

NEW / Preliminary Datasheet
RCN Power Relay



RCN

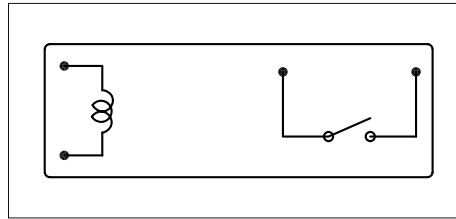
1 Form A, 5 A



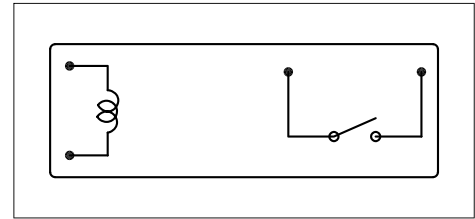
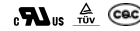
RCN

1 Form A, 8 A

- 1 Form A
- Rated current: 5 to 10 A
- Slim type with 7mm width
- Dielectric strength between coil & contact: 4000 V AC
- Product compliance for IEC60335-1 available
- Meets IEC 60079-15 Anti-explosion Standard



Technical parameters



Technical parameters

Coil data				3/5/6/9/12/18/24 V DC	
Coil input voltage					
Coil power				200 mW	
Response voltage				< 75% (Room temp.)	
Drop out voltage				> 5% (Room temp.)	
Operation time / Release time				Less than 10 ms / Less than 10 ms	
Contact data					
Contact numbers				1 form A	
Contact material				AgSnO ₂ , AgNi	
Min. switching voltage				5 V DC	
Max. switching voltage				30 V DC, 277 V AC	
Max. switching power				1385 VA / 150 W	
Contact ratings				5 A 277 V AC / 30 V DC, TV-3, C300, FLA 2A/LRA 12 A, 1/6HP 240 V AC	
Min. switching current				100 mA 5 V DC	
Contact resistance				Max. 100 mΩ (1 A/6 V DC)	
Mechanical service life				1×10 ⁷ times	
Electrical Service life	AC1			1×10 ⁵ times	
General data					
Rated withstand impulse voltage	Coil / Contact			4000 V AC/1 min	
	Between contacts			750 V AC/1 min	
Surge voltage				10 kV AC (1.2/50 μs)	
Insulation Resistance				1000 mΩ (500 V DC)	
Vibration				Malfuction 10~55 Hz (Amplitude 1.5 mm)	
				Endurance 10~55 Hz (Amplitude 1.5 mm)	
Shock				Malfuction 98 m/s ² , Endurance 980 m/s ²	
				-40~85 °C (No condensation)	
Operating humidity				20~85%	
Dimension L×W×H (mm)				20.4×7.0×15.3	
Enclosure type				Flux-proof, sealed	
Mounting				PCB	
Weight (g)				3.6	
Compliance certification number				CQC/TUV/UL	

Type designation

Model designation	Number of poles	Coil voltage	Coil power	Contact configuration	Contact rating	Contact material	Insulation class	Enclosure type	Special request
RCN	-1	12	L	M	1	3	F	H	-XXX
RCN	1: 1 pole	03: 3 V 05: 5 V 06: 6 V 09: 9 V 12: 12 V 18: 18 V 24: 24 V	L: 200 mW	M: 1 Form A	Blank: 5A 1: 10A 2: 8A	Blank: AgSnO ₂ 3: AgNi+AgSnO ₂	F: class F	Blank: Flux-proof H: Sealed	

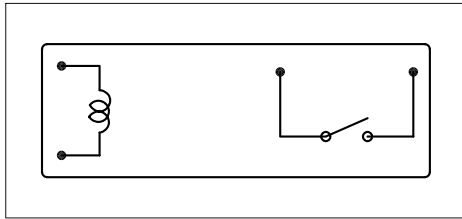


RCN

1 Form A, 10 A

Coil rating					
Rated voltage (VDC)	Rated current (mA)	Coil resistance ($\Omega \pm 10\%$)	Operating power (mW)	Operating voltage (VDC)	Release voltage (VDC)
3	66.67	45	200	≤ 2.25	≥ 0.15
5	40.00	125	200	≤ 3.75	≥ 0.25
6	33.33	180	200	≤ 4.50	≥ 0.30
9	22.22	405	200	≤ 6.75	≥ 0.45
12	16.67	720	200	≤ 9.00	≥ 0.60
18	11.11	1620	200	≤ 13.50	≥ 0.90
24	8.33	2880	200	≤ 18.00	≥ 1.20

MAX. allowable coil voltage: 130% of rated coil voltage (Room temperature)



Technical parameters

3/5/6/9/12/18/24 V DC

200 mW

< 75%

> 5%

Less than 10 ms / Less than 10 ms

1 form A

AgSnO₂, AgNi

5 V DC

30 V DC, 277 V AC

2770 VA / 300 W

10 A 277 V AC / 30 V DC

100 mA 5 V DC

Max. 100 m Ω (1 A/6 V DC)

1 $\times 10^7$ times

3 $\times 10^4$ times

4000 V AC / 1 min

750 V AC / 1 min

10 kV AC (1.2/50 μ s)

1000 m Ω (500 V DC)

Malfunction 10~55 Hz (Amplitude 1.5 mm)

Endurance 10~55 Hz (Amplitude 1.5 mm)

Malfunction 98 m/s², Endurance 980 m/s²

-40~85 °C (No condensation)

20~85%

20.4 \times 7.0 \times 15.3

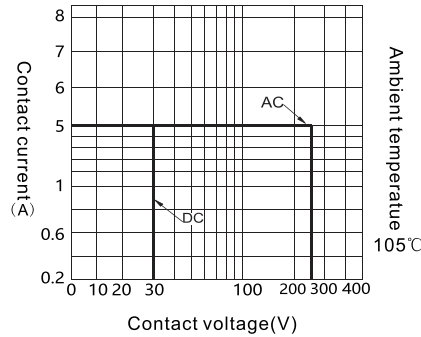
Flux-proof, sealed

PCB

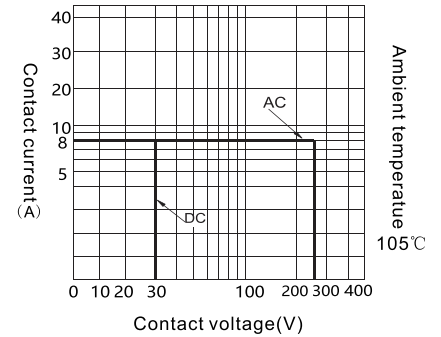
3.6

CQC/TUV/UL

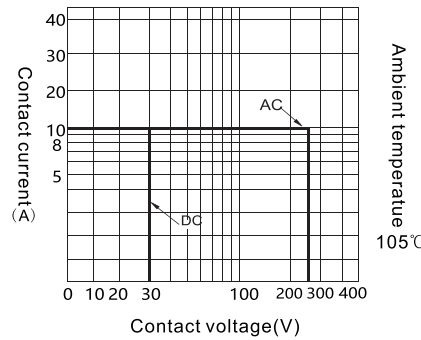
MAX.contact capacity (5A)



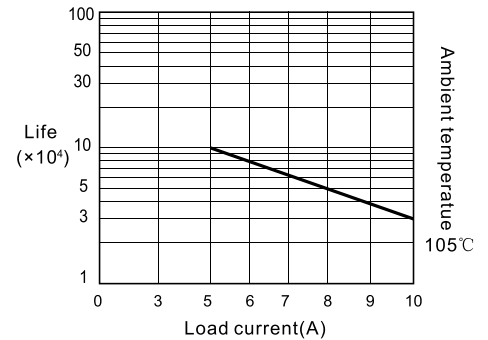
MAX.contact capacity (8A)



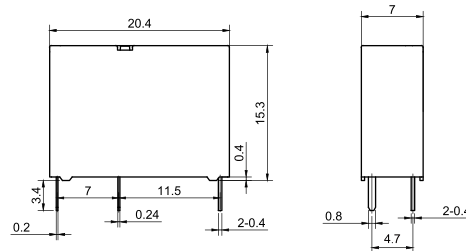
MAX.contact capacity (10A)



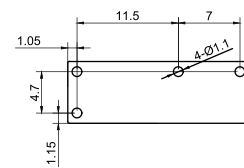
Life curve



Outline dimensions



PCB board layout (Bottom view)



Tolerance

Outline dimension	Tolerance
<1mm	± 0.1 mm
1~3mm	± 0.2 mm
>3mm	± 0.3 mm

PCB board layout	Tolerance
Pitch-row	± 0.1 mm
Aperture	+0.1mm