

HF41F

SUBMINIATURE POWER RELAY



File No.:E133481

Features

- Slim size (width 5mm)
- High breakdown voltage 4kV (between coil and contacts)
- Surge voltage up to 6kV (between coil and contacts)
- Clearance/creepage distance: 8mm
- High sensitive: 170mW
- 1 Form A and 1 Form C configurations
- Environmental friendly product available (RoHS compliant)
- Outline Dimensions: 28.0 x 5.0 x 15.0mm

CONTACT DATA

Contact arrangement	1A, 1C
Initial contact Resistance Max.	100mΩ (at 1A 6VDC) Gold plated: 30mΩ (at 1A 6VDC)
Contact material	AgNi
Contact rating (Res. load)	6A 250VAC/30VDC
Max. switching voltage	400VAC / 125VDC
Max. switching current	6A
Max. switching power	1500VA / 180W
Mechanical life	1 x10 ⁷ OPS
Electrical life	NO/NC: 1x10 ⁴ OPS (at 85°C)

CHARACTERISTICS

Initial insulation resistance	1000MΩ (at 500VDC)	
Dielectric strength	Between coil & contacts	4000VAC 1 min.
	Between open contacts	1000VAC 1 min.
Operate time (at nomi.volt.)	Max. 8ms	
Release time (at nomi.volt.)	Max. 4ms	
Shock resistance	Functional	49m/s ²
	Destructive	980m/s ²
Vibration resistance	10 to 55Hz 1mm DA	
Humidity	5 to 85% RH	
Ambient temperature	-40°C to +85°C	
Termination	PCB	
Unit weight	5.4g	
Construction	Sealed IP67, Flux proof	

COIL

Coil power	5 to 24VDC: 170mW 48VDC, 60VDC: 210mW
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COIL DATA

at 20°C

Nominal Voltage (VDC)	Pick-up Voltage (VDC)	Drop-out Voltage (VDC)	Max. Allowable Voltage (VDC) 85°C	Coil Resistance (Ω)
5	3.75	0.25	6.50	147 ± 10%
6	4.50	0.30	7.80	212 ± 10%
9	6.75	0.45	11.7	476 ± 10%
12	9.00	0.60	15.6	848 ± 10%
18	13.5	0.90	23.4	1906 ± 15%
24	18.0	1.20	31.2	3390 ± 15%
48	36.0	2.40	62.4	10600 ± 15%
60	45.0	3.00	78.0	16600 ± 15%

Notes: 1) When require pick-up voltage=70% nominal voltage, special order allowed .
2) When install 1 Form C type of HF41F, please do not make the relay side with 5mm width down.

SAFETY APPROVAL RATINGS

UL&CUR	6A 30VDC Resistive: 6A 277VAC Pilot duty: R300
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HONGFA RELAY
ISO9001•ISO/TS16949 •ISO14001 •OHSAS18001 CERTIFIED

2006 Rev. 1.30

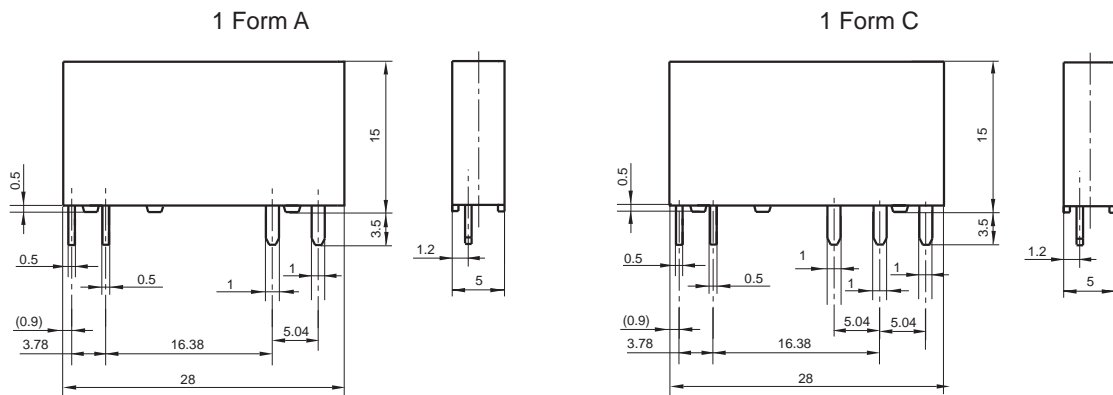
ORDERING INFORMATION

Type	HF41F / 12 H S G XXX				
Coil voltage	5, 6, 9, 12, 18, 24, 48, 60VDC				
Contact arrangement	H: 1 Form A		Z: 1 Form C		
Construction	S: Sealed IP67		Nil: Flux proof		
Contact plating	G: Gold plated		Nil: No gold plated		
Customer special code	Only for special requirements, e.g. 555 stands for RoHS compliant				

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PCB BOARD LAYOUT

Unit: mm

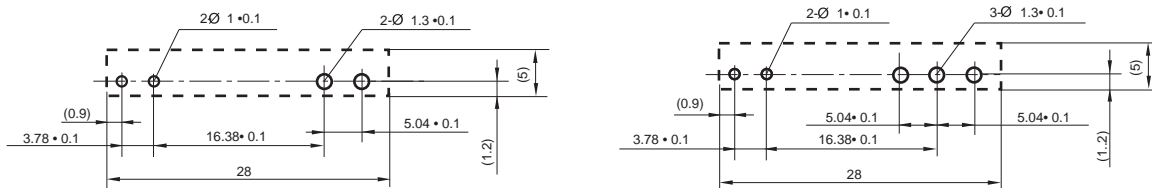
Outline Dimensions



Wiring Diagram

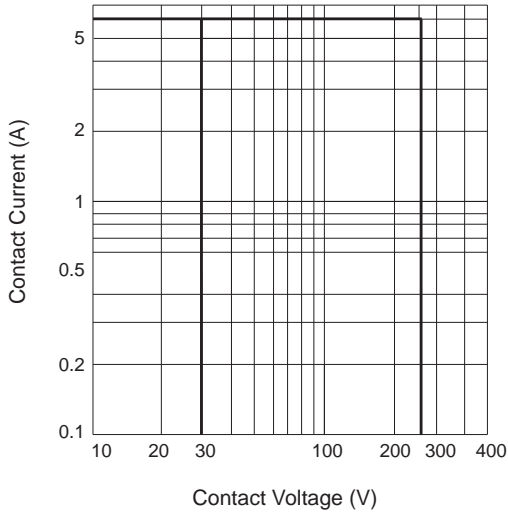


PCB Layout

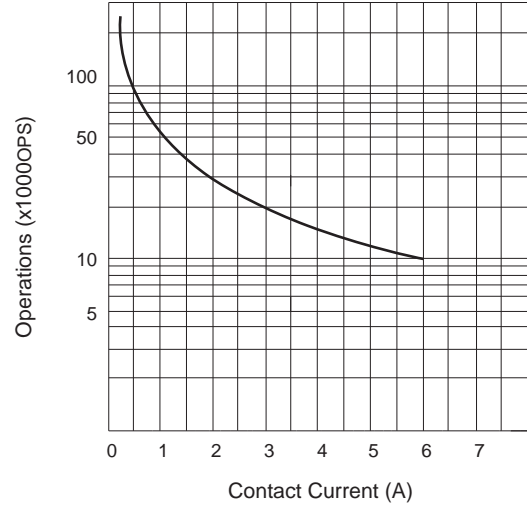


CHARACTERISTIC CURVE

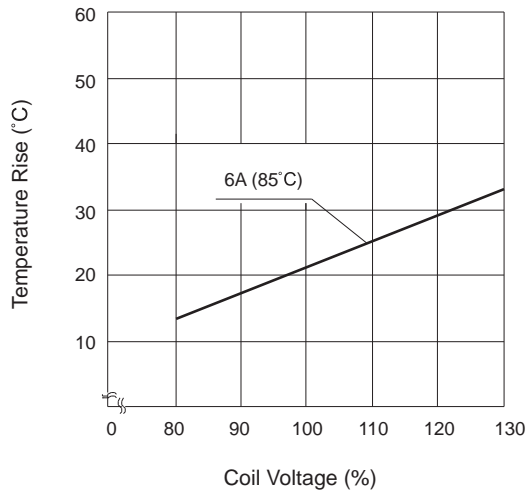
MAX. SWITCHING POWER



LIFE CURVE



COIL TEMPERATURE RISE



Disclaimer

This datasheet is for the customers' reference. All the specifications are subject to change without notice. We could not evaluate all the performance and all the parameters for every possible application. Thus the user should be in a right position to choose the suitable product for their own application. If there is any query, please contact Hongfa for the technical service. However, it is the user's responsibility to determine which product should be used only.