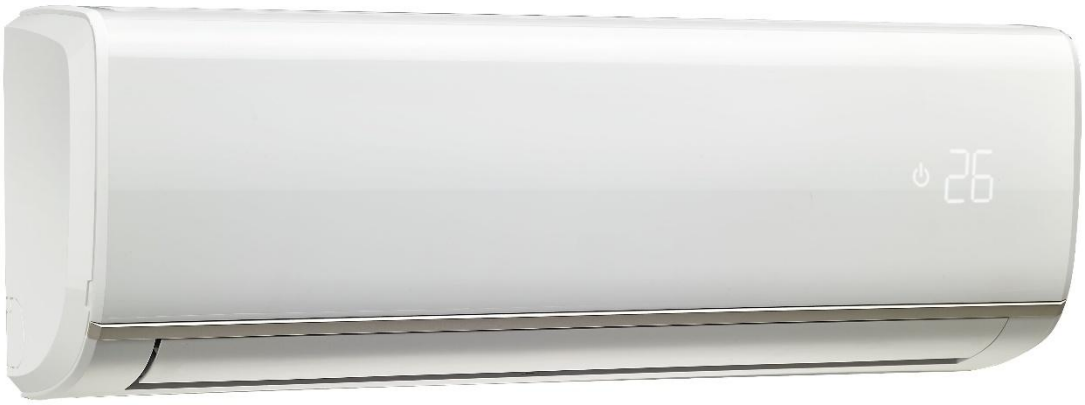
High Wall-Mounted Fan Coil Units

Operation and Installation Manual



HWF34-EC | HWF51-EC | HWF68-EC | HWF85-EC | HWF102-EC | HWF136-EC

- All installation work must be carried out by qualified technicians.
- Please read this manual carefully and follow the steps exactly as described.
- Keep this manual in a safe place for future reference.
- Our products are continuously developed and improved. The information in this document is subject to change without prior notice.
- Only qualified personnel may install and service the equipment covered by this document.

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1. Safety

Read this section before installing or operating the unit.

WARNING

Failure to observe these instructions may result in serious injury or death.

– Do not use the fan coil unit where flammable or corrosive gases may be present, and do not use combustible sprays near it. Fire or explosion may result.

– Do not repair, dismantle, reinstall or modify the unit without authorisation. Improper work can cause water leakage, electric shock or fire.

– Use only the specified power cord. An unsuitable cord may cause electric shock, overheating or fire.

– Do not operate the unit, plug or unplug the power cord, or touch the unit with wet hands.

– Do not clean the unit with water and do not place containers of water on it.

– Do not insert fingers, sticks or other objects into the air inlet or outlet. The running fan may cause injury.

– A residual current circuit breaker must be installed. The power cord must be connected to a socket with a protective earth. Never connect the earth conductor to gas or water pipes, lightning rods or telephone earths.

– If the power cord is damaged it must be replaced by the manufacturer, its service agent or similarly qualified persons.

– If the unit does not operate correctly, or if anything abnormal is noticed such as a burnt smell, switch off the power immediately and contact service.

CAUTION

Failure to observe these instructions may result in injury or damage to property.

– Do not use the unit for preserving precision equipment, food, animals, plants or artworks.

– Do not direct the air flow onto plants or animals, and do not let it blow onto the body for long periods.

– Do not place open flames or flammable sprays within one metre of the air outlet.

– Do not block the air inlet or outlet, and do not touch the aluminium fins of the heat exchanger.

– This appliance is not intended for use by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless supervised or instructed. Children must be supervised.

– Ensure sufficient ventilation when the unit is used together with a stove or heater.

– Disconnect the power before cleaning. Ensure the drain hose runs freely.

Do not install the unit in the following locations

– Where acid or alkaline vapours are present, or where flammable materials or gases are present.

– Where strong electromagnetic fields or strong vibration are present, as in industrial plants.

– Where corrosive gases such as sulphides are present, for example near hot springs.

– In kitchens full of oil vapour, in vehicles or enclosed cabinets, near the coast where the air is salty, or where oil mist is present.

1.1 User instructions and unit description

The fan coil unit is intended for the treatment of air, in summer and in winter, inside buildings used for domestic or similar purposes. The units are designed for indoor installation only.

The unit will function correctly only if these instructions are followed carefully, if the specified clearances are maintained at installation and if the operating limits given in section 3 are observed.

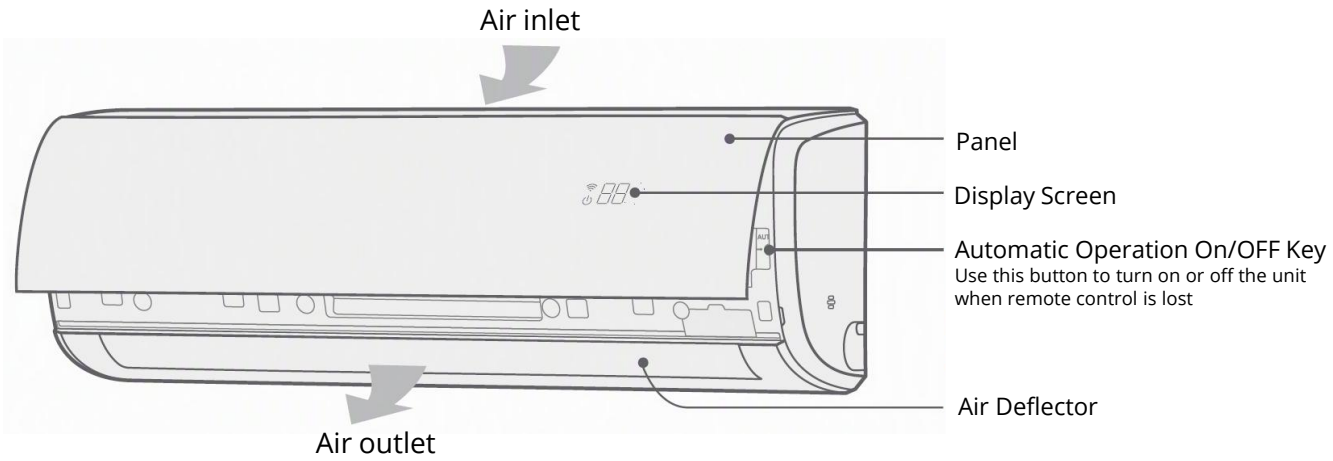
DANGER

Do not introduce objects through the air intake or discharge grilles.

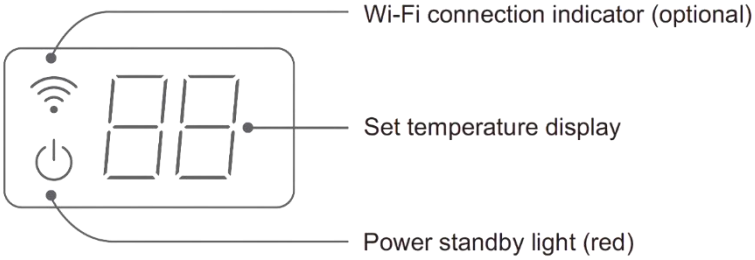
IMPORTANT

If the clearance distances are not maintained at installation, maintenance becomes difficult and the performance of the unit is reduced.

The unit

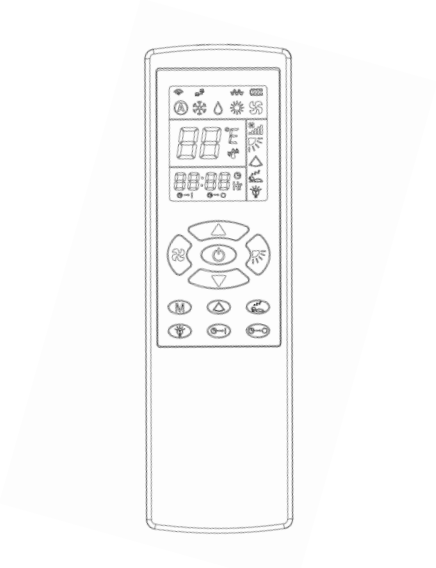


Display Screen



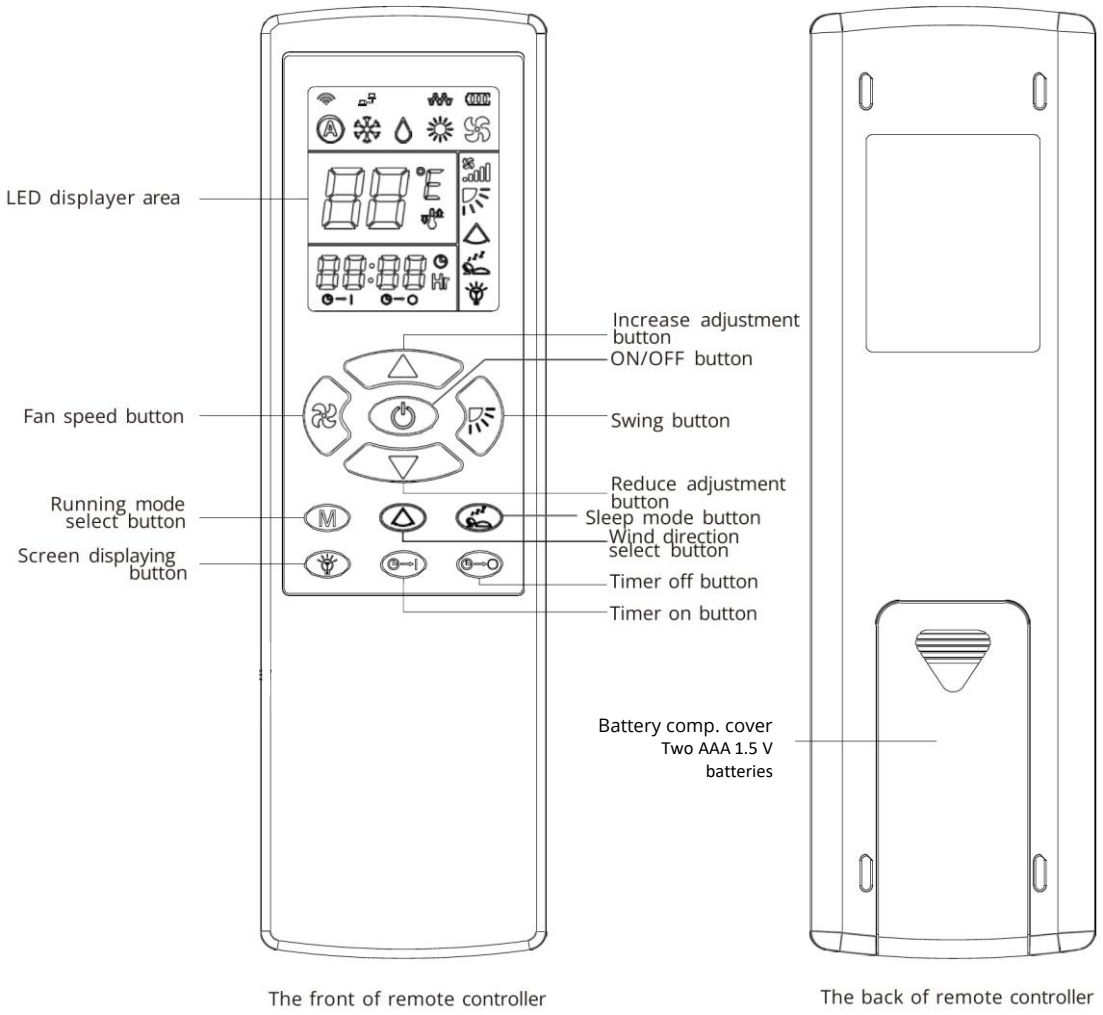
Display screens for other energy-efficient models

Remote Controller



2. Remote control

Appearance and buttons



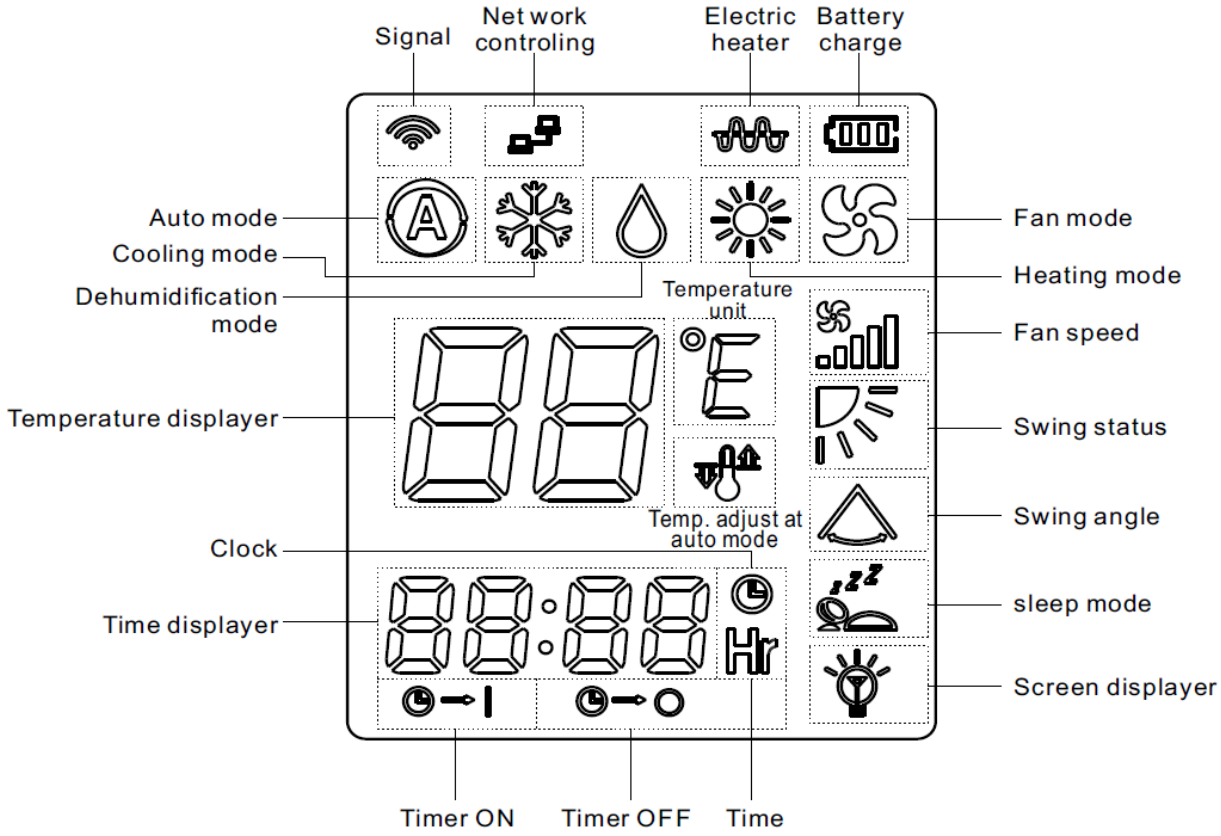
WARNING

- Remove the batteries if the remote control is not to be used for a long period.
- The remote control transmits reliably within 6 metres.
- When the unit receives a signal, a short beep confirms it.
- Replace the batteries when signals are no longer transmitted or the display becomes faint.
- Always replace both batteries at the same time and use two batteries of the same type. Do not use rechargeable batteries.
- Handle the remote control with care. Dropping it, throwing it or immersing it in water may prevent it from transmitting.
- Point the transmitter window of the remote control at the receiver on the unit; all functions can then be operated.

IMPORTANT

The electric heater combination key is reserved. These units are not fitted with an electric heater, and the key has no effect.

2.1 Display symbols



Symbol	Meaning
Auto / Cooling / Heating / Dry / Fan	Shows the operating mode currently selected.
Fan speed	Shows the fan speed currently selected.
Swing status and swing angle	Shown when the louver swing is running or the angle is being set.
Sleep mode	Shown when sleep mode is selected.
Screen display	Shown when the indoor display has been switched off.
Temperature and unit	Shows the set temperature and whether it is in °C or °F.
Clock and timer	Shows clock time, timer on and timer off settings.
Signal	Flashes each time the remote control sends a command.
Network control	Shown when the unit is connected to a network.
Battery charge	Shows the battery level of the remote control in three steps.
Electric heater	Not used. These units are not fitted with an electric heater.

2.2 Remote control buttons

ON / OFF

Starts and stops the unit. The default setting after power-on is auto mode, auto fan speed and auto swing.

Increase and Reduce

Adjust the set temperature between 16 °C and 31 °C in steps of 1 °C. In timer or clock setting mode the same buttons adjust the time in steps of one hour. Holding a button for three seconds starts continuous adjustment. The buttons have no effect when the unit is off or on standby.

Mode

Selects auto, cooling, heating, dry or fan mode.

Fan speed

Selects auto, low, medium or high fan speed. High is the highest fan speed step of the unit; the performance data in section 6 is stated at this speed.

Swing and wind direction

The swing button sets the louver swing. The wind direction button starts and stops the swing; the louver stops in its current position. Vertical swing only.

Sleep

Starts and stops sleep mode. The fan changes to auto speed and the set temperature is adjusted gradually for night-time comfort.

Screen display

Switches the display on the unit on and off, for use at night. Available only on units fitted with a display.

Timer on and Timer off

Timer on is set while the unit is on standby, timer off while the unit is running. After pressing the button, the time field and the timer symbol flash; set the time with the Increase and Reduce buttons. When the time field stops flashing and the timer symbol continues to flash, the setting has been accepted. Press the same button again to cancel.

Timer on and timer off may be combined. Timer accuracy of the remote control is one minute; actual switching follows the control process of the unit and the clock of the remote control.

Clock

Press Increase and Reduce together to set the hours and minutes.

Temperature unit

Press Swing and Reduce together to switch between °C and °F. The range is 16 °C to 31 °C, or 60 °F to 87 °F.

Electric heater button

Reserved. These units are not fitted with an electric heater and the button has no effect.

2.3 Wired controller CT23

The CT23 wired controller is an optional accessory, fitted only where local wall control or a bus connection is required. It is connected to terminal 485-1 of the unit control board and controls one unit; where a building management system is also used it is connected to terminal 485-2, and both interfaces may be used at the same time. Front dimensions are 86.4 × 86.4 mm with a depth of 42.2 mm, of which 13.3 mm projects from the wall.

The controller has six touch keys: On/Off, Mode, Fan speed, Swing, Decrease and Increase. Combinations of these keys give access to the clock, the timers and the built-in parameters.

Key lock

Press Decrease and Increase together for three seconds to lock or unlock the keys. No setting can be changed while the key lock symbol is shown.

Clock and timers

Press Swing and Increase together for three seconds to set the clock; press Swing to move between hours and minutes and Mode to set the day of the week.

Press Swing for three seconds to set the timers. Select the day with Mode, step through timer-on and timer-off hours and minutes with Swing, and adjust with Decrease or Increase. A timer that is not active is shown as a dashed time field. Press Fan speed to cancel the timer being set, or hold Mode and Fan speed together for three seconds to cancel all timers.

Sleep mode

Hold Mode to switch sleep mode on or off; it works in cooling and in heating only. After half an hour the set temperature rises by 0.5 °C in cooling and falls by 1 °C in heating, after one hour by 1 °C and 2 °C, and after two hours by 2 °C and 3 °C. Switching off or changing the mode ends sleep mode.

Swing and temperature unit

Press Swing briefly to start and stop the louver swing. Press Swing and Decrease together for three seconds to switch the display between °C and °F.

Group and centralised control

Hold On/Off for five seconds to select the unit address, from 1 to 244 or ALL for every unit on the bus, then hold On/Off again to enter centralised control. Press Fan speed to return to normal operation. With the unit switched off, hold Fan speed to set the centralised control address; the range is 1 to 32 for the carrier protocol and 1 to 244 for the Modbus protocol.

Built-in parameters

Press Mode and Swing together for three seconds and enter the password 1212. Select a parameter with Swing and change it with Decrease or Increase; settings are saved on exit. The menu cannot be entered while communication with the control board has failed.

- Fan control mode: 0 = five speeds, 1 = stepless
- Minimum fan speed: 10 % to 50 %, and never below 200 rpm
- Room temperature correction: −4.0 °C to +4.0 °C

Fault codes shown on the controller

Code	Description
E001	Room temperature sensor T1
E002	Condensate level switch
E004	Coil sensor T2
E008	Coil sensor T3
E016	Fan motor
E032	Communication failure

3. Operating limits and use

Mode	Room temperature	Inlet water temperature
Cooling	17 – 32 °C	5 – 20 °C
Heating	5 – 30 °C	30 – 70 °C

Working water pressure: maximum 1.6 MPa, minimum 0.15 MPa.

Operating the unit outside these limits may cause a malfunction. Operating within them gives the best performance. When indoor humidity is high, condensation on the surface of the unit is normal; close doors and windows to reduce humidity.

CAUTION

- The unit is designed and built exclusively for wall-mounted installation. Any other use is prohibited, as is installation in explosive atmospheres.
- Use only original spare parts and accessories. The manufacturer is not liable for damage caused by unauthorised work or non-original parts.
- Where the water supply is particularly hard, a water softener should be fitted.

Control options

With the optional control panels the unit can be started and stopped, the fan speed selected (three steps from the remote control, five steps or stepless from the wired controller and over Modbus), the room temperature set and maintained, the operating mode switched between cooling and heating, and continuous ventilation selected. Instructions are supplied with the controllers themselves.

When the unit is not used for a long period

– Disconnect the power cord from the socket; the unit consumes power even when not running.

– Clean the filters and the indoor unit and make sure the inside of the unit is dry. Remove the batteries from the remote control.

– Cover the unit with a suitable protective cover to keep out dust and dirt.

– If the unit is not used in winter, water left in the coil may freeze and split it. Drain the system in good time or add a suitable quantity of antifreeze. Isolate the unit from the mains at the main switch fitted by the installer.

Before using the unit again

– Check that the air inlet and outlet are clear and that the filters and the unit have been cleaned.

– Check that the earth conductor is correctly and effectively connected.

– Check the remote control batteries and make sure the drain pipe is unobstructed.

3.1 Fault codes and troubleshooting

WARNING

Switch the unit off and disconnect the power immediately, then contact service, if:

- the supply cord is abnormally hot or damaged;
- if harsh noise or a burnt smell occurs;
- if protective devices trip repeatedly;
- if water or foreign matter has entered the unit;
- if the unit leaks water.

Fault codes shown on the unit display

Code	Description
E1	T1 room temperature sensor: open circuit or short circuit
E2	T2 coil temperature sensor: open circuit or short circuit
E3	DC motor fault
E4	PG motor fault
E5	Cold air prevention active
E6	Coil low-temperature protection active
E7	Coil high-temperature protection active
E8	Communication failure with the wired controller

Troubleshooting

Symptom	What to check
The unit does not run	Power failure; plug not fully inserted; protective device tripped; unstable supply voltage; timer function active.
Poor cooling or heating	Temperature setting and fan speed; clogged air filter; open doors or windows; other heat sources in the room.
The remote control does not work	Remote control damaged or used incorrectly; batteries low; operating outside the effective range; interference between the remote control and the unit.
No air is delivered	In heating mode the unit prevents cold air from being blown out until the coil is warm. This is normal.
Water leaking from the unit	High humidity with doors and windows open; dirty filter; loose drain pipe connection; set temperature too low.
Noise from the unit	Thermal expansion and contraction of components during operation. This is normal.
Odour when starting	Odours absorbed from the room. Clean the filter; if the odour persists, the unit must be cleaned by a service engineer.
Mist from the air outlet in cooling	Occurs when room temperature and humidity are high; it disappears as the room cools.

4. Transport, handling and pre-installation

CAUTION

Do not open or tamper with the packaging before installation. The unit must be moved and lifted only by personnel trained for these operations.

On delivery

– Check on arrival that the unit has not been damaged in transport and look for visible damage before opening the package.

– Open the package and check that the manual for use and maintenance is inside.

– Keep the cartons stacked in the direction indicated on the packaging.

– Dispose of the packaging material in accordance with local legislation, at the appropriate waste reception or recycling site. Do not leave packaging within reach of children.

Handling

Move the unit with care to avoid damage to the casing and to the internal mechanical and electrical components. Make sure there are no obstacles or people along the route, to avoid collisions or crushing and to prevent the lifting device from turning over.

All operations must be carried out in accordance with current health and safety regulations, both as regards the equipment used and the procedure followed. Before moving, check that the lifting apparatus has sufficient capacity for the unit. Units may be moved by hand or with a suitable trolley; units heavier than 30 kg should be moved by two persons or lifted by crane in a container.

Before installation

– Installation and relocation must be carried out by qualified personnel in accordance with national wiring regulations and this manual. Installation by unqualified persons may cause malfunctions.

– Carry out electrical safety checks of the supply lines and earthing before installation, and use a dedicated supply branch circuit to avoid overloading.

– The normal operating range is 90 % to 110 % of the rated supply voltage of 220–240 V.

– The power cord is fitted with a plug, which must remain accessible after installation.

– Fixed circuits must be provided with leakage protection switches and circuit breakers of sufficient capacity, with both magnetic and thermal tripping.

4.1 Earthing and installation location

WARNING

The fan coil unit is a Class I appliance and must be reliably and effectively earthed.

– The yellow and green conductor inside the unit is the protective earth and must not be used for any other purpose.

– Never connect the earth conductor to gas pipes, water pipes, lightning rods or telephone lines.

– Connect the unit and the supply cord according to the circuit diagram attached to the machine.

– The type and rating of the fuse are given on the marking of the controller or the fuse itself.

Selecting the installation location

– Agree the position with the user before installation.

– Keep away from strong heat sources, steam, flammable or explosive gases and highly corrosive atmospheres.

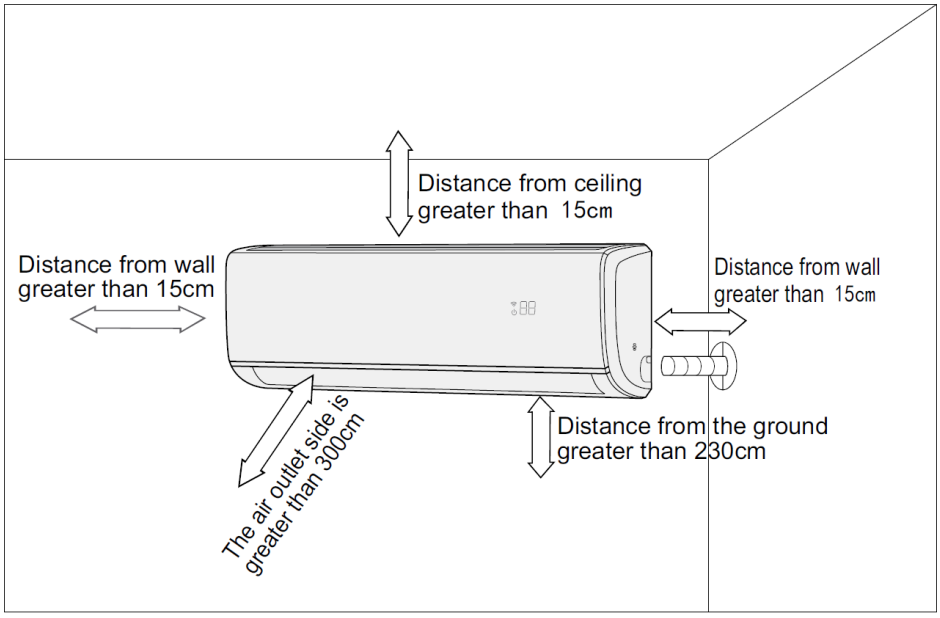
– Keep away from strong electric and magnetic fields such as welding machines, medical equipment and transformer rooms.

– Avoid coastal or saline areas, places with oil in the air, and areas subject to noise and vibration.

– The supporting structure must carry at least four times the weight of the unit.

– Choose a position that allows maintenance, repair and free air circulation, at least 1 m away from televisions, loudspeakers and similar appliances.

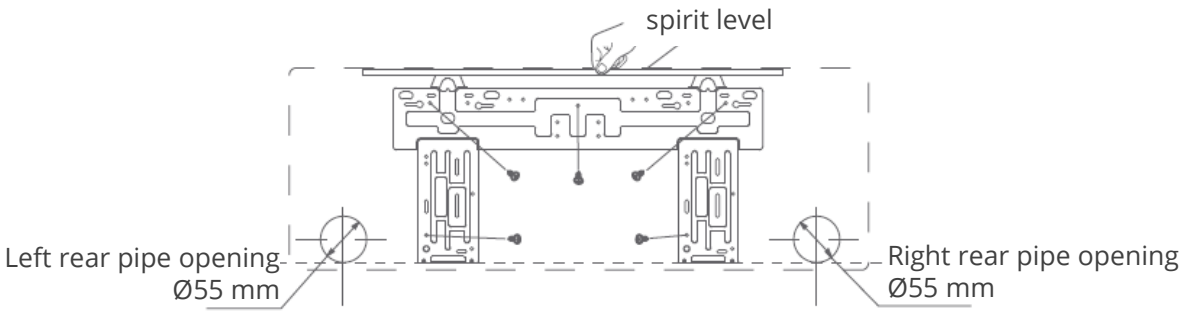
Distance	Minimum Clearance
From the ceiling	15 cm
From the wall on both sides	15 cm
From the floor	230 cm
Free space in front of the air outlet (recommended)	300 cm



4.2 Unit installation

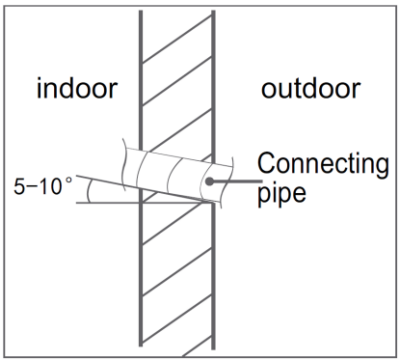
Fixing the wall mounting plate

1. Use a spirit level to set the plate horizontally. The unit must be installed level; installation at an angle can cause water leakage.
2. Drill the screw holes as shown below and insert plastic wall plugs to fix the wall mounting plate.
3. After fixing, pull the plate by hand to confirm that it is secure.



Drilling the wall openings

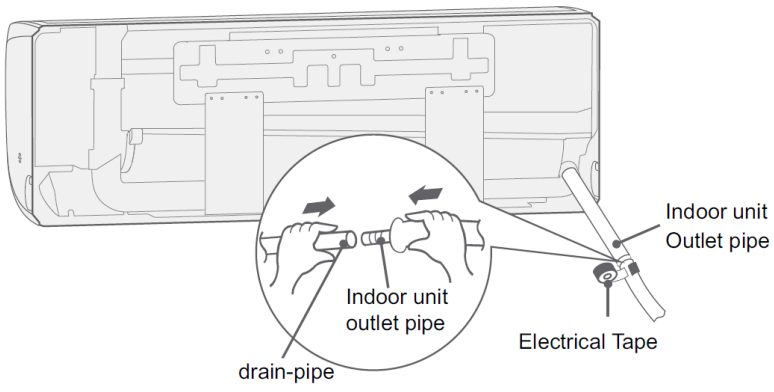
1. After determining the position, drill a Ø55 mm opening that slopes downwards towards the outside, so that condensate drains away. For a rear outlet pipe, the lower edge of the opening should be flush with the lower edge of the wall mounting plate. For left or right outlet pipes, the opening may be slightly lower than the plate.
2. Fit wall sleeves in the openings. These protect the pipes and cables from damage where they pass through the wall and prevent insects and rodents from entering through cavity walls.



Connecting the drain pipe

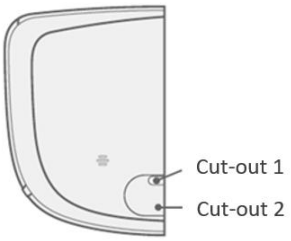
1. Wrap the joint several times with electrical tape and secure it in place.
2. Take the insulation sleeve from the accessory bag and fit it over the drain pipe.
3. Wrap the insulation with wide tape, starting at the connection between the unit outlet pipe and the insulation, so that it cannot unwind after installation. No part of the drain pipe may be left uninsulated.

Note: the insulation must cover the whole indoor section of the drain pipe and must fit tightly against the sleeve on the unit outlet pipe. Lay the drain pipe with a continuous fall. It must not be twisted, kinked or laid with dips and rises, and its outlet must not be submerged in water.



4.3 Piping and electrical connections

Direction of the connecting pipes

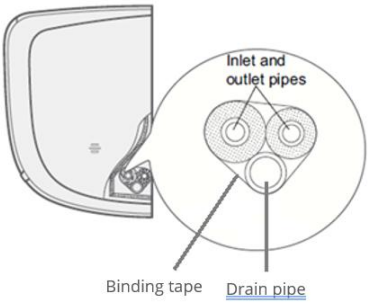


The pipework can be led out in three directions: to the left, to the right or to the rear. For a left or right outlet, the pre-marked cut-out in the unit casing must be removed as described below.

To lead out the power cord only, cut out section 1.

To lead out the connecting pipes, drain pipe and power cord, cut out sections 1 and 2.

Note: cutting may leave burrs on the side panel. Take care not to scratch the casing when removing them.



Binding the pipes

Pull the pipework out of the rear of the unit, bind the pipes, wires and drain pipe together with binding tape and lead them through the wall opening. Lay the power cord close to the bottom foam insert, and place the connecting wires in the gap between the drain pipe and the connecting pipes.

Hanging the unit

Align the two locating slots on the upper rear of the unit with the wall mounting plate. Move the unit slightly from side to side until it seats correctly, then press the lower edge of the unit onto the two lugs of the mounting plate until it engages.

Lay the connecting pipes tightly against the wall and fit wall sleeves to cover the wall openings.

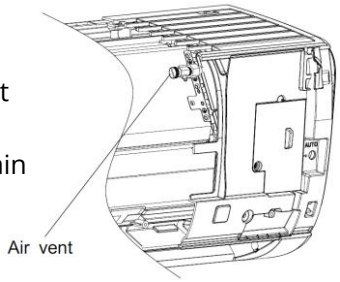
Water connections

– Hydraulic connections must be made by a qualified fitter. Connect the unit to the pipework at the connectors marked water inlet and water outlet. Both are ZG1/2" male taper thread. Do not force the connections; this will damage the coil and cause leakage.

– Each coil has an air vent next to the upper connector. Bleed the air from the circuit after filling.

– Insulate the connecting pipes and any valves with closed-cell insulation at least 10 mm thick, and fit the auxiliary drain tray where valves are installed inside the unit.

Air vent



Every coil, including the optional versions, has a manually operated air vent next to the upper connector, and optionally a drain valve next to the lower connector. Bleed the air from the circuit after filling and check the vent again after the first heating cycle.

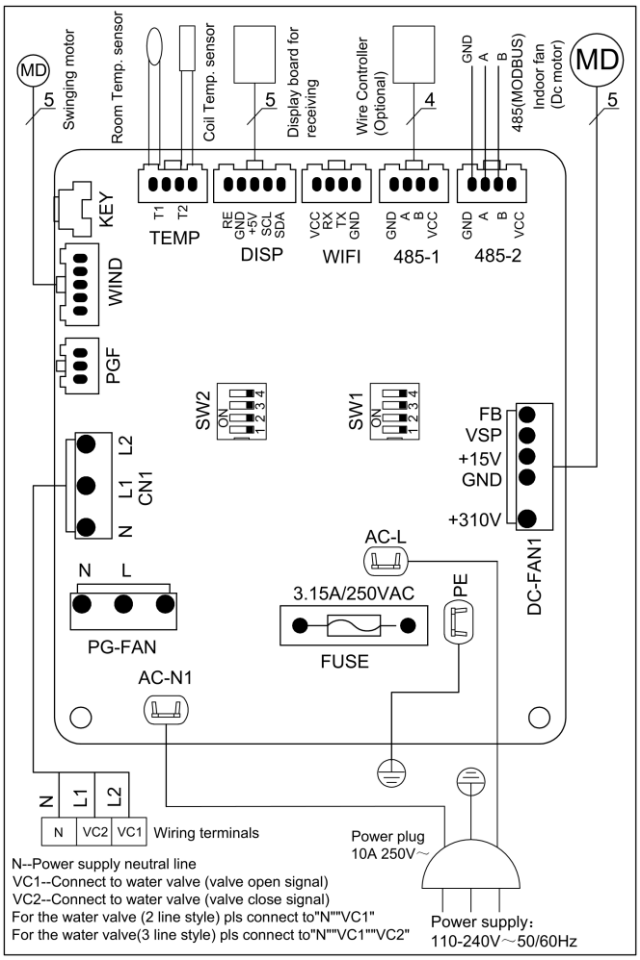
Electrical connections

– The unit is supplied with a power cord. Before wiring, check that all terminal connections are tight. Connect the conductors exactly as shown in the circuit diagram in section 5; interchanging them will damage the electronics.

– Where a motorised valve is used, connect the actuator to terminals N, VC1 and VC2 as described in section 5. These terminals switch mains voltage.

– Tighten the terminal screws firmly, then pull each conductor lightly to confirm it is secure. Refit the wiring cover before switching on.

5. Circuit diagram and electrical connections



Water valve output

N – supply neutral

VC1 – valve open signal

VC2 – valve close signal

2-wire valve: N and VC1.

3-wire valve: N, VC1 and VC2.

These outputs switch mains voltage. The valve actuator must be rated for 230 V AC.

Wired controller and BMS

485-1 – wired controller CT23

485-2 – RS-485 Modbus RTU

Both interfaces can be used at the same time, so a wired controller and a building management system can be connected together.

Modbus RTU: 9600 bps, 8 data bits, even parity, 1 stop bit. The unit control board is the slave and the wired controller is the master.

Cable: shielded 4-core RS-485, maximum length 100 m. No termination resistor is required.

One CT23 controls one unit. The unit address is set in holding register 10; the range is 1 to 244 and the factory setting is 1. Address 255 addresses all units on the bus.

Over Modbus the fan can be set in five steps or steplessly from 10 % to 100 %. The register map is given in section 5.2.

Fan speed setting (SW2)

DIP switch SW2 selects the maximum fan speed. It is set at the factory to match the model and must not be changed.

5.1 Commissioning and maintenance

Electrical safety check

– Check that the supply voltage matches the rating plate and that the live, neutral and earth conductors are correctly and firmly connected.

– Measure the earth continuity and the insulation resistance and confirm that both meet the requirements of the national regulations in force.

Drainage check

– Open the panel, remove both filters and slowly pour a cup of clean water over the coil surface. Confirm that the water drains away freely.

Trial run

– Switch on the supply and start the unit with the remote control. Run it for 30 minutes, checking cooling or heating operation, all fan speeds, the louver swing and the timer. Then switch the unit off.

Handover

– Explain the operation and maintenance of the unit to the user and ask the user to read this manual before use. Clear the work area, return any furniture that was moved and collect all tools.

5.2 Modbus RTU register map

These values apply to the RS-485 Modbus RTU interface on terminal 485-2 and to the wired controller interface on terminal 485-1. Transmission is RTU, 9600 bps, 8 data bits, even parity, 1 stop bit; the unit control board is the slave.

Temperatures are transmitted in tenths of a degree, so 215 is 21.5 °C and −300 is −30.0 °C; the value 2000 indicates a sensor fault. Registers marked as not used have no function in the HWF range.

Holding registers (read and write)

Address	Function	Range and values
0	Power on/off	0 = off, 1 = on
1	Sleep mode	0 = off, 1 = on
2	Louver swing	0 = off, 1 = on
3	Electric heater	Not used
4	Set temperature	160 to 310 = 16.0 to 31.0 °C, step 0.5 °C
5	Fan speed	Five-step motor: 0 auto, 1 to 5 = super low to super high. Stepless motor: 0 auto, 10 to 100 = 10 % to 100 %
6	Operating mode	0 auto, 1 cooling, 2 dry, 3 heating, 4 fan
7	Wired controller temperature	−300 to 999; 2000 = sensor fault
8	–	Not used
9	–	Not used
10	Unit network address	1 to 244; factory setting 1

Input registers (read only)

Address	Function	Range and values
0	Fan speed	200 to 1400 rpm
1	Room temperature	−300 to 999; 2000 = sensor fault
2	Coil temperature, 2-pipe	−300 to 999; 2000 = sensor fault
3	Coil temperature, 4-pipe	Not used
4	Automatic restart after supply failure	0 = off, 1 = on
5	Cold air prevention in heating	0 = off, 1 = on
6	Coil low temperature protection	0 = off, 1 = on
7	Coil high temperature protection	0 = off, 1 = on
8	Electric heater output	Not used
9	Condensate level alarm	Not used
10	Condensate pump output	Not used
11	Fan fault	0 = no fault, 1 = fault
12	Centralised control address	1 to 244
13	–	Not used
14	–	Not used
15	Fan step in operation	1 sleep, 2 low, 3 medium, 4 high, 5 super high
16	Water valve output, 2-pipe	0 = off, 1 = on

5.3 Cleaning and maintenance

WARNING

Switch the unit off and disconnect the power supply before cleaning. There is a risk of electric shock and of injury from the running fan.

Cleaning the panel

– Wipe the panel with a cloth soaked in warm water below 45 °C and wrung out, or with a soft dry cloth. A neutral detergent may be used.

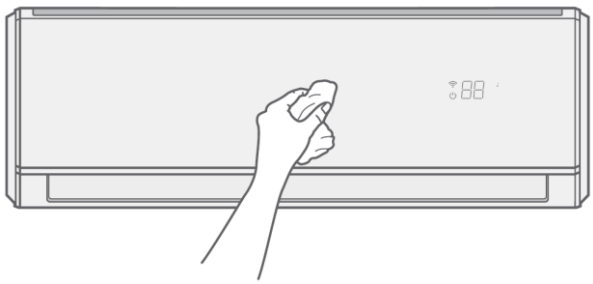
– Do not use volatile liquids such as thinners or petrol; they will damage the surface.

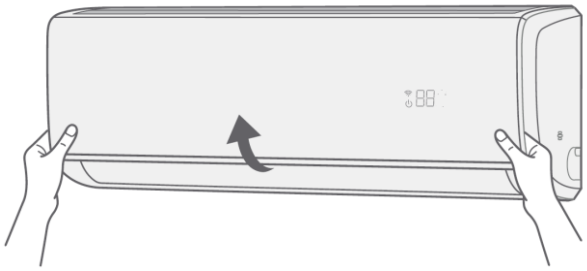
Cleaning the filters

Follow the illustrated steps below.

Cleaning the panel

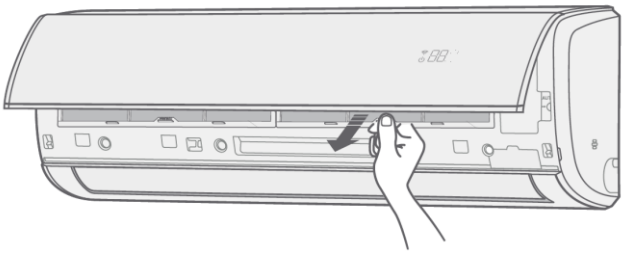
If the panel is dirty, soak a cloth in warm water below 45 °C, wring it out and wipe the soiled area gently. Do not remove the panel for cleaning.



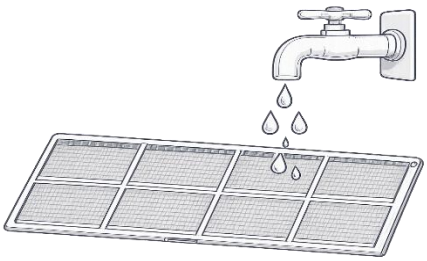


Cleaning the filters

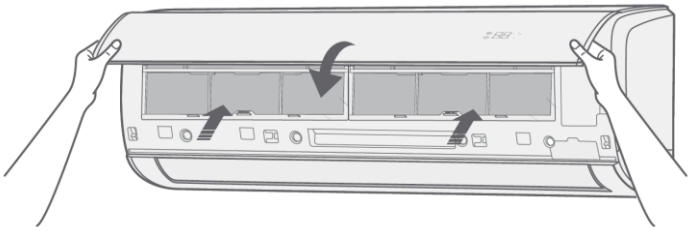
1. Grasp the recesses at both ends of the panel with both hands and lift the panel gently in the direction of the arrow.



2. Push each air filter out of its slot by hand and remove it (one on the left, one on the right).



3. Vacuum the filter or rinse it with water. If it is greasy, wash it in warm water below 45 °C with a neutral detergent added, then leave it to dry in a shaded place.



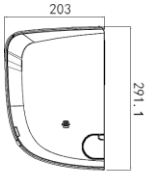
4. Align the dried filter with its slot, push it into the unit, then close the panel.

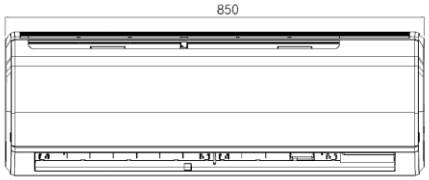
6. Technical data

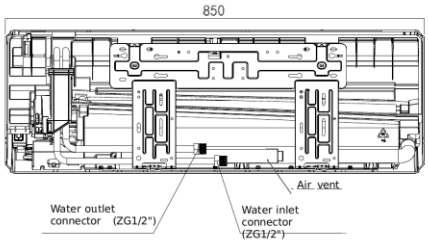
Model			HWF34-EC	HWF51-EC	HWF68-EC	HWF85-EC	HWF102-EC	HWF136-EC
Air flow	m³/h	High	430	510	680	850	1 020	1 200
		Med.	330	395	530	650	765	880
		Low	220	270	355	460	520	620
Total cooling Capacity 7/12/27°C	W	High	2 900	3 400	4 000	4 800	6 500	7 300
	W	Med.	2 350	2 680	3 200	3 920	5 230	5 850
	W	Low	1 640	2 000	2 500	2 830	3 800	4 400
Sensible cooling Capacity 7/12/27°C	W	High	2 000	2 340	2 986	3 540	4 500	5 020
	W	Med.	1 610	1 830	2 345	2 890	3 570	4 000
	W	Low	1 100	1 360	1 720	2 105	2 520	3 000
Heating capacity 45/40/21°C	W	High	2 900	3 400	4 000	4 800	6 500	7 300
	W	Med.	2 350	2 680	3 200	3 920	5 230	5 850
	W	Low	1 640	2 000	2 500	2 830	3 800	4 400
FCCOP at 60 °C inlet water			263	214	205	166	179	162
Power supply voltage			220–240V / 1Ph / 50 or 60Hz					
Max. power	W		13	19	25	37	42	57
Max. current (FLA)	A		0.11	0.17	0.22	0.32	0.37	0.50
Sound pressure level, 1 m	dB(A)	High	32	35	41	47.5	45.5	49
		Med.	26	29	35	40	40	43
		Low	18	22	25	30	31	34
Water flow	l/h	Cooling	500	580	690	820	1 110	1 250
		Heating	500	580	690	820	1 110	1 250
Water pressure drop	kPa	Cooling	24	30	24	30	32	40
		Heating	24	30	24	30	32	40
Coil water volume	l		0.71	0.71	0.80	0.80	0.93	0.93
Max. working pressure	MPa		1.6					
Electrical protection class			Class I (earthed)					
FCEER / FCCOP (water 45 °C)			166	134	128	104	112	104
Fan type			Tangential					
Motor type			EC motor (brushless DC), 5 speeds or stepless					
Heat exchanger type			2-row, louver fin, 18 fins/inch, hydrophilic					
Heat exchanger material			Copper Ø7×0.25 mm / aluminium fin 0.1 mm					
Pipe connections			ZG1/2" male taper (R 1/2 to ISO 7-1)					
Condensate pipe	mm		Ø16					
Controller			IR remote | RS-485 Modbus RTU standard | CT23 wired controller optional					
Unit dimensions (L×H×D)	mm		850×291×203	850×291×203	972×302×224	972×302×224	1081×327×248	1081×327×248
Package dimensions (L×H×D)	mm		927×365×287		1044×374×304		1155×410×342	
Net weight	kg		9.8	9.8	12.7	13.0	15.0	15.3
Gross weight	kg		11.6	11.6	14.7	15.0	17.8	18.1

- Temperatures are stated as inlet water / outlet water / inlet air.
- Cooling data are based on entering air 27 °C dry bulb and 19.5 °C wet bulb
- Heating data are based on the same water flow rate as in cooling.
- Capacities, air flow and sound data refer to the highest fan speed (super high, 100 %) at 0 Pa external static pressure.
- Sound pressure measured at 1 m in a semi-anechoic room to GB/T 19232-2003

7. Dimensions



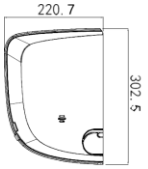


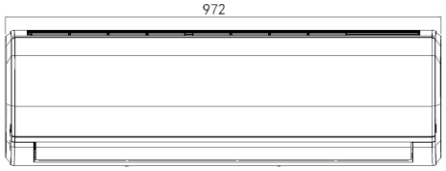


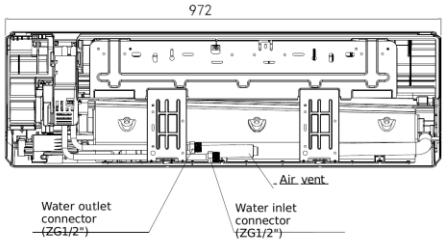
HWF34-EC | HWF51-EC

430 | 510 m³/h

850 × 291 × 203 mm



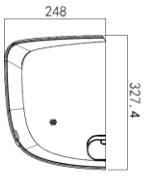


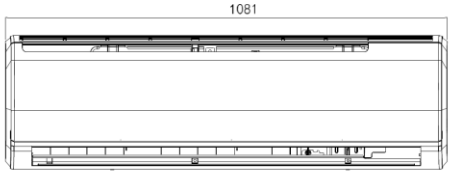


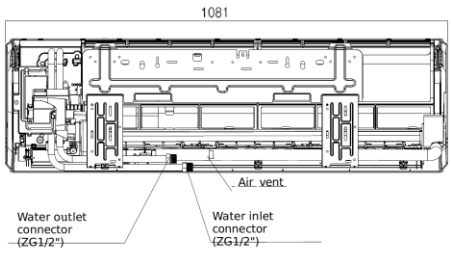
HWF68-EC | HWF85-EC

680 | 850 m³/h

972 × 302 × 224 mm







HWF102-EC | HWF136-EC

1020 / 1200 m³/h

1081 × 327 × 248 mm

Water connectors ZG1/2" (R 1/2 to ISO 7-1). Dimensions are nominal.

8. Disposal and warranty



Disposal of the unit

This appliance falls within the scope of Directive 2012/19/EU on waste electrical and electronic equipment (WEEE). The crossed-out wheeled bin marking on the product means that, at the end of its working life, the unit must not be disposed of together with unsorted municipal waste.

Hand the unit over to a collection point authorised for waste electrical and electronic equipment, or return it to the seller when purchasing an equivalent new appliance. Separate collection allows the materials to be recovered and prevents harm to health and the environment.

Remove the batteries from the remote control before disposal and hand them in separately at a battery collection point. Packaging materials must be sorted and recycled in accordance with national legislation.

Illegal disposal of the product by the user is subject to the penalties laid down in national law.

Warranty

KONVEKA, UAB warrants that this unit is free from defects in material and workmanship under normal use. The warranty period is 12 months from the date of delivery to the first purchaser, unless a longer period is agreed in the contract of sale or required by national consumer law.

Within the warranty period, components found to be defective will be repaired or replaced free of charge at our discretion. Replaced parts become the property of KONVEKA, UAB. Repair or replacement does not extend the original warranty period.

The warranty is valid only if:

– the unit has been installed by qualified personnel in accordance with this manual and with the national regulations in force;

– the unit has been used within the operating limits stated in this manual;

– the water quality complies with the requirements of this manual and the system has been correctly vented and, where necessary, protected against freezing;

– the unit has not been modified, dismantled or repaired by unauthorised persons;

– only original spare parts and accessories have been used.

The warranty does not cover: normal wear of filters and batteries; damage caused by transport, incorrect installation, incorrect electrical supply, limescale, corrosion or freezing; damage caused by lack of maintenance; and any consequential loss.

Claims must be submitted to the seller or to KONVEKA, UAB, quoting the model and serial number shown on the rating plate and the date of purchase. This warranty does not affect the statutory rights of the consumer.

Conformity

The unit carries the CE marking under Directives 2014/35/EU (Low Voltage) and 2014/30/EU (EMC). Harmonised standards: EN 60335-1, EN 60335-2-40, EN 60335-2-80, EN 62233, EN IEC 55014-1, EN IEC 55014-2, EN IEC 61000-3-2, EN 61000-3-3.

Technical documentation verified by Ente Certificazione Macchine Srl, certificate 3N240829.TMRCU64 of 29 August 2024, valid to 28 August 2029.

The EU Declaration of Conformity is available from KONVEKA, UAB on request.

Optional Wi-Fi versions contain a WBR1 module, TÜV SÜD attestation T8A 104731 0028 Rev. 01 under Directive 2014/53/EU (EN 301 489-1/-17, EN 300 328, EN 50663, EN 50665, EN 62368-1).