



Powering Innovation



PROTECTION + AUTOMATION + CONTROL

**FOUR POLE, NON-DIRECTIONAL, IDMT 3 O/C + 1 E/F RELAY WITH  
INST. HIGHSET FOR BOTH O/C AND E/F ELEMENTS  
JRC 068**

**JVS ELECTRONICS PVT. LTD.**

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## FEATURES

- ◆ Software based design
- ◆ Programmable time current characteristics
- ◆ Choice of four IDMT curves
- ◆ Draw out case

## APPLICATIONS

The relay provides time graded phase and earth fault protection of Generators, Transformers, feeder, capacitors etc.,



## PRINCIPAL OPERATION

The relay measures the line current from each of the phases and if exceeds the set threshold, 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 / hand 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
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)
Phase Hi-set	:	200% to 3200% in steps of 200%
Earth fault Hi-set	:	50% to 800% in steps of 50%

### OVER LOAD RATINGS

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

### BURDEN

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

### ACCURACY

Operating value	:	105% to 120% of setting
Drop-off / pick-up	:	Between 80% to 95%
Operating time	:	+/-5% or +/- 30ms whichever is higher
High set operating value	:	+/-5% or +/- 30ms whichever is higher
High set operating time	:	Less than 30ms @ 2 times current setting
Reset Time	:	160ms to 180ms

### CONTACT RATINGS

Trip / Alarm	:	10A at 24V DC/230V AC
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### CONTACTS DURABILITY

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

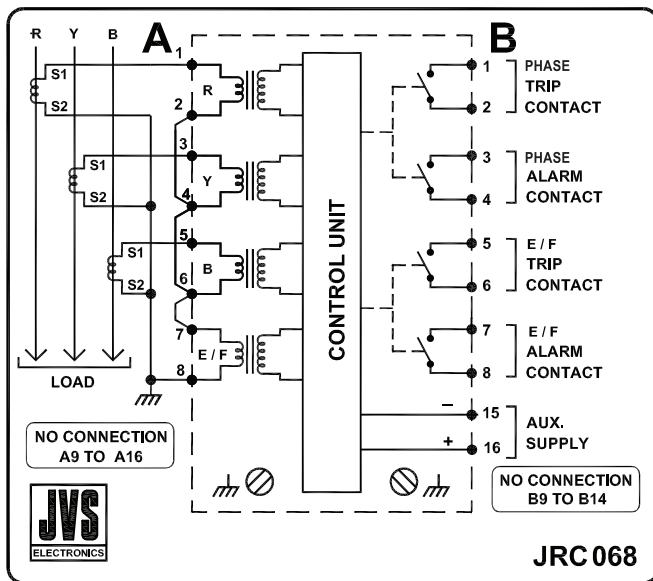
### MECHANICAL DESIGN

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

### STANDARD COMPLIANCE

Accuracy test	:	IEC 60255-3
Insulation test	:	IEC 60255-5

## TERMINAL DIAGRAM



## ORDERING INFORMATION

Relay Type	:	JRC 068
Current rating	:	1A or 5A
Aux Supply	:	1) 20-60V DC
	:	2) 75 – 150V AC / DC
	:	3) 175 – 300V DC / 185 – 250V AC