

# HF41F

# SUBMINIATURE POWER RELAY



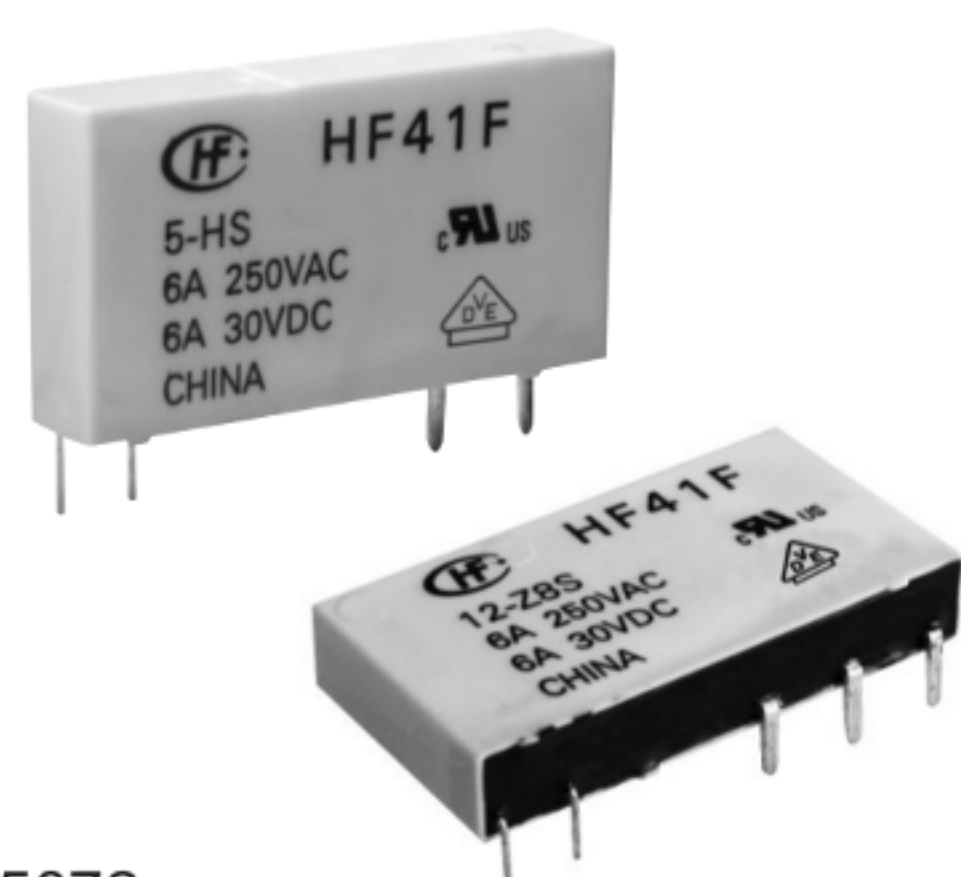
File No.: E133481



File No.: 40020043



File No.: CQC09002035072



## Features

- Slim size (width 5mm)
- High breakdown voltage 4kV (between coil and contacts)
- Surge voltage up to 6kV (between coil and contacts)
- Meeting VDE 0700, 0631 reinforce insulation
- High sensitive: Approx. 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	No gold plated: 100mΩ max. (at 1A 6VDC) Gold plated: 30mΩ max. (at 1A 6VDC)
Contact material	AgSnO <sub>2</sub> , AgNi
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	H type: 6 x 10 <sup>4</sup> ops (6A 250VAC/30VDC, Resistive load, AgNi, at 85°C, 1s on 9s off) Z type: 3 x 10 <sup>4</sup> ops (NO, 6A 250VAC/30VDC, Resistive load, AgNi, at 85°C, 1s on 9s off) 1 x 10 <sup>4</sup> ops (NC, 6A 250VAC/30VDC, Resistive load, AgNi, at 85°C, 1s on 9s off)

## 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. 5g	
Construction	Plastic sealed, Flux proofed	

- Notes:** 1) The data shown above are initial values.  
2) Please find coil temperature curve in the characteristic curves below.  
3) Please do not install a SPDT(1 Form C) type relay on either of the smallest sides or facing downward.  
4) UL insulation system: Class A

## COIL

Coil power	5VDC to 24VDC: Approx. 170mW
	48VDC, 60VDC: Approx. 210mW

## COIL DATA

at 23°C

Nominal Voltage VDC	Pick-up Voltage VDC max.	Drop-out Voltage VDC min.	Max. Voltage VDC <sup>2)</sup>	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 <sup>3)</sup>	36.0	2.40	72	10600 x (1±15%)
60 <sup>3)</sup>	45.0	3.00	90	16600 x (1±15%)

- Notes:** 1) When require pick-up voltage ≤ 70% nominal voltage, special order allowed.  
2) Maximum voltage refers to the maximum voltage which relay coil could endure in a short period of time.  
3) For products with rated voltage ≥ 48V, measures should be taken to prevent coil overvoltage in order to protect coil in test and application (eg. Connect diodes in parallel).

## SAFETY APPROVAL RATINGS

UL/CUL	6A 30VDC at 85°C
	6A 277VAC at 85°C
	R300 B300
VDE	6A 30VDC at 85°C 6A 250VAC at 85°C

- Notes:** 1) All values unspecified are at room temperature.  
2) Only typical loads are listed above. Other load specifications can be available upon request.



HONGFA RELAY

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

2015 Rev. 1.02