HF43F (JZC-43F) SUBMINIATURE INTERMEDIATE POWER RELAY

c UL us
File No.: E133481

VDE
File No.: 40002220

CQC
File No.:CQC02001001935

Features

- 10kV impulse withstand voltage (between coil and contacts)
- Highly efficient magnetic circuit for high sensitivity: 200mW
- Class F insulation standard
- Extremely small footprint utilizing PCB area
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (20.4 x 7.0 x 15.0) mm

CONTACT DATA

Contact arrangement	1A
Contact resistance	100mΩ (at 1A 24VDC)
Contact material	See ordering info.
Contact rating (Res. load)	3A 250VAC/30VDC
Max. switching voltage	277VAC / 30VDC
Max. switching current	5A
Max. switching power	831VA / 90W
Mechanical endurance	1 x 10^7 OPS
Electrical endurance	1 x 10^5 OPS (at 3A 250VAC, 25°C) 2 x 10^5 OPS (at 3A 125VAC, 25°C) 2 x 10^5 OPS (at 3A 30VDC, 25°C) 5 x 10^4 OPS (at 5A 250VAC, 25°C)

CHARACTERISTICS

Insulation resistance		1000MΩ (at 500VDC)
Dielectric strength	Between coil & contacts	4000VAC 1min
	Between open contacts	750VAC 1min
Surge voltage (between coil & contacts)		10kV (1.2X50μs)
Operate time (at nomi. volt.)		10ms max.
Release time (at nomi. volt.)		10ms max.
Shock resistance	Functional	100m/s² (10g)
	Destructive	1000m/s² (100g)
Vibration resistance		10Hz to 55Hz 1.5mm DA
Humidity		35% to 85% RH
Ambient temperature		-40°C to 85°C
Termination		PCB
Unit weight		Approx. 4g
Construction		Wash tight

Notes: 1) The data shown above are initial values.
2) Please find coil temperature curve in the characteristic curves below.

COIL

Coil power	200mW

COIL DATA at 23°C

Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Max. Allowable Voltage VDC	Coil Resistance Ω
4.5	3.38	0.23	5.85	101 x (1±10%)
5	3.75	0.25	6.50	125 x (1±10%)
6	4.50	0.30	7.80	180 x (1±10%)
9	6.75	0.45	11.7	405 x (1±10%)
12	9.00	0.60	15.6	720 x (1±10%)
18	13.5	0.90	23.4	1620 x (1±10%)
24	18.0	1.20	31.2	2880 x (1±10%)

SAFETY APPROVAL RATINGS

UL&CUR	AgNi	3A 250VAC 3A 30VDC 3A 125VAC
VDE	AgCdO	3A 250VAC
	AgNi	5A 250VAC

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

ORDERING INFORMATION

HF43F / 012 -H S 2 G (XXX)

Type [1]	HF43F JZC-43F (Old type)			
Coil voltage	4.5, 5, 6, 9, 12, 18, 24VDC			
Contact arrangement	**H:** 1 Form A			
Construction	**S:** Wash tight			
Contact material	**2:** AgCdO	**T:** $AgSnO_2$	**Nil:** AgNi	
Contact plating	**G:** Gold plated	**Nil:** No gold plated		
Customer special code [2] (Only for special requirements)	e.g. (551) stands for RoHS compliant (Cadmium containing contacts) (555) stands for RoHS compliant (Cadmium-free contacts)			

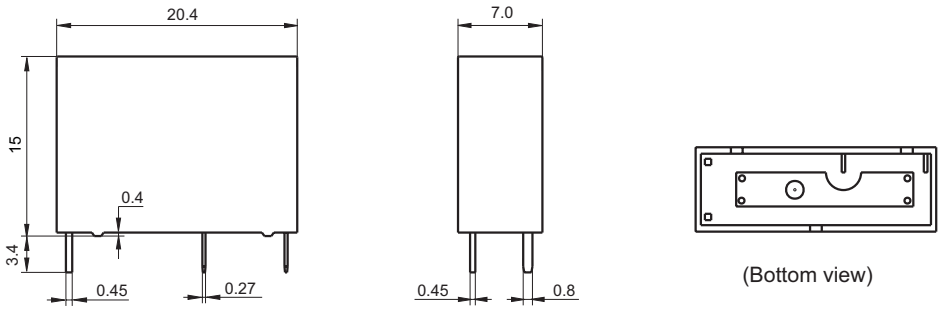
Notes: 1) We have now gradually updated our ordering information. We suggest new type should be selected. If necessary, old type can be kept for some period for the old customers.

2) HF43F is an environmental friendly product. Please mark a special code (555) or (551) when ordering. (551) stands RoHS compliant with Cadmium contact; (555) stands for RoHS compliant with Cadmium-free contact.

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

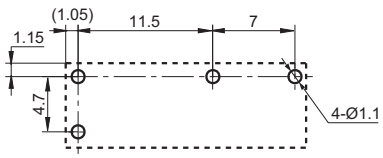
Unit: mm

Outline Dimensions



PCB Layout

(Bottom view)



Wiring Diagram

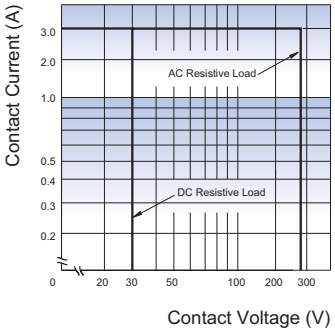
(Bottom view)

Remark: 1) In case of no tolerance shown in outline dimension: outline dimension ≤1mm, tolerance should be ±0.2mm; outline dimension >1mm and ≤5mm, tolerance should be ±0.3mm; outline dimension >5mm, tolerance should be ±0.4mm.

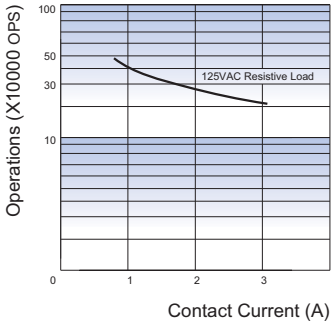
2) The tolerance without indicating for PCB layout is always ±0.1mm.

CHARACTERISTIC CURVES

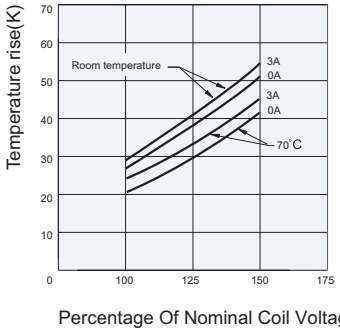
MAXIMUM SWITCHING POWER



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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