HCZ01-300 Specifications

Ratings:

◇Max. Switching Voltage: 1000VDC

◇Rated Current: 300A

◇Main Contact Type: SPST-NO

◇Auxiliary Contact: SPST-NO/NC

◇Auxiliary Contact Type: Optional

◇Coil Rated Voltage : 12~36VDC，48~72VDC

◇Ambient Operation Temperature : -40°C~+85°C

◇Ambient Operation Humidity : 5%~85%RH

Approvals/Standard:

◇REACH

◇RoHS

◇CE

◇UL

Features&Benefits:

Compact structure, fully sealed package,internalfilled with inert gas, combined with magnetic arc blowing out can quicklyextinguish the arc, so that the product shape can be small;

Epoxy resin package,the contact part is sealed in thesealed chamber filled with inert gas,contact no oxidation, arc noeakage, so as to ensure that the product has good safety;

Carrying current 300A continuously at 85°C;

Product Model:

	HC	Z01	-	300	F	-A	P	- ( )

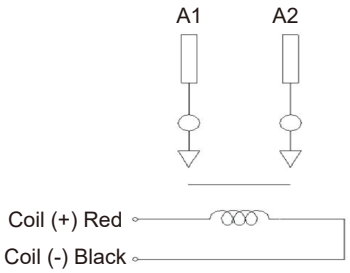
Company Code	
Series Code	Z01 Series
Contact Rating(Rated Current)	300:300A
Auxiliary Contact	Nil: No Auxiliary Contact F: SPST-NO B: SPST-NC
Coil Voltage	12:12V, 24:24V, A :12-36VDC, 48: 48~72VDC
Main Contact Type	Nil: SPST-NO, Non-Polarized P: SPST-NO, Polarized
Special Code	XXX: Customer Special Code; Nil: Standard

Characteristic parameter

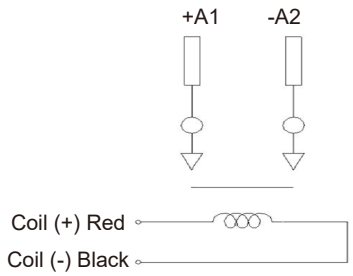
MAIN CONTACT DATA					
Max. Switching Voltage		1000VDC	Rated Current		300A
Contact Arrangement		SPST-NO	Contact Voltage Drop		≤0.05V(at 300A)
Limiting Short-time Current		450A:480s; 600A:30s; 900A:6s			
Electrical Life (Resistive Load)		300A 450VDC 1000 ops	300A 750VDC 500 ops		300A 1000VDC 100 ops
Max.Breaking Current(Resistive Load)		2000A 320Vdc 1ops			
CHARACTERISTIC DATA					
Dielectric Strength	Between Main Contacts and Coil	Before Test≥3500VAC (1min)	Insulation Resistance	Between Main Contacts and Coil	Before Test≥1000MΩ (1000VDC) After Test≥50MΩ (1000VDC)
	Between Open Main Contacts	Before Test≥3500VAC (1min)		Between Open Main Contacts	Before Test≥1000MΩ (1000VDC) After Test≥50MΩ (1000VDC)
Shock Resistance	Functional	196m/s² 20G above	Vibration Resistance	Functional	10~500Hz,49m/s²
	Destructive	490m/s² 50G above			
Operate Time		Max:30ms	Mechanical Life		2*10⁵ ops
Release Time		Max:10ms	Weight		Approx 380g
Auxiliary contact parameters					
Switch Rating		30Vd.c. 2A;125Va.c. 3A	Minimum Load		5Vd.c. 100mA
Auxiliary Resistance		≤150mΩ			
COIL DATA					
Rated Voltage		12-36VDC			48-72VDC
Pick-up Voltage		≤9VDC			≤28VDC
Drop-out Voltage		≥6VDC			≥16 VDC
Rated Operating Power		Starting power 40W (About 0.1 s) Hold power 2.2W (About 0.1 s)			
Coil Resistance		3.2 （1 ± 7%）Ω			40 （1± 7%)Ω

Wiring diagram

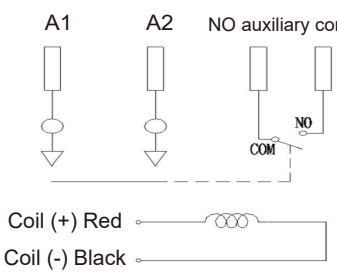
Load non-polar, no auxiliary



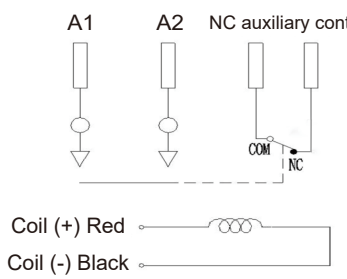
The load is polar , no auxiliary



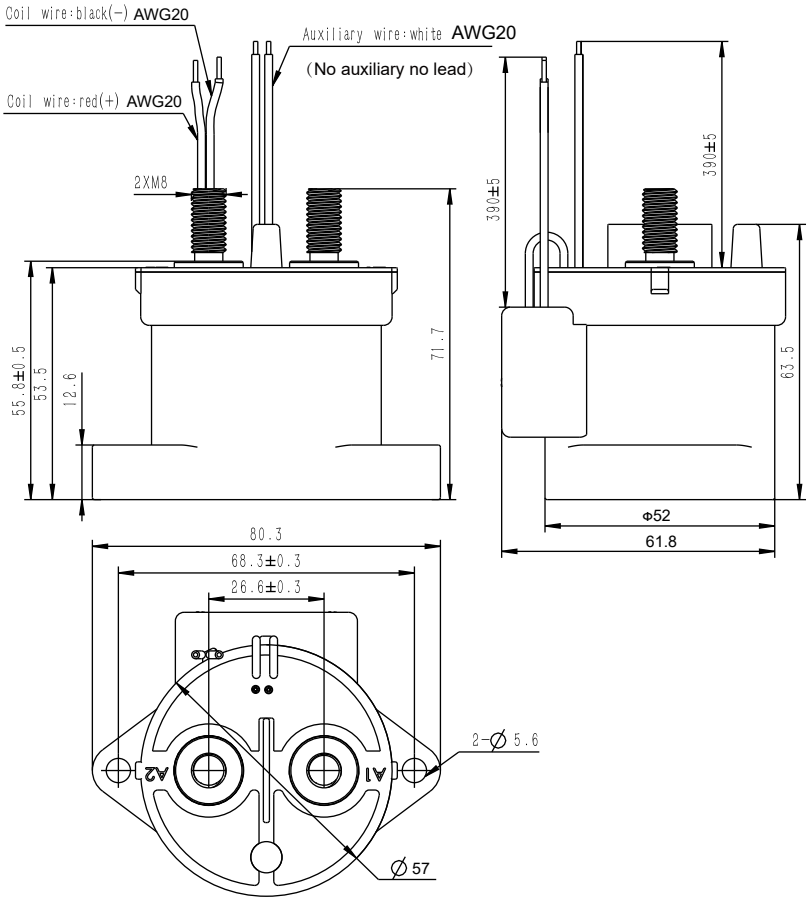
Load non-polar, with normally open auxiliary contact



Load non-polar, with normally closed auxiliary contact



Outline dimensional



Caution:

1.All the performance parameters listed in this specification are deemed as initial value measured under standard testing conditions.

2.Used in environment temperature -40°C~+85°C, humidity 5%~85%RH.

3.Please avoid installing the device near high magnetic fields (eg.transformers or magnetics) or hot objects.

4.The electrical life test is performed with resistive load. Therefore, please take surge absorption measures in parallel with inductive load when the device is applied to inductive load circuit with L/R≥1ms. Otherwise, the electrical life is likely to decline, resulting in poor cutting off.

5. Measures including precharging etc. must be taken if the device is to be applied in capacitive load circuit.It is suggested that the differential pressure be controlled within 20V when the contactor is in closed position. Otherwise, it might lead to contact adhesion.

6.It is recommended to install a non-linear resistor(Variable resistors are preferred with over 1J maximum energy tolerance and 1.5-2 times of rated voltage)to suppress the reverse electromotive force generating from the contactor coil. Please be noted that the using of diode will prolong the release time of contactor, leading to degradation of cut-off peformance.

7.Please avoid adhering such foreign matters as grease etc. on the leading-out terminals. Over 100mm² conductors shall be used. Otherwise, it will casue abnormal heating of leading-out terminals.

8.Please avoid collision or falling during use or transportation. In order to maintain the performance of the product, it is not recommended to continue to use it after impact or fall.

9.When the product is connected with one or more conductive copper bars, please ensure that the conductive busbars closely fit the contact terminal surface (The conductive copper bars with high current must be closet to the contact terminal surface if there are multiple copper bars and then conductive busbars with low current), followed by flat washers, spring washers and screws.Incorrect connection sequence perhaps give rise to severe overheatng. Refer to Figure 1 as follows:

10.When installing the screws, the thread engagement depth shall not be too shallow, otherwise it may cause the sliding teeth to become loose. It is recommended that the engagement depth be at least 2/3 of the thread depth.

11.To prevent looseness, the contactor shall be locked with washer screws during installation, and the screw locking torque of each part shall be controlled within the following range:

Main loading installation part				Contactor shell installation department (figure 2)		
Installation method	Torque requirements	Diameter of busbar	Busbar thickness	Installation method	Torque requirements	Diameter of baseboard
M8 Screw	8.0N·m~10.0N·m	Ø8mm~Ø8.5mm	2.5~4mm	M5 Screw	3.0N·m~4.0N·m	M5

12 . Period of Validity： Two years