HF116F-2 (JQX-116F-2) MINIATURE HIGH POWER RELAY

c UL us
File No.:E134517

File No.:R50031086

CQC
File No.:CQC02001001945

Features

- 30 A switching capability
- 4kV dielectric strength (between coil and contacts)
- Heavy load up to 7500VA
- Class F insulation available
- 3mm contact gap available
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (51.5 x 35.0 x 36.0) mm

CONTACT DATA

Contact arrangement	1A	2A
Contact resistance	100mΩ (at 1A 24VDC)	
Contact material	$AgSnO_2$, AgCdO	
Contact rating (Res. load)	30A 250VAC 30A 28VDC	25A 250VAC 25A 28VDC
Max. switching voltage	277VAC / 28VDC	
Max. switching current	30A	25A
Max. switching power	7500VA/840W	6250VA/700W
Mechanical endurance	1×10^7OPS	
Electrical endurance	1×10^5OPS	

CHARACTERISTICS

Insulation resistance		1000MΩ (at 500VDC)
Dielectric strength	Between coil & contacts	4000VAC 1min
	Between open contacts	2000VAC 1min
Operate time (at nomi. vot.)		30ms max.
Release time (at nomi. vot.)		30ms max.
Shock resistance	Functional	$100m/s^2$ (10g)
	Destructive	$1000m/s^2$ (100g)
Vibration resistance		10H to 55Hz 1.5mm DA
Ambient temperature		-55°C to 70°C
Humidity		98% RH, 40°C
Termination		PCB & QC, Screw
Unit weight		Approx.120g
Construction		Wash tight, Dust protected

Notes: 1) The data shown above are initial values.
2) Please find coil temperature curve in the characteristic curves below.
3) For the wash tight type, please open two vent holes after installing relay (or cleansing PCB board) in order to increase the relay reliability.

COIL

Coil power	DC type: 1.9W; AC type: 2.7VA

COIL DATA at 23°C

Nominal Voltage VDC	Pick-up Voltage VDC	Drop-out Voltage VDC	Max. Allowable Voltage VDC	Coil Resistance Ω
3	2.25	0.3	3.3	4.7 x (1±10%)
6	4.50	0.6	6.6	18.8 x (1±10%)
12	9.00	1.2	13.2	75 x (1±10%)
24	18.0	2.4	26.4	300 x (1±10%)
48	36.0	4.8	52.8	1200 x (1±10%)
100	75.0	10.0	110	5200 x (1±10%)
110	82.5	12.0	121	6300 x (1±10%)
200	150	20.0	220	21000 x (1±10%)

Nominal Voltage VAC	Pick-up Voltage VAC	Drop-out Voltage VAC	Max. Allowable Voltage VAC	Coil Resistance Ω
6	4.80	0.90	6.6	18.8 x (1±10%)
12	9.60	1.80	13.2	75 x (1±10%)
24	19.2	3.60	26.4	300 x (1±10%)
48	38.4	7.20	52.8	1200 x (1±10%)
120	96.0	18.0	132	5200 x (1±10%)
220	176	33.0	242	20800 x (1±10%)

SAFETY APPROVAL RATINGS

UL&CUR	$AgSnO_2$	30A 277VAC 1.5HP 120VAC 3HP 240VAC 10A 120VAC Tungsten
	AgCdO	30A 277VAC 1.5HP 120VAC 3HP 240VAC 10A 120VAC Tungsten TV-10 120VAC
TÜV		27A 240VAC COSØ =0.8 25A 240VAC COSØ =0.4 25A 240VAC COSØ =1

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

查询"HF116F-2"供应商

ORDERING INFORMATION

HF116F-2 / 018 D L -1H S T F W C (XXX)

Type [1]	HF116F-2 JQX-116F-2 (Old type)	
Coil voltage	**DC:** 3 to 200VDC	**AC:** 6 to 220VAC
Coil input	**D:** DC	**A:** AC
Mounting	**P:** PCB	**L:** Screw
Contact arrangement	**1H:** 1 Form A	**2H:** 2 Form A
Construction [2]	**S:** Wash tight	**NiL:** Dust protected
Contact material [3]	**T:** $AgSnO_2$	**Nil:** AgCdO
Insulation standard	**F:** Class F	**Nil:** Class B
Contact Gap	**W:** 3.0mm	**Nil:** Standard
Capacitor	**C:** With Capacitor(for AC only)	**Nil:** Without Capacitor
Customer special code [4] (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) Under the ambience with dangerous gas like H_2S, SO_2 or NO_2, wash tight type is recommended; please test the relay in real applications. If the ambience allows, dust protected is preferentially recommended.

3) For the application of motor load, capacitive load and the like high inrush current, $AgSnO_2$ contact material is recommended. For the application of resistive load, inductive load, AgCdO contact material is recommened on the priority.

4) HF116F-2 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.

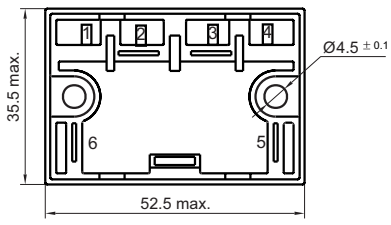
OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

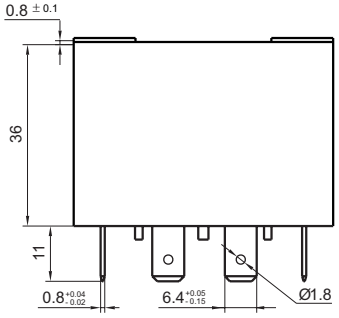
Outline Dimensions

Mounting Holes

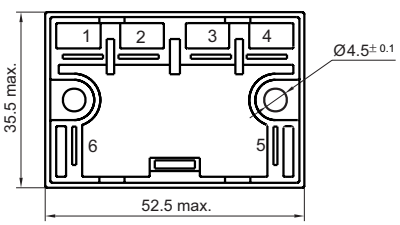
HF116F-2/□□□ -□ -L-1H-□



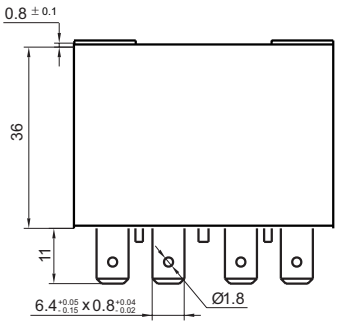
(Bottom view)

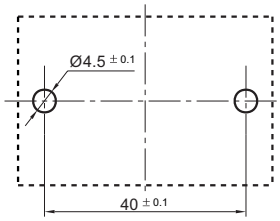


HF116F-2/□□□ -□ -L-2H-□



(Bottom view)



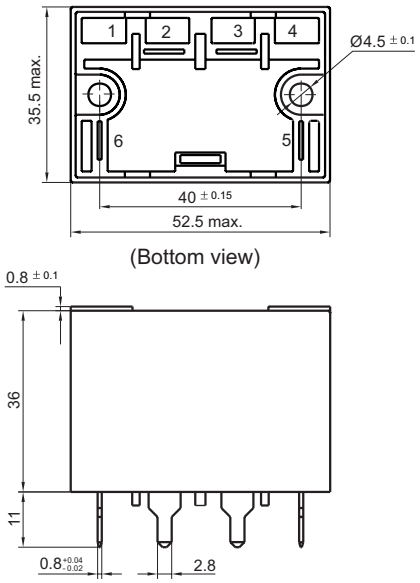


OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

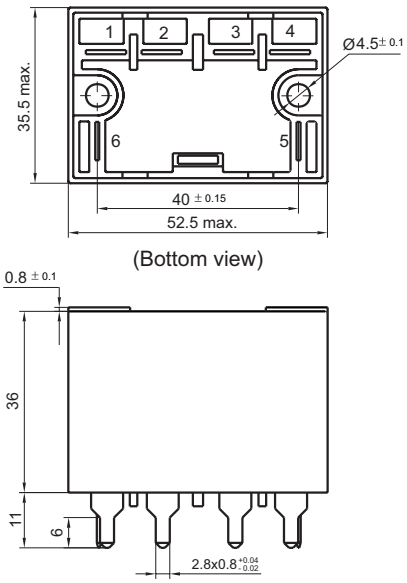
Unit: mm

Outline Dimensions

HF116F-2/□□□ -□ -P-1H-□

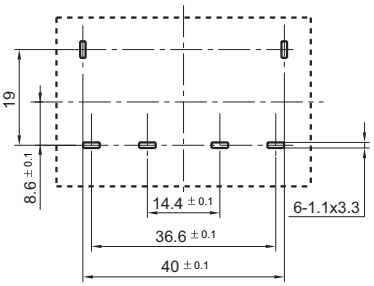


HF116F-2/□□□ -□ -P-2H-□



PCB Layout

(Bottom view)

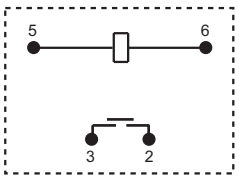


Remark: 1) In case of no tolerance shown in outline dimension: outline dimension ≤1mm, tolerance should be ±0.2mm; outline dimension >1mm and ≤5mm, tolerance should be ±0.3mm; outline dimension >5mm, tolerance should be ±0.4mm.
2) The tolerance without indicating for PCB layout is always ±0.1mm.

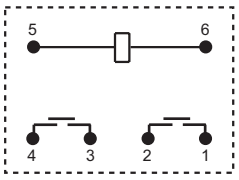
Wiring Diagram

(Bottom view)

1 Form A

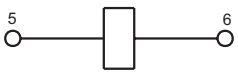


2 Form A

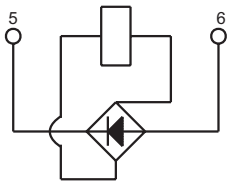


Coil Inner Circuit

DC operation coil

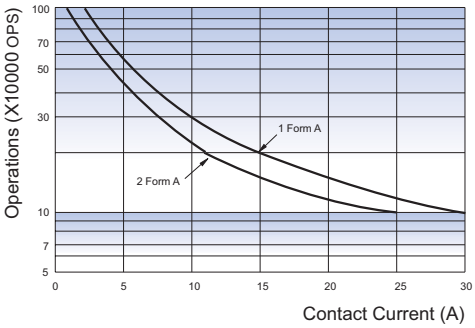


AC operation coil

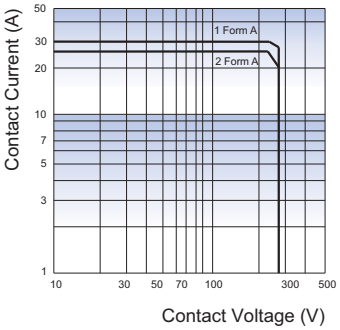


CHARACTERISTIC CURVES

ENDURANCE CURVE



MAXIMUM SWITCHING POWER



COIL TEMPERATURE RISE