Check wires between TAC40 and the thyristors

Does this solve the problem?

1] Yes

2] No

3] I don't know

- **Explanation**
  Check the wires in the AT1 that connect to the thyristors, make sure there are no opens or shorts.

Repair or replace the X03 Amphenol connector

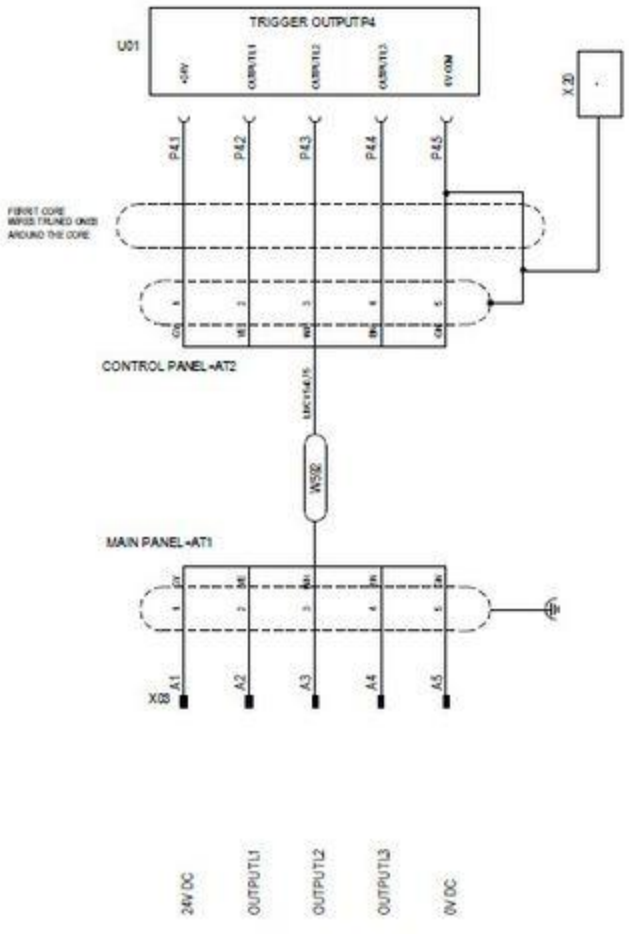
Does this solve the problem?

1] Yes

2] No

3] I don't know

- **Explanation**
  Check the X03 on the AT1. The trigger output from the TAC II may be lost in an open on the line.



Relevant spare parts	
Description	**Item No.**
CONN. MALE STRAIGHT 1.1/4"BS	60059399

Replace the FUSE ATQR 600V 0.5A CC TD UL

Does this solve the problem?

1] Yes

2] No

3] I don't know

- **Explanation**
  Check the fuse and replace if needed.

Relevant spare parts	
Description	**Item No.**
FUSE ATQR 600V 0.5A CC TD UL	60005379

Check for shorts on the capacitor circuit

Does this solve the problem?

1] Yes

2] No

3] I don't know

- **Explanation**
  Any short in the AT3 capacitor cabinet could cause this error.

Relevant spare parts	
Description	**Item No.**
CONT K350K10200 W/RCUNIT 240V	60099292

Check Pitch soft starter

Does this solve the problem?

1] Yes

2] No

3] I don't know

- **Explanation**
  If the fault happened after the starting sequence, the problem could have nothing to do with the thyristors.

  Thyristor driver will read the current draw for the pitch pump, so if the soft starter is bad, it could signal the thyristor fault.

Relevant documentation	
Description	**DMS No.**
Replacing soft starter	0028-6642

Task list: 16888

Replace the defective thyristor

Does this solve the problem?

1] Yes

2] No

3] I don't know

- **Explanation**

Replace the Thyristor if it is damaged or non-functioning.

If you find a damaged thyristor, check the F09 fuse in line with it.

If this is a repeated issue for this turbine, check if the thyristor cooling fans are working 100%.

Relevant spare parts	
Description	**Item No.**
THYRISTOR MODULE	60001041
FUSE SEMI 660V 800A PSC IEC/UL	60005355

Check Generator cable and generator

Does this solve the problem?

1] Yes

2] No

3] I don't know

- **Explanation**

Measure the Insulation Resistance between generator cable cores and replace, if found defective.

Check the generator. When taking measurements on the generator remember to dismount all cables, as it will make the measurement unreliable if they remain connected.

Relevant documentation	
Description	**DMS No.**
Electrical Measurements on Generator	959335

Relevant spare parts	
Description	**Item No.**
CABLE LUGS & BOLT SET V82 GEN	60106872
GEN ELIN 1650kW 690V 50Hz	093858

Replace the TRIGGER BOARD TAC 40 690V

Does this solve the problem?

1] Yes

2] No

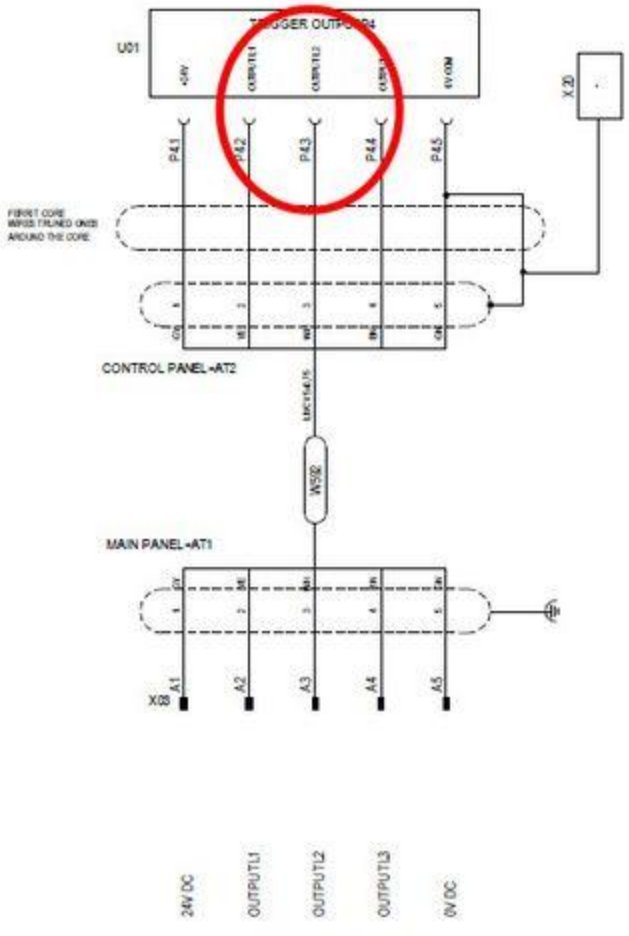
3] I don't know

- **Explanation**

Check the TAC 40 for damage. Replace if it is bad.

You can test the TAC 40 while performing a motor start with the F01 open. Set the amperage on the motor start to 50 and jump the F01 out of the safety line.

Test points circled



Relevant spare parts	
Description	**Item No.**
TAC-II/F NEGM NM1500C/72/82	51707301

Check heaters in AT1 cabinet

Does this solve the problem?

1] Yes

2] No

3] I don't know

- **Explanation**

If the alarm is reoccurring, make sure heaters E01 and E02 are set to 10°C. If the heaters are turning on when it is too hot, the thyristors can overheat.

Also test run the thyristor cooling fans to make sure they are working.

Replace the TAC-II-F NEGM NM1500C-72-82

Does this solve the problem?

1] Yes

2] No

3] I don't know

- **Explanation**

If the trigger output is not coming from the TACII at the correct time or if the signal is too low, then the TAC II may be defective.

Relevant spare parts	
Description	**Item No.**
TAC-II/F NEGM NM1500C/72/82	51707301

Inspect and replace faulty contactors

Does this solve the problem?

1] Yes

2] No

3] I don't know

- **Explanation**

NOTE: Ensure all Vestas policies, local regulations and good practices are followed before entering the AT1 cabinet. Ensure all LOTO has been applied and reviewed.

In the AT1 Main Panel, inspect the main contactors K02, K01, K03. Open the contactor front covers and check for any visible signs of damage and/or burn marks.

Also check the copper bus bars for any damage, signs of burns, overheating or arcing.

Sites have experienced contactor damage and heat transfer to bus bars as a result which have also been damaged. Replace any defective contactors and damaged bus bars as required.

Relevant spare parts	
Description	**Item No.**
CONTACTOR EH1200 240/50HZ	093693
CONTACT SET FOR EH1200 KZ1200	093466
CU BUSBAR KIT 1 MAIN PAN UL	60108673