

APPLICATION

To monitor a 3 phase supply and provide protection against incorrect phase sequence or loss of one or more phases.

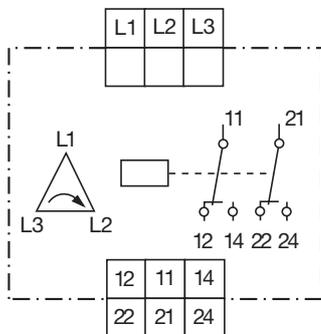
DESCRIPTION

A DIN rail electronic measuring relay to monitor the phase voltages in a 3 phase system and initiate contacts in the event of incorrect phase sequence or loss of phase. No auxiliary supply is required.

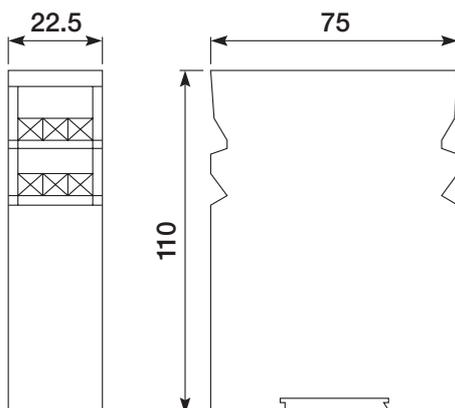


Model M169

CONNECTION DETAILS



DIMENSIONS



PRINCIPLE OF OPERATION

The three phases are connected to terminals L1, L2 and L3. When the contacts are in position 11-14/21-24 the circuit is healthy. When the contacts are in position 11-12/21-22 the circuit is unhealthy.

Phase Failure/Sequence Detection		
Model	Article No.	Description
M169 x 01	07200300	Standard

DUTY FUNCTION

The relay energises with the rated voltage connected in all three phases and the correct L1-L2-L3 phase sequence. The contacts change to 11-14/21-24 the green LED is on. Should an incorrect phase sequence occur or a phase fail then the relay will de-energise. The contacts revert to 11-12/21-22 and the green LED is off.

SPECIAL NOTE

This relay will not respond to phase loss if voltage feedback is the failed phase exceeds approximately 70% of nominal setting. In situations where back EMF may exceed this figure we recommend using the Model PNDA or M170x1.

SPECIFICATIONS

Nominal voltage range	380 to 440V ac
Nominal power consumption	50/60Hz ±5%
Temperature range	9VA/2W
Contacts	-5 to +60°C
Response Time	2 Changeover
Reset Time	Actuation approx 250ms
Switching Capacity	Release approx 500ms
	< 1s
	Maximum Switching voltage
	250V ac
	Maximum Continuous Current
	3A
	Switching Power
	220VA, 50W
	Mechanical Service Life
	20x10 ⁶ operations
	Rated Insulation Voltage
	250V
	Test Voltage
	2kV 50Hz/1 min

Information Required With Order

• Model reference • System voltage • Article number
 Example: Phase Failure Relay Type M169 x 01, 400Vac,
 Article No. 07200300