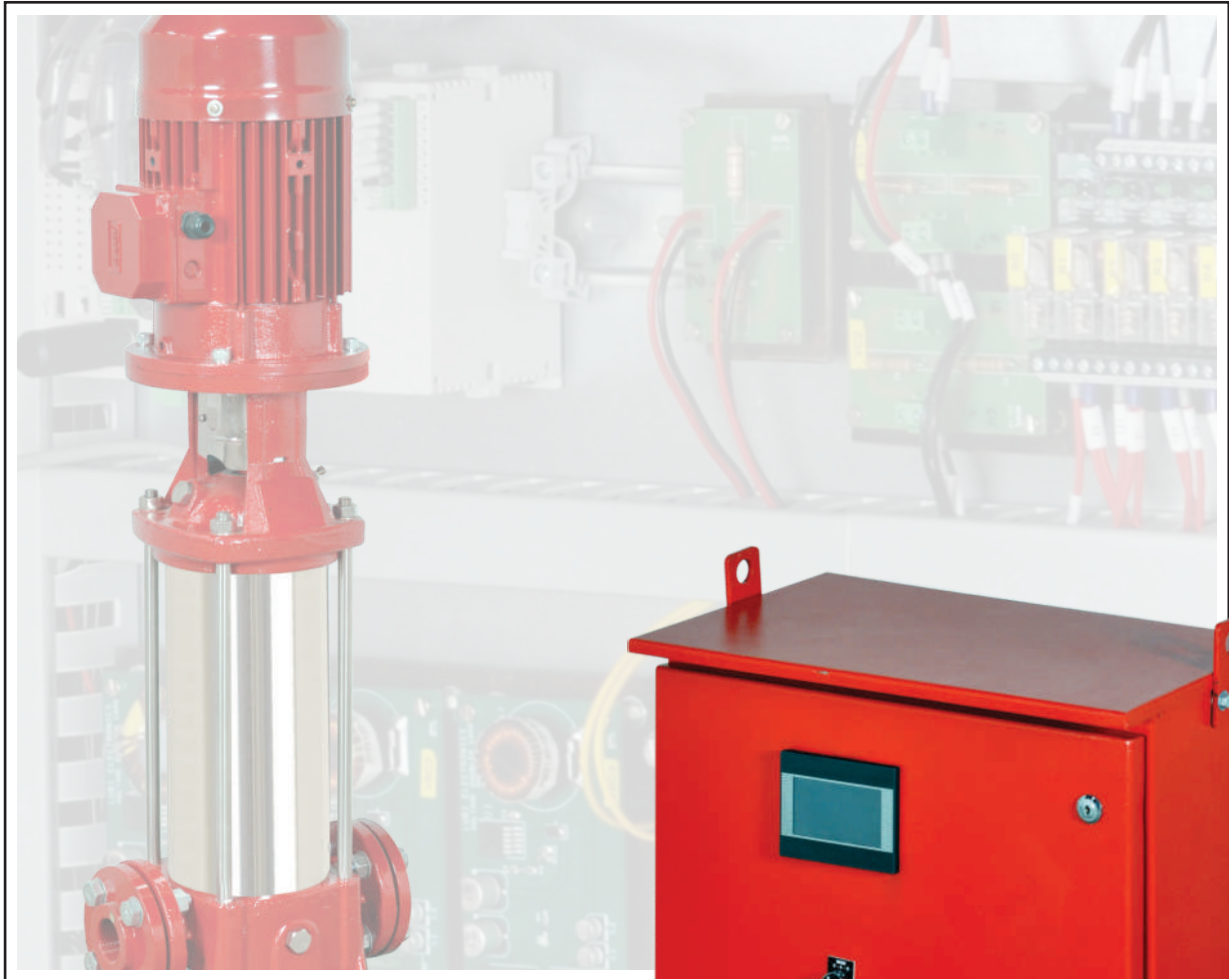
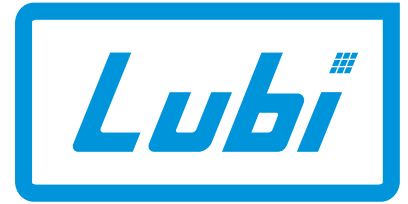


**LFCJ SERIES**

**Jockey Pump Controller  
For Fire Pump Applications**



**INTRODUCTION**

Lubi LFCJ jockey pump controllers are specifically designed to control jockey pumps in order to maintain the desired water pressure in fire pump serviced systems. This pump prevents unnecessary starting of fire pumps due to small leaks in the fire system piping.

Lubi jockey pump controller shall be factory assembled, wired and tested specifically for maintaining the required water pressure in a fire pump serviced sprinkler systems.

Lubi jockey pump controller shall conform to all the requirement of the latest addition of NFPA 20, standard for installation of Stationary Fire Pumps for Fire Protection.

**TECHNICAL SPECIFICATIONS****● ENCLOSURE**

Fire pump controller enclosure shall be standard NEMA type 2 (IP 31) drip proof suitable for wall mounting. The enclosure shall have a bottom entry gland plate. It will be provided with a key lock handle. It will be painted red RAL 3002 as per NFPA 20.

Alternate NEMA enclosures offering better IP protection can be offered based on customer request. Stainless steel enclosures are also available on request.

**● FUSED DISCONNECT SWITCH**

The controller will have a fused horsepower rated door interlocked rotary type disconnect switch.

This switch shall be capable of being padlocked in the "OFF" position during installation or maintenance.

**● STARTING METHOD**

The controller shall be of combined manual and automatic type designed for one of the following starting methods.

1. Direct-On-Line (DOL) starting
2. Star/Delta (Y/D) Starting
3. Digital soft start reduced current starting

The controller starter mentioned above should be suitable for the fire pump motor horsepower, voltage, phase and frequency ratings.

**● MOTOR PROTECTION**

Protection against overload as well as single phasing will be provided using electronic overload and single phasing preventer.

**● OPERATOR INTERFACE**

The fire pump controller shall be provided with a color touch screen HMI (Human Machine Interface). The size of HMI screen shall not be less than 3 inches. It should be possible to read the HMI screen in direct sunlight or dark lighting conditions.

The operator interface shall monitor and display motor operating conditions and pressure including all alarms.

All controller settings shall be programmable through the HMI and shall be protected by 2 passwords levels.

The operator interface shall indicate the following:

1. Motor manual run
2. Motor automatic run
3. Real time system pressure
4. Set start pressure
5. Set stop pressure
6. Motor overload/single phasing alarm
7. Controller in AUTO or MANUAL mode.

**TECHNICAL SPECIFICATIONS****● DATA LOGGING**

The controller shall monitor and log the following events and alarms:

1. Pump running (manual or automatic)
2. Pump stopped (manual or automatic)
3. Pressure transducer fail alarm
4. HOA switch fault
5. HOA switch turned OFF
6. HOA switch turned AUTO
7. HOA switch turned MANUAL
8. Motor overload alarm
9. Phase loss alarm.

**● EVENT/ALARM RECORDING**

The controller shall record all events as well as alarms/warnings mentioned above to system memory with a date and time stamp. The system memory shall have the capability of storing a total of minimum 3000 events or alarm messages.

System pressure logs shall also be recorded into system memory with date and time stamp. A minimum of 30 days of data (when data is recorded every 15 seconds) should be stored in system memory.

**● TIMERS**

The jockey pump controller shall be supplied with a minimum run timer and a pump start delay timer.

**● HOA SELECTOR SWITCH**

The selector switch will enable the user to select manual or automatic operation. The selector switch can also be used to stop the jockey pump motor.

**● SOLID STATE PRESSURE TRANSDUCER**

The controller shall be supplied with solid state pressure transducer with a range of 0-300 psi (0-20.7 bar) +/- 1 psi. This pressure transducer shall provide the system pressure feedback for display on HMI as well as for control of the jockey pump. The pressure transducer shall be mounted on the controller to prevent accidental damage. The pressure transducer shall be directly pipe mounted to a bulkhead pipe coupling without any other supporting members.

**● USB HOST CONTROLLER**

The controller shall have a built in USB host controller. A USB port capable of accepting USB flash memory disk shall be provided. A USB flash memory disk can be used to save historical data of events, alarms and pressure logs. The controller shall also have the capability to save set-up values to the flash disk on demand via operator interface

**● SERIAL COMMUNICATIONS**

The controller shall feature a RS 485 serial communication port for use with 2 or 4 wire Modbus RTU communication.

**OPERATION LOGIC****● MANUAL OPERATION**

To start the jockey pump manually make sure the disconnect switch is in "ON" position. Turn the HOA selector switch to hand position. This will cause the jockey pump motor to start. To stop the jockey pump manually, turn the HOA selector switch to "OFF" position.

**● AUTOMATIC OPERATION**

To operate the jockey pump automatically turn the HOA selector switch to "AUTO" position. When the system pressure drops below the start pressure set in the configuration screen and the start delay timer has timed out the jockey pump motor will start.

The controller will automatically stop the jockey pump motor once the system pressure rises above the stop pressure set in the configuration screen and the minimum run timer has timed out.

**LUBI ELECTRONICS**

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Product Improvement is a continuous process at 'LUBI'. The data given in this publication is therefore subject to revision.

