

# 通用继电器

# HJR-21FD(-T)

- Miniature PCB surge cube relay with highest rating 20A 125VAC, 17A 277VAC, TV-8 rating.
- Surge voltage up to 6KV (between coil and contacts).
- Thermal class F: standard type (at 85°C).
- 1 Form C and 1 Form A configurations available.
- Class A insulation system.
- Ideal for motor control, compressor control for household appliances.
- Environmental friendly product (RoHS compliant).



## ORDERING CODE 订购代码

<b>HJR-21FD D - SS - 1 12 H 3 F - (XX)</b> 1      2    3    4    5    6    7    8    9								
1. Relay Model 继电器型号 HJR-21FD: 85°C, HJR-21FD-T: 105°C					6. Contact form 触点形式 Nil: Form C, H: Form A			
2. Coil Power 线圈功率 D=0.36W					7. Contact material 触点材料 NIL: AgSnO <sub>2</sub> , 1: AgCdO, 3: AgNi			
3. Construction 封装形式 SS: Plastic sealed					8. Insulation System 绝缘等级 Nil: Standard; F: Class F			
4. Contact group number 触点组数 1: 1 groups					9. Special Code 特殊代号 Nil: Standard, Letter or number: Special requirement			
5. Coil Nominal Voltage 线圈额定电压 03, 05, 06, 09, 12, 18, 24, 48VDC					IT: GWIT 灼热丝 750°C (at ≤ 2 s)			

## COIL DATA 线圈参数 (at 20°C)

Nominal Voltage 额定电压 (VDC)	3	5	6	9	12	18	24	48	0.36 W
Coil Resistance 线圈阻值 (Ω ± 10%)	25	70	100	225	400	900	1600	6400	
Rated Current 额定电流 (mA)	120	72	60	40	30	20	15	7.5	
Max Operate Voltage 最大吸合电压 (VDC)	2.25	3.75	4.5	6.75	9	13.5	18	36	
Min Release Voltage 最小释放电压 (VDC)	0.15	0.25	0.3	0.45	0.6	0.9	1.2	2.4	
Max Applicable Voltage 最大过载电压	70°C 时额定电压的 130%, 23°C 时额定电压的 170%								

## CONTACT DATA 触点参数

Contact Form 触点形式	1H, 1Z
Contact Material 触点材料	Silver Alloy
Load 负载	Resistive load (COS Φ 1)
Contact Ratings 触点负载	H: 17A 277VAC TV-8@ 125VAC; Z: (NO/NC) 17A/10A 277VAC
Minimum load 最小负载	100mA 5VDC
Max Switching Voltage 最大转换电压	277VAC
Max Switching Current 最大转换电流	20A
Max Switching Power 最大转换功率	4700VA
Contact Resistance 接触电阻	100mΩ <sub>Max</sub> at 6VDC 1A
Life Expectancy 寿命	Electrical 电气寿命: 100,000 Operations (at 300 Operations/minute)
	Mechanical 机械寿命: 10,000,000 Operations (at 300 Operations/minute)

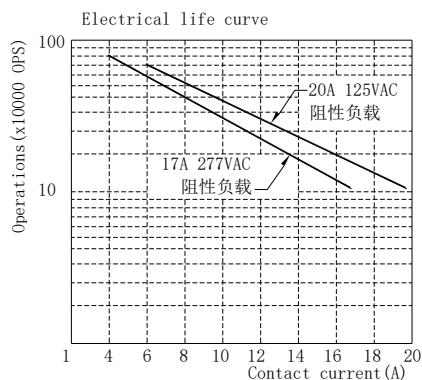
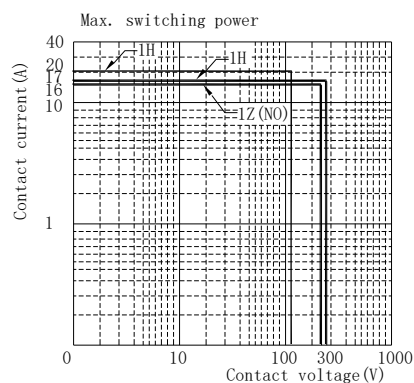
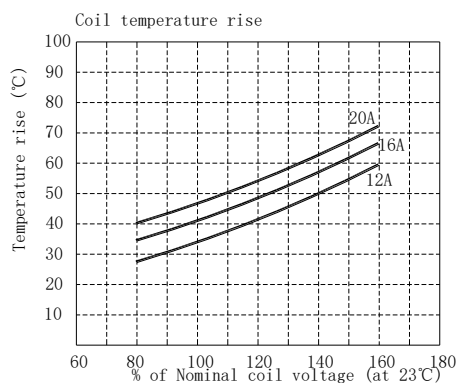
## ■ CHARACTERISTICS DATA 性能参数

Insulation Resistance 绝缘阻值	100M $\Omega$ Min at 500VDC
Dielectric Strength Between Open Contacts 触点间耐压	1000VAC(for one minute)
Dielectric Strength Between Contacts & coil 触点与线圈间耐压	2500VAC(for one minute)
Surge voltage Between Contacts & coil 触点与线圈间浪涌电压	6KV (1.2x50 $\mu$ s)
Operate Time 吸合时间	$\leq 15$ ms
Release Time 释放时间	$\leq 10$ ms
Temperature Range 环境温度	-40 $^{\circ}$ C to +85 $^{\circ}$ C (-T: 105 $^{\circ}$ C) no freezing
Shock Resistance 冲击	Operating Extremes 动作极限: 10G
	Damage Limits 破坏极限: 100G
Vibration Resistance 振动	10-55Hz, 1.5mm 双振幅
Max. switching frequency 最大转换频率	Mechanical: 18,000 operations/hr
	Electrical: 1,800 operations/hr
Humidity 湿度	35-85%
Weight 重量	Approx 14g
Construction 封装方式	Plastic sealed 塑封型
Safety Standard 安全标准	

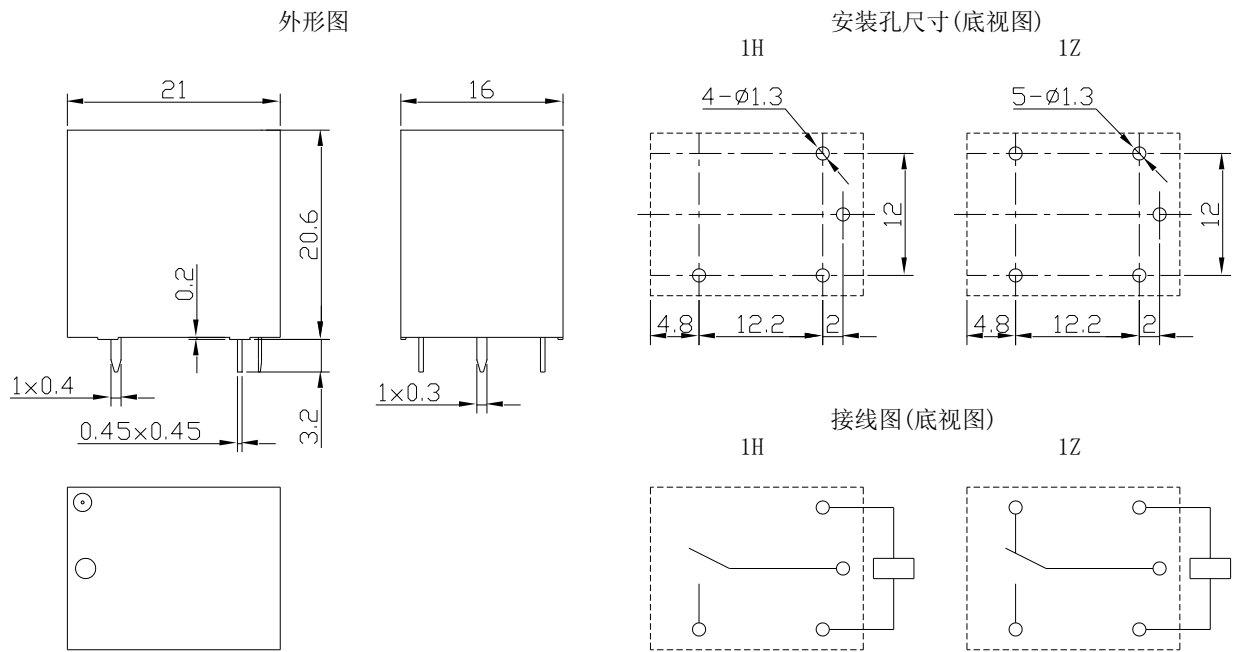
## ■ APPROVED STANDARDS 安全标准

Model (型号)	Coiling rating (线圈电压)	Safety Standard (安全标准)	Contact rating (触点负载)
HJR-21FD HJR-21FD-T	3 to 48VDC	UL	NO: 17A 277VAC; 1HP 277VAC 1/2HP 125VAC; TV-8@125VAC NC: 10A 277VAC; 1/HP 277VAC
		TUV	NO: 17A 277VAC; 8A COS $\phi = 0.4$ 277VAC 7A 400VAC NC: 10A 277VAC
		CQC	NO: 17A 277VAC; NC: 10A 277VAC

## ■ ENGINEERING DATA 设计参数



## ■ OVERALL AND MOUNTING DIMENSIONS 安装图



备注：1) 产品部分外形尺寸中未注尺寸公差：当外形尺寸 $\leq 1\text{mm}$ 时，公差为 $\pm 0.2\text{mm}$ ；当外形尺寸在 $1\sim 5\text{mm}$ 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 $\pm 0.1\text{mm}$ 。

### 声明：

本产品规格书仅供客户使用时参考，如有更改，恕不另行通知。