

## Primary Resistor Type



### General

Joslyn Clark Fire Pump Controllers are designed and listed specifically for fire pump service. These controllers meet or exceed all requirements of the National Fire Protection Association Standard NFPA 20, are listed by Underwriters Laboratories Inc., and approved by the Factory Mutual System.

Primary Resistor Controllers reduce starting line current to 65-74% of across-the-line starting (approximately 390-444% rated motor full load amperes) by inserting resistors in series with the motor through a Starting Contactor. A Running contactor provides full voltage for running. Primary Resistor Controllers are Combined Manual and Automatic starting.

### Standard Equipment

- Microprocessor based design using distributed microprocessors
- Single handle operator for easy operation of isolating switch and breaker.
- Automatic Start responsive to a change in water pressure.
- Stainless Steel Pressure Transducer, 0-600 PSI, side mounted internally
- Automatic Stop via Programmable Running Period Timer.
- Sequence Delay Start via Programmable setpoint.
- Standard Units programmed for Manual Stop and No Delay on Start
- Deluge start or Remote Automatic Start from other fire protection equipment having a normally closed contact which opens to start.
- Manual Start and Stop pushbuttons on Operator Interface Module.
- Manual Remote Start utilizing remote mounted, normally open contacts that close to start. Controller must be Manually Stopped at the controller.
- Emergency Start by simply lifting the mechanical start handle.
- Operator Interface Module includes 2 Line, 20 Character LCD display of Line Pressure and Cut In / Cut Out Setpoints, viewing of Events with Date and Time stamp, Real Time Data with all 3-phase voltages, line-line currents.
- PMR, microprocessor based relay which provides locked rotor protection, voltage pickup, and current pickup for display on Operator Interface Module. PMR is factory set for horsepower and voltage, no field adjustment required.
- Programmable Weekly Timer to automatically start and run the pump for Preset time once a week.

### Visual Indicators and Alarms

- Visual indicators are provided to indicate the following:

Power Available	Phases Reversed	Pump Run	System Alarm
Comm Status	Start Delay	Low Pressure	RPT On

- 3 phase Currents, and 3 Phase-to-Phase Voltages on two-line Display.
- 2 line Pressure Display with Cut IN / Cut OUT Pressure Settings.
- 2 Sets OF SPDT contacts for remote alarm of Pump Run, Power Available, Phase Reversal.
- Built-in Pressure Recorder provides a review of Max, Min Pressures.
- Ethernet Modbus TCP Communications for Event History Information
- (With Optional Automatic Transfer Switch), Alternate Isolating Switch Open and Transfer Switch Position Indicators and Contacts
- System Fault Messages: Reverse Phase, Locked Rotor, Motor Overload, Low Voltage, High Voltage, Fail to Start, Low Frequency, High Frequency, Voltage Unbalance, Power Not Available, No Comm with LRD, Low Temperature, Low Suction, No Comm with I/O Board.





## Modifications E-Series Controller

**E10600**

### Modification Numbering System for Main Pump Controllers

Type E10620, E10630, E10640, E10650, E10670, E10680, E10690, E10663

ID	Option Name
<input type="checkbox"/> 5	Pressure Transducer 0-600 PSI for fresh water (standard)
<input type="checkbox"/> 7	PS 0-600 PSI for salt water
<input type="checkbox"/> 3R	Nema Type 3R - Outdoor, raintight
<input type="checkbox"/> 3R w/T	3R with Option T or TU (see pg 12)
<input type="checkbox"/> 4P	Nema Type 4 - Raintight (painted steel)
<input type="checkbox"/> 4P w/T	4P with Option T or TU (see pg 12)
<input type="checkbox"/> 4X	Nema Type 4X Watertight, corrosion, resistant (#304 Stainless Steel)
<input type="checkbox"/> 4X w/T	4X with Option T or TU (see pg 12)
<input type="checkbox"/> 12	Nema Type 12 Dust-Tight
<input type="checkbox"/> 12 w/T	12 with Option T or TU (see pg 12)
<input type="checkbox"/> G	Built In Audible Alarm
<input type="checkbox"/> H2	Extra Light - Specify Functions
<input type="checkbox"/> J, J21, J22	Lockout Relay - Controller Interlock ( J = External input J21 & J22 to interlock 2 electric controllers)
<input type="checkbox"/> K	Control Fuse
<input type="checkbox"/>	Sequence Start (Standard)
<input type="checkbox"/> L	Series Pumping Controls For -L1 High Zone & L2 Low Zone Controllers Anti-Condensation Space Heaters with
<input type="checkbox"/> M	Transformer
<input type="checkbox"/> M	M w/transfer switch
<input type="checkbox"/> N	Space heater only 100 watt, 120 V
<input type="checkbox"/> N	N w/transfer switch
<input type="checkbox"/> N1	Space heater only 100 watt, 240 V.
<input type="checkbox"/> N1	N w/transfer switch
<input type="checkbox"/> P1	Thermostat only, use w/Mod M & N
<input type="checkbox"/> P1	P1 with Transfer Switch
<input type="checkbox"/> P2	Humidistat only, use w/Mod M & N
<input type="checkbox"/> P2	P2 with Transfer Switch
<input type="checkbox"/> P3	Humidistat & Thermostat w/Mod. M & N
<input type="checkbox"/> P3	P3 with Transfer Switch
<input type="checkbox"/> M & P2	Tropicalization

ID	Option Name
<input type="checkbox"/> R5	Load Shed Includes NO & NC inst. contacts & time delay start
<input type="checkbox"/> R7	Loadshed w/time delay for cont. w/ATS
<input type="checkbox"/> S1	Pump Failure to Start Indicator & NO & NC
<input type="checkbox"/> S2	Pump Over Current Indicator & NO&NC
<input type="checkbox"/> S3	Extra Phase Reversal Alarm Contacts
<input type="checkbox"/> S4	Remote Low Pressure Alarm Contacts
<input type="checkbox"/> S5	Extra Pump Run NO & NC
<input type="checkbox"/> S6	Extra Power Failure NO & NC
<input type="checkbox"/> S7	Extra Power Available NO & NC
<input type="checkbox"/> S8	Low Voltage Alarm 83% NO & NC
<input type="checkbox"/> S81	Low Reservoir Indicator & NO & NC
<input type="checkbox"/> S82	High Reservoir Indicator & NO & NC
<input type="checkbox"/> S83	Specify Function- Indicator & NO & NC
<input type="checkbox"/> S84	Specify Function- Indicator & NO & NC
<input type="checkbox"/> V	Pump Room Temperature Sensor
<input type="checkbox"/> S85	Low Room Temp Indicator & NO & NC,
<input type="checkbox"/> W	Extra SPDT Contact for remote indications of transfer switch position
<input type="checkbox"/> J31	Suction Pressure Transducer
<input type="checkbox"/> J32	Low Suction Pressure Shut Down Indicator & NO & NC Contacts
<input type="checkbox"/> Y	CE Marking ( Consult Factory)
<input type="checkbox"/> D1	Italian Nameplate
<input type="checkbox"/> D2	Dutch Nameplate
<input type="checkbox"/> D3	German Nameplate
<input type="checkbox"/> D4	French Nameplate
<input type="checkbox"/> D5	Spanish Nameplate
<input type="checkbox"/> D6	Portugese Nameplates

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