106 - Generator G Temp - NM72, NM82, V82

Enable generator temperature control functionality in software.

Does this solve the problem?

1] Yes
2] No
3] I don't know

- Explanation

If a Winergy generator is installed in the turbine, it may be in the affected population of CIM 1945 and if approved, generator temperature control functionality can be enabled. Check with your local Engineering department to verify that it is okay to impliment this functionality and to develop a customer communication plan as well as an operation plan for the generator (i.e. does the generator need to be replaced, can it run with temp control enabled, is it a candidate for fan+pump upgrade etc.).

Check the news on CIM 1945 for more information regarding the fan and pump upgrade status which is currently being tested.

The generator temp control function can ONLY be enabled on Winergy generators approved by the Engineering Department.

106 - Generator G Temp - NM72, NM82, V82

Bleed air from system

Does this solve the problem?

1] Yes
2] No
3] I don't know

- Explanation

Start the generator coolant pump from the control panel listen for abnormal noise.

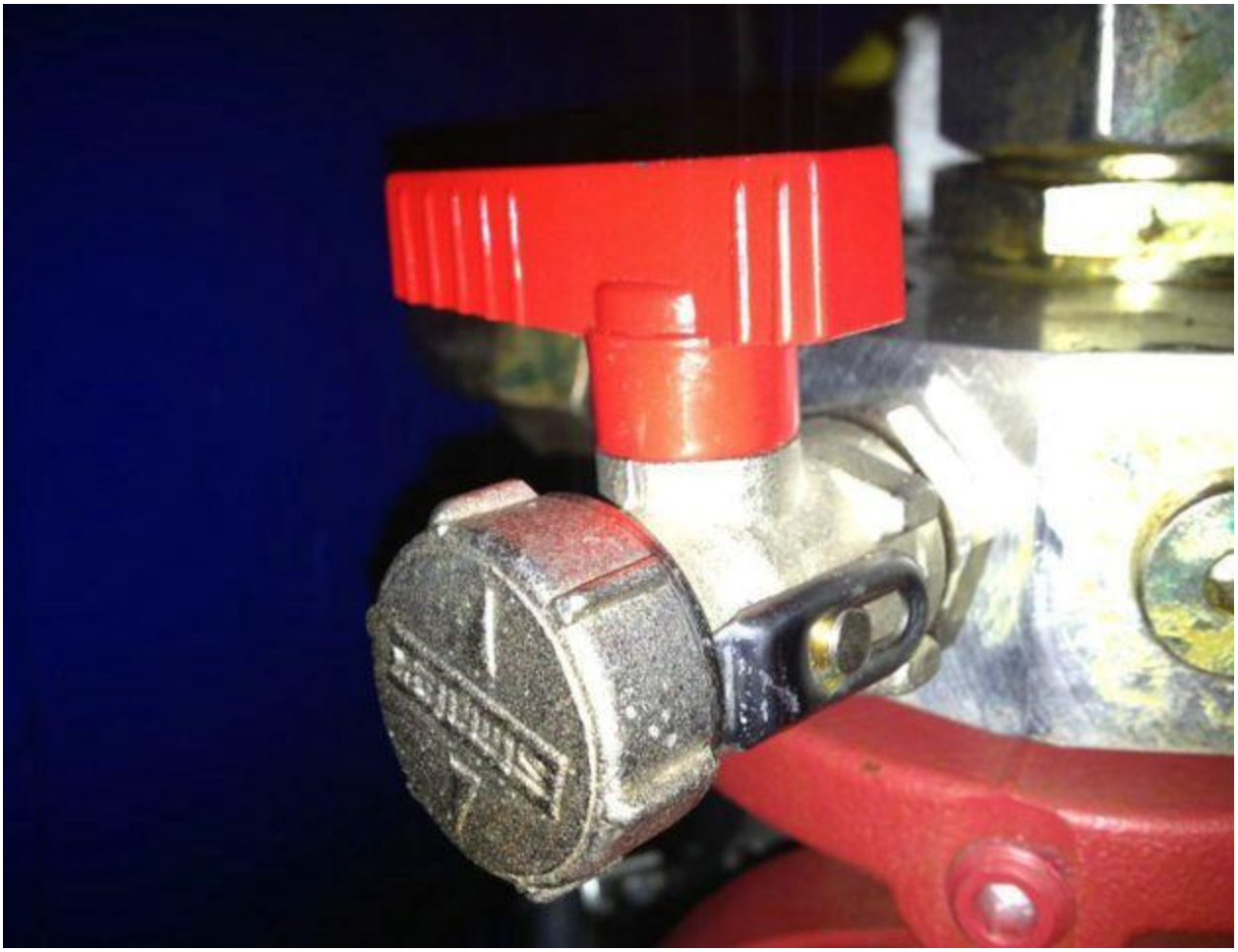
Check the pressure on the gauge at the pump, the pressure must be 2bar +/- 0.2 bar. If the system pressure is too high, bleed down the pressure by opening the petcock and drain fluid into the attached cup until the pressure is within the correct range.

Drain pet cock on coolant pump:

If the pressure is too low, add coolant and increase pressure using T2887300 - PRESSURE TEST PUMP TP-50 POWER

Fit the hose from the TP-50 pump onto the inlet valve, open the valve on the TP-50 and open the valve on the generator coolant pump. Begin pumping the TP-50 until the pressure in the system is within the correct range.

Fitting on generator coolant pump:



TP-50 hand pump:

There is a breather on the top of the generator radiator, loosen the plastic cap on top by turning it clockwise but do not remove. Listen for air escaping the system, once the air is released turn the plastic cap clockwise hand tight.

If no air escapes, loosen the breather but do not remove. If air escapes, replace the breather: Item number 60062613 - Breather for Hydac water-to-air cooler

Breather

106 - Generator G Temp - NM72, NM82, V82

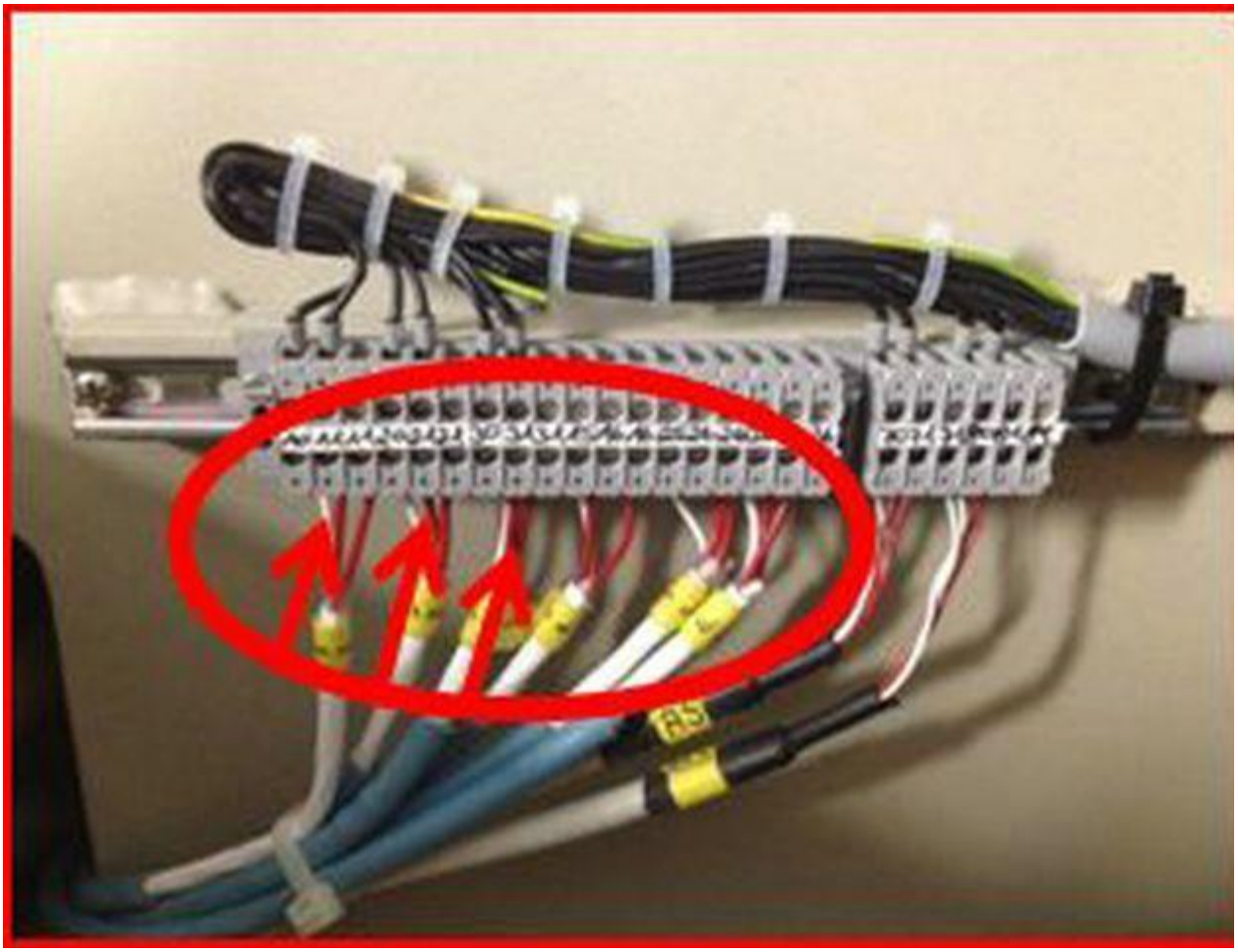
Test/Change faulty PT100 sensor(s)

Does this solve the problem?

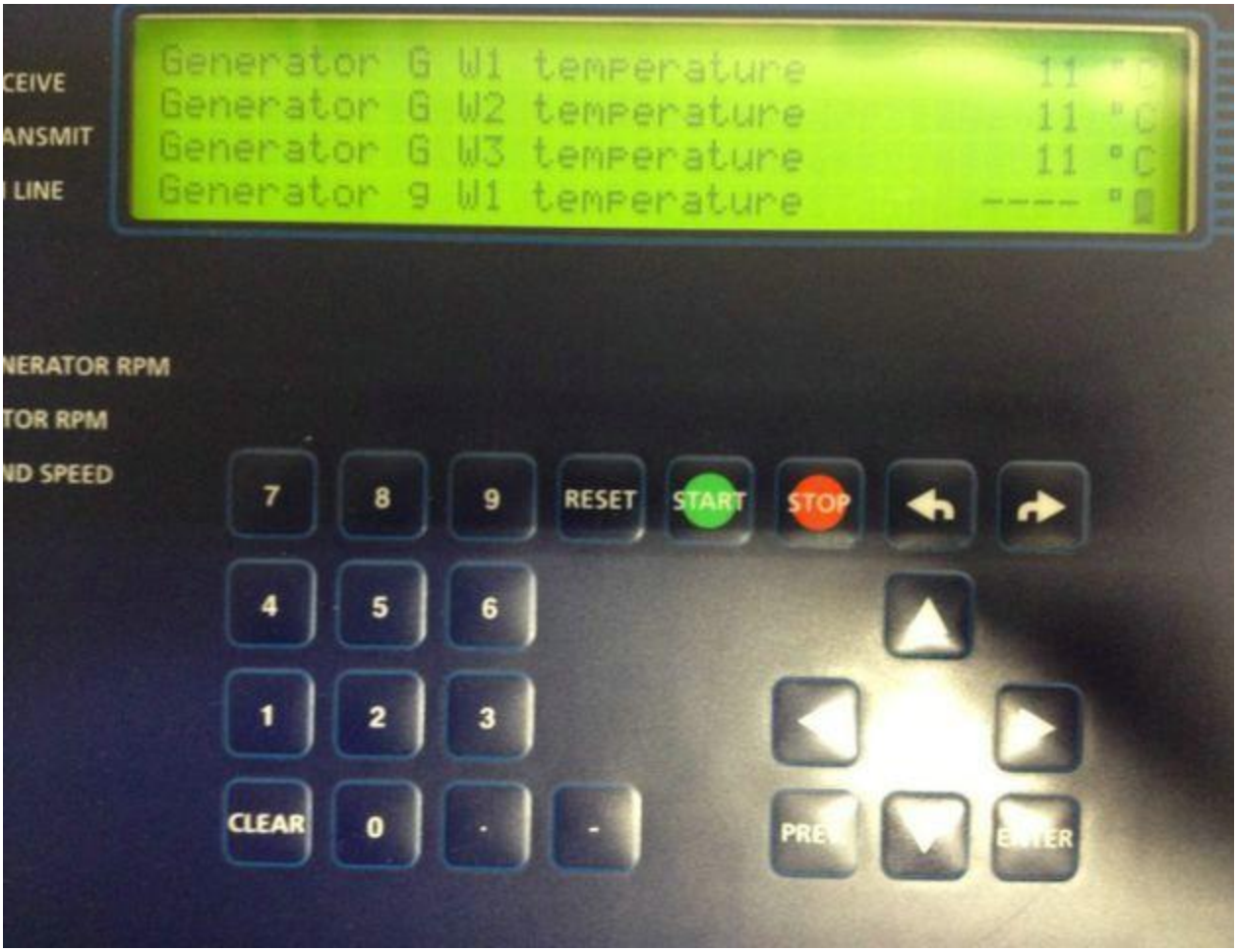
1] Yes
2] No
3] I don't know

- Explanation

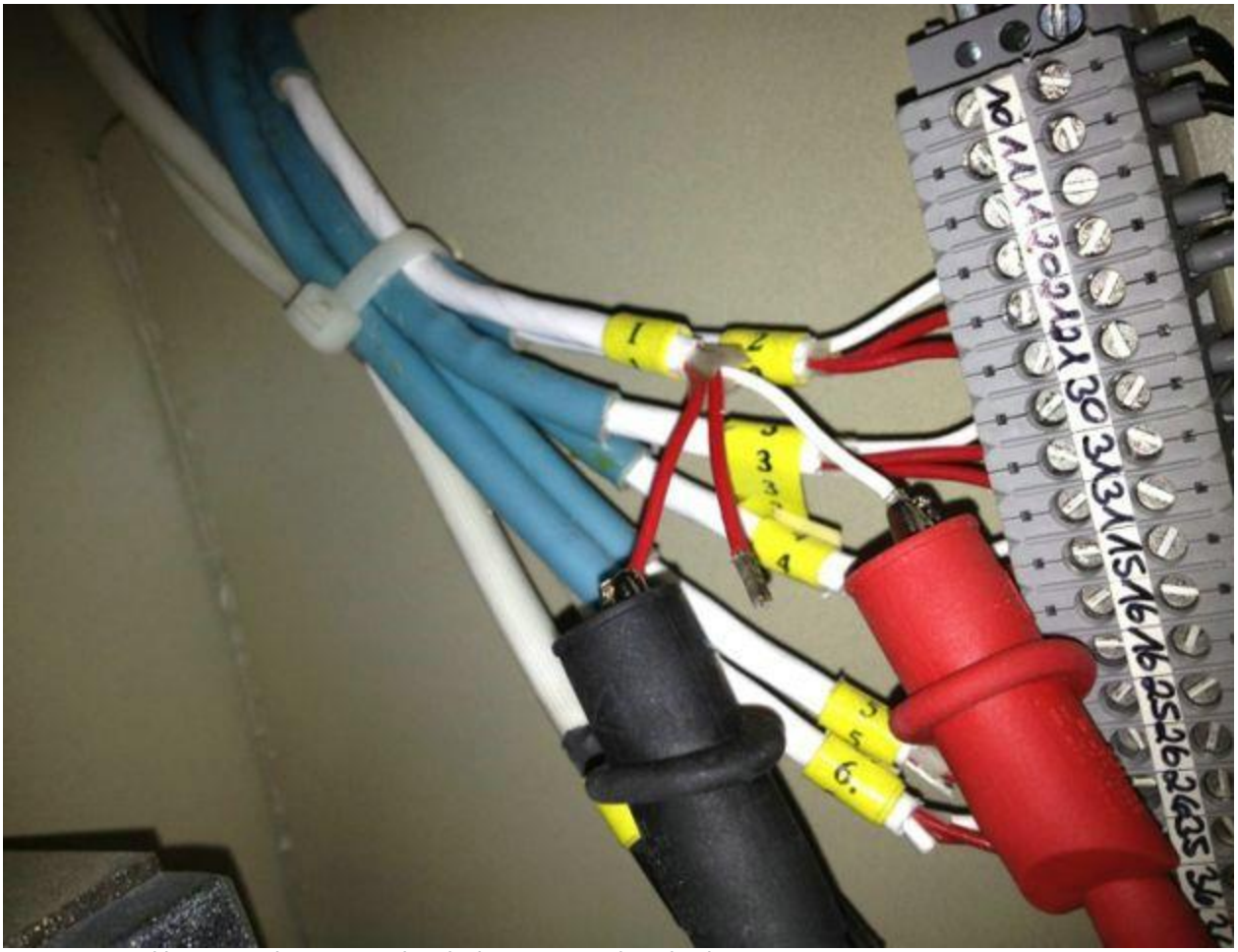
Winding PT100 sensors cannot be replaced in the field, however the generator is equipped with redundant sensors for all windings. Sensors can be tested in the generator junction box.



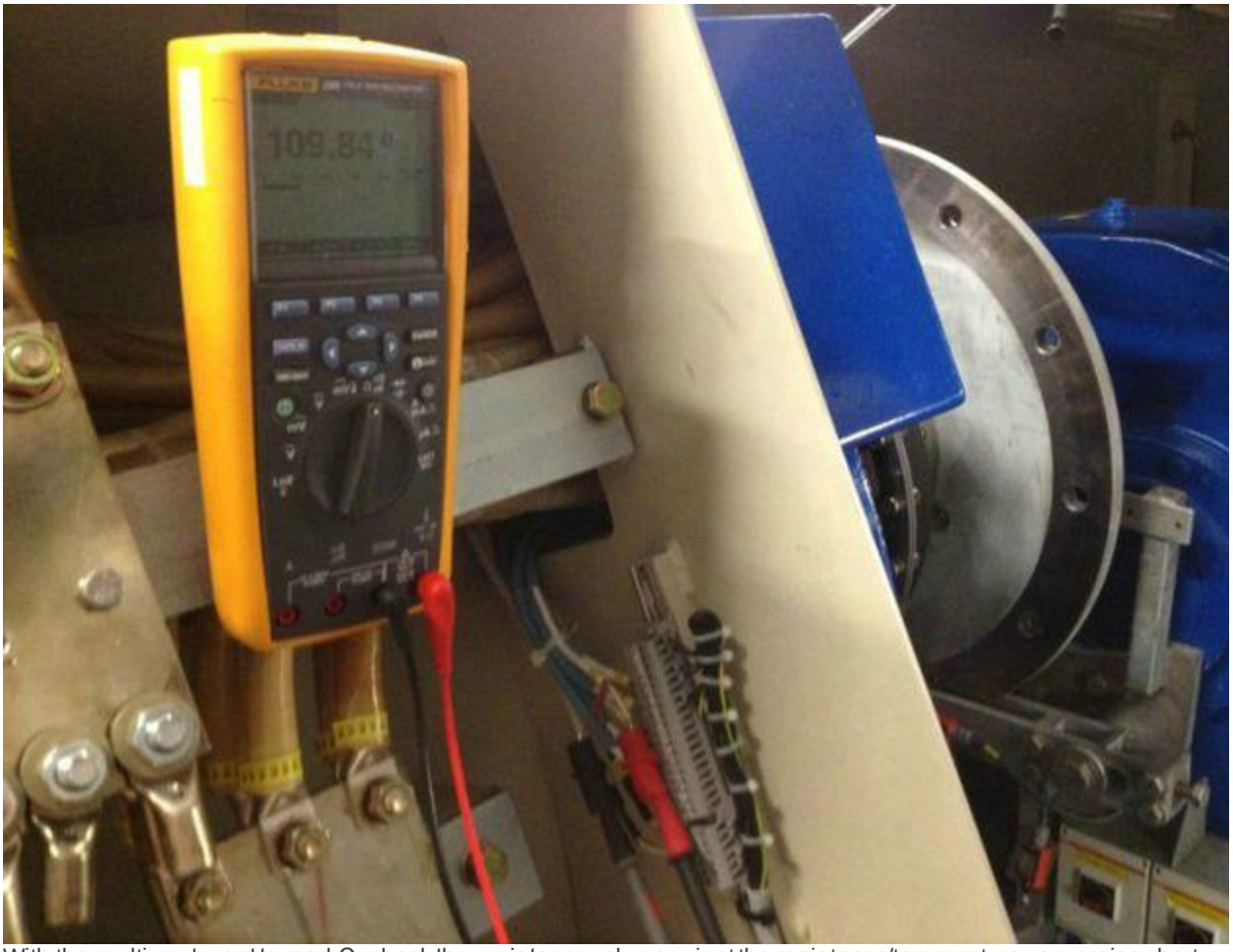
In the TAC controller, look at the individual winding temperatures in the temperature menu.



If one of the winding temperatures is unreal, it could be affecting the average of the three and cause this alarm. Test the sensor at the generator junction box.



Connect a multi-meter to the PT100 wires in the generator junction box.



With the multi-meter set to read Ω, check the resistance value against the resistance/temperature conversion chart.

106 - Generator G Temp - NM72, NM82, V82

Change the faulty TOI-2 Tower, Water pump motor and Contactor

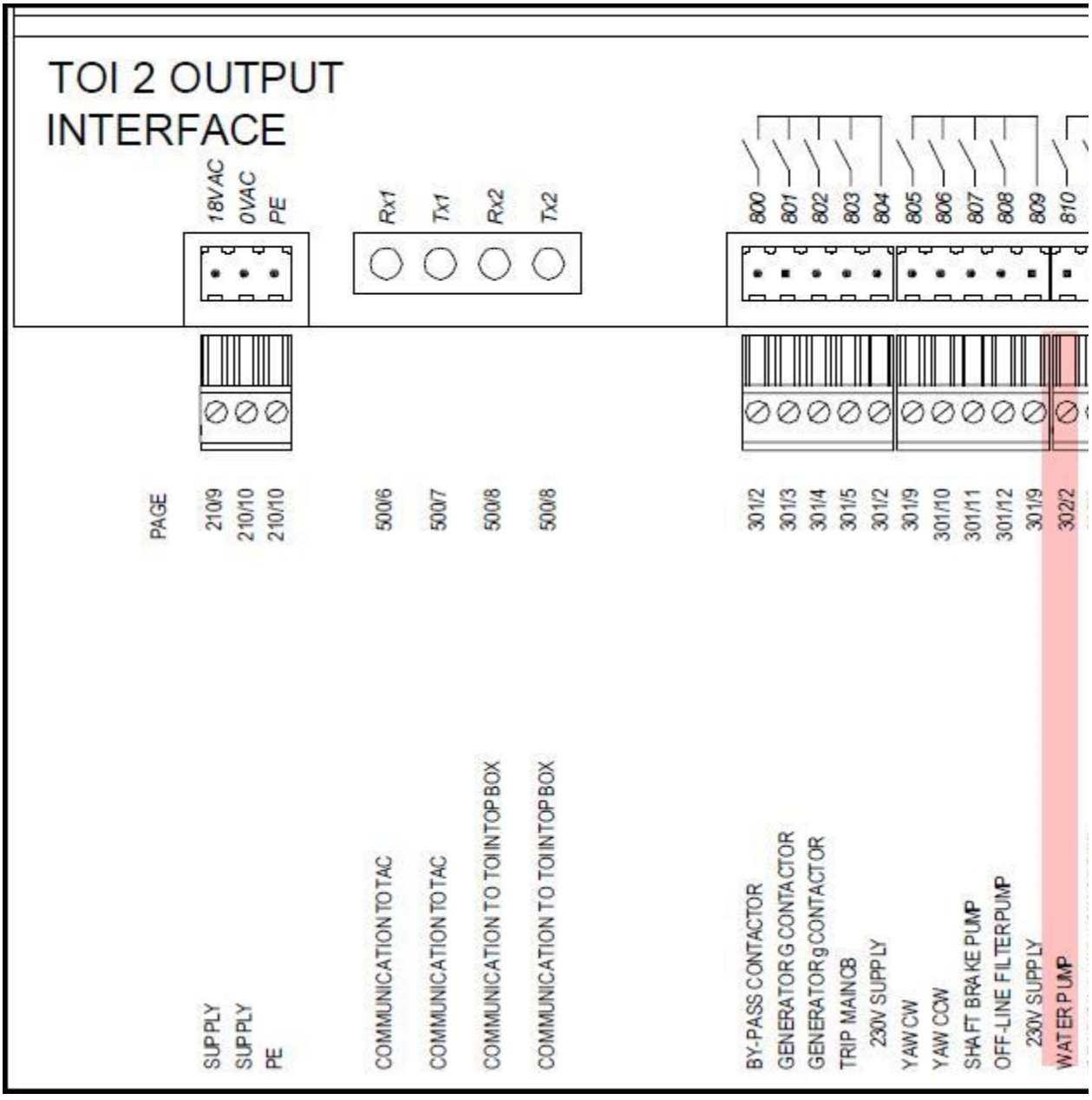
Does this solve the problem?

1] Yes
2] No
3] I don't know

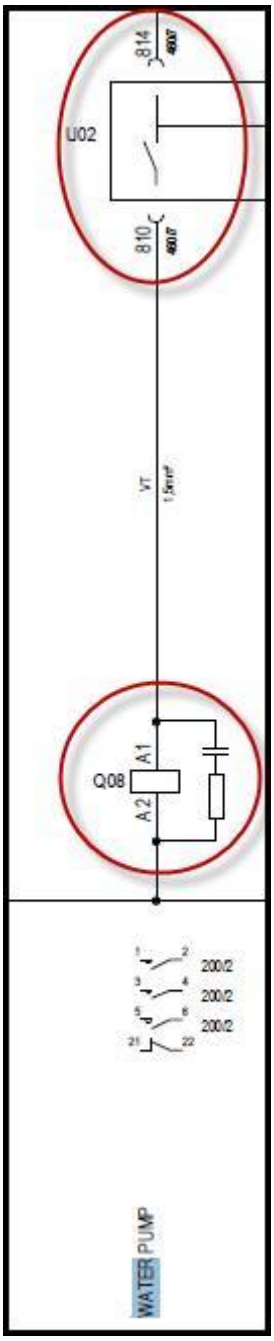
- Explanation

Check all three winding temperature at cotnroller, if the temperature equal and raised gradually, Test the motor operation thru the controller test mode function,If the motor not run check .

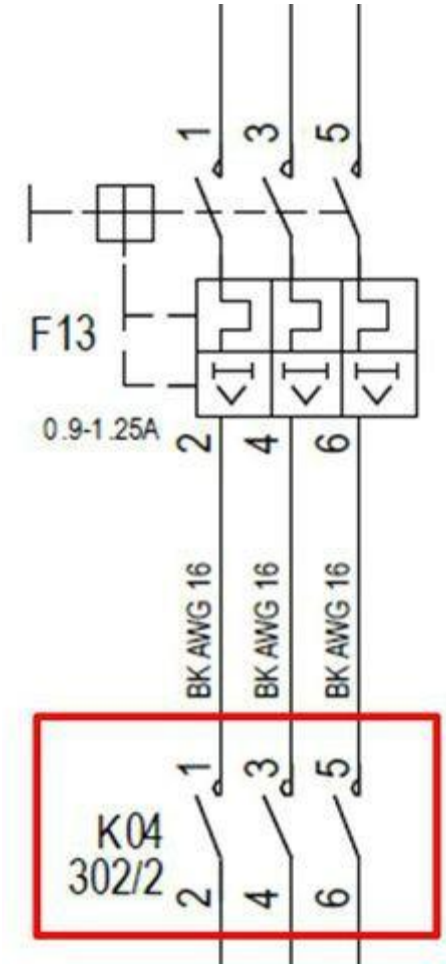
AT2 Cabinet Check the TOI-2 Tower out put 810 Water pump, if there is no out put while testing change the TOI-2 tower Check the motor contactor Q8/K04 coil supply and termimal out puts and if there is not output change the conctactor.


TOI 2 OUTPUT
INTERFACE
18VAC
0VAC
PE
Rx1
Tx1
Rx2
Tx2
800
801
802
803
804
805
806
807
808
809
810
PAGE
SUPPLY 210/9
SUPPLY 210/10
PE 210/10
COMMUNICATION TO TAC 500/6
COMMUNICATION TO TAC 500/7
COMMUNICATION TO TOI INTOP BOX 500/8
COMMUNICATION TO TOI INTOP BOX 500/8
BY-PASS CONTACTOR 301/2
GENERATOR G CONTACTOR 301/3
GENERATOR g CONTACTOR 301/4
TRIP MAIN CB 301/5
230V SUPPLY 301/2
YAW CW 301/9
YAW CCW 301/10
SHAFT BRAKE PUMP 301/11
OFF-LINE FILTER PUMP 301/12
230V SUPPLY 301/9
WATER PUMP 302/2

50Hz

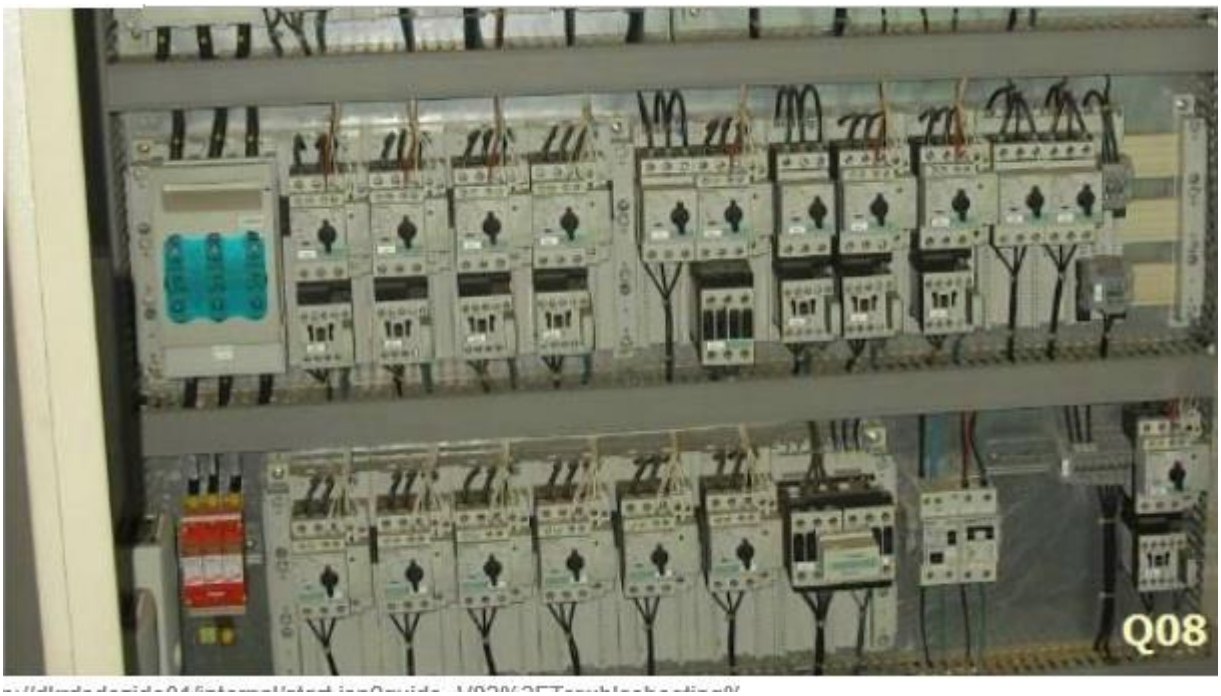


60 Hz



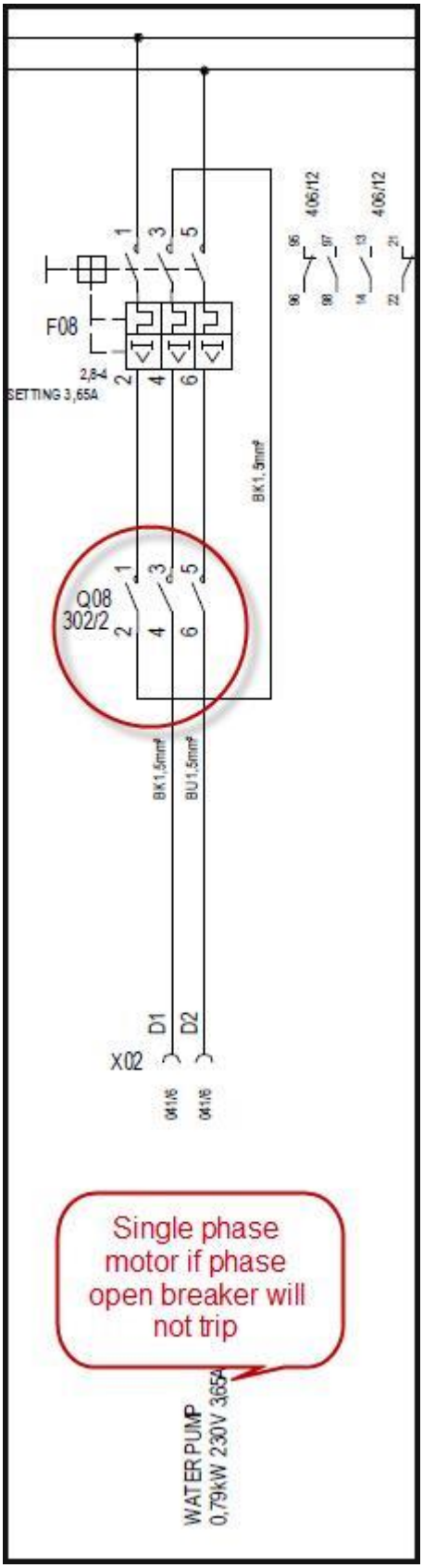
Part Number for TOI unit:
51701501 TOI-II INTERF NM1500 TOWER

Part number for motor contactor Q8
60004394 - CONTACTOR 3RT1016-1AP02 230V 50/60Hz



At Nacelle Check input voltge to the motor (M06) and supply voltage present but motor not run,stop the test fucntion desconnect the supply voltage and check the winding continuity,if the motor winding opened, the breaker will not trip since single phase circuit not closed. Nofault current flow. Change the motor.
Motor item code:

60061710 - MOTOR WATER PUMP UPS40-180F
Water pump motor replacement SWI - 0023-9289


F08
2,8-4
SETTING 3,65A
Q08
302/2
BK1,5mm²
BU1,5mm²
D1
D2
X02
Single phase motor if phase open breaker will not trip
WATER PUMP
0,79kW 230V 3654