

NEW / Preliminary Datasheet
RCN Power Relay



RCN

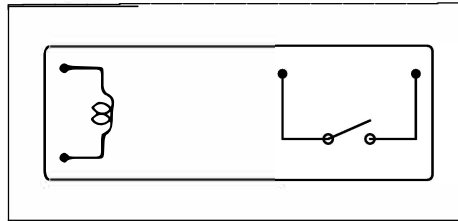
1 Form A, 5 A



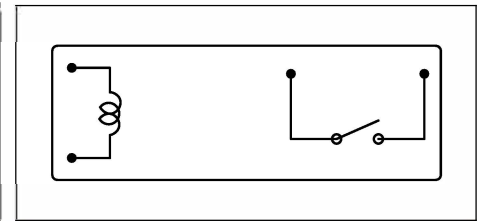
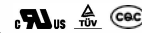
RCN

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

Coil input voltage	3/5/6/9/12/18/24 V DC
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		Malfunction 10~55 Hz (Amplitude 1.5 mm) Endurance 10~55 Hz (Amplitude 1.5 mm)
Shock		Malfunction 98 m/s ² , Endurance 980 m/s ²
Ambient temperature (Operation)		-40~85 °C (No condensation)
Operating humidity		20~85%
Dimension LxWxH (mm)		20.4×7.0×15.3
Enclosure type		Flux-proof, sealed
Mounting		PCB
Weight (g)		3.6
Compliance certification number		CQC/TUV/UL

Coil input voltage	3/5/6/9/12/18/24 V DC
Coil power	200 mW
Response voltage	< 75%
Drop out voltage	> 5%
Operation time / Release time	Less than 10 ms / Less than 10 ms

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	2216 VA / 240 W
Contact ratings	8 A 277 V AC / 30 V DC
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	5×10 ⁴ times

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		Malfunction 10~55 Hz (Amplitude 1.5 mm) Endurance 10~55 Hz (Amplitude 1.5 mm)
Shock		Malfunction 98 m/s ² , Endurance 980 m/s ²
Ambient temperature (Operation)		-40~85 °C (No condensation)
Operating humidity		20~85%
Dimension LxWxH (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	

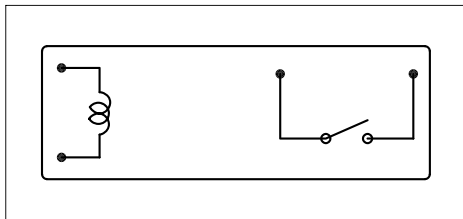
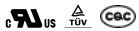


RCN

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

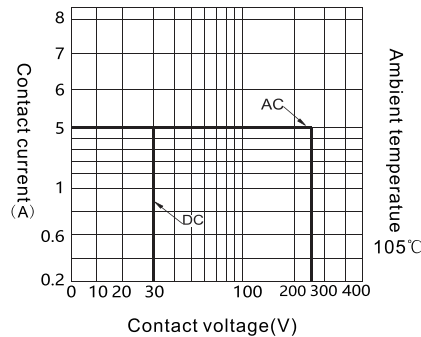
Flux-proof, sealed

PCB

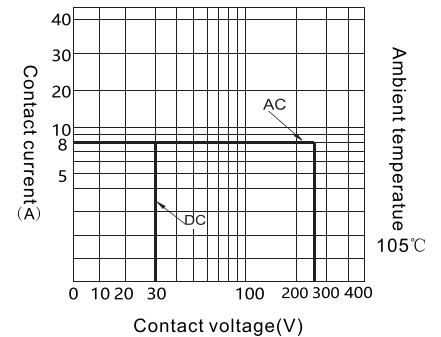
3.6

CQC/TUV/UL

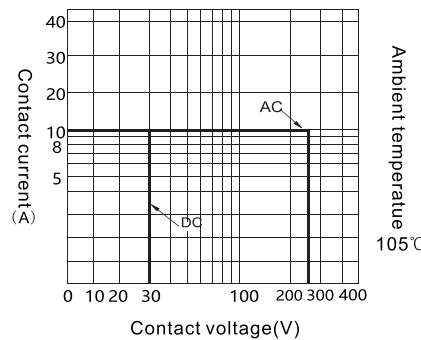
MAX. contact capacity (5A)



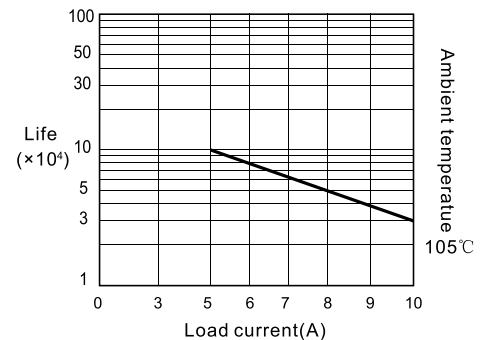
MAX. contact capacity (8A)



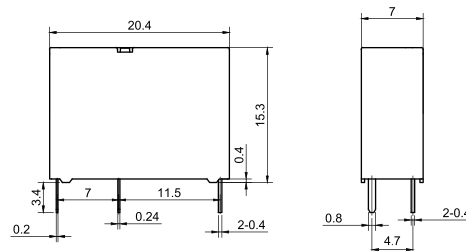
MAX. contact capacity (10A)



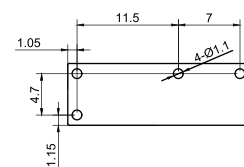
Life curve



Outline dimensions



PCB board layout (Bottom view)



Tolerance

Outline dimension

<1mm ± 0.1 mm

1~3mm ± 0.2 mm

>3mm ± 0.3 mm

PCB board layout

Pitch-row ± 0.1 mm

Aperture +0.1mm