HF94F HIGH POWER RELAY

c UL us
File No.:E134517 (AC type)

Features

- 25A switching capability
- 2kV dielectric strength (between coil and contacts)
- Panel mount, various terminal types
- UL insulation system: Class F
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (47.0 x 32.0 x 28.5) mm

CONTACT DATA

Contact arrangement	1A, 1B, 1C, 1A + 1B
Contact resistance	200mΩ max.(at 1A 24VDC)
Contact material	AgCe, AgCdO
Contact rating (Res.load)	18A 277VAC
Max. switching voltage	277VAC
Max. switching current	18A
Max. switching power	4986VA
Mechanical endurance	1 x 10^6OPS
Electrical endurance	1 x 10^5OPS

CHARACTERISTICS

Insulation resistance		500MΩ (at 500VDC)
Dielectric strength	Between coil & contacts	2000VAC 1min
	Between open contacts	1000VAC 1min
Operate time (at nomi. volt.)		DC type: 25ms max.
Release time (at nomi. volt.)		DC type: 25ms max.
Temperature rise (at nomi. volt.)		90K max.
Shock resistance (Functional)		98m/s^2
Vibration resistance		10Hz to 55Hz 1.0mm DA
Ambient temperature		-40˚C to 65˚C
Humidity		5% to 85% RH
Termination		QC
Unit weight		Approx. 85g
Construction		Dust protected

Notes: 1) The data shown above are initial values.

COIL

Coil power	DC type: Approx. 2.4W; AC type: Approx. 4.0VA

COIL DATA

Nominal Voltage VDC	Pick-up Voltage VDC max.	Drop-out Voltage VDC min.	Max. Allowable Voltage VDC	Coil Resistance Ω
6	4.50	0.6	6.6	17.5 x (1±10%)
9	6.75	0.9	9.9	40 x (1±10%)
12	9.00	1.2	13.2	70 x (1±10%)
24	18.0	2.4	26.4	280 x (1±10%)
48	36.0	4.8	52.8	1120 x (1±10%)
120	90.0	12.0	132	7000 x (1±10%)

Nominal Voltage VAC	Pick-up Voltage VAC max.	Drop-out Voltage VAC min.	Max. Allowable Voltage VAC	Coil Resistance Ω
6	5.1	1.2	6.6	4.8 x (1±10%)
12	10.2	2.4	13.2	19 x (1±10%)
24	20.4	4.8	26.4	77 x (1±10%)
48	40.8	9.6	52.8	280 x (1±10%)
120	102	24	132	2000 x (1±10%)
240	204	48	264	7250 x (1±10%)
277	235	55.4	304.7	11000 x (1±10%)

SAFETY APPROVAL RATINGS

UL/CUL	HF94F-10	NO	AgCdO	12FLA,60LRA,120VAC 8FLA,48LRA,250VAC 8FLA,48LRA,277VAC 7FLA,42LRA,277VAC 25A,277VAC,resistive
			AgCe	3A,277VAC,Gen Use 277VA pilot duty,10A inrush,1A break
	HF94F-11	NC	AgCdO	12FLA,84LRA,125VAC 8FLA,48LRA,250VAC 8FLA,48LRA,277VAC 7FLA,42LRA,277VAC 25A,277VAC,resistive
			AgCe	3A,277VAC,Gen Use 277VA pilot duty,10A inrush,1A break
	HF94F-12	NO/NC	AgCdO	14FLA,84LRA,125VAC 8FLA,48LRA,250VAC 8FLA,48LRA,277VAC 7FLA,42LRA,277VAC 25A,277VAC,resistive
			AgCe	3A,277VAC,Gen Use 277VA pilot duty,10A inrush,1A break
	HF94F-13	NO/NC	AgCdO	12FLA,60LRA,120VAC 8FLA,48LRA,250VAC 8FLA,48LRA,277VAC 7FLA,42LRA,277VAC 18A,277VAC,resistive 25A,277VAC,resistive
			AgCe	3A,277VAC,Gen Use 277VA pilot duty,10A inrush,1A break

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

ORDERING INFORMATION

	HF94F	-10	A	24	E	-1	(XXX)

Type

Contact arrangement **10:** 1 Form A **11:** 1 Form B **12:** 1 Form C **13:** 1A+1B

Coil voltage form **A:** AC **D:** DC

Coil voltage **AC:** 6VAC to 277VAC **DC:** 6VDC to 120 VDC (No UL approved)

Contact material **E:** AgCe **Nil:** AgCdO

Mounting
1: Flang, Mounting Distance 54.8mm. diameter Ø3.8mm
2: Flang, Mounting Distance 66.7mm. diameter Ø4.8mm
Nil: Metal Bracket

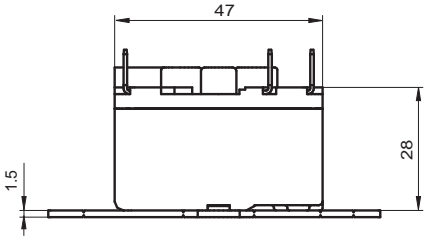
Customer special code

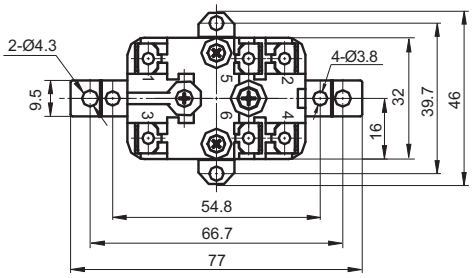
OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

Outline Dimensions

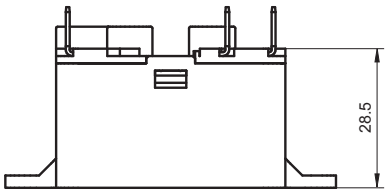
Metal Bracket

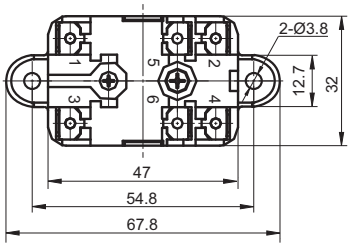




(Top view)

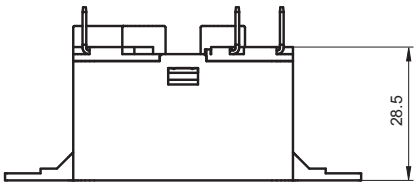
Flang, Mounting Distance 54.8mm

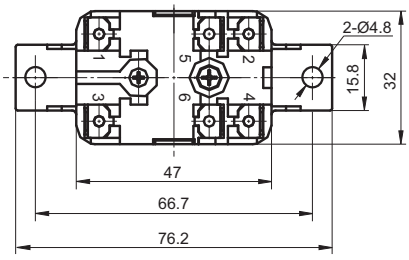




(Top view)

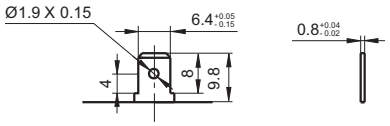
Flang, Mounting Distance 66.7mm





(Top view)

Terminals type

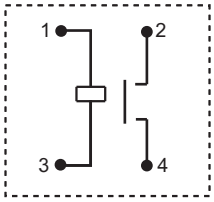


Remark: In case of no tolerance shown in outline dimension: outline dimension ≤1mm, tolerance should be ±0.2mm; outline dimension >1mm and ≤5mm, tolerance should be ±0.3mm; outline dimension >5mm, tolerance should be ±0.4mm.

Wiring Diagram

(Top view)

1 Form A



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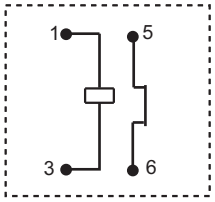

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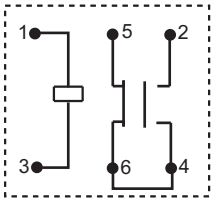
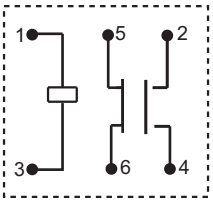


1A+1B



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.