

RER03 SERIES

High Voltage Contactors

30A CONTINUOUS DUTY

1500V SYSTEM VOLTAGE

Coming Dec 2024

FEATURES

SPST Normally Open High Voltage Contactors

- Ceramic seal
- PCB Mountable (optional)
- Bi-directional power switching
- Meets RoHS 2011/65/EU
- REACH Compliant



PERFORMANCE

TABLE 1. SPECIFICATIONS		
CHARACTERISTIC	MEASURE	
Contact Arrangement	Form X, SPST NO	
Max Switching Voltage ¹	1,500 VDC	
Dielectric Withstand Voltage (Max Leakage Current: 1mA)	3,000 VAC, 1 minute contacts to coil 3,000 VAC, 1 minute across open contacts	
Continuous Current (5.3mm ² conductor)	30A	
Overload Current	10 seconds	120A
	1 hour	35A
Max Break – 200A @ 1000V	1 cycle	
Max Short Circuit Current -1 second	200 A	
Min Insulation Resistance	1,000 Mohm @ 500VDC	
Contact Voltage Drop (Max)	50mV @ 10A	
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	
Vibration 10Hz-2,000Hz)	6 G	
Ingress Protection	IP67	
Mechanical life	500,000 cycles	
AUXILIARY CONTACTS	MEASURE	
Contact Arrangement	Not available	
COIL (20° C)	MEASURE	
Nominal Voltage	12 VDC	24 VDC
Pick-up Voltage (Max)	9 VDC	18 VDC
Max Voltage	16 VDC	32 VDC
Drop-out Voltage (Min)	0.9 VDC	1.8 VDC
Coil Resistance	51.4Ω	206Ω
Coil Power at Nominal Voltage	2.8W	2.8W

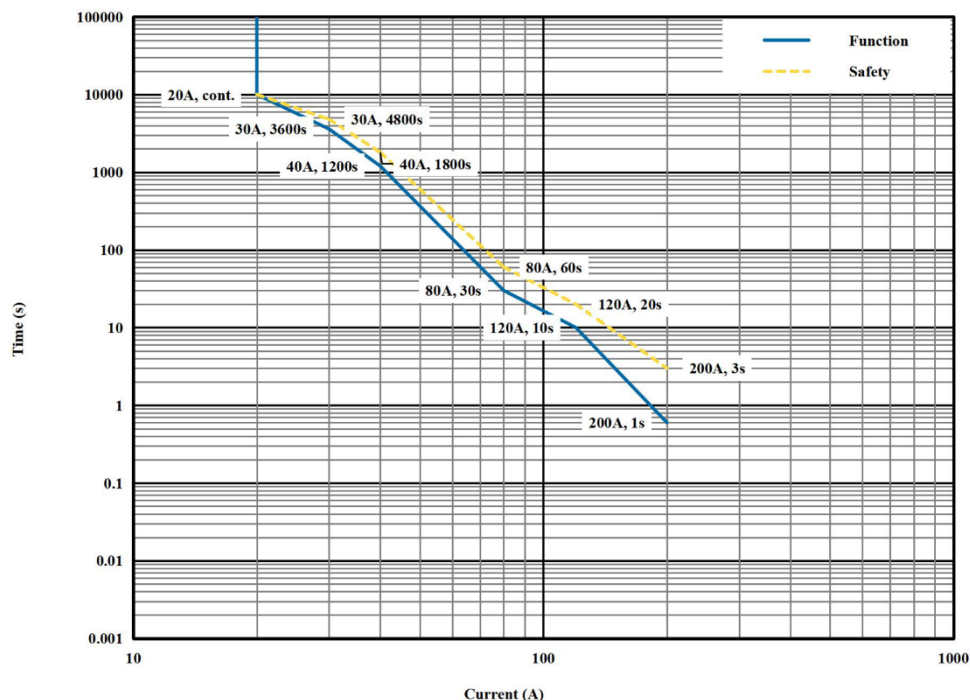


TABLE 2. RESISTIVE LOAD SWITCHING (MAKE / BREAK DATA)

Polarity Sensitive		CYCLES (1 cycle = 1 make + 1 break)
VOLTAGE	CURRENT	
450V	20A	75,000
450V	30A	150,000 (MAKE only)
750V	20A	50,000
750V	30A	75,000 (MAKE only)
1000V	20A	30,000
1000V	30A	50,000 (MAKE only)
1500V	40A	15,000 (MAKE only)

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

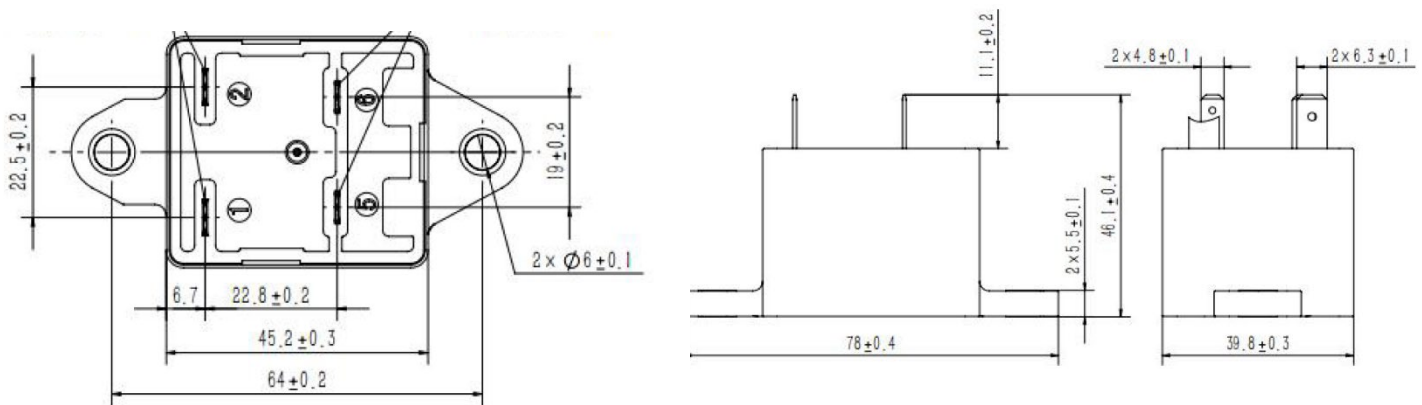
OPTIONS

TABLE 3. PRODUCT NOMENCLATURE

	CONTACT POLARITY	MOUNTING	COIL	AUXILIARY CONTACTS
RER03	B Polarity Sensitive	1 4.8mm coil blades	A 12V	X None
		3 6.3mm coil blades	B 24V	

PRODUCT DIMENSIONS [mm]

4.8mm coil blades (Option 1)



6.3mm coil blades (Option 3)

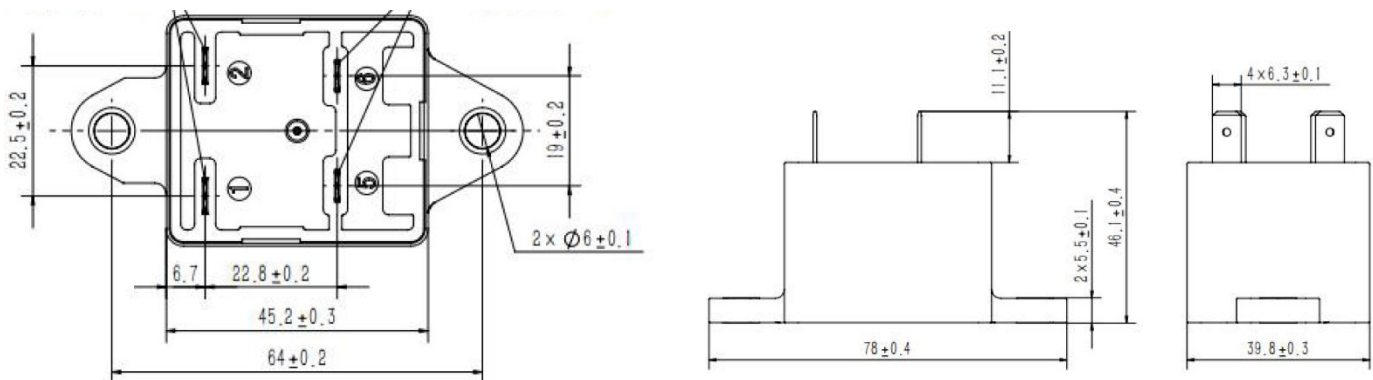


TABLE 4. DIMENSIONAL AND INSTALLATION	
CHARACTERISTIC	MEASURE
Weight	140g
Mounting Position	Any / Not Position Sensitive
Package Quantity	40 (bottom and PCB-mount)
(PCB) welding Parameters	Manual welding: (350±20°C), time 3s; Wave soldering: (265±5°C), time (3~8)s.

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 150°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.

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