RINCONPOWER™
Products For An Electrified Future

# RXX50 SERIES

## High Voltage Contactors




**500A** CONTINUOUS DUTY

**1000Vdc** SYSTEM VOLTAGE

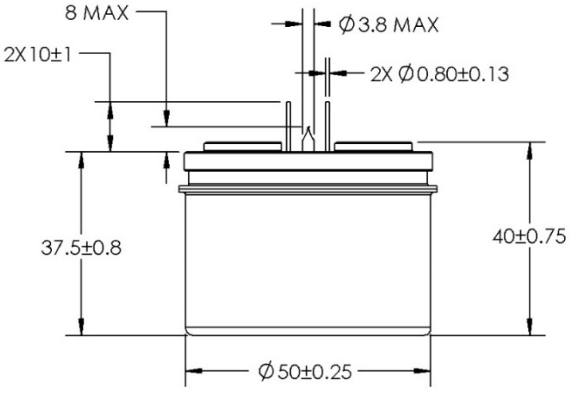
### FEATURES

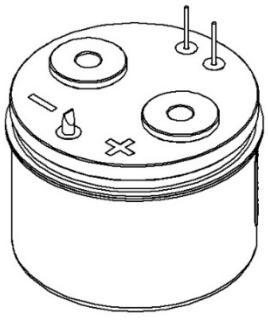
**SPST Normally Open High Voltage Contactors**

- *Hermetic Ceramic Seal* with gas fill for superior carry and switching performance
- World's Smallest and Lightest Contactor with a 3MWatt Interrupt Rating (1000V/3kA).
- *Ultra-Low* Contact Resistance
- Patent Pending *Fast Break* Arc Technology
- Meets RoHS 2011/65/EU
- IEC60947-4-1 compliant
- Efficient PWM coil (external)

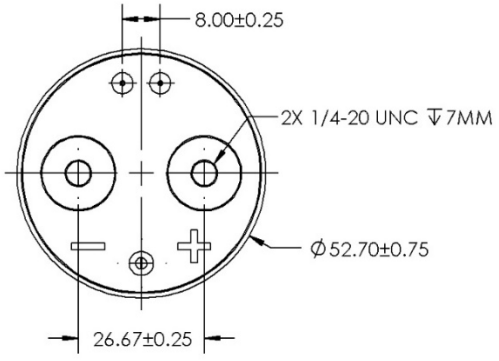
**TABLE 1. DIMENSIONAL AND INSTALLATION**

| CHARACTERISTIC | MEASURE |
|---|---|
| Weight | 0.617 lb, [280g ±5g] |
| Mounting Position | Any / Not Position Sensitive |
| Package Quantity | 20 pcs |
| Install Torque, 2X ¼-20 Main Terminals | 80-88 in-lb, [9-10Nm] |



TRIMETRIC VIEW



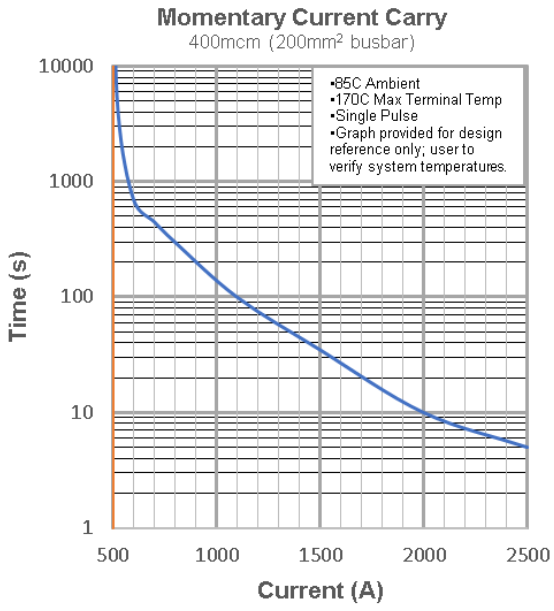
## PERFORMANCE

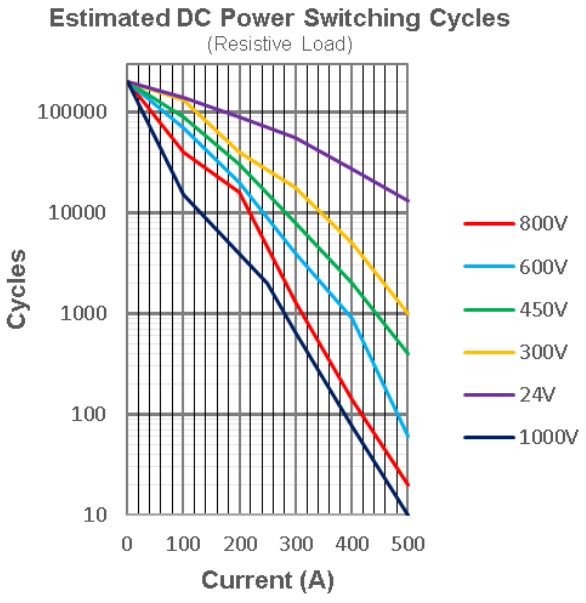
### TABLE 2. SPECIFICATIONS

| CHARACTERISTIC | MEASURE |
|---|---|
| Contact Arrangement | Form X, SPST- NO |
| Max Switching Voltage[2] | 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 (200 mm$^2$ conductor)[4] | 500A |
| 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 | 0.15mΩ |
| (Typical) measured at 200A | 0.8-.1mΩ |
| 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 |
| **PWM ECONOMIZED COIL (20°C)** | **MEASURE** |
| Nominal Voltage | 12V |
| Max Voltage | 16V |
| Pick-up Voltage[3] | ≥9.5V |
| Drop-out Voltage | ≤5V |
| Inrush Current, Max (80 ms) | 4.0A |
| Coil Current | 1.1A |
| Coil Power, HOLD (5v) | 5.5 W |
| Coil Resistance | 3.5-4.0 Ω |

### TABLE 3. PRODUCT NOMENCLATURE

| | CONTACT POLARITY | MOUNTING | COIL | AUXILIARY CONTACTS |
|---|---|---|---|---|
| **RXX50** | **P** Polarity Sensitive | **3** PCB Mount | **A** 12V PWM (External) | **X** None |



## 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. Pickup Voltage must be applied as a pulse. Do not ramp voltage.
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.