<table>
<tr><td>306</td><td colspan="5">HPS switch - K1</td><td>Warning</td></tr>
<tr><td>Description</td><td colspan="6">High pressure switch is active</td></tr>
<tr><td>Cause</td><td colspan="6">Discharge pressure is too high and the high pressure switch off</td></tr>
<tr><td>Trouble shooting</td><td colspan="6">
<u>Possible causes:</u>
• High pressure due to
– Ambient temperature is over spec. limit +50°C (+122°F)
– Manual valve after compressor closed
– HP pipe damaged
– Condenser fan motor is not running
– Condenser blocked
• High pressure switch or cable is defective
• Wrong pressure transmitter configuration in relation to transmitter type
• Pressure transmitter defective
• X15 cable is defective
• K1 contactor defective
• Main controller defective
<u>Trouble shooting:</u>
1. Try to correct the error by uploading the latest software version to the controller.
2. The unit uses cooling refrigerant R134a and it is very difficult to operate at temperatures above specification. The unit needs cooler surroundings, better ventilation or water cooling.
3. If the pressure rises very quickly after start of the compressor, check that the valve after the compressor (discharge side) is not closed or only partially open. Make sure valve is fully open.
4. Check that there are no damages to the pipes after the compressor. Repair if they are damaged and check refrigerant level.
5. Check that there are no alarm for the condenser fan motor, AL 402 and AL 426. Also that the fan can rotate freely and that the condenser coil is not blocked for airflow.
6. If condenser coil is blocked, clean the condenser coil to secure any residues is removed.
Disconnect the cable for high pressure switch on the main controller according to the wiring schematics inside the control cabinet.
7. Measure the voltage between the two connectors for the high pressure switch on the connector PCB. If the voltage is below 15 V AC, measure resistance of compressor/FC contactor coil Danfoss (± 5-6 Ω) / Schneider (± 8-10 Ω) / ABB (± 11-13 Ω)
8. Check the cable (measure the resistance in the cable).
If the cable is defective, replace cable and high pressure switch.
9. Check if pressure transmitter is according to “Configuration:” (F08) and set controller according to transmitter type AKS/NSK.
10. Check controller, see “Trouble shooting for Star Cool main controller” before replacing main controller.
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<tr><td>Criteria</td><td colspan="6">Pressure is above high pressure switch safety limit. Cut – out: 22.5 BarE ± 0.7 Bar (326.3 psi ± 10.2 psi), Cut – in: 15.9 BarE ± 0.7 Bar (230.6 psi ± 10.2 psi).</td></tr>
<tr><td rowspan="2">Controller action</td><td colspan="6">Frequency controller is stopped and unit stops</td></tr>
<tr><td>Log</td><td>X</td><td>Alarm</td><td>X</td><td>Alarm light</td><td>Off</td></tr>
<tr><td>Consequence</td><td colspan="6">Unit stops</td></tr>
<tr><td>Elimination</td><td colspan="6">Unit restarts after 5 min. When sensor value becomes valid, it is marked as inactive in alarm list and may then be deleted. Value must be valid for 60 sec. to set alarm inactive.</td></tr>
<tr><td rowspan="2">Log data</td><td>Parm 1</td><td>Parm 2</td><td>Parm 3</td><td>Parm 4</td><td colspan="2">Parm 5</td></tr>
<tr><td>Active/Inactive</td><td>Pdis 6 sec</td><td>0</td><td>Psuc 6 sec</td><td colspan="2">FCtemp 6 sec</td></tr>
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