

Features

HIGH CURRENT CARRY AND HIGH VOLTAGE

Inert gas filled arc chamber suitable for high voltage switching

COMPACT STRUCTURE, LOW NOISE

Small, low-profile designs with low noise while carrying or switching loads

COIL ECONOMIZER

Economized coils for low power consumption

SAFE FOR EXPLOSIVE ENVIRONMENTS

No arc leakage due to a hermetically sealed design

HIGH RELIABILITY DESIGN

Hermetic sealing creates a stable environment for high voltage switching

NO SPECIFIC MOUNTING ARRANGEMENT

Mountable in any orientation without reduction of performance

VARIOUS APPLICATIONS

Battery Disconnect, EV Charging, Energy Storage Systems, Photo Voltaic, Power Control, Circuit Protection and much more

Sealing Type: Epoxy/Resin

-Bottom mount/side mount options available



Certification Information

- 1. Meet RoHS (2011/65/EU)
- 2. CE certified





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MAIN CONTACT				
Contact Arrangement		1 Form X (SPST-NO)		
Operating Voltage		12-900VDC		
Rated current		500A		
Max. Short Circuit Current		2,000A@320VDC 1 cycle		
Withstand Voltage *1	Between Open Contacts	4,000 VDC, ≤ 1mA		
	Between Contacts to Coil	2,500VAC, ≤ 1mA		
Insulation Resistance*1	Terminal to Terminal	New product: Minimum 100		
	Terminals to Coil	ΜΩ @500VDC		
Voltage Drop (@200A)		≤80mV		

Note:

*1: Does not meet Dielectric & IR after test.

EXPECTED LIFE			
200A @ 450VDC	5000 Cycles		
Mechanical Life	200,000 Cycles		

Current Carry Curve



Note:

*When we using a higher conductor size, the current will increase

OPERATE/RELEASE TIME			
Close (not including bounce)	30ms, Max. @20°C		
Release Time	12ms, Max. @20°C		

ENVIRONMENTAL DATA			
Shock 11ms % Sine Operating	20G Peak		
Vibration Sine, Peak 20G	80—2,000Hz		
Operating Temperature	-40∼+85°C		
Humidity	5%~85%RH		
Weight	1.32 lb. (0.60 kg)		

AUXILARY CONTACT			
Aux. Contact Arrangement	1 Form A		
Aux. Contact Current Max	2A@30VDC/3A@125VAC		
Aux. Contact Current Min	100mA@8V		
Aux. Contact Resistance	0.417 ohms @320VDC 0.150 ohms @125VAC		

COIL DATA					
Voltage Rating	12 VDC	24 VDC	48 VDC	72 VDC	
Voltage(Max.)	15 VDC	30 VDC	60 VDC	90 VDC	
(Max.)Pick-up Voltage(20 °C)	9.0 VDC	19.0 VDC	38.0 VDC	57.0 VDC	
(Min.) Drop-out Voltage (20 °C)	0.5 - 4.0 VDC	1.0 - 6.0 VDC	3.0 - 10.0 VDC	4.0 - 14.0 VDC	
Coil Current (20°C, Nominal Voltage)	1.1A	0.6A	0.3A	0.2A	
Rated Coil Resistance±5% (20°C)	11 Ω	40 Ω	145	357 Ω	



Outline Dimensions : inches (mm)

A. Bottom Mount:





B. Side Mount:



*Note: The wire gage is 22 AWG.

*When stud terminals are specified for coil connections, the electrical connection is made at the base of the stud.



Application Notes

- 1. Be sure to use split washer to prevent nuts from loosening, all the terminals or copper conductor must be in direct contact with the contactor's terminals. Nut tightening torque is specified below. Exceeding the maximum torque can lead to product failure.
 - Contact torque (M8): 80 100 lb.in (8.8 11 N.m)
 - Mounting torque: 15 30 lb.in (1.7 3.3 N.m)
- 2. Contact terminals are polarized so refer to drawing during connecting. We suggest using a varistor rather than diode as a surge protector.
- **3.** Do not use if dropped.
- 4. Avoid installing in a strong magnetic field (close to a transformer or magnet), or near a heat source.
- 5. Electrical life:

Use per load capability and life cycle limits so as not to cause a function failure (treat the contactor as a product with specified life and replace it when necessary). It is possible to make parts burn around the contactor once operating failure occurs. It is necessary to take layout into account and to make sure power shall be cut off within 1 second.

- 6. Lifetime of internal gas diffusion The contactor is sealed and filled with gas, lifetime of gas diffusion is determined by temperature in contact chamber (ambient temperature + temperature generated by contact operation). Operate only in an ambient temperature from -40 to +85 °C.
- 7. Drive power must be greater than coil power or it will reduce performance capability.
- 8. Avoid debris or oil contamination on the main terminals to optimize contact and avoid excess heat generation.
- **9.** After continuous rated voltage / current has been applied to the coil and contacts, turning off the coil and immediately re-energizing the coil will result in a higher pick-up voltage than the rated value. This is due to increased coil resistance (coil temperature rise) of the device.