

Distributor: Electro-Stock [www.electrostock.com](http://www.electrostock.com) Tel: 630-682-1542 Fax: 630-682-1562

**FEATURES:**

- UL F class rated standard
- Small size and light weight
- PC board mounting
- UL/CUL certified

 **E197851**



22.3 x 17.3 x 14.5 mm

## CONTACT DATA

Contact Arrangement	1A = SPST N.O. 1B = SPST N.C. 1C = SPDT
Contact Rating	6A @ 300VAC & 28VDC 10A @ 125/240VAC & 28VDC 12A @ 125VAC & 28VDC, 1/3hp - 120/240 VAC
Contact Resistance	< 50 milliohms initial
Contact Material	AgCdO, AgSnO <sub>2</sub>
Maximum Switching Power	336W
Maximum Switching Voltage	380VAC, 110VDC
Maximum Switching Current	20A

## COIL DATA

Coil Voltage VDC		Coil Resistance $\Omega \pm 10\%$				Pick Up Voltage VDC (max)	Release Voltage VDC (min)	Coil Power W	Operate Time ms	Release Time ms
Rated	Max.	.36W	.45W	.50W	.80W	75% of rated voltage	10% of rated voltage			
3	3.9	25	20	18	11	2.25	0.3	.36 .45 .50 .80	7	4
5	6.5	70	56	50	31	3.75	0.5			
6	7.8	100	80	72	45	4.50	0.6			
9	11.7	225	180	162	101	6.75	0.9			
12	15.6	400	320	288	180	9.00	1.2			
18	23.4	900	720	648	405	13.5	1.8			
24	31.2	1600	1280	1152	720	18.00	2.4			
48	62.4	6400	5120	4608	2880	36.00	4.8			

**CAUTION:**

1. The use of any coil voltage less than the rated coil voltage may compromise the operation of the relay.
2. Pickup and release voltages are for test purposes only and are not to be used as design criteria.

## GENERAL DATA

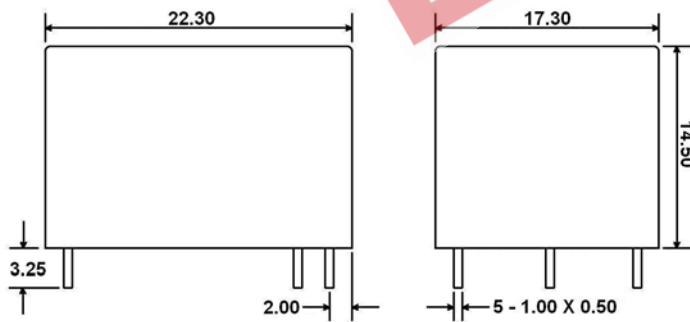
Electrical Life @ rated load	100K cycles, typical
Mechanical Life	10M cycles, typical
Insulation Resistance	100M $\Omega$ min @ 500VDC
Dielectric Strength, Coil to Contact	2500V rms min. @ sea level
Contact to Contact	1000V rms min. @ sea level
Shock Resistance	100m/s <sup>2</sup> for 11ms
Vibration Resistance	1.50mm double amplitude 10-40Hz
Terminal (Copper Alloy) Strength	10N
Operating Temperature	-55 °C to + 125 °C
Storage Temperature	-55 °C to + 155 °C
Solderability	230 °C $\pm$ 2 °C for 10 $\pm$ 0.5s
Weight	11g

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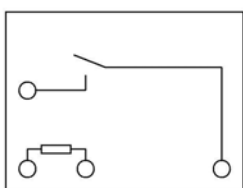
## ORDERING INFORMATION

<b>1. Series:</b>	WJ109F	1C	S	6	24VDC	.45
WJ109F						
<b>2. Contact Arrangement:</b>						
1A = SPST N.O.						
1B = SPST N.C.						
1C = SPDT						
<b>3. Sealing Options:</b>						
S = Sealed						
<b>4. Contact Rating:</b>						
6 = 6A						
10 = 10A						
12 = 12A						
<b>5. Coil Voltage:</b>						
3VDC						
5VDC						
6VDC						
9VDC						
12VDC						
18VDC						
24VDC						
48VDC						
<b>6. Coil Power:</b>						
.36 = .36W						
.45 = .45W						
.50 = .50W						
.80 = .80W						
<b>7. Contact Material:</b>						
Blank = AgCdO						
Z = AgSnO <sub>2</sub>						

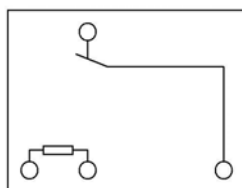
## DIMENSIONS (Units = mm)



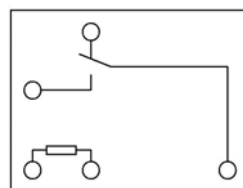
## SCHEMATICS & PC LAYOUTS (BOTTOM VIEWS)



1A



1B



1C

