RINCONPOWER™
Products For An Electrified Future

RXC35 SERIES

High Voltage Contactors

350A+ CONTINUOUS DUTY

1000Vdc SYSTEM VOLTAGE

FEATURES

SPST Normally Open High Voltage Contactors

- Hermetic seal with gas fill
- Optional auxiliary contacts – for main position feedback
- High temperature performance
- Meets RoHS 2011/65/EU
- Designed and Assembled in the USA

PERFORMANCE

TABLE 1. SPECIFICATIONS

CHARACTERISTIC	MEASURE		
Contact Arrangement	Form X, SPST NO		
Max Switching Voltage[2]	1,000 VDC		
Dielectric Withstand Voltage (Between Open Contacts and Coil)	2200 VRMS (60 sec)		
(Between Contacts and Coil)	2200 VRMS (60 sec)		
Continuous Current (107mm² conductor)[5]	350A		
Overload Current 1 minute	850A		
10 minutes	450A		
Make and Break	See Table 2		
Max Short Circuit Current - 20ms	3500 A		
Min Insulation Resistance	100 MΩ @ 1,000V		
Contact Resistance (Max) measured at 200A	0.3 mΩ		
(Typical) measured at 200A	0.15-.25 mΩ		
Operate Time (Max, incl bounce)	25ms		
Release Time (Max)	10ms, (12ms for 48V Coil)		
Shock - Functional, 1/2 Sine, 11ms	20G		
Shock - Destructive, 1/2 Sine, 11ms	50G		
Operating Temperature	-45˚C to 100˚C (175˚C Max Terminal Temperature)		
Ingress Protection	Exceeds IP69, (Hermetically Sealed)		
Mechanical life	300,000		
AUXILIARY CONTACTS	**MEASURE**		
Contact Arrangement	SPST		
Continuous Current	2A		
Minimum Current	5mA @ 8V		
ECONOMIZED DUAL COIL (20°C)	**MEASURE**		
Nominal Voltage	12 VDC	24 VDC	48 VDC
Max Voltage	16 VDC	32 VDC	85 VDC
Pick-up Voltage (Max)[3]	8.5 VDC	15.0 VDC	32 VDC
Drop-out Voltage (Min)	0.6 VDC	1.2 VDC	2.5 VDC
Pull-in current (max 300ms)	4.3A	1.6A	0.8A
Holding Current	0.24A	0.09A	0.03A
Coil Power (pull-in)	46W	38W	38W
Coil Power (Holding)	2.9W	2.2W	2.2W
Coil Back EMF (V) via internal TVS	150V	150V	0V

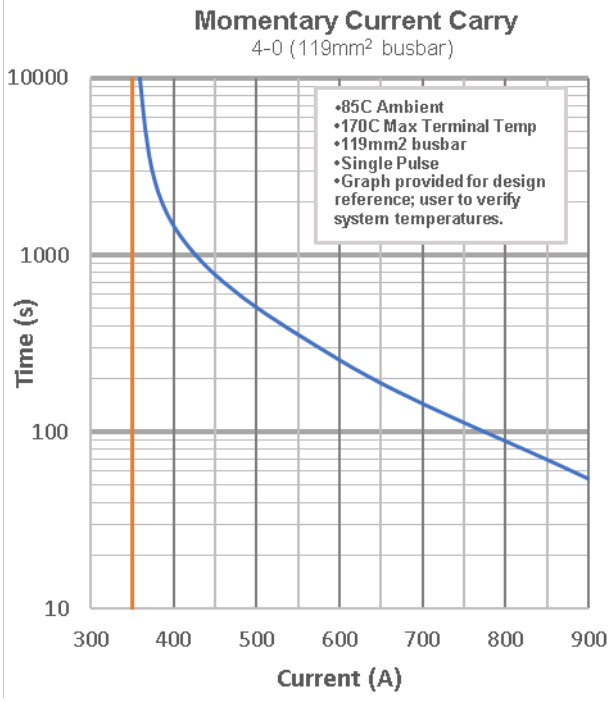


TABLE 2. RESISTIVE LOAD SWITCHING (MAKE / BREAK DATA)

POLARITY SENSITIVE VERSION		CYCLES (1 cycle = 1 make + 1 break)
VOLTAGE	CURRENT	
450V	350A	2500
800V	300A	1500 (BREAK ONLY)
750V	400A	500
320V	-300A	12
750V	50A	20,000
450V	100A	50,000
1000V	350A	300 (BREAK ONLY)

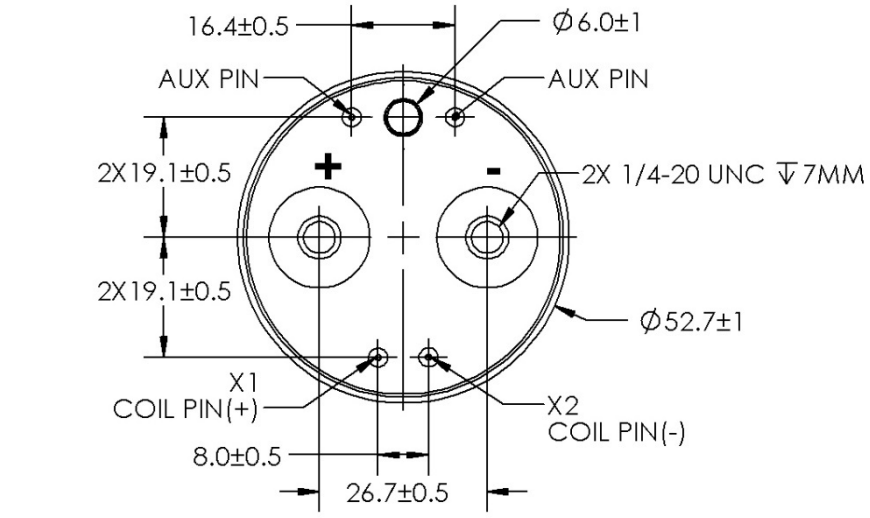
OPTIONS

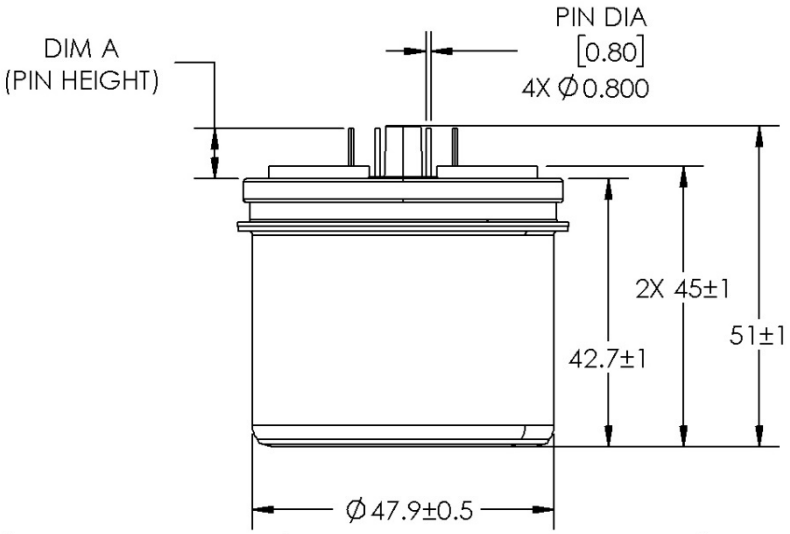
TABLE 3. PRODUCT NOMENCLATURE

	CONTACT POLARITY	MOUNTING	COIL	AUXILIARY CONTACTS
RXC35	**P** Polarity Sensitive	**3** PCB Mount	**P** 12V Dual Coil (economized)	**A** Normally Open
		9 Chassis Mount	**Q** 24V Dual Coil (economized)	**B** Normally Closed
			M 48V PWM Coil (economized)	**X** None

PRODUCT DIMENSIONS [mm]

Mounting Option 3 – PCB Mount





DIM A (PIN HEIGHT)	CONFIGURATION
4X 8.5 mm ±0.5 mm	WITH AUX CONTACTS (**A**, OR **B**)
2X 11.2 mm ±0.5 mm	WITHOUT AUX CONTACTS (**X**)

TABLE 4. DIMENSIONAL AND INSTALLATION PCB Mount

CHARACTERISTIC	MEASURE
Weight	290g (0.64 lb)
Coil Wire	N/A
Mounting Inserts	N/A
Mounting Position	Any / Not Position Sensitive
Package Quantity	TBD
Install Torque 1/4" – 20 Main Terminals	7 Nm 7mm thread engagement

Mounting Option 9 – Chassis Mount

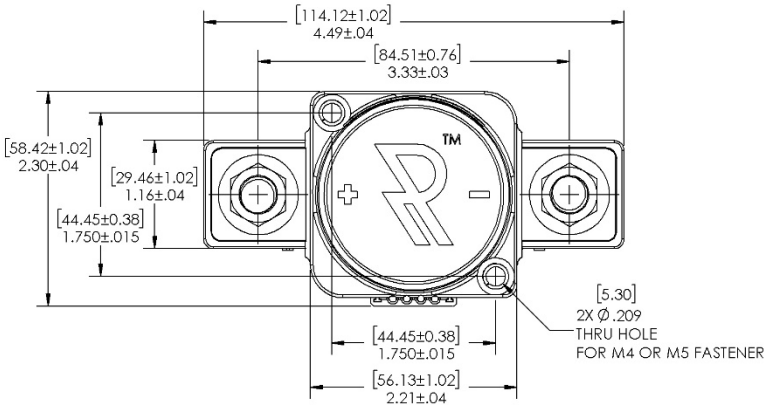
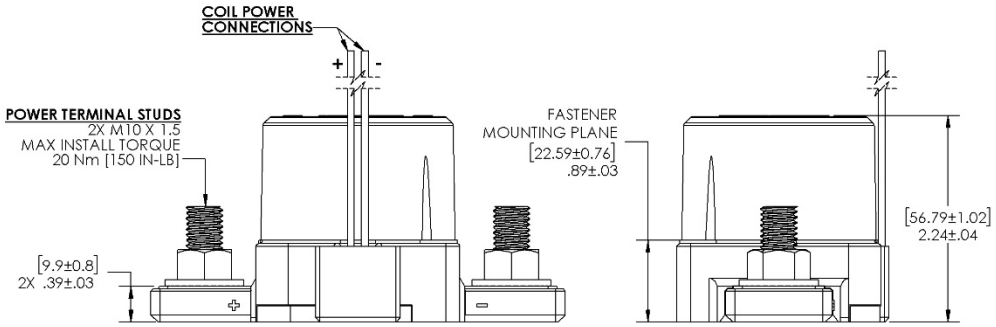
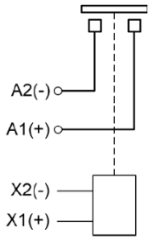


TABLE 5. DIMENSIONAL AND INSTALLATION	
CHARACTERISTIC	**MEASURE**
Weight	490g (1.1 lb)
Mounting Inserts	M5 **or** M4 (See Notes 8 & 9)
Mounting Position	Any / Not Position Sensitive
Package Quantity	20 pcs
Install Torque M10 x 1.5 Main Terminals	125-150 in-lb. [14-20Nm]
COIL / AUX WIRE	**FUNCTION**
Black	Coil GND (-)
Red	Coil POS (+)
Grey	Aux COM
Blue	Aux N.O.
Orange	Aux N.C.
Lead Wire Length	15 in [38cm]
Lead Wire Size	20AWG, Stranded
Jacket Material	PVC
UL Ratings	UL 1007, UL 1569



Power Contacts



- 3D model available upon request

NOTES

1. Attach cables and busbars directly to the main terminal pad using the recommended install torque. Do not use washers or other materials between the contactor power terminals and the conductor.
2. Contactor may be used above Max Switching Voltage if the application does not require significant load breaking. Please contact Rincon Power for more details.
3. Dual coil economizer design: Pickup Voltage must be applied as a pulse. Do not ramp voltage.
4. Integrated coil suppression limits back EMF to 150V.
5. Rigid busbar structures have the potential to induce stress into the device and can damage the hermetic seal. When using busbars, it is important to design compliance into the bus bar structure via the use of flexible laminated busbars and or by means of incorporating adjustability in adjacent bolted interfaces.
6. Polarity Sensitive versions are marked + and - for the power terminals. For applications that require the contactor to switch under load, please ensure current is flowing from the + to the - terminal when breaking/opening under load For Bi-Directional versions the direction of current does not matter when breaking under load.
7. Avoid excessive coil voltages. Exceeding the ratings on the datasheet may result in high coil temperature and coil failure.
8. M5 mounting fasteners are compatible with thru-hole mounting applications. Ensure that the fastener shoulders overlap the compression inserts extending to the plastic shoulders of housing. Use a flat washer if necessary. Recommended installation torque: [3.4 - 4.6 Nm]- *Based on stainless fasteners*.
9. M4 fasteners are recommended for applications requiring precise alignment with corresponding threaded mounting features. Ensure that the fastener shoulders overlap the compression inserts extending to the plastic shoulders of housing. Use a flat washer if necessary. Recommeded installation torque: [1.8 - 2.5 Nm]- *Based on stainless fasteners*.

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