

To fix the Hat and sealing cover

Does this solve the problem?

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

- **Explanation**
IN THE Nacelle:

Ensure mounting hat is fixed

Relevant documentation	
Description	DMS No.
Mounting Hat on Yaw Motor	0004-5922
Sealing Nacelle Cover	0004-7508

Relevant spare parts	
Description	Item No.
KIT SET FOR YAW MOTOR PROTEC	883141
COVER PL. CPL. AT MAIN SHAFT V82 -LEFT	60111602
COVER PL CPL AT MAIL SHAFT V82 -RIGHT	60111603



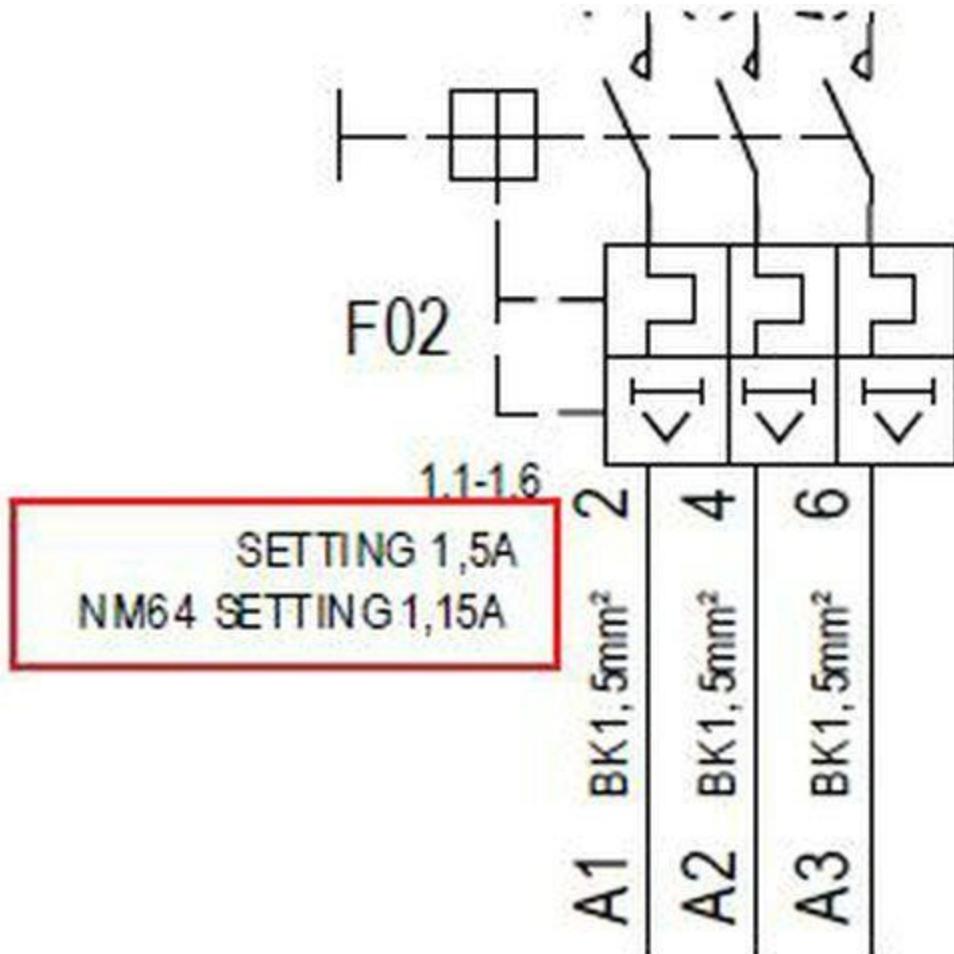


Replace the MCB

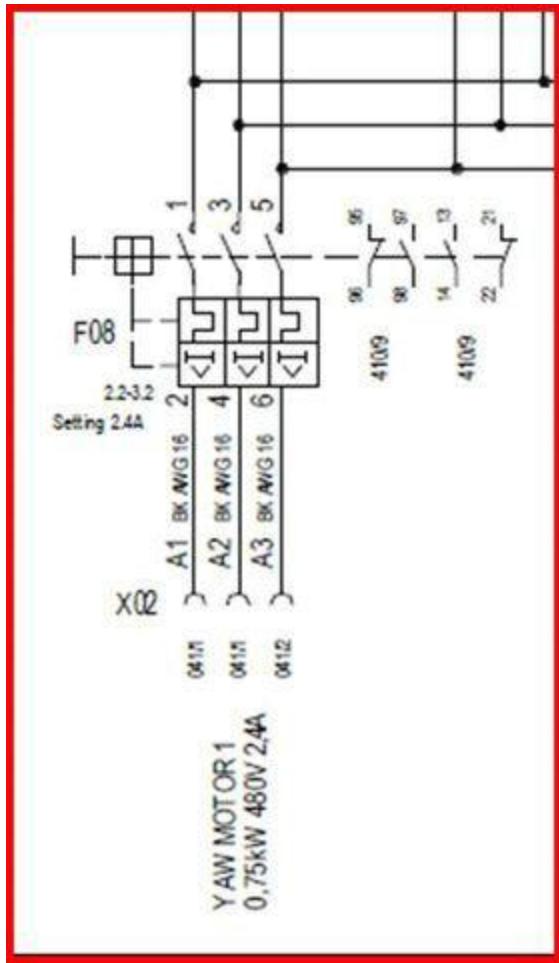
Does this solve the problem?

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

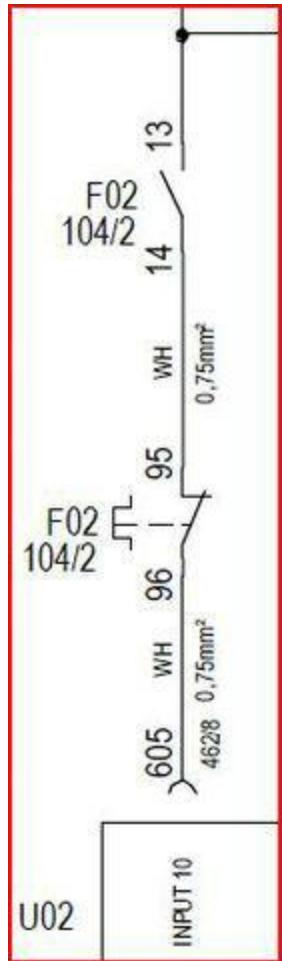
- **Explanation**
50 Hz



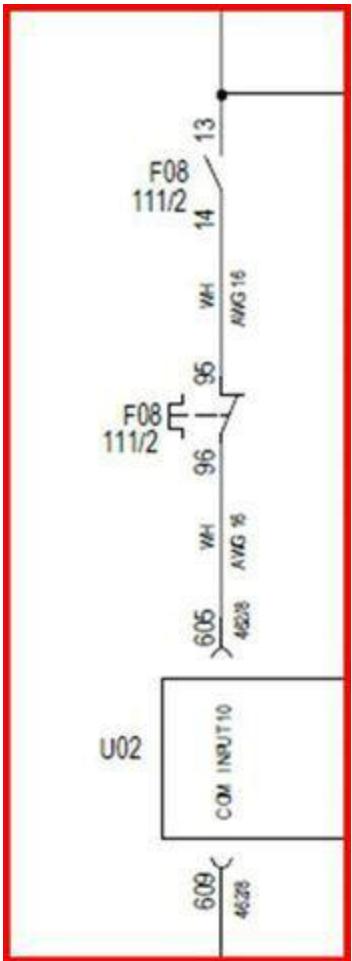
60Hz



50 Hz



60 Hz



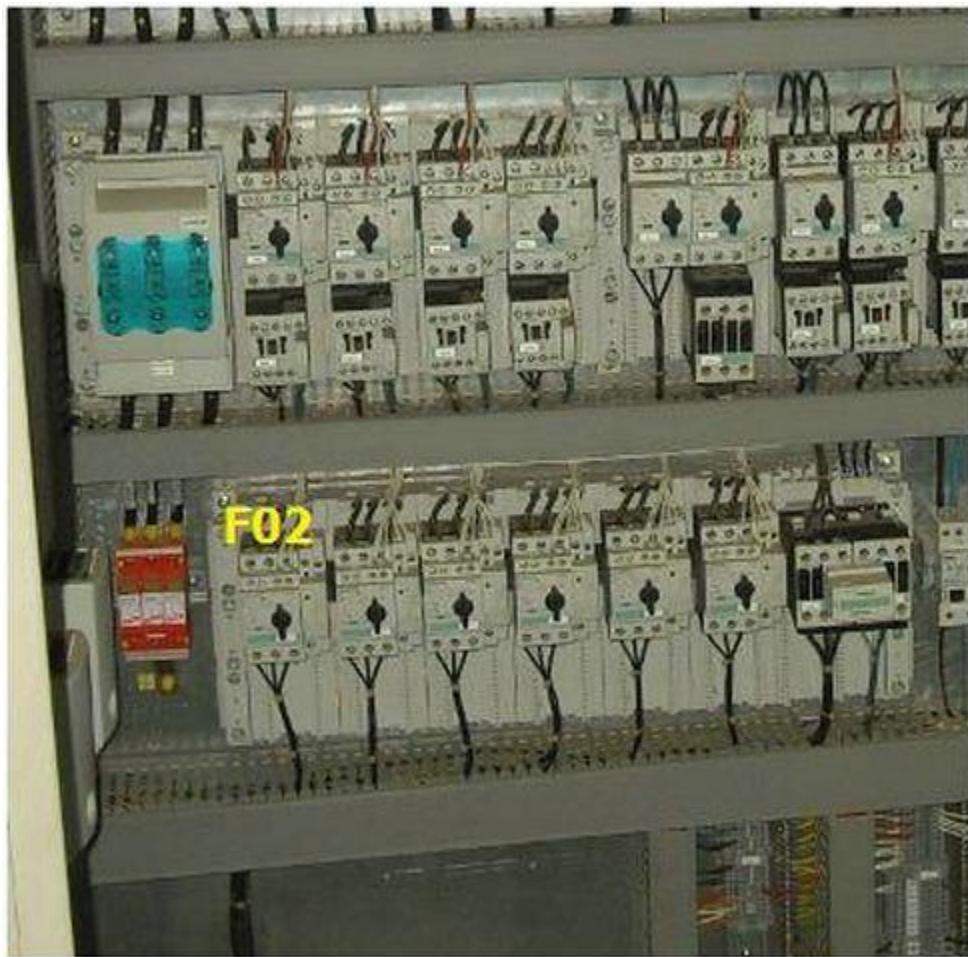
IN THE AT2 CABINET:

- Check the INPUT/ OUTPUT voltage (F02)
- Check the MCB function.
- Check the MCB continuity.
- Check the required current setting in the MCB
- Check for loose connection in the terminals and cable condition.
- Check the Auxiliary relay function input to TOI.

Relevant documentation	
Description	DMS No.

Replacement of Electrical parts in Control Panels	0001-8388
Risk Assessment	0001-8390

Relevant spare parts	
Description	Item No.
CB 3RV1121-1AA10 1.1-1.6A	60004746
CB 3RV1121-1DA10 2.2-3.2A	60004749
AUX CONTACT 3RV1901-1E	60004778



Replace yaw Motor

Does this solve the problem?

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

- **Explanation**

- Check for any loose connection in the terminal box:
- Remove the STAR/ DELTA connections and check the Winding /coil resistance valve

Yaw motor



Yaw motor connection:



Remove the Yaw brake magnetic coil connection

And Measure the resistance value of the motor windings and magnetic coil.

Measure phase to phase and phase to earth on all windings.



The resistance value should be $>1M\Omega$.

- Check the supply voltage R,Y ,B Winding
- To ensure operate the Motor and listen abnormal noise of any kind.

If magnetic coil failure, we can replace coil only

Refer documents:

- Yaw motor replacement WKI: [0011-5166](#)
- Service Work Instruction for Yaw Lock: [0002-8965](#)
- Service Work Instruction for Yaw System" [1000686](#) V08

Vestas Item No:

- Yaw motor : 60091176
- Yaw motor magnetic coil - 60120682 (AC BRAKE TYPE FA)
- Yaw lock assembly.:VT735237

Yaw motor magnetic coil



Check & adjust the yaw magnetic brake –Refer the Service Work Instruction for Yaw System" [1000686](#)

Replace the defective cable

Does this solve the problem?

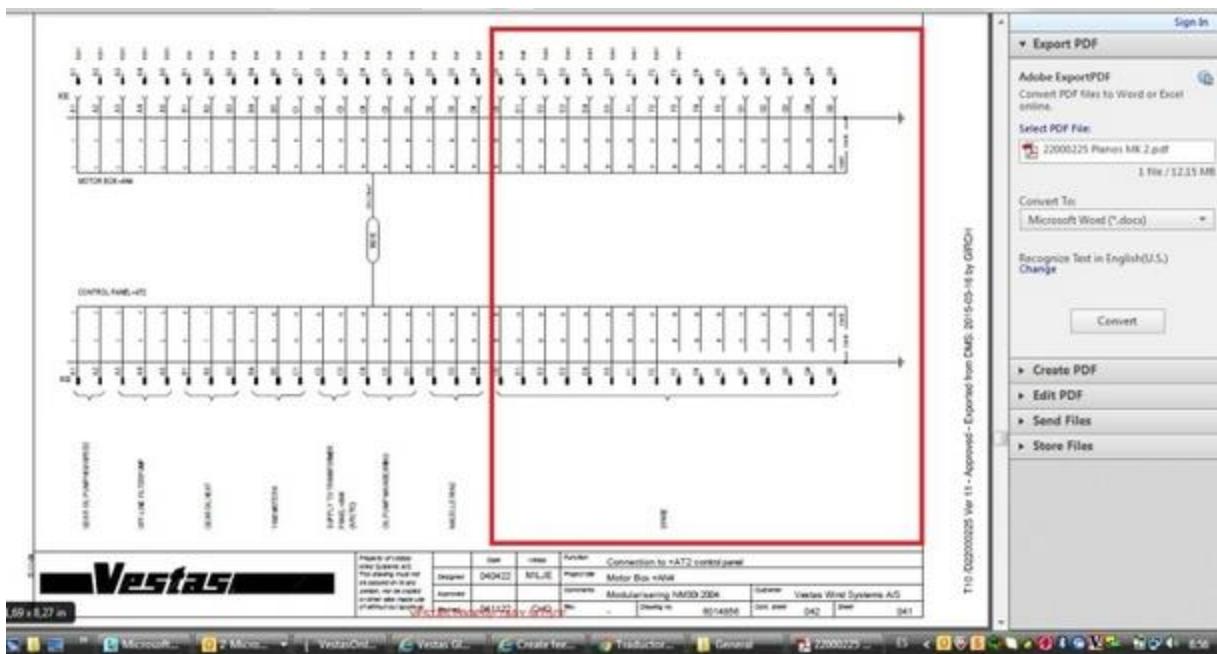
1] Yes

2] No

3] I don't know

• Explanation

- Check the incoming cable from Control panel (+AT2) to motor box (+AN4), in some cases broken wires have been found (at the loop) inside the W309. There are spare wires in W310 and wires have to be moved for the motor in the terminals of +AT2/+AN4. Remember to mark old wires in both ends as defect. Spare wires



Relevant documentation

Description	DMS No.
El diagrams, V82-1.65MW & NM72/1650KW 1-SPEED	22000225

- Check the cable connection from motor box(+AN4) to Yaw motor 1 terminal box (W300)



+AN4 connection Terminal:



Replace the defect Yaw Gear unit

Does this solve the problem?

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

• **Explanation**
IN THE NACELLE:

- Remove the yaw motor with connection

Relevant documentation	
Description	DMS No.
Mounting Hat on Yaw Motor 6	0004-5922
V82/NM82 Replacement of Yaw Motors	0011-5166

Replacement of Yaw Gear Unit	<u>0010-5073</u>
SWI for yaw lock	<u>0002-8965</u>

Refer the below Doc:

- Keep the yaw motor safely
- Check the gear unit oil level (if its needed top up as per procedure)
- Master Reset the WTG and Switch on yaw controller.
- To make ensure yaw gear rotate or not.
- To ensure rotate the yaw gear unit and listen abnormal noise of any kind.
- If not rotate the yaw gear unit or create abnormal noise, change the yaw gear unit as per WKI.
- To ensure yaw gear unit bed bolt torque valve as per I & S data

Relevant spare parts	
Description	Item No.
Yaw gear Bonfiglioli 709T4F 0,	<u>60103371</u>

[Picture view yaw gear:](#)



Replace the defect Tower TOI unit

Does this solve the problem?

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

- **Explanation**

INPUT 525-613

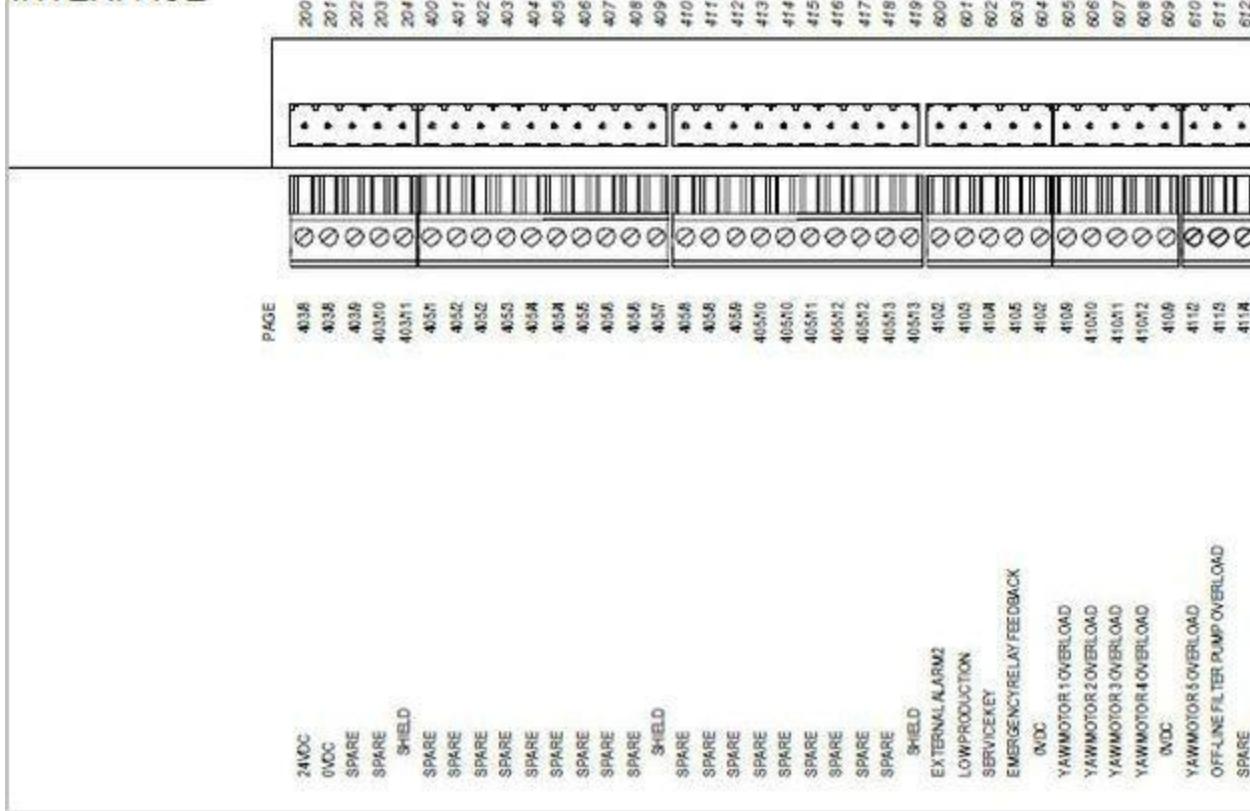
- Main bearing pump overload
- Nacelle fan overload
- Yaw brake pump overload
- Pitch feeder pump o.load
- Pitch main pump overload
- Pitch softstarter feedback
- UPS load protected
- UPS battery fault
- External alarm 2

- Service key
- Safety relay feedback
- Yaw motor 1 overload
- Yaw motor 2 overload
- Yaw motor 3 overload
- Yaw motor 4 overload
- Yaw motor 5 overload
- Off-line filter pump overload
- Gear oil heater overload
- Yaw motor 6 overload

TOI Controller:



TOI 2 INPUT INTERFACE



Observation Points:

- Change the TOI if no signal from TOI
 - To check tightness of the connection.

Relevant documentation	
Description	DMS No.
Replacement of Electrical parts in Control Panels	0001-8388
Risk Assessment	0001-8390

Relevant spare parts

Description	Item No.
TOI-II INTERF NM1500 TOWER	<u>51701501</u>