

MINI PUMP GURU



The most Innovative Technology

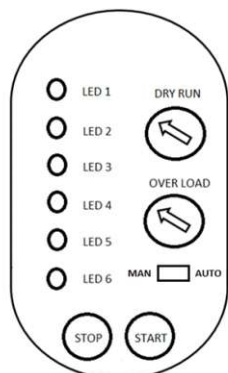
With Simple Operation



Key Features

- Excellent Control
- High Reliability
- Efficient motor control
- Compact in size
- Easy To operate (Start Stop push button)
- Auto Manual Switch
- Over load & Dry run Settings
- LED Indications

Operation Manual of Three Phase Mini Pump Guru :



SWITCHES -

Mini Pump Guru is the ONLY product which offers 3 Phase & 3 Current Monitoring and Protection to PUMP. Mini Pump Guru is an ELECTRONIC PUMP STARTER which works on 3 Phase supply. It has 2 keys namely START & STOP along with 6 LEDs to shows various faults and different status. It provides following types of protections:

- Over / Under voltage Protection
- Phase Protection
- Dry Run Protection
- Overload Protection
- Phase Loss
- Phase Reversal
- Phase Imbalance

START KEY - User can start the pump by using START KEY. Mini Pump Guru will not allow the user to start pump if any one of the fault is generated. START Key is remain disable for 15 seconds after POWER ON that means User can not start Pump after first 15 seconds of power on.

STOP KEY - User can stop pump by using STOP KEY. When Overload fault occurs then it shows this fault on LED6. User wants to reset above condition, then either user must press Stop key for 5 seconds or provide POWER CYCLE (ie power on/off once).

AUTO/ MANUAL SWITCH - When this switch at Manual position then User has to press START key to turn ON Pump and OFF by pressing STOP key. If switch at AUTO mode then pump will start only after POWER ON. Auto Mode is valid or recognize when controller is in Auto Mode or switch from Manual to Auto Mode.

KNOBBS - OVERLOAD Knob - Value of OVERLOAD current can be set by using OVERLOAD knob and this value is in AMPERE. DRY RUN Knob - Value of DRY RUN current can be set by using DRY RUN knob and this value is in PERCENTAGE of SET Current.

INDICATORS -

- LED 1 - indicates Power On Status
- LED 2 - states Over and Under Volt Fault
- LED 3 - shows Phase Fault
- LED 4 - indicates Dry Run Fault
- LED 5 - states Over Load Fault
- LED 6 - shows Pump Status

Over / Under voltage Protection - Mini Pump Guru offers

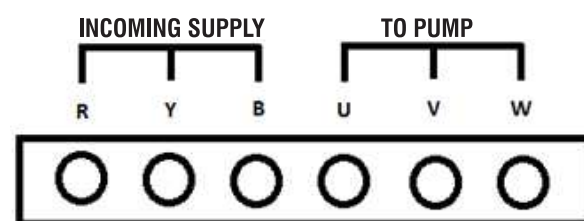
Over/Under voltage protection and indicate such fault on LED. When supply voltage goes above 450 volt then it generates over voltage fault on LED and halts pump. It shows Under Volt fault on LED2 when supply voltage goes below 265 volt. Mini Pump Guru continuously monitors supply voltage and provides protection against such voltage faults. If pump is in Running state and any voltage fault is generated then it stops the pump automatically and starts the pump only if supply voltage is stable and normal.

Phase Protection - Mini Pump Guru detects 3 types of Phase fault ie Phase imbalance, Phase Reversal and Phase Loss. If voltage difference between any 2 phase of 3 phase is more than 25% or phase sequence of 3 phase supply is not correct or any one of the phase is missing then it shows Phase fault on LED3. If current imbalance condition occurs during RUN time then same LED glows. For current imbalance, there has to be 50% current difference among three phase current.

Dry Run Protection - Mini Pump Guru not only provides voltage protection but also offer actual current monitoring and protection. If Pump draws low current while running state and this current is less than SET DRY RUN value which is set by DRY RUN knob then it shows Dry Run fault on LED4. If Dry Run fault occurs then it stops the pump and restarts the pump after 10 minutes and again starts monitoring the Pump current. Dry run is a percentage setting of overload setting

Overload Protection - This feature provides protection to the pump in case of an overload. If the current flowing through the Pump is more than SET OVERLOAD value during Run state then it generates OVERLOAD fault on LED5 and halts the pump from such high current. Mini Guru will not restart pump unless and until user presses STOP key for two seconds or power ON/OFF.

Connections -



Installation Procedure -

- * Make 3 Phase Supply connections as per above diagram at the bottom of panel. Do not connect pump directly.
- * Turn the supply ON then all LEDs except power on & pump on LED starts blinking for 30 seconds. After that if the Mini Pump Guru shows Phase Fault in case of Phase Reverse then turn OFF supply and make appropriate RYB Connections.
- * After making correct RYB connections, 4 LEDs blink for 30 seconds. After that controller will not show any fault. After that turn off supply and connect pump. Set appropriate dry run and over load value by adjusting respective knobs as per pump actual condition.
- * User has to follow above procedure for correct installation. Whenever any abnormal condition arises then pump will be turn off by Mini Pump Guru.