

REC10 SERIES

High Voltage Contactors

100A+ CONTINUOUS
DUTY

1000VDC SYSTEM
VOLTAGE



DESCRIPTION

The REC10 Series are epoxy-sealed high voltage DC contactors designed for compact, cost-effective DC power switching applications. Rated for continuous currents up to 100A and system voltages up to 1000VDC, the REC10 Series provides dependable DC switching performance in a widely adopted form factor. Available with optional bi-directional main contacts and optional SPST auxiliary contacts for position feedback, these contactors are suitable for production OEM applications where balanced performance and value are prioritized.

The epoxy-sealed construction provides hermetic protection suitable for standard operating environments, making the REC10 Series an effective solution for battery power subsystems, industrial DC switching, and auxiliary power control.

FEATURES

SPST Normally Open High Voltage DC Contactor

- Epoxy-sealed hermetic construction for reliable DC switching
- Compact cylindrical contactor form factor
- Optional bi-directional DC main contact versions¹
- Optional SPST auxiliary contact for main position feedback²
- Wide range of coil voltage options (e.g., 12V, 24V, 48V)
- Meets RoHS 2011/65/EU and REACH compliance
- Certified to applicable safety standards.
- CE and CCC certified.
- UL recognized component (File E536110). Please refer to file for specific part numbers that are recognized

TYPICAL APPLICATIONS

- Electric vehicle power subsystems
- Industrial equipment and machinery
- DC charging infrastructure subsystems
- Material handling and utilities
- Auxiliary DC power control and switching
- Automation and robotics power circuits
- Renewable energy power systems
- AGV Automated Guided Vehicles

For factory-direct technical support and application assistance:

Call +1 805 456 6424

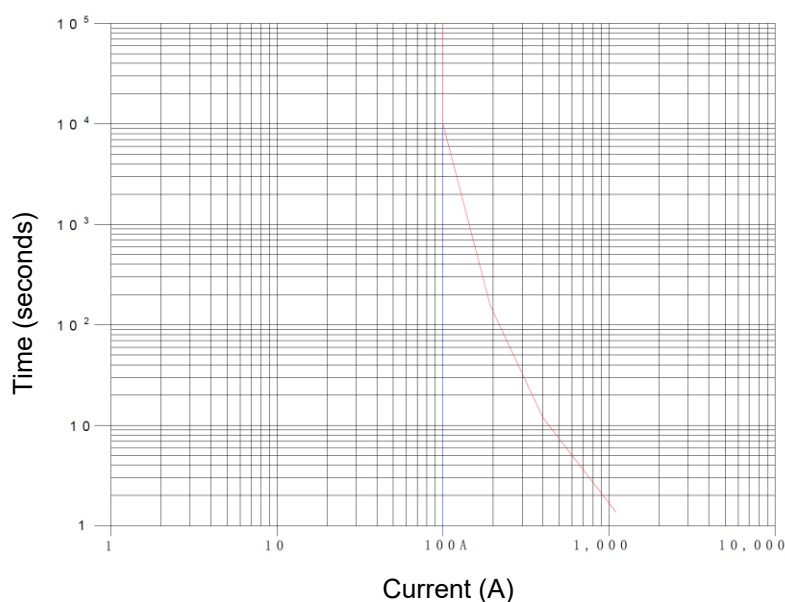
Email info@rinconpower.com

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PERFORMANCE

TABLE 1. SPECIFICATIONS

CHARACTERISTIC	MEASURE
Contact Arrangement	Form X, SPST NO
Max Switching Voltage ³	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 ⁴ 6AWG, 13.3mm ²	150A 100A
Overload Current 30 seconds	500A
3 Minutes	200A
Make and Break	See Table 2
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 ⁵	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 (85°C Ambient)

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

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

OPTIONS

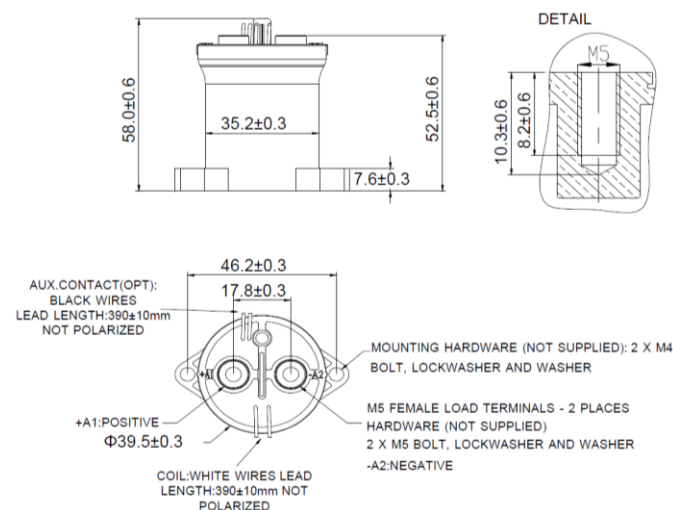
TABLE 3. PART NUMBER CONFIGURATION

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

Available Part Numbers: REC10B1AX, REC10B1AA, REC10B1BX, REC10B1BA, REC10B1CX, REC10B1CA, REC10B2AX, REC10B2AA, REC10B2BX, REC10B2BA, REC10B2CX, REC10B2CA, REC10P1AX, REC10P1AA, REC10P1BX, REC10P1BA, REC10P1CX, REC10P1CA, REC10P2AX, REC10P2AA, REC10P2BX, REC10P2BA, REC10P2CX, REC10P2CA

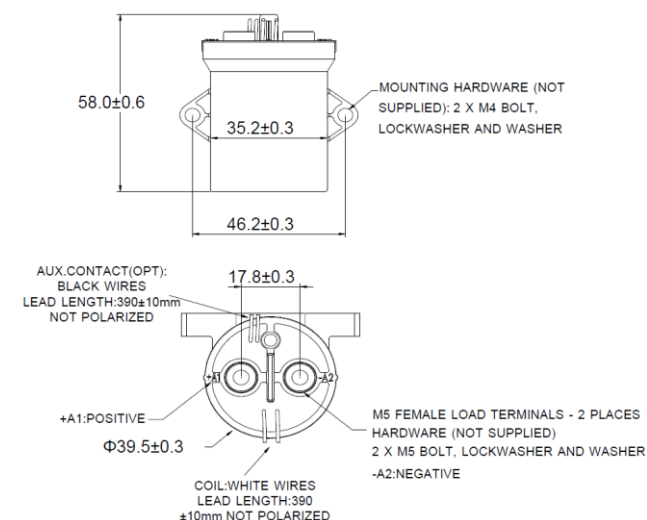
PRODUCT DIMENSIONS [mm]

Bottom Mount (REC10B1/REC10P1)



3D model available upon request

Side Mount (REC10B2/REC10P2)

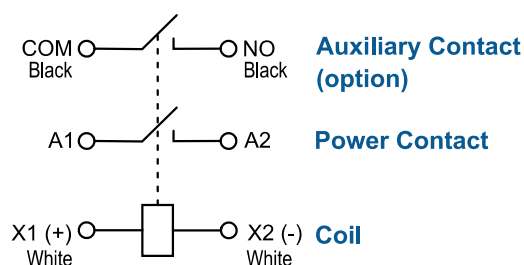


3D model available upon request

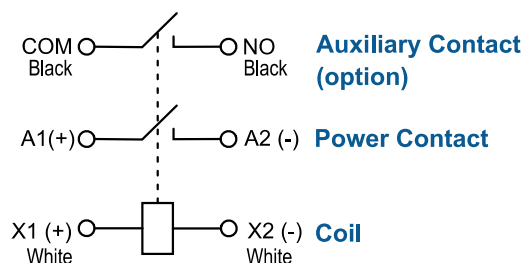
TABLE 4. DIMS AND INSTALLATION

CHARACTERISTIC	MEASURE
Weight	190g (0.42 lb)
Mounting Position	Any / Not Position Sensitive
Package Quantity	30
Coil / Aux Wires	22 AWG
Install Torque M5 Main Terminals	2.5-4.5 Nm (22-40 in-lb)
Install Torque M4 mounting hardware	2.3 Nm

B Bi-Directional



P Polarity Sensitive



NOTES

1. 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.
2. 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.
3. 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.
4. 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.
5. Avoid excessive coil voltages. Exceeding the ratings on the datasheet may result in high coil temperature and coil failure.

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<https://tcs.rinconpower.com/product-datasheet-legal-disclaimer.pdf>