PUMP CONTROLLER

DIGITAL STARTER PROTECTOR - 3 PHASE, 380V
GENERATION 2

Responsibility

The manufacturer is not liable for malfunctioning if the product has not correctly been installed, damaged, modified, and /or run outside the recommended work range or in contrast with other indications given in this manual.
The manufacturer declines all responsibility for possible errors in this operation manual, if due to misprints or errors in copying. The manufacturer reserves the right to make any modifications to products that it may consider necessary or useful, without affecting the essential characteristics.

Introduction

Model L931 is useful in all cases where it is needed to control and protect a single pump and managing its turn-on and turn off by different electrical installations.
Typical usage scenarios include:

- Houses
- Flats
- Holidays houses
- Farms
- Water supply from wells
- Irrigations of greenhouses, gardens, agriculture
- Rain water reuse
- Industrial plants
- Waste water tank / Sewage sink

Technical parameter & features

Main features:

- Built In function switch
  applied for water supply by liquid level control through float switch or liquid probe;
  applied for water supply by pressure control through pressure switch and pressure tank;
  applied for drainage by liquid level control through float switch or liquid probe.
- Automatic stops the pump in the case of water shortage, protecting it from dry running without installing float switch or liquid probe in the well.
- Auto / Manual switch.
- Dynamic LCD displaying pump running state.
- Push Button Calibration.
- Pump Accumulative Running Time Displaying.
- Pump Last Five Fault Record Displaying.
- RS485 Communication.
- Starts and stops the pump in accordance with the different liquid level or pressure setting.

Model L931 has many operation modes by adopting different electric installations. An important feature that makes the difference between Model L931 and common On/Off pump control box is the probe / sensor free in the well. Our special design makes it a very reliable and sensitive protection against pump dry running without installation of a probe / sensor in the well.

TECHNICAL PARAMETERS

MAIN TECHNICAL CHARACTERISTIC	
Control characteristic	Double liquid level control
	Pressure control
Control method	Manual / Auto
Liquid level control characteristic	Pulse electrode probe & float switch
Pressure control characteristic	Pressure switch (n/c) & pressure tank
MAIN TECHNICAL DATA	
Rated output power	0.75-4kW (1HP-5.5HP) 5.5-11kW (7.5HP-15HP) 15kW (20HP)
Rated input voltage	Refer to the nameplate
Trip response time of over load	5sec-5min
Trip response time of open phase	< 2 sec
Trip response time of short circuit	< 0.1sec
Trip response time of under / over voltage	< 5sec
Trip response time of dry run	6sec
Recovery time of over load	30min
Recovery time of under / over voltage	5min
Recovery time of dry run	30min
Trip voltage of over voltage	115% of the rated input voltage
Trip voltage of under voltage	80% of the rated input voltage
Liquid level transfer distance	≤1000m
Protection function	Dry run Over load Transient surge Under voltage Over voltage Open phase Pump stalled Short circuit Over temp Three phase unbalance Phase reversal Repeated start
MAIN INSTALLATION DATA	
Working temperature	-25°C -- +55°C
Working humidity	20% - 90%RH, no drips concreted
Degree of protection	IP54
Install position	Vertical
Unit dimensions (L x W x H)	30.2 x 24 x 12 cm
Unit weight (net)	2.3kg
RS485 TECHNICAL DATA	
Physics Interface	RS485 Bus Interface: asynchronism semiduplex
Baud rate	1200 bps, 2400 bps, 4800 bps, 9600bps Default: 9600bps
Protocol type	MODBUS Protocol (RTU)