

**HRM1**

功率继电器

**Features**

- General purpose power relay  
Dimensions: 29.0×12.6×20.8(mm)
- Contact: 2 Form A, 2 Form C
- Dielectric strength of 4000V between coil and contacts
- Creepage distance: 8mm

**Safety Approval**

US NO.E164730



NO.CQC09002035018



NO.50134947



NO.1063015(LR 106040)

**Relay Picture****ORDERING INFORMATION****HRM1** [H] - [S] - [DC12V] - [A]

Model	Coil Sensitivity	Enclosure	Coil Voltage	Contact Form
	H - High Sensitivity (540mW) Blank - Standard (720mW)	S - Plastic Sealed Type	DC3V, DC5V, DC6V, DC9V DC12V, DC24V, DC48V	A - 2 Form A C - 2 Form C

**SPECIFICATION****CONTACT DATA**

Contact Form	2 Form A, 2 Form C	
Contact Material	Ag Alloy	
Contact Rating	Resistive: 5A 250VAC/24VDC TV Rating: TV-5 Inductive: 5A 250VAC/24VDC (COSΦ=0.4, L/R=7ms)	
Contact Resistance	Max. 100mΩ (6VDC 1A)	
Load	Max. Switching Voltage	250VAC/30VDC
	Max. Switching Current	5A
	Max. Switching Power	1,250VA, 150W
	Min. Switching Load	5VDC, 100mA
Life	Electrical	100,000 operations
		20,000 operations (COSΦ=0.4, L/R=7ms)
	Mechanical	10,000,000 operations

**COIL DATA**

Nominal Coil Power	540mW, 720mW
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**GENERAL DATA**

Insulation Resistance		Min. 1000MΩ 500VDC
Dielectric Strength	Between open contacts	1,000VAC, 1min
	Between coil and contacts	4,000VAC, 1min
Operate Time	Max. 15ms	
Release Time	Max. 8ms	
Operating Temperature	-30~+55°C (720mW)	
	-30~+70°C (540mW)	
Humidity	35~95%RH, +40°C	
Shock Resistance	Endurance	1,000m/s <sup>2</sup>
	Misoperation	100m/s <sup>2</sup>
Vibration Resistance	Endurance	10~55Hz, 1.5mm double amplitude
	Misoperation	10~55Hz, 1.5mm double amplitude
Weight	Approximately 13.0g	

Note: Data shown are of initial value

**SAFETY APPROVAL**

File Number	Contact Form	Power Consumption	Coil Voltage	Contact Rating	Remarks
UL E164730	A	0.72W/0.54W	3-48VDC	TV-5	Ambient Temperature: 40°C
	A/C	0.72W/0.54W	3-48VDC	5A 120VAC	Ambient Temperature: 40°C
	A	0.72W/0.54W	3-48VDC	12A 24VDC	Ambient Temperature: 40°C

# HRM1

POWER RELAY

## SAFETY APPROVAL

File Number	Contact Form	Power Consumption	Coil Voltage	Contact Rating	Remarks
CSA 1063015(LR 106040)	A/C	0.72W/0.54W	3 - 48VDC	5A 120VAC	—
TUV 50134947-001	A/C	0.72W/0.54W	3 - 48VDC	5A 250VAC	Ambient Temperature: 85°C
CQC09002035018 (GB/T 21711.1-2008)	A/C	0.72W/0.54W	3 - 48VDC	5A 250VAC	Class F Insulation Ambient Temperature: 85°C

Specifications subject to change without notice

## COIL DATA

Ambient Temperature: 23°C

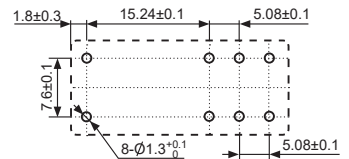
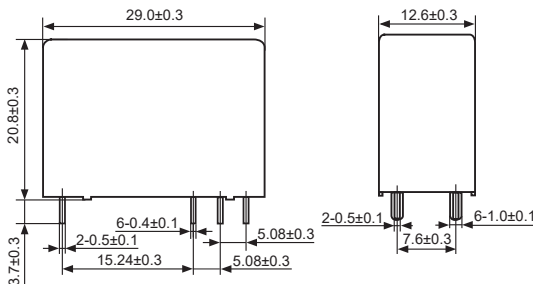
Model	Nominal Voltage VDC	Coil Resistance $\Omega$ +/-10%	Operate Voltage $\leq$ VDC	Release Voltage $\geq$ VDC	Coil Power mW
HRM1-S-DC3V	3	12.5	2.25	0.3	720
HRM1-S-DC5V	5	35	3.75	0.5	
HRM1-S-DC6V	6	50	4.50	0.6	
HRM1-S-DC9V	9	112.5	6.75	0.9	
HRM1-S-DC12V	12	200	9.0	1.2	
HRM1-S-DC24V	24	800	18.0	2.4	
HRM1-S-DC48V	48	3200	36.0	4.8	
HRM1H-S-DC3V	3	17	2.25	0.3	540
HRM1H-S-DC5V	5	46	3.75	0.5	
HRM1H-S-DC6V	6	67	4.50	0.6	
HRM1H-S-DC9V	9	150	6.75	0.9	
HRM1H-S-DC12V	12	267	9.0	1.2	
HRM1H-S-DC24V	24	1067	18.0	2.4	
HRM1H-S-DC48V	48	4267	36.0	4.8	

## OUTLINE, WIRING DIAGRAM, MOUNTING HOLE LAYOUT (UNIT: mm)

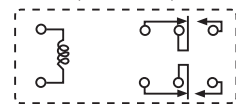
1 Form C

Outline

Mounting Hole Layout  
(Bottom View)



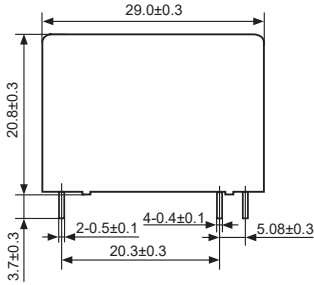
Wiring Diagram  
(Bottom View)



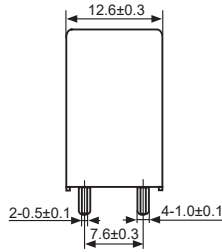
ISO9001, IATF16949, ISO14001 Approved

**OUTLINE, WIRING DIAGRAM, MOUNTING HOLE LAYOUT (UNIT: mm)**

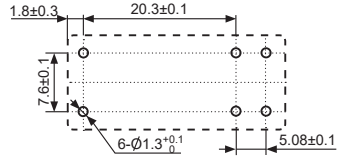
1 Form A



Outline



Mounting Hole Layout (Bottom View)

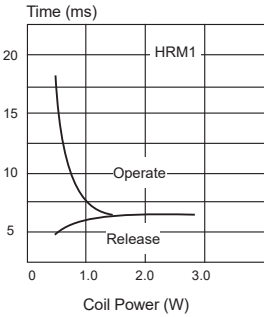


Wiring Diagram (Bottom View)

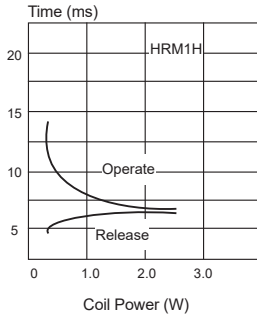


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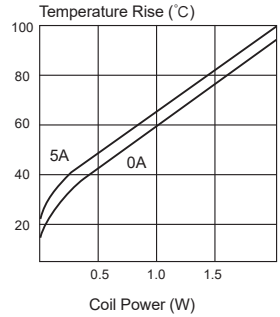
Time Curve (standard)



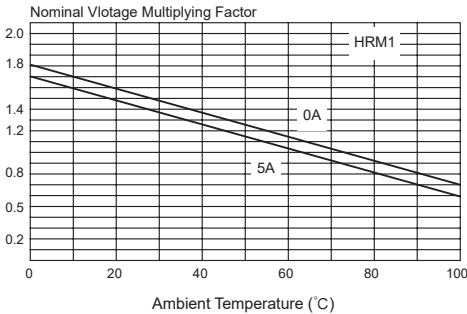
Time Curve(high sensitive)



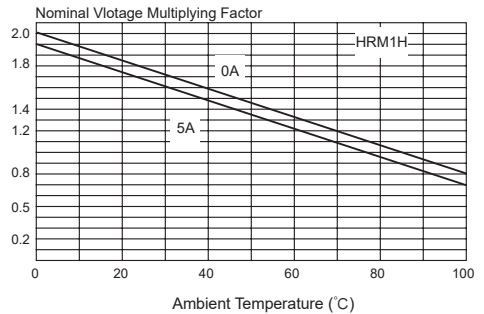
Coil Temperature Rise



Operating Range



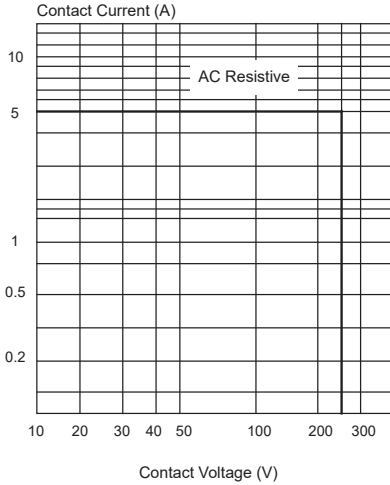
Operating Range



REFERENCE DATA

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Maximum Switching Power



Life Curves

