

# RXR40 SERIES

## High Voltage Contactors

**400A** CONTINUOUS  
DUTY

**1500VDC** SYSTEM  
VOLTAGE



### DESCRIPTION

The RXR40 Series are ceramic-sealed high voltage DC contactors designed for ultra high-current DC power switching in demanding system-level applications. Rated for continuous currents up to 400A and system voltages up to 1500VDC, the RXR40 Series delivers robust bi-directional switching performance in a proven rectangular form factor.

The ceramic seal provides enhanced environmental resistance and long-term stability compared to epoxy-sealed alternatives, supporting reliable operation in industrial and infrastructure environments. As the highest-current device in the RXR family, the RXR40 Series is well suited for large-scale energy storage systems, high-power charging infrastructure subsystems, industrial DC power distribution, and other applications requiring dependable, high-current DC switching.

### FEATURES

#### SPST Normally Open High Voltage DC Contactor

- Ceramic-sealed DC contactor construction for enhanced durability
- Rectangular form factor for system-level integration
- Bi-directional DC power switching
- SPST Normally Open contact arrangement
- Designed for continuous 400A duty at up to 1500VDC
- Suitable for high-current DC power control
- Meets RoHS 2011/65/EU and REACH compliance

### TYPICAL APPLICATIONS

- Battery energy storage systems (BESS)
- DC charging infrastructure subsystems
- Auxiliary DC power switching in heavy equipment
- Renewable energy power conversion systems
- Industrial DC power distribution
- System-level DC power control applications

#### For factory-direct technical support and application assistance:

Call +1 805 456 6424

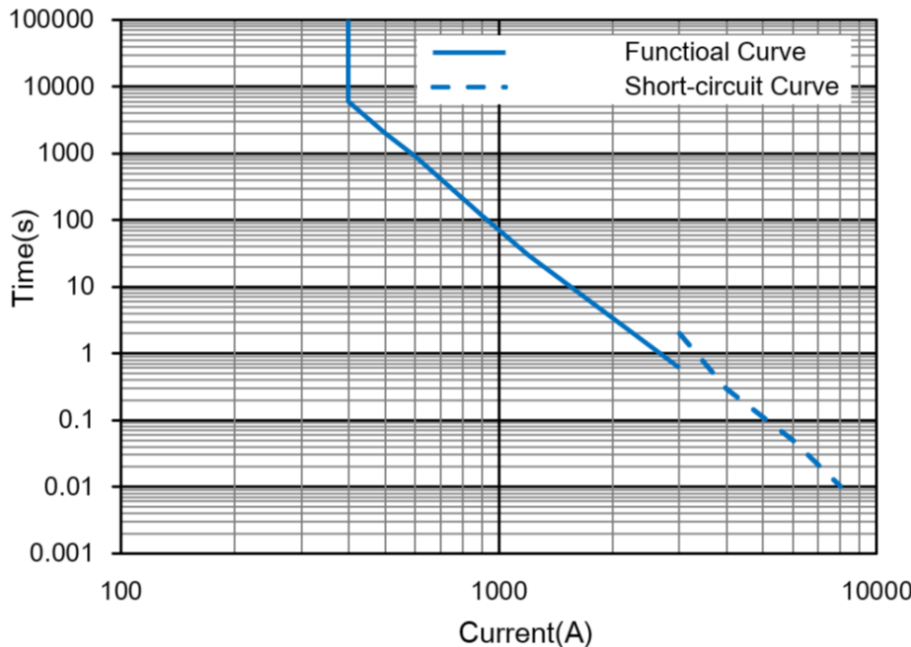
Email [info@rinconpower.com](mailto:info@rinconpower.com)

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

**PERFORMANCE**

**TABLE 1. SPECIFICATIONS**

CHARACTERISTIC	MEASURE		
Contact Arrangement	Form X, SPST NO		
Max Switching Voltage <sup>1</sup>	1500 VDC		
Dielectric Withstand Voltage (Across Open Contacts)	4000 VAC, 1 minute		
Dielectric Withstand Voltage (Across Closed Contacts and Coil)	3000 VAC, 1 minute		
Continuous Current (127mm <sup>2</sup> conductor) <sup>2</sup>	400A		
Overload Current	1000A		
1 minute	1200A		
30 seconds			
Short Circuit Withstand	8000A (10ms)		
Make and Break	See Table 2		
Min Insulation Resistance	1000 Mohm @ 1,000V		
Contact Resistance (typical)	0.15mohm 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 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 <sup>3</sup>	MEASURE		
Nominal Voltage	12V	24V	48V
Max Voltage <sup>4</sup>	16V	32V	64V
Pick-up Voltage (Max)	≤ 9VDC	≤ 18VDC	≤ 36VDC
Drop-out Voltage (Min)	1.2VDC	2.4VDC	4.8VDC
Inrush Current (Max) <sup>5</sup> – up to 300ms	4.2A	2.1A	1A
Holding Current <sup>5</sup>	0.42A	0.21A	0.10A
Coil Back EMF (Internal TVS)	29V	58V	113V



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

BI-DIRECTIONAL VERSION		CYCLES 1 cycle = 1 make + 1 break
VOLTAGE	CURRENT	
400V	400A	2000
800V	400A	800
1000V	400A	200 (BREAK ONLY)
1500V	250A	50 (BREAK ONLY)
450V	800A	50 (BREAK ONLY)
800V	2500A	1 (BREAK ONLY)

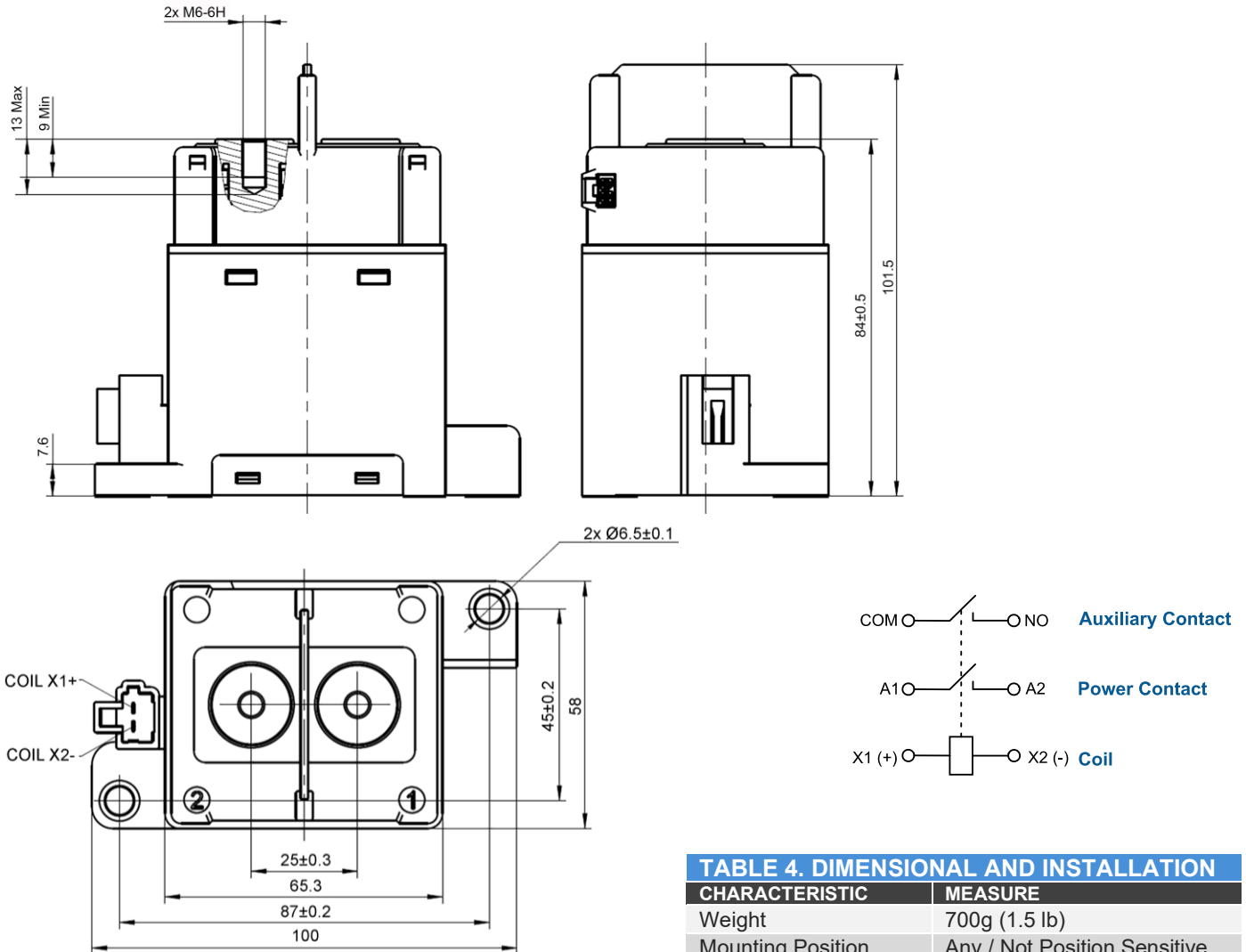
OPTIONS

TABLE 3. PART NUMBER CONFIGURATION

SERIES	CONTACT POLARITY	MOUNTING	COIL	AUXILIARY CONTACTS
RXR40	B Bi-directional	1 Bottom Mount	P 12V economized coil <sup>5</sup>	A SPST, Normally Open
			Q 24V economized coil <sup>5</sup>	
			R 48V economized coil <sup>5</sup>	

Available Part Numbers: RXR40B1PA, RXR40B1QA, RXR40B1RA

PRODUCT DIMENSIONS [mm]



3D model available upon request

TABLE 4. DIMENSIONAL AND INSTALLATION

CHARACTERISTIC	MEASURE
Weight	700g (1.5 lb)
Mounting Position	Any / Not Position Sensitive
Package Quantity	TBD
Install Torque M6 Main Terminals <sup>2</sup>	6-8Nm (53-71 in-lb)

TABLE 5. CONNECTOR INFO

COIL	PART NUMBER
Yazaki	7283-1020
Yazaki	7116-4020
AUX CONTACTS	PART NUMBER
Molex	43645-0200
Molex	43030-0001

## NOTES

1. 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.
2. 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.
3. The coil is polarized, please follow schematic when wiring the coil.
4. Avoid excessive coil voltages. Exceeding the ratings on the datasheet may result in high coil temperature and coil failure.
5. The coil has an integrated economizer that limits coil holding power. Please allow for inrush of up to 300ms to fully close the contacts. Coil economizer will automatically reduce coil current once the contacts are closed.

**Legal notice:** This datasheet is subject to Rincon Power's Product Datasheet Legal Disclaimer.

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