

Replace the S23 speed sensor

Does this solve the problem?

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

- **Explanation**

The generator speed sensor, S23, is located in front of the generator and is visible from the underside of the coupler. The sensing surface of the sensor should be clean and free of scratches. The sensor must be mounted 1,5-3,0 mm from the coupling link elements to ensure an accurate speed measurement.

The signal travels from the S23 through W509 to the AN14, then through the W614 to the AN1 where it splits to all the TAC84 modules and finally through the W500 to the AT2.

You can view the signal from the speed sensors with Vestas Online Business. The RPM line should change gradually. If there are jumps or drops, the sensor is most likely not reading correctly.

If the sensor malfunctions at all, it should be replaced.

Relevant spare parts

Description	Item No.
PROXI.SWITCH I1808PPOS1531 Ø18 7.5m CAB.	60009270

Check the TAC 84 settings (parameters)

Does this solve the problem?

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

- **Explanation**

The TAC 84 module needs to be set correctly from commissioning for the size and type of turbine.

If the turbine has been operating normally since commissioning and none of the TAC 84 modules have been replaced, this is not a likely cause. However, if this is a new turbine or a new TAC 84 has been installed or software has been changed, the first thing you should do is verify the settings on the TAC 84.

Relevant documentation	
Description	DMS No.
TAC 84 Manual	4002534
Commissioning manual	0000-9925
Settings for TAC 84 Vibration Guard	17000077

Check the circuit for loose wires

Does this solve the problem?

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

- **Explanation**

This alarm has been known to be caused by loose wires. Perform a tug test on all the wires in the TAC84 lateral circuit.

Relevant documentation	
Description	DMS No.
AN1 circuit drawing Doc	0003-2029

Relevant spare parts

Description	Item No.
TAC 84C VIBRATION GUARD RS485 (Mk.3-5)	60015232

Check the B24 vibration sensor

Does this solve the problem?

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

- **Explanation**

Make sure the vibration sensor (accelerometer) B24 is not loose and is reporting a realistic signal. One way to check this is by shutting down the turbine and looking at the wideband vibration for each sensor. All three should be consistent.

If you change the sensor remember to change the sensor calibration parameter on the TAC84 module to match the one printed on the new sensor.

Relevant Spare parts	
Description	Item no.
VS05E ACCELEROMETER 12m	51705401

Replace the defective cooling fan

Does this solve the problem?

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

- **Explanation**

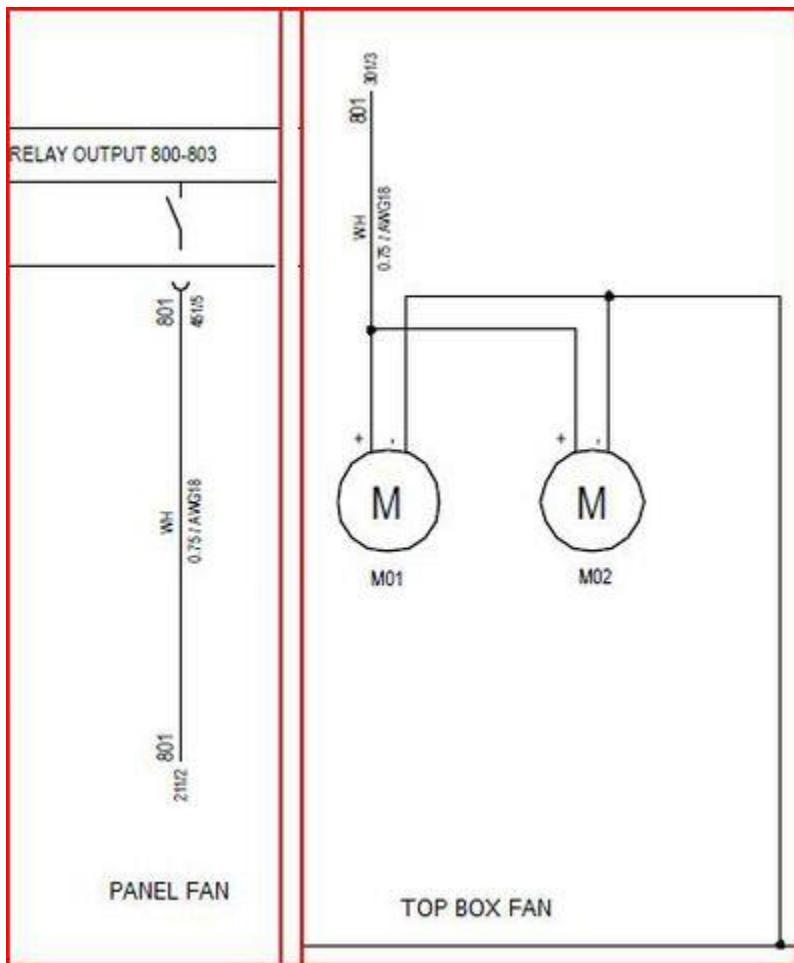
IN THE +AN1 CABINET:

Check that the top box cooling fans are working as designed. High temperature in the AN1 cabinet may cause the relay inside the TAC84 module to malfunction.

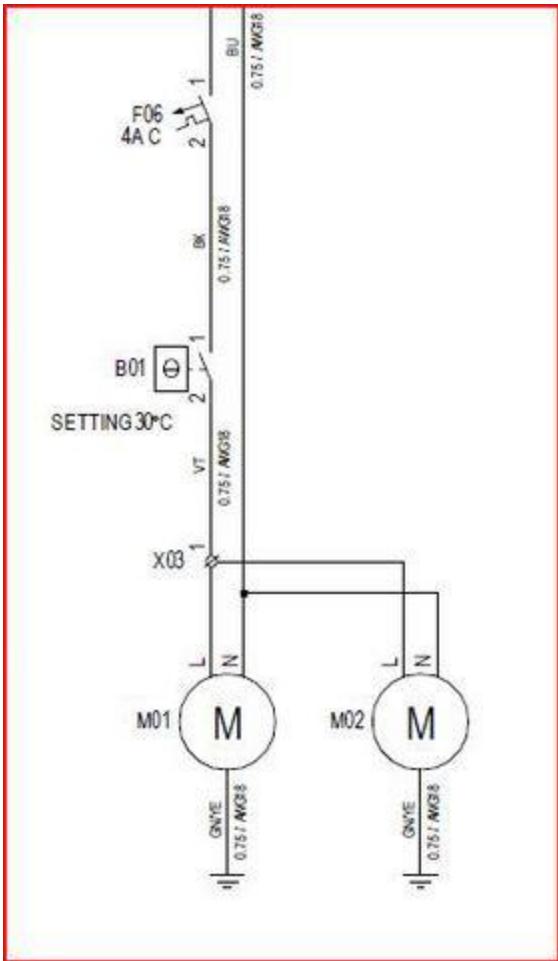
If one or both of the AN1 cooling fans are found to be defective, replace them with new.

Check the heater setting and ensure the set value is @ 30°C.

MK1 and MK2: (24V DC)



MK3 and Above (230V)





Relevant spare parts	
Description	Item No
FAN 55M3/H 24VDC (MK1 & MK2)	<u>60014631</u>
FAN 55M3/H 230V (MK3 and above)	<u>60108632</u>

Replace the TAC84 in position AN1:U07

Does this solve the problem?

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

- **Explanation**

If the circuit checks out ok, you can try replacing the TAC84 with a known working one. Be sure the settings are correct.

Relevant documentation	
Description	DMS No.
TAC 84 Manual	4002534
Commissioning manual	0000-9925
Settings for TAC 84 Vibration Guard	17000077