

# REC50 SERIES

High Voltage Contactors

**500A** CONTINUOUS DUTY

**1500V** SYSTEM VOLTAGE



## FEATURES

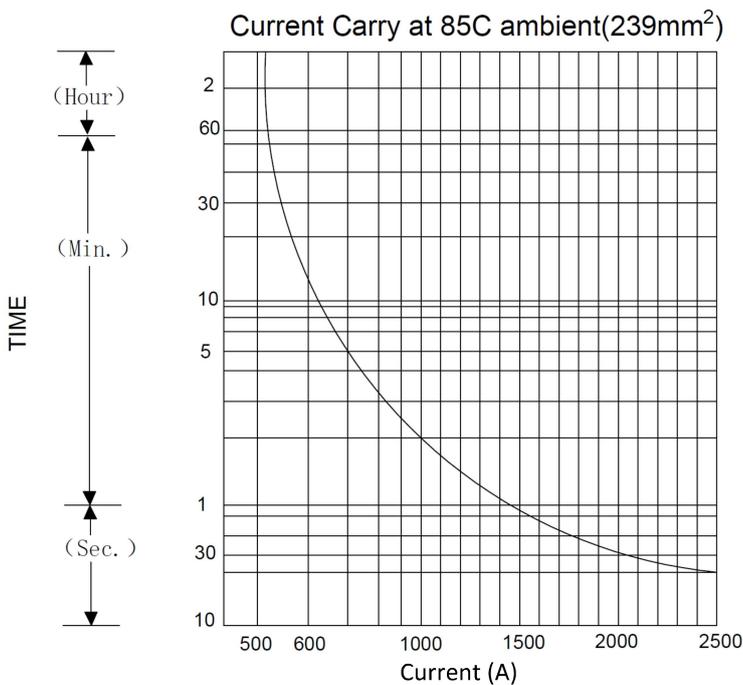
### SPST Normally Open High Voltage Contactors

- Hermetic seal with gas fill
- Auxiliary contacts – for main position feedback
- Integrated coil economizer to reduce coil holding power
- Meets RoHS 2011/65/EU
- IEC60947-5-1 compliant



**PERFORMANCE**

| TABLE 1. SPECIFICATIONS                           |  |
|---|--|
| CHARACTERISTIC                                    | MEASURE                                    |
| Contact Arrangement                               | Form X, SPST NO                            |
| Max Switching Voltage                             | 1,500 VDC                                  |
| Dielectric Withstand Voltage Across Open Contacts | 4,500 VAC, 1 minute<br>4,500 VDC, 1 minute |
| Continuous Current (250mm <sup>2</sup> conductor) | 500A                                       |
| Overload Current                                  | 1 minute: 1,000A<br>30 seconds: 2,000A     |
| Make and Break                                    | See table                                  |
| Min Insulation Resistance                         | 1,000 Mohm @ 1,000V                        |
| Contact Voltage Drop (Max)                        | 50mV @ 100A                                |
| Operate Time (Max, incl bounce)                   | 40ms                                       |
| Release Time (Max)                                | 12ms                                       |
| 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                                | 3A   |
| Minimum Current                                   | 100mA @ 8V                                 |
| COIL  | MEASURE                                    |
| Nominal Voltage                                   | 12-36 VDC                                  |
| Pick-up Voltage (Max)                             | 9 VDC                                      |
| Drop-out Voltage (Min)                            | 5 VDC                                      |
| Inrush Current (Max)                              | 3.8A                                       |
| Holding Current                                   | 0.34A @ 12 VDC<br>0.16A @ 24 VDC           |

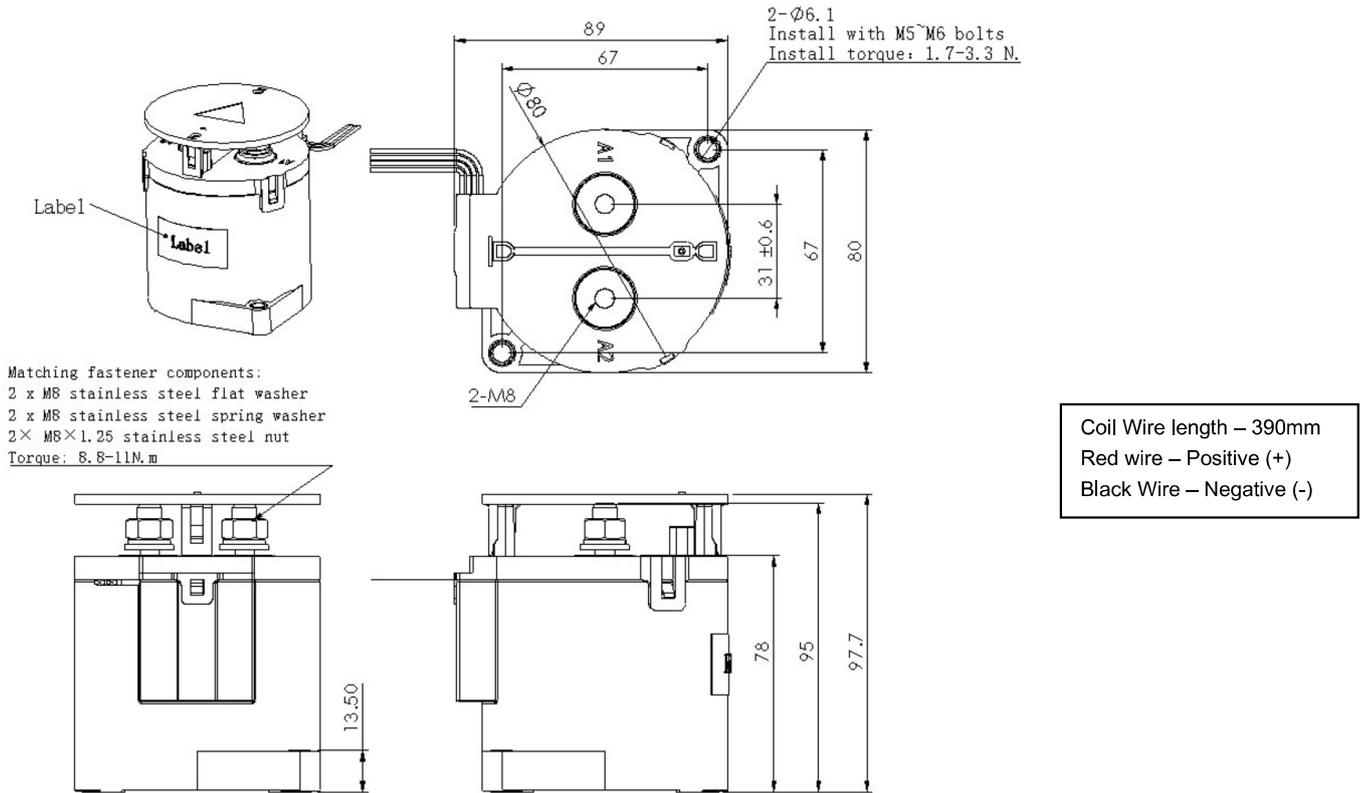


| TABLE 2. RESISTIVE LOAD SWITCHING (MAKE / BREAK DATA) |         |                              |
|---|---------|------------------------------|
| BI-DIRECTIONAL  |         | CYCLES                       |
| VOLTAGE   | CURRENT | (1 cycle = 1 make + 1 break) |
| 750V  | 500A    | 1,000                        |
| 1500V   | 200A    | 1,000                        |

OPTIONS

| TABLE 3. PRODUCT NOMENCLATURE |                         |                       |                              |                              |
|-------------------------------|-------------------------|-----------------------|------------------------------|------------------------------|
|                               | CONTACT POLARITY        | MOUNTING              | COIL                         | AUXILIARY CONTACTS           |
| REC50                         | <b>B</b> Bi-directional | <b>1</b> Bottom Mount | <b>J</b> 12-36V internal PWM | <b>A</b> SPST, Normally Open |

PRODUCT DIMENSIONS [mm]



| TABLE 4. DIMENSIONAL AND INSTALLATION |                              |
|---------------------------------------|------------------------------|
| CHARACTERISTIC                        | MEASURE                      |
| Weight                                | 1180g (2.6 lb)               |
| Mounting Position                     | Any / Not Position Sensitive |
| Package Quantity                      | TBD                          |
| Install Torque                        | 9-11Nm (80-97 in-lb)         |
| M10 Main Terminals                    |                              |

NOTES

- 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