

RXC20 SERIES

High Voltage Contactors

200A CONTINUOUS
DUTY

1000VDC SYSTEM
VOLTAGE



DESCRIPTION

The RXC20 Series are hermetically sealed high voltage DC contactors in a compact form factor designed for medium-current DC power switching in demanding environments. Rated for continuous currents up to 200A and system voltages up to 1000VDC, the RXC20 Series features a robust SPST normally open contact arrangement with a hermetic ceramic gas-filled seal for long life and resistance to moisture, dust, and contaminants. With high temperature performance and an IP69 ingress rating, these contactors are well suited for rugged DC power control applications where space and reliability are critical.

FEATURES

SPST Normally Open High Voltage DC Contactor

- Hermetic Ceramic Seal with gas fill for superior carry and switching performance
- Compact form factor designed for harsh environments
- Capable at high temperatures
- Meets RoHS 2011/65/EU
- CE Certified

TYPICAL APPLICATIONS

- Heavy trucks and buses
- Off-road and construction vehicles
- Marine and maritime equipment
- Industrial equipment and machinery
- Material handling and forklift systems
- Compact DC auxiliary power switching for electric heaters, pumps, and motors
- Utility and service vehicles (e.g., bucket trucks, emergency vehicles)

For factory-direct technical support and application assistance:

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

PERFORMANCE

TABLE 1. SPECIFICATIONS

CHARACTERISTIC	MEASURE
Contact Arrangement	Form X, SPST NO
Max Switching Voltage ¹	1000 VDC
Dielectric Withstand Voltage Contacts to Coil	3000 VAC, 1 minute
Dielectric Withstand Voltage Across Open Contacts	4000 VDC, 1 minute
Continuous Current (53mm ² conductor) ²	200A
Overload Current	900A
	30 seconds
	3 Minutes
400A	
Make and Break	See table
Max Short Circuit Current -1 second	1500 A
Min Insulation Resistance	1000 MOhm @ 1,000V
Contact Resistance (typical)	0.15 mOhm
Operate Time (Max, incl bounce)	25ms
Release Time (Max)	10ms
Shock - Functional, 1/2 Sine, 11ms	20G
Shock – Destructive, 1/2 Sine, 11ms	50G
Operating Temperature	-40°C to 100°C (180°C max terminal temperature)
Ingress Protection	Exceeds IP69, (Hermetically sealed)
Mechanical life	300,000
COIL @ 20°C	MEASURE
Nominal Voltage ³	12V 12V PWM 24V 48V
Pick-up Voltage (Max)	8.5 VDC 8.5V 17.0 VDC 38.4 VDC
Drop-out Voltage (Min)	0.6 VDC 0.3V 0.9 VDC 3.3 VDC
Holding Current	0.46A 0.23A 0.25A 0.12A
Coil Resistance +/- 5%	26Ω 3.8Ω 100Ω 392Ω
Coil Power (Operate/Hold)	5.5W (37.9W / 2.8W) 5.8W 6W

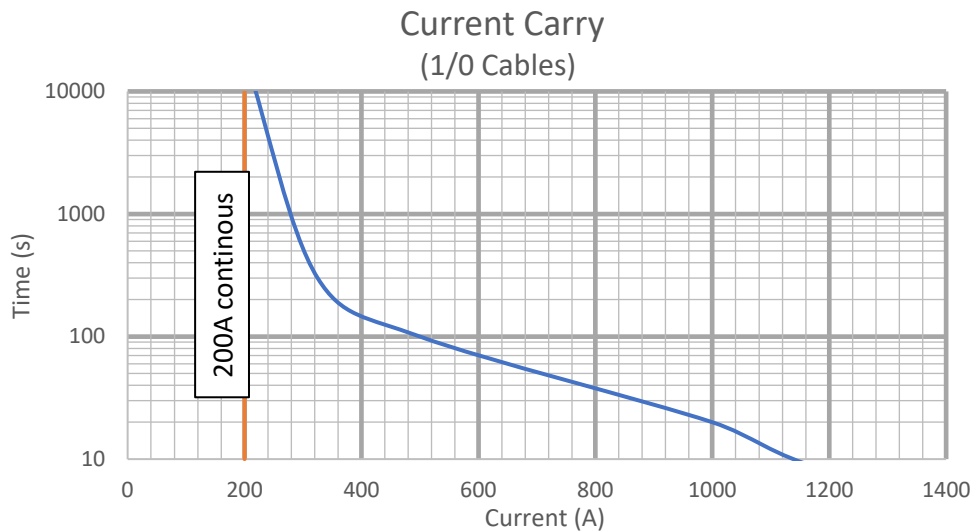


TABLE 2. RESISTIVE LOAD SWITCHING (MAKE / BREAK DATA)

POLARITY SENSITIVE VERSION ¹		CYCLES 1 cycle = 1 make + 1 break
VOLTAGE	CURRENT	
750V	20A	20,000
750V	100A	1,000
750V	300A	2
900V	100A	100
450V	100A	7,500

- 85°C ambient
- 150°C max terminal Temp
- 1/0 Cables
- Single pulse
- Graph provided for design reference; user to verify system temperatures

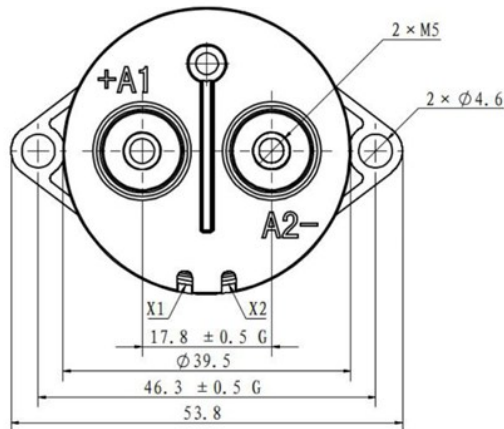
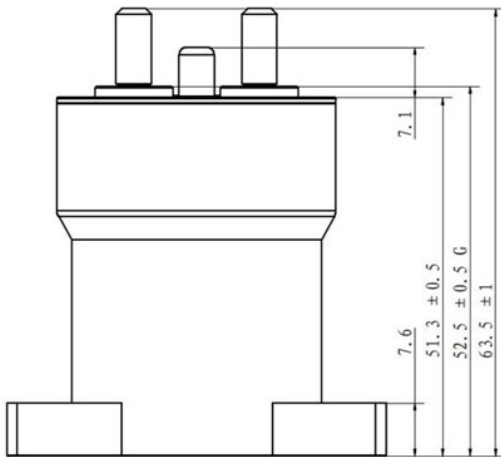
OPTIONS

TABLE 3. PART NUMBER CONFIGURATION

SERIES	CONTACT POLARITY	MOUNTING	COIL	AUXILIARY CONTACTS
RXC20	P Polarity Sensitive ⁷	1 Bottom Mount	A 12V single coil B 24V single coil C 48V single coil L 12V external PWM	X None

Available Part Numbers: RXC20P1AX, RXC20P1BX, RXC20P1CX, RXC20P1LX

PRODUCT DIMENSIONS [mm]



3D model available upon request

Power Contacts

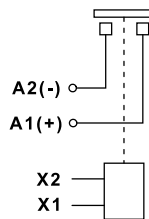


TABLE 4. DIMS AND INSTALL

CHARACTERISTIC	MEASURE
Weight	185g (0.41 lb)
Mounting Position	Any / Not Position Sensitive
Package Quantity	30
Install Torque M5 Main Terminals ²	3-4Nm (26-36 in-lb)
Mounting Torque, M4 hardware	2.3Nm
Power Terminal Pad Material	Copper
Housing Material	Zytel FR50

NOTES

1. Contactor may be used above Max Switching Voltage if the application does not require significant load breaking. Please contact Rincon Power to discuss in more detail.
2. Attached cables and busbars directly to the main terminal pad using the recommended install torque. Do not use washers or other materials between the contactor and the conductor. This will ensure the lowest possible contact resistance.
3. Avoid excessive coil voltages. Exceeding the ratings on the datasheet may result in high coil temperature and coil failure.
4. Polarity Sensitive versions are marked +A1 and -A2 for the power terminals. For applications that require the contactor under load, please ensure current is flowing from the +A1 to the -A2 terminal when breaking/opening under load. For Bi-Directional versions the direction of current does not matter when breaking under load.

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<https://tcs.rinconpower.com/product-datasheet-legal-disclaimer.pdf>