



陕西电子信息集团

Shaanxi Electronic Information Group

陕西群力电工有限责任公司

Shaanxi Qunli Electric Co., Ltd.

# 产品规格确认书

## Specification for Approval

客户名称 Customer:

产品名称 Product Name: 功率继电器 Power Relay

产品型号 Product Model: JQC-3FB-S/012-1H11

发行日期 Date: 2025 年 1 月 20 日

有效期 Period of Validity: 二年 Two Years

版本 Version: 1

群力电工审批签字 Signature by Qunli		客户签字或盖章 Stamp or signature by customer
批准 Approved	审核 Check	拟制 Make
赵俊恺	刘新刚	侯京琼
		负责人 By:
		日期 Date:

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## 产品规格书

客户 Customer:

### 1. 品名:

#### Type Model:

- 1.1 种类: 功率继电器  
Kinds: Power relay
- 1.2 型号: JQC-3FB-S/012-1H11  
Type:
- 1.3 外形尺寸: 19mm×15.3mm×15.3mm  
Outline:
- 1.4 触点形式: 1 组常开  
Contact Arrangement: 1 FormA
- 1.5 触点材料: 银合金  
Contact Material: Silver Alloy

### 2. 线圈参数:

#### Coil Rating:

- 2.1 额定电压: 12Vd.c.  
Rated Voltage:
- 2.2 线圈电阻:  $400 \times (1 \pm 10\%) \Omega$   
Coil Resistance:
- 2.3 额定功耗: 0.36W  
Normal Operating Power: Coil: 0.36W
- 2.4 最大允许线圈电压: 13.2Vd.c.  
Max. Allowable Coil Voltage:

表 1 规格参数 Table 1: Coil data

规格 序号 Type No.	额定电压 (Vd. c.) Rated Voltage (Vd. c)	动作电压 Vd. c. (max) Operate Voltage (Vd. c)	释放电压 Vd. c. (min) Release Voltage (Vd. c)
12	12	8.4	1.2

### 3. 触点参数

#### Contace Specification

3.1 触点额定负载: 10A 277Va.c  
Contact Rating

3.2 最大切换电流: 10A  
Max. Contact Current:

3.3 最大切换电压: 277Va.c  
Max. Contact Voltage:

3.4 接触电阻:  
Contace Resistance: 100mΩ Max.

### 4. 性能

#### Performance

4.1 动作时间:  $\leq 10\text{ms}$   
Operate Time  
释放时间:  $\leq 5\text{ms}$   
Release Time

4.2 寿命  
Life

4.2.1 电耐久性:  $5 \times 10^4$  次, 动作频率为 6 次/分钟, 通断比 1:9  
Electrical Endurance: Operating frequency 6 ops/min , On-off ratio 1:9

4.2.2 机械耐久性:  $1 \times 10^6$  次, 无负载, 动作频率为 300 次/分钟  
Mechanical Endurance: No load at operating frequency of 300 ops/min

4.3 介质耐压  
Dielectric Strength

4.3.1 断开触点间: 750VAC (50Hz 1min)  
Between open contacts:

4.3.2 触点与线圈间: 1500VAC (50Hz 1min)  
Between coil to open contacts:

4.4 绝缘电阻  
Insulation Resistance

4.4.1 断开触点间: Between open contacts:	100M $\Omega$ (500Vd.c.)
4.4.2 触点与线圈间: Between coil to open contacts:	100M $\Omega$ (500Vd.c.)
4.5 振动 Vibration:	10~55Hz, 双振幅 1.5mm, 继电器外观、结构和性能不应有异常。 10Hz to 55Hz, Double amplitude 1.5mm, It shall be no abnormalities in appearance, construction and performance.
4.6 冲击 Shock	
稳定性: Malfunction:	98m/s <sup>2</sup> (10g), 三个相互垂直轴线的每一个方向 6 次, 闭合回路的断开或断开回路的闭合时间应不超过 1ms。 98m/s <sup>2</sup> (10g), 6 shocks (each direction of X, Y, Z), No opening of any closed contact circuit or no closing of any opened contact circuit shall exceed 1ms.
4.7 引出脚强度: Terminal Strength:	在垂直于引出脚方向上施加 2.5N 的拉力 10S, 继电器应无异常 (引出脚微弯可以接受)。 At push in direction the terminal can endure 2.5N force for 10s, It shall be no Abnormalities. (a little curving of the terminals shall be acceptable)
4.8 耐焊接热: Soldering Heat Resistance:	(260 $\pm$ 5) $^{\circ}$ C, (5 $\pm$ 1) s, 继电器应无异常。 There shall be no Abnormalities.
4.9 焊接性能: Soldering Ability:	(250 $\pm$ 5) $^{\circ}$ C, (3 $\pm$ 0.5) s, 引出端被浸锡部分应有 80% 以上连续覆盖一层锡层。 80% of the dipped portion shall be soldered.
4.10 耐温性 Temperature Resistance	
4.10.1 耐热: Heat Resistance:	85 $^{\circ}$ C 温度中放置 2h, 恢复常温后, 继电器的结构及性能应无异常。 Must be free from any abnormality in both the construction and characteristics after the relay is lift in a temperature of 85 $^{\circ}$ C for 2 hours and then in room temperature
4.10.2 耐寒 Cold Resistance:	-40 $^{\circ}$ C 温度中放置 2h, 恢复常温后, 继电器的结构及性能应无异常。 Must be free from any abnormality in both the construction

and characteristics after the relay is lift in a temperature of -40℃ for 2 hours and then in room temperature

## 5. 产品标识

### Marking

5.1 外壳颜色: 黑色  
Case Color: Black

5.2 印字位置: 顶面  
Marking Position: Top

## 6. 使用条件

### Operating Condition

6.1 温度: -40℃~85℃  
Temperature:

6.2 湿度: 35%~85%RH  
Humidity:

## 7. 储存条件

### Storage Condition

7.1 温度: 0℃~40℃  
Temperature:

7.2 湿度: 20%~80%RH  
Humidity:

7.3 环境:  
Environment:

7.3.1 产品储存场地不能有腐蚀性气体。  
Store in locations where the product is not exposed to corrosive gas

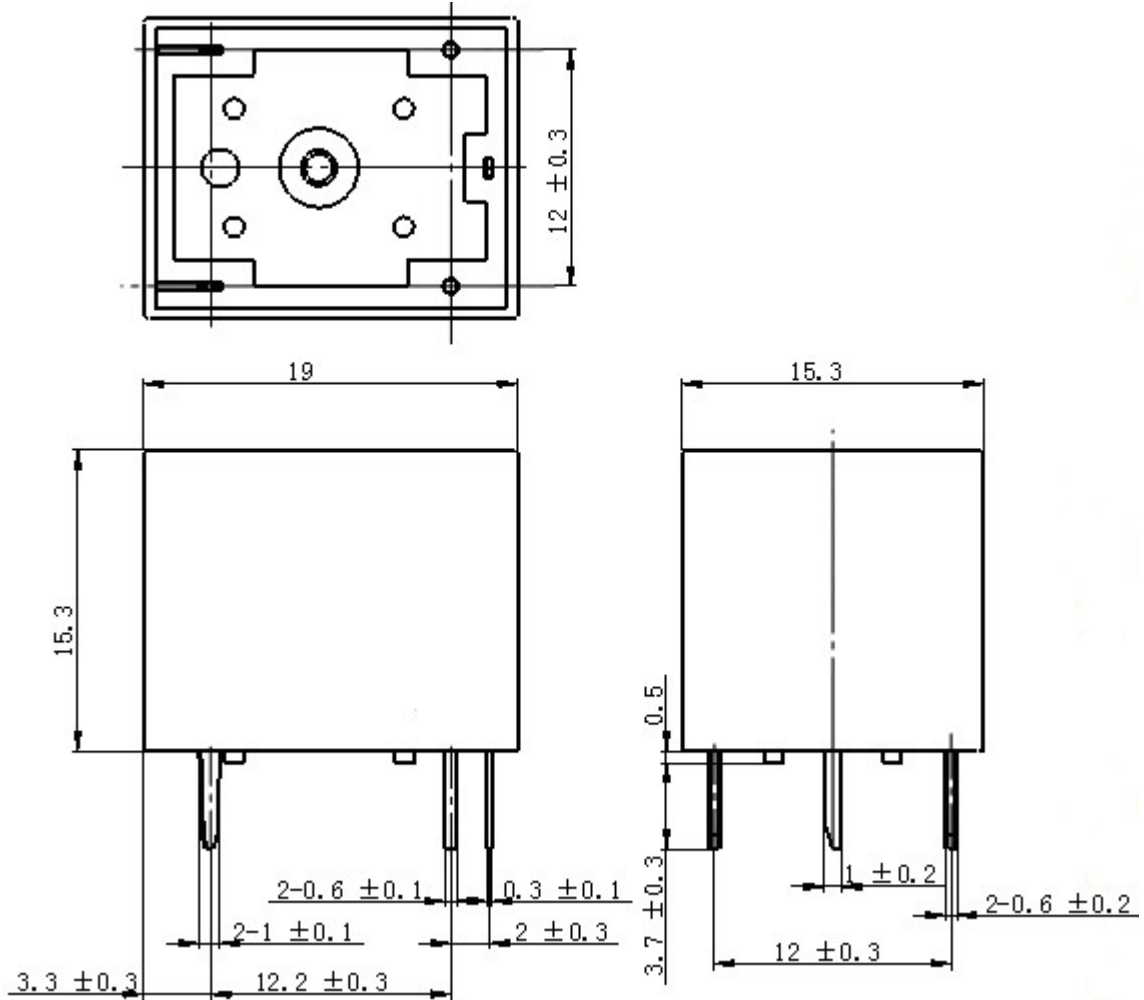
7.3.2 储存中应避免阳光直照产品。  
Keep product is not exposed to the direct ray of the sun.

8. 产品结构

**Configuration**

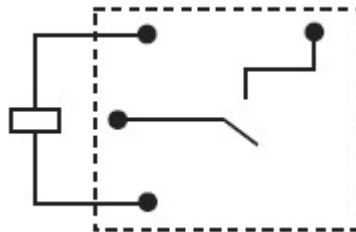
8.1 外形图:

Outline Schematic:



8.2 接线图:

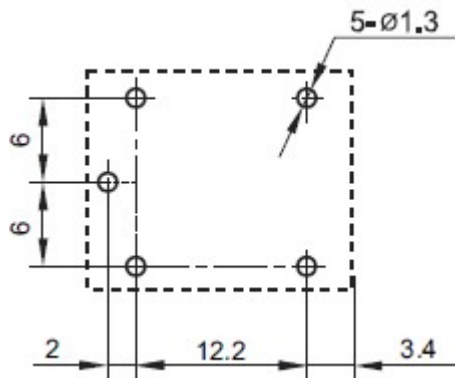
Wiring Diagram:



8.3 外形尺寸及公差:

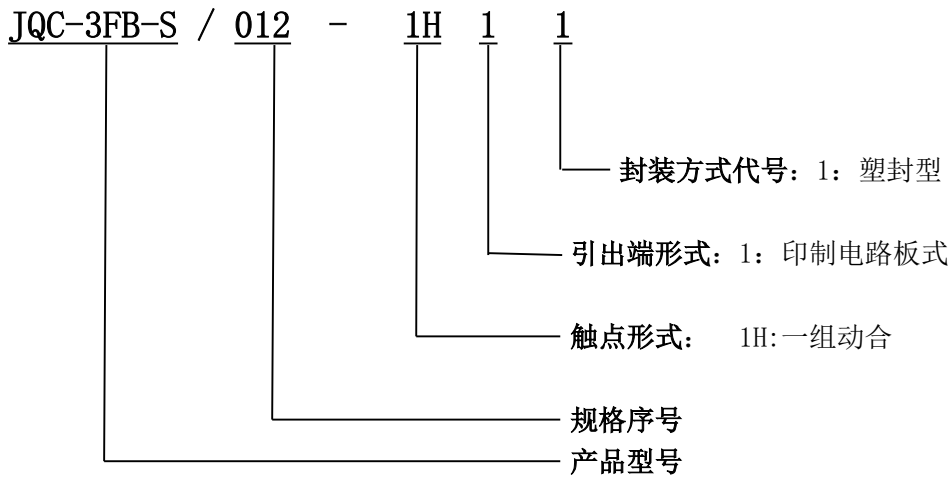
Outline Dimensions and Tolerance:

- 8.3.1 产品外形尺寸未注明尺寸公差:  
 Outline dimensions hadn' t specified tolerance:
- 外形尺寸 $\leq 1\text{mm}$ , 公差为 $\pm 0.2\text{mm}$   
 外形尺寸在 $1\sim 5\text{mm}$ 之间时, 公差为 $\pm 0.3\text{mm}$   
 外形尺寸 $\geq 5\text{mm}$ , 公差为 $\pm 0.5\text{mm}$ ;  
 Outline Dimensions  $\leq 1\text{mm}$ , Tolerance $\pm 0.2\text{mm}$   
 Outline Dimensions  $1\sim 5\text{mm}$ , Tolerance $\pm 0.3\text{mm}$   
 Outline Dimensions  $\geq 5\text{mm}$ , Tolerance $\pm 0.5\text{mm}$
- 8.3.2 PC板未注尺寸公差:  
 PC board dimensions hadn' t specified tolerance:
- $\pm 0.1\text{mm}$



## 9. 订货标记示例

### Ordering Information



## 10. 其它

### Others

- 10.1 环保措施: 产品符合 RoHS REACH 要求。  
 Environmental Protection: Products are all RoHS REACH compliant.
- 10.2 避免在强磁场条件下使用继电器, 外界强磁场会造成继电器动作和释放等参数发生变化。  
 To avoid using relays under strong magnetic field because it will change the parameters of relay such as pull-in and drop-out voltage.



10.3 为了保持继电器的性能，请注意不要使继电器掉落或受到强冲击。掉落后的继电器建议不再使用。

To maintain the performances of relays, please do not make the relay drop or be shocked strongly. Suggest that the relays dropped not be used.