

# Air/water heat pump

NIBE F2040 6, 8, 12, 16 – UK 1x230V





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# 1 Important information

## Safety information

This manual describes installation and service procedures for implementation by specialists.

The manual must be left with the customer.

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

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## Symbols



### NOTE

This symbol indicates danger to person or machine.



### Caution

This symbol indicates important information about what you should consider when installing or servicing the installation.



### TIP

This symbol indicates tips on how to facilitate using the product.

## Marking

**CE** The CE mark is obligatory for most products sold in the EU, regardless of where they are made.

**IP24** Classification of enclosure of electro-technical equipment.



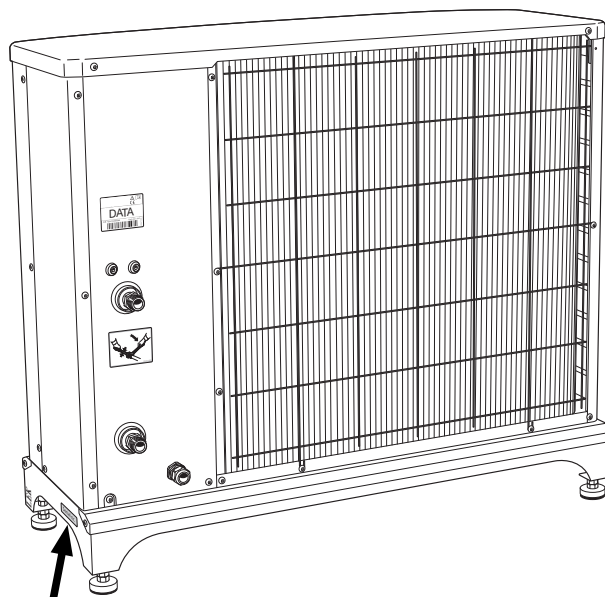
Danger to person or machine.



Read the User Manual.

## Serial number

The serial number for F2040 can be found on the side of the foot.



Serial number



### Caution

You need the product's (14 digit) serial number for servicing and support.

# Recovery



Leave the disposal of the packaging to the installer who installed the product or to special waste stations.

Do not dispose of used products with normal household waste. It must be disposed of at a special waste station or dealer who provides this type of service.

Improper disposal of the product by the user results in administrative penalties in accordance with current legislation.

## Environmental information

This unit contains a fluorinated greenhouse gas that is covered by the Kyoto agreement.

The equipment contains R410A, a fluorinated greenhouse gas with a GWP value (Global Warming Potential) of 2088. Do not release R410A into the atmosphere.

# Country specific information

## UNITED KINGDOM

This installation is subject to building regulation approval, notify the local Authority of intention to install.

Use only manufacturer's recommended replacement parts.



Benchmark places responsibilities on both manufacturers and installers. The purpose is to ensure that customers are provided with the correct equipment for their needs, that it is installed, commissioned and serviced in accordance with the manufacturers instructions by competent persons and that it meets the requirements of the appropriate Building Regulations. The Benchmark Checklist can be used to demonstrate compliance with Building Regulations and should be provided to the customer for future reference.

Installers are required to carry out the installation, commissioning and servicing work in accordance with the Benchmark Code of practice which is available from the Heating and Hotwater Industry Council who manage and promote the Scheme. Visit [www.centralheating.co.uk](http://www.centralheating.co.uk) for information.

### *Warranty and insurance information*

Thank you for installing a new NIBE heat pump in your home.

NIBE heat pumps are manufactured in Sweden to the very highest standard so we are pleased to offer our customers a comprehensive guarantee.

The product is guaranteed for 24 months for parts and labour from the date of installation or 33 months from the date of manufacture, whichever is the shorter.

The NIBE guarantee is based on the unit being installed and commissioned by a NIBE accredited installer, serviced every year and the Benchmark documents completed. Where this condition is not met, any chargeable spare parts or components issued within the applicable guarantee period still benefit from a 12 month warranty from the date of issue by the manufacturer.

We recommend the installer completes and returns as soon as possible, your guarantee registration card or completes the guarantee form on the NIBE website [www.nibe.co.uk](http://www.nibe.co.uk).

### *Electrical Supply*

The heat pump must be permanently connected to a 230V ac 50Hz supply.

All system components shall be of an approved type and all wiring to current I.E.E wiring regulations.

External wiring must be correctly earthed, polarised and in accordance with the relevant standards: Currently this is BS 7671.

### *Heating System*

The installation of the heat pump should follow best practice as covered in the following:

BS 5449 Forced circulation hot water central heating systems for domestic premises.

BS 15450 Heating systems in buildings – Design of heat pump heating systems.

# Inspection of the installation

Current regulations require the heating installation to be inspected before it is commissioned. The inspection must be carried out by a suitably qualified person. Fill in the page for information about installation data in the User manual.

✓	Description	Notes	Signature	Date
Heating medium (page 27)				
	System flushed			
	System vented			
	Particle filter			
	Shut-off and drain valve			
	Charge flow set			
Electricity (page 30)				
	Fuses property			
	Safety breaker			
	Earth circuit-breaker			
	Heating cable type/effect			
	Fuse size, heating cable (F3)			
	Communication cable connected			
	F2040 addressed (only when cascade connection)			
	Connections			
	Main voltage			
	Phase voltage			
	When installing F2040-6, check that the software version of the indoor module/control module is at least v8320.			
Miscellaneous				
	Warranty			
	Benchmark checklist			

# Compatible indoor modules (VVM) and control modules (SMO)

	VVM 320	SMO 20	SMO 40
F2040-6	X	X	X
F2040-8	X	X	X
F2040-12	X	X	X

## Indoor modules

### VVM 320

Stainless steel, 1x230 V

With T&P valve

Part no. 069 112

## Control modules

### SMO 20

Control module  
Part no. 067 224

### SMO 40

Control module  
Part no. 067 225



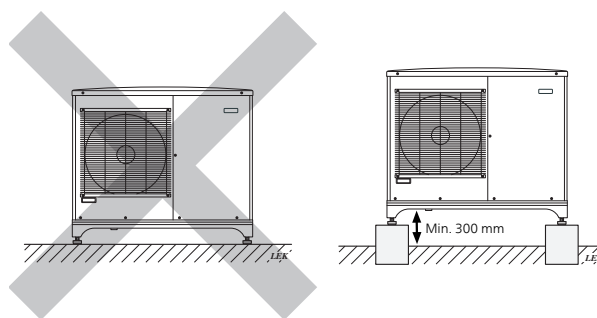
# 2 Delivery and handling

## Transport and storage

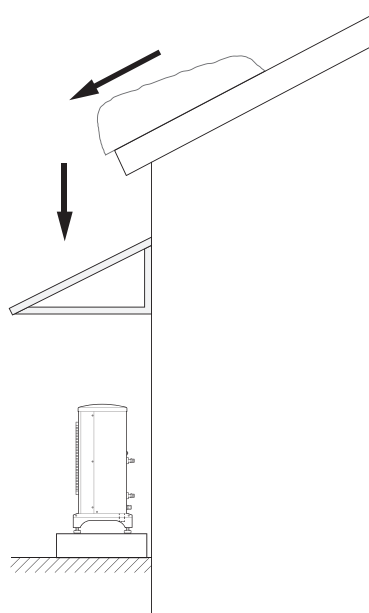
F2040 must be transported and stored vertically.

## Assembly

- Place F2040 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 concrete foundation or slabs must be positioned so that the lower edge of the evaporator is at the level of the average local snow depth, although a minimum of 300 mm.
- The F2040 should not be positioned next to sensitive walls, for example, next to a bedroom.
- Also ensure that the placement does not inconvenience the neighbours.
- F2040 must not be placed so that recirculation of the outdoor air can occur. This causes lower output and impaired efficiency.
- The evaporator should be sheltered from direct wind, which negatively affects the defrosting function. Place F2040 protected from wind against the evaporator.
- Large amounts of condensation water, as well as melt water from defrosting, may be produced. Condensation water must be led off to a drain or similar (see page 10).
- Care must be exercised so that the heat pump is not scratched during installation.



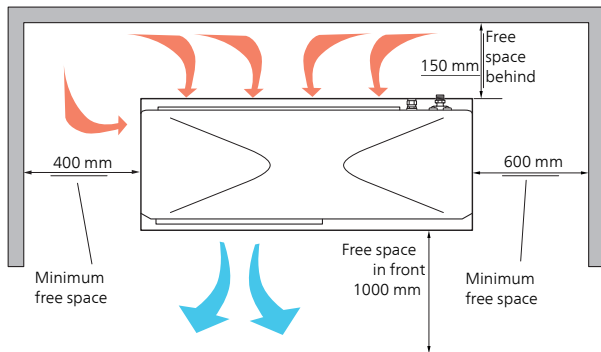
Do not place F2040 directly on the lawn or other non solid surface.



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 F2040 and the house wall must be at least 150 mm. Clearance in front of F2040 should be at least one metre.



## CONDENSATION WATER TROUGH

The condensation water trough collects and leads away most of the condensation water from the heat pump.



### NOTE

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 runoff should be checked regularly, especially during the autumn. Clean if necessary.



### NOTE

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

To ensure this function the accessory KVR 10 should be used.



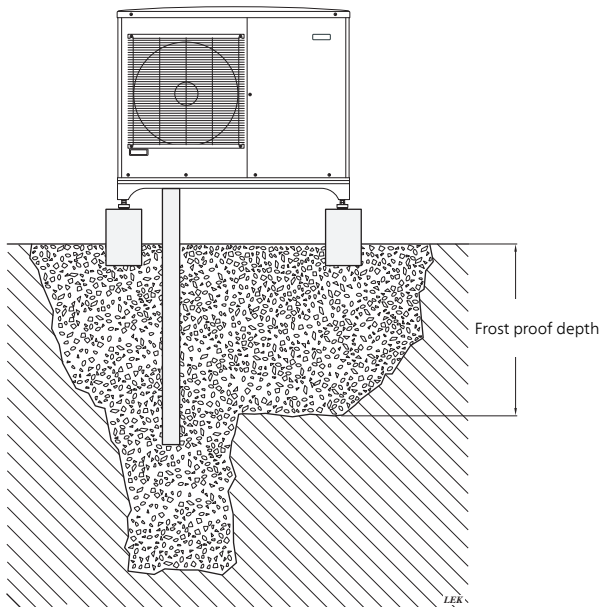
### NOTE

The electrical installation and wiring must be carried out under the supervision of an authorised electrician.

- The condensation water (up to 50 litres/24 hrs) that collects in the trough should be routed away by a pipe to an appropriate drain, it is recommended that the shortest outdoor stretch possible is used.
- The section of the pipe that can be affected by frost must be heated by the heating cable to prevent freezing.
- Route the pipe downward from F2040.
- The outlet of the condensation water pipe must be at a depth that is frost free or alternatively indoors (with reservation for local ordinances and regulations).
- 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.

## Recommended alternative for leading off condensation water

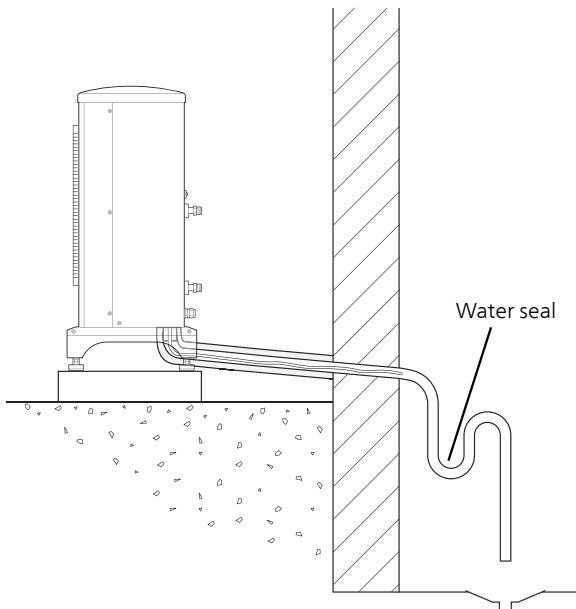
### Stone caisson



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.

The outlet of the condensation water pipe must be at frost free depth.

### Drain indoors



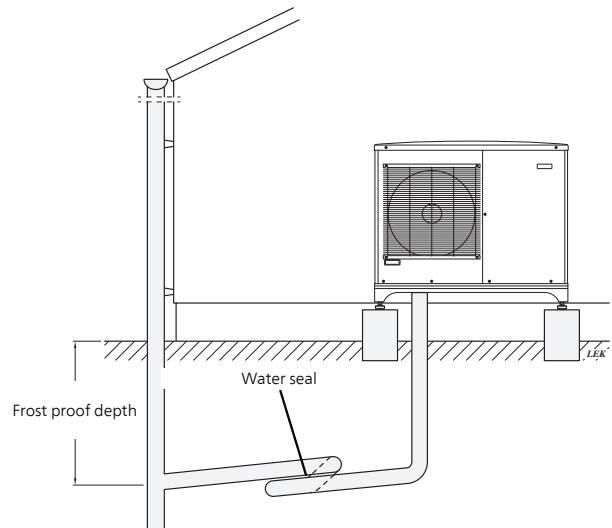
The condensation water is lead to an indoor drain (subject to local rules and regulations).

Route the pipe downward from F2040.

The condensation water pipe must have a water seal to prevent air circulation in the pipe.

KVR 10 spliced as illustrated. Pipe routing inside house not included.

## Gutter drainage



The outlet of the condensation water pipe must be at frost free depth.

Route the pipe downward from F2040.

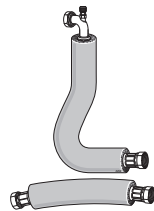
The condensation water pipe must have a water seal to prevent air circulation in the pipe.



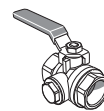
### Caution

If none of the recommended alternatives is used good lead off of condensation water must be assured.

## Supplied components



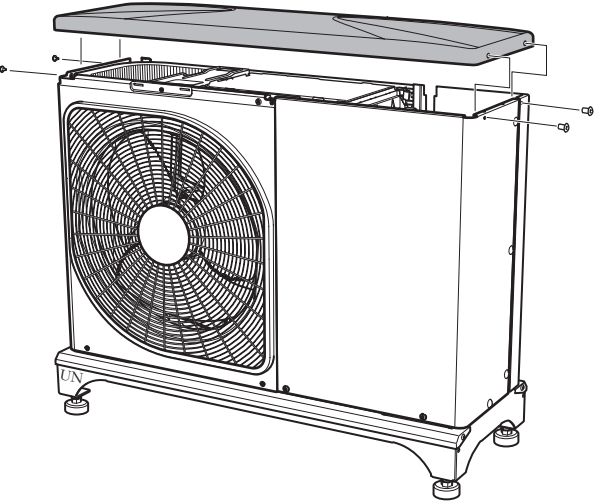
2 x flexible pipes (DN25, G1") with 4 x gaskets.



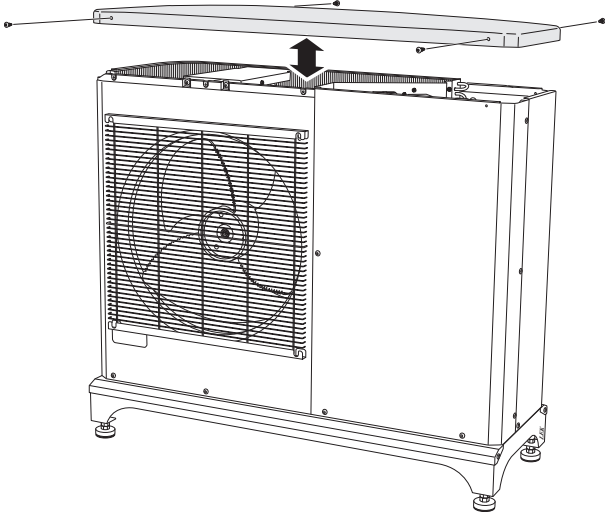
Filterball (G1").

# Removing the covers

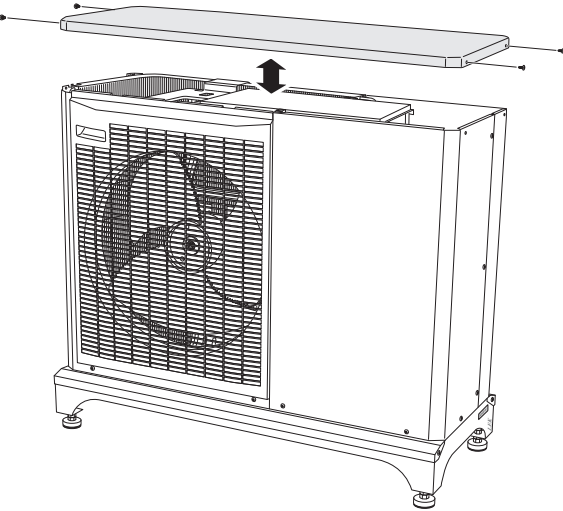
F2040-6



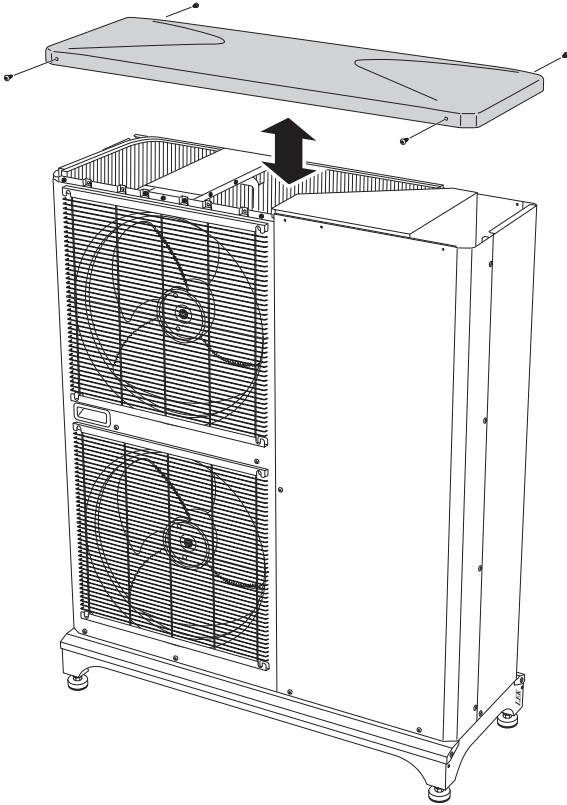
F2040-12



F2040-8

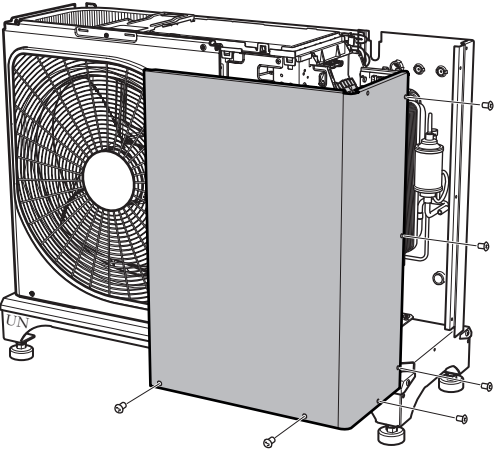


F2040-16

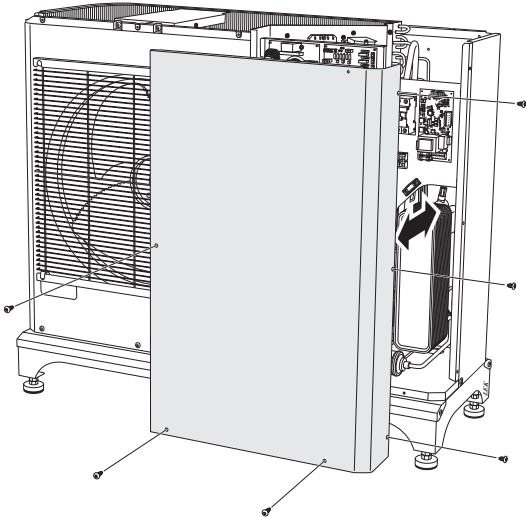


# Removing the front panel

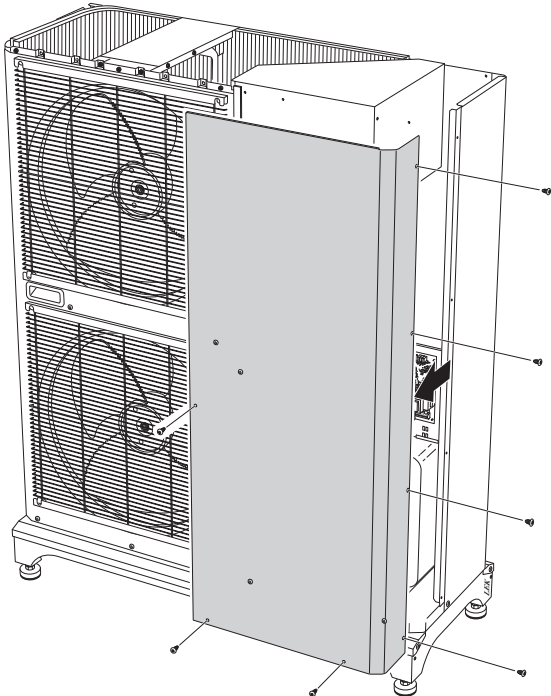
F2040-6



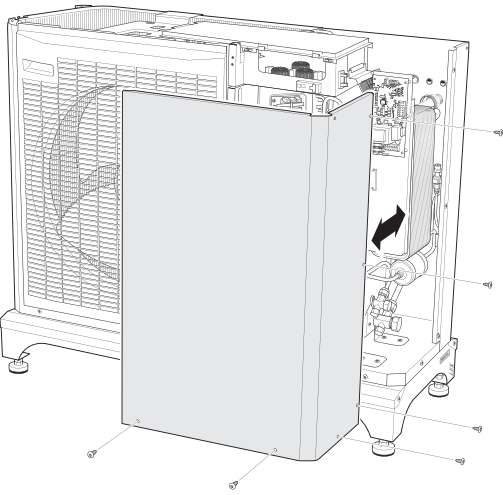
F2040-12



F2040-16

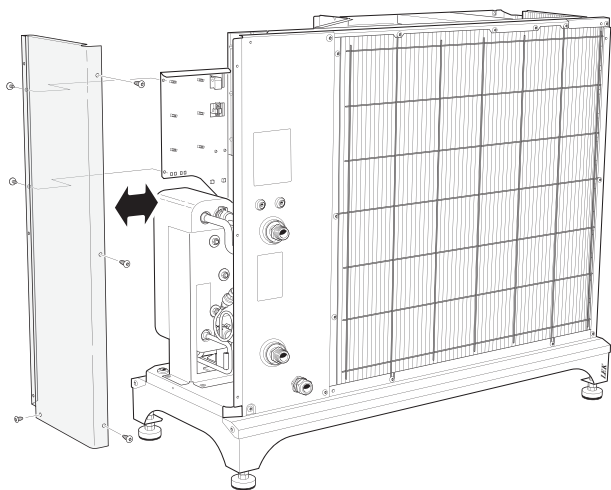


F2040-8

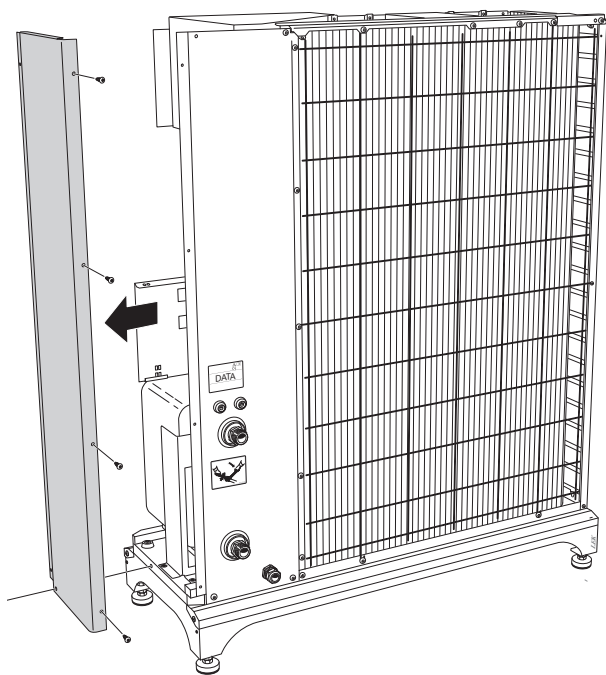


# Removing the side panel

F2040-12



F2040-16



# 3 The heat pump design

## General

F2040-6

