

Introduction of Products

FUJI MAGNETIC SWITCH, TYPE RC 3931-8 & MAGNETIC CONTACTOR, TYPE RC 3631-8

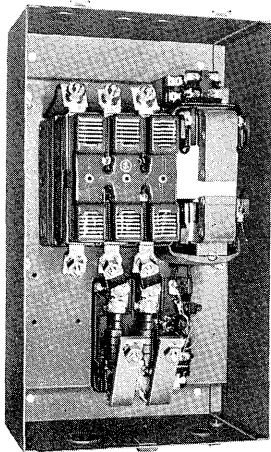


Fig. 1. Magnetic switch

Fuji magnetic switches and contactors without thermal relay have been greatly welcomed in industrial circles as RC 3931 series and RC 3631 series respectively since their appearance in the market in 1954. In answering to these good reputation, now our Company newly added Type 8 (220 V, 33 kW) between Type 6 (220 V, 20 kW) and Type 10 (220 V, 40 kW) in the abovementioned series. And in the following article we wish to give an outline of this new product.

1. Features

1) Compact in size and light in weight

Because of molded parts are mostly used in the construction, it is superior to the previous one in compactness and lightness.

2) High performance

Result of severe tests has proven that it has superior operating features that far surpass Class A, Number 1, Grade 1 of Japanese Industrial Standards.

3) Long life

Able to operate above 10 million times mechanically and 1 million times electrically.

4) Accurate thermal overload relay

A high precision thermal overload relay with ambient temperature compensating device protects the motor perfectly against overload.

Note : Magnetic contactors are not combined with thermal overload relays.

5) Easy maintenance and inspection

Assembling and disassembling and also changing of parts etc. can be easily made with only the use of a screw driver.

2. Rating

Rating of our product is of class A, Number 1, Grade 1, which is the highest rank in JIS rule but actually far surpasses these standards, as shown in the table.

Type	Switch out and closed circuit current capacity	Frequency of switching per hour	Life	
			Electrically	Mechanically
RC 3931-8 RC 3631-8	More than 10 times full-load current with max. applicable load	More than 1,800 times	More than 1 million times	More than 10 million times
JIS Class A No. 1 Grade 1	Same as the above (Class A)	More than 1,200 times (Number 1)	More than 500 thousand times (Grade 1)	More than 5 million times

1) Rated capacity

Product Name	Type	Rated capacity		Electric current (A)	Auxiliary contact (Standard = Max.)
		Three phase motor (kW)			
		110 V	220 V		
Magnetic switch	RC 3931-8	17	33	135	2A2B
Magnetic contactor	RC 3631-8	17	33	*135	2A2B

Note : \* This current is for the motor, in case the contactor is used for electric light or electric heater or other resistance load, up to 150A is applicable.

2) Rating of auxiliary contact

Max. Continuous current (A)	Voltage (V)	A C cos $\phi$ = 0.3~1 50~60 c/s		DC		
		Switch-in capacity (VA)	Breaking capacity (VA)	Switch-in capacity (W)	Breaking capacity	
					Non-inductive load (W)	Inductive load (W)
10	24	350	150	150	150	50
	110	1,600	460	500	200	50
	220	3,400	800	500	200	60
	440	5,200	1,300	500	150	70
	550	8,500	1,600	500	130	80

## 3) Operation magnetic coil

Tap applicable for both 50 c/s and 60 c/s is provided with coil, for 50 c/s please connect terminals 8-10 and for 60 c/s connect terminals 8-9.

## Standard magnetic coil

100 V 50 c/s/100-110 V 60 c/s

200 V 50 c/s/200-220 V 60 c/s

## Magnet capacity

Before closing 1,100 VA

After closing 80 VA

(consumption power 20 W)

## 4) Thermal relay for overload protection

2 poles manual reset type RCa 3737-II (for heavy over load protection with ambient temperature compensating device) is used.

## 3. Outside dimensions

RC 3931-8 :  $266 \times 453 \times 207$  mm

RC 3631-8 :  $239 \times 320 \times 180$  mm (with cover)

## 4. Others

During operation if the voltage drops greatly or sinks to zero, it is so made that the switch will be cut out automatically. After then, unless switch is

pressed, it will not return even if voltage recovers.

That is, all faults that may unexpectedly arise in such case will be prevented.

In most cases, operation is done by push-button switch RCb 4008 II however it can be used for automatic operation of machines if it is combined with the limit switches.

## 5. Please ask us for more information

We are always glad to be of some service to our customers. When consulting us please inform us on the following points.

## In case of magnetic switch

- (1) Type (whether with or without cover)
- (2) Specification of motor
- (3) Voltage of operation circuit
- (4) Frequency
- (5) Whether with or without push-button

## In case of magnetic contactor

- (1) Type (whether with or without cover)
- (2) Load (motor, heater etc.)
- (3) Voltage, current and frequency

(By J. Nakazawa, Merchandise Dep't.)