

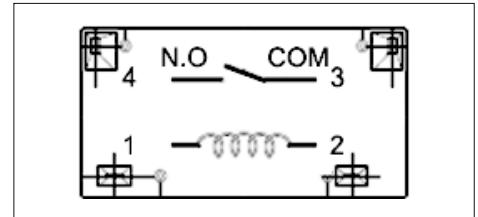
## RFL Power Relay

- 1 Form A
- Rated current: 20 to 25 A
- High capacity, high endurance
- Control switch has enough insulation distance
- Class F Coil
- Flux-proof type



RFL

1 Form A, 20 A



### Technical parameters

Coil data		
Coil input voltage		5/9/12/24 V DC
Coil power		900 mW
Response voltage		< 75% (Room temp.)
Drop out voltage		> 5% (Room temp.)
Operation time / Release time		Less than 20 ms / less than 10 ms
Contact data		
Contact numbers		1 Form A
Contact material		Ag alloy
Max. switching voltage		277 V AC
Max. switching power		8,000 VA
Contact ratings		20 A 250 V AC, 2HP 240 V AC, 20 A 277 V AC, 1-1/2HP 240 V AC
Contact resistance		Max. 100 mΩ (1 A / 6 V DC)
Mechanical service life		1×10 <sup>6</sup> times
Electrical Service life	AC1	1×10 <sup>5</sup> times
General data		
Rated withstand impulse voltage	Coil / Contact Between contacts	4.5 kV AC / 1 min 1 kV AC / 1 min
Surge voltage		10 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 <sup>2</sup> , Endurance 980 m/s <sup>2</sup>
Ambient temperature (Operation)		-40~105 °C (No condensation)
Operating humidity		20~85%
Dimension L×W×H (mm)		30.1×15.7×32.8
Enclosure type		Flux-proof, sealed
Mounting		PCB & faston terminal
Weight (g)		30
Compliance certification number		cULus:E345228, TUV:R50194013

### Type designation

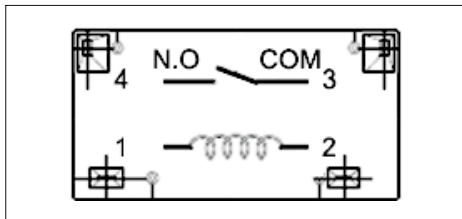
Model designation	Enclosure type	Number of poles	Coil voltage	Coil power	Contact configuration	Terminal	Contact material	Insulation class	Contact dimension	Special request
RFL	-SS	-1	12	D	M	F	*	-F	-1	-XXX
RFL	SS: Flux-proof	1: 1 pole	05: 5 V 09: 9 V 12: 12 V 24: 24 V	D: 900 mW	M: 1 Form A	Blank: Without Faston terminal F: With Faston terminal	Blank: AgSnO <sub>2</sub> Other numbers: other materials	Blank: class A F: class F	1: A type white 2: A type black 3: A type yellow 4: A type blue Blank: B type black	335: Stands for product in accordance with IEC 60335-1 (GWT)



RFL

1 Form A, 25 A

SSA approval rating						
cULus			TUV			
20A/250VAC (Resistive)	65 °C	100,000ops	20A/250VAC	85 °C	100,000ops	
2HP/240VAC (HP)	65 °C	100,000ops	25A/250VAC	85 °C	100,000ops	
20A/25A/250VAC (Resistive)	85 °C	100,000ops	32A/250VAC	85 °C	100,000ops	
20A/25A/277VAC (Resistive)	85 °C	100,000ops	VDE			
20A/25A/250VAC (Resistive)	105 °C	100,000ops	25A/250VAC	65 °C	100,000ops	
20A/25A/277VAC (Resistive)	105 °C	100,000ops				
1-1/2HP/277VAC (HP)	105 °C	100,000ops				



Technical parameters

5/9/12/24 V DC  
 900 mW  
 < 75% (Room temp.)  
 > 5% (Room temp.)  
 Less than 20 ms / less than 10 ms

1 Form A  
 Ag alloy  
 277 V AC  
 8,000 VA  
 25 A 250 V AC, 25 A 277 V AC, 2HP 240 V AC

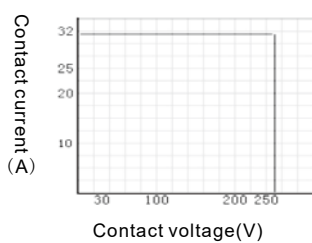
Max. 100 mΩ (1 A / 6 V DC)  
 1×10<sup>6</sup> times  
 1×10<sup>5</sup> times

4.5 kV AC / 1 min  
 1 kV AC / 1 min  
 10 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/s<sup>2</sup>, Endurance 980 m/s<sup>2</sup>  
 -40~105 °C (No condensation)  
 20~85%  
 30.1×15.7×32.8  
 Flux-proof, sealed  
 PCB & faston terminal  
 30  
 cULus:E345228, TUV:R50194013, VDE:40032929

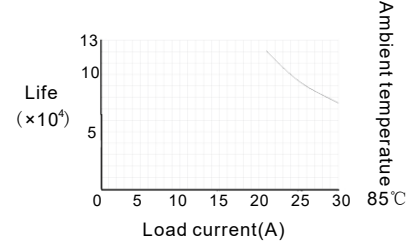
Coil rating					
Rated voltage (VDC)	Rated current (mA)	Coil resistance (Ω±10%)	Operating power (mW)	Operating voltage (VDC)	Release voltage (VDC)
5	179	28	900	≤3.75	≥0.25
9	100	90	900	≤6.75	≥0.45
12	75	160	900	≤9.00	≥0.60
24	37.5	640	900	≤18.00	≥1.80

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

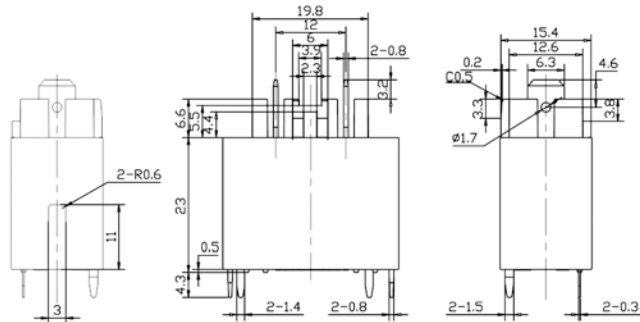
MAX.contact capacity



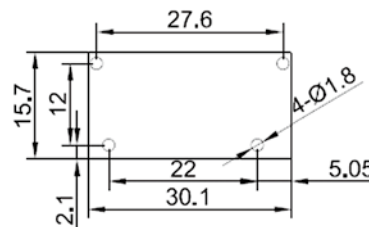
Life curve(25A)



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