Intelligent Pump Controller

HP Range:
5 - 150 HP @ 208/240 VAC
5 - 500 HP @ 480 VAC

iQpump is UL approved for single-phase and three-phase AC input
The iQpump controller was designed with the pump service operators and pump system owners in mind. iQpump offers ease of setup and comprehensive pump and motor protection features. The integrated pump specific software and set up parameters allow the operator to program control values for a wide range of applications. The iQpump controller will automatically adjust pump operating conditions, as the process variables change while still maintaining optimum pump performance and protection. iQpump can also replace phase converters when converting from a single-phase to a three-phase pump motor.

**Simplex System Overview**

Easy Installation and Set up
1. Wire iQpump Controller
2. Connect pipe to pump
3. Set System Pressure (PSI) Setpoint
4. Calibrate Feedback Transducer Level (PSI)
5. Start iQpump controller

Above chart shows the typical power requirements and savings for throttling and bypass methods to adjustable speed method.

100,000 sq. ft. building operated 4000 hrs/year. (One 50 HP booster pump) Based on Energy Savings Predictor Software.
System Benefits

**Improved Process Control**
By matching pump output flow or pressure directly to the process requirements, small variations in the process can be corrected more rapidly by iQpump than by other control forms.

**Improved System Reliability**
Any reduction in speed achieved by using iQpump has major benefits in reducing pump wear, particularly in bearings and seals.

**Reduce Total System Cost**
iQpump lowers system cost by eliminating sensors, jockey pumps, restriction valves as well as reducing pressure tank sizing.

**Energy Savings**
Depending on application, iQpump will reduce the demand for energy by 20 to 50% by adjusting pump speed to match a lower flow/pressure.

**Ease of Installation and Set Up**
iQpump uses pump terminology on all setup parameters and monitors. Also included is a “Pump Quick Setup” menu.

**Eliminate Complex Control Panels**
By installing iQpump, many of the electromechanical controls can be eliminated. This will reduce the maintenance that these panels require.

**Reduce Mechanical Stress and Damage to Pumps**
iQpump has soft-start and soft-stop capabilities. Pressure surges and water hammer are eliminated.

**Cooler Running Pump Motor**
Soft start eliminates inrush current, dramatically increasing winding insulation life.

Typical Applications

- Commercial and Residential Irrigation, Fluid Storage Tanks
- Settling Ponds, Sewage Lift Stations
- Booster Pump Stations (Municipal, High-rises, Condos, Apartment Complexes, Residential Developments)
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The integrated pump specific software and setup parameters, allow the operator to set up specific control values for a wide range of applications. iQpump will automatically adjust pump operating conditions, as the process variables change while still maintaining optimum pump performance and protection.

Most existing systems, which require constant pressure or flow control, are using bypass lines, pressure release valves, throttling valves or impeller trim adjustments. The most efficient method is pump speed control. Pump speed control will reduce energy consumption, while maintaining system optimization.

The iQpump Controller can be configured for Simplex, Duplex, Triplex or up to an eight-pump system. One iQpump Controller can be used as a master, which can also control one or two secondary pump motors. The secondary pump motors can be connected using mechanical motor starters, reduced voltage soft starters, or additional iQpump drives. The software is structured in such a way that it only has a few basic pump parameters to be setup to run this application.

The iQpump controller from Yaskawa is available from 5 to 500 horsepower. In addition to Irrigation Pumps in Commercial and Residential applications, the iQpump controller is suitable for a variety of other pumping applications such as Pressure Booster Pumps, Submersible Deep Well Pumps, Storage Tank Level Control and Metering Pumps.