



PxE THREE-PHASE MONITORING RELAYS

17.5MM DIN-RAIL MOUNTED



Three-Phase Monitoring Relays - PxE Series

17.5MM DIN-Rail Mounted

Three-phase monitor relays safeguard motors and equipment by continuously verifying that the supply phases are present, in the correct sequence, and within acceptable tolerances. These relays detect harmful conditions such as phase loss (single-phasing), phase reversal, overvoltage, undervoltage, and phase unbalance which can cause overheating, excessive current draw and premature motor failure.

When an abnormal condition is sensed, the phase monitor changes state, which can be used to alarm, inhibit start, or drop out a contactor, helping prevent equipment damage and unplanned downtime. With adjustable sensitivity and time delay on many models, these phase monitors can be tuned to endure brief disturbances while responding quickly to sustained faults. Compact DIN-rail mounted form factors simplify integration into OEM equipment and control panels across HVAC, water/wastewater, industrial automation, and commercial building applications.



Benefits

Macromatic/Trystar Phase monitor relays provide cost-effective protection for three-phase equipment by detecting phase faults and reacting before they escalate into overheating, mechanical stress, or catastrophic motor damage. By preventing starts under unsafe conditions and triggering fast shutdown on sustained faults, they improve uptime, reduce maintenance, and extend equipment life, especially in facilities with unstable utility service, long feeder runs, or frequently switching loads.



Key Features

- Phase loss detection to prevent single phasing damage
- Phase reversal detection to prevent reverse rotation on pumps, compressors, and fans
- Phase unbalance monitoring to reduce overheating and excessive current draw
- Overvoltage and undervoltage monitoring to keep equipment operating within tolerance
- Adjustable trip thresholds/sensitivity and reset behavior
- Adjustable time delay to ride through brief disturbances
- Compact DIN-rail mounted form factor for easy panel integration
- Clear LED indication for power/fault/output status
- Industrial grade design for continuous duty applications



Product Series

Series Number	Description
PxE Series	17.5MM Three-Phase Monitor Relays



Applications

- **Water & wastewater** – Lift stations, booster pumps, aeration blowers, and grinders
- **HVAC equipment** – Compressors, condenser fans, and packaged rooftop units
- **Industrial motors** – Conveyors, mixers, crushers, and process machinery
- **Refrigeration & cold storage** – Protect rotating equipment from phase faults
- **Irrigation & agriculture** – Long feeder runs and remote pump stations
- **Material handling** – Motor driven systems that cannot tolerate reverse rotation
- **OEM control panels** – Standardized three phase protection in compact enclosures
- **Generator/ATS systems** – Verify proper phase conditions for permissives and interlocks



Available Options

- Environmentally friendly bulk packaging
- Custom functions and settings (please inquire)