RER1K SERIES

High Voltage Contactors

1000A CONTINUOUS DUTY

1500V SYSTEM VOLTAGE

FEATURES

SPST Normally Open High Voltage Contactors

- Hermetic 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

PERFORMANCE

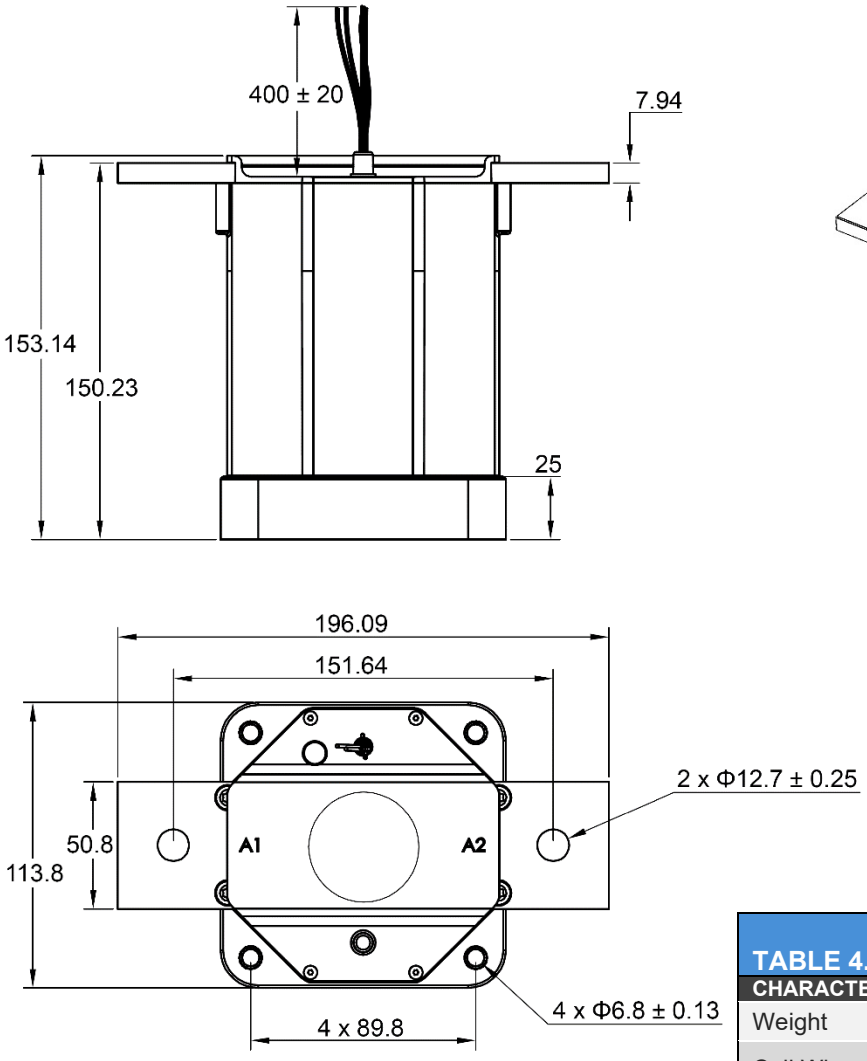
TABLE 1. SPECIFICATIONS		
CHARACTERISTIC	**MEASURE**	
Contact Arrangement	Form X, SPST- NO	
Max Switching Voltage[2]	1,500 VDC	
Dielectric Withstand Voltage (Leakage <1mA) Between Open Contacts	5,400 VRMS	
Dielectric Withstand Voltage (Leakage <1mA) Between Contacts to Coil	5,400 VRMS	
Mechanical Life	500,000 cycles	
Continuous Current (600mm^2 conductor)	1,000A	
Overload Current 10 seconds 50 milliseconds	2,000A 8,000A	
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	0.25 mOhm	
Operate Time (Max, incl bounce)	90ms	
Release Time (Max)	70ms	
Shock - Functional, 1/2 Sine, 11ms	10 G Peak	
Vibration, Sinusoidal (500-2000 Hz Peak)	10G	
Operating Temperature	-40˚C to 85˚C (150° 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	3A / 24 VDC	
Minimum Current	10mA @ 8V	
COIL (20°C)		
Nominal Voltage	12V	24V
Max Voltage	14V	32V
Pick-up Voltage[3], Max	9V	18V
Drop-out Voltage	1.2V	2.4V
Coil Current	1.25A	0.63A
Coil Power	15 W	15 W
Coil Back EMF (coil suppressed via TVS SMAJ48CA)	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	1,000
1,000V	2,500A	2 (BREAK only)
1,200V	500A	5,000
1,500V	400A	5,000

OPTIONS

TABLE 3. PRODUCT NOMENCLATURE				
	CONTACT POLARITY	MOUNTING	COIL	AUXILIARY CONTACTS
RER1K	**B** Bi-directional	**1** Bottom Mount	**A** 12V	**C** SPDT, NO+NC
			B 24V	**X** none

PRODUCT DIMENSIONS [mm]



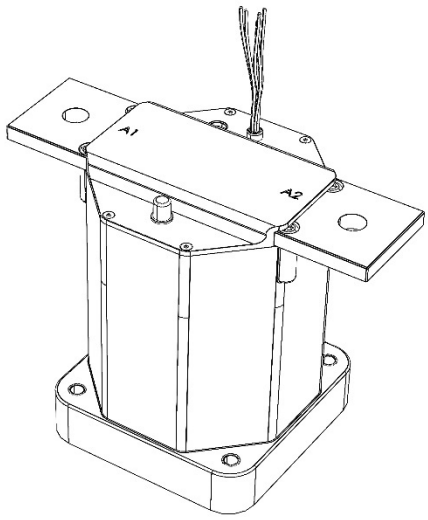


TABLE 4. DIMENSIONAL AND INSTALLATION	
CHARACTERISTIC	MEASURE
Weight	9.2 lb, [4,200g]
Coil Wire	24AWG for 24V coil, 22AWG for 12V coil
Housing Material	Zytel FR50
Busbar	Copper, Nickel plated
Mounting Position	Any / Not Position Sensitive
Package Quantity	3 per box
Mounting Install Torque, 4X M6 or No. 10	60-75 in-lb, [7-9Nm]

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 65°C temperature rise at the power terminals. Terminal temperature should be limited to 150°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.