

HFRD400-YS

PLUG-IN RAILWAY RELAY



Features

- Instantaneous compact relay, 4CO contacts
- Delay on, 0-120 min
- Integrated back EMF suppression diode
- Magnetic arc blow-out for high breaking capacity
- Minimum switching current 10mA
- Maximum continuous current 10A
- Mechanical life: 5 million operations
- Integrated snaplock, no external retaining clip needed
- Visible cover & LED coil indicator

RoHS compliant

CONTACT DATA

Contact arrangement	4CO
Contact resistance ¹⁾	100mΩ max.(at 0.1A 6VDC)
Contact material	Ag, Ag+Au plated
Contact rating	10A 110VDC 5A 72VDC L/R≤40ms 0.5A 110VDC L/R≤40ms
Max. Switching voltage	250VDC, 440VAC
Max. Switching current	10A
Mechanical endurance	5×10 ⁶ OPS
Electrical endurance	≥5×10 ⁴ OPS(85°C, 5s on 5s off, 10A 110VDC, Resistive load)

Notes: The data shown above are initial values.

CHARACTERISTICS

Insulation resistance	1000 MΩ (500VDC)	
Dielectric strength	Between open contacts	1000VAC 1min
	Between contact sets	2500VAC 1min
	Between coil & contacts	2500VAC 1min
Surge voltage (Between coil & contacts)	5kV(1.2/50μs)	
Operate time(at nomi. volt.)	30ms max.	
Release time(at nomi. volt.)	30ms max.	
Shock resistance	IEC 61373, Category I, Class B, Body mounted	
Vibration resistance	IEC 61373, Category I, Class B, Body mounted	
Humidity	5% to 95%RH	
Ambient temperature	-50°C to 85°C	
Termination	Plug-in	
Unit weight	Approx. 190g	
Construction	Dust protected ¹⁾	

Notes: 1) The data shown above are initial values;
2) Dust protected relays can not be used in the environment with pollutants like H₂S, SO₂, NO₂, dust, etc.

COIL

Coil power	During delay: <0.375W (110Vd.c.) After delay: <3W (110Vd.c.)
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COIL DATA

23°C

Nominal Voltage VDC	Set Voltage VDC Max.	Reset Voltage VDC Min.	Max. Voltage VDC ¹⁾	Coil Resistance Ω
12	8.4	1.2	15	72×(1±10%)
24	16.8	2.4	30	270×(1±10%)
36	25.2	3.6	45	562×(1±10%)
48	33.6	4.8	60	1044×(1±10%)
55	38.5	5.5	69	1300×(1±10%)
72	50.4	7.2	90	2406×(1±10%)
96	67.2	9.6	120	4400×(1±10%)
100	70	10	125	4400×(1±10%)
110	77	11	137.5	5330×(1±10%)
120	84	12	150	6160×(1±10%)
125	87.5	12.5	156.25	7634×(1±10%)
220	154	22	275	21776×(1±10%)
250	175	25	312.5	23850×(1±10%)

Notes: 1) The data shown above are initial values;
2) Maximum voltage refers to the maximum voltage which relay coil could endure in a short period of time.



HONGFA RELAY

ISO9001, IATF16949, ISO14001, ISO45001, IECQ QC 080000, ISO/IEC 27001 CERTIFIED

2025 Rev. 1.00

ORDERING INFORMATION

	HFRD400-YS/ 110 -3 G D J M XX S XX	
Type		
Coil voltage	12, 24, 36, 48, 55, 72, 100, 110, 120, 125, 220, 250 VDC	
Contact material	3: Ag Alloy	
Contact plating	G: Gold plate	Nil
Coil protect	D: With Diode	Nil: No Diode
Coil indicator	J: With LED	Nil: No LED
Arc blow-out	M: Magnetic arc blow-out	Nil: no Magnetic arc blow-out
Time delay	Nil: 0 No.: The number in front of the letter S: Second M: Minute H: Hour Nil: 0 No.: The number in front of the letter	
Special code¹⁾	XXX: Customer special requirement Nil: Standard type	

Notes: 1) For example:S5 indicates a delay of 0.5 seconds, 1S5 indicates a delay of 1.5 seconds, and 15S indicates a delay of 15 seconds;
 M5 represents a delay of 0.5 minutes, 1S5 represents a delay of 1.5 minutes, 15S represents a delay of 15 minutes;
 H5 represents a 0.5 hour delay, 1H5 represents a 1.5 hour delay, and 15H represents a 15 hour delay;
 2) The customer special requirement express as special code after evaluating by Hongfa.

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

Outline Dimensions



