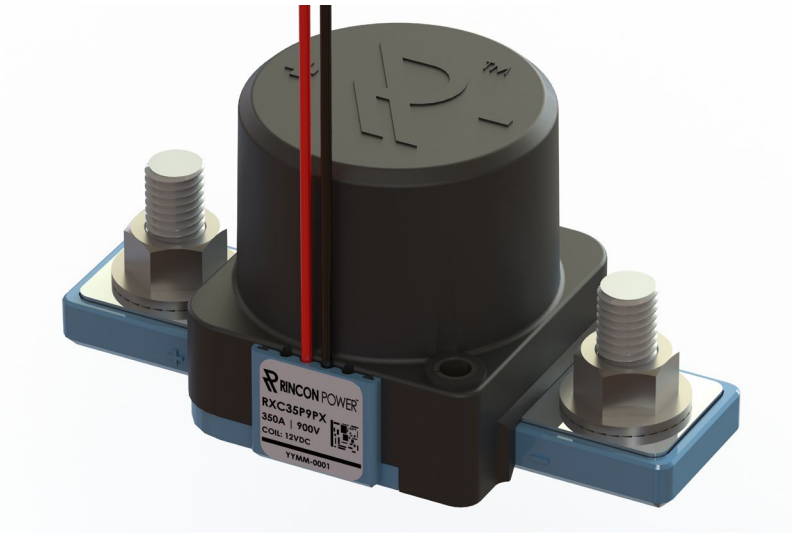
RINCONPOWER™
Products For An Electrified Future

# RXC35 SERIES

## High Voltage Contactors




**350A+** CONTINUOUS DUTY

**1000V** SYSTEM VOLTAGE

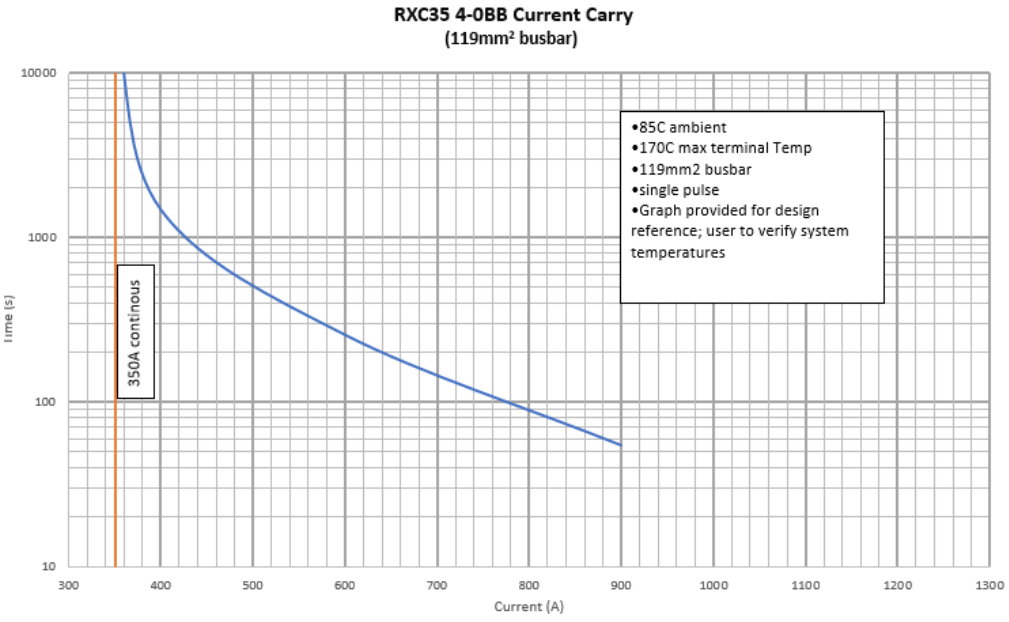
## FEATURES

**SPST Normally Open High Voltage Contactors**

- Hermetic seal with gas fill
- Optional auxiliary contacts – for main position feedback
- High temperature performance
- Meets RoHS 2011/65/EU
- Designed and Assembled in US

## PERFORMANCE

| TABLE 1. SPECIFICATIONS | | |
|---|---|---|
| **CHARACTERISTIC** | **MEASURE** | |
| Contact Arrangement | Form X, SPST NO | |
| Max Switching Voltage | 1,000 VDC | |
| Dielectric Withstand Voltage Contacts to Coil | 2,500 VAC, 1 minute | |
| Dielectric Withstand Voltage Across Open Contacts | 4,000 VDC, 1 minute | |
| Continuous Current (107mm$^2$ conductor) | 350A | |
| Overload Current 1 minute | 850A | |
| 10 minutes | 450A | |
| Make and Break | See table | |
| Max Short Circuit Current - 20ms | 3,500 A | |
| Min Insulation Resistance | 1,000 Mohm @ 1,000V | |
| Contact Voltage Drop (Max) | 80mV @ 100A | |
| 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 | -45˚C to 100˚C (175˚C max terminal temperature) | |
| Ingress Protection | Exceeds IP69, (Hermetically sealed) | |
| Mechanical life | 500,000 | |
| **AUXILIARY CONTACTS** | **MEASURE** | |
| Contact Arrangement | SPST | |
| Continuous Current | 2A | |
| Minimum Current | 5mA @ 8V | |
| **COIL @ 20°C** | **MEASURE** | |
| Nominal Voltage | 12V | 24V |
| Max Voltage | 16 VDC | 32 VDC |
| Pick-up Voltage (Max) | 7.5 VDC | 15.0 VDC |
| Drop-out Voltage (Min) | 0.6 VDC | 1.2 VDC |
| Pull-in current (max 300ms) | 4.3A | 1.6A |
| Holding Current | 0.24A | 0.09A |
| Coil Power (pull-in) | 46W | 38W |
| Coil Power (Holding) | 2.9W | 2.2W |
| Coil Back EMF (V) [1] via internal TVS | 150V | 150V |




| TABLE 2. RESISTIVE LOAD SWITCHING (MAKE / BREAK DATA) | | |
|---|---|---|
| **POLARITY SENSITIVE VERSION** | | **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) |

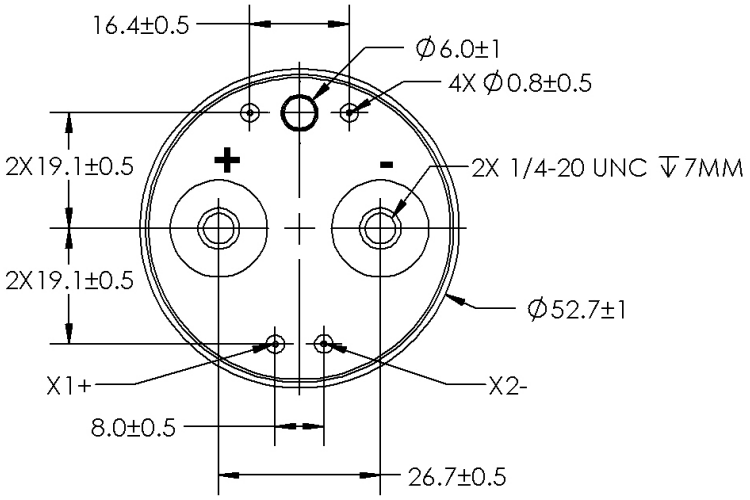
1 Coil Back EMF can be further reduced by an external TVS, but should not be reduced to less than 30V for 12V coils or 55V for 24V coils

## OPTIONS

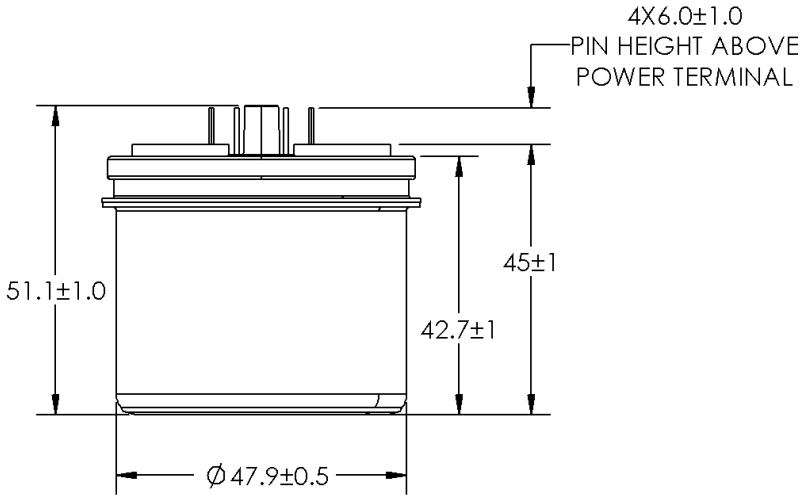
| TABLE 3. PRODUCT NOMENCLATURE | | | | |
|---|---|---|---|---|
| | | MOUNTING | COIL | AUXILIARY CONTACTS |
| RXC35 | P Polarity Sensitive | 3 PCB Mount | P 12V dual coil (economized) | X None |
| | | 9 Chassis Mount | Q 24V dual coil (economized) | A Normally Open |

## PRODUCT DIMENSIONS [mm]

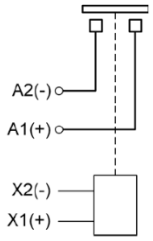
### Mounting Option 3 – PCB Mount





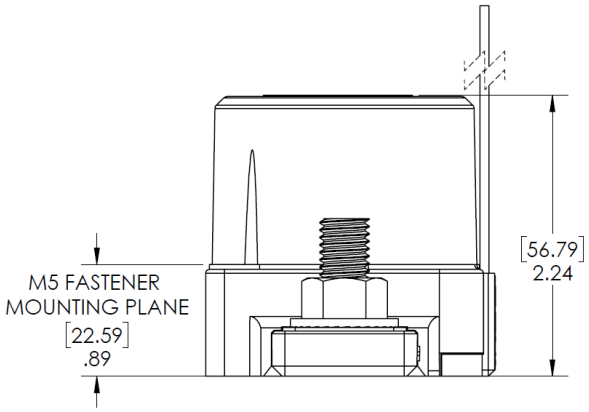


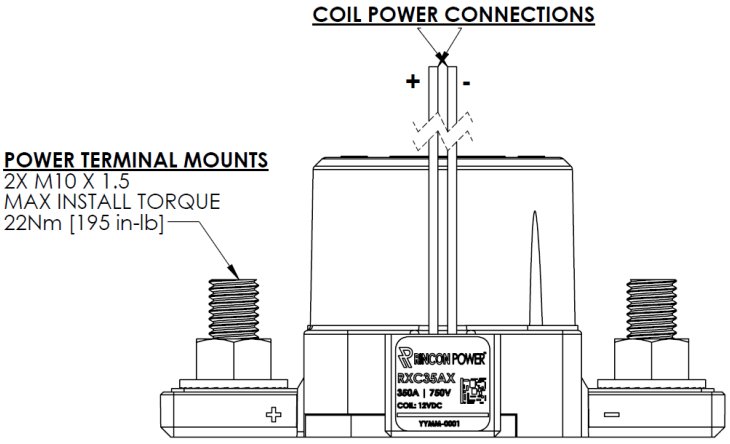

**Power Contacts**




| TABLE 4. DIMENSIONAL AND INSTALLATION PCB Mount | |
|---|---|
| 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 1/4" – 20 Main Terminals | 7 Nm; 7mm thread engagement |

## Mounting Option 9 – Chassis Mount

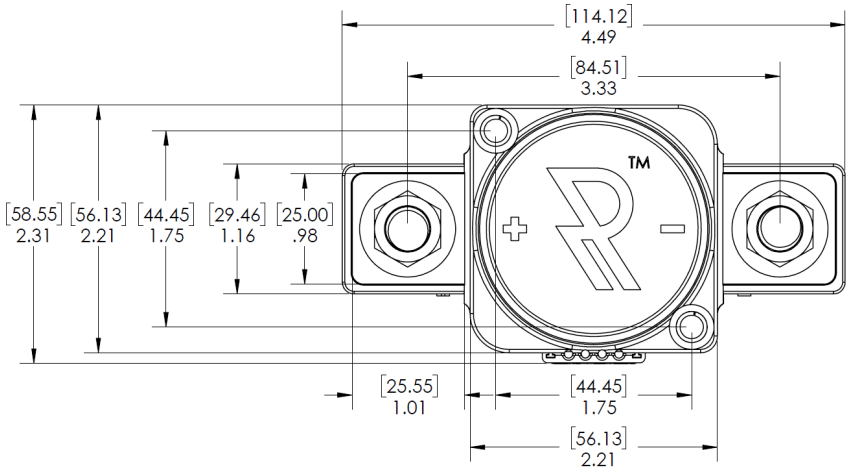



| Wire | Function |
|---|---|
| Black | Coil GND |
| Red | Coil POS (+) |
| Grey | Aux COM |
| Blue | AUX N.O. |

**TABLE 4. DIMENSIONAL AND INSTALLATION**

| CHARACTERISTIC | MEASURE |
|---|---|
| Weight | 490g (1.1 lb) |
| Coil Wire | 20 AWG, 38cm |
| Mounting Inserts | M5 |
| Mounting Position | Any / Not Position Sensitive |
| Package Quantity | 20 pieces |
| Install Torque M10 x 1.5 Main Terminals | 14-20Nm (125-175 in-lb) |




## NOTES

- Polarity Sensitive versions are marked + and - for the power terminals. For applications that require the contactor 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
- 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
- Avoid excessive coil voltages. Exceeding the ratings on the datasheet may result in high coil temperature and coil failure
- 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