



Powering Innovation



PROTECTION + AUTOMATION + CONTROL

**FOUR POLE, NON-DIRECTIONAL, IDMT  
3 O/C + 1 E/F RELAY  
JRC 054**

**JVS ELECTRONICS PVT. LTD.**

#121, Manchanayakanahalli,  
Bangalore Mysore Highway, Bidadi,  
Ramanagara District - 562 109, Karnataka, India  
+91 94808 26272, +91 94808 26260  
bangalore@jvselectronics.in, www.jvselectronics.in

## FEATURES

- ◆ Software based design
- ◆ Programmable time current characteristics
- ◆ Choice of four IDMT curves
- ◆ Draw out case
- ◆ Wide range auxiliary supply
- ◆ Low burden



## DESIGN AND OPERATION

The relay measures the line current from each of the phases and if exceeds the set operating current, then relay extends a trip signal after the operating time. The relays operating time is determined by selecting one of the four inverse time current characteristics. The relay has facility to active / inhibit the high set protection feature. The relay output contacts are self reset type. Relay operation without any fault current is determined by trip test facility.

## TECHNICAL DATA

### RATINGS

Current rating	:	1A / 5A
Auxiliary Supply	:	1) 20-60V DC
	:	2) 75 – 150V AC / DC
	:	3) 175 – 300V DC
	:	185 – 250V AC

### SETTINGS

Operating characteristics	:	1) 3.0s Normal Inverse
	:	2) 1.3s Normal Inverse
	:	3) 1.5s Very Inverse
	:	4) 0.8s Extremely Inverse
	:	5) 0.6s Extermely Inverse (Optional)
Phase Overcurrent	:	50% to 200% in steps of 10% or
	:	20% to 140% in steps of 10%
Earth fault	:	5 to 80% in steps of 5%
TMS	:	0.1 to 1.0 in steps of 0.01(Seperate for O/C & E/F)

### OVER LOAD RATINGS

Current input	:	2 times rated continuous
	:	20 times Rated for 3s
	:	40 times of rated for 1s

### BURDEN

Current input	:	0.2VA at rated 5A
	:	0.05VA at rated 1A
Auxiliary supply	:	Less than 8W(Non operated)
	:	Less than 10W(Operated)

### ACCURACY

Operating value	:	105% to 120% of setting value
Drop-off / pick-up	:	Between 80% to 95%
Operating time	:	+/-5% or +/- 30ms whichever is higher
Reset Time	:	160ms to 180ms

### CONTACT RATINGS

Trip / Alarm	:	10A at 24V DC/230V AC
--------------	---	-----------------------

### CONTACTS DURABILITY

Unloaded contact	:	10,000 Operations
Loaded contact	:	20,000 Operations

### INSULATION

1. 2KV RMS, 50 Hz for 1 minute/ 2.5KV FOR 1 sec. Between all terminals and cases
2. 1KV RMS, 50 Hz for 1 minute across open terminals

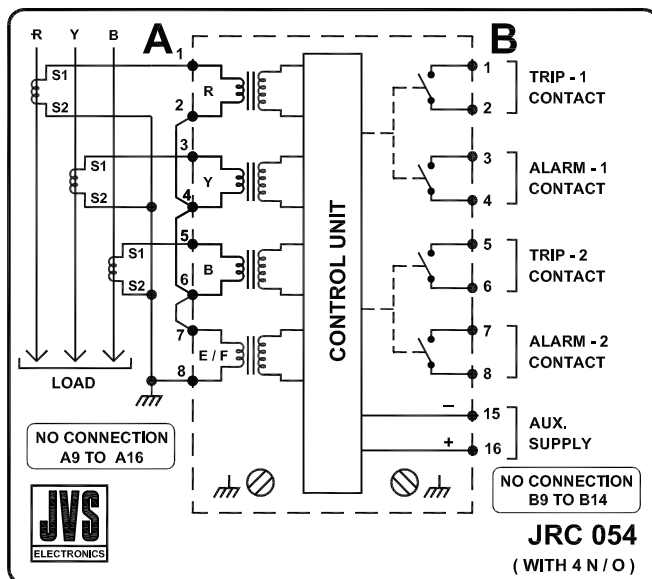
### STANDARD COMPLIANCE

Accuracy test	:	IEC 60255-151
Insulation test	:	IEC 60255-27

### MECHANICAL DESIGN

Weight	:	Approx. 2500 gms
Case size	:	144 sq mm with depth of 232 mm
Installation	:	Flush mounting
Panel cutout	:	138 X 138 mm

## TERMINAL DIAGRAM



## ORDERING INFORMATION

Relay Type	:	JRC 054
Current rating	:	Low set (IDMT) 3 O/C + 1 E/F
Aux Supply	:	1) 20-60V DC
	:	2) 75 – 150V AC / DC
	:	3) 175 – 300V DC
	:	185 – 250V AC