HF162F/HF162F-E   SUBMINIATURE INTERMEDIATE POWER RELAY

Features

- High inrush current: TV-8 125VAC (118A inrush current)
- 3A/100A 250VAC capacitive load
- Low height, only 9.3mm (excluding buttons)
- High sensitivity: 250mW,
  Ideal for device power reduction
- Silent type available
- Typical applications: Flat-panel TVs, Audio visual equipment and other slim profile devices
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (26.3 x 26.1 x 10.0) mm

CONTACT DATA

Contact arrangement	1A
Contact resistance	100mΩ max.(at 1A 6VDC)
Contact material	Silver alloy
Contact rating	10A 125VAC
	8A 277VAC
	5A 277VAC
	TV-8 125VAC
	3A/100A 250VAC (Capacitive)
Max. switching voltage	277VAC
Max. switching current	10A
Max. switching power	2216VA
Mechanical endurance	1×10^6 OPS
Electrical endurance	5×10^4 OPS (See approval reports for more details)

CHARACTERISTICS

Insulation resistance		1000MΩ (at 500VDC)
Dielectric strength	Between coil & contacts	4000VAC 1min
	Between open contacts	1000VAC 1min
Surge voltage (between coil & contacts)		10kV (1.2 / 50µs)
Operate time (at nomi. volt.)		15ms max.
Release time (at nomi. volt.)		5ms max.
Ambient temperature		-40°C to 70°C
Humidity		5% to 85% RH
Shock resistance	Functional	196m/s²
	Destructive	980m/s²
Vibration resistance		10Hz to 55Hz 1.5mm DA
Termination		PCB
Unit weight		Approx.12g
Construction		Flux proofed

Notes: 1) The data shown above are initial values.
2) Please find coil temperature curve in the characteristic curves below.
3) UL insulation system: Class A

COIL

Coil power	Approx. 250mW

COIL DATA   at 23°C

Standard type

Nominal Voltage VDC	Pick-up Voltage VDC max.	Drop-out Voltage VDC min.	Max. Allowable Voltage VDC	Coil Resistance Ω
3	2.25	0.3	3.9	36 x (1±10%)
5	3.75	0.5	6.5	100 x (1±10%)
6	4.5	0.6	7.8	145 x (1±10%)
9	6.75	0.9	11.7	325 x (1±10%)
12	9.0	1.2	15.6	575 x (1±10%)
18	13.5	1.8	23.4	1300 x (1±10%)
24	18.0	2.4	31.2	2300 x (1±10%)

Silent type

Nominal Voltage VDC	Pick-up Voltage VDC max.	Drop-out Voltage VDC min.	Max. Allowable Voltage VDC	Coil Resistance Ω
3	2.4	0.3	3.9	36 x (1±10%)
5	4.0	0.5	6.5	100 x (1±10%)
6	4.8	0.6	7.8	145 x (1±10%)
9	7.2	0.9	11.7	325 x (1±10%)
12	9.6	1.2	15.6	575 x (1±10%)
18	14.4	1.8	23.4	1300 x (1±10%)
24	19.2	2.4	31.2	2300 x (1±10%)

SAFETY APPROVAL RATINGS

UL/CUL	10A 125VAC
	8A 277VAC
	5A 277VAC
	TV-8 125VAC
VDE	8A 250VAC
	5A 250VAC
	3A/100A 250VAC

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

ORDERING INFORMATION

	HF162F /	12	-H	(XXX)
Type	**HF162F:** Standard type **HF162F-E:** Silent type			
Coil voltage	3, 5, 6, 9, 12, 18, 24VDC			
Contact arrangement	**H:** 1 Form A			
Customer special code				

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

Outline Dimensions

26.3 ±0.4

10 ±0.4   0.7   3.3 ±0.4

26.1 ±0.4

2.3   0.5   0.3   0.4   0.5   1   1   3.3
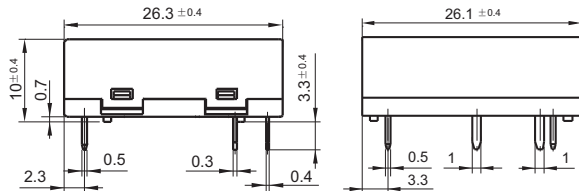
Wiring Diagram
(Bottom view)

PCB Layout
(Bottom view)

2-Ø0.9   18.25   2-Ø1.3   1.6   7.5   19.7   22
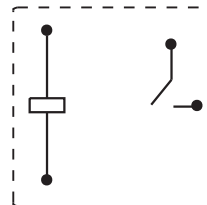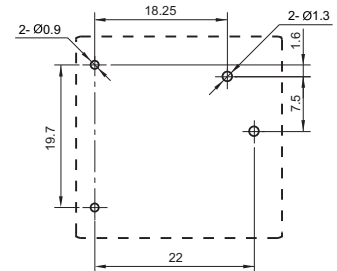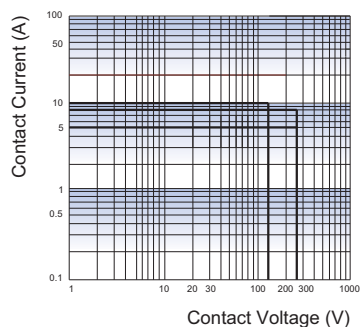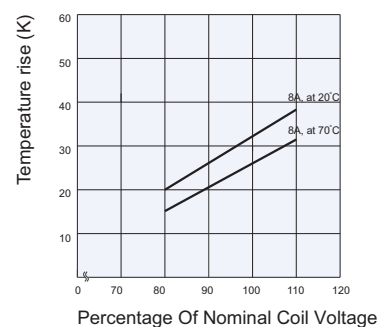
Remark: 1) In case of no tolerance shown in outline dimension: outline dimension ≤1mm, tolerance should be ±0.2mm; outline dimension >1mm and ≤5mm, tolerance should be ±0.3mm; outline dimension >5mm, tolerance should be ±0.4mm.
2) The tolerance without indicating for PCB layout is always ±0.1mm.

CHARACTERISTIC CURVES

MAXIMUM SWITCHING POWER

Contact Current (A)

Contact Voltage (V)

COIL TEMPERATURE RISE

Temperature rise (K)

8A, at 20°C
8A, at 70°C

Percentage Of Nominal Coil Voltage

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.