

# **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
- 150A 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
- Energy saving type: control by wide voltage PWM board ,when at low power consumption, product can keep in incentive condition.
- It can be equipped with auxiliary contact to effectively monitor the on-off of main contact.
- There is no polarity requirement for load and coil.

			Contact Parameters			
Contact Form			1a			
Contact Resistance		nce	≤0.5mΩ (at 150A)			
Contact Rated Load  Mechanical Durability		.oad	150A 2×10 <sup>s</sup> times			
		bility				
			450V Type	750V Type		
Max. Switching Voltage			750VDC	750VDC		
Max. Breaking Current			1500A(320VDC)1 times	1500A(320VDC)1 times		
Max. Switching Power		ower	67.5kW	112.5kW		
					Switchover: 5×10³ times (450VDC, 150A)	Switchover: 1×10 <sup>3</sup> V (750VDC, 150A)
The Durability Of Electricity (1)		Resistive Load	Switchover: 500 times (450VDC, -150A)	Switchover: 500 times (750VDC, -150A)		
			Breaking 1 times (320VDC, 1000A)	Breaking 1 times (320VDC, 1000A)		
			150A:last; sustain			
	Current Toleran	(2)	200A:10min			
	Current Ioleran	ice (*/	300A:1min			
			1000A:1s			
Auxiliary Contact	Appoint (Normally Open)		1NO			
	Rated Operating Low Voltage(Ue)		30VDC/125VAC			
	Rated Operating Current		2A (DC) /3A (AC)			
	Min. Operating Voltage Current		9V0.1A			

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 ≥ 50 mm². For detailed current loading conditions, please refer to the attached figure "tolerance curve"

Performance Parameters							
Ins	ulation Resistance	1000MΩ(1000VDC)					
Dielectric	Between Contacts and Coil	3000VAC 1min					
Withstand Voltage	Between Open Contacts	3000VAC 1min					
Operatin	g Time (at rated voltage)	≤30ms					
Release	Time (at rated voltage)	≤10ms					
l	Stability	196m/s²					
Impact	Strength	490m/s²					
	Vibration	10Hz~500Hz 49m/s²					
	Fumidity	5%~85%RH					
	Temperature	-40°C ~ 85°C					
Fo	rm Of Load Outlet	Internal Thread/External Thread					
	Weight	About 400g					
	Dimensions	See the outline drawing of each model					

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				
9~24V	≤9	≥4.5	When switched on: 26W When holding: 3W				

Note: The above values are conservative values in the full temperature range (-40°C  $\sim$  85°C).

#### **Example Of Order Marking**

<u>HFEVC</u> - <u>T</u> 2 <u>Y</u> 150 / <u>750</u> - <u>12</u> - <u>C</u> <u>N</u> <u>SM</u> 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
 150: 150A

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;

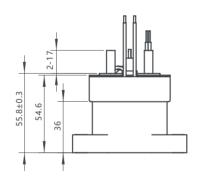
8、With Auxiliary Contact Or Not Blank: Without N: With Normally Open Auxiliary Contacts 9、Installation Mode Blank: Vertical Installation SM: Horizontal Installation

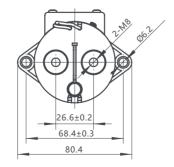
10、Customer Characteristics Code Subject To Customer Requirements

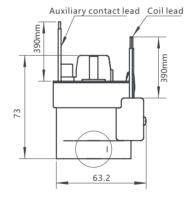
Remarks:(1) special requirements of customers shall be marked in the form of special number after review by our company.

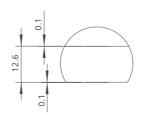
## Outline drawing, mounting hole size

Unit: mm



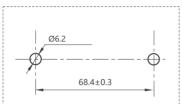




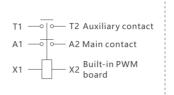


## Mounting hole size/Wiring diagram

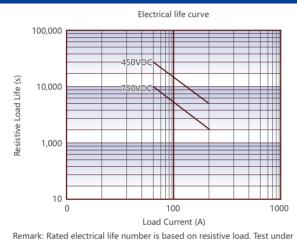
Mounting hole size

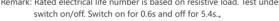


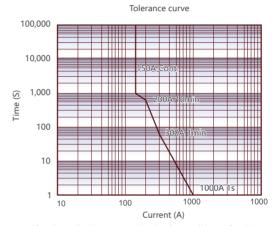
Wiring diagram



### Performance graph







Note: The above data is measured under the conditions of ambient temperature 85°C and the sectional area of conductor wire  $\geq 50 \text{mm}^2$ . 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 install the contactor and load outlet in the way specified in the table below, and control the torque within the required range. In case of exceeding the range, the contactor may be damaged.

	Load the mounting part of t	Contactor mounting part			
Installation	Torque requirement	Aperture of copper bar	Copper bar thickness	Installation	Torque requirement
M5 Screw (Internal thread)	3N·m ~ 4N·m	Ø5.0-Ø5.5	≥3mm	M5 Screw	3N·m∼4N·m
M8 Nuts (External thread)	10N·m~12N·m	Ø8.0-Ø8.5	≥3mm	INIS Screw	31V:111~41V:111

- 2.Please to avoid sticking grease and other foreign bodies on the leading-out piece, and use the connection wire of 50mm<sup>2</sup> or above, otherwise abnormal heating may be caused at the leading-out end.
- 3. It is suggested that the thickness of copper strip is 3mm, otherwise it will cause the problem of thread sliding teeth or loose installation.



#### Statement:

- 1. 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.
- 2. 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.