

## Insufficient Cooling Capacity and/or Compressor Noises

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|-------------------|---------------------------------|
| Topic number      | LI83.30-P-073900                |
| Version           | 1                               |
| Function group    | 83.30 - Air conditioning        |
| Date              | 12/9/21                         |
| Validity          | 253 hybrids (code ME05 to ME10) |
| Reason for change |                                 |

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### Complaint

Insufficient cooling capacity and/or noises from refrigerant compressor

### Cause

Under analysis

### Remedy

In order to detect the fault, please perform the following test steps:

1. Connect manometer of air conditioning service unit in order to read off high pressure and low pressure
2. Connect XENTRY and bring up all climate control actual values in air conditioning menu under "actual values"
3. Set blower to speed 7
4. Set temperature on both sides (driver and front passenger) to LOW
5. Activate AC ON

Result 1: Only a small pressure ratio is established (e.g high pressure 7-8 bar; low pressure 5-6 bar). Continue with step (A)

Result 2: A larger pressure ratio is established (e.g high pressure 12-16 bar; low pressure 0-2 bar). Continue with step (B)

(A): Check the dryer package for black oil and particles.

(A.1) Black oil and particles present: Replace refrigerant compressor and valves, flush refrigerant circuit according to instructions in WIS (Refrigerant-only flushing method). Then put system into operation. If the high pressure and low pressure values are OK and the system functions as intended, the vehicle can be returned to the customer. If the pressure ratio is still not correct, continue with step (C)

(A.2) No black oil or particles present: continue with step (B)

(B): Disconnect vehicle-side power supply for shutoff valve Y19/3 and externally power shutoff valve Y19/3 with 12 V. With the blower setting still set to speed 7, allow the air conditioning system to run. Measure the low pressure while this occurs.

# XENTRY TIPS

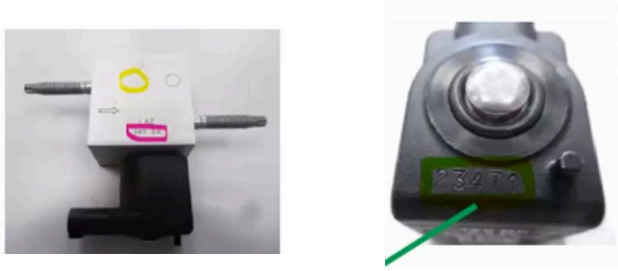
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(B.1) The low pressure goes toward  $\leq 2$ bar: Replace shutoff valve Y19/3 and take pictures of the valve as per the data sheet of the supplier (see attachment). Please create a PTSS case with all the information.

(B.2) The low pressure does not go toward  $\geq 2$ bar: continue with step (C)

(C): Create a PTSS case with the following information:

1. Compare pressure values of manometer and XENTRY sensor values
2. Attach additional XENTRY values that describe the problem to the TIPS case
3. Qualitative video of the problem
4. Attach all data arising from step (A) and/or (B) to the TIPS case

| Attachments   |  |
|---|--|
| File  | Description  |
| <a href="#">Label Check vom Absperrventil Y19_3.JPG</a><br><br> | Instruction for taking pictures of shutoff valve Y19/3 |

| Symptoms   |
|--|
| Body > Air conditioning > Air conditioning > Insufficient cooling output |
| Body > Air conditioning > Air conditioning > Noise                       |

| Operation numbers/damage codes |                |      |             |   |
|--------------------------------|----------------|------|-------------|---|
| Op. no.                        | Operation text | Time | Damage code | Note  |
|                                |                | ZM   | 8350C       | Please only use SSL for the application of step (A) |
|                                |                | ZM   | 8310M       | Please only use SSL for the application of step (B) |