

Assembly instruction E-Motor

for installation in motor casings with push fit,
as of type key 019

Series: HG(HA)4, HG(HA)5, HG(HA)6

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1 Liability and Warranty

Liability and the manufacturer's warranty are excluded if

- Alterations and functional modifications have been carried out
- No original replacement parts have been used.

2 Safety Information

Target group for this repair information

- Work on the compressor may only be carried out by persons whose technical training, skills and experience along with their knowledge of pertinent regulations and documentation means that they are capable of assessing the work to be carried out and detecting any possible dangers.
- A specialist can mean a refrigeration technician for example. Note that electrical work may only be carried out by a qualified electrician. Alternatively, on a country-specific basis, persons who have undergone electrotechnical instruction and who have proof of their qualification are also permitted to carry out the work.



- **DANGER!** This symbol refers to instructions for avoiding direct severe dangers to persons.



- **DANGER!** This symbol refers to instructions for avoiding direct severe dangers to persons or plant by electrical current.



- **WARNING!** This symbol is used to indicate that inaccurate compliance or total failure to comply with the instructions could cause injury to persons or damage to the compressor or refrigerating machine.



- This symbol is used to indicate that parts with refrigeration oils (for oil types see compressor name plate) should be moistened prior to installing.



- This symbol indicates the permitted tightening torque for the screw.

Important prerequisites



DANGER

Risk of electric shock

- ▶ Before you carry out any repair work, disconnect the compressor from the electricity network.
 - ▶ Turn the main switch to "O" (OFF).
 - ▶ Secure the main switch against an unauthorised restart.
-



WARNING

The heavy weight of the compressor and the constricted installation dimensions can potentially be dangerous.

- ▶ First check the conditions for the point of installation such as the installation dimensions, hoisting equipment, lighting conditions and cleanliness.
-

- Have the tool ready. To lift off the motor casing you need two M10 screws with a minimum thread length of 55mm.

3 Disassembly

3.1 Depressurising the device



~28bar

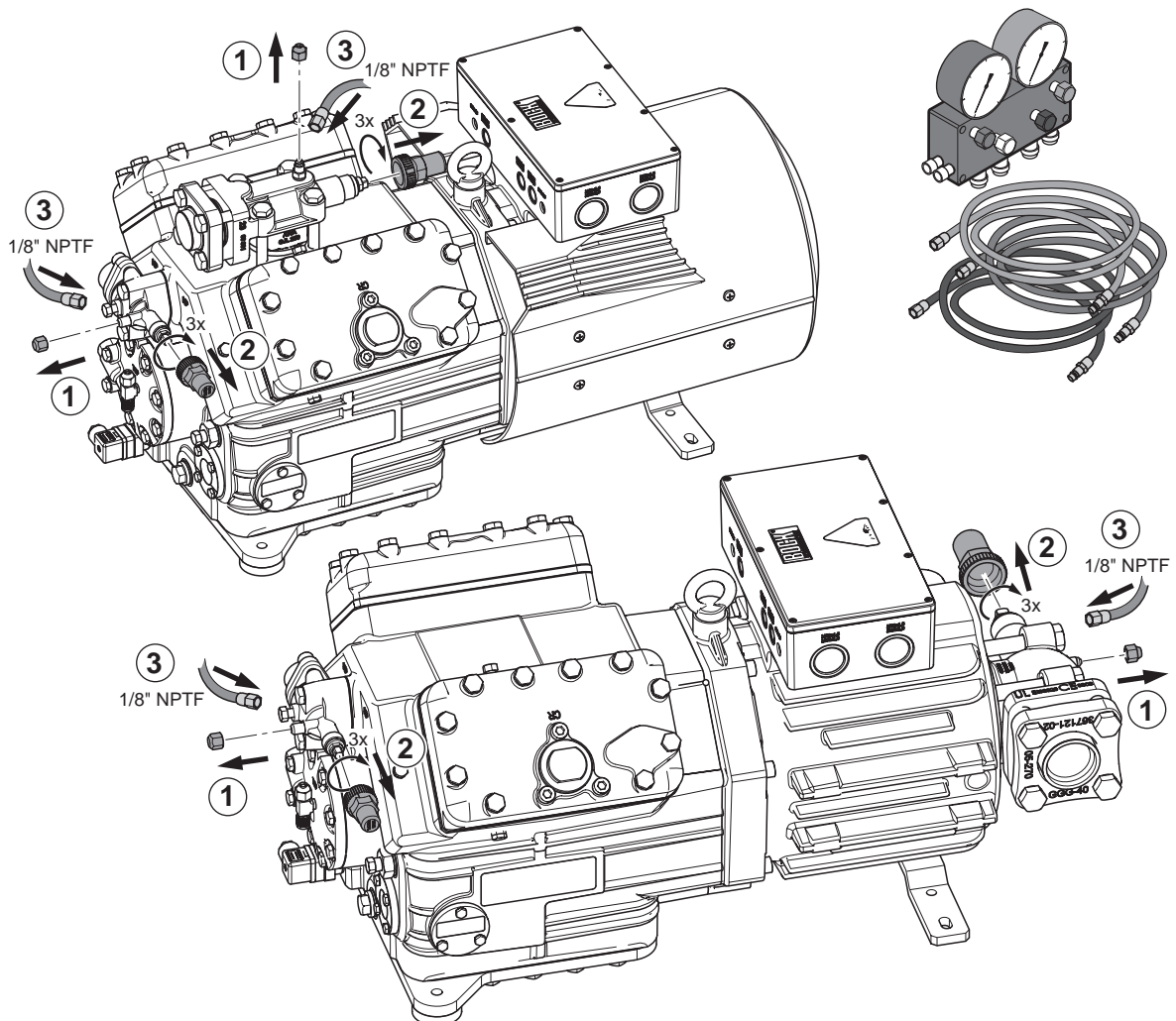
WARNING

The compressor is pressurised with a refrigerant.

- ▶ Remove the protective cap on the high pressure joint(**HP**) and the low pressure joint(**LP**) and then connect the manometer.
- ▶ Remove the protective cap and open the valve.
- ▶ **Danger of suffocation!** Collect the refrigerant as per the instructions. Relieve the pressure completely.



Note the usage instructions for the pressure manometer.



3.2 Draining the oil



NOTE

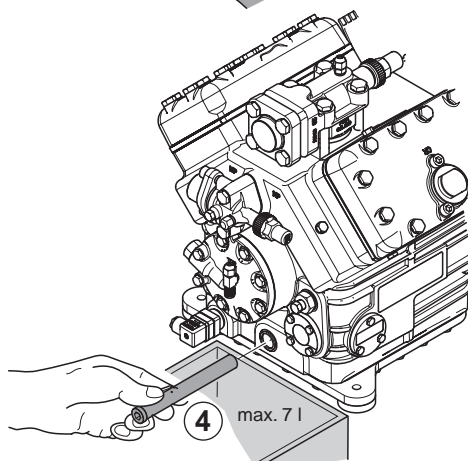
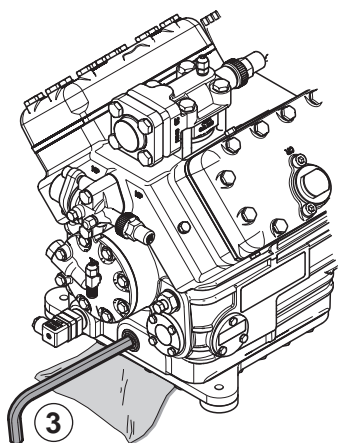
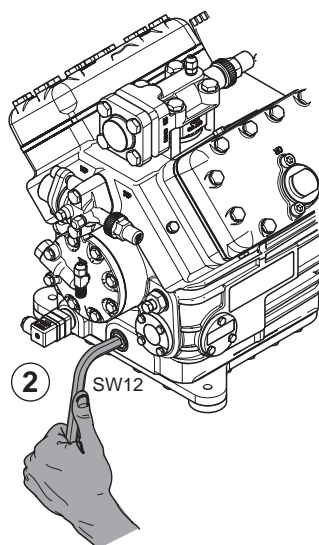
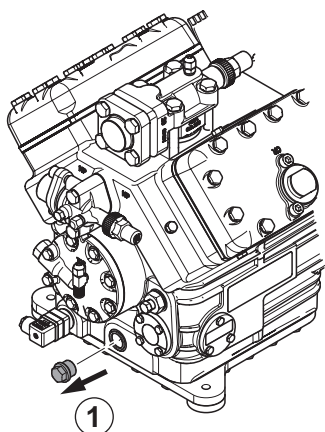
Do not dispose of oil in domestic waste.

- ▶ Dispose of the old oil environmentally and observe national regulations.

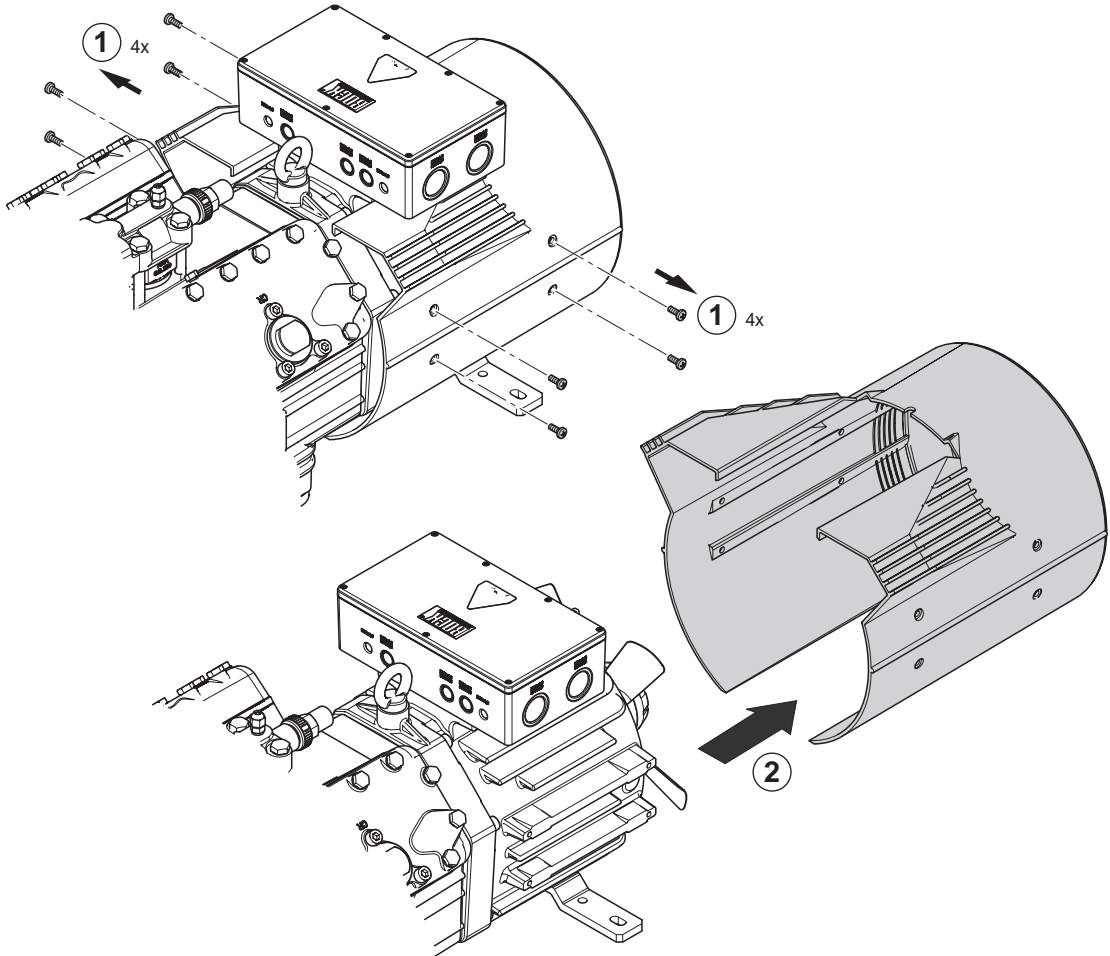
- Remove the oil drain screw and the oil strainer.

While the oil drains out you can perform the next step.

- Inspect the condition of the oil. Clean the oil strainer.

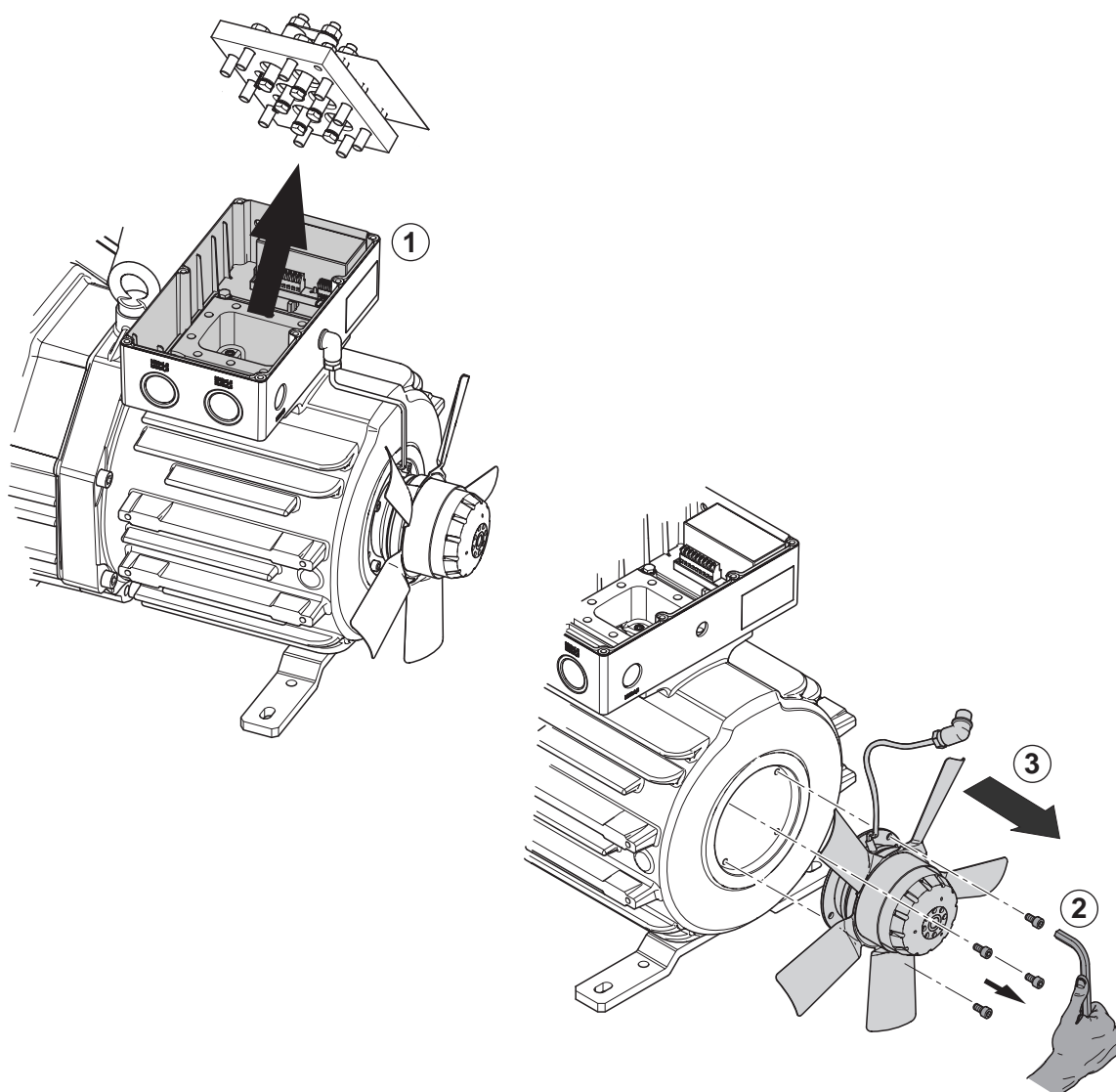


3.3 Removing the air guide hood (only for HA)



3.4 Disconnecting the electrical connections

- ▶ **Do not damage any cables or component parts. Damaged parts must be repaired or replaced immediately.**
- Disconnect the electrical connections in the terminal box.
- Remove the terminal board.
- Disconnect the electrical connection of the ventilator (only for HA).
- Remove the ventilator (only for HA).



3.5 Removing the motor casing



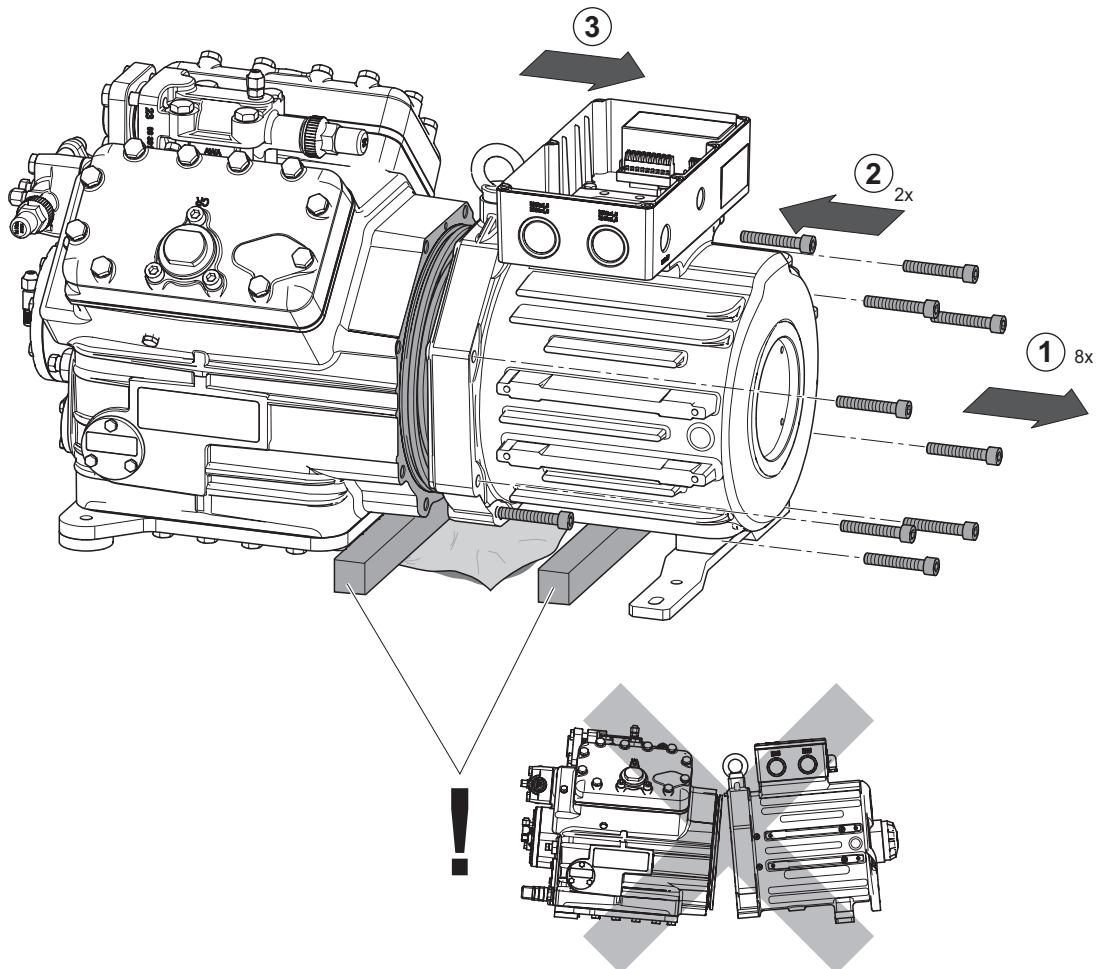
WARNING

The heavy weight of the compressor and parts can potentially be dangerous; risk of falling, danger of crushing.

- ▶ Use a supporting base. You must align the parts in order to remove them.

- ▶ **ATTENTION! If you open the casing, the residual oil flows out.** Underlay the area with an absorbent material and dispose of it environmentally.

- Remove the screws.
- Remove the motor casing using both M10 screws (with thread up to head). Use both hands to lift it off.



3.6 Removing the stator



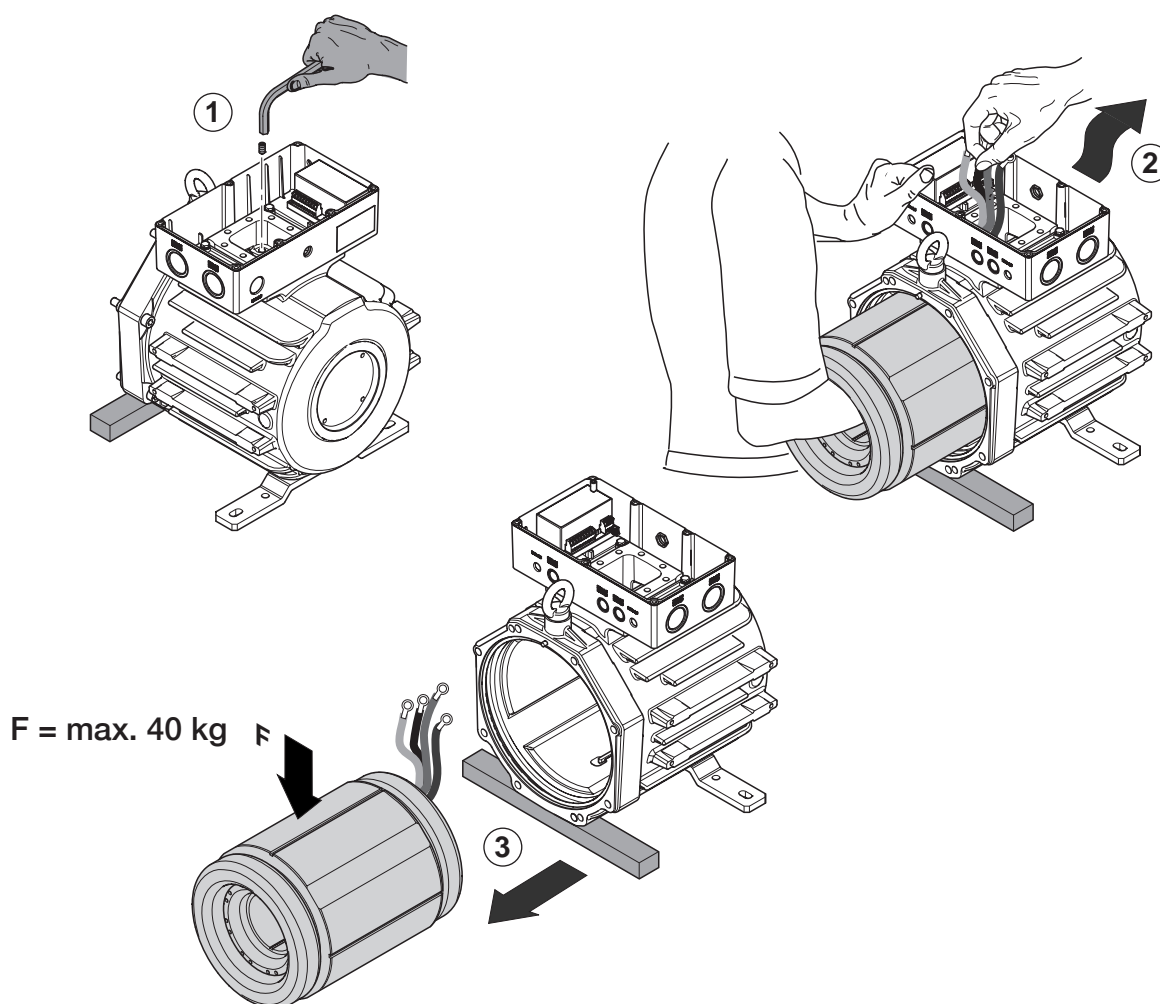
WARNING

The heavy weight of the stator can potentially be dangerous; risk of falling, danger of crushing.

- ▶ Take appropriate measures to provide a secure location for the stator. Prevent inadvertent rolling.

➤ Remove the stator screws.

▶ **DANGER! Risk of electric shock.** Do not damage any cables or component parts. Extract the stator. Use your hand to carefully carry the cable along.



4 Assembly

To assemble, reverse the order of the steps. Note any particular features such as observance of different torques.

4.1 Connecting the stator to the motor casing

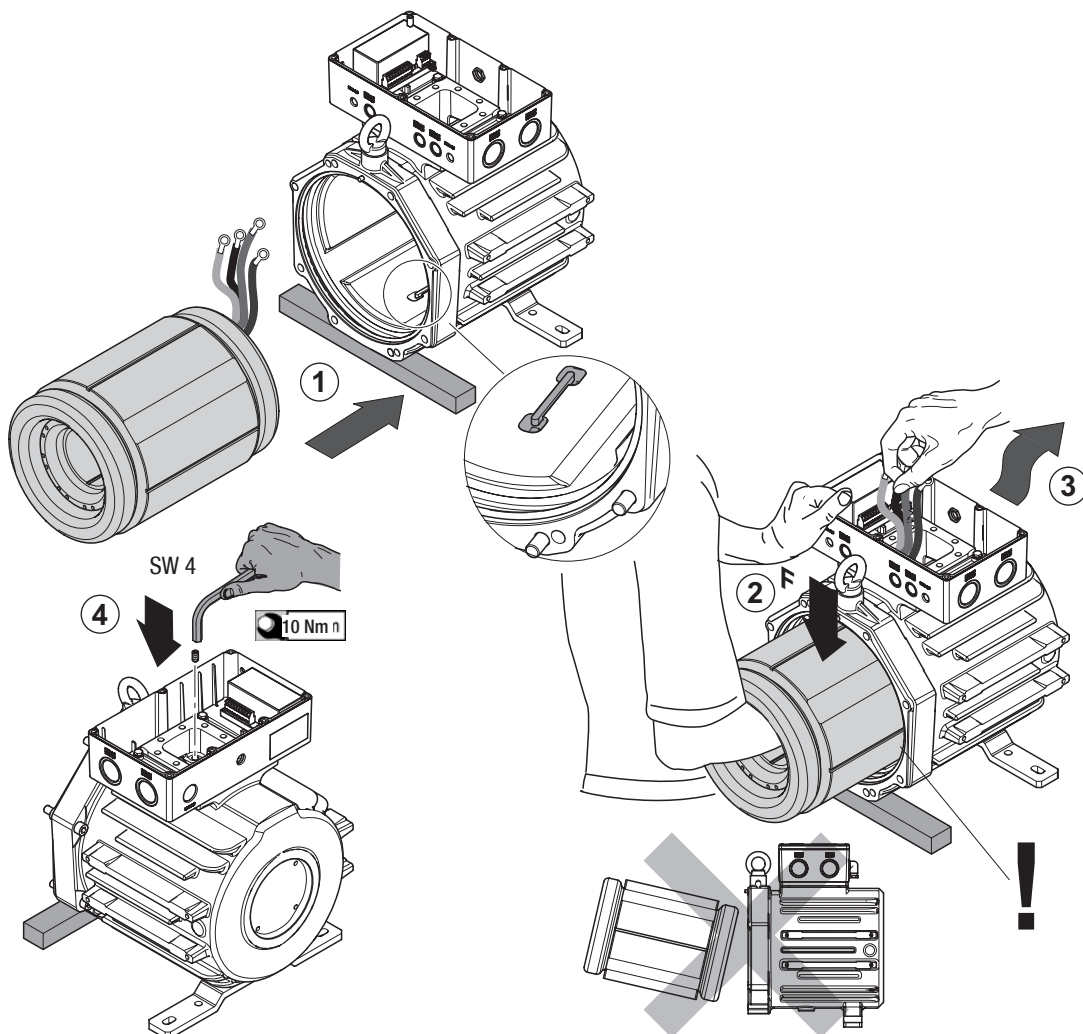


WARNING

The heavy weight of the stator can potentially be dangerous; risk of falling, danger of crushing.

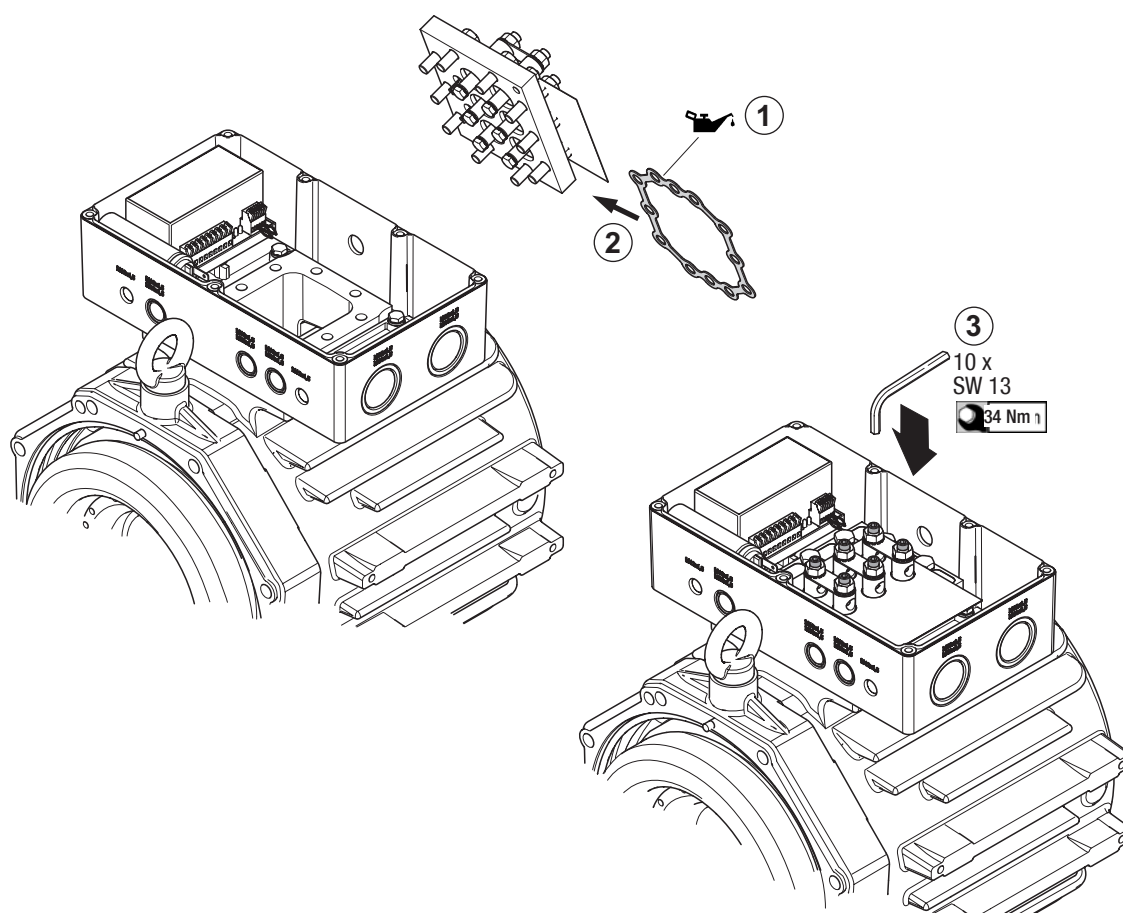
- ▶ Note the direction of the feather key—stator. You must align the parts in order to remove them.

- ▶ **Do not damage any cables or component parts.** Position the stator in the engine casing as far as it will go. Use your hand to carry the cable along.
- Screw in the stator screws. Hardening time is 6 hours. You may only use the stator screw once.



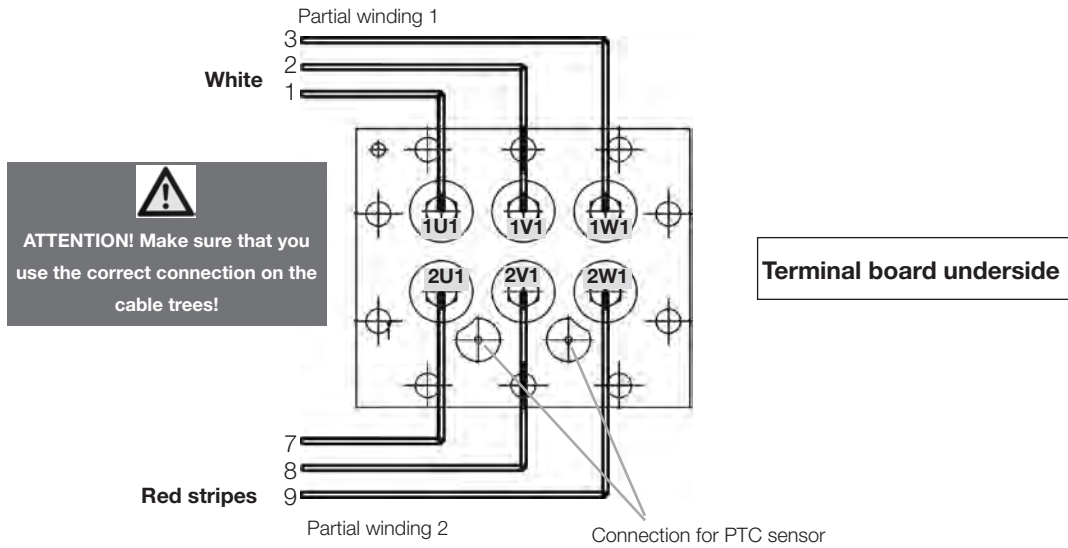
4.2 Connecting the electrical connections to the terminal box

- ▶ Use a new seal. Lightly lubricate it.
- Connect the electrical connections as per the illustration on page 12.

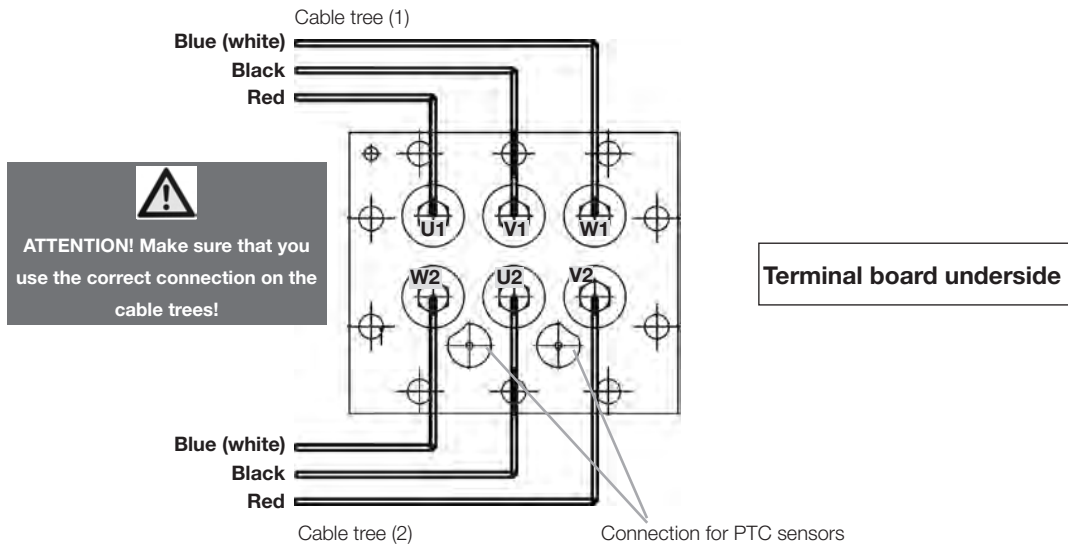


4.2 Connecting the electrical connections to the terminal box

Terminal assignment on the terminal board with part winding switching (PW Y / YY)



Terminal assignment on the terminal board with star/delta switching (Y/Δ)



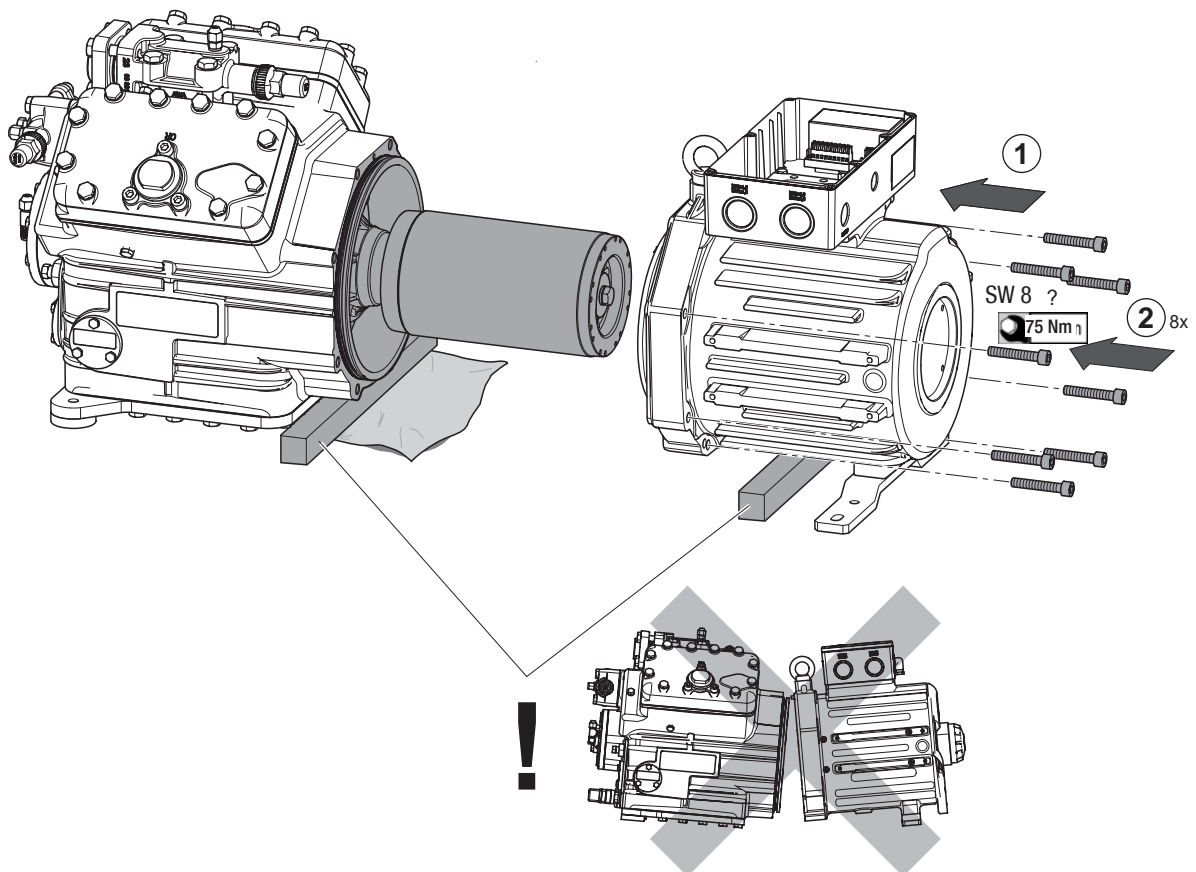
4.3 Assembling the motor casing



WARNING

The heavy weight of the compressor and parts can potentially be dangerous; risk of falling, danger of crushing.

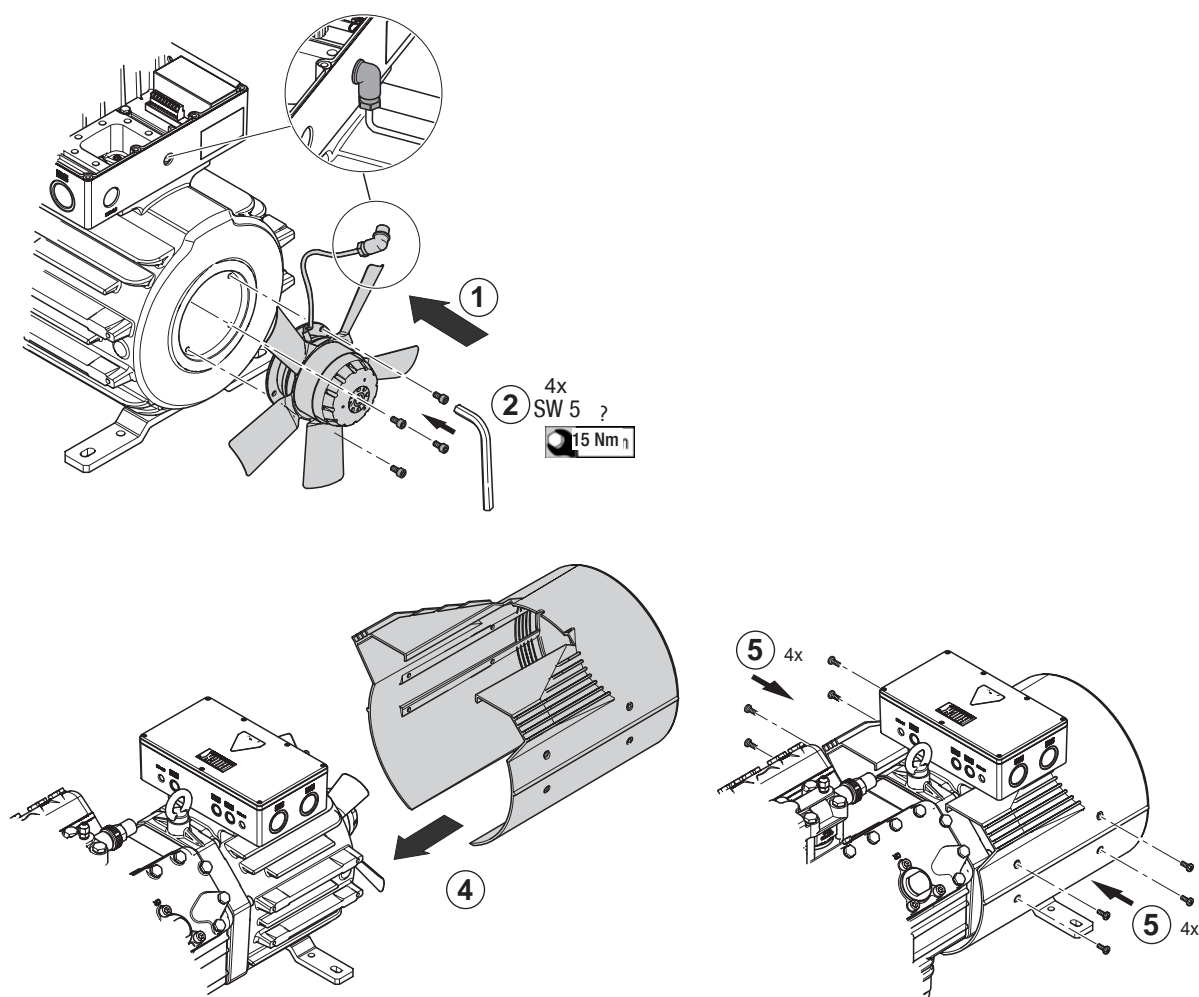
- ▶ Align the parts with each other and support them.



4.4 Assembling and making the electrical connections

- Fit the ventilator (only for HA).
 - Install the electrical connection of the ventilator on the terminal box (only for HA).
 - Fit the air guide hood (only for HA).
 - Fit the cover on the terminal box.
- ▶ **DANGER!** Carry out the additional work steps such as "filling the oil" etc. as per the operating instructions.

See the operating instructions, in particular the "Start-up" chapter.





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