

### ■ Features

- Small size and low cost
- DIP standard terminals
- Surge Strength 1500V FCC68
- Sealed type available
- Conform to RoHS,ELV directive

### ■ Ordering Code

HJR4102		D	— 12VDC —			S	Z
		1	2	3	4	5	
1. Relay Model	2. Coil Power: N=0.45W, D=0.36W, L=0.2W	3. Coil Nominal Voltage: 3, 5, 6, 9, 12, 24, 48VDC					
4. S: Sealed	5. Contact Form: Z: Form C, H: Form A						

### ■ Coil Data (at 20°C)

Nominal Voltage(VDC)	3	5	6	9	12	24	48	
Coil Resistance( $\Omega \pm 10\%$ )	20	56	80	180	320	1280	5120	0.45W
Rated Current(mA)	150	90	75	50	37.5	18.7	9	
Max Operate Voltage(VDC)	2.25	3.75	4.5	6.75	9	18	36	
Min Release Voltage(VDC)	0.3	0.5	0.6	0.9	1.2	2.4	4.8	
Coil Resistance( $\Omega \pm 10\%$ )	25	69	100	225	400	1600	6400	
Rated Current(mA)	120	71.4	60	40	30	15	7.5	0.36W
Max Operate Voltage(VDC)	2.25	3.75	4.5	6.75	9	18	36	
Min Release Voltage(VDC)	0.3	0.5	0.6	0.9	1.2	2.4	4.8	
Rated Current(mA)	66.7	40	33.3	22.2	16.7	8.3		0.2W
Max Operate Voltage(VDC)	2.25	3.75	4.5	6.75	9	18		
Min Release Voltage(VDC)	0.3	0.5	0.6	0.9	1.2	2.4		
Max Applicable Voltage	130% of nominal voltage at 70°C, 170% of nominal voltage at 23°C							

### ■ Contact Data

Contact Form	1H/1Z
Contact Material	Silver Alloy
Load	Resistive Load(COS $\phi$ =1)
Contact Ratings	3A 120VAC/24VDC ,1A 250VAC(TÜV)
Minimum Load	1mA 5VDC
Max Switching Voltage	240VAC/60VDC
Max Switching Current	5A
Max Switching Power	360VA/90W
Contact Resistance	100m $\Omega$ Max at 6VDC 1A
Life Expectancy	Electrical: 100, 000 Operations (at 30 Operations/minute)
	Mechanical: 10, 000, 000 Operations (at 300 Operations/minute)

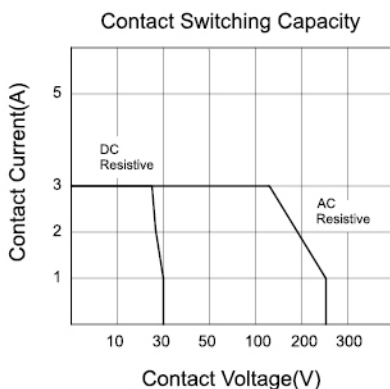
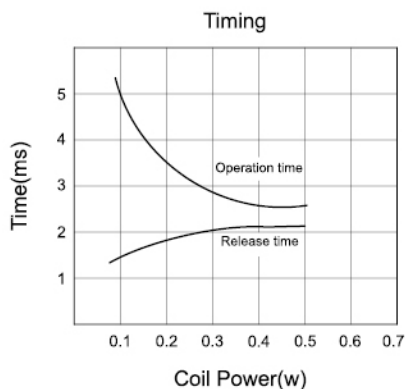
## ■ Characteristics Data

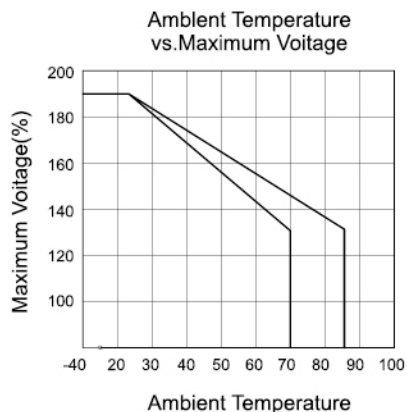
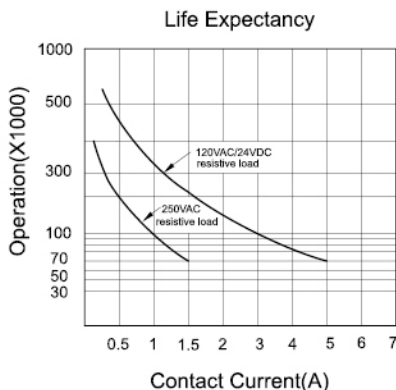
Insulation Resistance	100MΩMin at 500VDC
Dielectric Strength Between Open Contacts	500VAC (for one minute)
Between Contacts and Coil	1000VAC (for one minute)
Operate Time	5ms
Release Time	5ms
Temperature Range	-30°C to +85°C
Shock Resistance	Operating Extremes: 10G Damage Limits: 50G
Vibration Resistance	10-55Hz, 1.5mm
Max. Switching Frequency	Mechanical: 18,000 operations/hr Electrical: 1,800 operations/hr
Humidity	40-85%
Weight	Approx: 3.5g
Safety Standard	UL cUL TÜV CQC

## ■ Approved Standards

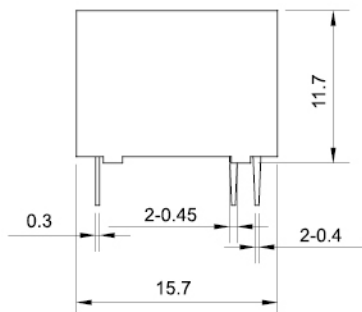
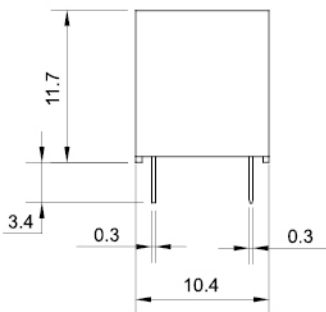
Model	Coil Rating	Safety Standard	Contact Rating
HJR4102	3 to 48VDC	TÜV	3A 120VAC
			3A 24VDC
			1A 250VAC
		UL/cUL	3A 120VAC
			3A 24VDC
			1A 250VAC
CQC	3A 120VAC		

## ■ Engineering Data

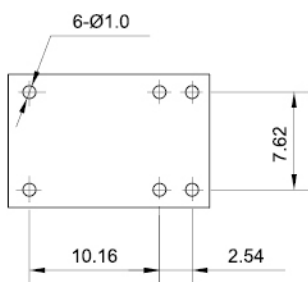




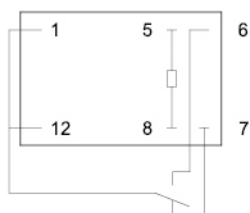
## Overall and Mounting Dimensions



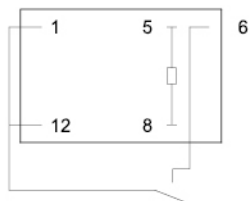
### PCB Layout



### Wiring Diagram



Form C



Form A

### Remark:

- 1). In case the tolerance is not shown in outline dimension, the tolerance should be  $\pm 0.2\text{mm}$  for outline dimension  $\leq 1\text{mm}$ ;  $\pm 0.3\text{mm}$  for outline dimension: 1~5mm and  $\pm 0.4\text{mm}$  for outline dimension  $> 5\text{mm}$ .
- 2). The tolerance without indication is always  $\pm 0.1\text{mm}$  for the dimension of PCB layout.

### Disclaimer:

These specifications are just for customers' reference and subject to change without notice.