

RD Power Relay

- 1 Form A and 1 Form C
- Rated current: 3 to 15 A
- Compact design
- Control switch has enough insulation distance
- Class F Coil
- Meets IEC 60079-15 Anti-explosion Standard (Pending)
- TV-5 Load is available



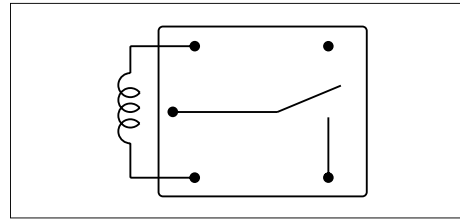
RD

1 Form A, 15 A, 5 pin, TV Load is available



RD

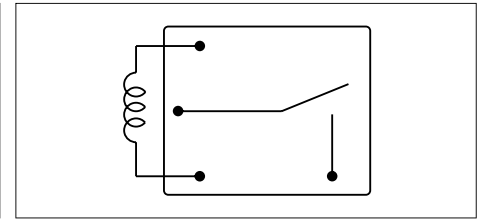
1 Form A, 15 A, 4 pin, TV Load is available



Technical parameters

Coil data		
Coil input voltage		3/5/6/9/12/24/48/60 V DC
Coil power		360 mW
Response voltage		< 75% (Room temp.)
Drop out voltage		> 5% (Room temp.)
Operation time / Release time		Less than 10 ms / less than 5 ms
Contact data		
Contact numbers		1 Form A
Contact material		Ag alloy
Max. switching voltage		30 V DC, 277 V AC
Max. switching power		3,750 VA
Contact ratings		15 A 277 V AC, 10 A 277 V AC, 1/4HP 240 V AC, TV-5 ^① 250 V AC
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	1.5 kV AC / 1 min
	Between contacts	750 V AC / 1 min
Surge voltage		2.5 kV AC (1.2/50 μs)
Insulation Resistance		1,000 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)		-40~105 °C (No condensation)
Operating humidity		20~85%
Dimension L×W×H (mm)		19.0×15.4×15.6
Enclosure type		Flux-proof, sealed
Mounting		PCB
Weight (g)		9
Compliance certification number		cULus:E345228, TUV:R50244311, CQC:CQC12002082387, VDE:40047206

① TV-5 means the inrush current is 111A/20ms at overload test.



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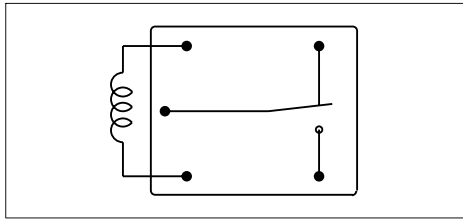
Type designation

Model designation	Number of poles	Coil voltage	Coil power	Contact configuration	Contact material	Insulation class	PCB Terminal structure	Enclosure type	Special request
RD	-1	12	D	M	*	F	-A	-S	XXX
RD	1: 1 pole	03: 3 V 05: 5 V 06: 6 V 09: 9 V 12: 12 V 24: 24 V 48: 48 V 60: 60 V	D: 360 mW	M: 1 Form A Blank: 1 Form C	Blank: AgSnO ₂ Other numbers: other materials	Blank: class A F: class F	Blank: Standard type (5 pins) A: 4pins	Blank: flux-proof S: sealed	Blank: PBT (Only for A type) 335: Stands for product in accordance with IEC 60335-1 (GWT) H: PBT(Special type) 335H: Stands for product in accord to IEC 60335-1 (GWT) H1: PBT, (Only for C type) 335H1: Conform to IEC60335-1(GWT), (Only for C type)



RD

1 Form C, 15 A



Technical parameters

3/5/6/9/12/24/48/60 V DC

360 mW

< 75% (Room temp.)

> 5% (Room temp.)

Less than 10 ms / less than 5 ms

1 Form C

Ag alloy

30 V DC, 277 V AC

N.O. 1,939 VA, N.C. 831 VA

N.O. 15 A 277 V AC, 7 A 277 V AC, TV-5^① 250 V AC, 1/4HP

240 V AC, N.C. 15 A 277 V AC, 3 A 277 V AC

Max. 100 mΩ (1 A/ 6 V DC)

1×10⁷ times

1×10⁵ times

1.5 kV AC / 1 min

750 V AC / 1 min

2.5 kV AC (1.2/50 μs)

1,000 MΩ (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

-40~105 °C (No condensation)

20~85%

19.0×15.4×15.6

Flux-proof, sealed

PCB

9

cULus:E345228, TUV:R50244311, CQC:CQC12002082387,
VDE:40047206

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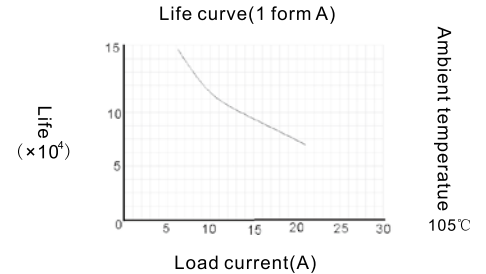
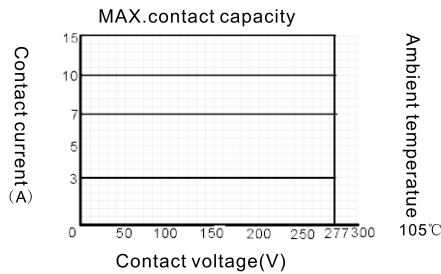
SSA approval rating

cULus				10A(10A)/125VAC	85 °C	6,000ops	
(1formA)	10A/277VAC (Resistive)	105 °C	100,000ops	15A(15A)/125VAC	85 °C	5,000ops	
	10A/125VAC (Resistive)	105 °C	100,000ops	12A(12A)/125VAC	85 °C	6,000ops	
	12A/125/250VAC (Resistive)	105 °C	50,000ops	10A(10A)/125VAC	85 °C	6,000ops	
	15A/125/250VAC (Resistive)	105 °C	50,000ops	CQC			
	TV-5/125/250VAC (TV)	85 °C	25,000ops	(1formA)	10A/277VAC	105 °C	100,000ops
(1formC)	1/4HP/240VAC (HP)	105 °C	30,000ops		10A/250VAC	105 °C	100,000ops
	7A(3A)/277VAC (Resistive)	105 °C	100,000ops	(1formC)	7A(3A)/277VAC	105 °C	100,000ops
	12A/125/250VAC	105 °C	50,000ops		7A(3A)/250VAC	105 °C	100,000ops
	15A/125/250VAC	105 °C	50,000ops	VDE			
	NO:TV-5/125/250VAC (TV)	85 °C	25,000ops	(1formA)	10A/277VAC	105 °C	100,000ops
				(1formA)	12A/277VAC	85 °C	25,000ops
				(1formA)	15A/277VAC	85 °C	25,000ops
TUV				(1formC)a	10A/277VAC	105 °C	100,000ops
(1formA)	10A/277VAC	105 °C	100,000ops	(1formC)a	12A/277VAC	85 °C	25,000ops
	15A/277VAC	85 °C	5,000ops	(1formC)a	15A/277VAC	85 °C	25,000ops
	12A/277VAC	85 °C	5,000ops	(1formC)b	6A/277VAC	85 °C	50,000ops
	15A/12A/250VAC	85 °C	14,000ops	(1formC)	7A/3A/277VAC	85 °C	100,000ops
	15A/12A/10A/125VAC	85 °C	14,000ops	(1formB)	6A/277VAC	85 °C	50,000ops
(1formC)	7A(3A)/277VAC	105 °C	100,000ops	(1formA)	6A/277VAC	105 °C	100,000ops
	15A(15A)/277VAC	85 °C	50,000ops	a: Only NO circuit being tested. b: Only NC circuit being tested.			
	12A(12A)/277VAC	85 °C	6,000ops				

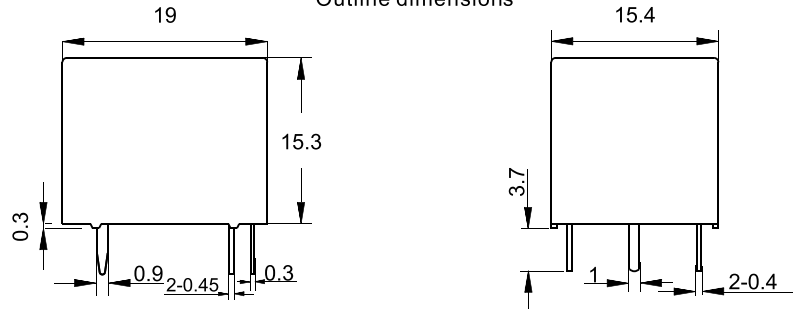
Coil rating

Rated voltage (VDC)	Rated current (mA)	Coil resistance (Ω±10%)	Operating power (mW)	Operating voltage (VDC)	Release voltage (VDC)
3	120	25	360	≤2.25	≥0.15
5	72	69.4	360	≤3.75	≥0.25
6	60	100	360	≤4.50	≥0.30
9	40	225	360	≤6.75	≥0.45
12	30	400	360	≤9.00	≥0.60
24	15	1,600	360	≤18.00	≥1.20
48	7.5	6400	360	≤36.00	≥2.40
60	6.0	10000	360	≤45.00	≥3.00

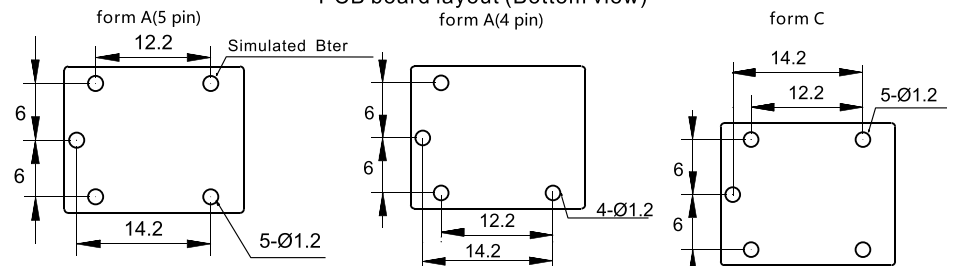
MAX. allowable coil voltage: 130% of rated coil voltage (Room temperature)



Outline dimensions



PCB board layout (Bottom view)



Tolerance	
Outline dimension	
<1mm	±0.2mm
1~5mm	±0.3mm
>5mm	±0.4mm
PCB board layout	
Pitch-row	±0.1mm
Aperture	+0.1mm