

# RXC35 SERIES

## High Voltage Contactors

**350A+** CONTINUOUS  
DUTY

**1000VDC** SYSTEM  
VOLTAGE



### DESCRIPTION

The RXC35 Series are hermetically sealed high voltage DC contactors designed for medium-to-high current switching in demanding environments. Rated for continuous currents up to 350A and system voltages up to 1000VDC, the RXC35 Series features integrated coil economization and optional auxiliary contacts for efficient operation and reliable position feedback. The hermetic seal protects internal components from moisture, dust, and contaminants, making these contactors suitable for mobile, industrial, and off-road applications where dependable DC power control is required.

### 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 consumption<sup>1</sup>
- 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
- Battery energy storage systems (BESS)
- Industrial equipment and machinery
- Electric vehicle power distribution
- Auxiliary and main DC power switching
- Material handling and forklift systems
- Agricultural and specialty vehicles

#### For factory-direct technical support and application assistance:

Call +1 805 456 6424

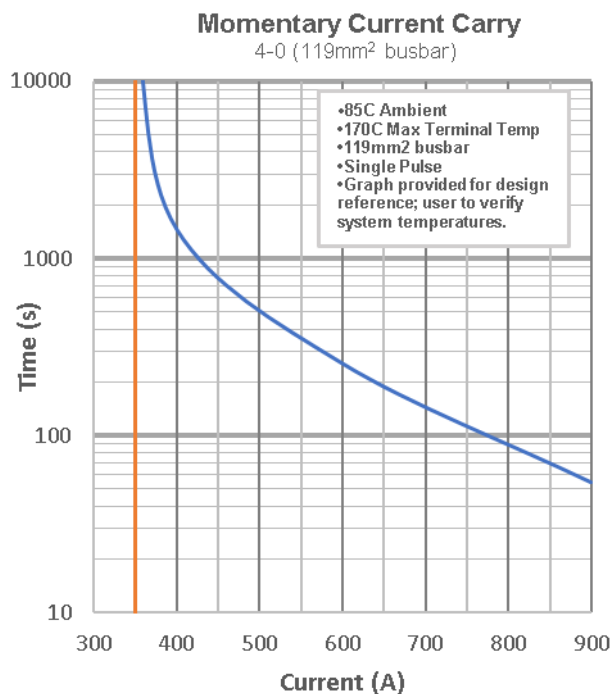
Email [info@rinconpower.com](mailto:info@rinconpower.com)

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

**PERFORMANCE**

**TABLE 1. SPECIFICATIONS**

CHARACTERISTIC	MEASURE
Contact Arrangement	Form X, SPST NO
Max Switching Voltage <sup>2</sup>	1,000 VDC
Dielectric Withstand Voltage (Between Open Contacts and Coil)	2200 VRMS (60 sec)
(Between Contacts and Coil)	2200 VRMS (60 sec)
Continuous Current (107mm <sup>2</sup> conductor) <sup>3,4</sup>	350A
Overload Current 1 minute	850A
10 minutes	450A
Make and Break	See Table 2
Max Short Circuit Current - 20ms	3500 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	-45°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
Continuous Current	2A
Minimum Current	5mA @ 8V
ECONOMIZED DUAL COIL ( 20°C)	MEASURE
Nominal Voltage	12 VDC 24 VDC 48 VDC
Max Voltage <sup>5</sup>	16 VDC 32 VDC 85 VDC
Pick-up Voltage (Max) <sup>1</sup>	8.5 VDC 15.0 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 0.03A
Coil Power (pull-in)	46W 38W 38W
Coil Power (Holding)	2.9W 2.2W 2.2W
Coil Back EMF (V) <sup>6</sup> via internal TVS	150V 150V 0V



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

POLARITY SENSITIVE VERSION <sup>1</sup>		CYCLES 1 cycle = 1 make + 1 break
VOLTAGE	CURRENT	
450V	350A	2500
800V	300A	1500 (BREAK ONLY)
750V	400A	500
320V	-300A	12
750V	50A	20,000
450V	100A	50,000
1000V	350A	300 (BREAK ONLY)

**OPTIONS**

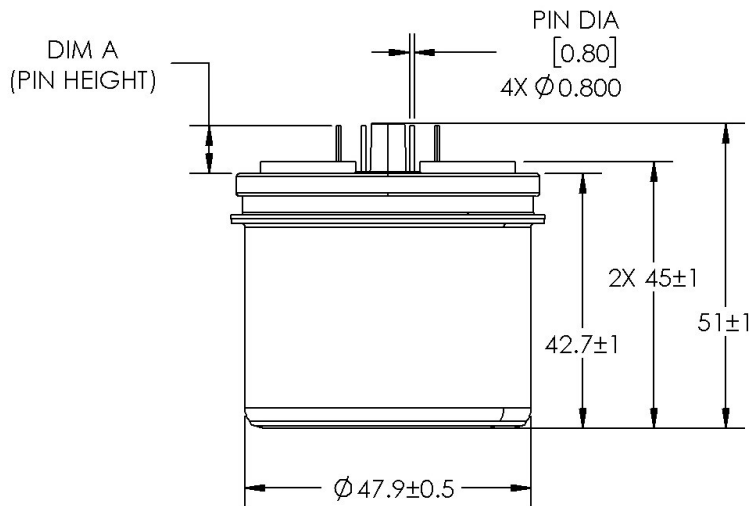
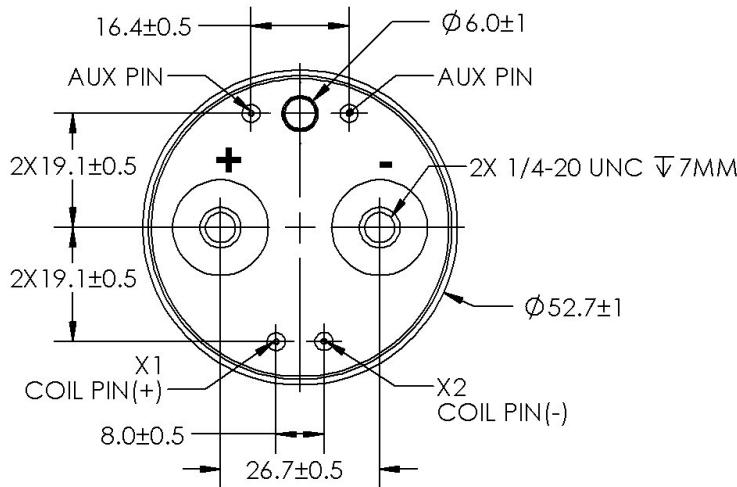
**TABLE 3. PART NUMBER CONFIGURATION**

SERIES	CONTACT POLARITY	MOUNTING	COIL	AUXILIARY CONTACTS
RXC35	P Polarity Sensitive <sup>7</sup>	3 PCB Mount	P 12V Dual Coil (economized)	A Normally Open
		9 Chassis Mount	Q 24V Dual Coil (economized)	B Normally Closed
			M 48V PWM Coil (economized)	X None

**Available Part Numbers:** RXC35P3PA, RXC35P3PB, RXC35P3PX, RXC35P3QA, RXC35P3QB, RXC35P3QX, RXC35P3MA, RXC35P3MB, RXC35P3MX, RXC35P9PA, RXC35P9PB, RXC35P9PX, RXC35P9QA, RXC35P9QB, RXC35P9QX, RXC35P9MA, RXC35P9MB, RXC35P9MX

**PRODUCT DIMENSIONS [mm]**

**PCB Mount (RXC35P3)**



DIM A (PIN HEIGHT)	CONFIGURATION
4X 8.5 mm ±0.5 mm	WITH AUX CONTACTS (A, OR B)
2X 11.2 mm ±0.5 mm	WITHOUT AUX CONTACTS (X)

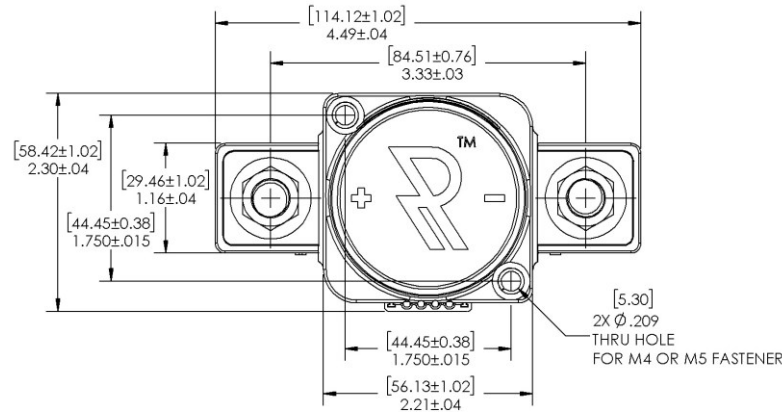
**3D model available upon request**

**TABLE 4. DIMS AND INSTALL (RXC35P3)**

CHARACTERISTIC	MEASURE
Weight	290g (0.64 lb)
Coil Wire	N/A
Mounting Inserts	N/A
Mounting Position	Any / Not Position Sensitive
Package Quantity	TBD
Install Torque	7 Nm
1/4" – 20	7mm Thread
Main Terminals <sup>3</sup>	Engagement

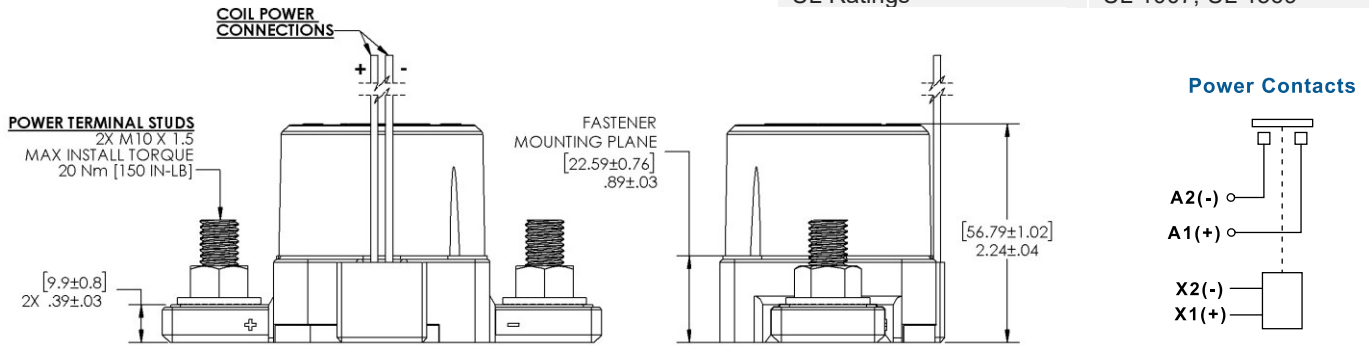


**PRODUCT DIMENSIONS [mm]**  
**Chassis Mount (RXC35P9)**



**TABLE 5. DIMS AND INSTALL (RXC35P9)**

CHARACTERISTIC	MEASURE
Weight	490g (1.1 lb)
Mounting Inserts	M5 or M4 <sup>8,9</sup>
Mounting Position	Any / Not Position Sensitive
Package Quantity	20 pcs
Install Torque M10 x 1.5 Main Terminals <sup>3</sup>	125-150 in-lb. [14-20Nm]
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 [38cm]
Lead Wire Size	20AWG, Stranded
Jacket Material	PVC
UL Ratings	UL 1007, UL 1569



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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