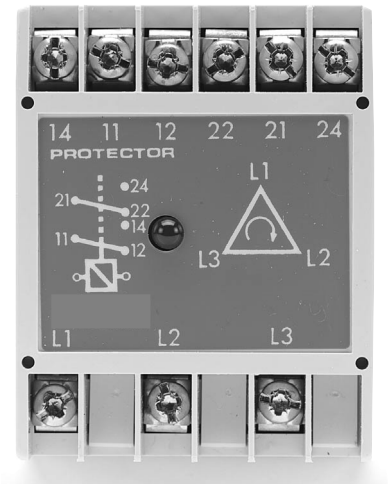
Protector Trip Relays

250 Series DIN Rail and Wall Mounted - Phase Sequence and Phase Failure

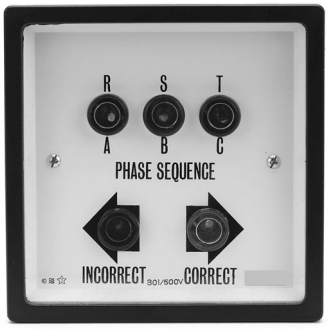


The MEYLE phase sequence and phase failure protector relays are designed to monitor the correct phase rotation or sequence of three phase, 3 or 4 wire, supply systems for protection against incorrect phase sequence, loss of one phase and under voltage.

Application:

- ***Portable pumps***
- ***Portable compressors***
- ***Motor driven mixing equipment***
- ***Motors - Single Phasing***
- ***Gensets - correct engine rotation***
- ***All portable equipment***
- ***All rotating machines***

We also manufacture front of panel mounting phase sequence indicators



Introduction

Rotating machines are particularly vulnerable to incorrect phase sequence. Three phase motors can rotate in the wrong direction, potentially leading to physical damage or the risk of injury to personnel, yet voltage and current readings may appear normal. If one phase is lost because of a blown fuse, electric motors can continue to operate (single phasing) which can result in severe electrical or mechanical damage.

For permanent installations, this relay should be used to monitor the incoming supply, protecting all equipment against incorrect connection at initial installation or after maintenance work. Rotating machines that cannot tolerate reverse rotation or pose significant risk to personnel under this condition should be individually protected with this relay. The possibility of incorrect supply connection is much more likely in portable equipment or marine applications

Product Function

The protector continuously monitors the three phase supply. With the correct phase sequence applied, the front panel LED will illuminate and the output relay will be energized. An incorrect sequence or missing phase will de-energize the relay, and the LED will be extinguished. If the supply drops below 85% of its nominal voltage, this condition will also cause a trip.

Important note: If one phase is lost due to a blown fuse, some loads can re-generate the missing voltage. This relay can be used as a phase failure relay providing the regenerated voltage in the open phase is less than 70% of the nominal supply voltage. If there is the possibility of a higher regenerated voltage, the phase balance relay 252-PSF should be used.

Protection against

- Incorrect phase sequence
- Loss of one phase
- Under voltage

Protection for

- Portable electrical equipment
- Incorrect sequence connection
- Loss of one phase (which can result in severe electrical/ mechanical damage or physical/personnel damage due to reverse rotation of motor driven equipment)

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Specification

Approvals: U.L. recognized up to 300V
CSA Approved up to 240V

Nominal Voltage: 100, 110, 120, 208, 220, 230, 240, 277, 380, 400, 415, 440 & 480V

System Frequency: 50, 60, or 400Hz (specify)

Burden: 3VA approx.

Overload: 1.2 x continuously
1.5 x for 10 x 10 seconds to Symmetric

Undervoltage Protection: Preset at 85% of nominal

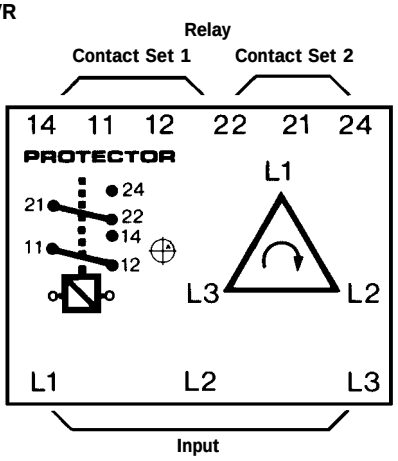
Weight: Approximately 0.4kg

Product Code Examples

Relay	Input	Protection	ANSI No.	Catalogue No.
3 Phase 3 or 4 wire	120V L-L 60 Hz	Phase sequence, under voltage	47	252-PVRU-PQBX-C6
3 Phase 3 or 4 wire	415V L-L 60 Hz	Phase sequence, under voltage	47	252-PVRU-SBBX-C6

Connection Diagrams

252-PVR



Note: No neutral connection is required

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