Fire Pump Controllers for Business Critical Continuity™

Jockey Pump Controllers







Firetrol[®] Jockey Pump Controllers are intended for use with fire pump systems. They are used for pressure maintenance in fire pump installations to prevent unnecessary cycling of the main fire pump.

Jockey Pump Controllers are available in the following configurations:

FTA500—Full Voltage Starting

FTA516—Wye-Delta Reduced Voltage Starting (Open Circuit Transition)

Approvals – Firetrol Jockey Pump Controllers are listed by Underwriters Laboratories, Inc., in accordance with UL508, Standard for Industrial Controls, and CSA, Standard for Industrial Control Equipment (cUL). They are built to meet or exceed the requirements of the approving authorities as well as NEMA and the latest edition of NFPA 70, National Electrical Code.

Enclosures — The standard enclosures are NEMA Type 2 (IEC IP11), drip-proof, for installation in areas protected from direct sunlight with an ambient temperature above 41°F (5°C).

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

- NEMA Type 2 (IEC IP11) drip-proof enclosure
- Horsepower rated disconnect switch, fuse block, and fuses
- Horsepower rated motor contactor and overload relay
- HAND-OFF-AUTO selector switch to allow manual operation of the pump
- Minimum run timer to prevent short-cycling
- 15-290 psi (1-20 bars) Pressure switch, diaphragmstyle, snap action type contact and 15-120 psi (1-8.3 bars) adjustable differential, suitable for freshwater applications.
- Control Circuit Transformer w/ 120VAC Secondary

FTA500 Jockey Pump Controllers

Emerson Network Power.

CB500-50

AC Power

DC Power

Connectivity

The FTA500 Jockey Pump Controller utilizes across the line, full voltage starting. Full voltage is applied to the motor as soon as the controller is actuated, and the motor supplies its rated torque. When using full voltage starting, the power source must have sufficient KVA capacity to handle motor locked rotor current and prevent the line voltage from dropping below acceptable levels.

Embedded Computing

Embedded Power

Monitoring

When the controller is actuated, either by a drop in system pressure (in the "Auto" mode), or by placing the HAND-OFF-AUTO switch in the "Hand" position, the pump will start. In the "Auto" mode, the pump will continue to run until the pressure returns to a normal level and the minimum run timer has expired, whichever occurs last. In the "Hand" mode, the pump will continue to run until the HAND-OFF-AUTO selector switch is moved from the "Hand" position.

The pressure switch is mounted inside the enclosure and is piped to a fitting on the bottom of the enclosure.



FTA500 Jockey Pump Controller

FTA516 Jockey Pump Controllers

Operation of the FTA516 Jockey Pump Controller is identical to that of the FTA500 except for the starting method. The FTA516 employs Wye-Delta (Open Transition) Reduced Voltage Starting. Wye-Delta starting controllers are used with delta-wound induction motors.

When the controller is actuated, the motor starts on the wye connection which applies approximately 58% of full line voltage to the motor windings. At the reduced voltage, the motor develops approximately 33% of normal starting torque and will draw approximately 33% of normal starting current. After a time delay (approx. 3.5 seconds), the motor is automatically reconnected in delta, applying full voltage to the motor windings.

The FTA516 Jockey Pump Controller is useful in applications where the power source is inadequate to supply the full starting current without objectionable voltage drop.

Options and Modifications -- Refer to the Product Description sheet for a complete listing of Options and Modifications.



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