

Delivery and handling

Transport

F2050 should be transported and stored vertically in a dry place.



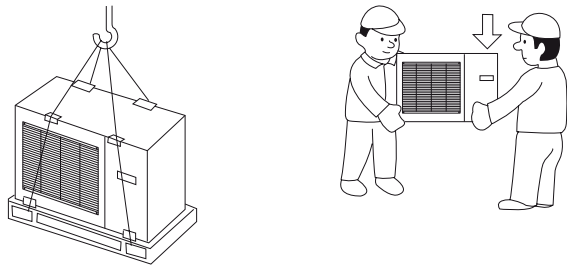
CAUTION!

Ensure that the heat pump cannot fall over during transport.

Check that F2050 has not been damaged during transport.

LIFT FROM THE STREET TO THE SET UP LOCATION

If the surface allows, the easiest method is to use a pallet truck to move the heat pump to the installation area.



If the heat pump needs to be transported across soft ground, such as a lawn, we recommend using a crane truck that can lift it to the installation location. When the heat pump is lifted with a crane, the packaging must be intact.

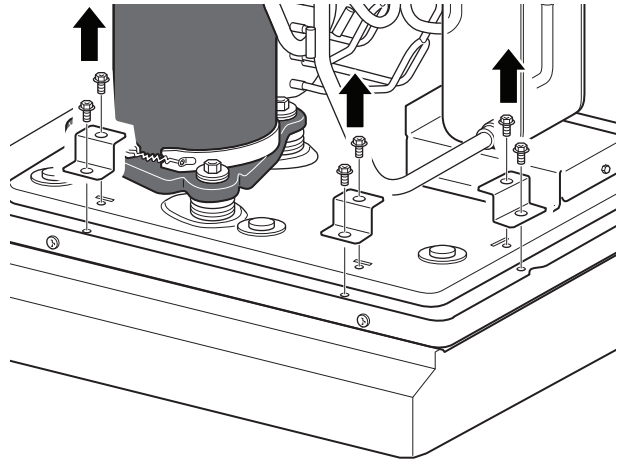
If a crane truck cannot be used, the heat pump can be transported on an extended sack truck. The heat pump must be taken hold of from its heaviest side and two people are required to lift it.

LIFT FROM THE PALLET TO FINAL POSITIONING

Before lifting remove the packaging and the securing strap to the pallet.

Place lifting straps around each foot. It is recommended that two people perform the lift from the pallet to the base.

After the final placement of F2050-12/-16, the three transport securing devices that are attached to the base plate and in the compressor plate are removed.



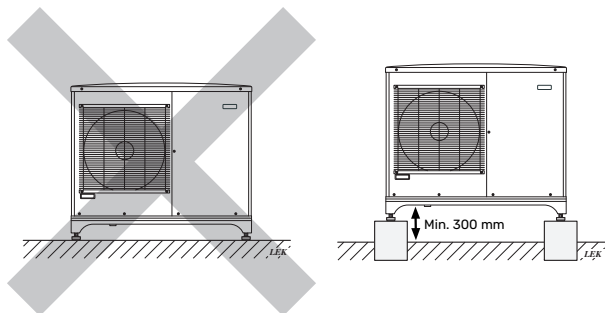
SCRAPPING

When scrapping, remove the heat pump in reverse order. In this case, lift by the base plate rather than the pallet!

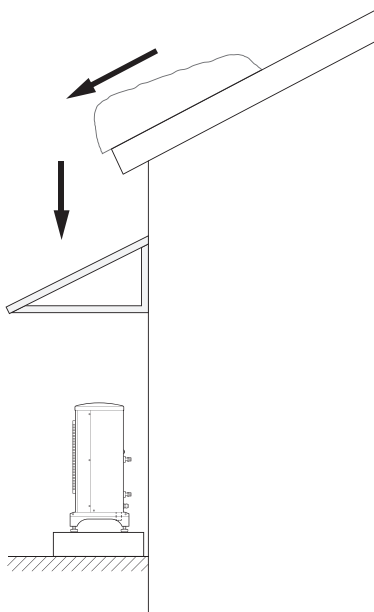
Assembly

- Place the heat pump in a suitable location outdoors to prevent any risk of the refrigerant flowing in through ventilation openings, doors or similar openings in the event of a leak. It must also not constitute a hazard to people or property in any other way.
- If the heat pump is placed in a location where any refrigerant leak could accumulate, for example below ground level (in a dip or low-lying recess), the installation must satisfy the same requirements that apply for gas detection and the ventilation of engineering rooms. Requirements regarding sources of ignition must be applied where appropriate.
- Place F2050 outdoors on a solid level base that can take the weight, preferably a concrete foundation. If concrete slabs are used they must rest on asphalt or shingle.
- The lower edge of the evaporator must not be lower than the level of the average local snow depth, or at least 300 mm above ground level. The base should be at least 70 mm tall.
- F2050 should not be positioned next to noise sensitive walls, for example, next to a bedroom.
- Also ensure that the placement does not inconvenience the neighbours.

- F2050 must not be placed so that recirculation of the outdoor air is possible. Recirculation entails reduced power and impaired efficiency.
- The evaporator must be sheltered from direct wind / , which negatively affects the defrosting function. Place F2050 protected from wind / against the evaporator.
- Large amounts of condensation, as well as melt water from defrosting, may be produced. Condensation must be led off to a drain or similar (see section "Condensation water").
- Care must be exercised so that the heat pump is not scratched during installation.



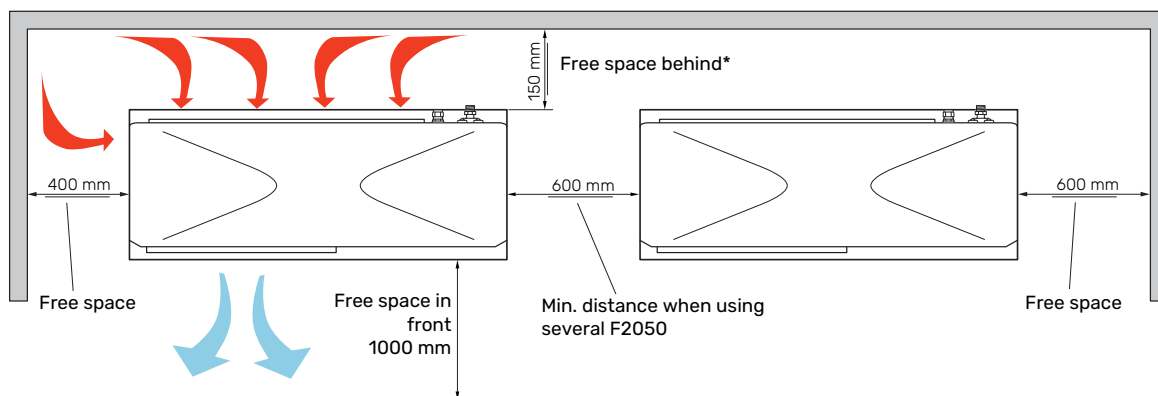
Do not place F2050 directly on the lawn or other non solid surface.



If there is a risk of snow slip from roof, a protective roof or cover must be erected to protect the heat pump, pipes and wiring.

INSTALLATION AREA

The distance between F2050 and the house wall must be at least 150 mm, but not more than 500 mm in locations that are exposed to the wind. The free space above F2050 must be at least 1,000 mm. The free space in front must be at least 1,000 mm for any future servicing.



* The space behind must not exceed 500 mm in locations that are exposed to the wind.

Condensation

The condensate drain pan collects and leads away the condensation water.



CAUTION!

It is important to the heat pump function that condensation water is led away and that the drain for the condensation water run off is not positioned so that it can cause damage to the house. Condensation run-off should be checked regularly, especially during the autumn. Clean if necessary.

- The condensation water (up to 50 litres / 24 hrs) must be routed away by a pipe to an appropriate drain, it is recommended that the shortest outdoor length possible is used.
- The section of the pipe that can be affected by frost must be heated by the heating cable to prevent freezing.



TIP!

Pipe with heating cable for draining the condensation water trough is not included.



TIP!

To ensure this function, the accessory KVR should be used.

- Route the pipe downward from the heat pump.
- The outlet of the condensation water pipe must be at frost free depth.
- Use a water trap for installations where air circulation may occur in the condensation water pipe.
- The insulation must seal against the bottom of the condensation water trough.

DRAIN PAN HEATER, CONTROL

The drain pan heater is supplied with power when one of the following conditions is met:

1. The compressor has been in operation for at least 30 minutes after last start.
2. The ambient temperature is lower than 1 °C.

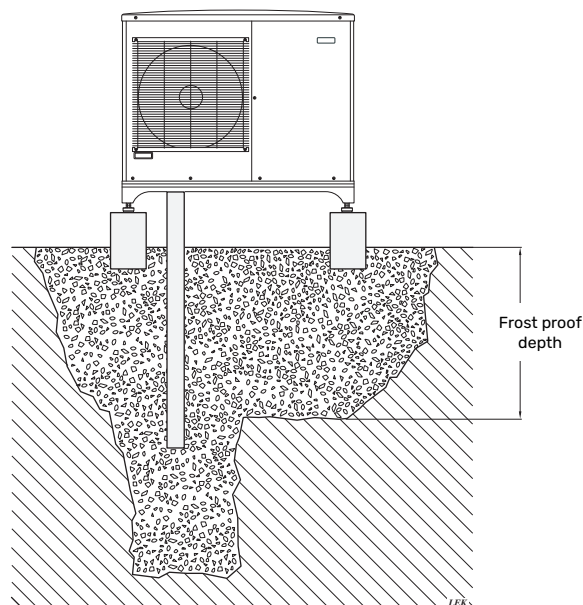
DRAINAGE OF CONDENSATION



NOTE!

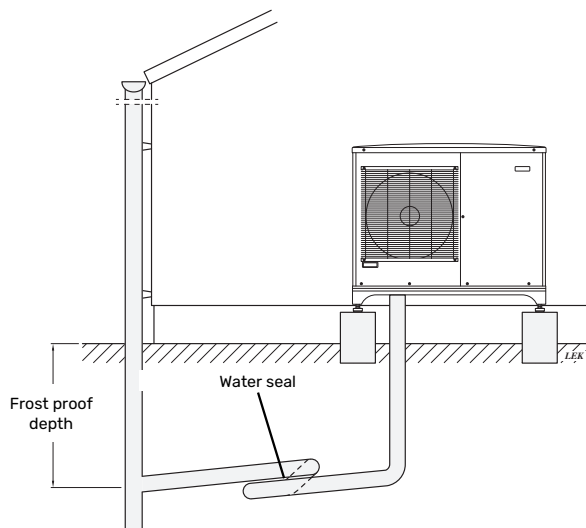
If none of the following recommended alternatives is used, good drainage of condensation must be provided.

Stone caisson



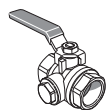
If the house has a cellar the stone caisson must be positioned so that condensation water does not affect the house. Otherwise the stone caisson can be positioned directly under the heat pump.

Gutter drainage

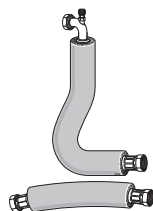


Route the pipe sloping down from the heat pump. The condensation water pipe must have a water seal to prevent air circulation in the pipe.

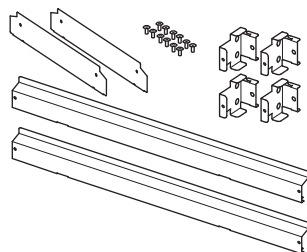
Supplied components



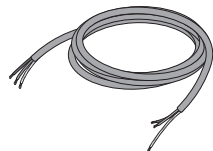
1 x filterball (G1") (QZ2)



2 x flexible pipes (DN25, G1")
with 4 x gaskets



1 x plinths

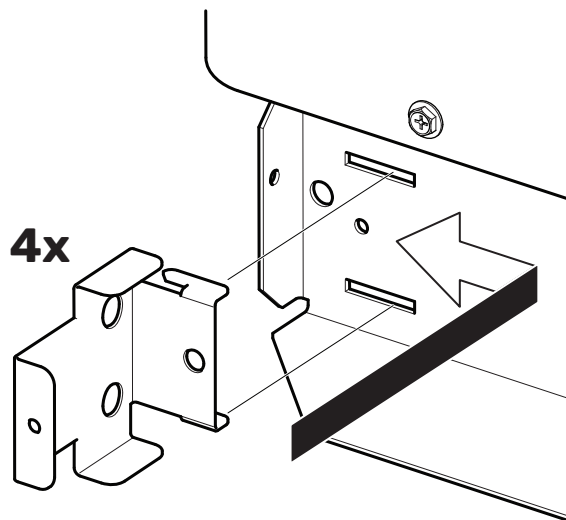


1 x incoming power supply
cable (W1)¹

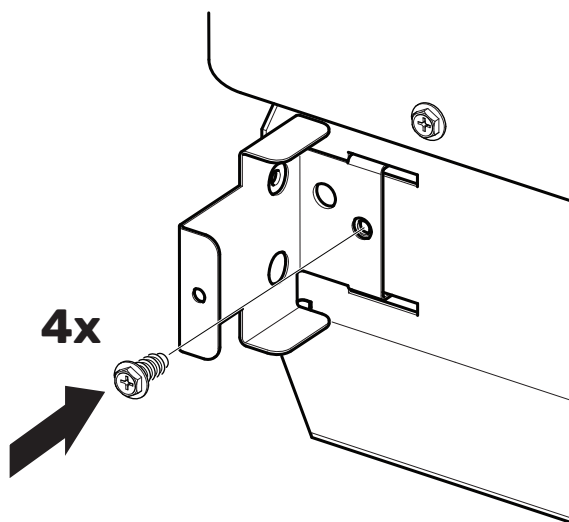
Installing the plinth around F2050-12/-16

A plinth is enclosed with F2050-12/-16.

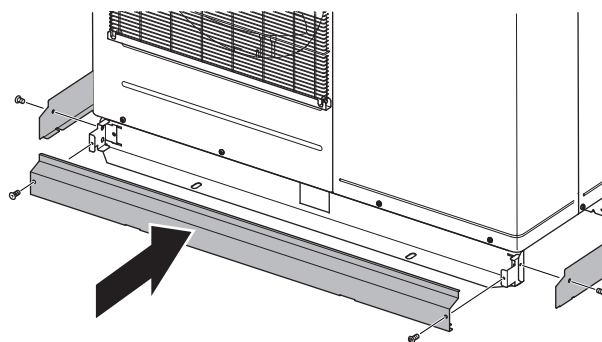
1. Install the four spacer brackets, one in each corner.



2. Attach with the enclosed screws.



3. Install the four skirting boards and attach with the enclosed screws.

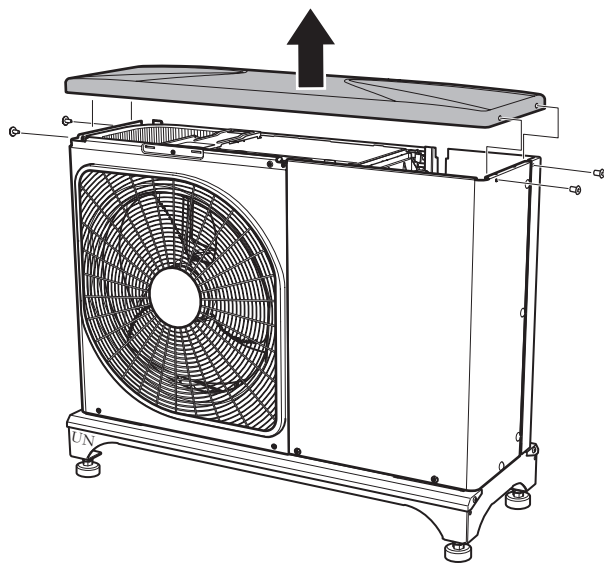


¹ Only applies to F2050-12/-16.

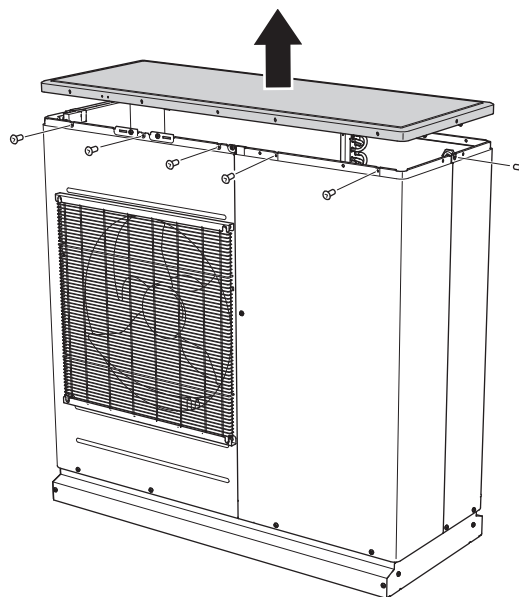
Dismantling panels

DISMANTLING TOP PANEL

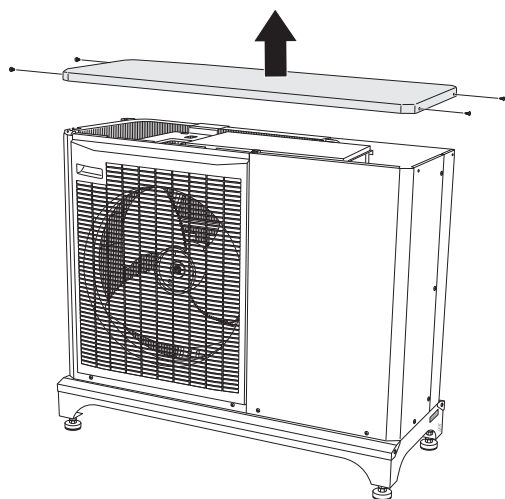
F2050-6



F2050-12/-16

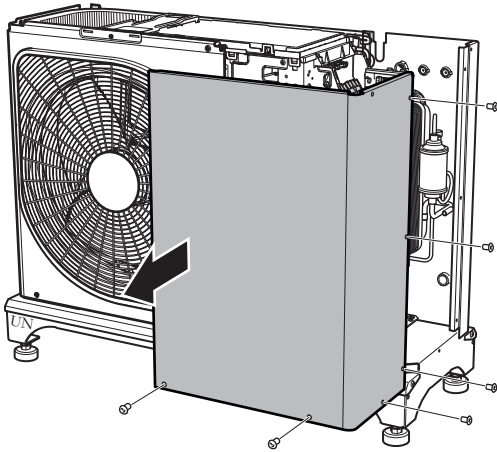


F2050-10

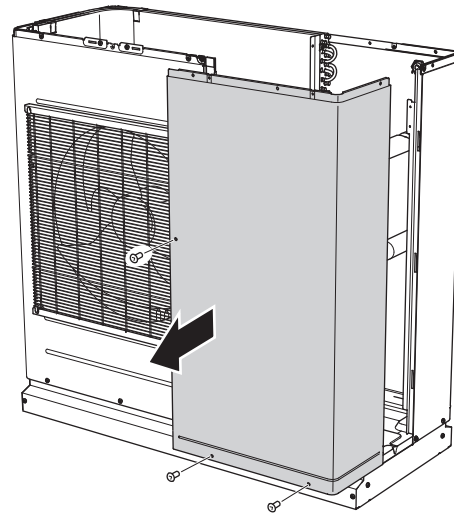


REMOVING THE FRONT PANEL

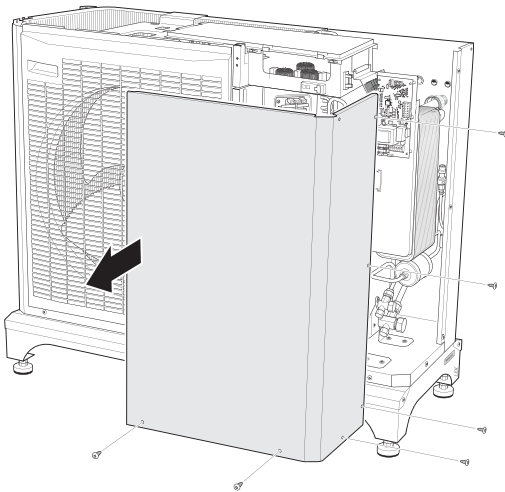
F2050-6



F2050-12/-16



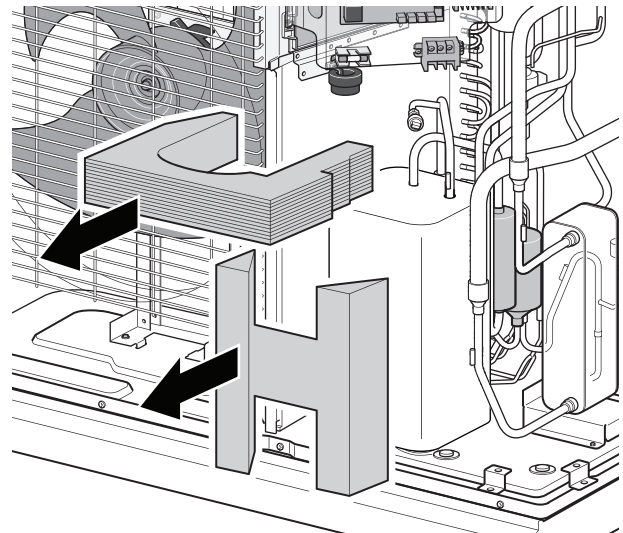
F2050-10



Dismantling cardboard box

F2050-12/-16

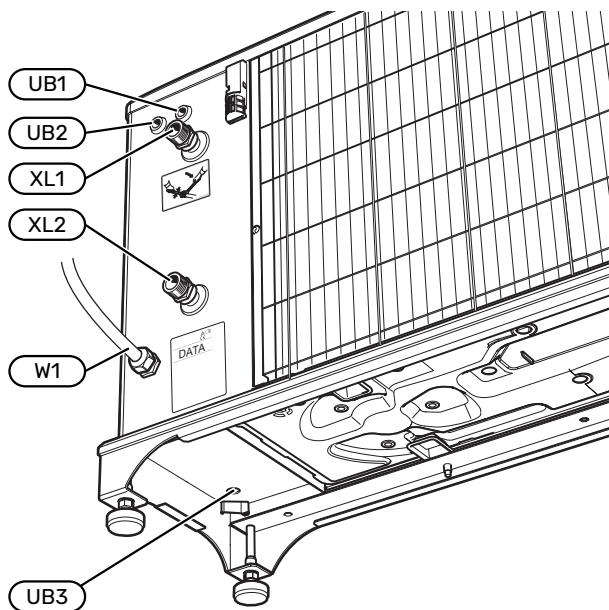
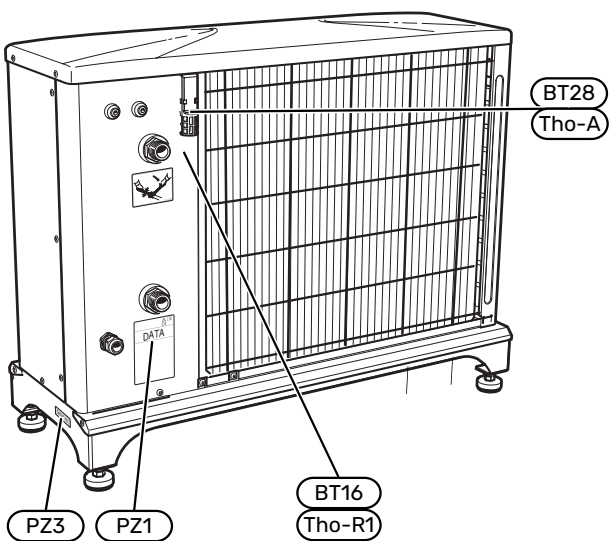
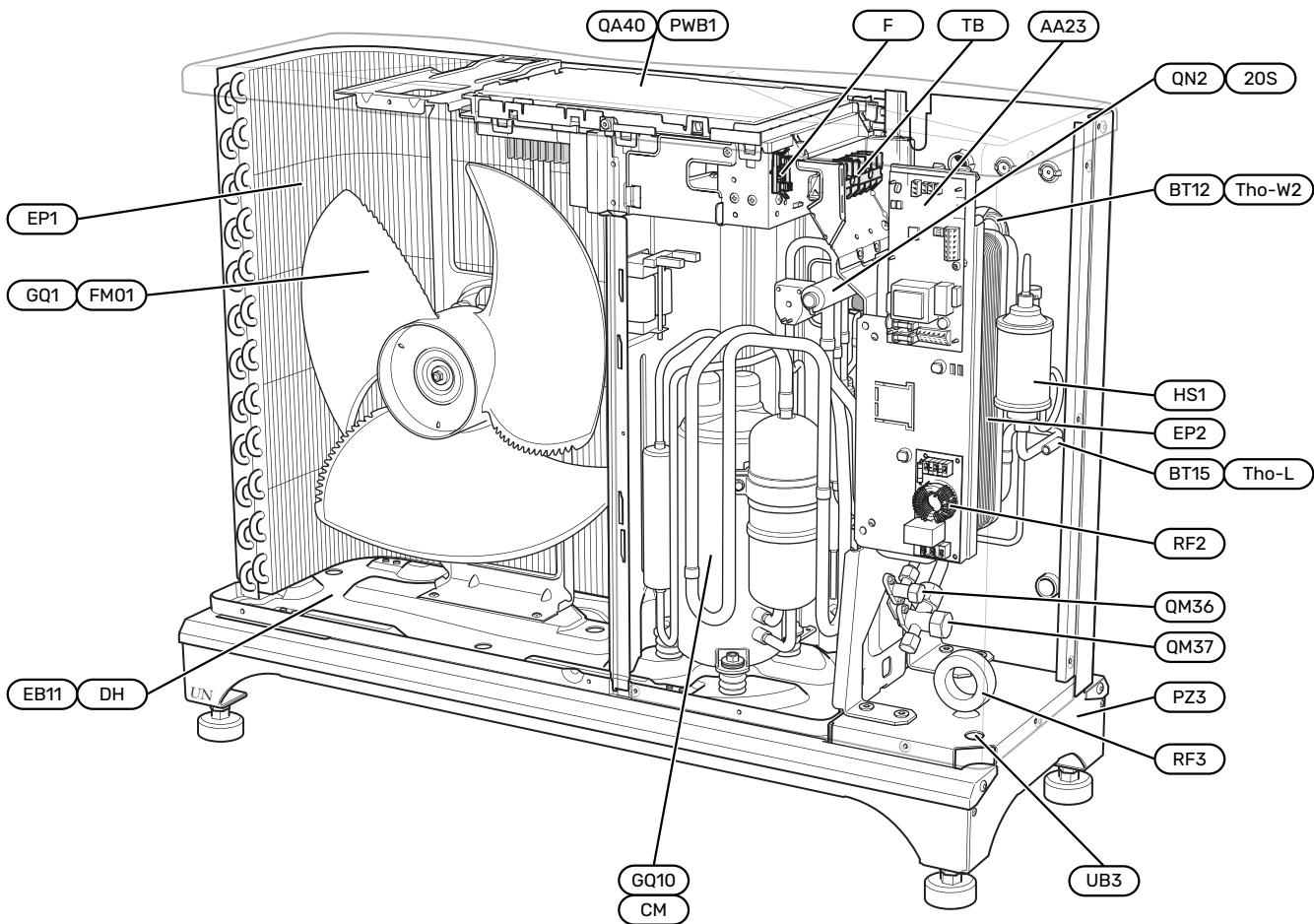
Remove the pieces of cardboard that are inside F2050-12/-16.

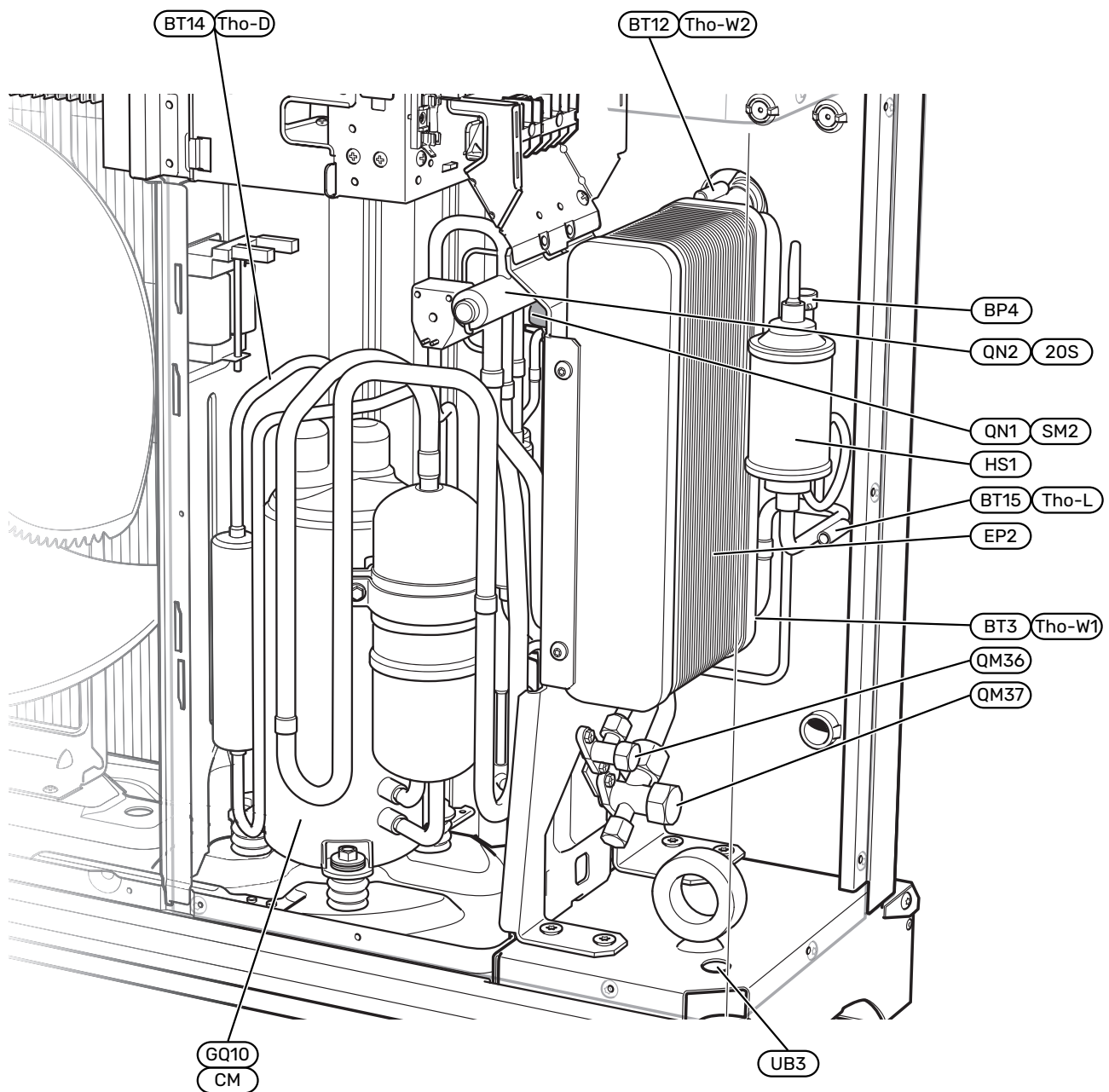


The heat pump design

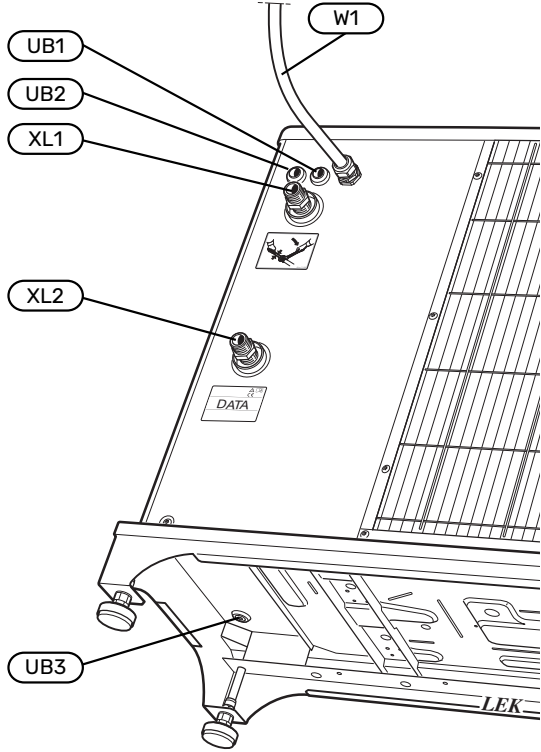
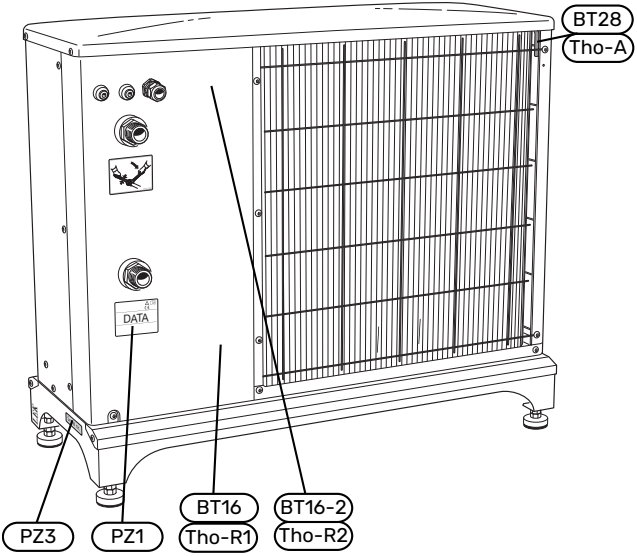
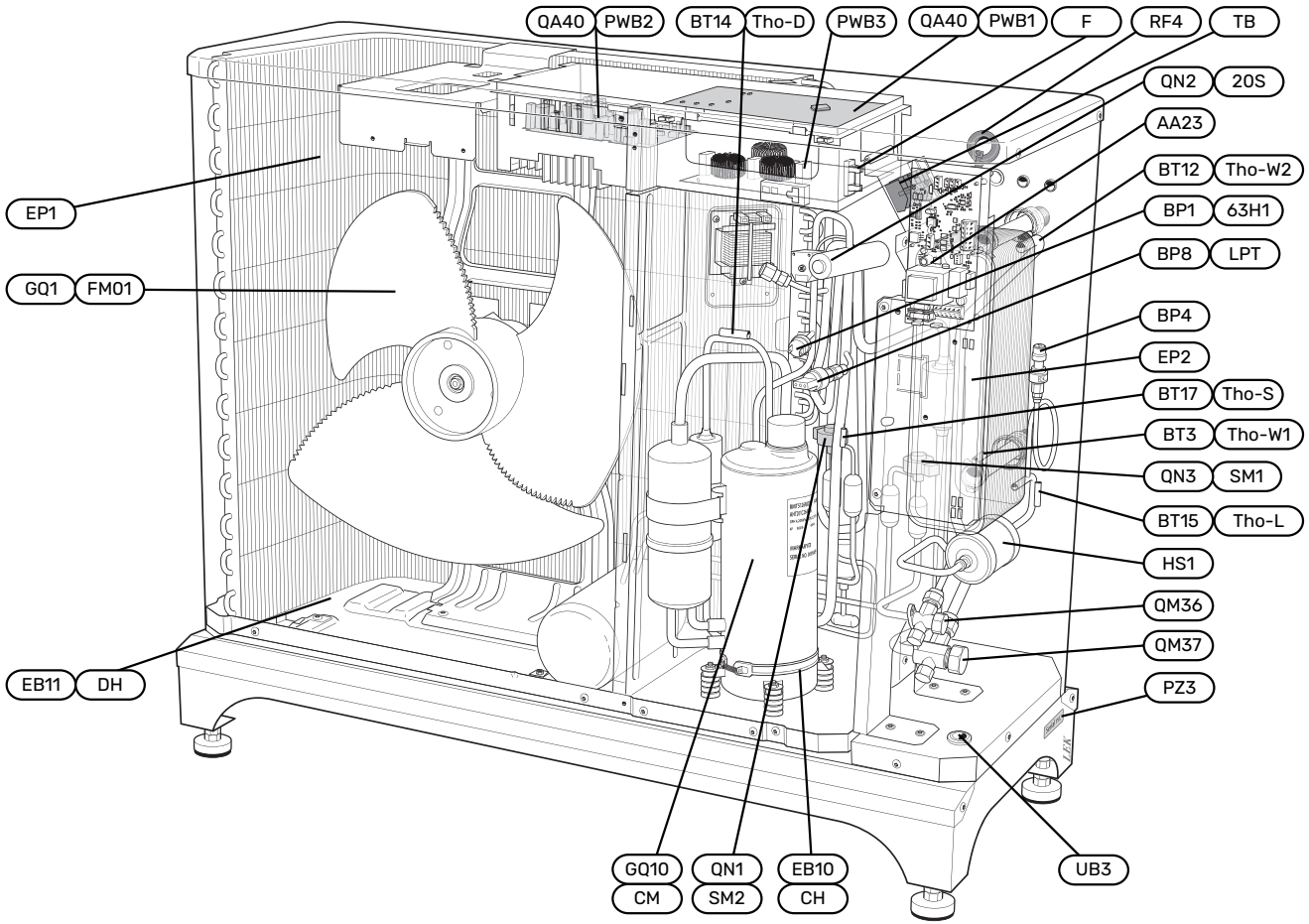
General

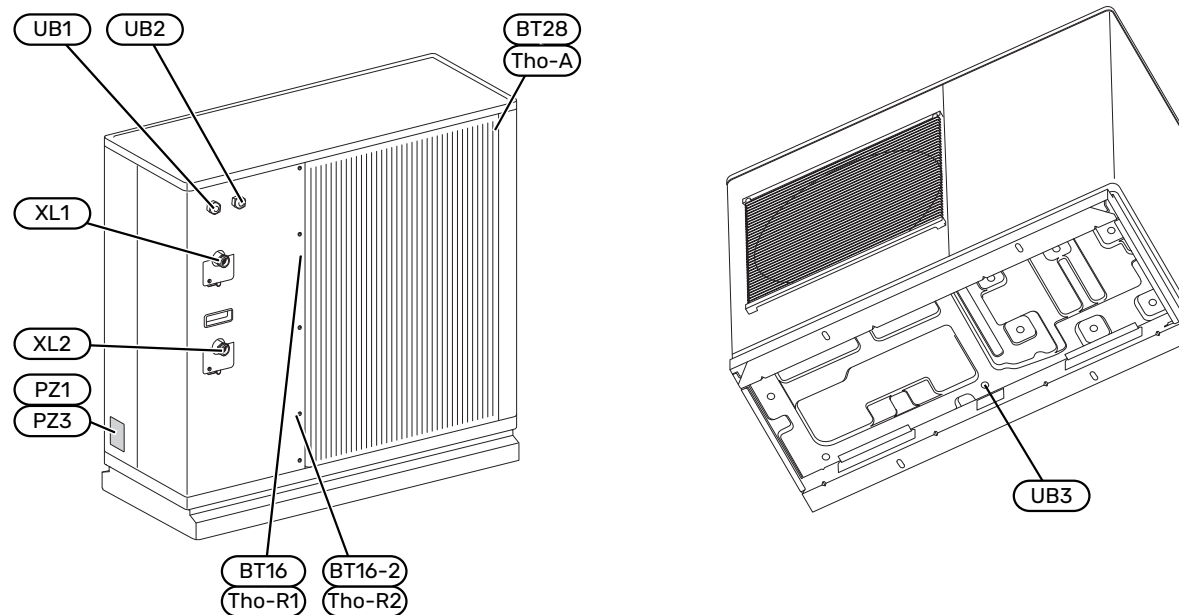
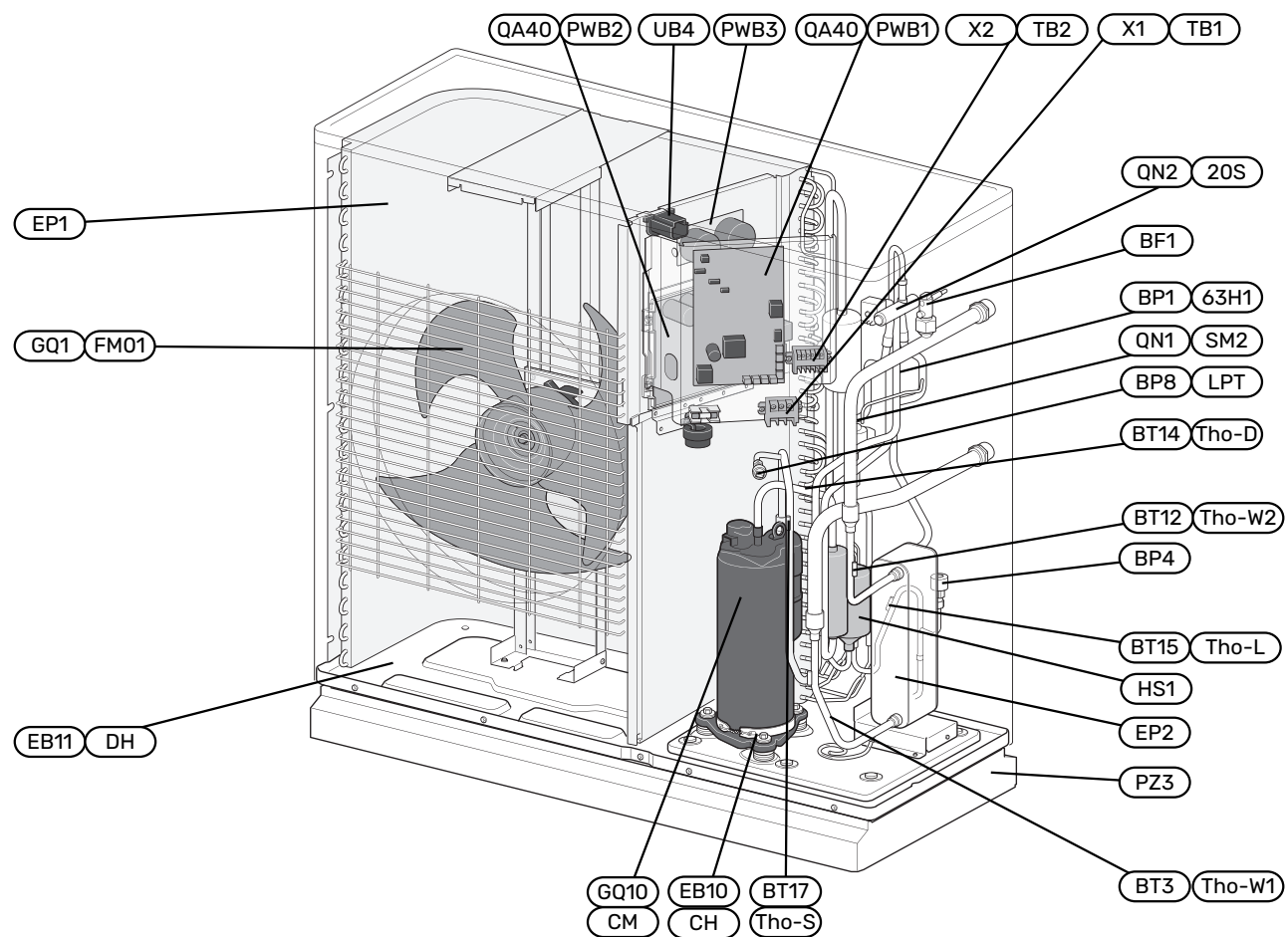
F2050-6





F2050-10





Pipe connections

XL1	Heating medium connection, supply (out from F2050)
XL2	Heating medium connection, return (to F2050)

Sensors etc.

BP1 (63H1)	High pressure pressostat
BP4	Pressure sensor, condenser
BP8 (LPT)	Low pressure transmitter
BT3 (Tho-W1)	Return line sensor
BT12 (Tho-W2)	Condenser sensor, supply line
BT14 (Tho-D)	Hot gas sensor
BT15 (Tho-L)	Fluid line sensor
BT16 (Tho-R1)	Evaporator sensor 1
BT16-2 (Tho-R2)	Evaporator sensor 2
BT17 (Tho-S)	Suction gas sensor
BT28 (Tho-A)	Ambient sensor

Electrical components

AA23	Communication board
EB10 (CH)	Compressor heater
EB11 (DH)	Drip tray heater
F	Main fuse compressor unit
GQ1 (FM01)	Fan
QA40 (PWB1)	Control board with inverter unit
QA40 (PWB2)	Inverter module
(PWB3)	Filter board
RF2	EMC filter for inverter
RF3	EMC filter for incoming supply
RF4	EMC filter for communication
(TB)	Terminal block, supply voltage and communication with board AA23
UB1	Cable gland, incoming supply
UB2	Cable grommet, communication
UB3	Cable gland, heating cable (EB14)
UB4	Cable grommet, fan
W1	Cable, incoming supply

Cooling components

EP1	Evaporator
EP2	Condenser
GQ10 (CM)	Compressor
HS1	Drying filter
QM36	Shut-off valve, liquid line
QM37	Shut-off valve, gas line
QN1 (SM2)	Expansion valve, heating and cooling
QN2 (20S)	4-way valve
QN3 (SM1)	Expansion valve, cooling

Miscellaneous

PZ1	Rating plate
PZ3	Serial number plate

Designations according to standard EN 81346-2.

Designations within brackets according to the supplier's standard.