

RXC15 SERIES

High Voltage Contactors

225A+ CONTINUOUS DUTY

1000VDC SYSTEM VOLTAGE



DESCRIPTION

The RXC15 Series are hermetically sealed high voltage DC contactors designed for medium-current power switching in harsh and demanding environments. Rated for continuous currents up to 225A and system voltages up to 1000VDC, the RXC15 Series features integrated coil economization and auxiliary contact options for efficient operation and reliable position feedback. The hermetic seal provides protection against moisture, dust, and contaminants, making these contactors well suited for mobile, industrial, and off-road applications including heavy trucks, buses, marine equipment, and industrial machinery.

FEATURES

SPST Normally Open High Voltage DC Contactor

- Hermetic Ceramic Seal with gas fill for superior carry and switching performance
- Optional auxiliary contacts for main position feedback
- Integrated coil economizer for optimized power consumption¹
- PCB mount option for direct system integration
- Chassis mount and custom form factors available
- Meets RoHS 2011/65/EU
- IEC60947-4-1 compliant
- **Designed and Assembled in the USA**

TYPICAL APPLICATIONS

- Heavy trucks and buses
- Off-road and construction vehicles
- Marine and maritime equipment
- Industrial equipment and machinery
- Forklifts and material handling vehicles
- Auxiliary power switching for electric heaters, pumps, and motors
- Utility and service vehicles (e.g., bucket trucks, emergency vehicles)
- Agricultural and specialty tractors

For factory-direct technical support and application assistance:

Call +1 805 456 6424

Email info@rinconpower.com

Visit <https://www.rinconpower.com/contact-us>

PERFORMANCE

TABLE 1. SPECIFICATIONS

CHARACTERISTIC	MEASURE
Contact Arrangement	Form X, SPST NO
Max Switching Voltage ²	1000 VDC
Dielectric Withstand Voltage (Between Open Contacts)	2200 VRMS (60 sec)
(Between Contacts and Coil)	2200 VRMS (60 sec)
Continuous Current (67mm ² conductor) ^{3,4}	300A
Overload Current 30 Seconds	800A
3 Minutes	500A
Make and Break	See Table 2
Max Short Circuit Current -1 second	1500 A
Min Insulation Resistance	100 MΩ @ 1,000V
Contact Resistance (Max) measured at 200A	0.3 mΩ
(Typical) measured at 200A	0.15-.25 mΩ
Operate Time (Max, incl bounce)	25ms
Release Time (Max)	10ms, (12ms for 48V Coil)
Shock - Functional, 1/2 Sine, 11ms	20G
Shock – Destructive, 1/2 Sine, 11ms	50G
Operating Temperature	-40°C to 100°C (175°C max terminal temperature)
Ingress Protection	Exceeds IP69, (Hermetically sealed)
Mechanical life	300,000
AUXILIARY CONTACTS	MEASURE
Contact Arrangement	SPST, Normally Open
Continuous Current	2A
Minimum Current	5mA @ 8V
COIL (20°C)	MEASURE
Nominal Voltage	12 VDC 24 VDC 48 VDC
Max Voltage ⁵	16 VDC 32 VDC 85 VDC
Pick-up Voltage (Max) ¹	8.5 VDC 15 VDC 32 VDC
Drop-out Voltage (Min)	0.6 VDC 1.2 VDC 2.5 VDC
Pull-in current (max 300ms)	4.3A 1.6A 0.8A
Holding Current	0.24A 0.09A 0.05A
Coil Power (pull-in)	46W 38W 38W
Coil Power (Holding)	2.9W 2.2W 2.2W
Coil Back EMF (V) ⁶ via internal TVS	150V 150V 0V

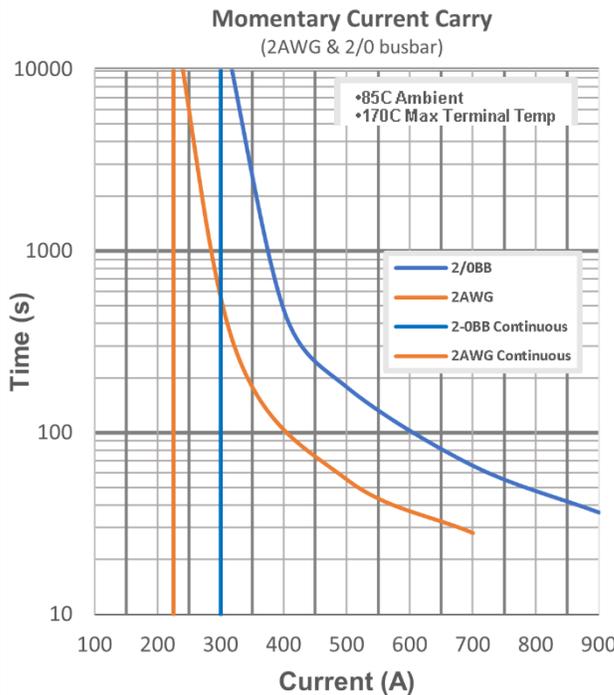


TABLE 2. RESISTIVE LOAD SWITCHING (MAKE / BREAK DATA)

POLARITY SENSITIVE VERSION ⁷		CYCLES 1 cycle = 1 make+1 break
VOLTAGE	CURRENT	
450V	150A	10,000
750V	150A	1,500
320V	-150A	20
320V	1200A	1
750V	50A	10,000
450V	100A	30,000
1000V	150A	100
1000V	225A	300 (BREAK only)

PRODUCT DIMENSIONS [mm]
Chassis Mount (RXC15P9)

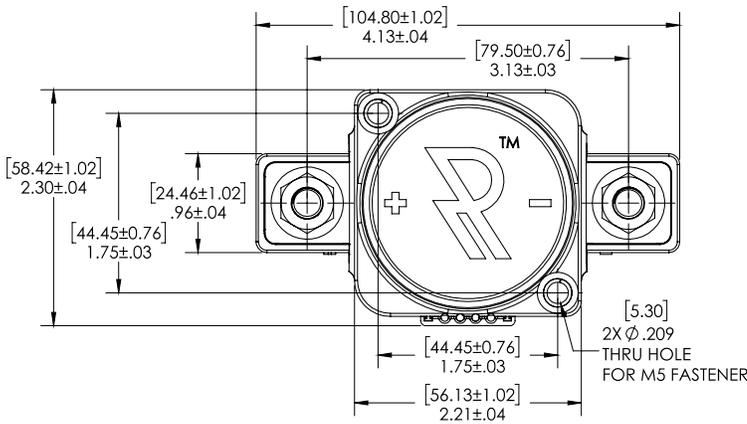
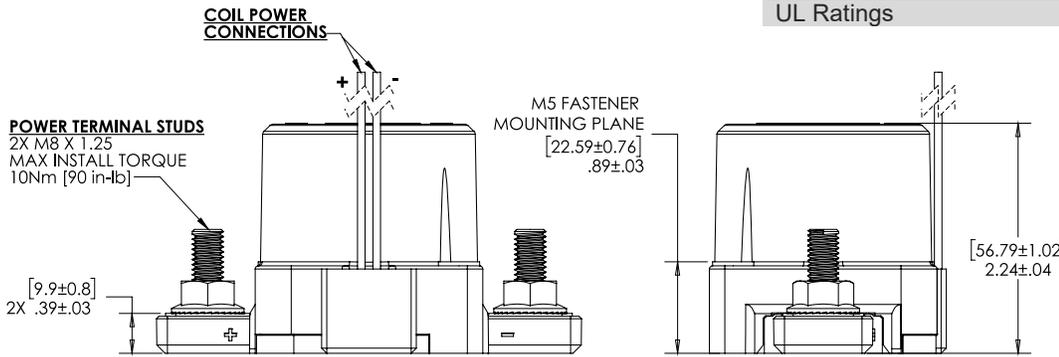
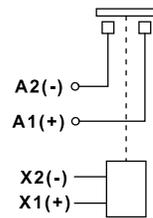


TABLE 5. DIMS AND INSTALL (RXC15P9)

CHARACTERISTIC	MEASURE
Weight	450g (1.0 lb)
Mounting Inserts	M4 or M5 ^{8,9}
Mounting Position	Any / Not Position Sensitive
Package Quantity	20 pcs
Install Torque	M8 x 1.5 Main Terminals ³ 90 in-lb. [10Nm]
COIL / AUX WIRE	FUNCTION
Black	Coil GND (-)
Red	Coil POS (+)
Grey	Aux COM
Blue	Aux N.O.
Orange	Aux N.C.
Lead Wire Length	15 in [38 cm]
Lead Wire Size	20AWG, Stranded
Jacket Material	PVC
UL Ratings	UL 1007, UL 1569



Power Contacts



3D model available upon request

NOTES

1. Dual coil economizer design: Pickup Voltage must be applied as a pulse. Do not ramp voltage.
2. Contactor may be used above Max Switching Voltage if the application does not require significant load breaking. Please contact Rincon Power for more details.
3. Attach cables and busbars directly to the main terminal pad using the recommended install torque. Do not use washers or other materials between the contactor power terminals and the conductor.
4. Rigid busbar structures have the potential to induce stress into the device and can damage the hermetic seal. When using busbars, it is important to design compliance into the bus bar structure via the use of flexible laminated busbars and or by means of incorporating adjustability in adjacent bolted interfaces.
5. Avoid excessive coil voltages. Exceeding the ratings on the datasheet may result in high coil temperature and coil failure.
6. Integrated coil suppression limits back EMF to 150V.
7. Polarity Sensitive versions are marked + and - for the power terminals. For applications that require the contactor to switch under load, please ensure current is flowing from the + to the - terminal when breaking/opening under load For Bi-Directional versions the direction of current does not matter when breaking under load.
8. M5 mounting fasteners are compatible with thru-hole mounting applications. Ensure that the fastener shoulders overlap the compression inserts extending to the plastic shoulders of housing. Use a flat washer if necessary. Recommended installation torque: [3.4 - 4.6 Nm] - *Based on stainless fasteners.*
9. M4 fasteners are recommended for applications requiring precise alignment with corresponding threaded mounting features. Ensure that the fastener shoulders overlap the compression inserts extending to the plastic shoulders of housing. Use a flat washer if necessary. Recommended installation torque: [1.8 - 2.5 Nm] - *Based on stainless fasteners.*

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