

REC10 SERIES

High Voltage Contactors

100A CONTINUOUS DUTY

1000V SYSTEM

VOLTAGE



FEATURES

SPST Normally Open High Voltage Contactors

- Hermetic seal with gas fill
- Optional auxiliary contacts for main position feedback
- Wide range of options

- Meets RoHS 2011/65/EU
- CE certified
- IEC60947-4-1 compliant
- CCC Certified





PERFORMANCE

CHARACTERISTIC MEASURE Contact Arrangement Form X, SPST NO Max Switching Voltage 1,000 VDC Dielectric Withstand Voltage Contacts to Coil 4,000 VAC, 1 minute Dielectric Withstand Voltage Across Open Contacts 4,000 VDC, 1 minute Continuous Current (35mm² conductor) 100A Overload Current 30 seconds 3 Minutes 200A Make and Break See table Max Short Circuit Current -1 second 1,250 A Min Insulation Resistance 1,000 Mohm @ 1,000V Contact Voltage Drop (Max) 80mV @ 100A Operate Time (Max, incl bounce) 25ms 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 200,000 AUXILIARY CONTACTS MEASURE Contact Arrangement SPST Continuous Current 10mA @ 8V Mominal Voltage 12V	TABLE 1. SPECIFICATIONS			
Max Switching Voltage		MEASURE		
Dielectric Withstand Voltage Contacts to Coil 4,000 VAC, 1 minute Dielectric Withstand Voltage Across Open Contacts 4,000 VDC, 1 minute 4,000 VD	Contact Arrangement	Form X, SPST NO		
Dielectric Withstand Voltage Across Open Contacts	Max Switching Voltage			
Dielectric Withstand Voltage Across Open Contacts	Dielectric Withstand Voltage Contacts to Coil	4,000 VAC, 1 minute		
Overload Current 30 seconds 3 Minutes 500A Make and Break See table Max Short Circuit Current -1 second 1,250 A Min Insulation Resistance 1,000 Mohm @ 1,000V Contact Voltage Drop (Max) 80mV @ 100A Operate Time (Max, incl bounce) 25ms 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 200,000 AUXILIARY CONTACTS MEASURE Contact Arrangement SPST Continuous Current 2A Minimum Current 100mA @ 8V COIL @ 20°C MEASURE Nominal Voltage 12V 24V 48V Pick-up Voltage (Max) 9.6 VDC 19.2 VDC 38.4 VDC Drop-out Voltage (Min) 0.46A 0.25A 0.12A	Dielectric Withstand Voltage Across Open Contacts			
3 Minutes 200A	Continuous Current (35mm ² conductor)	100A		
Make and Break See table Max Short Circuit Current -1 second 1,250 A Min Insulation Resistance 1,000 Mohm @ 1,000V Contact Voltage Drop (Max) 80mV @ 100A Operate Time (Max, incl bounce) 25ms 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 200,000 AUXILIARY CONTACTS MEASURE Contact Arrangement SPST Continuous Current 2A Minimum Current 100mA @ 8V COIL @ 20°C MEASURE Nominal Voltage 12V 24V 48V Pick-up Voltage (Max) 9.6 VDC 19.2 VDC 38.4 VDC Drop-out Voltage (Min) 0.8 VDC 1.6 VDC 3.3 VDC Holding Current 0.46A 0.25A 0.12A	Overload Current 30 seconds	500A		
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Contact Voltage Drop (Max) Operate Time (Max, incl bounce) Release Time (Max) Shock - Functional, 1/2 Sine, 11ms Shock - Destructive, 1/2 Sine, 11ms Operating Temperature Ingress Protection Mechanical life AUXILIARY CONTACTS Contact Arrangement Continuous Current Minimum Current COIL @ 20°C Nominal Voltage Pick-up Voltage (Max) Drop-out Voltage (Min) Holding Current Dums 80mV @ 100A 25ms Remy 20G Exceeds IP69, (Hermetically sealed) Exceeds IP69, (Hermetically sealed) MEASURE 200,000 MEASURE 100mA @ 8V COIL @ 20°C MEASURE 12V 24V 48V 19.2 VDC 38.4 VDC 1.6 VDC 3.3 VDC Holding Current 0.46A 0.25A 0.12A	Max Short Circuit Current -1 second	1,250 A		
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Mechanical life 200,000 AUXILIARY CONTACTS MEASURE Contact Arrangement SPST Continuous Current 2A Minimum Current 100mA @ 8V COIL @ 20°C MEASURE Nominal Voltage 12V 24V 48V Pick-up Voltage (Max) 9.6 VDC 19.2 VDC 38.4 VDC Drop-out Voltage (Min) 0.8 VDC 1.6 VDC 3.3 VDC Holding Current 0.46A 0.25A 0.12A	Operating Temperature	-40°C to 85°C		
AUXILIARY CONTACTS MEASURE Contact Arrangement SPST Continuous Current 2A Minimum Current 100mA @ 8V COIL @ 20°C MEASURE Nominal Voltage 12V 24V 48V Pick-up Voltage (Max) 9.6 VDC 19.2 VDC 38.4 VDC Drop-out Voltage (Min) 0.8 VDC 1.6 VDC 3.3 VDC Holding Current 0.46A 0.25A 0.12A	Ingress Protection	Exceeds IP69, (Hermetically sealed)		
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Minimum Current 100mA @ 8V COIL @ 20°C MEASURE Nominal Voltage 12V 24V 48V Pick-up Voltage (Max) 9.6 VDC 19.2 VDC 38.4 VDC Drop-out Voltage (Min) 0.8 VDC 1.6 VDC 3.3 VDC Holding Current 0.46A 0.25A 0.12A	Contact Arrangement	SPST		
COIL @ 20°C MEASURE Nominal Voltage 12V 24V 48V Pick-up Voltage (Max) 9.6 VDC 19.2 VDC 38.4 VDC Drop-out Voltage (Min) 0.8 VDC 1.6 VDC 3.3 VDC Holding Current 0.46A 0.25A 0.12A	Continuous Current	2A		
Nominal Voltage 12V 24V 48V Pick-up Voltage (Max) 9.6 VDC 19.2 VDC 38.4 VDC Drop-out Voltage (Min) 0.8 VDC 1.6 VDC 3.3 VDC Holding Current 0.46A 0.25A 0.12A	Minimum Current			
Pick-up Voltage (Max) 9.6 VDC 19.2 VDC 38.4 VDC Drop-out Voltage (Min) 0.8 VDC 1.6 VDC 3.3 VDC Holding Current 0.46A 0.25A 0.12A				
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Holding Current 0.46A 0.25A 0.12A				
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Coil Power 5.5W 6W 6W				

Current Carry (85C Ambient)

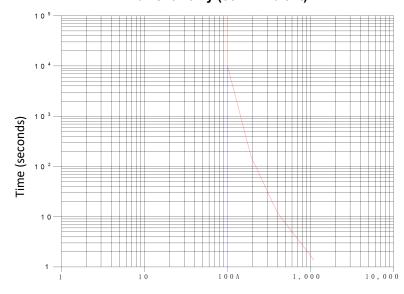


TABLE 2. RESISTIVE LOAD SWITCHING (MAKE / BREAK DATA)				
POLARITY SENSITIVE VERSION VOLTAGE CURRENT		CYCLES (1 cycle = 1 make + 1 break)		
450V	100A	8,000		
450V	1,500A	1 (Fault Interrupt)		
650V	100A	1,000		
BI-DIRECTIONAL VERSION VOLTAGE CURRENT		CYCLES (1 cycle = 1 make + 1 break)		
450V	100A	6,000		
650V	100A	600		

Current (A)

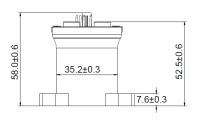


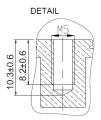
OPTIONS

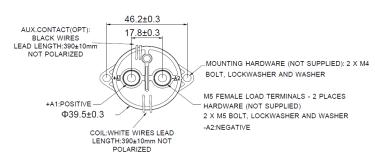
TABLE 3. PRODUCT NOMENCLATURE					
	CONTACT POLARITY	MOUNTING	COIL	AUXILIARY CONTACTS	
REC10	B Bi-directional	1 Bottom Mount	A 12V single coil	X None	
	P Polarity Sensitive 2 Side Mount	2 Sida Maunt	B 24V single coil	A SPST,	
		C 48V single coil	Normally Open		

PRODUCT DIMENSIONS [mm]

A:BOTTOM MOUNT







B:SIDE MOUNT

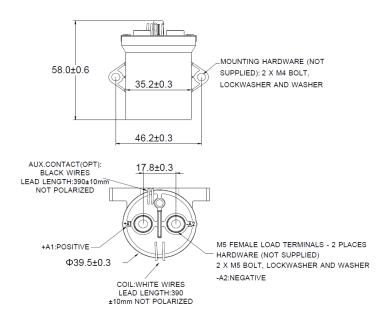


TABLE 4. DIMENSIONAL AND INSTALLATION			
CHARACTERISTIC	MEASURE		
Weight	190g (0.42 lb)		
Mounting Position	Any / Not Position Sensitive		
Package Quantity	TBD		
Install Torque M5 Main Terminals	2.5-4.5Nm (22-40 in-lb)		



NOTES

- The auxiliary contacts are connected internally via an armature on the main contact plunger. As the main contacts close, they automatically cause the auxiliary contacts to close
- Polarity Sensitive versions are marked +A1 and -A2 for the power terminals. For applications that require the contactor under load, please ensure current is flowing from the +A1 to the -A2 terminal when breaking/opening under load For Bi-Directional versions the direction of current does not matter when breaking under load
- 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
- Avoid excessive coil voltages. Exceeding the ratings on the datasheet may result in high coil temperature and coil failure
- 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