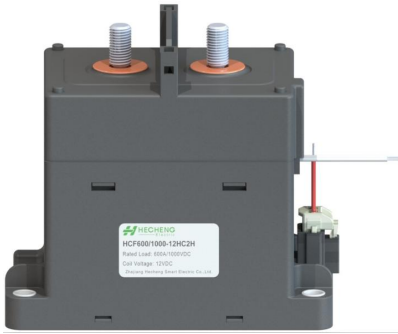


HCF600

DIRECT CURRENT RELAY



Features:

Ceramic seal structure, filled in H₂ mixed gas, resist contacts oxidation, the contact resistance is low and stable

A group of normally open auxiliary contacts built in

High resistance to short circuit

No polarity requirement on loading

Ceramic seal structure with magnetic blow-out technology, realize zero arc, ensure the safety and reliability when you using

Full compliance with RoHS requirements

Product Model

	H	C	F	600	□	/	1000	-	12	H	C	2	H	□	-	()		
HC Company Code	HC																	
Series Code	F		Square Series															
Contact Rating (Rated Current)	600		600A															
Derivative Model	Nil: Basic Model																	
Load Voltage	450		800		1000		1500										450VDC; 800VDC; 1000VDC; 1500VDC	
Coil Voltage	12: 12VDC; 24: 24VDC; 48: 48VDC																	
Main Contact Type	H		SPST-NO															
Coil Input Terminal	C		Connector															
Load Input Terminal	2		External Thread															
Auxiliary Contact	H		SPST-NO															
Mounting	Nil: Vertical Mounting																	
Special Code	XXX: Customer Special Code; Nil: Standard																	

CHARACTERISTIC PARAMETER

MAIN CONTACT DATA

Max. Switching Voltage	1500VDC
Rated Current	600A
Contact Arrangement	SPST-NO
Contact Voltage Drop	≤0.12V (at 600A)
Current Carry Capacity ^①	700A:10min; 1000A:60s; 1600A:10s; 3000A:1s
Electrical Life(Resistive Load)	600A 800VDC 500ops, Only Breaking 600A 1000VDC 100ops, Only Breaking 350A 1500VDC 1000ops, Only Breaking
Max. Breaking Current(Resistive Load)	2500A 800VDC 1ops
Overload Breaking(Resistive Load)	1000A 900VDC 50ops
Short-Circuit Current	8000A(10ms) No Smoke Or Fire

AUXILIARY CONTACT DATA

Auxiliary Contact Arrangement	SPST-NO
Auxiliary Contact Current Range	100mA/8VDC~2A/30VDC

COIL DATA^②

Rated Voltage	12VDC	24VDC	48VDC
Operate Voltage	≤9VDC	≤18VDC	≤36VDC
Release Voltage	≥1.2VDC	≥2.4VDC	≥4.8VDC
Rated Operate Power	Approx 65W(Start); 5.4W(Hold)	Approx 65W(Start); 5.4W(Hold)	Approx 65W(Start); 5.4W(Hold)
Max. Allowable Voltage	16VDC	32VDC	64VDC

CHARACTERISTICS DATA^③

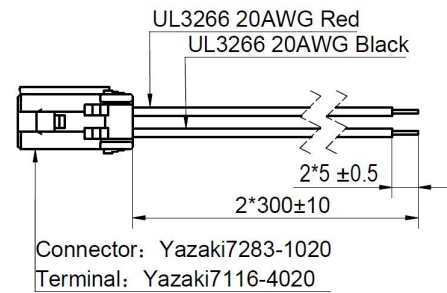
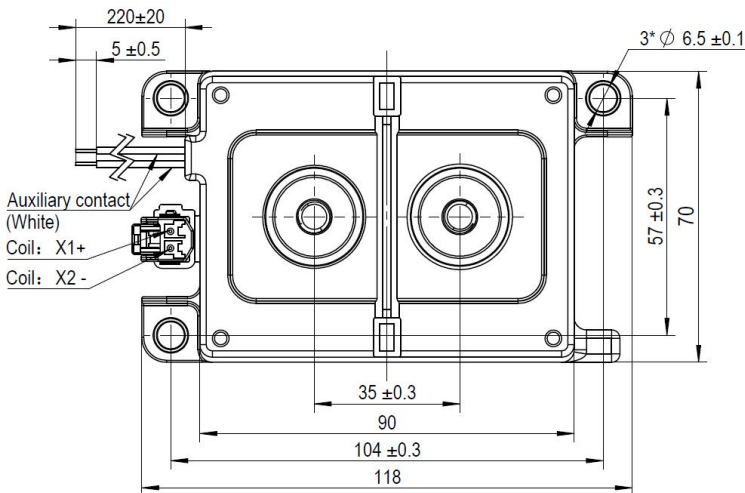
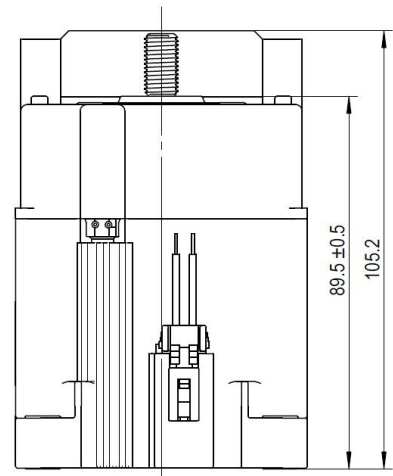
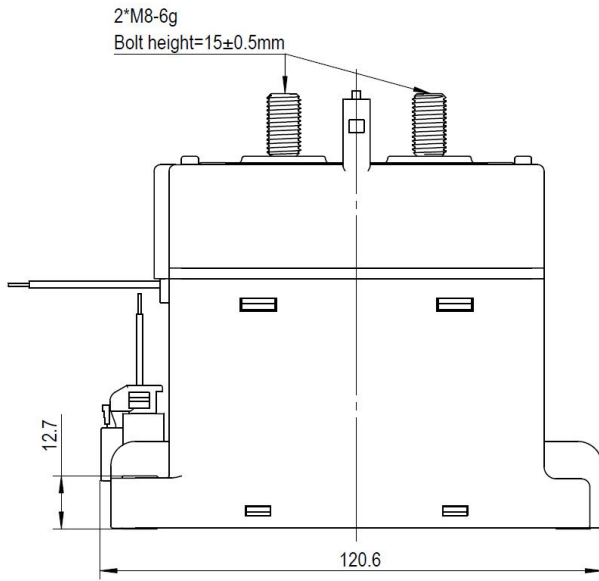
Dielectric Strength	Between Contacts And Coil	4000VAC 1min
	Between Open Contacts	4000VAC 1min
Insulation Resistance	Between Contacts And Coil	1000MΩ(1000VDC)
	Between Open Contacts	1000MΩ(1000VDC)
Shock Resistance	Functional	20G Half-Sine Wave 11ms
	Destructive	50G Half-Sine Wave 6ms
Vibration Resistance	Functional	5.79G(10~2000Hz, Random)
Operate Time		Max:30ms
Release Time		Max:10ms
Mechanical Life		2*10 ⁵ ops
Unit Weight		Approx 1300g

Remark:

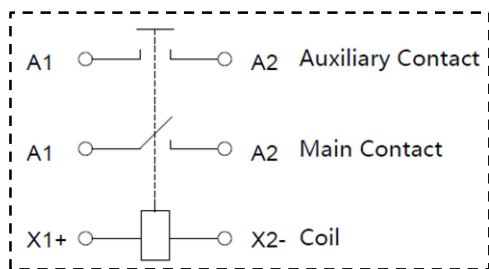
- ① Loading current capability test under 400mm² sectional area cable;
- ② Product work data test under 23℃;
- ③ Characteristics data test under 23℃ except vibration resistance; vibration resistance tested under -40℃~85℃; dielectric strength is 2500VAC min, insulation resistance is 50MΩ min after reliability test;
- ④ Unless special explain, electrical life test break-make ratio is 0.6s:5.4s.

OUTLINE DIMENSIONS

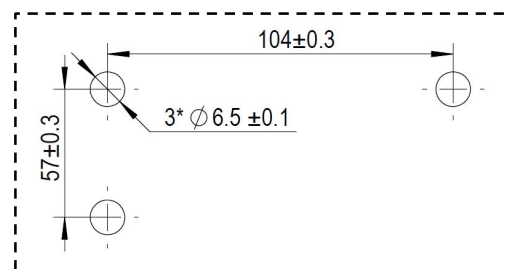
HCF600/□-□-HC2H



General Tolerance:
<10mm: ±0.3mm
10~50mm: ±0.5mm
>50mm: ±0.8mm



Coil Wiring Diagram



Installation Hole

CAUTIONS

1. Please avoid installing in strong magnetic fields (transformers, magnets around) or hot objects.
2. Use the environment temperature $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$, humidity $5\% \sim 85\% \text{RH}$.
3. The coils of the relay are polarized, so follow the connection schematic when connecting the coils.
4. The relay has a built-in one-shot pulse generator circuit, please drive the coil with a quick startup (pulse power supply mode); after the signal enters relay, automatic coil current switching occurs after approximately 300ms, please avoid repetitive switch in which interval time is less than 300ms.
5. Electrical life test under $L/R \leq 1\text{ms}$ condition.
6. Please be attention: If parallel diode on coil will increase relay release time and decrease electrical life.
7. Please avoid the adhesion of oil and other foreign material on the lead sheet, please use the cable with 400mm^2 or above, otherwise it may cause the abnormal fever in the lead-out part.
8. In order to prevent loosening, please use the washer screw to lock when the relay is installed, and the screw locking torque of each part should be controlled in the following range:
 - a) Relay shell installation department
Recommend M6 screw: $6\text{N.m} \sim 8\text{N.m}$
 - b) Main loading installation part
Recommend M8 nut: $9\text{N.m} \sim 10\text{N.m}$
9. When screw installation, depth of match should not be too shallow, otherwise may lead to screw loose, recommend $2/3$ of length of thread at least.
10. Relay installation baseboard hole can't be chamfered too much, recommend $\text{Ø}6.5\text{mm}$, otherwise relay shell bushes will loose, please refer to figure 1:
11. When contactor is connected with one or more busbars, please ensure that the busbars are tightly fitted to the contact terminal face (when there are multiple busbars, please ensure that the busbar with large current is closest to the contact terminal face, and the busbars with low current come next), then the flat washer, spring washer and screw. Incorrect connection order can cause severe overheating, please refer to figure 2:

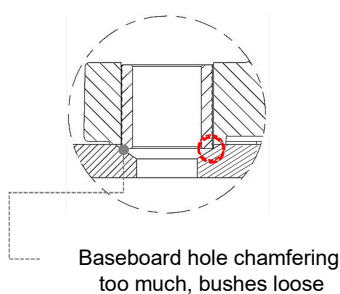


Fig1

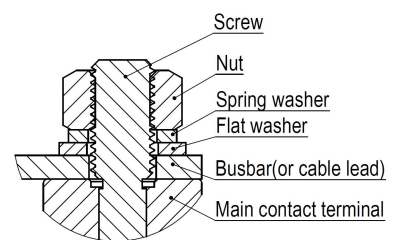
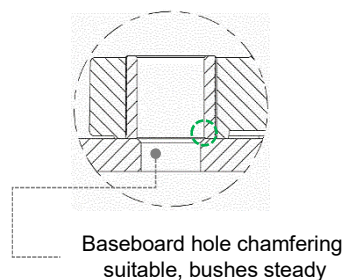


Fig2