



# MPA

MODEL



## Medium Voltage Electric Fire Pump Controller Micro-processor based

The model MPA medium voltage, full service fire pump controller is designed to provide across the line start for electric motors with voltages between 2300 volts and 7200 volts and horsepower's ranging from 100 to 5000 HP.

Only quality components, all U.L. listed, are used throughout to assure the best possible reliability.

The complete assembled and wired controllers are factory tested before shipping and ready for immediate installation.

### CONTROLLER PROTECTION LEVEL:

- Standard NEMA - type 2
- Optional NEMA - type 4 and 4X

### OPERATIONAL TEMPERATURE LIMITS:

- 41°F to 122°F (5°C to 50°C)

### WITHSTAND RATING (short circuit current):

- 44.7KA RMS

### ENCLOSURE FEATURES:

- Three compartments with individual doors for :
  - Main disconnect switch
  - Starter (fuses and vacuum contactor)
  - Control circuit
- Main disconnect switch compartment door is interlocked with starter compartment door
- Power to control circuit is disconnected when main disconnect switch compartment door is opened



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Voltage	HP	Dimensions
2300V, 3ph, 50/60Hz	100 to 1500HP	90" H x 30" W x 28" D
3300-4160V, 3ph, 50/60Hz	100 to 3000HP	90" H x 30" W x 28" D
5000-7200V, 3ph, 50/60Hz	100 to 5000HP	90" H x 30" W x 28" D

Weight: Please contact factory.



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### STANDARD FEATURES:

#### MANUAL OPERATORS:

- Single operator for door interlocked isolation switch.
- Start and Stop pushbuttons operating outside of the micro-processor control circuit.
- Externally mounted latchable emergency start handle which mechanically closes the vacuum contactor.

#### ELECTRICAL FEATURES

- Externally operated and externally visible 3 blade (knife type) disconnect switch,
- Vacuum type contactor
- "R" type fuses for short circuit protection
- Control power transformers protected by E-rated fuses
- 120V or 220V power receptacle for built in test circuit and test switch
- Provision for remote start circuit

#### CONTROL FEATURES

- Micro-processor logic based
- Factory set (no field programming)
- Phase sequence / loss
- Provision for remote or deluge valve start
- Automatic start sequence
- Pressure transducer (0-300psi)
- Manual and emergency control circuit independant of micro-processor

#### DRY ALARM CONTACTS - 8A. - 250VAC

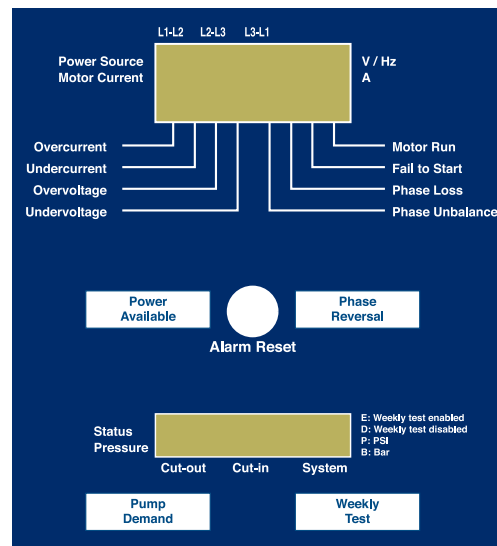
- Power or phase failure and/or circuit breaker in open position - DPDT
- Phase reversal - DPDT
- Pump run – 1N/O – 1N/C
- Trouble (alarm conditions) - DPDT

#### OPTIONAL FEATURES:

(Refer to MPO Brochure for details)

- **Option Type A:** Operational modifications
- **Option Type B:** Additional annunciations
- **Option Type C:** Extra alarm contacts
- **Option Type D:** Miscellaneous
- **Option Type E:** Load shedding provisions
- **Option Type F:** Automatic transfer switch options
- **Option Type H:** Export packing

**HOW TO ORDER:** MPA - V / HP / Ph / Hz + options  
Ex.: MPA - 4160 / 500 / 3 / 50 + options



### ANNUNCIATOR AND LCD DISPLAY

#### Voltage and amperage module

Provides for:

- Phase sequence / Loss monitoring & alarms
- Individual phase-to-phase voltage indication
- Individual phase current indication
- True elapsed run time
- Motor run visual indication
- Over & under current visual indication
- Over & under voltage visual indication
- Fail to start visual indication
- Phase loss visual indication
- Phase unbalance visual indication
- Power available LED
- Phase reversal LED

#### Pressure and Sequencer module

Provides for:

- Cut-In & Cut-Out pressure setting
- System pressure indication
- Run period timer
- Sequential start timer
- Weekly test setting
- Pressure recording
- Alarm & events recording
- Pump on demand LED
- Weekly test LED
- USB (slave) communication port
- Printer (optional)
- Modem (optional)



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