

# REC05 SERIES

High Voltage Contactors

**50A** CONTINUOUS DUTY

**1500V** 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		1,500 VDC	
Dielectric Withstand Voltage Contacts to Coil		5,400 VAC, 1 minute	
Dielectric Withstand Voltage Across Open Contacts		5,400 VAC, 1 minute	
Continuous Current (13mm <sup>2</sup> conductor)		50A	
Overload Current	30 seconds	400A	
	3 Minutes	150A	
Make and Break		See table	
Max Short Circuit Current -1 second		1,000 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

TABLE 2. RESISTIVE LOAD SWITCHING (MAKE / BREAK DATA)		
POLARITY SENSITIVE VERSION		CYCLES
VOLTAGE	CURRENT	(1 cycle = 1 make + 1 break)
450V	50A	25,000
450V	1,500A	1 (Fault Interrupt)
650V	50A	2,000
1,000V	25A	1,000
1,500V	5A	25,000 (MAKE only)
1,500V	5A	1,000
BI-DIRECTIONAL VERSION		CYCLES
VOLTAGE	CURRENT	(1 cycle = 1 make + 1 break)
450V	50A	15,000
650V	50A	1,500
1,000V	25A	500
1,500V	5A	20,000 (MAKE only)
1,500V	5A	500

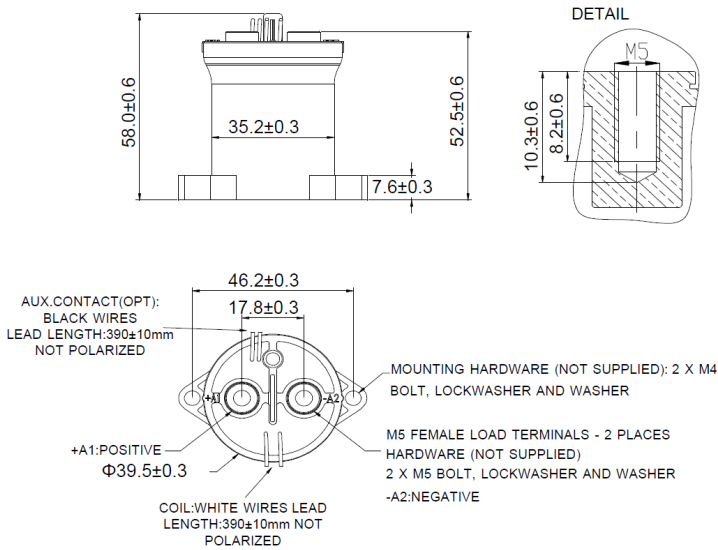
**OPTIONS**

**TABLE 3. PRODUCT NOMENCLATURE**

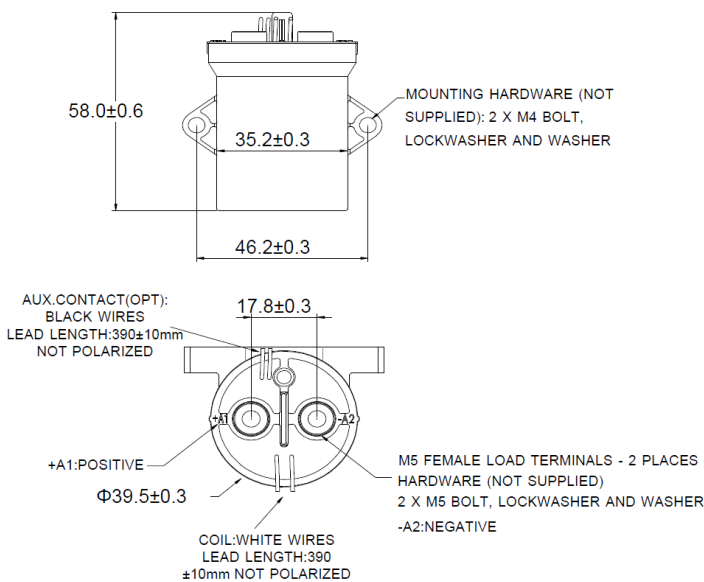
	CONTACT POLARITY	MOUNTING	COIL	AUXILIARY CONTACTS
REC05	<b>B</b> Bi-directional	<b>1</b> Bottom Mount	<b>A</b> 12V single coil	<b>X</b> None
	<b>P</b> Polarity Sensitive	<b>2</b> Side Mount	<b>B</b> 24V single coil	<b>A</b> SPST, Normally Open
			<b>C</b> 48V single coil	

**PRODUCT DIMENSIONS [mm]**

**A: BOTTOM MOUNT**



**B: SIDE MOUNT**



**TABLE 4. DIMENSIONAL AND INSTALLATION**

CHARACTERISTIC	MEASURE
Weight	190g (0.42 lb)
Mounting Position	Any / Not Position Sensitive
Package Quantity	30 units
Install Torque M10 Main Terminals	2.5-4.5Nm (22-40 in-lb)

## 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