

HF3FA-G

SUBMINIATURE HIGH POWER RELAY



File No.: 40023708



File No.: E134517



File No.: CQC12002076529



Features

- The ambient temperature can reach 85°C
- 16A 125/250VAC switching capability
- Climatic category UL94.V-0
- Product in accordance to IEC 60335-1 available
- Subminiature, standard PCB layout
- Plastic sealed and flux proofed types available
- UL insulation system:Class F

RoHS compliant

CONTACT DATA

Contact arrangement	1A	1C	
		NO	NC
Contact resistance ¹⁾	100 mΩ max.(6VDC 1 A)		
Contact material	AgSnO ₂		
Contact rating (Res. load)	16A 250VAC	16A 250VAC ²⁾	5A 250VAC
Max. switching voltage	250VAC	250VAC	250VAC
Max. switching current	16A	16A ²⁾	5A
Max. switching power	2500VAC		
Mechanical endurance	1×10 ⁷ OPS		
Electrical endurance ³⁾	H: 3×10 ⁴ OPS (16A 250VAC, 85°C)Resistive load 2.5×10 ⁴ OPS(TV-8 120VAC, Room temp)		
	Z: 5×10 ⁴ OPS (NC: 5A 250VAC Res. load, 85°C)Resistive load 3×10 ⁴ OPS(NO: 16A 250VAC, 85°C)Resistive load 2.5×10 ⁴ OPS(NO: TV-8 120VAC, Room temp)		

- Notes:** 1) The data shown above are initial values.
 2) Applicable when NC is not energized with load.
 3) For plastic sealed type, the venting-hole should be opened in electrical endurance test.

CHARACTERISTICS

Insulation resistance	100 MΩ (500 VDC)	
Dielectric strength	Between coil & contacts	2500 VAC 1 min
	Between open contacts	750 VAC 1 min
Operate time (at rated. volt.)	10ms max.	
Release time (at rated. volt.)	5ms max.	
Shock resistance	Functional	98m/s ²
	Destructive	980m/s ²
Vibration resistance	10 Hz to 55 Hz 1.5mm DA	
Humidity	5 % to 85 % RH	
Ambient operating temperature	-40°C to 85°C	
Termination	PCB	
Unit weight	Approx. 7.2 g	
Construction	Plastic sealed,Flux proofed	

Notes: The data shown above are initial values.

COIL

Coil power Approx. 360mW

COIL DATA

Nominal Voltage VDC	Pick-up Voltage VDC max. ¹⁾	Drop-out Voltage VDC min. ¹⁾	Max. Voltage VDC ²⁾	Coil Resistance Ω
3	2.25	0.3	3.9	25×(1±10%)
5	3.75	0.5	6.5	70×(1±10%)
6	4.5	0.6	7.8	100×(1±10%)
9	6.75	0.9	11.7	225×(1±10%)
12	9	1.2	15.6	400×(1±10%)
15	11.25	1.5	19.5	625×(1±10%)
18	13.5	1.8	23.4	900×(1±10%)
24	18	2.4	31.2	1600×(1±10%)
48	36	4.8	62.4	6400×(1±10%)

- Notes:** 1) The data shown above are initial values.
 2) *Maximum voltage refers to the maximum voltage which relay coil could endure in a short period of time.

SAFETY APPROVAL RATINGS

UL/CUL	H	16A 250VAC 85°C TV-8 120VAC
	Z	NO: 16A 250VAC 85°C NO: TV-8 120VAC NC: 5A 250VAC 85°C
VDE	H	16A 250VAC 85°C
	Z	NO: 16A 250VAC 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.
 3) For sealed type, the vent-hole cover should be excised.



HONGFA RELAY

ISO9001, IATF16949, ISO14001, ISO45001, IECQ QC 080000, ISO/IEC 27001 CERTIFIED

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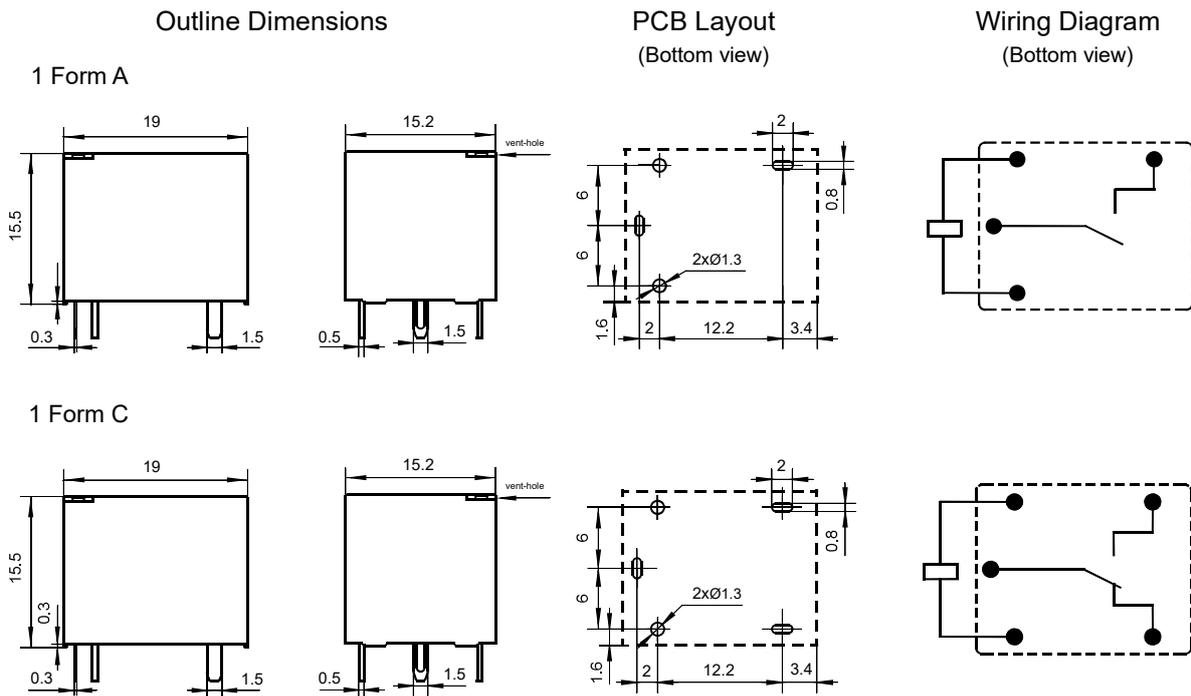
ORDERING INFORMATION

Type	HF3FA-G/	12	-H	S	T	F	(XXX)
Coil voltage	3, 5, 6, 9, 12, 15, 18, 24, 48VDC						
Contact arrangement	H: 1 Form A Z: 1 Form C						
Construction ^{1) 2)}	S: Plastic sealed Nil: Flux proofed						
Contact material	T: AgSnO ₂						
Insulation system	F: Class F						
Special code	e.g.(335) stands for product in accordance to IEC 60335-1(GWT).						

Notes: 1) We recommend flux proofed types for a clean environment (free from contaminations like H₂S, SO₂, NO₂, dust, etc.). We suggest to choose plastic sealed types and validate it in real application for an unclean environment (with contaminations like H₂S, SO₂, NO₂, dust, etc).
 2) Contact is recommended for suitable condition and specifications if water cleaning or surface process is involved in assembling relays on PCB.

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm



Remark: 1) The pin dimension of the product outline drawing is the size before tinning (it will become larger after tinning), and the mounting hole size is the recommended design size of the PCB board hole. The specific PCB board hole design size can be mapped and adjusted according to the actual product.
 2) 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 $\pm 0.4\text{mm}$.
 3) The tolerance without indicating for PCB layout is always $\pm 0.1\text{mm}$.

Disclaimer

The specification is for reference only. See to "Terminology and Guidelines" for more information. Specifications 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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