

ENGINEER'S SPECIFICATION

EPG Series L875 PumpMaster™ Controller 3Ø CONTROL PANEL

Furnish one EPG Companies Inc., UL listed 508A/698A, Series L875 controller to operate two or more (optional) pump motors and auxiliary equipment in manual or automatic mode. The control panel enclosure shall be NEMA type _____.

The enclosure shall be equipped with a window in the outer door, an inner door, a stainless steel drip shield, and a tamper resistant latch. The NEMA 4 (standard) enclosure is finished with polyester urethane paint. The NEMA 4X (optional) enclosure can be either stainless steel or non-metallic.

The control system will operate from a _____ Volt, 60 Hertz, three phase power supply. Pump control components will be sized to operate pump motors of specified horsepower.

The control panel shall include the following as standard features:

- * Main Disconnect Switch: The main disconnect switch shall be _____ Amp rated and will prevent opening of control panel while power is on, and includes _____ Volt, _____ Amp dual element fuses.
- * "Hand-Off-Auto" Selector Switches: Allows manual or automatic operation. The selector switches shall be heavy duty, oil tight, NEMA 4 rated switch mounted on the inner door. The hand position shall be momentary with a spring return.
- * Motor Starters: The motor starters shall be sized to the pump motor horsepower, and shall be equipped with built in single phasing protection and ambient compensated, quick trip adjustable thermal overloads.
- * Control Transformer: A transformer with fused primary and secondary shall isolate control circuit from power circuit, and provide easier and safer field wiring of accessories. It shall lower incoming voltage to 120 Volts.
- * Run Lights: Indicate energization of motor circuit. They shall be heavy duty, oil tight, NEMA 4 rated and shall have LED lamps with 100,000 hour life. The lights shall be mounted on the inner door and will be green in color.
- * Motor Overload Lights: Indicate motor not running due to overload condition. They shall be heavy duty, oil tight, NEMA 4 rated and shall have LED lamps with 100,000 hour life. The lights shall be mounted on the inner door and will be red in color.
- * Load Monitors: Shall detect unloaded condition when each pump runs dry and will shut off pump. They will protect the pumps and motors from damage. The pump will restart after adjustable time delay (1 min. to 12 hrs.).
- * Lightning Arrestor: Shall be grounded, metal-to-metal, to water strata.
- * Terminal Strip: Labeled and numbered terminal strip provides easy connection of external components.
- * Corrosion Inhibitor Emitter: Inclusion of an industrial corrosion inhibitor emitter shall protect internal components of control panel from corrosion for up to one year and shall be replaceable.
- * Options are available to meet specific needs.

SYSTEM LOGIC AND FUNCTION

The controller is designed to control two or more (optional) submersible pumps using load monitors. During each run cycle the pump draws liquid from the sump down to the pump intake. The load monitor detects the unloaded condition and stops the pump. It allows the pump to run for a few seconds while it checks the load. If the pump is running within the preset range, it completes the next cycle. If not, it will go through another off delay period.