Danfoss ENGINEERING TOMORROW

Bulletin | Danfoss Turbocor Compressors

Customer Notification

B-CN-370-EN REV B

September 13, 2024

SUBJECT: TT/TG Series (Major Motor Cooling **Solenoids**

UPDATE

Purpose

This bulletin has been updated to include two new O-ring kits that we have created as noted in Table 3. Please refer to the end of the Action Required section for details on the new kits.

The purpose of this bulletin is to advise our customers that we have updated the Motor Cooling Valve on certain Major Revision H compressor models. This new valve can operate at higher differential pressure conditions which is needed for a future product release. This new valve also improves the resiliency of the existing compressor variants when operating at conditions near the corners of the operating map such as high saturated discharge temperature (SDT) and high pressure ratio (PR).

The new valve is being phased into new compressor production for some models now at our Tallahassee, FL USA factory. The introduction of the new valve has been applied starting with the following compressors:

- TTH375 / TGH285 (S/N 2419950194 and later)
- TGS380 / TTS450 (S/N 2419950222 and later)

Configured compressors from Nordborg, DK are also being updated.

The new Motor Cooling valve (M) is also physically larger than the Electronics Cooling valve (E), thus eliminating the possibility of accidentally swapping the two coils during installation.

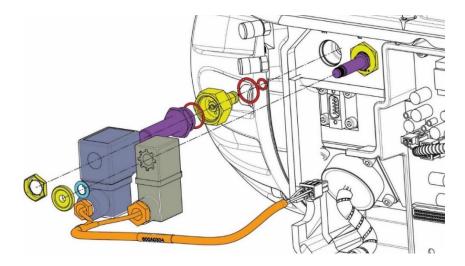


Figure 1 - Solenoid

Because of this change, we have added new spare part kits and updated a few others. Please refer to the Action Required section below for the details on the kits.



Action Required

Be aware that there are new spare part kits associated with this change.

Note: In many cases, the Motor Cooling Solenoid for a compressor manufactured prior to the serial numbers defined may have been upgraded and therefore, verification of the correct replacement parts is necessary.

Upgrading Compressors (Recommended)

If service is to be performed on an installed **TTH375/TGH285 & TGS380/TTS450 Major Revision H** compressor which has not been upgraded, Danfoss LLC recommends upgrading the entire valve with the new kit as opposed to servicing with the previously available spare part kits.

New Motor Cooling Valve Replacement Parts

To upgrade an existing Major Revision H compressor, spare part kit **199K0025** can be used provided the compressor matches the application and Major revision stated in Table 1 – Upgrade Kit.

Table 1 - Upgrade Kit

Part Number	Description	Applies To	Major Rev	Comment
199K0025	SOLENOID PLUNGER AND HARNESS FIELD REPLACEMENT	• TTH375 / TGH285 • TTS450 / TGS380	Н	Includes harness, orifices, plungers, O-rings and related hardware

Servicing Compressors which have the New Motor Cooling Valve

For compressors which have been upgraded previously or which have the new valve installed from the factory and a service part is needed, please review Table 2 – New Spare Part Kits below to identify the correct kit number.

Table 2 – New Spare Part Kits

Part Number	Description	Applies To	Major Rev	Comment
199K0026	COMPRESSOR COOLING CABLE/COIL ASSY	TTH375 / TGH285TTS450 / TGS380	Н	Includes nut and washer
199K0027	ORIFICE BDY LG CLG, 2.5MM	TTH375 / TGH285TTS450 / TGS380	Н	Includes one orifice body and O-rings

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199K0029	COOLING VALVE ASSY	•	TTH375 / TGH285 TTS450 / TGS380	Н	Includes two orifices, plungers, and all required O-rings and hardware
199K0028	PLUNGER ASSY, SOLENOID	•	TTH375 / TGH285 TTS450 / TGS380	Н	Includes one plunger with O-ring and nut

The kits below have been updated to include a new O-ring part number for the base of our new Plunger Tube.

Table 3 - Recently Added Kits

New Part Number	Obsolete Part Number	Description	Applies To	Major Rev	Comment
199K0030	100242	O-RING, SOLENOID ORIFICE	ALL COMPRESSORS	ALL	Only replaces cooling valve O- rings
199K0031	100052-2	O-RINGS, SERVICE SIDE, SMALL	ALL COMPRESSORS	ALL	Includes O-rings for cooling valves, 6 Pin, 4 Pin, and 9 Pin Hermetic Feedthroughs

Need Assistance

For further questions, please contact your Key Account Manager or our Product Support group at turbocor.ps.eu@danfoss.com for inquiries within Europe.

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