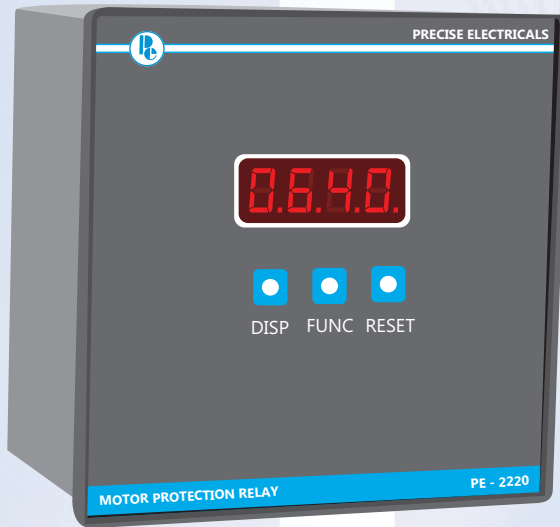# MOTOR PROTECTION RELAY

PRECISE ELECTRICALS

MOTOR PROTECTION RELAY   PE - 2220

Electric motors are crucial component in virtually every industrial automation application or environment. Therefore optimizing their performance and reliability can play a major role in reducing costs and improving overall plant efficiency. Electric motors fail and about half of them fail because of overheating through overload, phase failure or insulation breakdown. There are wide ranges of motors and motor characteristics in existence, because of numerous duties for which they are used and all of them need protection. Fortunately, the more fundamental problems affecting the choice of protection are independent on the type of motor and the type of load to which it is connected. Motor characteristics must be carefully considered when applying protection. It is emphasized because it applies more to motor than other items of power system plant. Protection of motor exists in any form, a variety of designs & either packaged individually or in different combinations. The fundamental and basic aim should be permit the motor to operate up to, but not to exceed its thermal and mechanical limits for overloads and abnormal operation conditions and to provide maximum sensitivity to faults.

● **ORDER CODE**
  PE- 2220
● **DESCRIPTION**
  Inteligent Motor Protection Relay

GENERAL FEATURES

- ❖ Advance Micro controller based state-of-art
- ❖ Technology
- ❖ Selectable inverse time curves.
- ❖ Protection against:
  - ❖ Unbalance
  - ❖ Single phasing
  - ❖ Reverse phasing
  - ❖ Overload
  - ❖ Stalling
  - ❖ Undercurrent
  - ❖ Earth fault
- ❖ Common tripping for all protective
- ❖ Function. Thermal overload protection.
- ❖ Alarm for tripping.
- ❖ Ultra Compact size.

ELECTRICAL SPECIFICATIONS

- ❖ CT Input   /5, 15VA
- ❖ Auxiliary supply   440V AC +15%
- ❖ Frequency   50/60Hz + 5%
- ❖ AC burden   10 VA at rated current
- ❖ Relay Output   10amp at 250V

OVERLOAD CHARACTERISTICS

- ❖ Overload setting   30 % to 110%
- ❖ Tripping time   **Inverse time:** as per thermal curve
  Definite time: (0 to 30 sec)
- ❖ Under current   20%-50 %, tripping time: 30 sec
- ❖ Motor stall   200-600 %, tripping time 30 -300 Sec
- ❖ Earth fault   1 A-3 A, tripping time: 1 Sec -20 Sec
- ❖ Unbalance   25-100 %, Inverse
- ❖ Phase Failure   tripping time: 5 sec
- ❖ Reverse Phase   tripping time: 0.1 sec
- ❖ Motor start time   0-10 sec
  Reset   Manual reset

MECHANICAL SPECIFICATIONS

- ❖ Dimensions   **Panel Mounting:** 144(w)x144(h)x80(d)mm
  Wall Mounted: 115(w)x115(h)x75(d)mm
- ❖ Panel Cutout   138 X 138 mm
- ❖ Weight   450 gm