**RINCONPOWER™**
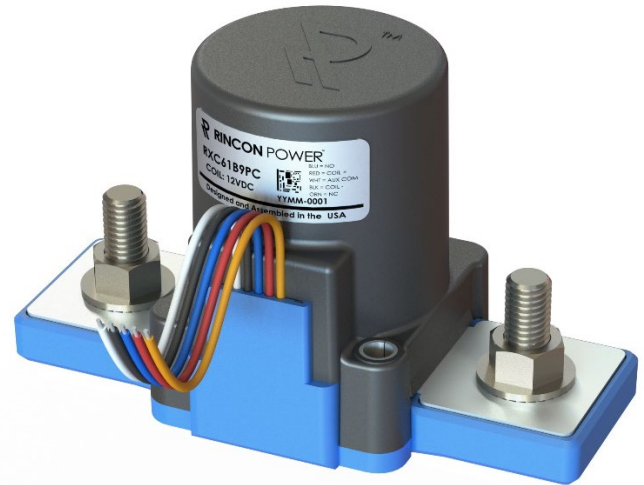Products For An Electrified Future

# RXC61B9 SERIES

## High Voltage Contactors

**600A** CONTINUOUS DUTY

**1500Vdc** 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[4]

- Meets RoHS 2011/65/EU

- IEC60947-4-1 compliant

- Patent Pending
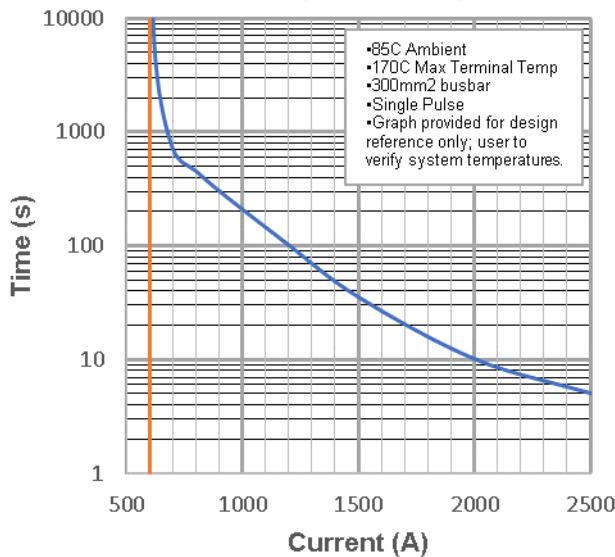
- Designed and Assembled in the USA

## PERFORMANCE

### TABLE 1. SPECIFICATIONS

| CHARACTERISTIC | MEASURE | | |
|---|---|---|---|
| Contact Arrangement | Form X, SPST- NO | | |
| Max Switching Voltage[2] | 1500 Vdc | | |
| Dielectric Withstand Voltage (Leakage <1mA) Between Open Contacts | 4300 VRMS (60 sec) | | |
| Between Contacts and Coil | 4300 VRMS (60 sec) | | |
| Mechanical Life | 300,000 cycles | | |
| Continuous Current (300mm$^2$ conductor)[5] | 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 | 0.1-0.15mΩ | | |
| 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 Terminal Temperature) | | |
| Sealed Contacts | Exceeds IP69K (Hermetically Sealed) | | |
| Salt Fog | MIL-STD-810 | | |
| **AUXILIARY CONTACTS** | **MEASURE** | | |
| Contact Arrangement | SPDT (Normally Open + Normally 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[3] | ≥9V | ≥18V | ≥36V |
| Drop-out Voltage | ≤6V | ≤12V | ≤24 |
| Inrush Current, Max (80 ms) | 3.8A | 1.9A | .0.9A |
| Coil Current | 0.65A | 0.33A | 0.16A |
| Coil Power | 7.8 W | 7.8W | 7.8W |



**Momentary Current Carry**
600mcm (300mm² busbar)

- 85C Ambient
- 170C Max Terminal Temp
- 300mm2 busbar
- Single Pulse
- Graph provided for design reference only; user to verify system temperatures.



**Estimated DC Power Switching Cycles**
(Resistive Load)

800V
600V
450V
300V
24V
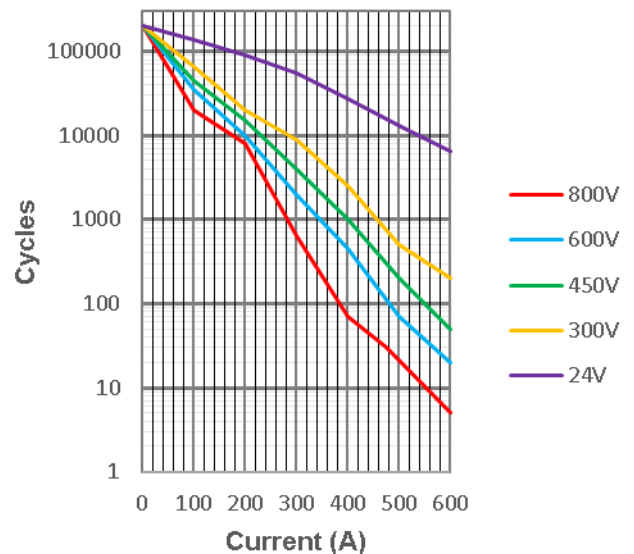
## OPTIONS

| TABLE 3. PRODUCT NOMENCLATURE | | | | |
|---|---|---|---|---|
| | **CONTACT POLARITY** | **MOUNTING** | **COIL** | **AUXILIARY CONTACTS** |
| **RXC61** | **B** Bi-directional | **8** Chassis Mount, M12 Studs | **P** 12V dual (economized) | **C** SPDT, NO+NC |
| | | **9** Chassis Mount, M10 Studs (STANDARD) | **Q** 24V dual (economized) | **X** None |
| | | | **R** 48V dual (economized) | |

## PRODUCT DIMENSIONS [mm]
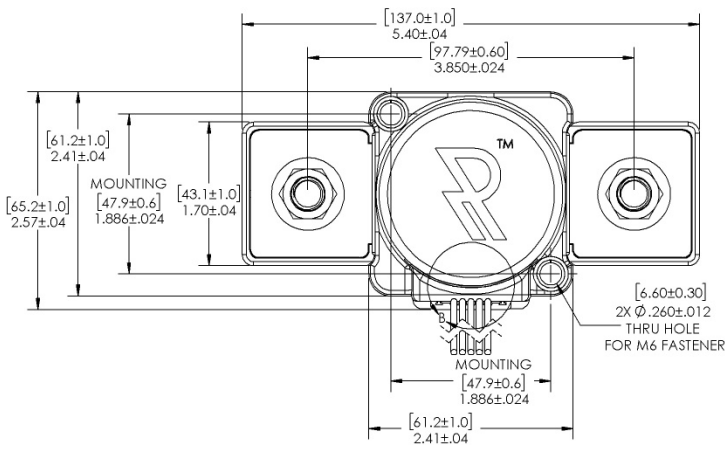


| TABLE 4. DIMENSIONAL AND INSTALLATION | |
|---|---|
| **CHARACTERISTIC** | **MEASURE** |
| Weight | 1.8 lb, [830g] |
| Mounting Position | Any / Not Position Sensitive |
| Package Quantity | 12 pcs |
| Install Torque, 2X M10 Main Terminals | 125-150 in-lb, [14-17Nm] |
| Mounting Install Torque, 2X M6 Thru Hole | 23-40 in-lb, [3-5Nm] |
| **COIL / AUX WIRE** | **FUNCTION** |
| Black | Coil GND (-) |
| Red | Coil POS (+) |
| White | Aux COM |
| Blue | Aux N.O. |
| Orange | Aux N.C. |
| Lead Wire Length | 19 in +/- 1 in, [48 cm +/-2.5 cm] |
| Lead Wire Size | 20AWG, Stranded |
| Jacket Material | PVC |
| UL Ratings | UL 1007, UL 1569 |
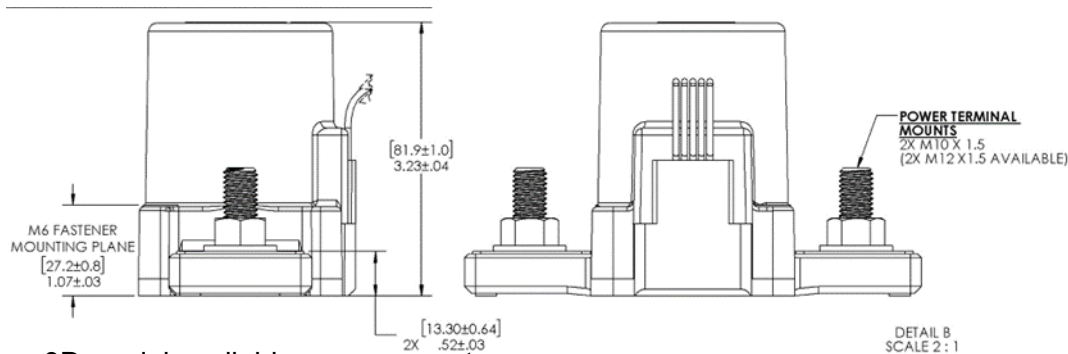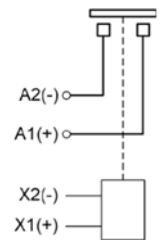


- 3D model available upon request

## 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.
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. 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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