

REC15 SERIES

High Voltage Contactors

150A CONTINUOUS
DUTY

1000VDC SYSTEM
VOLTAGE



DESCRIPTION

The REC15 Series are epoxy-sealed high voltage DC contactors designed for compact, cost-effective DC power switching applications. Rated for continuous currents up to 150A and system voltages up to 1000VDC, the REC15 Series delivers dependable DC switching performance in a widely adopted cylindrical form factor.

Available with bi-directional main contacts and optional SPST-NO auxiliary contacts for position feedback, the REC15 Series contactors are suitable for production OEM applications where balanced performance and value are prioritized. The epoxy-sealed construction provides reliable protection for standard operating environments, making the REC15 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 construction for reliable DC switching
- Compact cylindrical contactor form factor
- Bi-directional DC power switching^{1,2}
- Optional SPST-NO auxiliary contact for main position feedback³
- Single-coil operation with multiple coil voltage options (12V, 24V, 48V)
- RoHS 2011/65/EU and REACH compliant
- CE Certified
- UL certification pending

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

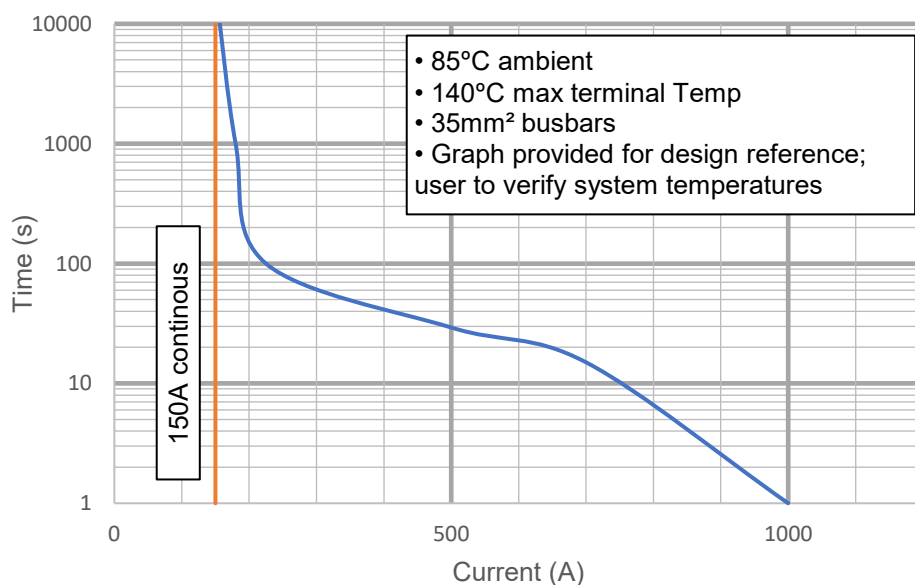
Visit <https://www.rinconpower.com/contact-us>

PERFORMANCE

TABLE 1. SPECIFICATIONS

CHARACTERISTIC	MEASURE
Contact Arrangement	Form X, SPST NO
Max Switching Voltage ⁴	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 ⁵ 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 Resistance (Max)	0.4mohm @ 100A (0.25mohm typical)
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 ⁶	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


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

BI-DIRECTIONAL VERSION 1,2		CYCLES 1 cycle = 1 make + 1 break
VOLTAGE	CURRENT	
450V	100A	25,000
800V	100A	7,500
800V	50A	30,000 (BREAK ONLY)
1000V	100A	500
320V	400A	1 cycle / fault interrupt

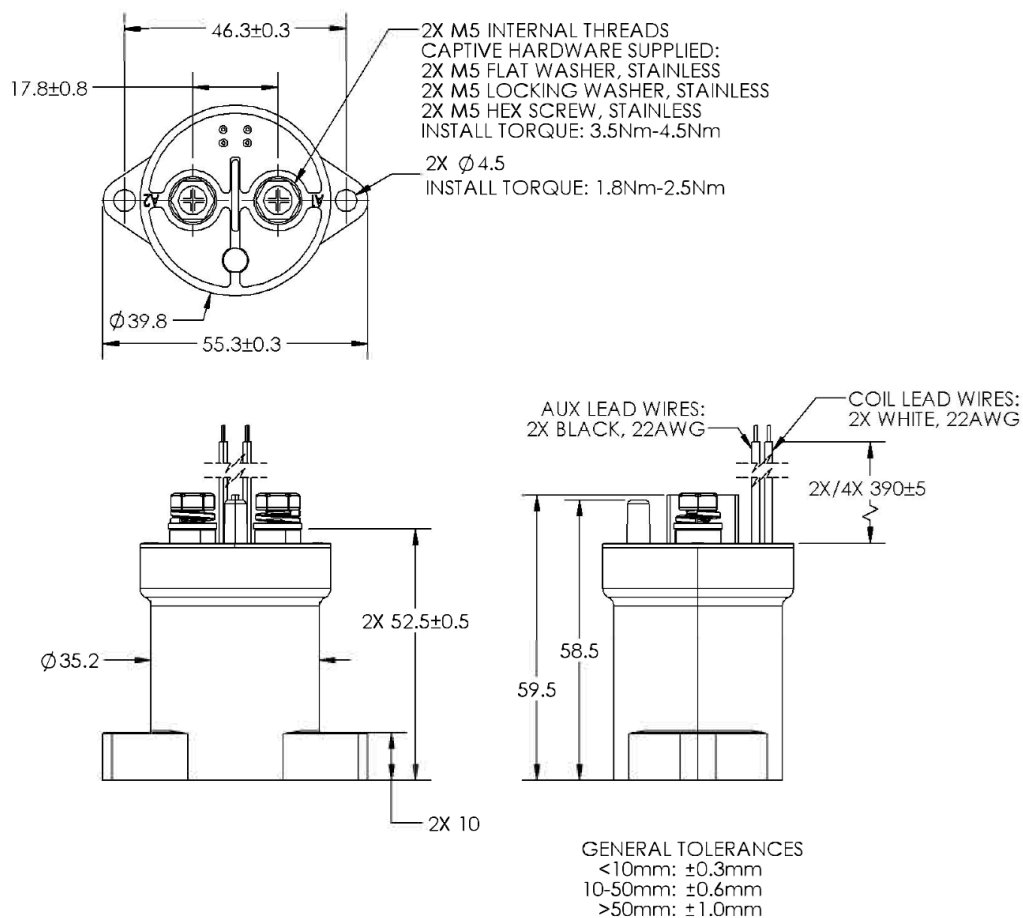
OPTIONS

TABLE 3. PART NUMBER CONFIGURATION

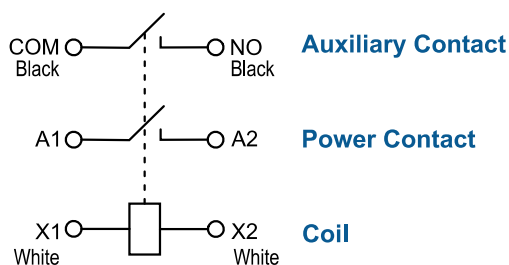
SERIES	CONTACT POLARITY	MOUNTING	COIL	AUXILIARY CONTACTS
REC15	B Bi-directional ^{1,2}	1 Bottom Mount	A 12V single coil	X None
			B 24V single coil	A SPST, Normally Open ³
			C 48V single coil	

Available Part Numbers: REC15B1AX, REC15B1AA, REC15B1BX, REC15B1BA, REC15B1CX, REC15B1CA

PRODUCT DIMENSIONS [mm]



3D model available upon request


TABLE 4. DIMENSIONAL 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 ⁵	2.5-4.5 Nm (22-40 in-lb)
M5 thread depth	7mm
Install Torque M4 mounting hardware	2.3 Nm

NOTES

1. Bi-directional version is designed for maximum fault interrupt. As a result, no polarity sensitive version is required.
2. 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.
3. 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.
4. 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.
5. 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.
6. 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>