

REC10 SERIES

High Voltage Contactors

100A CONTINUOUS DUTY

1000V SYSTEM

VOLTAGE



FEATURES

SPST Normally Open High Voltage Contactors

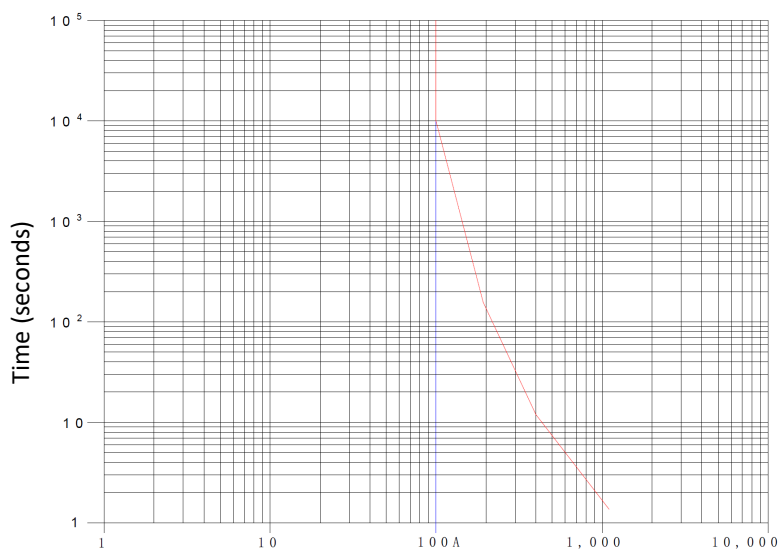
- Hermetic seal with gas fill
- Optional auxiliary contacts – for main position feedback
- Wide range of options
- Meets RoHS 2011/65/EU
- CE certified
- IEC60947-4-1 compliant
- CCC Certified



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

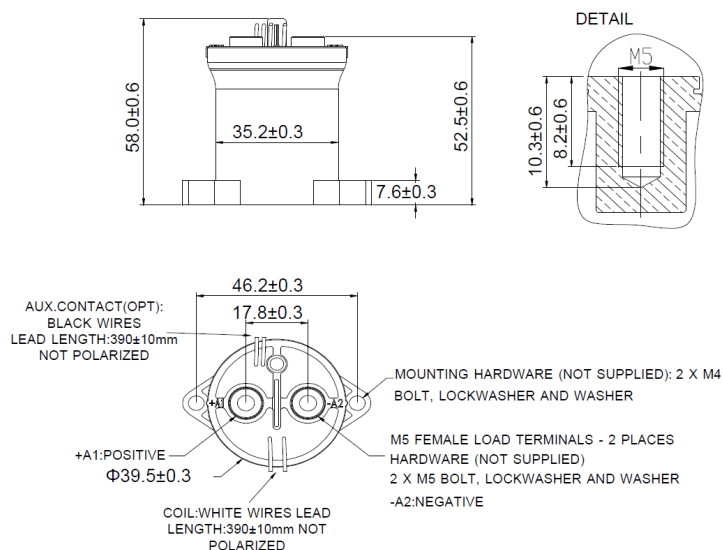
OPTIONS

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	

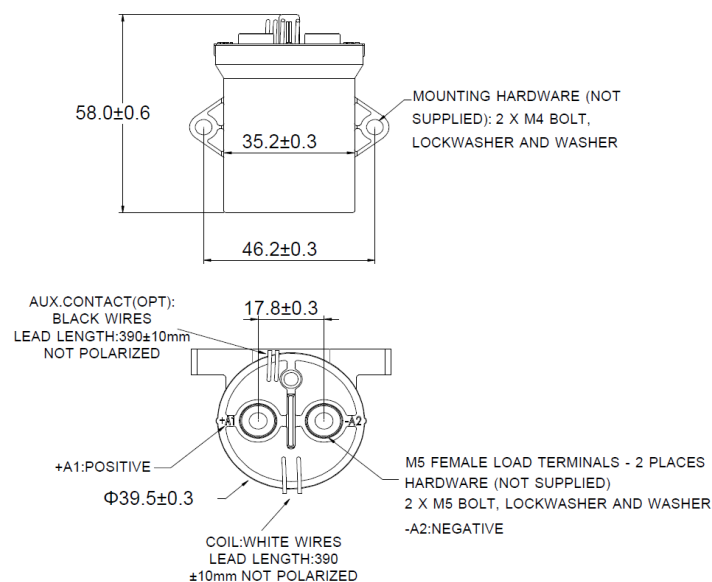
PRODUCT DIMENSIONS [mm]

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