

HONGFA RELAY



SUBMINIATURE AUTOMOTIVE RELAY

SPDT 20Amp PC Board

H F K W



- High current contact capacity
(Carrying current:35A/2min 25A/1h)
- Improved heat resistance
- Extended operation range
- High resistance to vibration and shock
- Two types of contact material

■ CONTACT DATA

Arrangement	1 Form C	
Initial Contact Resistance	100mΩ	
Max. (at 1A 6VDC)		
Contact material	W type AgSnO	N type AgNi
Contact rating		
Resistive load	14VDC 10A	
Locked motor load	14VDC 20A	
Motor free load	14VDC-inrush 20A,break 4A	
Max. Carrying current	35A/2 min,25A/1 h	
Max. Inrush current (Ref.)	60A	40A
Max. Switching current (Ref.)	NO/NC: 35/10A 16VDC	
Min. Applicable load (Ref.)	1A 6VDC	2A 6VDC
Expected	Mechanical	1×10^7 ops
Life min.	Electrical	2×10^5 ops
operations		(At contact rating load)

■ COIL

Nominal coil power	0.6 W
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■ SPECIFICATION

Initial Insulation Resistance	100MΩ , 500VDC	
Dielectric Strength		
Between coil and Contacts	500VAC, 1min	
Between open contacts	500VAC,1min	
Operate time (at nomi. Vot.)	10 ms	
Release time (at nomi. Vot.)	5 ms	
Temperature rise (at nominal voltage)	Max. 60 °C	
Shock	Functional	100 m/s ²
Resistance	Destructive	1000 m/s ²
Vibration Resistance	DA:1.5mm ,10 to 55Hz	
Humidity	98% +40°C	
Ambient temperature	-40 to +85 °C	
Termination	PCB	
Unit weight	approx. 6 g	
Construction	IP67	

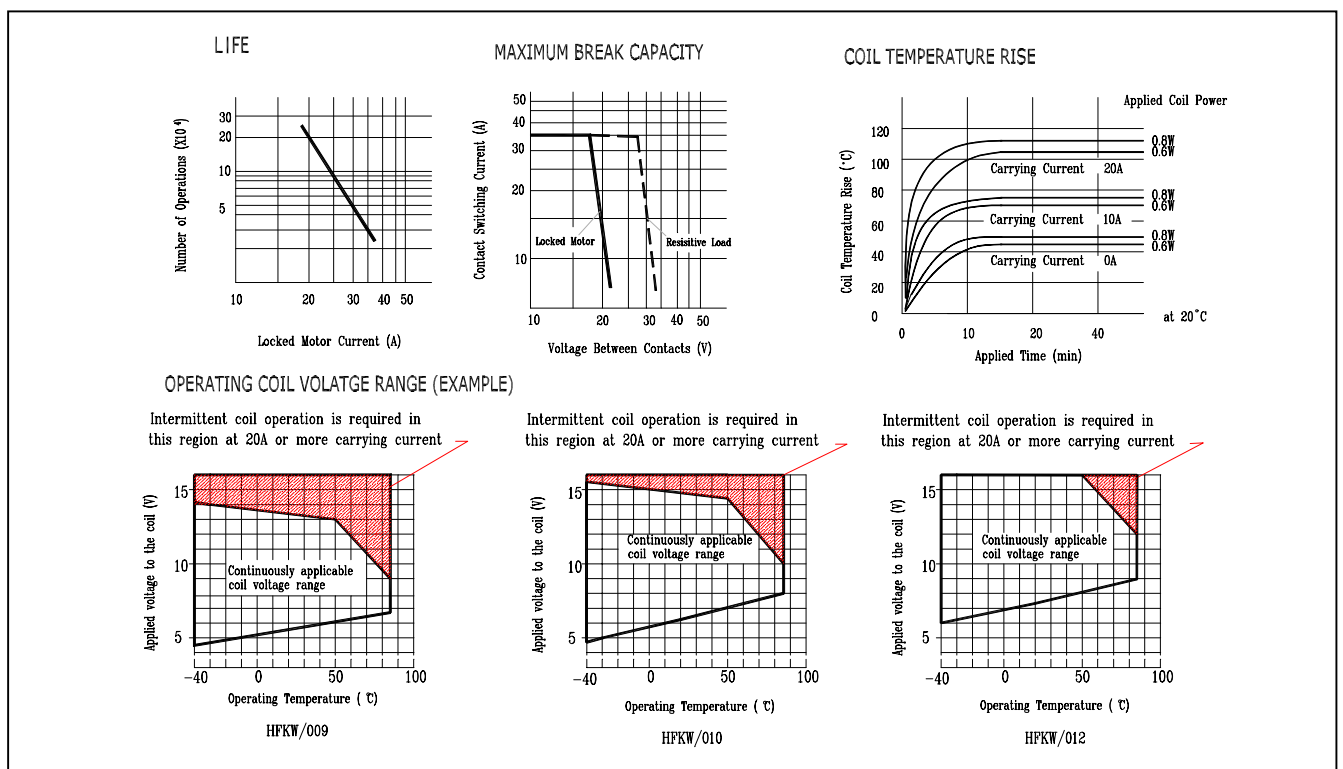
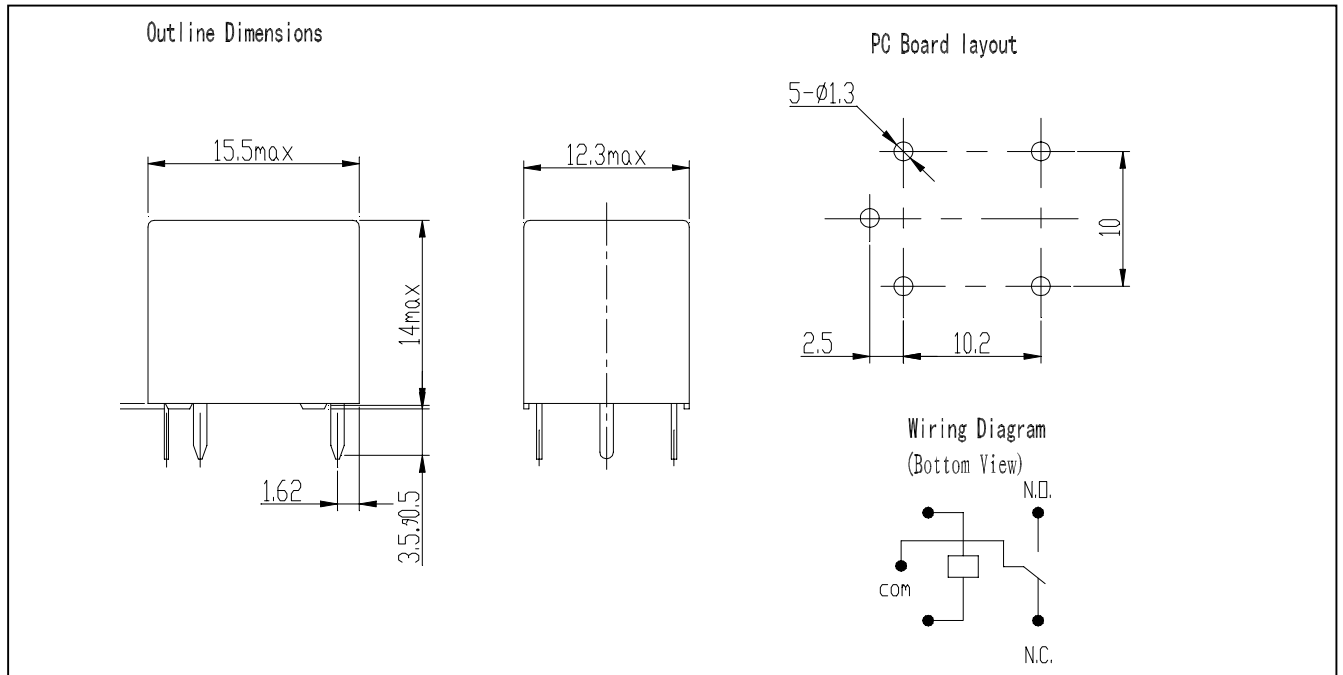
■ TABLE

Nominal Voltage VDC	Pick-up Voltage VDC		Drop-out Voltage VDC	Coil Resistance Tolerance: ± 10%
	20 °C	85 °C	20 °C	
6	3 . 6	4 . 5	0 . 5	6 0
9	5 . 4	6 . 8	0 . 7	1 3 5
1 0	6 . 3	7 . 9	0 . 8	1 8 0
1 2	7 . 3	9 . 0	1 . 0	2 4 0
1 8	1 0 . 8	1 3 . 5	1 . 5	5 4 0
2 4	1 4 . 4	1 8 . 0	2 . 2	9 6 0

■ ORDERING INFORMATION

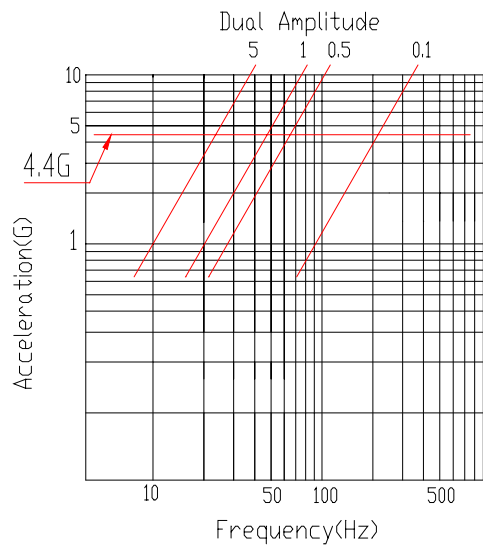
HFKW -- 012 -- 1Z W		
Coil voltage	Contact arrangement	Contact Material
6, 9, 10, 12, 18, 24VDC	1Z: SPDT	W: AgSnO N: AgNi

■ OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

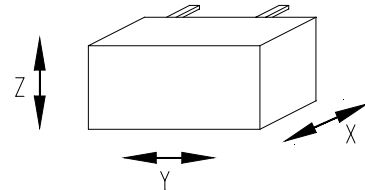


■ VIBRATION RESISTANCE CHARACTERISTICS

HFKW VIBRATION RESISTANCE CHARACTERISTICS

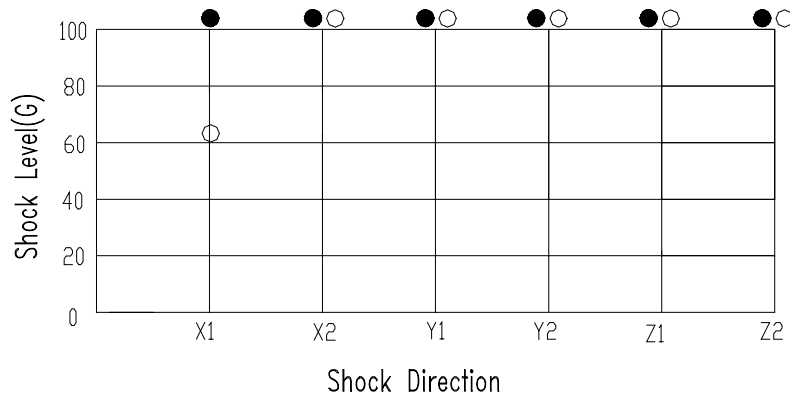


Frequency: 10 to 500 Hz
 Acceleration: 10 G Max.
 Direction of Vibration: See Diagram as Following
 Detection Level: 100 us

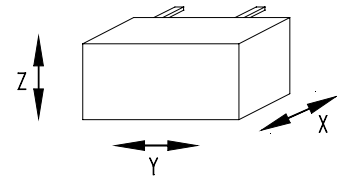


■ SHOCK RESISTANCE CHARACTERISTICS

SHOCK RESISTANCE CHARACTERISTICS



Shock Application Time: 11 ms
 Test Material: Coil, Energized & De-Energized
 Shock Direction: See Diagram as following
 Detection Level: 100us



○ : NC Contact
 ● : NO Contact