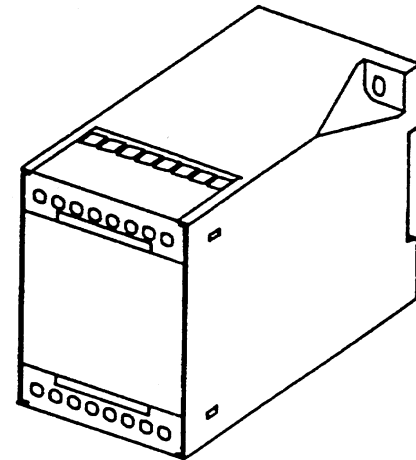


KRM72

Phase Failure/Sequence Relay

Detection of:

Incorrect Phase Sequence
Phase failure
Phase unbalance



FEATURES

The KRM72 Phase Failure Relay detects incorrect phase sequence, phase failure and phase unbalance in three phase systems. The unit is provided with a sensitivity adjustment which can be set to a maximum of 50% of phase/phase voltage and a minimum setting which is limited only by the need to avoid false operation caused by the normal variations in balance between phases.

This electronic relay comprises a three-phase RC bridge network which detects the phase sequence, and the voltage balance of a three-phase system. In the healthy condition the output relay and a green LED indicator are energised. Any out of balance signal from the bridge is rectified and compared with a preset DC level. If this level is exceeded the LED is de-energised and after a delay of approximately two seconds the relay is de-energised.

KRM72 is normally supplied set for 50 or 60Hz. A dual frequency version is available with an inherent loss of sensitivity.

The unit is suitable for panel or DIN rail mounting. It dissipates approximately 6 watts and therefore, should be mounted with a clear space of not less than 1cm all round the unit.

A three-phase AC motor (particularly a large one) running on single phase due to the loss of one fuse will act as a rotating transformer and generate the missing phase. The KRM72 relay may be used to detect this within the limitation stated above.

SENSITIVITY ADJUSTMENT

Both the bridge output and the trip setting may be monitored by means of a high impedance Digital Voltmeter on terminal 4 and 5 respectively relative to terminal 10.

The measuring bridge is sensitive to frequency change and therefore, any variation from the nominal frequency will result in an increase in the out of balance signal, as will any significant harmonic content.

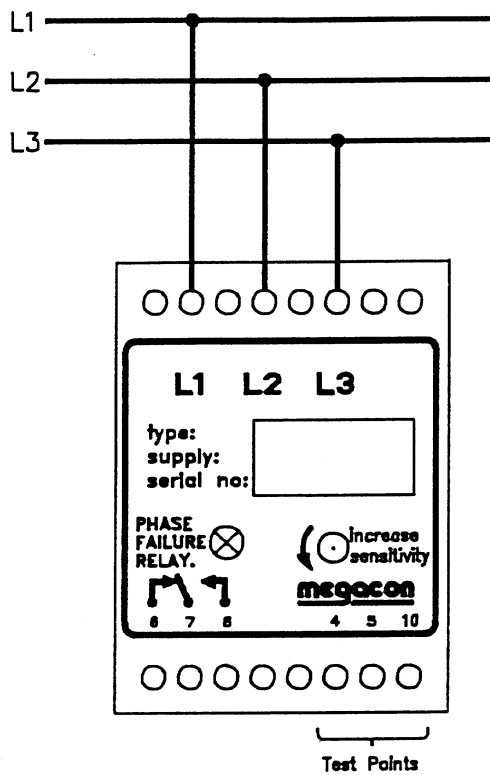
As standard the trip relay level is set to 3V DC and under typical conditions the bridge output signal is expected to be approximately 0.5V DC.

Any lower setting of trip level will be a compromise between an increase in sensitivity and the need to avoid false operation due to normal variations in frequency, phase balance and harmonic content.

SPECIFICATION

System voltage	: KRM72 - 110,220/240,380/440V	Output relays	: Potential free C/O contacts
	: KRM725 - 500V		: AC: 1800VA 440V max.
System frequency	: 50, 60 or 50/60Hz		: DC: 50W Resistive 200V max.
Trip level	: 5-50% adjustable	Dimensions	: See Diagram A, Section 8
Delay on trip	: Approximately two seconds	Weight	: 0.4Kg

<u>Ordering information</u>	:	System voltage	:
		Frequency	:



1. Relay shown de-energised
2. Relay normally energised for correct phase sequence and voltage balance.

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