

# RXC60B1 SERIES

## **High Voltage Contactors**

600A CONTINUOUS DUTY

**1000Vdc** SYSTEM VOLTAGE

#### **FEATURES**

## **SPST Normally Open High Voltage Contactors**

- Hermetic Ceramic Seal with gas fill for superior carry and switching performance
- Bi-Directional Power Switching
- Mechanically linked auxiliary contacts for accurate main position feedback
- Integrated coil economizer for optimized power consumption
- Integrated coil suppression with zero back EMF<sup>4</sup>



- Meets RoHS 2011/65/EU
- IEC60947-4-1 compliant



#### PERFORMANCE

TABLE 1. SPECIFICATIONS			
CHARACTERISTIC	MEASURE		
Contact Arrangement	Form X, SPST-	NO	
Max Switching Voltage <sup>2</sup>	1000 Vdc		
Dielectric Withstand Voltage (Leakage <1mA) Between Open Contacts	2200 VRMS (60 sec)		
Between Contacts and Coil	2200 VRMS (60 sec)		
Mechanical Life	300,000 cycles		
Continuous Current (300mm <sup>2</sup> conductor) <sup>5</sup>	600A		
Overload Current	See Momentary Current Carry graph		
Make and Break	See DC Power Switching graph		
Min Insulation Resistance	100 MΩ @ 1,000V (50 MΩ at end of life)		
Contact Resistance (Max) measured at 200A	0.3mΩ		
(Typical) measured at 200A	0.115mΩ		
Operate Time (Max, incl bounce)	25ms		
Release Time (Max)	10ms		
Shock - Functional, 1/2 Sine, 11ms	20 G Peak		
Shock - Destructive, 1/2 Sine, 11ms	50 G Peak		
Vibration, Sinusoidal (500-2000 Hz Peak)	15G		
Operating Temperature	-40°C to 85°C (	170° max termina	al temperature)
Sealed Contacts	Exceeds IP69K	(hermetically sea	aled)
Salt Fog	MIL-STD-810		
AUXILIARY CONTACTS	MEASURE		
Contact Arrangement	SPDT (Normally	/ Open + Normal	ly Closed)
Continuous Current	3A / 24 VDC		
Minimum Current	10mA @ 5V		
ECONOMIZED DUAL COIL (20°C)		MEASURE	
Nominal Voltage	12V	24V	48V
Max Voltage	16V	32V	64V
Pick-up Voltage <sup>3</sup>	≥9V	≥18V	≥36V
Drop-out Voltage	≤6V	≤12V	≤24V
Inrush Current, Max (80 ms)	3.8A	1.9A	0.9A
Coil Current	0.65A	0.33A	0.16A
Coil Power	7.8 W	7.8\//	7.8\//







#### OPTIONS

TABLE 3. PRODUCT N	OMENCLATURE			
	CONTACT POLARITY	MOUNTING	COIL	AUXILIARY CONTACTS
			P 12V dual (economized)	C SPDT, NO+NC
<b>RXC60 B</b> Bi-directional <b>1</b> E	1 Bottom Mount	<b>Q</b> 24V dual (economized)	V Nana	
			R 48V dual (economized)	∧ No⊓e

### **PRODUCT DIMENSIONS [mm]**



TABLE 4. DIMENSIONA	L AND INSTALLATION
CHARACTERISTIC	MEASURE
Weight	1.36 lb, [620g ±10g]
Mounting Position	Any / Not Position Sensitive
Package Quantity	20 pcs
Install Torque, 2X M8 Main Terminals	80-88 in-lb, [9-10Nm]
Mounting Install Torque, 2X M5 or No. 10 Thru Hole	18-35 in-lb, [2-4Nm]
COIL / AUX WIRE	FUNCTION
COIL / AUX WIRE Black	FUNCTION Coil GND (-)
COIL / AUX WIRE Black Red	FUNCTION Coil GND (-) Coil POS (+)
COIL / AUX WIRE Black Red White	FUNCTION Coil GND (-) Coil POS (+) Aux COM
COIL / AUX WIRE Black Red White Blue	FUNCTION Coil GND (-) Coil POS (+) Aux COM AUX N.O.
COIL / AUX WIRE Black Red White Blue Orange	FUNCTION Coil GND (-) Coil POS (+) Aux COM AUX N.O. AUX N.C.
COIL / AUX WIRE Black Red White Blue Orange Lead Wire Length	FUNCTION Coil GND (-) Coil POS (+) Aux COM AUX N.O. AUX N.C. 19 in +/- 1 in, [48 cm +/-2.5 cm]
COIL / AUX WIRE Black Red White Blue Orange Lead Wire Length Lead Wire Size	FUNCTIONCoil GND (-)Coil POS (+)Aux COMAUX N.O.AUX N.C.19 in +/- 1 in, [48 cm +/-2.5 cm]20AWG, Stranded
COIL / AUX WIRE Black Red White Blue Orange Lead Wire Length Lead Wire Size Jacket Material	FUNCTIONCoil GND (-)Coil POS (+)Aux COMAUX N.O.AUX N.C.19 in +/- 1 in, [48 cm +/-2.5 cm]20AWG, StrandedPVC

#### **Power Contacts**



3D model available upon request

#### NOTES

- 1. 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.
- 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. Dual coil economizer design: Pickup Voltage must be applied as a pulse. Do not ramp voltage.
- 4. Integrated coil suppression limits back EMF to 0V. External diodes or suppressors do not affect operation.
- 5. 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.

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