

GEBWELL

Installation, use maintenance manual

Gebwell Cool cooling convector, wall unit



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Read the installation and operating instructions carefully and keep it for future reference!

APPENDICES

PI-diagram

PI-diagram, installation set

Electrical diagram

2 OPENING THE PACKAGE

Remove the cardboard packaging around the device and check that the device has not suffered any damage during transport. If damage is found, the carrier that delivered the device must be notified immediately.

Check the content of the delivery. Gebwell Cool includes a fan coil unit, a manual and a wireless remote control.

3 SAFETY

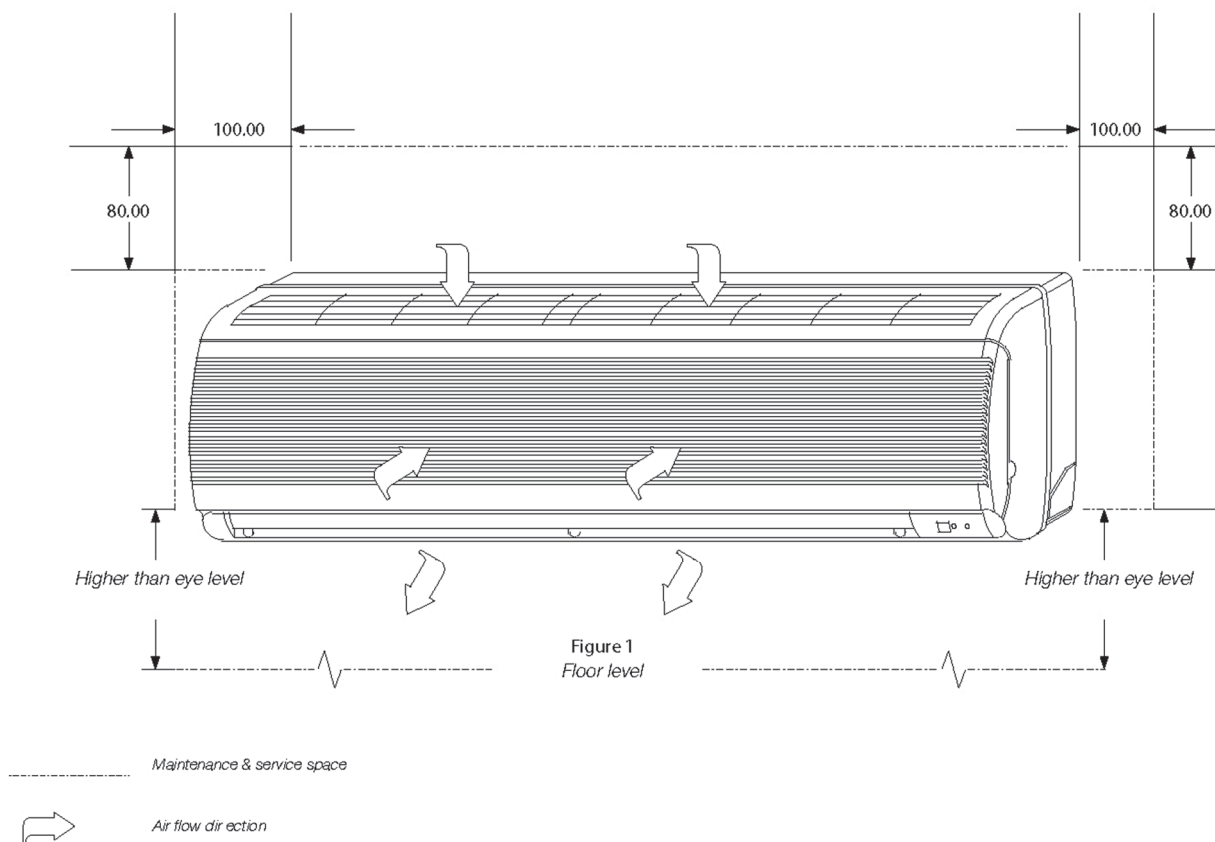
- Read the safety information before using the device.
- This coil unit must be installed in accordance with the installation instructions before use.
- Switch off the air conditioner before making any repairs.
- The device must only be serviced by a qualified person.

4 INSTALLING THE COOLING DEVICE

INSTALLATION LOCATION

- There must be no heat-generating equipment in the vicinity of the unit.
- Ensure that nothing blocks the airflow.
- The installation site must have good ventilation.
- The installation site must have easy connection to the drainage of condensate.

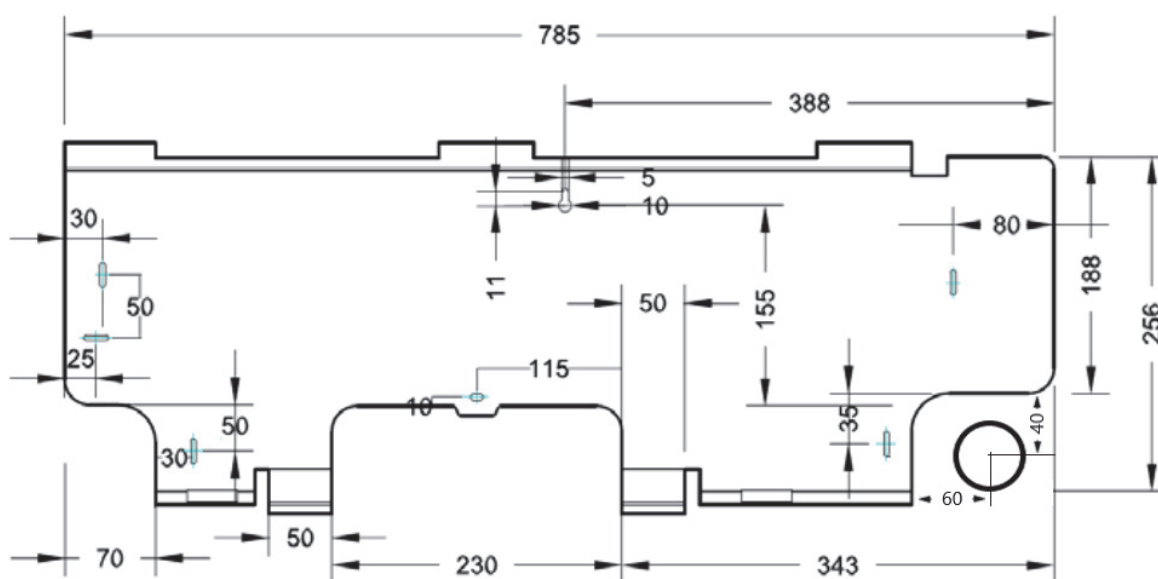
CAUTION: Avoid installing the unit from direct sunlight.



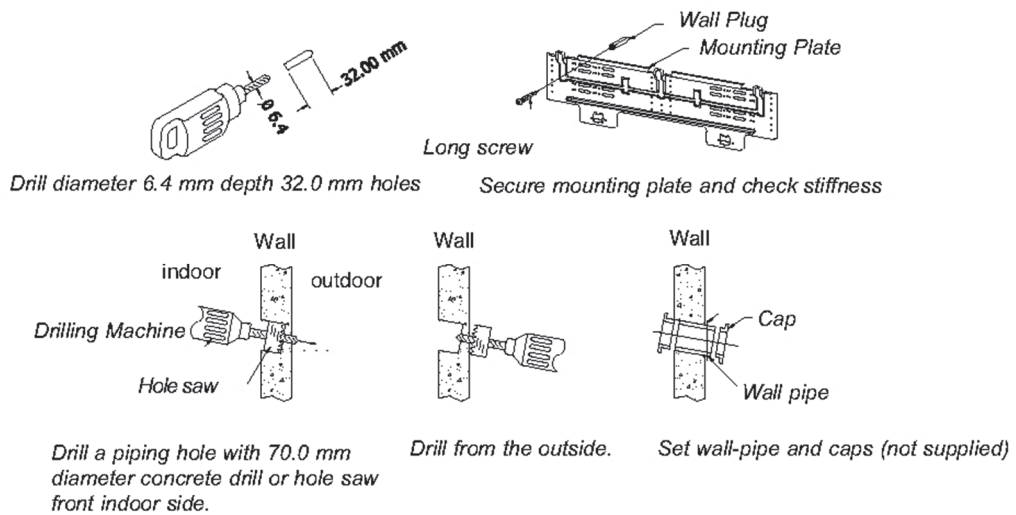
FASTENING

- The installation wall must be strong and solid to prevent it from shaking/resonating when the fan is on.
- Remove the wall mounting plate from the rear of the fan by unscrewing the fastening screw and gently pressing at the marked brackets.
- Fasten the mounting plate to the wall with screws.
- If the unit is attached to a concrete/block wall, screw anchors suitable for the wall material should be used for the fastening.
- Always align the marking lines and use a spirit level to secure the mounting plate horizontally.

WALL MOUNTING PLATE DIMENSIONS:



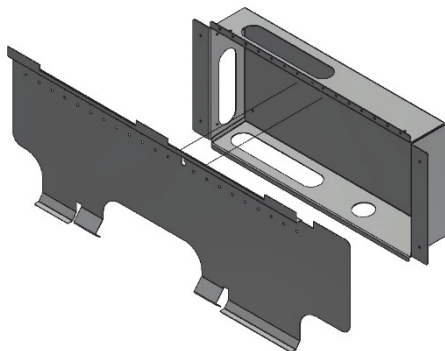
1. Select an appropriate installation location for the coil unit.
2. Align the mounting plate horizontally with the wall.
3. Mark the positions of the screws, as well as the through holes for piping and electrical wires.
4. Drill holes for wall mounting plugs.
5. Insert the mounting plugs into the drilled holes.
6. Install the wall mounting plate.
7. Drill a hole of 70 mm in diameter for the cooling tube into the recess on the right side of the mounting plate. Ensure that the hole is slightly slanted downwards (see the figure on the next page).



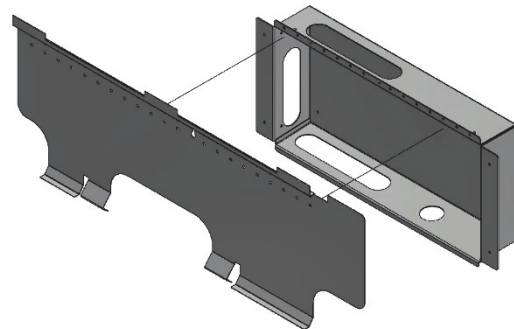
INSTALLING THE WALL-MOUNT HOUSING

The wall-mount housing Gebwell Cool allows the pipes to be routed to the coil unit inside the wall structure. The mounting housing has connection directions in the up, down and left directions.

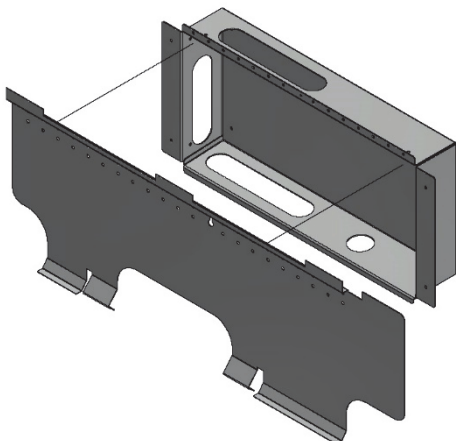
Housing in the middle of the mounting plate



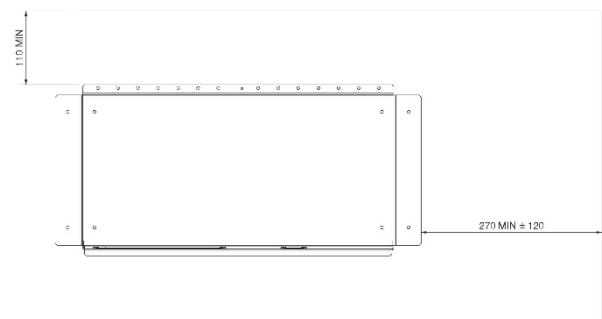
Housing on the right



Housing on the left



Dimensions and mounting distances for the wall mounting housing



5 PIPE CONNECTIONS

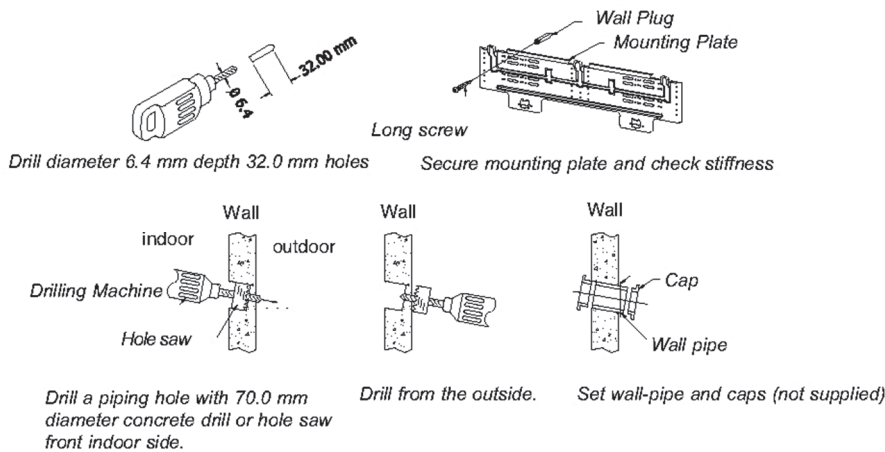
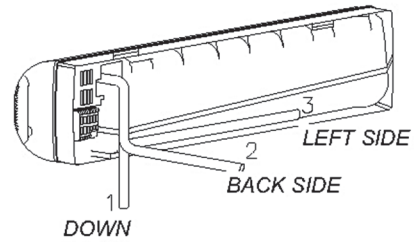
INSTALLATION OF THE COOLING PIPING

The cooling piping can be connected down (1), at the back through the wall (2) or left (3). It is not recommended to connect the piping to the right as the bend for the pipe would then be too tight.

The piping is connected to the collector/brine circuit of the heat pump in accordance with the attached HW diagram.

Install condensate-insulated output and return pipes between the fan unit and the collector/brine circuit. Do not install the pipes inside the same insulation, but insulate both pipes separately. In addition to pipe lines, it is also important to insulate the pipe connections carefully. The condensate drain line must also be insulated.

The pipe connections have a 1/2" external thread.

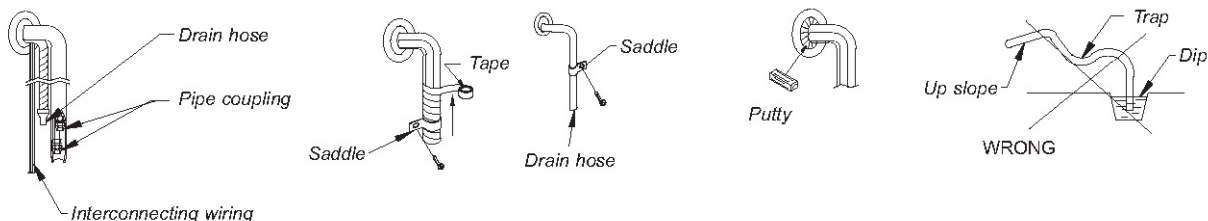


Plastic or copper pipes can be used as the pipe material for the cooling circulation.

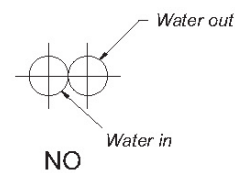
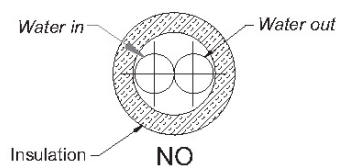
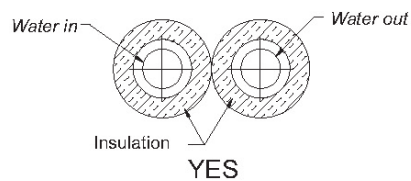
INSTALLATION OF THE CONDENSATE DRAIN PIPE

Route the condensate drain pipe into the drain with a gentle slope away from the cooling unit. Make sure that no air pockets are formed in the drain line. If the condensate is routed directly to the drain, a drain trap must be made on the drain line.

OUTSIDE OF THE WALL

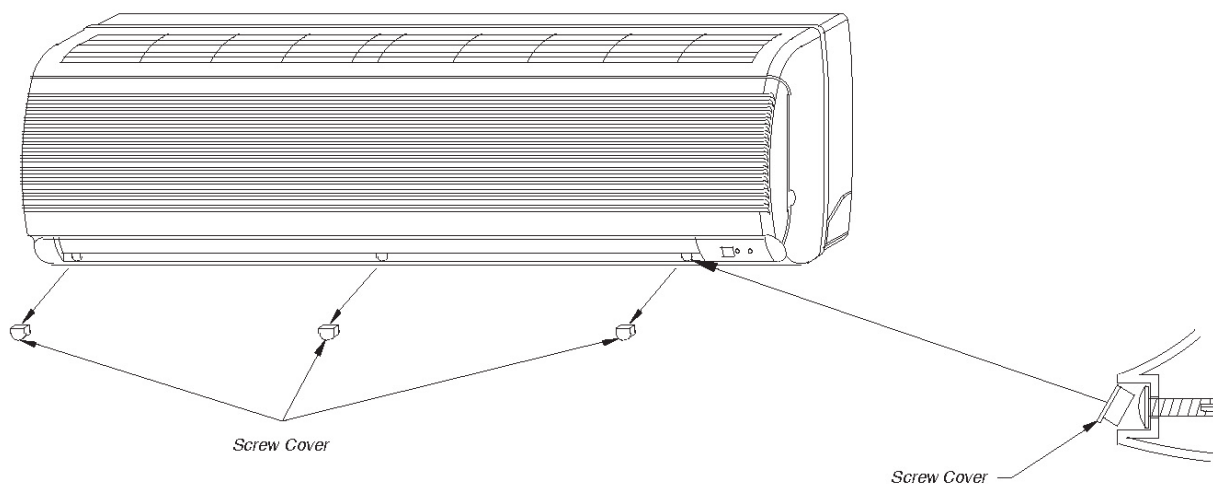


INSULATING THE PIPES



6 OPENING THE HOUSING

- Remove the plastic fastening screw caps by turning the lower edge upwards as shown in the figure.
- Unscrew the screws on the housing (3 pcs).
- To open the front cover, gently lift the lower part of the cover by pulling the casing towards you.
- Open the fastening screws of the casing under the front cover (3 pcs).
- Lever the back brackets (3 pcs) from the upper part.
- Disconnect the cable of the display in the front door from its connector.
- Lift the housing out.
- Mounting is done by following these instructions in reverse order.

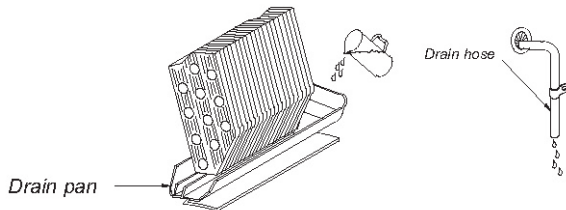


7 TESTING THE DRAINAGE OF CONDENSATE

Condensate is accumulated inside the unit during cooling. Its drainage should be carefully tested to ensure that the water does not cause structural damage if it enters the wrong place.

1. Pour a glass of water into the water basin under the cooling cell.
2. Make sure that the water drains from the drainage hose.

Fan coil unit



8 ELECTRICAL CONNECTIONS

Make electrical connections according to the electrical diagram. Electrical work should only be carried out by a qualified electrician.

- Open the front cover by gently pulling the front plastic towards you.
- Open the electrical cover on the right side by unscrewing the fastening screw and lifting the door open.
- Thread the cables from the right edge of the back of the fan to the electrical housing.
- Connect the cables according to the electrical diagram.

9 REMOTE CONTROL OF THE COOLING DEVICE

NOTE!

- Make sure there are no obstructions between the cooling device and the remote control.
- The remote control signal has a range of approximately 6.4 m.
- Do not drop or throw the remote control.
- Do not spill liquid on the control or store it in direct sunlight or in a very hot place.
- Remove the batteries if the remote control is not used for a longer period.
- Store the remote control at least one metre away from a TV or other electronic devices.

Always press only one button at a time. Pressing two or more buttons simultaneously may cause malfunction. The equipment beeps when the cooling unit receives the remote control signal. If the reception of the signal is blocked in any way, no beep sound is given.

BUTTONS AND THEIR FUNCTIONS

1. SIGNAL TRANSMITTER – infrared signal source
2. POWER BUTTON – press to turn the cooling device on or off
3. MODE – press to select the desired mode:

COOL – cooling function

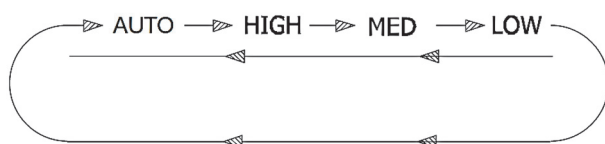
DRY – humidity control

HEAT – heating function

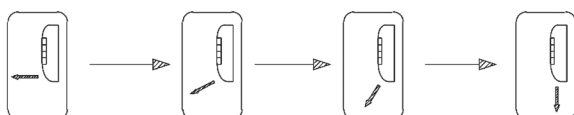
FAN – blowing only, no cooling option

AUTO – the mode changes automatically between the cooling and heating modes, depending on the room temperature and the set temperature

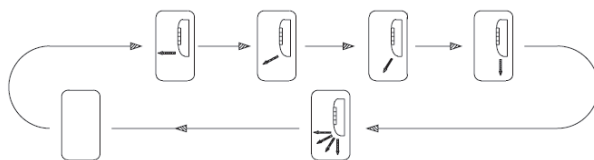
4. FAN – Press to select the desired blowing speed. The speed changes in the order below.



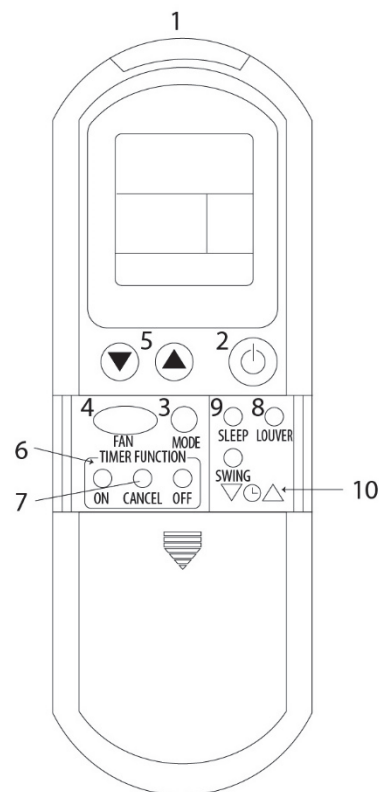
5. TEMPERATURE SELECTOR – Press ▲ to increase and ▼ to decrease the set temperature.
6. TIMER SETTINGS – You can schedule the device to turn on and off at a desired time. To set the start time, press the ON button. With a single press, the time is increased by 1 minute. By pressing and holding the button, the time changes faster. The device turns on at the selected time. To set the time when the device is switched off, press the OFF button. With a single press, the time is increased by 1 minute. By pressing and holding the button, the time changes faster. The maximum timer setting is 18 hours. Press the Cancel button (7) or the power button (2) to cancel the timer setting.
7. CANCEL – cancel the timer setting
8. LOUVRE – Two different functions are available:
 - a. Adjusting the stop position of the louvre. There are four different angles to choose from:



- b. Adjusting the turning of the louvre. The louvre turns in the order described below:



9. SLEEP – Press to turn sleep mode on and off. The set temperature is automatically set to a pleasant night setting.
10. TIME SETTING – Press and hold the up or down arrow to set the time. The longer you press the button continuously, the faster the time will be updated.



TRANSMISSION INDICATOR

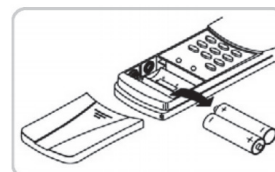
The transmission indicator flashes twice when sending information to the device. The device beeps when the transmission is received.

REPLACING THE BATTERY

Batteries (2 pcs, AAA) are located under the slide cover at the bottom of the remote control. To completely remove the slide cover, press slightly in the middle of the top edge of the cover while sliding the cover down. Insert the batteries in the correct orientation. Insert the slide cover back in place.

Considerations when using batteries

- batteries have a battery life of about one year
- do not use rechargeable batteries
- remove the batteries if the device is not used for a longer period

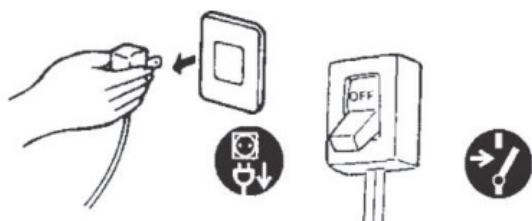


10 MAINTENANCE PROCEDURES

Short-term use of the equipment outside the cooling season extends the life of the device (approx. once a month).

Always switch off the power supply by setting the power switch to the "OFF" position before checking and servicing the unit.

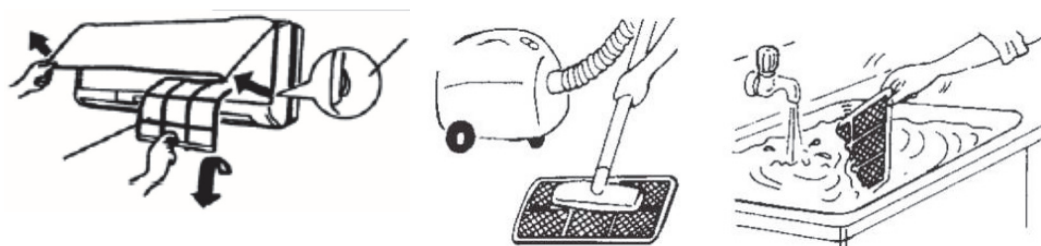
11 CLEANING THE DEVICE



Switch off the device and pull the plug from the wall socket before cleaning the device. Do not splash water on the device in order to clean it. Wipe the device with a dry cloth or dampen the cloth with water or detergent.

CLEANING THE FILTERS

It is recommended to clean the filter every three weeks. Switch off the device and remove the plug from the wall socket before removing the filter. Remove the filter and clean it with a vacuum cleaner. If the air filter is very dirty, wash it with water. Do not use water above 45 degrees. Dry the filter thoroughly before reinstalling.



NOTE! If the air filter is dirty, the airflow decreases, the unit is overloaded and the electricity consumption increases by 6%. Clean the air filter regularly.

12 PRECAUTIONS

- Check the electrical system. Make sure that the power supply and the fuses used correspond to the values indicated in the unit.
- Switch off the air conditioner if electrical interference occurs during operation. If the unit is not used for an extended period, switch off the power supply from the main switch.
- Do not place objects in the air inlet or outlet when the air conditioner is in use, as this will cause malfunction or personal injury. Also pay attention to children when using the air conditioner.
- Do not direct the airflow directly towards people, especially children, the elderly or the sick.
- Do not place a radiator or other heat source near the unit. The heat may melt the plastic parts.

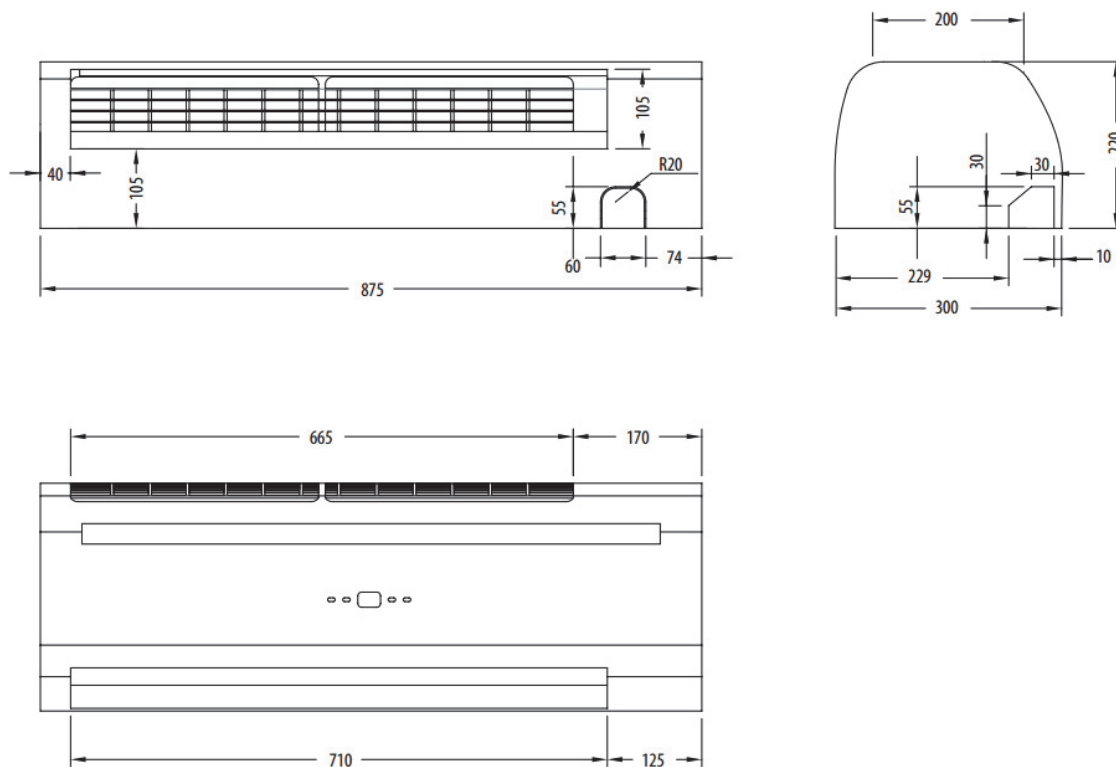
13 CHECKS BEFORE REQUESTING MAINTENANCE

Check the following before requesting maintenance. These instructions might help in solving the problem. If the unit does not operate after the check, contact your dealer.

PROBLEM	CAUSE
Device is not working.	• Check if the power supply is working properly. • Check if the wiring is loose. • Check if the main switch is turned on. • Check if the timer is set on.
The air conditioner works, but doesn't provide enough cooling.	• Check if the temperature setting of the air conditioner is too high. • Check if the sun shines directly in the room. • Check that the doors and windows of the cooled space are not open. • Check if something is obstructing the airflow. • Check if the fan of the air conditioner is working. • Check if the filters are dirty or clogged.
Steam or mist rises from the air conditioner.	• The warm air in the room mixes with cool air, causing the device to steam.
The remote control does not work.	• The connection between the remote control and the air conditioner is weak or missing. • Check that the batteries are installed correctly. • Check the charge of the batteries.

Call an authorised service centre if the device does not work and all the LEDs flash.

14 DIMENSIONS



15 TECHNICAL SPECIFICATIONS

All technical information is provided under the following conditions:

COOLING:

Total cooling capacity: 2.49 kW
Noticeable cooling capacity: 1.81 kW
Flow rate: 427 l/h (0.12 l/s)
Pressure drop: 28 kPa

HEATING:

Heating output: 3.21 kW
Flow rate: 427 l/h (0.12 l/s)
Pressure drop: 23 kPa

AIRFLOW:

Maximum: 500 m³/h
Average: 370 m³/h
Minimum: 290 m³/h

ELECTRICITY:

Supply voltage: 230 V / 1 Ph / 50 Hz
Input power: 14 W

PIPE CONNECTIONS:

Connection size (G): ½"

NOISE PRESSURE LEVEL:

Maximum: 37 dB(A)
Average: 30 dB(A)
Minimum: 26 dB(A)

DIMENSIONS:

Freight weight: 13 kg
Weight when installed: 16 kg
Width: 875 mm
Height: 300 mm
Depth: 220 mm

HWW/EC 23			T.a.in 24 [°C] b.s., 17 [°C] b.u.				T.a.in 27 [°C] b.s., 19 [°C] b.u.				T.a.in 30 [°C] b.s., 22 [°C] b.u.			
T.w. in	G.w.	ΔP.w.	R.F.T.	R.F.S.	T.a. out	U.R.a. out	R.F.T.	R.F.S.	T.a. out	U.R.a. out	R.F.T.	R.F.S.	T.a. out	U.R.a. out
[°C]	[l/h]	[kPa]	[kW]	[kW]	[°C]	[%]	[kW]	[kW]	[°C]	[%]	[kW]	[kW]	[°C]	[%]
5	171	4	1,61	1,43	14,4	84	1,85	1,68	15,8	85	2,26	1,70	18,3	86
5	427	28	2,39	1,71	13,3	83	2,83	1,94	14,8	81	3,49	2	17,0	82
5	598	55	2,61	1,75	13,1	82	3,06	1,99	14,5	80	3,77	2,11	16,6	82
6	171	4	1,50	1,39	14,8	54	1,75	1,62	16,2	85	2,15	1,65	18,6	86
6	427	28	2,22	1,65	13,5	83	2,66	1,87	15,1	81	3,33	1,95	17,3	82
6	598	55	2,42	1,70	13,3	82	2,89	1,92	14,9	80	3,60	2,04	16,8	82
7	171	4	1,37	1,34	15,0	85	1,63	1,57	16,5	85	2,05	1,59	19,0	85
7	427	28	2,04	1,59	13,8	84	2,49	1,81	15,4	81	3,16	1,88	17,6	81
7	598	55	2,22	1,64	13,6	83	2,70	1,87	15,1	80	3,42	1,97	17,2	81
8	171	4	1,27	1,29	15,4	85	1,51	1,51	16,7	85	1,94	1,55	19,3	85
8	427	28	1,87	1,53	14,1	84	2,32	1,74	15,7	81	3,00	1,82	17,9	81
8	598	55	2,05	1,57	14,0	83	2,51	1,80	15,4	80	3,25	1,91	17,5	81
9	171	4	1,14	1,24	15,8	86	1,40	1,46	17,0	86	1,83	2,35	19,5	85
9	427	28	1,69	1,47	14,4	85	2,14	1,68	15,9	82	2,83	2,77	18,2	81
9	598	55	1,84	1,51	14,2	84	2,32	1,74	15,7	81	3,06	2,90	17,7	81
10	171	4	1,02	1,20	16,0	86	1,29	1,41	17,5	86	1,72	1,45	19,9	85
10	427	28	1,51	1,41	14,7	85	1,97	1,63	16,3	82	2,66	1,71	18,4	81
10	598	55	1,65	1,46	14,5	84	2,13	1,67	16,0	81	2,89	1,79	18,0	81

T.w.in: Temperature of incoming fluid

G.w: Fluid flow

ΔP.w: Fluid pressure loss

T.a.in: Temperature of incoming air

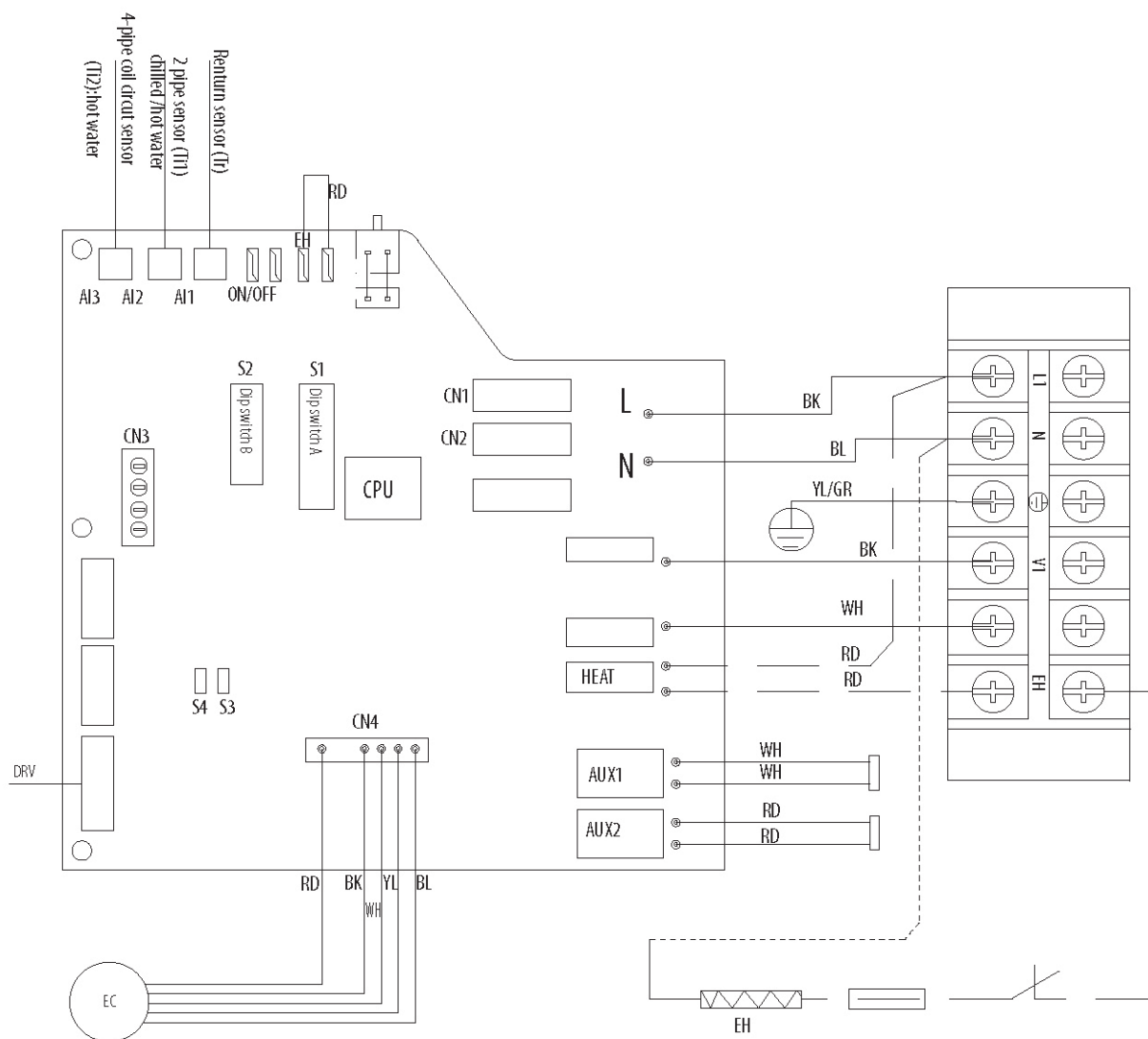
R.F.T: Total cooling capacity

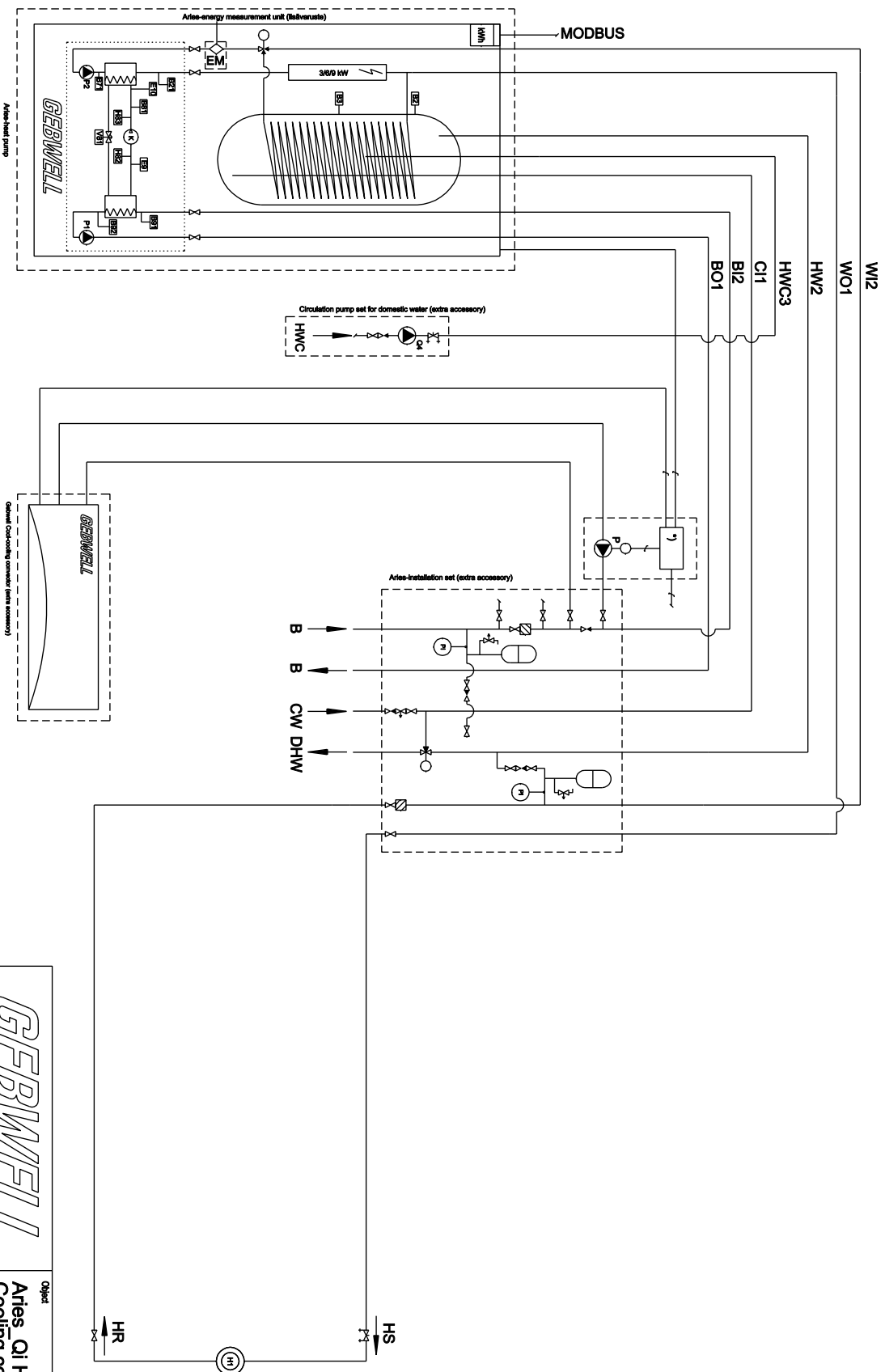
R.F.S: Noticeable cooling capacity

T.a.out: Temperature of outgoing air

U.R.a.out: Relative humidity of outgoing air

16 ELECTRICAL DIAGRAM OF THE COOLING DEVICE



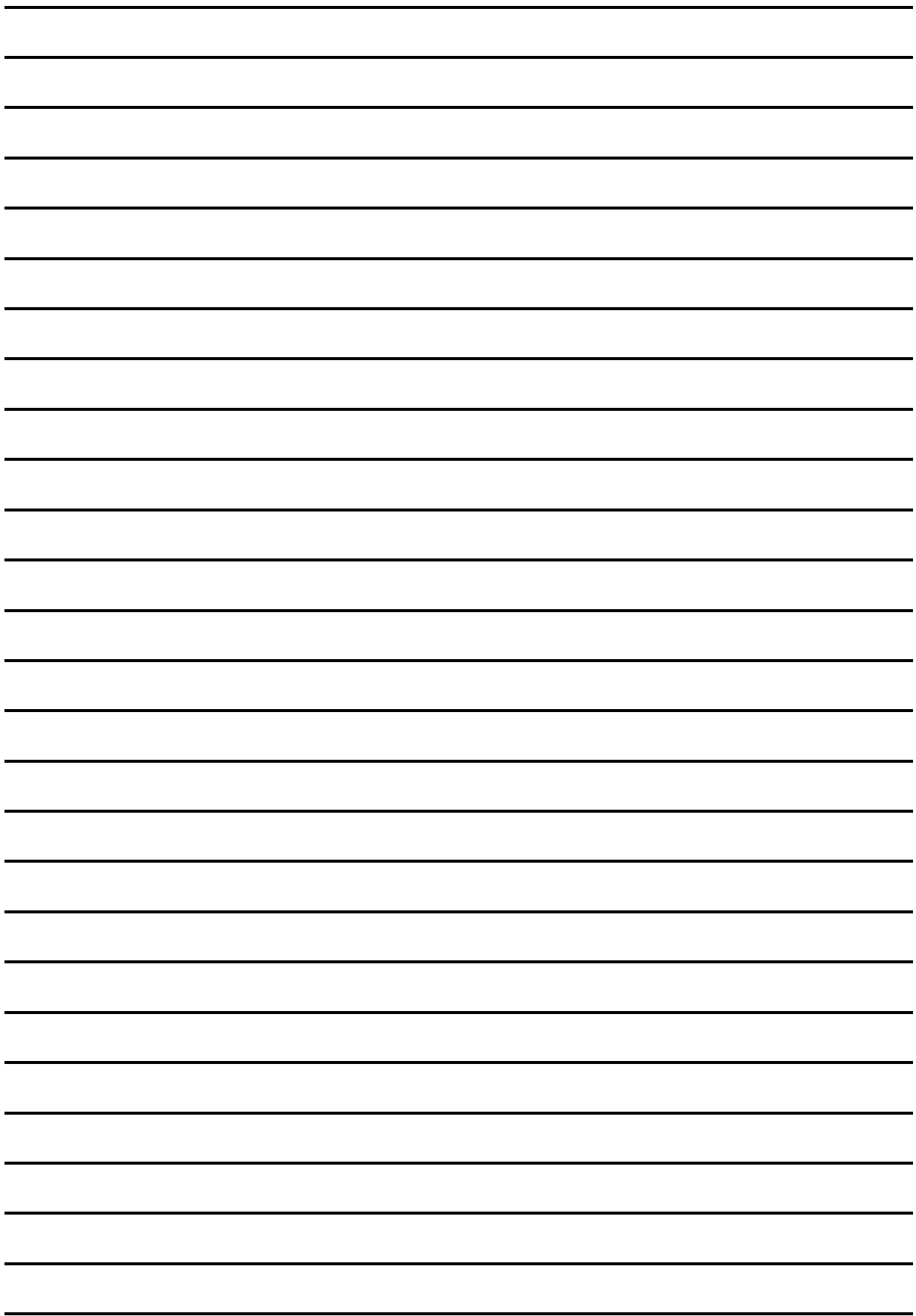


NOTE!
 Pressures and electrical markings in the diagram are indicative.
 The pressure loss in the dimensioning may 5 kPa.
 Pipe sizes, flow and components must be checked from the planning documents.
 Power supply for all circulation pumps must be checked from the planning documents.
 In the standard delivery of the heat pump, check pump-specific breaker devices.
 Check electrical details of heatpumps from installation, service and user manual.
 GEBWELL-products are certified in diagram.
 Please check delivery content from your salesperson!

GEBWELL Heating solutions		Object Aries Qi Heating control group Cooling convector	
Designer Gebwell	Date 25.6.2020	Purpose SCHEMA	
Checked Date		Drawing number _____	Revision _____

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