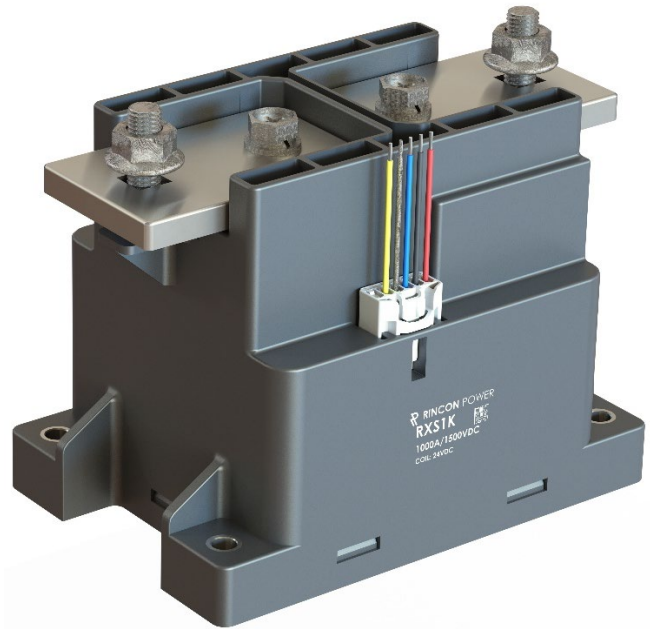


# **RXS1K** SERIES

## High Voltage Contactors

**1000A** CONTINUOUS DUTY

**1500V** SYSTEM VOLTAGE



### FEATURES

#### SPST Normally Open High Voltage Contactors

- Hermetic Ceramic Seal with gas fill for superior carry and switching performance
- Bi-Directional main contacts
- Mechanically linked SPDT auxiliary contacts for accurate main position feedback
- Meets RoHS 2011/65/EU
- RoHS / REACH compliant
- UL 60947-4 pending



## PERFORMANCE

**TABLE 1. SPECIFICATIONS**

CHARACTERISTIC		MEASURE
Contact Arrangement		Form X, SPST- NO
Max Switching Voltage <sup>2</sup>		1,500 VDC
Dielectric Withstand Voltage (Leakage <1mA) Between Open Contacts		5,400 VRMS
Dielectric Withstand Voltage (Leakage <1mA) Between Contacts to Coil		5,400 VRMS
Mechanical Life		500,000 cycles
Continuous Current (600mm <sup>2</sup> conductor)		1000A
Overload Current	90 seconds	2,000A
	15 seconds	3,500A
Short Circuit Withstanding	2 milliseconds	10,000A
Make and Break		See Table 2
Min Insulation Resistance		100 Mohm @ 1,000V (50 Mohm at end of life)
Contact Resistance (Max) measured at 1,000A		0.15 mOhm
Operate Time (Max, incl bounce)		90ms
Release Time (Max)		30ms
Shock - Functional, 1/2 Sine, 11ms		10 G Peak
Vibration, Sinusoidal (500-2000 Hz Peak)		6G
Operating Temperature		-40°C to 85°C (180° max terminal temperature)
Sealed Contacts		Exceeds IP69K (hermetically sealed)
Salt Fog		MIL-STD-810
AUXILIARY CONTACTS		MEASURE
Contact Arrangement		SPDT (Normally Open + Normally Closed)
Continuous Current		2A / 24 VDC
Minimum Current		10mA @ 8V
COIL (20°C)		
Nominal Voltage		12VDC      24VDC      48VDC
Max Voltage		16V      32V      64V
Pick-up Voltage <sup>3</sup> , Max		9V      18V      36V
Drop-out Voltage		>1.2V      >2.4V      >4.8V
Coil Current (pick-up) – max 300ms		4.2A      2.1A      1.1A
Coil Current (hold) - continuous		0.9A      0.45A      0.22A
Coil Power (hold)		10W      10W      10W
Coil Back EMF (coil suppressed via TVS SMAJ48CA)		55V      55V      55V

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

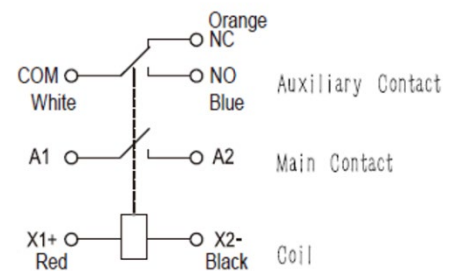
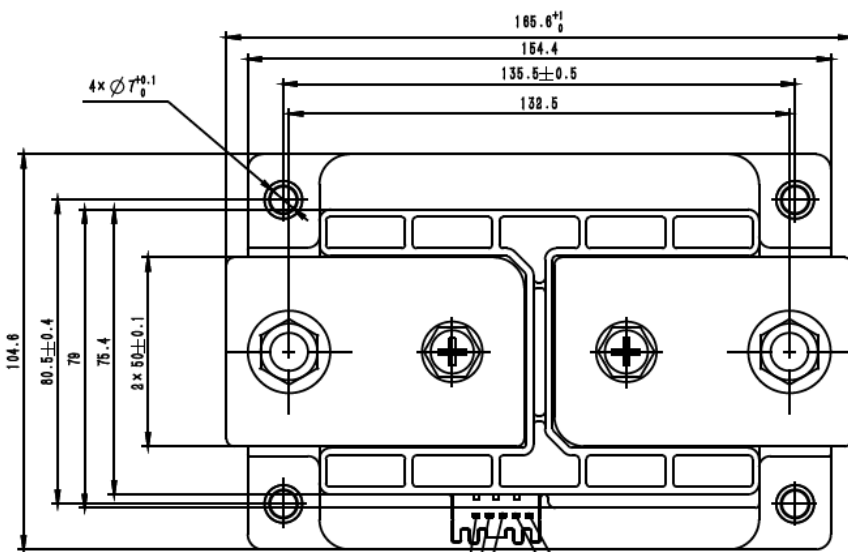
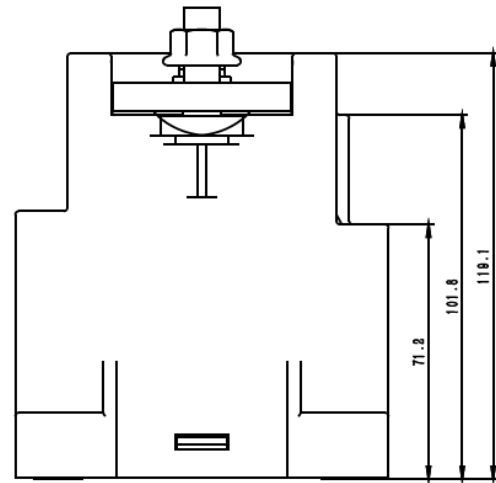
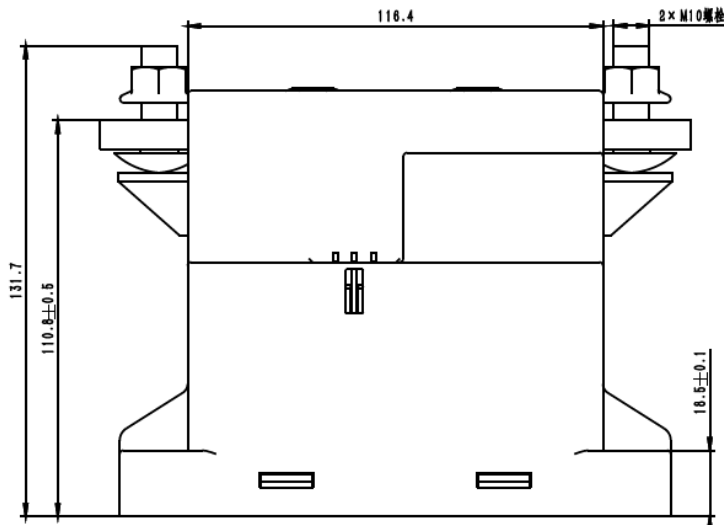
BI-DIRECTIONAL		CYCLES (1 cycle = 1 make + 1 break)
VOLTAGE	CURRENT	
400V	5,000A	5 (BREAK only)
1,000V	600A	5,000
1,000V	800A	500 (BREAK only)
1,000V	3,000	3 (BREAK only)
1,200V	500A	5,000
1,500V	800A	200 (BREAK only)
1,500V	1,000A	50 (BREAK only)

## OPTIONS / ORDERING KEY

**TABLE 3. PRODUCT NOMENCLATURE**

	CONTACT POLARITY	MOUNTING	COIL	AUXILIARY CONTACTS
RXS1K	<b>B</b> Bi-directional	<b>1</b> Bottom Mount	<b>P</b> 12VDC dual coil	<b>C</b> SPDT, NO+NC
			<b>Q</b> 24VDC dual coil	
			<b>R</b> 48VDC dual coil	

## PRODUCT DIMENSIONS [mm]


**TABLE 4. DIMENSIONAL AND INSTALLATION**

CHARACTERISTIC	MEASURE
Weight	7.1 lb, [3,230g]
Coil Connection	Wires, 20AWG, 30cm length, UL3266
Housing Material	Zytel FR50
Busbar	Copper, Nickel plated
Mounting Position	Any / Not Position Sensitive
Package Quantity	3 per box
Mounting Install Torque, 4X M6	50-65 in-lb, [6-8Nm]

## NOTES

1. 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.
2. Continuous current tested with 85°C temperature rise at the power terminals. Terminal temperature should be limited to 180°C
3. 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.
4. 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.
5. 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.
6. 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.

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