

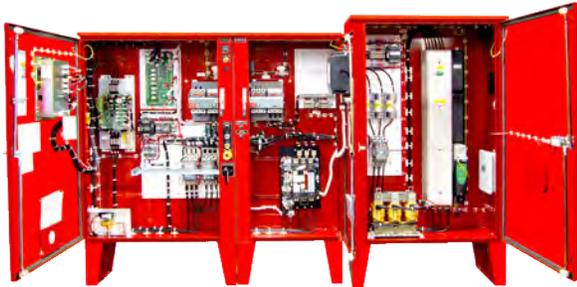


## Mark IIx6 Electric Fire Pump Controllers

## Product Description

FTA3100, 3110, 3130

Variable Speed Starting



**Description** – Firetrol® Variable Speed Electric Fire Pump Controllers provide a variable frequency drive (VFD) in a PID process control loop to control the speed of a centrifugal pump for the purpose of limiting system pressure in a fire sprinkler system. These controllers are available in the following configurations:

FTA3100 – VFD with Across-the-Line Bypass

FTA3110 – VFD with Autotransformer Bypass

FTA3130 – VFD with Digital Soft Start Bypass

**Approvals** – Firetrol fire pump controllers are listed by Underwriters' Laboratories, Inc., in accordance with UL218, *Standard for Fire Pump Controllers*, CSA, *Standard for Industrial Control Equipment*. They are built to meet or exceed the requirements of the approving authorities as well as NEMA, the latest editions of NFPA 20, *Installation of Centrifugal Fire Pumps*, NFPA 70, *National Electrical Code* and are approved by Factory Mutual.

**Standard Features**—The following are included as standard with each controller:

- Voltage surge protector
- Main Disconnect Switch sized for connected motor horsepower and voltage
- Fire pump Circuit Breaker
- Single handle Isolating Disconnect Switch/Circuit Breaker mechanism
- Motor contactor
- Emergency Manual Run Mechanism to mechanically close motor contactor contacts in an emergency condition
- Built-in Start and Stop push-buttons to bypass automatic start circuits
- Minimum Run Timer / Off Delay Timer
- Daylight Savings Time Option

- Weekly Test Timer
- Elapsed Time Meter
- Door mounted display/interface panel featuring a 128 x 64 pixel backlit LCD Graphical Display, Membrane Type User Control Push-buttons and easy to read LED Indicators for:
  - POWER AVAILABLE
  - ALARM
  - TRANSFER SWITCH NORMAL (If unit ordered with Automatic Power Transfer Switch)
  - TRANSFER SWITCH EMERGENCY (If unit ordered with Automatic Power Transfer Switch)
  - SYSTEM PRESSURE LOW
  - PUMP RUNNING
  - DELUGE OPEN
  - REMOTE START
  - INTERLOCK ON
  - FAIL TO START
  - MOTOR OVERLOAD
  - EMERGENCY ISO SWITCH OFF (If unit ordered with Automatic Power Transfer Switch)
  - PHASE FAILURE
  - PHASE REVERSAL
  - AUTOMATIC SHUTDOWN DISABLED
  - OVERVOLTAGE
  - UNDERVOLTAGE
- Digital Pressure Display
- USB Host Controller and Port
- Solid State Pressure Transducer
- Data Log
- Event Log (3000 Events)
- True RMS Metering with simultaneous 3 Phase Display of Amps, Volts, Frequency, Pressure and Alarm Messages
- Disk Error message
- Disk Near Full message
- Pressure Error message
- Motor Over 320% message
- Local Start message
- Remote Start message
- Emergency Start message
- Fail To Start message
- Undervoltage message
- Overvoltage message
- NEMA Type 12 enclosure (IEC IP54)
- Suitable for use as Service Equipment
- Each standard controller comes with user configurable options for:
  - Interlock Alarm
  - Low Pressure Audible
  - Low Suction
  - Pump Run
  - User Defined Input
  - Weekly Test
- Drive Ready pilot light
- Bypass Active pilot light
- Normal / Bypass selector switch

## Product Description – Options & Modifications

### SPECIAL ENCLOSURES

Consult factory for enclosure options.

### CIRCUIT BREAKER OPTION

- N Intermediate withstand rating  
150,000 Amps RMS Sym.
- P High withstand rating  
200,000 Amps RMS Sym

Note: Intermediate and High withstand ratings may not be available for all horsepower and voltages. Consult factory for availability.

### ANTI-CONDENSATION SPACE HEATERS

- H Space Heater, 120V Externally Powered with Circuit Breaker
- J Space Heater, 120V Externally Powered with Circuit Breaker and Thermostat
- K Space Heater, 120V Externally Powered with Circuit Breaker and Humidistat
- L Space Heater, 240V Externally Powered with Circuit Breaker
- M Space Heater, 240V Externally Powered with Circuit Breaker and Thermostat
- N Space Heater, 240V Externally Powered with Circuit Breaker and Humidistat

### PRESSURE TRANSDUCERS

- B Wetted Parts Including Pressure Sensor, 600 psi (42 Bar) Fresh Water
- C Wetted Parts Including Pressure Sensor, 300 psi (21 Bar) Sea Water
- D Wetted Parts Including Pressure Sensor, 600 psi (42 Bar) Fresh Water

### COMBINED AUTOMATIC POWER TRANSFER SWITCHES

- TSA FTA950 Automatic Transfer Switch, Group 5
- TSAB FTA951 Automatic Transfer Switch, J-Bypass Isolation, Group 5

### ALARMS

- AC Extra contacts (normally open & normally closed) for remote indication, pump operating
- AF Audible and Visible low pump room temperature alarm
- AG Audible and Visible reservoir low alarm
- AH Audible and Visible low suction pressure alarm
- AM Contacts for remote indication, pump fail to start
- AV Contacts for remote indication, low pump room temperature (Requires option -AF)
- AW Contacts for remote indication, reservoir low (Requires option -AG)
- AY Contacts for remote indication, low suction pressure (Requires option -AH)
- AZ Low pump room temperature switch, mounted and wired

- BW Extra contacts for remote indication, phase failure/phase reversal
- BY Contacts for remote indication, pump overload
- COM Low Suction Pressure Alarm, (Includes selectable auto/manual reset, audible, visible and remote alarms, initiating pressure switch NOT included)
- CTS Built-in Low Suction Pressure Alarm Panel (Includes selectable auto/manual reset, audible, visible and remote alarms and wired and mounted pressure switch)
- EG Audible and Visible relief valve discharge alarm
- EH Contacts for remote indication, relief valve discharge (Requires option -EG)
- EJ Audible and Visible flow meter on alarm
- EK Contacts for remote indication, flow meter on (Requires option -EJ)
- KH Contacts for remote indication, common output for any alarm
- JR Visible jockey pump running indication
- JT Audible and Visible jockey pump trouble indication
- P Built-in alarm system (Includes visible supervisory voltage normal indication and audible pump operating, phase failure and phase reversal indication)
- PE Contacts for remote indication, low system pressure (pump on demand)
- PT Built-in alarm system, 220 VAC supervisory power (Includes visible supervisory voltage normal indication and audible pump operating, phase failure and phase reversal indication)

### MISCELLANEOUS

- ED Load shed circuits (Selectable power source and adjustable time delay to remove non-critical loads before starting)
- EL Series pumping, high zone controller
- EM Series pumping, mid zone controller(s)
- EN Series pumping, low zone controller
- FZX Rating, Nameplate to be marked 380-400V (Use with voltage code 'F' or 'FZ')
- IEC CE Marking with Externally Mounted Wet Parts (Requires NEMA Type 12 (IP54) Enclosure as a minimum)
- IECI CE Marking with Internally Mounted Wet Parts (Requires NEMA Type 12 (IP54) Enclosure as a minimum)
- OSP OSHPD Seismic Certification (State of California) (Requires Option -SEI)
- PY Motor space heater output contacts
- S Tropicalization
- SEI Seismic Certification (in accordance with IBC) (Note: Not available on model FTA1500)
- USBX External USB Port
- ZPA Customized, annual service display message (when factory programmed or programmed by Firetrol representative during start-up)
- ZPN Serial Modbus RTU over Ethernet TCP/IP using 5150 Connectivity Module
- ZPM Serial Modbus RTU over 2-wire or 4-wire RS485

Export packaging (Wooden crating to conform to IPPC Standards)

## **Firetrol, Inc.**

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