FTA1250 Part Winding Starting Electric Fire Pump Controllers
Product Description

Description—Firetrol® FTA1250 Part Winding Starting Fire Pump Controllers can be used where the characteristics of the power source do not permit full voltage starting. The controller monitors, displays and records fire pump system information.

When the controller is actuated via pressure, START push-button, deluge valve contact, etc., the first contactor closes, connecting one of the motor windings to the line. During starting, the motor will draw approximately 65% of its normal locked rotor current and develop approximately 42% of its normal starting torque. After a time delay, the second contactor closes, connecting the second winding in parallel with the first. The motor then draws its normal running current and develops its rated torque.

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*, and approved by Factory Mutual. They are built to meet or exceed the requirements of the approving authorities as well as NEMA and the latest editions of NFPA 20, *Installation of Centrifugal Fire Pumps*, and NFPA 70, *National Electrical Code*.

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 2 (IEC IP22) enclosure
- Suitable for use as Service Equipment
- Each standard controller comes with user set options for:
  - Interlock Alarm
  - Low Pressure Audible
  - Low Suction
  - Pump Run
  - User Defined Input
  - Weekly Test

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SPECIAL ENCLOSURES

-T NEMA Type 3R (IEC IP22), Painted Steel
-E NEMA Type 4 (IEC IP66), Painted Steel
-F NEMA Type 4X (IEC IP66), #304 Stainless Steel, Unfinished**
-FXP NEMA Type 4X (IEC IP66), #304 Stainless Steel, Painted Finish
-FD NEMA Type 4X (IEC IP66), #316 Stainless Steel, Unfinished**
-FDB NEMA Type 4X (IEC IP66), 12 Gauge, Seam Welded, #316 Stainless Steel, Polished and Brushed Finish
-FDP NEMA Type 4X (IEC IP66), #316 Stainless Steel Painted Finish
-G NEMA Type 12 (IEC IP54), Painted Steel

** Unfinished (Not painted, polished or brushed).

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 horsepowers and voltages. Consult factory for availability.

ANTI-CONDENSATION SPACE HEATERS

-H 120 Volt Space Heater
-J 120 Volt Space Heater With Thermostat
-K 120 Volt Space Heater With Humidistat
-L 240 Volt Space Heater
-M 240 Volt Space Heater With Thermostat
-N 240 Volt Space Heater With Humidistat

PRESSURE TRANSDUCERS

-B 0-600 psi (0-42.25 bar) Pressure Transducer for Fresh Water Service
-C 0-300 psi (0-21.1 bar) Pressure Transducer for Copper Corrosive Service
-D 0-600 psi (0-42.25 bar) Pressure Transducer for Corrosive Service

COMBINED AUTOMATIC POWER TRANSFER SWITCHES

FTA950 - Generator/Utility emergency source
FTA951 - Bypass Isolation for Generator/Utility emergency source

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 400 VAC Operation (Controller labeled for operation at 380-400 VAC - Use with voltage code FZ)
-IEC CE Marking with Externally Mounted Wet Parts
-IECI CE Marking with Internally Mounted Wet Parts
-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)

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