

5. TROUBLE SHOOTING GUIDE

Fault Message	Possible Cause	Solutions
UNDER V	the real running voltage is lower than the calibrated voltage, pump is in under voltage protection state	report low line voltage to the power supply company
		controller will attempt to restart the pump every 5 minutes till line voltage is restored to normal
OVER V	the real running voltage is higher than the calibrated voltage, pump is in under voltage protection state	report high line voltage to the power supply company
		controller will attempt to restart the pump every 5 minutes until line voltage is restored to normal
PUMP STALLED	pump motor running ampere increasing exceeds the normal running ampere(calibrated ampere) by more than 175%	cut off power supply & repair or replace pump
	pump impeller / motor bearing broken or jammed	check and repair the impeller or motor bearing
	pump output power is higher than the controller output power	choose the suitable pump which matches with the controller
OVER LOAD	pump motor running ampere increasing exceeds the normal running ampere(calibrated ampere) by more than 135%	cut off power supply & repair or replace pump
	pump impeller / motor bearing broken or jammed	check and repair the impeller or motor bearing
	pump output power is higher than the controller output power	choose the suitable pump which matches with the controller
OPEN PHASE	power supply lose phase	report to the power supply company
	controller inlet wire or pump cable broken	repair inlet wire or pump cable
THREE PHASE UNBLANCE	the real voltage (ampere) between three phase(R/S/T) is not same and the difference is more than $\pm 15\%$	report to the power supply company
		controller will attempt to restart the pump every 5 minutes until the voltage(ampere) between three phase restored to normal
POWER PHASE REVERSAL	sequence of three phase of input power (R/S/T) error	report to the power supply company
		change the sequence of the three phase
PUMP NO CALIBRATION	parameter calibration not completed	refer to the parameter calibration setting

Fault Message	Possible Cause	Solutions
DRY RUN	the water well is lack of water	controller will attempt to restart the pump every 30 minutes until water well is full of water
	improper parameter calibration is done	erase the last parameter calibration and re-calibrate
	the pump inlet or impeller is jammed	check the inlet or impeller and clean the blockages
OVER TEMP	the temperature in pump motor winding is high and contacting point of thermal switch is in open circuit state	waiting the temperature in pump motor winding cooling down, the contacting point of therm switch is in close circuit state