

# MPS-3000



**Motor Protection & Control**  
advanced monitoring and  
protection for low voltage  
and medium voltage motors



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# MPS-3000

## Motor Protection and Control Relay



The MPS 3000 is ideal for medium voltage and large low voltage motors in applications where full protection and advanced warning is crucial. The MPS3000 monitors all three phase currents, voltages and up to 10 temperature (RTD) inputs for complete motor protection. Thermal capacity and overload calculations with bias input from current imbalance (positive/negative sequence) and temperature sensors ensure accurate modeling of your motor's condition.

### Protection Features (ANSI Code)

- Max. Start Time (48)
  - Too Many Starts (66)
  - Undercurrent Level 1 & 2 (37)
  - Load Increase - Alarm (51L)
  - Over Current Level 1 - Jam (51R)
  - Over Current Level 2 - Short (50)
  - Thermal Capacity Level 1 & 2 (49/51)
  - Current Imbalance Level 1 & 2 (46) (Positive / Negative Sequence)
  - Under-voltage (27)
  - Over-voltage Level 1 & 2 (59)
  - Phase loss (47)
  - Phase sequence (47)
  - Ground Fault Level during starting (50G)
  - Ground Fault Level 1 & 2 (50G & 50N)
  - Communication failure (3)
  - Internal failure (3)
  - External Fault 1, 2 & 3 - interlock (86 or 94)
  - High Temp. Level 1 & 2, sensors 1-10 (49R)
  - Under Power Level 1 & 2 (32L & 32R)
  - Low Power Factor (55)
- Levels 1 & 2 can be used for Alarm & Trip or both for trip with different time delays

### Inputs

- Control supply 120-230V, AC or DC Optional 19-60VDC
- 3 phase voltage, directly up to 690V, Above 690V through PT
- Three phase currents (1 or 5A)
- Ground current (1 or 5A)
- 10 temperature sensors, with two types:
  - 10 RTD-Pt100 (or CU)
  - 6 RTD-Pt100 (or CU) and 4 Thermistors (Programmable as NTC or PTC)
- 4 Programmable discrete inputs
- 4 Programmable analog Inputs 0/4-20mA (0-1mA optional)

### Outputs

- Four programmable relays 8A, 250VAC.
- Four programmable analog outputs, 0/4-20mA

### Protection Functions

Each protection function can be designated as:

- Alarm Fail-safe
- Trip (or Trip Fail-safe)
- Auto Reset
- Panel Reset
- Remote Reset



### MPS-3000C

Similar to the MPS-3000P except it includes 16 discrete inputs to enable full control (start, stop, rotation direction change, etc.) The MPS3000C also incorporates two additional protection functions:

- Control Circuit Open (74)
- Welded Contactor (74)

### How to Order:

Example:

