

HF160F

MINIATURE HIGH POWER RELAY



File No.:E134517



File No.: 40024142



File No.: CQC08001024034



Features

- 4.5kV dielectric strength (between coil and contacts)
- Heavy load up to 6250VA
- Ideal for motor switching
- PCB & QC layouts
- UL insulation system: Class F
- Environmental friendly product (RoHS compliant)
- Outline Dimensions: (30.4 x 15.9 x 25.4) mm

CONTACT DATA	
Contact arrangement	1A
Contact resistance	100mΩ max.(at 1A 6VDC)
Contact material	AgSnO ₂ , AgCdO
Contact rating	Resistive: 20A 250VAC Motor: 2HP 240VAC
Max. switching voltage	Resistive: 250VAC
Max. switching current	25A
Max. switching power	6250VA
Mechanical endurance	2 x 10 ⁶ OPS
Electrical endurance	1 x 10 ⁵ OPS (See approval reports for more details)

COIL	
Coil power	Approx. 900mW

COIL DATA					at 23°C
Nominal Voltage VDC	Pick-up Voltage VDC max.	Drop-out Voltage VDC min.	Max. Allowable Voltage VDC	Coil Resistance Ω	
5	3.5	0.5	6.0	27.8 x (1±10%)	
12	8.4	1.2	14.4	160 x (1±10%)	
24	16.8	2.4	28.8	640 x (1±10%)	
48	33.6	4.8	57.6	2560 x (1±10%)	

CHARACTERISTICS		
Insulation resistance		1000MΩ (at 500VDC)
Dielectric strength	Between coil & contacts	4500VAC 1min
	Between open contacts	1000VAC 1min
Operate time (at nomi. volt.)		20ms max.
Release time (at nomi. volt.)		10ms max.
Temperature rise (at nomi. volt.)		60K max.
Shock resistance	Functional	196m/s ²
	Destructive	980m/s ²
Vibration resistance		10Hz to 55Hz 1.5mm DA
Ambient temperature		-40°C to 85°C
Humidity		5% to 85% RH
Termination		PCB & QC
Unit weight		Approx. 26g
Construction		Flux proofed

Notes: The data shown above are initial values.

SAFETY APPROVAL RATINGS	
UL/CUL	25A 250VAC
	20A 250VAC
	1HP 120VAC
	2HP 240VAC
VDE	25A 250VAC at 55°C
	20A 250VAC at 85°C

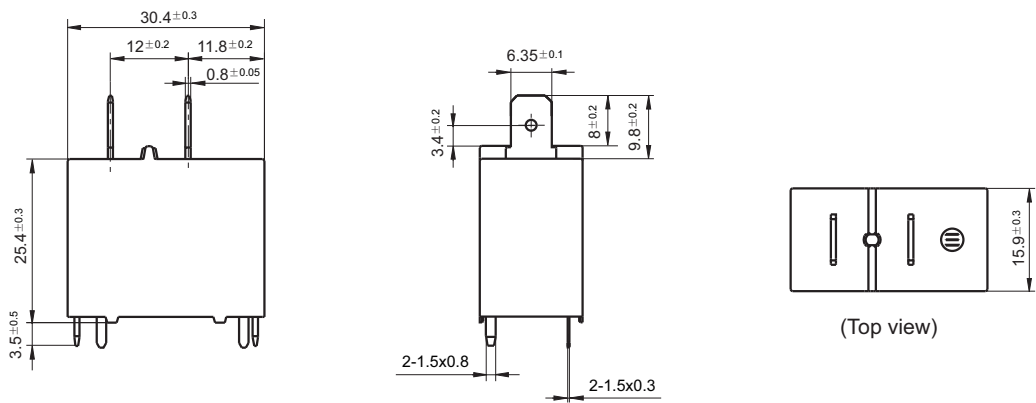
Notes: Only some typical ratings are listed above. If more details are required, please contact us.

ORDERING INFORMATION				
	HF160F / 12 -H 5 T (XXX)			
Type				
Coil voltage	5, 12, 24, 48VDC			
Contact arrangement	H: 1 Form A			
Termination	5: PCB & QC			
Contact matcrial	T: AgSnO ₂		Nil: AgCdO	
Customer special code				

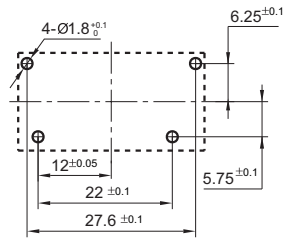
OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT

Unit: mm

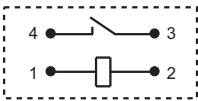
Outline Dimensions



PCB Layout (Bottom view)

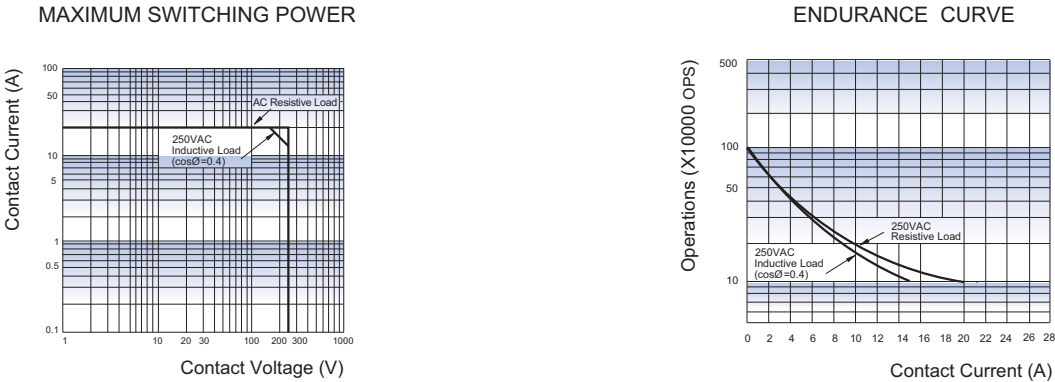


Wiring Diagram



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



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.

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