



Powering Innovation



PROTECTION + AUTOMATION + CONTROL

# UNDER AND OVER VOLTAGE RELAYS

## JRV 922 & 942

**JVS ELECTRONICS PVT. LTD.**

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## FEATURES

- ◆ Software based design
- ◆ Instantaneous/Definite time selection
- ◆ Wide Auxiliary supply range
- ◆ Wide Voltage setting range
- ◆ Low burden

## APPLICATION

The relay provides under and over voltage protection of Motors, Generators, Capacitor Banks, DC systems etc.



## PRINCIPLE OF OPERATION

Relay is used for Under voltage / Overvoltage protection of Motor, Generator, Feeder, Capacitor Banks and DC systems. Relay measures the voltage from input PT and if it exceeds the set threshold, it extends a trip signal after the operating time which is determined by set definite time. Relay output contacts are self reset type. TEST button facilitates testing of relay contacts for trip and alarm circuits.

## TECHNICAL DATA

### SETTINGS

Sl No.	Relay Type	Protection	Setting Range
1	JRV 922	AC Under Voltage	35 to 100% in steps of 5%
2	JRV 922	DC Under Voltage	35 to 100% in steps of 5%
3	JRV 942	AC Over Voltage	100 to 170% in steps of 5%
4	JRV 942	DC Over Voltage	100 to 170% in steps of 5%
Instantaneous Time		:	Less than 40ms
Definite time		:	0.1 to 25s in steps of 0.1s

### OVER LOAD RATINGS

Voltage input : 2 times Rated continuous

### BURDEN

Voltage input : Less than 2VA at Rated  
 Auxiliary supply : Less than 3W (Non Operated)  
 Less than 5W (Operated)

### ACCURACY

Operating value :  $\pm 5\%$   
 Operating time :  $\pm 5\%$  or  $\pm 20\text{ms}$

### CONTACT RATINGS

Contacts 1 & 2 : 5A at 24V DC / 230V AC

### CONTACTS DURABILITY

Unloaded contact : 1,00,000 Operations

Loaded contact : 10,000 Operations

### MECHANICAL DESIGN

Weight : Approx. 500 gms

Case size : 96 mm sq, depth 105mm

Installation : Flush mounting

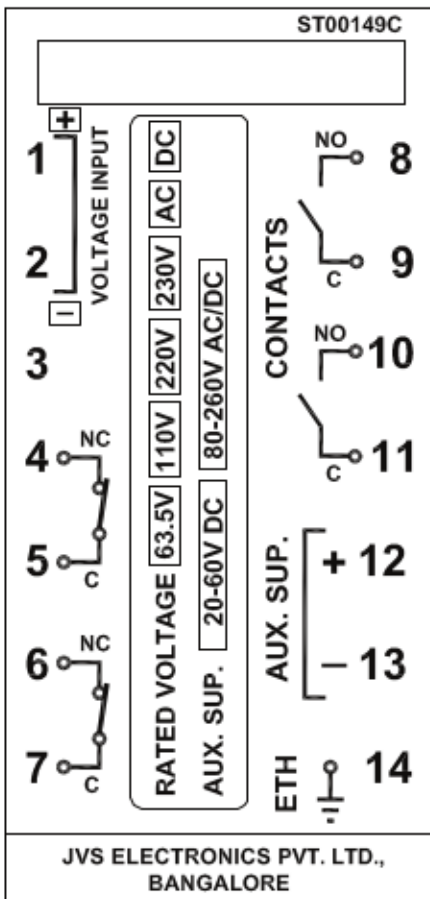
Panel cutout : 92x92 mm

### STANDARD COMPLIANCE

Accuracy Test : IEC 60255-127

Insulation Test : IEC 60255-27

### TERMINAL DIAGRAM



Sl No.	Relay Type	Protection	Rated Voltage	Aux Supply
1	JRV922-1	AC Under Voltage	110V AC	20-60 V DC, 110 V AC
2	JRV922-2	AC Under Voltage	110V AC	110 V DC, V-110V AC
3	JRV922-3	AC Under Voltage	110V AC	220 V DC
4	JRV922-4	DC Under Voltage	110V DC	80-260V AC/DC
5	JRV922-5	AC Under Voltage	220 / 230 / 240V AC	80-260V AC/DC
6	JRV922-6	AC Under Voltage	220 / 230 / 240V AC	20-60 V DC
7	JRV922-7	DC Under Voltage	110V DC	20-60 V DC
8	JRV922-8	DC Under Voltage	220 / 230 / 240V DC	20-60 V DC
9	JRV922-9	DC Under Voltage	220 / 230 / 240V DC	80-260V AC/DC
10	JRV922-10	DC Under Voltage	220V DC	80-260V AC/DC
11	JRV922-11	AC Under Voltage	110V AC	80-260V AC/DC
12	JRV922-A--12	AC Under Voltage (2No+2NC)	110V AC	20-60V DC
13	JRV922-A--13	AC Under Voltage (2No+2NC)	110V AC	80-260V AC/DC
14	JRV922-A--14	AC Under Voltage (2No+2NC)	230V AC	20-60V DC
15	JRV922-A--15	AC Under Voltage (2No+2NC)	230V AC	80-260V AC/DC
16	JRV922-D--16	DC Under Voltage (2No+2NC)	110V DC	20-60V DC
17	JRV922-D--17	DC Under Voltage (2No+2NC)	110V DC	80-260V AC/DC
18	JRV922-D--18	DC Under Voltage (2No+2NC)	220V DC	20-60V DC
19	JRV922-D--19	DC Under Voltage (2No+2NC)	220V DC	80-260V AC/DC
20	JRV942-1	AC Over Voltage	110V AC	20-60 V DC
21	JRV942-2	AC Over Voltage	110V AC	80-260V AC/DC
22	JRV942-3	DC Over Voltage	110V DC	80-260V AC/DC
23	JRV942-4	DC Over Voltage	230V DC	80-260V AC/DC
24	JRV942-A--5	AC Over Voltage (2No+2NC)	110V AC	22-60VDC
25	JRV942-A--6	AC Over Voltage (2No+2NC)	110V AC	80-260V AC/DC
26	JRV942-A--7	AC Over Voltage (2No+2NC)	230V AC	20-60V DC
27	JRV942-A--8	AC Over Voltage (2No+2NC)	230V AC	80-260V AC/DC
28	JRV942-D--9	DC Over Voltage (2No+2NC)	110V DC	20-60VDC
29	JRV942-D--10	DC Over Voltage (2No+2NC)	110V DC	80-260V AC/DC
30	JRV942-D--11	DC Over Voltage (2No+2NC)	220V DC	20-60V DC
31	JRV942-D--12	DC Over Voltage (2No+2NC)	220V DC	80-260V AC/DC