RINCONPOWER™
Products For An Electrified Future

RXR50 SERIES

High Voltage Contactors

500A CONTINUOUS DUTY

1000V

SYSTEM VOLTAGE

FEATURES

SPST Normally Open High Voltage Contactors

- Metal-ceramic hermetic seal
- Bi-Directional switching
- Optional Auxiliary contacts
- Meets RoHS 2011/65/EU
- REACH compliant

PERFORMANCE

TABLE 1. SPECIFICATIONS		
CHARACTERISTIC	**MEASURE**	
Contact Arrangement	Form X, SPST NO	
Max Switching Voltage [1]	1,000 VDC	
Dielectric Withstand Voltage	3,000 VAC, 1 minute contacts to coil 3,000 VAC, 1 minute across open contacts	
Continuous Current (200mm² conductor)	500A (400A using 140mm² conductor)	
Overload Current 30 seconds 10 minutes	800A 600A	
Fault Interrupt (1000V, 1 cycle)	2,000A (bi-directional)	
Max Short Circuit Current - 5ms	10,000 A	
Min Insulation Resistance	1,000 Mohm @ 500VDC	
Contact Resistance (Typical)	0.10 mohm (at 400A+)	
Operate Time (Max, incl bounce)	30ms	
Release Time (Max)	10ms	
Shock - Functional, 1/2 Sine, 11ms	20G	
Shock – Destructive, 1/2 Sine, 11ms	50G	
Operating Temperature	-40˚C to 100˚C	
Max Terminal Temperature	180°C	
Ingress Protection	Exceeds IP69, (Hermetically sealed)	
Mechanical life	500,000 cycles	
AUXILIARY CONTACTS (optional)	**MEASURE**	
Contact Arrangement	Normally Open (SPST)	
Aux contact current rating	3A	
COIL (20° C)	**MEASURE**	
Nominal Voltage	12 VDC	24 VDC
Pick-up Voltage (Max)	9 VDC	18 VDC
Drop-out Voltage (Min)	1.2 VDC	2.4 VDC
Max Voltage (continuous)	16 VDC	32 VDC
Coil Power at Nominal Voltage	7 Watt	7 Watt

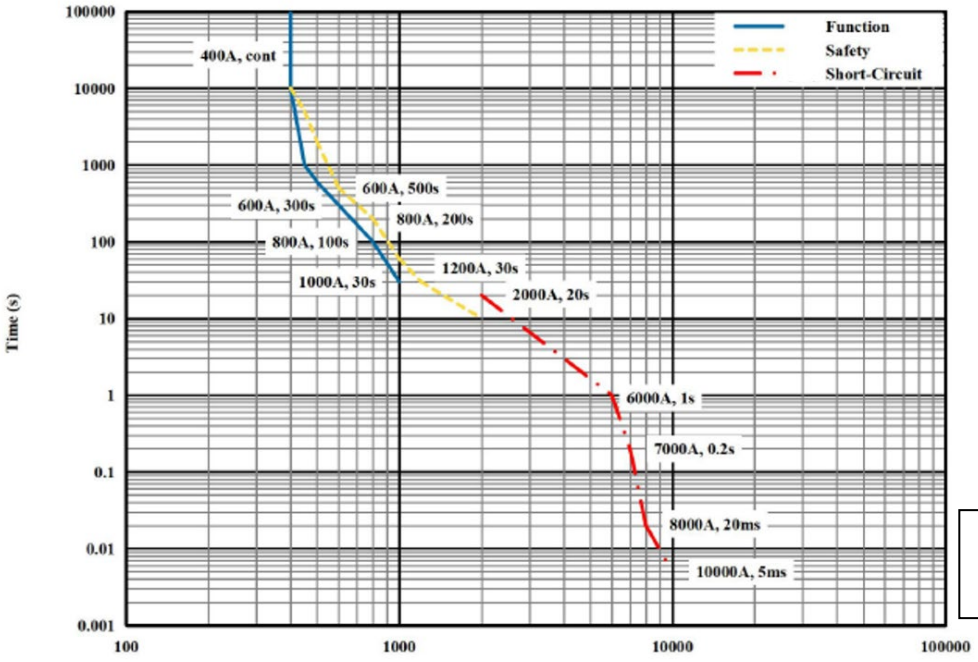


TABLE 2. RESISTIVE LOAD SWITCHING (MAKE / BREAK DATA)		
BI-DIRECTIONAL SWITCHING		**CYCLES** (1 cycle = 1 make + 1 break)
VOLTAGE	**CURRENT**	
800V	400A	1,000
800V	50A	100,0000
800V	500A	5
1000V	100A	75,000
1000V	500A	1000 (MAKE only)

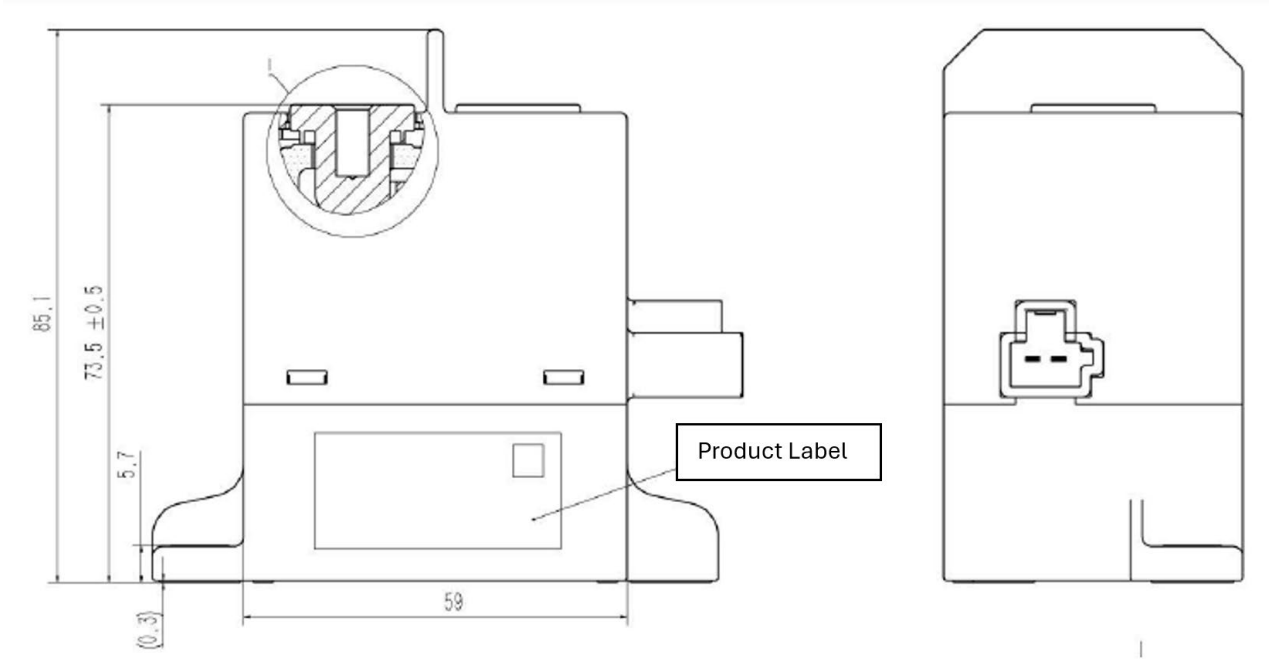
NOTE: Current carry graph shows performance using 140mm² conductor. 500A continuous duty tested with 200mm² conductor

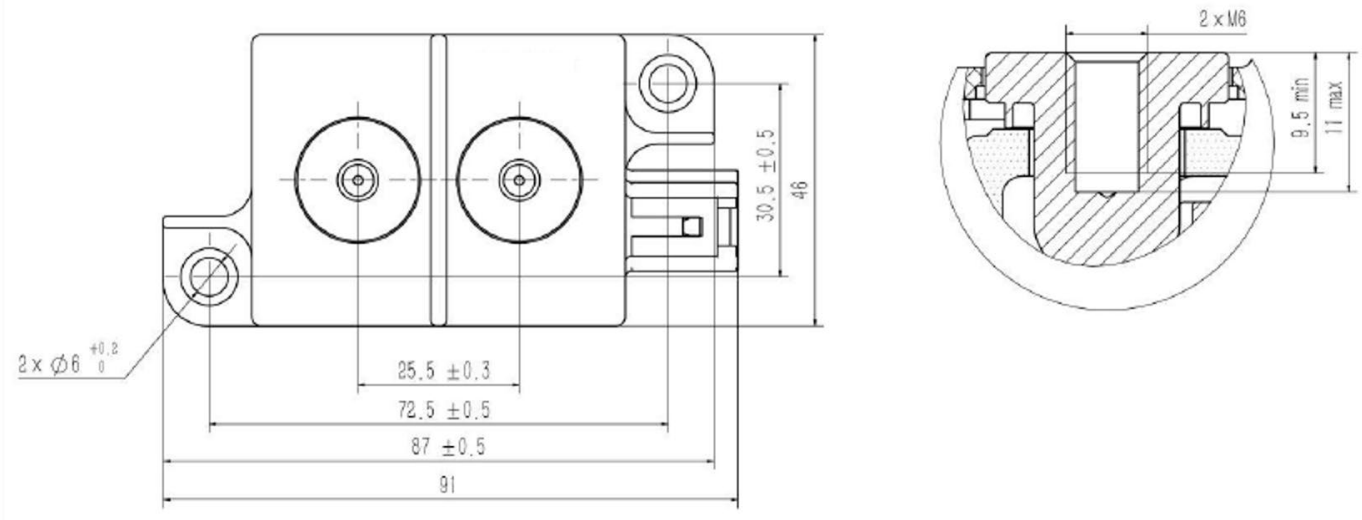
[1] Contactor can be used in systems with higher voltages, but should be limited to no current, or very low current breaking. Contact Rincon Power for more details

OPTIONS

TABLE 3. PRODUCT NOMENCLATURE				
	CONTACT POLARITY	MOUNTING	COIL	AUXILIARY CONTACTS
RXR50	**B** Bi-directional	**1** Bottom Mount	**A** 12V single coil **B** 24V single coil	**X** None **A** Normally open (SPST)

PRODUCT DIMENSIONS [mm]

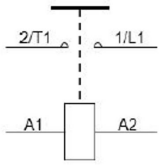




Coil Connector (optional)

Supplier	Housing	Terminal
Yazaki	7283-1020	7116-4020
THB	0435308	01175

Circuit Diagram / Schematic



The load is non-polarity, the coil is non-polarity

TABLE 4. DIMENSIONAL AND INSTALLATION	
CHARACTERISTIC	MEASURE
Weight	500g (1.10 lb)
Mounting Position	vertical
Package Quantity	20 each
Install Torque M6 Main Terminals	6-8Nm (53-70 in-lb)
Install Torque M5 housing / mount	3-4Nm (26-36 in-lb)

NOTES

- Attach cables and busbars directly to the main terminal pad. Do not use washers or other materials between the contactor power terminals and the conductor.
- Continuous current tested with 85°C temperature rise at the power terminals. Terminal temperature should be limited to 180°C
- Contactor is operated by a coil that changes resistance with temperature: Maximum coil voltage will be lower than indicated at temperatures above 25°C, and higher than indicated at temperatures below 25°C.
- Nominal Coil Voltage for Pick-up Current, Coil Current and Coil Power specifications, Current/Wattage will be lower than indicated at temperatures above 25°C and higher than indicated at temperatures below 25°C.
- Pick-up Voltage and Drop Out Voltage will be lower than indicated at temperatures below 25°C and higher than indicated at temperatures above 25°C.
- 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.