HF196F MINIATURE HIGH POWER REALY

File No.:E133481

File No.:40058049

File No.:CQC23002410355

Features

- 1 pole，25 A，1 form A (NO)
- Coil power 530mW
- Low Height: 17.9mm
- Reinforced insulation
- UL insulation system：Class F
- Product in accordance to IEC 60335-1 available
- Ambient temperature up to 105℃

RoHS compliant

CONTACT DATA

Contact arrangement	1A
Contact resistance	100mΩ max.(1A 6VDC)
Contact materail	$AgSnO_2$
Contact rating (Res.Load)	25A 250VAC
Max.switching voltage	250VAC
Max.switching current	25A
Max.switching power	6250VA
Mechanical endurance	1×10^6 ops
Electrical endurance	1×10^5 ops (25A 250VAC,Resistive load,105℃, 1s on 9s off)

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

COIL

Coil power	Approx.0.53W

CHARACTERISTICS

Insulation resistance		1000MΩ(500VDC)
Dielectric strength	Between coil & contacts	5000VAC 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.
Shock resistance	Functional	98m/s2
	Destructive	980m/s2
Vibration resistance		10Hz to 55Hz 1.5mm DA
Humidity		5% to 85% RH
Ambient temperature		-40℃ to 105℃
Termination		PCB, QC
Unit weight		Approx. 15g
Construction		Flux proofed

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

COIL DATA 23℃

Nominal Voltage VDC	Pick-up Voltage VDC max.	Drop-out Voltage VDC min	Max. Allowable Voltage VDC 1)	Coil Resistance Ω
5	3.75	0.5	7.5	47× (1±10%)
6	4.50	0.6	9.0	67× (1±10%)
9	6.75	0.9	13.5	153× (1±10%)
12	9	1.2	18	272× (1±10%)
18	13.5	1.8	27	611× (1±10%)
24	18	2.4	36	1086× (1±10%)
48	36	4.8	72	4347× (1±15%)

Notes：1) Maximum voltage refers to the maximum voltage which relay coil could endure in a short period of time.

SAFETY APPROVAL RATINGS

UL/CUL	30A 120/125/220/250/277VAC, Resistive load 105℃ 25A 120/125/220/250/277VAC, Resistive load 105℃ 16A 250VAC, cosφ=0.4,105℃ 1HP 250VAC,105℃ 2HP 250VAC, 40℃ TV-8 120VAC, 40℃
VDE	30A 120/125/220/250/277VAC, Resistive load 105℃ 25A 120/125/220/250/277VAC, Resistive load 105℃ 16A 250VAC, cosφ=0.4, 105℃

Notes: 1) Only some typical rating are listed above.If more details are required,please contact us.

ORDERING INFORMATION

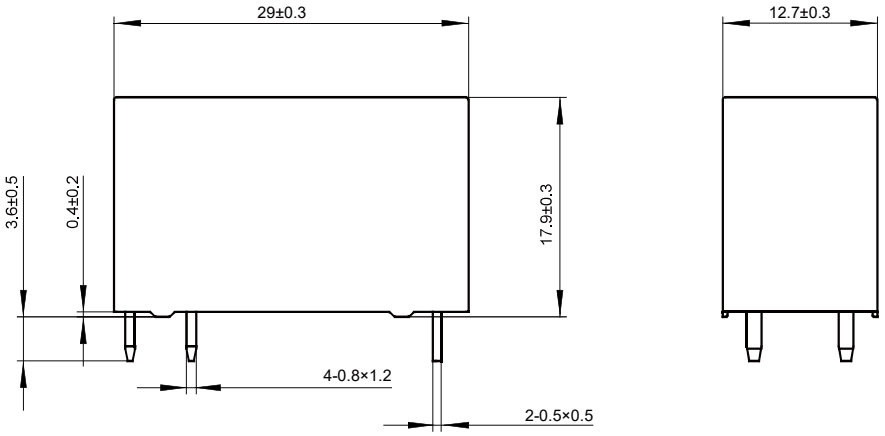
	HF196F/	12	-H	T	F	（XXX）
Type						
Coil voltage	5,6,9,12,18,24,48VDC					
Contact arrangement	**H:**1 Form A					
Contact material	**T:** $AgSnO_2$					
Insulation class	**F:** Class F					
Special code	**XXX:** Customer special requiremen；**Nil:** Standard					

Notes: 1) We recommend flux proofed types for a clean environment (free from contaminations like H_2S, SO_2, NO_2, dust,etc.).
2) Contact is recommended for suitable condition and specifications if water cleaning or surface process is involved in assembling relays on PCB.
3) The customer special requirement express as special code after evaluating by Hongfa.e.g.(335) stands for product inAccordance to IEC 60335-1(GWT).

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

Outline Dimensions

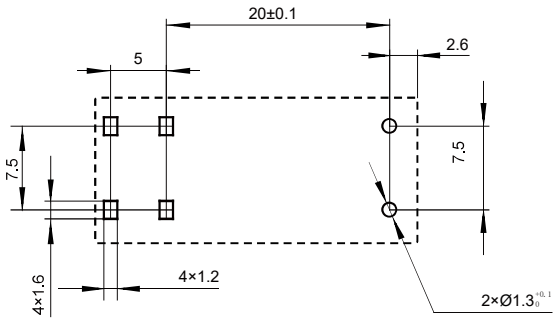


Wiring Diagram(Bottom view)

OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

PCB Layout(Bottom view)

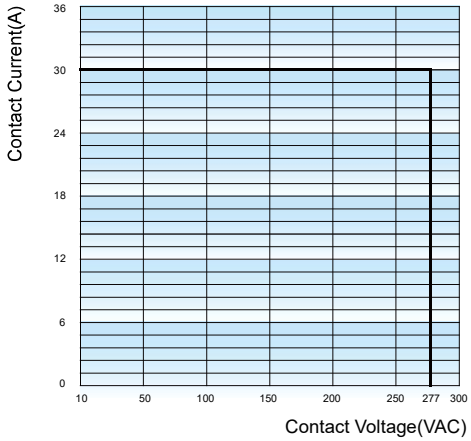


Notes:1) In case of no tolerance shown in outline dimension: outline dimension ≤1mm, tolerance should be ±0.2mm; outline dimension＞1mm and ≤5mm,tolerance should be ±0.3mm; outline dimension＞5mm and ≤30mm, tolerance should be ±0.4mm;outline dimension＞30 mm, tolerance should be ±0.6mm.

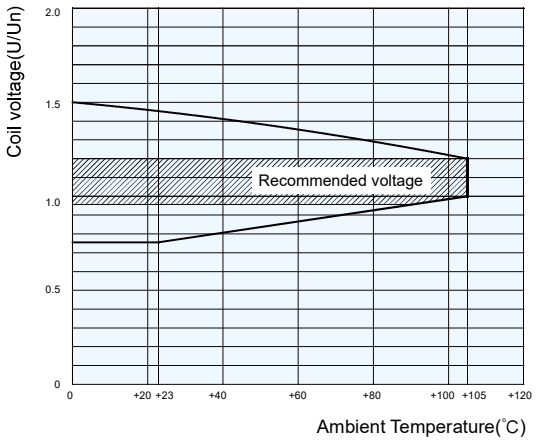
2) The tolerance without indicating for PCB layout is always ±0.1mm.

CHARACTERISTIC CURVES

MAX.SWITCHING POWER



COIL OPERATING RANGE (DC)



Remark: When the relay is in use, if the excitation voltage exceeds the rated voltage, the relay electrical durability will be reduced.
Within the recommended voltage range, the effect on electrical durability is less.
The insulation of the relay coil may be damaged if it exceeds the upper limit specified by the curve in the diagram.