

■ FEATURE

- 50A Contact switch capacity, Small volume;
- A set of bridge type N.O.contacts contact circuit has "+" , "-" polarity;
- Application: Telecom equipment、Solar system、 Engineering machinery、 Electromobile、 Electric vehicle、 Charging system、 Train、 Ships、 UPS etc.
- Safety Approvals: CE, UL, CCC
- Comply with the ROHS



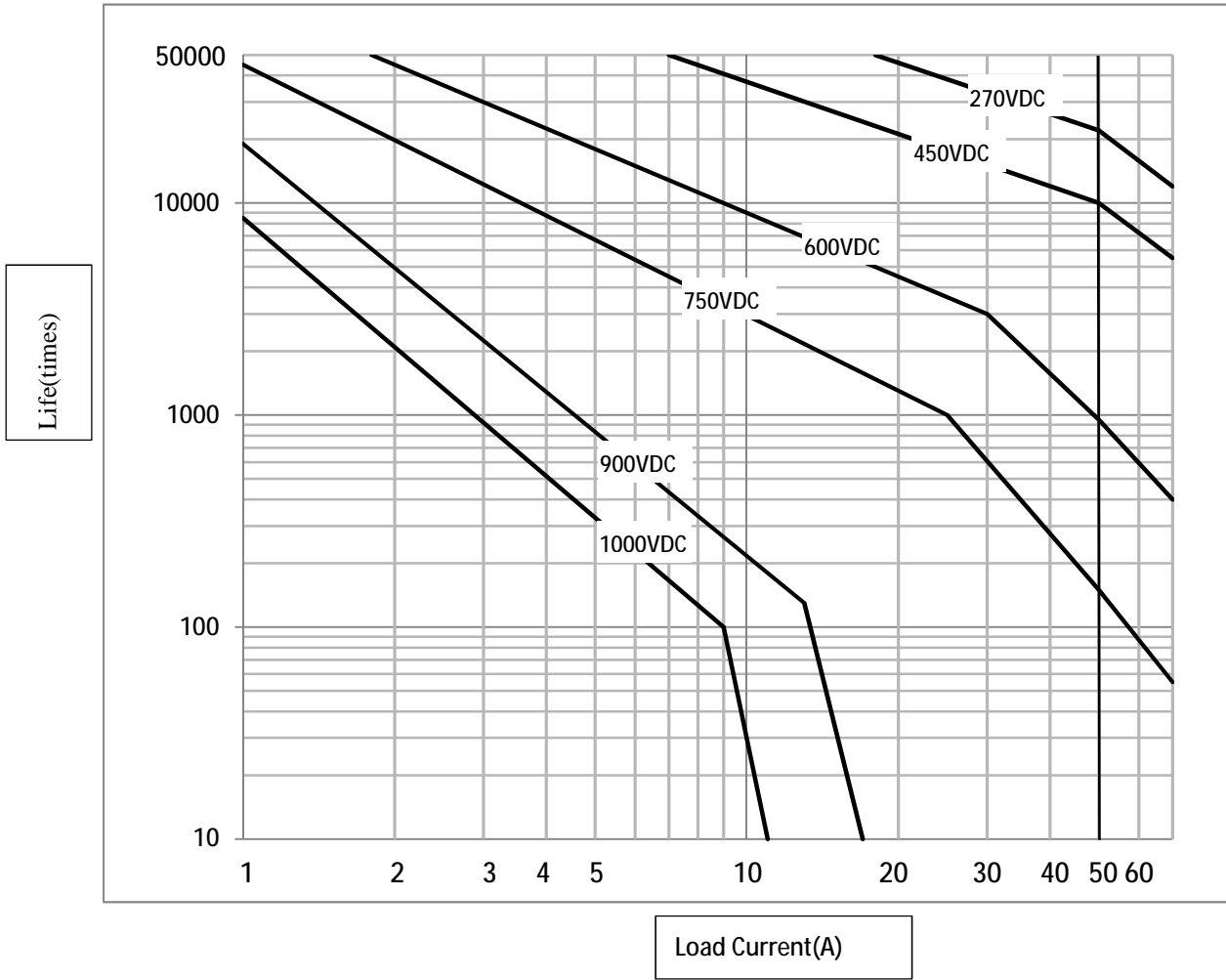
■ SPECIFICATION

Product No.	DH50
Contact type	1H (SPST-NO)
Rated load current of contact(Resistive load)	50A (DC-1)
Max Switch current	250A (320V DC) 1 time
Contact voltage drop	≤80mV@50A
Switching voltage	12~900VDC
Standard pick-up time (including contact bounce)	Max. 30ms.
Contact bounce time	Max. 5ms.
Release time	Max. 10ms.
Vibration(Sinusoid、80~2000HZ、peak)	(80~2000)HZ, ≤20g
Shock (11ms,1/2 Sinusoid 、 peak 、 pick-up)	≤20g
Operating ambient temperature	-40℃~+85℃
Relative humidity	20%~90% RH
Insulation resistance	Min. 100MΩ @ 500VDC
Dielectric strength (Between Insulated Electric Parts)	2200VAC 50 Hz/60 Hz (1 minute)
Mechanical life	300,000 times
Electrical life	Refer to resistive load life curve
Pollution level	III
Working duty	Continuous

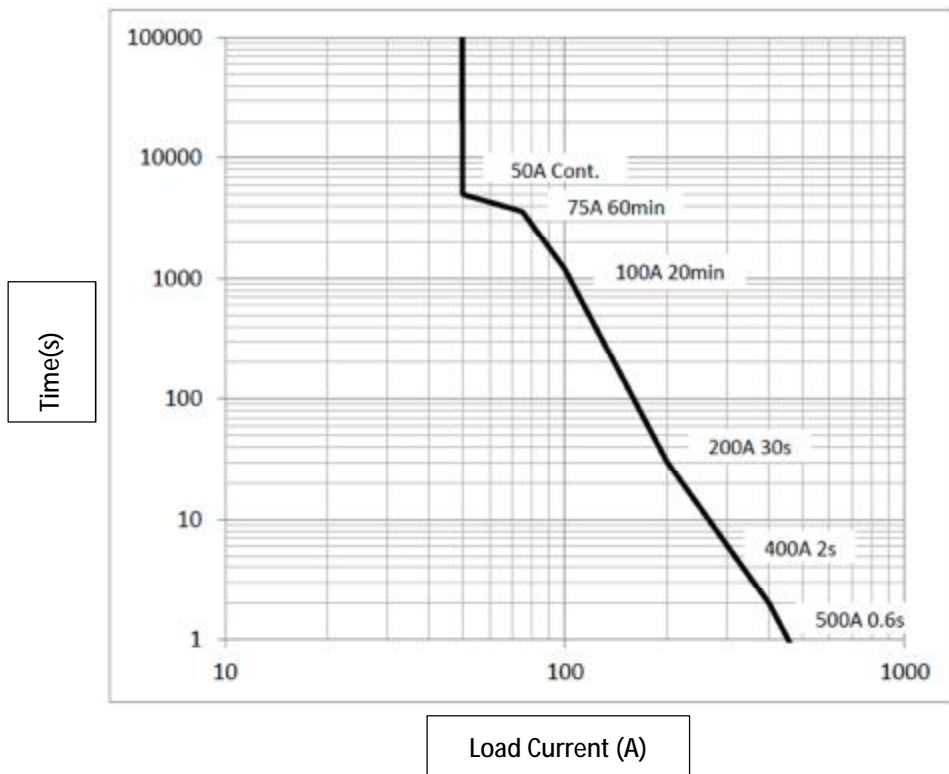
■ COIL DATA

P/N	Coil voltage	Coil operating voltage (V)	Pick-up voltage (V)	Release voltage (V)	Maintain current	Coil power (W)
DH50C	12	0.85U _s ~1.2U _s	≥9	0.6~3.6	0.33	3~5W
	24		≥18	1.2~7.2	0.17	
	48		≥36	2.4~14.2	0.09	

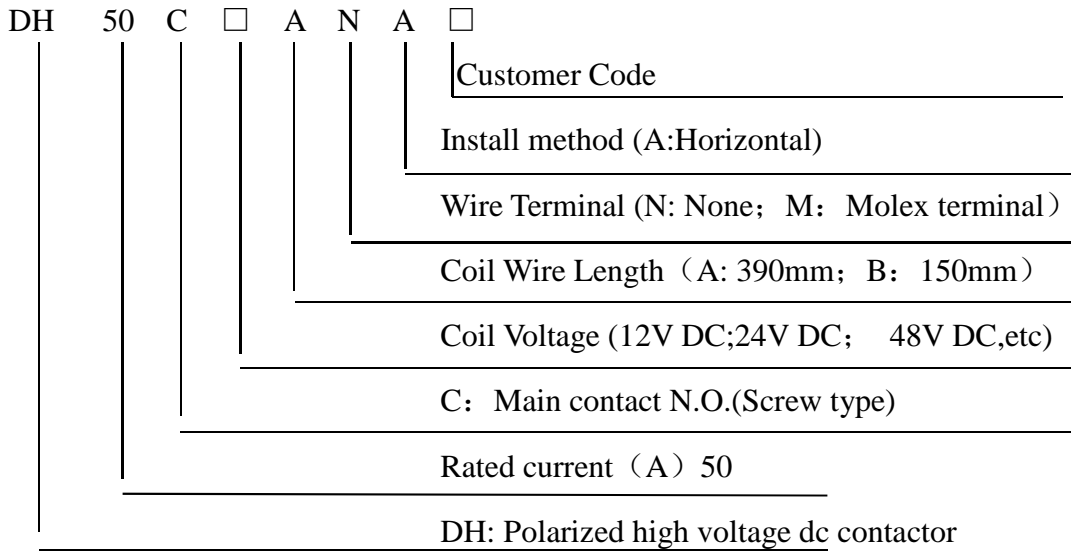
Resistive load life at different voltages



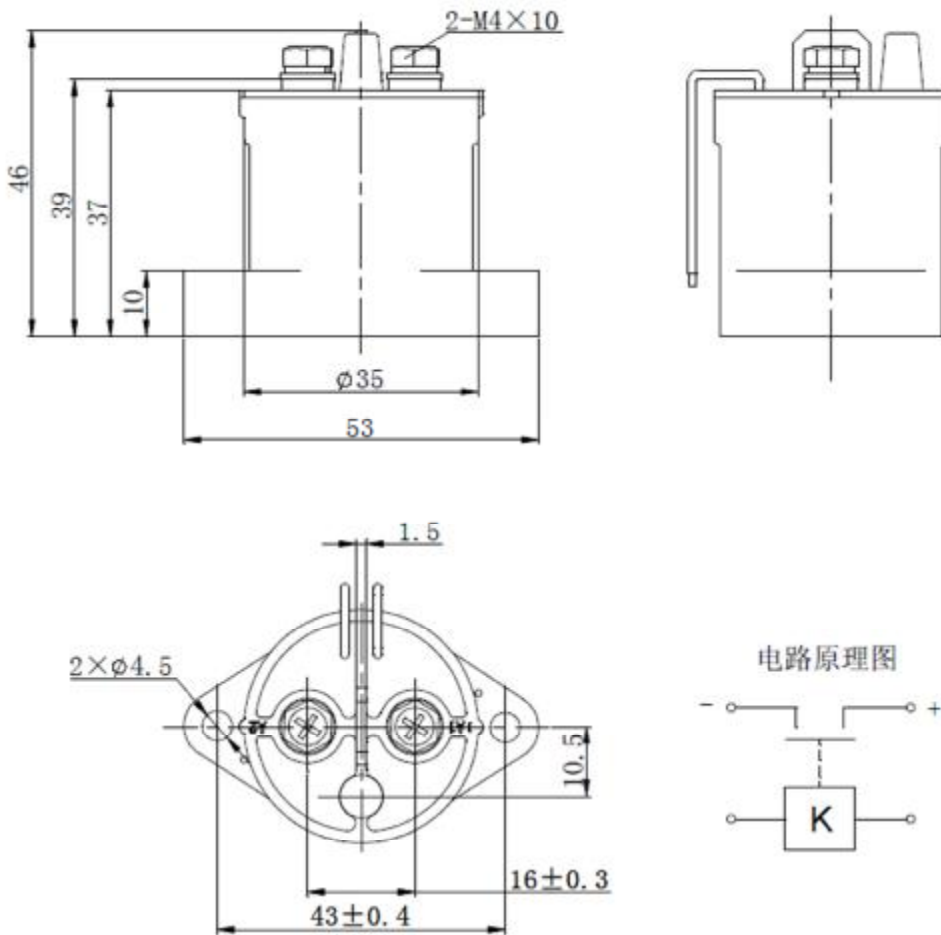
Tolerance curve



■ PRODUCT MODEL DEFINE



■ Outline mounting dimension and circuit diagram



Dimension (mm)	Tolerance grade not noted (mm)
0~30	±0.3
30~60	±0.5
60~100	±1

Note: The main contact is polarized; Connect “+” polarity to the main contact terminal with “+” mark, and connect “-” polarity to the main contact terminal with “-” mark.

■ Accessory

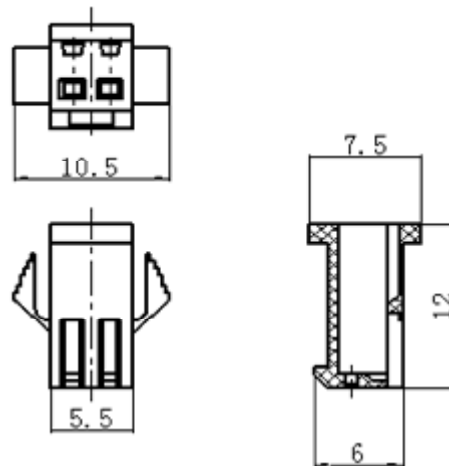
DH50 series product with terminal part no is:DH50C□M□□, the additional code means terminal

Additional code: M4

Plug type: SM-2Y-HW

Terminal type: SMA-HW

Terminal dimension figure:



Matched plug type: SM-2A-HW

Matched terminal type: SMY-HW

■ PRODUCT USE INSTRUCTIONS

- 1、 Do use washer when installing the contactor in case the screw fall off. Refer to the following specified range of tighten screw torque, the products may be broken if exceed beyond the maximum torque:

The torque of contact (M8 nut): 1~1.5N.m

The torque of installing: 2.3 N.m Max

- 2、 The contact points are also polarized; it should be also wired according to the product mark.
- 3、 Do not use the product which have been dropped off.
- 4、 Avoid to install the products in strong magnetic field (near the transformer or magnet), or close to the thermal radiation of the objects.
- 5、 Electrical life

This contactor is a kind of high-voltage DC switch; it might be lost the function of cutting off in its final breakdown mode. Therefore, do not use in the condition of exceeding its' switching capacity and life parameters (please treat it as a product with a specified life and need to be replaced if necessary). Once the contactor loose the function of disconnect and cutting, it could cause the burning of surrounding parts, so it should have a good design of circuit diagram, ensure the power supply can be cut off in 1 second.

- 6、 The diffusion life of internal gases
This contactor designed with gas-tight silo contact point, there is gas in the silo, the diffusion life of gas is decided by the silo temperature(that is Environment Temperature + Temperature rising of the contact electrical), therefore, please make sure the environment temperature should be between -40°C and +85°C.
- 7、 If the contactor's coil and contact point is energized continuously with rated voltage (or current),the power is cut off and turned on immediately, at this time due to the coil temperature increases, the resistance of the coil will increase too, so as to cause the pick-up voltage increased, it may cause beyond the rated pick-up voltage , in this case, please take following measures, such as: Reduce the load current, limited duration electricity or Use the higher coil voltage than the rated pick-up voltage.
- 8、 The main contact rated parameters is available at resistance load, if use inductive load (L load) and at the same time the $L/R > 1$ ms, it should be paralleled a surge current protection device for the inductive load.
- 9、 Product coil drive circuit of power must be larger than the product coil power, otherwise it will reduce the product's cutting ability.
- 10、 Be careful not to let the debris or oil pollute the main terminal, and the lead-out wire terminal should be reliable contact with the main terminal, or the terminal would be highly heated. At the same time, the lead wire which connected to the product must achieve its conductive capability, to prevent overheating and impact the electrical life. (The wire sectional area of connecting main contact should be more than 16mm^2).