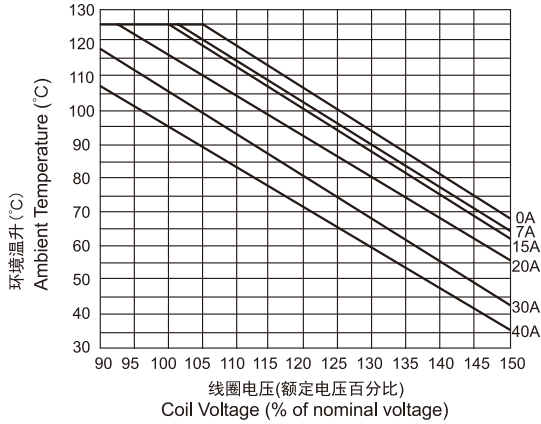
**TYPICAL USE 典型用途**

- Rear window mist eliminator, Battery breaker, Automobile air conditioner, Oil and mercury control, Cooling fan control, Fog lamp, Headlamp control, Seat adjustment
- 后窗除雾器, 电池断路装置, 汽车空调, 油泵控制, 冷却风扇控制, 雾灯、大灯控制, 座椅调节



PERFORMANCE CHART性能曲线图

线圈连续通电电压范围  
Continuous coil voltage range



最大切换功率  
Maximum Switching Power

