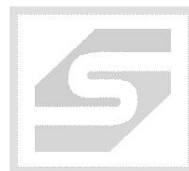
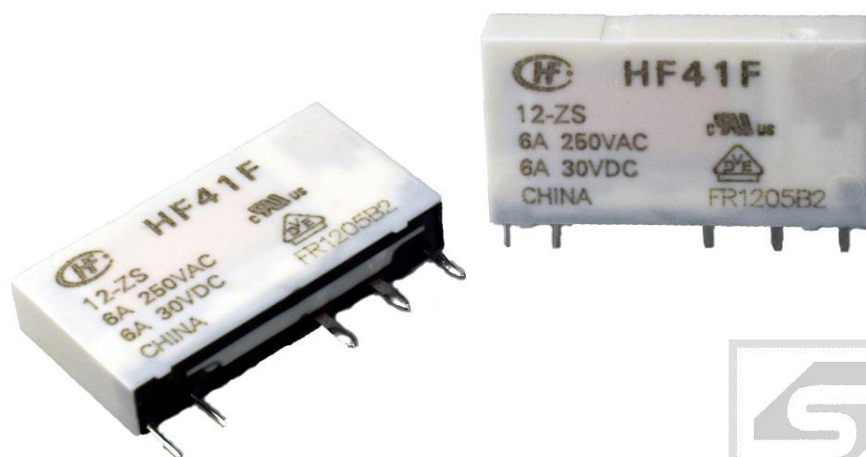




# Przełącznik HF41F-012-ZS HONGFA 6A 12VDC, 1 styk przełączny



## Dane techniczne:

Nazwa: HF41F-012-ZS

Producent: HONGFA

Napięcie sterujące: 12V

Rodzaj napięcia sterującego: DC

Konfiguracja styków: 1 styk przełączny

Znamionowy prąd styków AC: 6A

Znamionowe napięcie styków AC: 250V AC

Znamionowy prąd styków DC: 6A

Znamionowe napięcie styków DC: 30V DC

Sposób montażu: do druku (PCB); do gniazda

Certyfikaty: RoHS

Pasuje do gniazda: 41F-1Z-C2-1; 41F-1Z-C2-5

Materiał styku: AgNi

Rezystancja cewki: 848Ohm

Znamionowa moc cewki DC: 170mW

# HF41F

# SUBMINIATURE POWER RELAY



File No.:E133481



File No.:40020043



## 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
- Sockets available
- 1 Form A and 1 Form C configurations
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (28.0 x 5.0 x 15.0) mm

## CONTACT DATA

Contact arrangement	1A, 1C
Contact resistance	100mΩ (at 1A 6VDC) Gold plated: 30mΩ (at 1A 6VDC)
Contact material	AgNi, AgSnO <sub>2</sub>
Contact rating (Res. load)	6A 250VAC/30VDC
Max. switching voltage	400VAC / 125VDC
Max. switching current	6A
Max. switching power	1500VA / 180W
Mechanical endurance	1 x 10 <sup>7</sup> OPS
Electrical endurance	1A: 6 x 10 <sup>4</sup> OPS (at 85°C) 1C: (NO) 3 x 10 <sup>4</sup> OPS (at 85°C) (NC) 1 x 10 <sup>4</sup> OPS (at 85°C)

## CHARACTERISTICS

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

- Notes:** 1) The data shown above are initial values.  
2) Please find coil temperature curve in the characteristic curves below.  
3) When install 1 Form C type of HF41F, please do not make the relay side with 5mm width down.

## COIL

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

at 23°C

Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Max. Allowable Voltage VDC	Coil Resistance Ω
5	3.75	0.25	7.5	147 x (1±10%)
6	4.50	0.30	9.0	212 x (1±10%)
9	6.75	0.45	13.5	476 x (1±10%)
12	9.00	0.60	18	848 x (1±10%)
18	13.5	0.90	27	1906 x (1±15%)
24	18.0	1.20	36	3390 x (1±15%)
48	36.0	2.40	72	10600 x (1±15%)
60	45.0	3.00	90	16600 x (1±15%)

**Notes:** When require pick-up voltage=70% nominal voltage, special order allowed .

## SAFETY APPROVAL RATINGS

UL&CUL	6A 30VDC Resistive: 6A 277VAC Pilot duty: R300 B300
VDE	6A 30VDC 6A 250VAC

**Notes:** Only some typical ratings are listed above. If more details are required, please contact us.



HONGFA RELAY

ISO9001, ISO/TS16949, ISO14001, OHSAS18001, IECQ QC 080000 CERTIFIED

2008 Rev. 1.00

## ORDERING INFORMATION

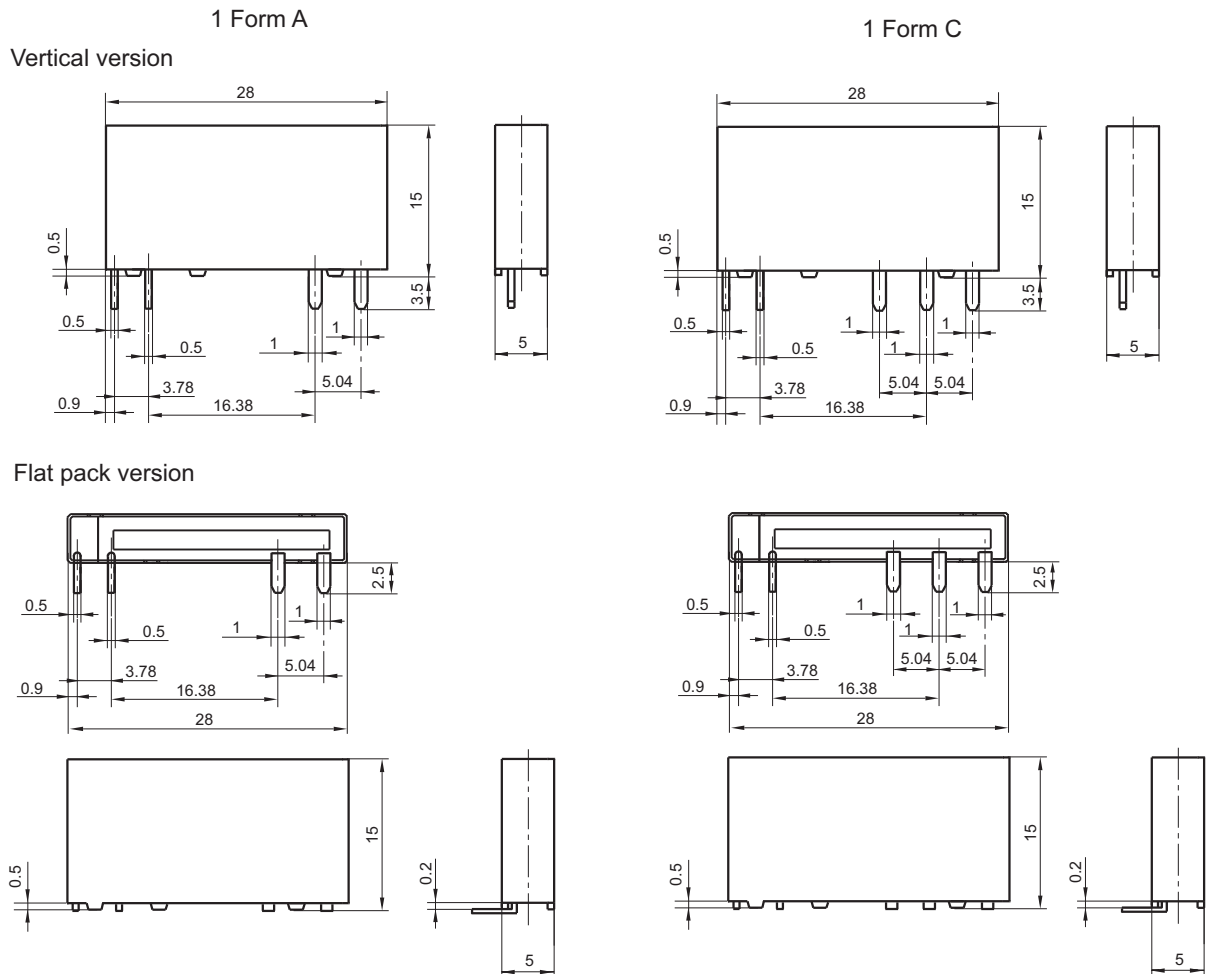
Type		HF41F / 12 -H 8 S T G (XXX)					
Coil voltage	5, 6, 9, 12, 18, 24, 48, 60VDC						
Contact arrangement	H: 1 Form A	Z: 1 Form C					
Version	8: Flat pack version	Nil: Vertical version					
Construction <sup>1)</sup>	S: Wash tight	Nil: Flux proofed					
Contact material	T: AgSnO <sub>2</sub>	Nil: AgNi					
Contact plating	G: Gold plated	Nil: No gold plated					
<b>Customer special code</b>							

**Notes:** 1) We recommend flux proofed types for a clean environment (free from contaminations like H<sub>2</sub>S, SO<sub>2</sub>, NO<sub>2</sub>, dust, etc.).  
 We suggest to choose wash tight types and validate it in real application for an unclean environment (with contaminations like H<sub>2</sub>S, SO<sub>2</sub>, NO<sub>2</sub>, dust, etc.).  
 If water cleaning is required after the relay is assembled on PCB, please contact us for suggestion about suitable parts.

## OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

### Outline Dimensions



# OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

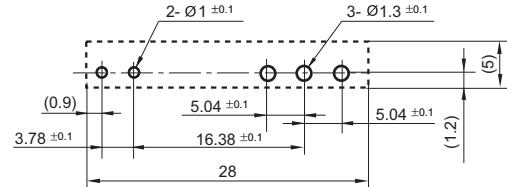
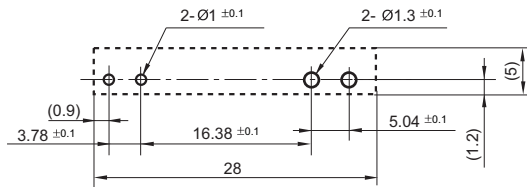
Unit: mm

## PCB Layout (Bottom view)

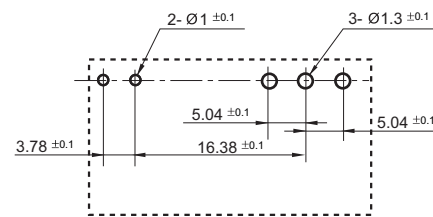
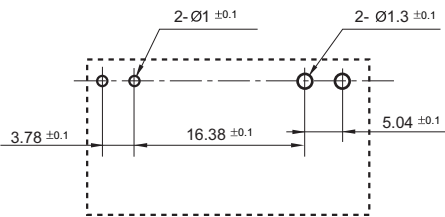
1 Form A

1 Form C

Vertical version



Flat pack version



## Wiring Diagram (Bottom view)

1 Form A

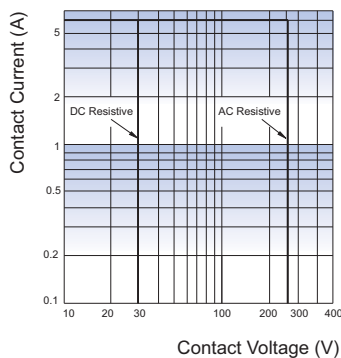
1 Form C



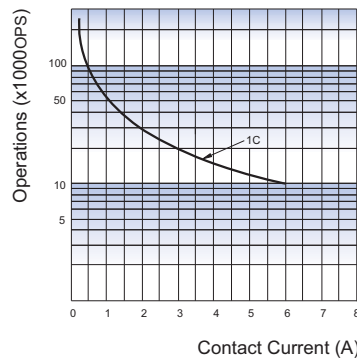
Remark: 1) In case of no tolerance shown in outline dimension: outline dimension  $\leq 1\text{mm}$ , tolerance should be  $\pm 0.2\text{mm}$ ; outline dimension  $> 1\text{mm}$  and  $\leq 5\text{mm}$ , tolerance should be  $\pm 0.3\text{mm}$ ; outline dimension  $> 5\text{mm}$ , tolerance should be  $\pm 0.4\text{mm}$ .  
2) The tolerance without indicating for PCB layouts is always  $\pm 0.1\text{mm}$ .

## CHARACTERISTIC CURVES

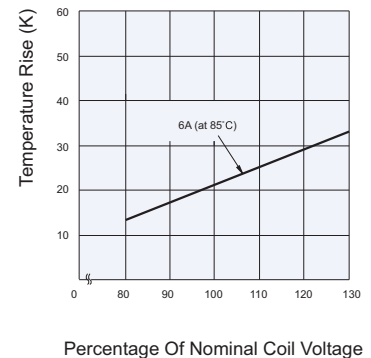
MAXIMUM SWITCHING POWER



ENDURANCE 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.

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