

# REC10 SERIES

High Voltage Contactors


**100+A** 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
- CCC Certified
- UL recognized (File E536110)  Please refer to UL file for specific part numbers that are recognized



**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 <sup>2</sup> conductor		150A	
6AWG, 13.3mm <sup>2</sup>		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		500,000	
AUXILIARY CONTACTS		MEASURE	
Contact Arrangement		SPST	
Continuous Current		2A	
Minimum Current		5mA @ 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)**

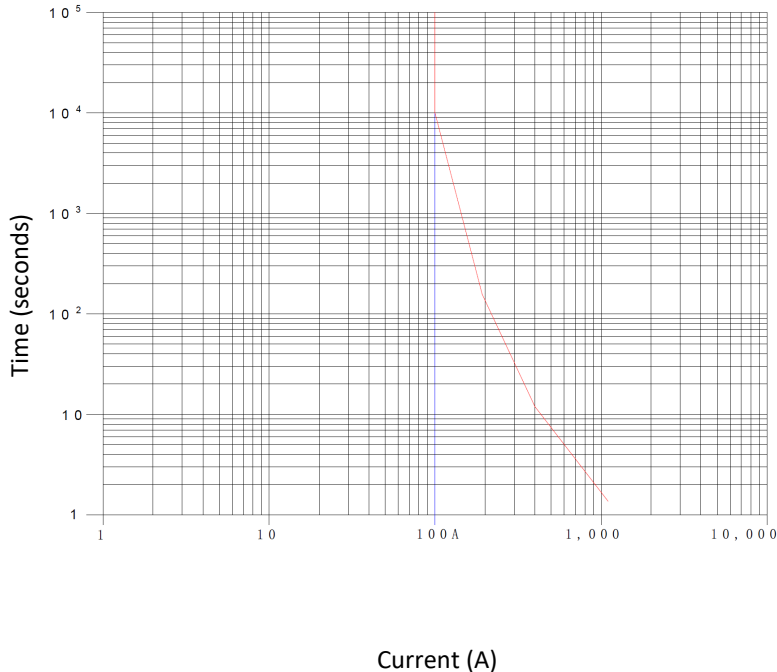


TABLE 2. RESISTIVE LOAD SWITCHING (MAKE / BREAK DATA)			
POLARITY SENSITIVE		CYCLES	
VERSION	CURRENT	(1 cycle = 1 make + 1 break)	
450V	100A	8,000	
450V	1,500A	1 (Fault Interrupt)	
650V	100A	1,000	
BI-DIRECTIONAL		CYCLES	
VERSION	CURRENT	(1 cycle = 1 make + 1 break)	
450V	100A	6,000	
650V	100A	600	

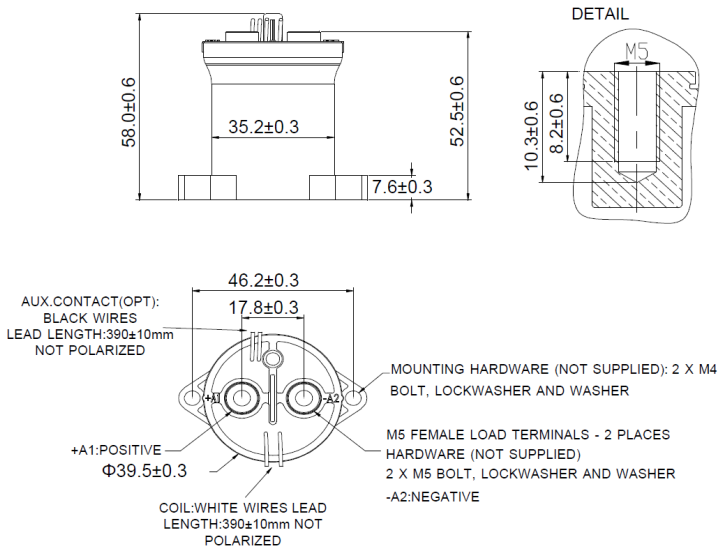
OPTIONS

TABLE 3. PRODUCT NOMENCLATURE

	CONTACT POLARITY	MOUNTING	COIL	AUXILIARY CONTACTS
REC10	<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

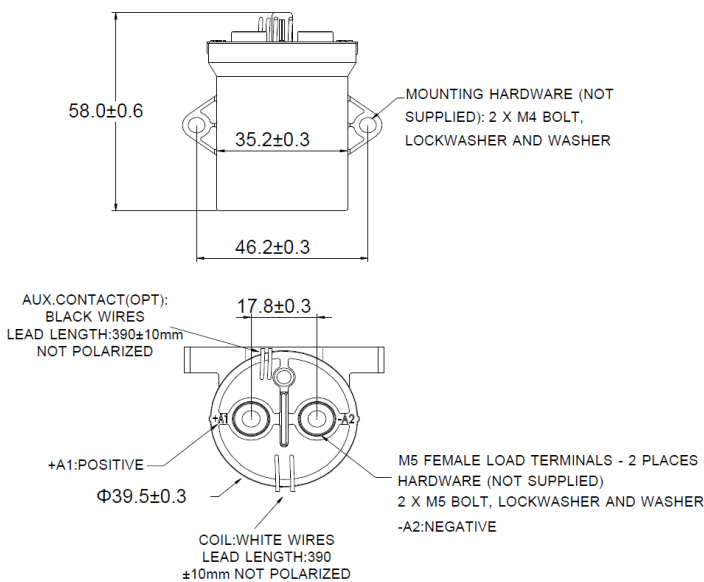


TABLE 4. DIMENSIONAL AND INSTALLATION

CHARACTERISTIC	MEASURE
Weight	190g (0.42 lb)
Mounting Position	Any / Not Position Sensitive
Package Quantity	30
Install Torque M5 Main Terminals	2.5-4.5Nm (22-40 in-lb)

## 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