



## INDUSTRIAL RELAYS

UL & CUL File #E256619

### FEATURES

- Small size (20.5 x 7 x 15.1mm) for high density PCB mounting.
- 5A contact switching capability.
- High breakdown voltage: 4000V (between coil and contact).

### TYPICAL APPLICATIONS

Telecommunication Equipment, Safety Equipment, Office Equipment, Home Appliances, Air Conditioner and Microwave Oven.

### ORDERING INFORMATION

**RF** **-S** **-1** **12** **D** **M** **1** **-F** **-XX**  
(1) (2) (3) (4) (5) (6) (7) (8) (9)

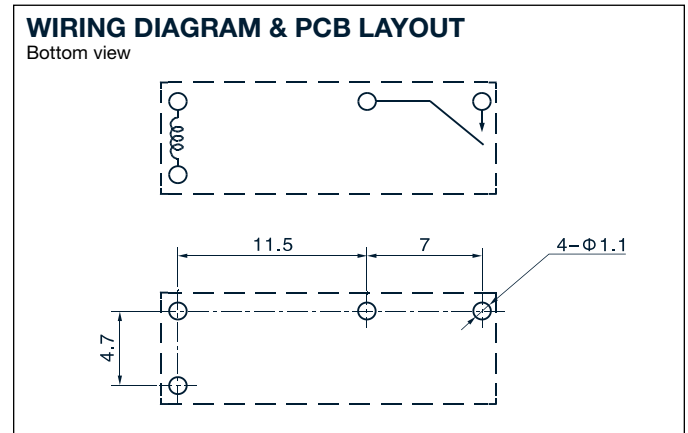
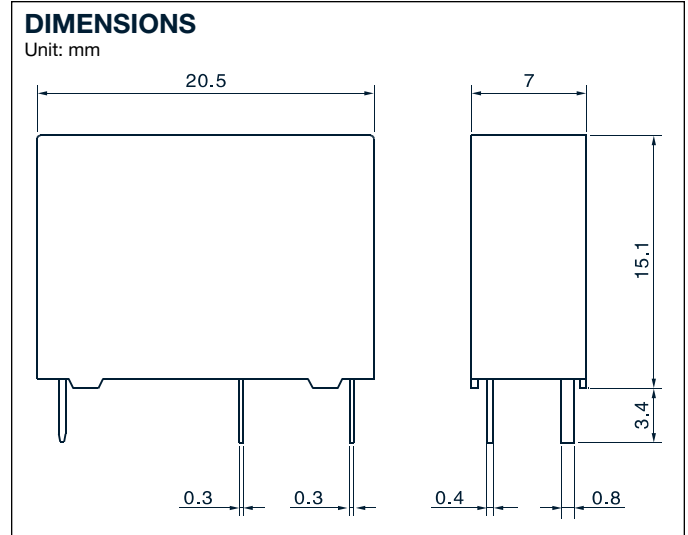
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|--|---|
| <p>(1) <b>Type Designation</b><br/>RF = RF Series</p> <p>(2) <b>Protective Construction</b><br/>S = Flux proofed<br/>SH = Sealed type washable</p> <p>(3) <b>Number of Poles</b><br/>1 = 1 pole</p> <p>(4) <b>Coil Voltage (VDC)</b><br/>05, 06, 09, 12, 18, 24</p> <p>(5) <b>Coil Power</b><br/>D = 0.20W<br/>H = 0.36W</p> | <p>(6) <b>Contact Form</b><br/>M = Form A</p> <p>(7) <b>Contact Material</b><br/>Nil = AgSnO<sub>2</sub><br/>1 = AgCdO</p> <p>(8) <b>Insulation System</b><br/>Nil = Standard<br/>B = Class B <sup>(1)</sup><br/>F = Class F <sup>(2)</sup></p> <p>(9) <b>Special Parameter</b><br/>Nil = Standard type, 10-3A product<br/>Letter or Number = Special Requirement</p> |
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**Note 1:** Heat resistivity = -40°C to +130°C.

**Note 2:** Heat resistivity = -40°C to +155°C.

### SAFETY APPROVAL RATINGS

UL/CUL
EE256619
5A 277VAC, Resistive
3A 277VAC, Resistive
3A 30VDC, Resistive
5A 250VAC, Resistive
3A 250VAC, Resistive
5A 250VAC, General Use
3A 250VAC, General Use
1/8 HP 240VAC



Unless otherwise specified:

If dimension < 1mm, tolerance: ± 0.2mm;

If dimension 1~5mm, tolerance: ± 0.3mm;

If dimension > 5mm, tolerance: ± 0.4mm.

Note: 1. Extended terminal dimension is dimension before soldering.

2. Tolerance of P.C.B. layout: ± 0.1mm.





**CHARACTERISTIC DATA**

<b>Contact Material</b>	Silver Alloy	
<b>Initial contact resistance (@ 6VDC 1A)</b>	50mΩ Max.	
<b>Operate time (@ nominal voltage)</b>	20msec. Max.	
<b>Release Time (@ nominal voltage)</b>	10msec. Max.	
<b>Initial insulation resistance</b>	1000M Ω Min. (DC500V)	
<b>Initial dielectric strength</b>	Between open contacts: AC750V, 50/60Hz 1 Min.	
	Between coil and contact: AC4000V, 50/60Hz 1Min.	
<b>Vibration Resistance</b>	<b>Functional</b>	10 ~ 55Hz @ double amplitude of 1.5mm
	<b>Destructive</b>	10 ~ 55Hz @ double amplitude of 1.5mm
<b>Shock Resistance</b>	<b>Functional</b>	10G Min.
	<b>Destructive</b>	100G Min.
<b>Endurance (operations)</b>	<b>Mechanical (@10,800 ops./h)</b>	10,000,000
	<b>Electrical (@1,800 ops./h)</b>	3A 277VAC: 100,000 5A 277VAC: 50,000
<b>Ambient Temperature</b>	-40°C to +105°C (no condensation)	
<b>Unit Weight</b>	Approximately 3.9g	

**CONTACT CAPACITY**

Model	Nominal Switching Capacity (res. load)	Max. Switching Current	Max. Switching Voltage	Max. Switching Power
RF	5A 277VAC 3A 277VAC	5A	277VAC	1385VA

**COIL DATA (AT 20°C)**

Nominal Voltage (VDC)	Nominal Current (mA)	Coil Resistance ± 10% (Ω)	Max. Allowable Voltage	Pick-up Voltage (Max.)	Drop-Out Voltage (VDC)	Nominal Operating Power
5	40.00	125	110% of Nominal Voltage	75% of Nominal Voltage	5% of Nominal Voltage	Approx. 0.20W
6	33.33	180				
9	22.22	405				
12	16.67	720				
18	11.11	1620				
24	8.57	2800				

**COIL DATA (AT 20°C)**

Nominal Voltage (VDC)	Nominal Current (mA)	Coil Resistance ± 10% (Ω)	Max. Allowable Voltage	Pick-up Voltage (Max.)	Drop-Out Voltage (VDC)	Nominal Operating Power
5	72.00	69	110% of Nominal Voltage	75% of Nominal Voltage	5% of Nominal Voltage	Approx. 0.36W
6	60.00	100				
9	40.00	225				
12	30.00	400				
18	20.00	900				
24	15.00	1600				

**DATE CODE DEFINITION**

R X X X

- LOT NUMBER: Starts from A.
- Year: 0-9 indicates year 2010 to 2019.
- Month: 1 through 9 represents the first to the ninth month.
- RoHS

**CHARACTERISTIC CURVES**

