

## Product Features

- Ceramic vacuum brazing seal is adopted to ensure no arc leakage, and the contact point can meet the protection grade of IP6K9K.
- The mixed gas mainly filled with hydrogen can quickly cool the arc and prevent the contact from oxidation and burning
- 100A 85°C long time current carrying capacity
- The rated voltage of cut-off load is 12-750VDC
- The insulation resistance reaches 1000m  $\Omega$  (1000VDC) and meets the requirements of IEC 60664-1

## Contact Parameters

Contact Form	1a		
Contact Resistance	$\leq 3\text{m}\Omega$ (at 20A)		
Contact Rated Load	100A		
Mechanical Durability	$2 \times 10^5$ times		
	<b>450V type</b>	<b>750V type</b>	
Max. Switching Voltage	1000VDC	1000VDC	
Max. Breaking Current	1000A(320VDC)1times	1000A(320VDC)1times	
Max. Switching Power	45kW	75kW	
The Durability Of Electricity <sup>(1)</sup>	Capacitive Load	Switchover: $2 \times 10^4$ times (22.5VDC, $\tau=1\text{ms}$ , impact 400A, steady state 100A)	Switchover: $2 \times 10^4$ times (37.5VDC, $\tau=1\text{ms}$ , impact 400A, steady state 100A)
	Capacitive Load	Switch on 1times (360VDC, $\tau=1\text{ms}$ , impact 1350A, steady state 100A)	
	Resistive Load	Breaking $1 \times 10^4$ times (360VDC, 50A)	Breaking $6 \times 10^3$ times (600VDC, 50A)
	Resistive Load	Switchover: $3 \times 10^3$ times (450VDC, 100A)	Switchover: $1 \times 10^3$ times (750VDC, 100A)
Current Tolerance <sup>(2)</sup>	100A:last; sustain		
	120A:2h		
	200A:10min		
	400A:2min		
	600A:30s		
	1000A:0.6s		

Remarks: (1) Unless otherwise indicated, the test temperature is 23 °C, the on-off ratio is 0.6s: 5.4s. During the test, the coil is not connected with surge suppression device. Please note that if the coil parallel diode is used, the release time of the contactor will be greatly prolonged and the service life will be reduced.

(2) The ambient temperature is 85 °C, and the cross-sectional area of the conductor is  $\geq 40 \text{ mm}^2$ . For detailed current loading conditions, please refer to the attached figure "tolerance curve".

Performance Parameters

Insulation Resistance		1000MΩ(1000VDC)
Dielectric Withstand Voltage	Between Contacts and Coil	3000VAC 1min
	Between Open Contacts	3000VAC 1min
Operating Time (at rated voltage)		≤30ms
Release Time (at rated voltage)		≤10ms
Impact	Stability	196m/s <sup>2</sup>
	Strength	490m/s <sup>2</sup>
Vibration		10Hz ~ 500Hz 49m/s <sup>2</sup>
Fumidity		5% ~ 85%RH
Temperature		-40℃ ~ 85℃
Form Of Load Outlet		M5 Internal Thread
Weight		About 350g
Dimensions		76.5mm×39.0mm×77.0mm

Note: The above values are the initial values at room temperature.

Coil Parameters

Rated Voltage VDC	Operating Voltage VDC	Release Voltage VDC	Coil Power Consumption W
12	≤9	≥1	4.5
24	≤18	≥2	4.5

Note: The above values are conservative values in the full temperature range (-40℃ ~ 85℃).

Example Of Order Marking

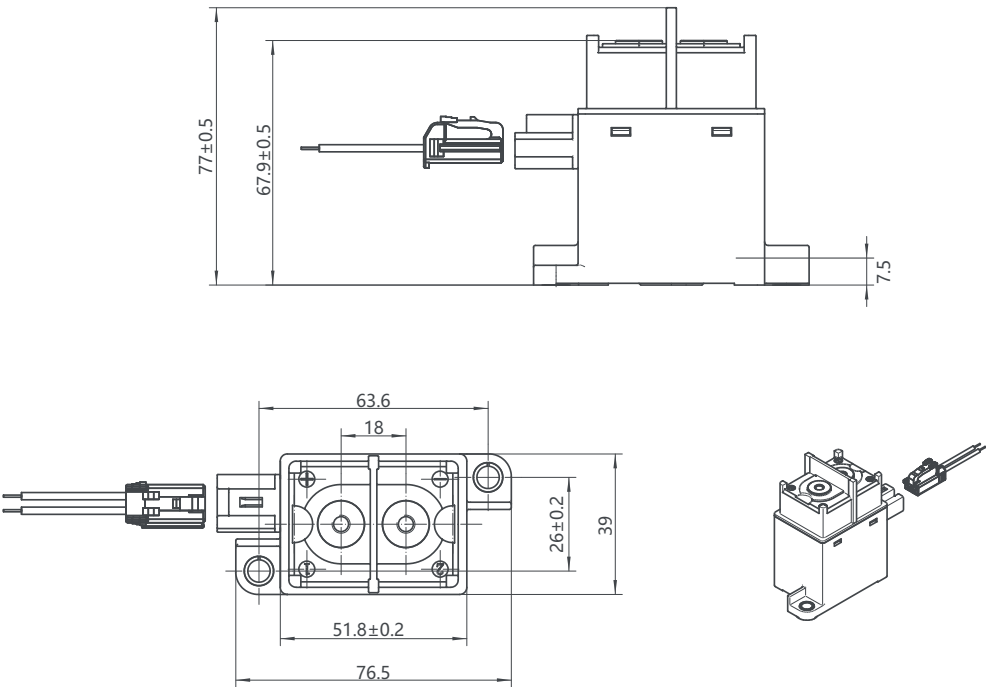
HFEVC - T F 100 / 750 - 12 - C N SM -       
1 2 3 4 5 6 7 8 9 10

- |                                  |  |
|----------------------------------|--|
| 1、Product Model                  | HFEVC: Huanfang High Pressure Contactor                  |
| 2、Product Type                   | T: Ceramic Seal Type H: Epoxy Sealed Type                |
| 3、Product Appearance             | F: Square Product Y: Circular Products                   |
| 4、Series Code                    | 100: 100A  |
| 5、Voltage Classes                | DC Blank: 450V 750: 750V                                 |
| 6、Coil Voltage                   | 12: DC12V 24: DC24V PWM: 9V~24V                          |
| 7、Coil Lead - out Mode           | C: Connector; L: Outlet;                                 |
| 8、With Auxiliary Contact Or Not  | Blank: Without N: With Normally Open Auxiliary Contacts  |
| 9、Installation Mode              | Blank: Vertical Installation SM: Horizontal Installation |
| 10、Customer Characteristics Code | Subject To Customer Requirements                         |

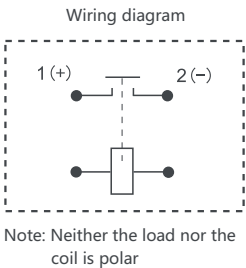
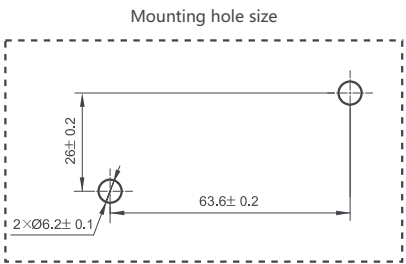
Remarks :(1) special requirements of customers shall be marked in the form of special number after review by our company.

Outline drawing, mounting hole size

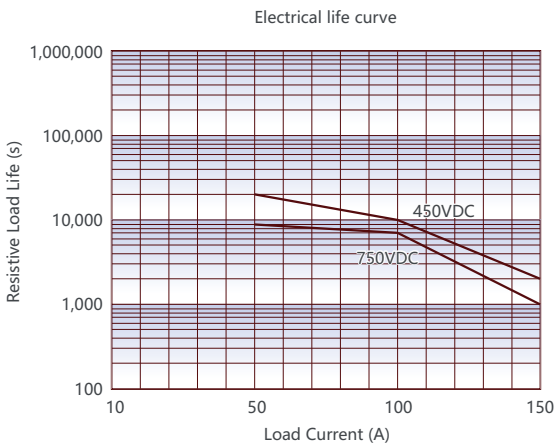
Unit: mm



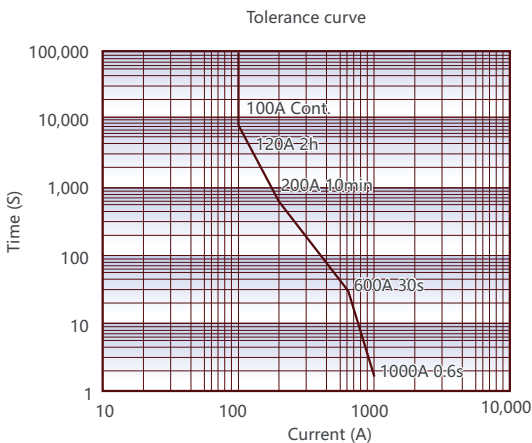
Mounting hole size/Wiring diagram



Performance graph



Remark: Rated electrical life number is based on resistive load. Test under switch on/off. Switch on for 0.6s and off for 5.4s..



Note: The above data is measured under the conditions of ambient temperature 85°C and the sectional area of conductor wire  $\geq 40 \text{ mm}^2$ . The data is for reference only, do not use it to select fuse directly.



Precautions for use

1. To prevent looseness, please use gasket when installing contactor. Please use M5 screw at the installation position of contactor, and the screw locking torque should be controlled at 3N·m~4N·m; the screw locking torque at the installation position of the outlet should be controlled at 3N·m~4N·m. In case of exceeding the range, it may cause damage.

Load the mounting part of the leading-out terminal				Contactor mounting part	
Installation	Torque requirement	Aperture of copper bar	Copper bar thickness	Installation	Torque requirement
M5 Screw	3N·m~4N·m	Ø5.0~Ø5.5mm	2~4mm	M5 Screw	3N·m~4N·m

2. Please avoid sticking grease and other foreign matters on the lead-out piece. Please use the connecting wire with the size of 40mm<sup>2</sup> or above, otherwise it may cause abnormal heating of the lead-in end.

3. It is suggested that the thickness of copper strip is 2mm~4mm, otherwise it will cause the problem of thread sliding teeth or loose installation.



Statement:

- The document is for customer reference only. Huanfang has made every effort to ensure the accuracy of the information in this document. However, mistakes are inevitable, and the products, specifications and parameters may be changed due to product improvement. For the specific parameters and performance of each product, please refer to the specifications and samples provided by Huanfang without further notice.
- As for the application field, it is impossible for Huanfang to evaluate all performance parameters of contactor in each specific application field. Therefore, customers should select the products matching with the contactor according to the specific service conditions. If the requirements are not specified clearly, please contact Huanfang for more technical support. Huanfang clearly states that the information in this document is only for selection reference, and the responsibility of product selection is only the responsibility of the customer.