



Powering Innovation



PROTECTION + AUTOMATION + CONTROL

**THREE POLE, NON-DIRECTIONAL
3 O/C OR 2 O/C + 1 E/F RELAY
JRC 053P/JRC 053**

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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 IA
Aux. Supply	:	Less than 3W (Non operated)
	:	Less than 5W (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
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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

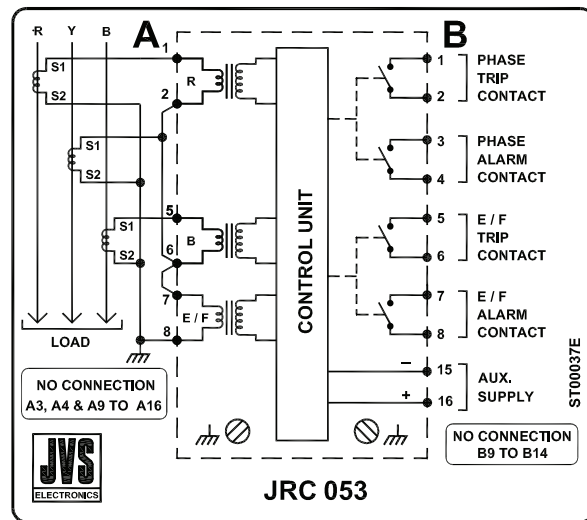
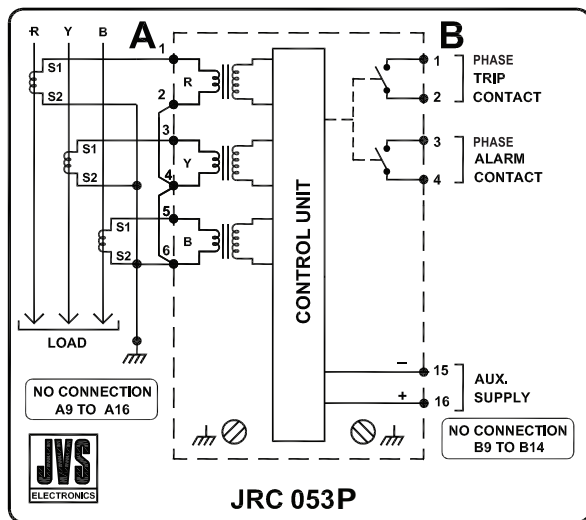
STANDARD COMPLIANCE

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

Current rating	: 1A / 5A
Relay Type	: JRC 053P for Over Current Protection JRC 053 for Over Current and Earth Fault Protection
Aux. Supply	: 20 to 60V DC 75 to 175V AC/DC 175 to 300V DC 185 to 250V AC