

REC10 SERIES

High Voltage Contactors

100A CONTINUOUS DUTY

1000V SYSTEM

VOLTAGE



FEATURES

SPST Normally Open High Voltage Contactors

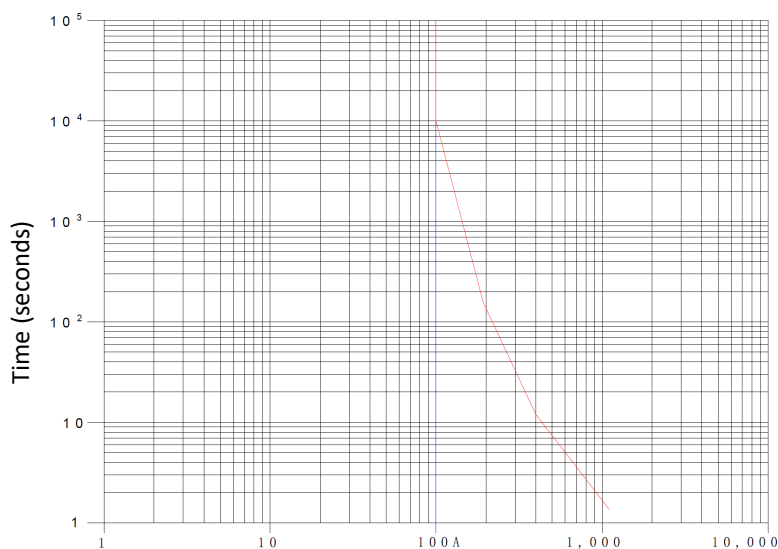
- Hermetic seal with gas fill
- Optional auxiliary contacts – for main position feedback
- Wide range of options
- Meets RoHS 2011/65/EU
- CE certified
- IEC60947-5-1 compliant
- CCC Certified



PERFORMANCE

| TABLE 1. SPECIFICATIONS | | | |
|---|------------|-------------------------------------|-------------------|
| CHARACTERISTIC | | MEASURE | |
| Contact Arrangement | | Form X, SPST NO | |
| Max Switching Voltage | | 1,000 VDC | |
| Dielectric Withstand Voltage Contacts to Coil | | 4,000 VAC, 1 minute | |
| Dielectric Withstand Voltage Across Open Contacts | | 4,000 VDC, 1 minute | |
| Continuous Current (35mm ² conductor) | | 100A | |
| Overload Current | 30 seconds | 500A | |
| | 3 Minutes | 200A | |
| Make and Break | | See table | |
| Max Short Circuit Current -1 second | | 1,250 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 | | -40°C to 85°C | |
| Ingress Protection | | Exceeds IP69, (Hermetically sealed) | |
| Mechanical life | | 200,000 | |
| AUXILIARY CONTACTS | | MEASURE | |
| Contact Arrangement | | SPST | |
| Continuous Current | | 2A | |
| Minimum Current | | 100mA @ 8V | |
| COIL @ 20°C | | MEASURE | |
| Nominal Voltage | | 12V | 24V 48V |
| Pick-up Voltage (Max) | | 9.6 VDC | 19.2 VDC 38.4 VDC |
| Drop-out Voltage (Min) | | 0.8 VDC | 1.6 VDC 3.3 VDC |
| Holding Current | | 0.46A | 0.25A 0.12A |
| Coil Resistance +/- 5% | | 26Ω | 96Ω 392Ω |
| Coil Power | | 5.5W | 6W 6W |

Current Carry (85C Ambient)



Current (A)

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

| POLARITY SENSITIVE | | CYCLES (1 cycle = 1 make + 1 break) |
|--------------------|---------|--|
| VERSION | CURRENT | |
| 450V | 100A | 8,000 |
| 450V | 1,500A | 1 (Fault Interrupt) |
| 650V | 100A | 1,000 |
| BI-DIRECTIONAL | | CYCLES (1 cycle = 1 make + 1 break) |
| VERSION | CURRENT | |
| 450V | 100A | 6,000 |
| 650V | 100A | 600 |

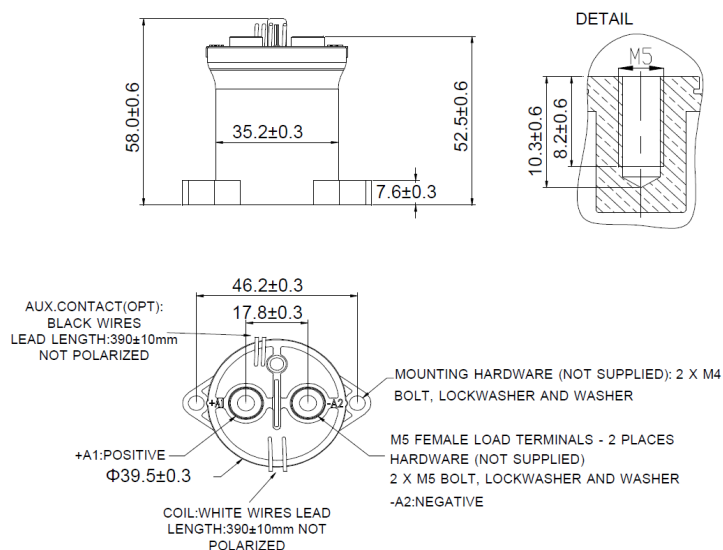
OPTIONS

TABLE 3. PRODUCT NOMENCLATURE

| | CONTACT POLARITY | MOUNTING | COIL | AUXILIARY CONTACTS |
|-------|-----------------------------|-----------------------|--------------------------|---------------------------------|
| REC10 | B Bi-directional | 1 Bottom Mount | A 12V single coil | X None |
| | P Polarity Sensitive | 2 Side Mount | B 24V single coil | A SPST, Normally Open |
| | | | C 48V single coil | |

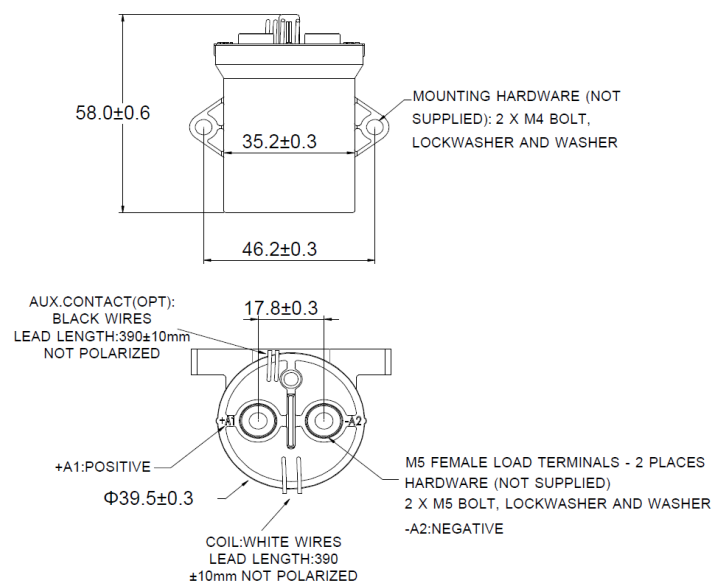
PRODUCT DIMENSIONS [mm]

A: BOTTOM MOUNT


TABLE 4. DIMENSIONAL AND INSTALLATION

| CHARACTERISTIC | MEASURE |
|-------------------|------------------------------|
| Weight | 190g (0.42 lb) |
| Mounting Position | Any / Not Position Sensitive |
| Package Quantity | TBD |
| Install Torque | 2.5-4.5Nm (22-40 in-lb) |
| M5 Main Terminals | |

B: SIDE MOUNT



NOTES

- The auxiliary contacts are connected internally via an armature on the main contact plunger. As the main contacts close, they automatically cause the auxiliary contacts to close
- 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
- 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