Electrolux

Multi-functional systems

Multi-functional systems Heat-pumps

Heat-pumps

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Multi-functional systems Heat-pumps

Comfort and independence for your home

The range of Electrolux domestic heat pumps embodies innovative technologies that allow you to create a reliable, economical, comfortable heating system for a private house, small restaurant, shop or office.

Solar panel

Water heater

Hydronic box

Radiator

Fancoil

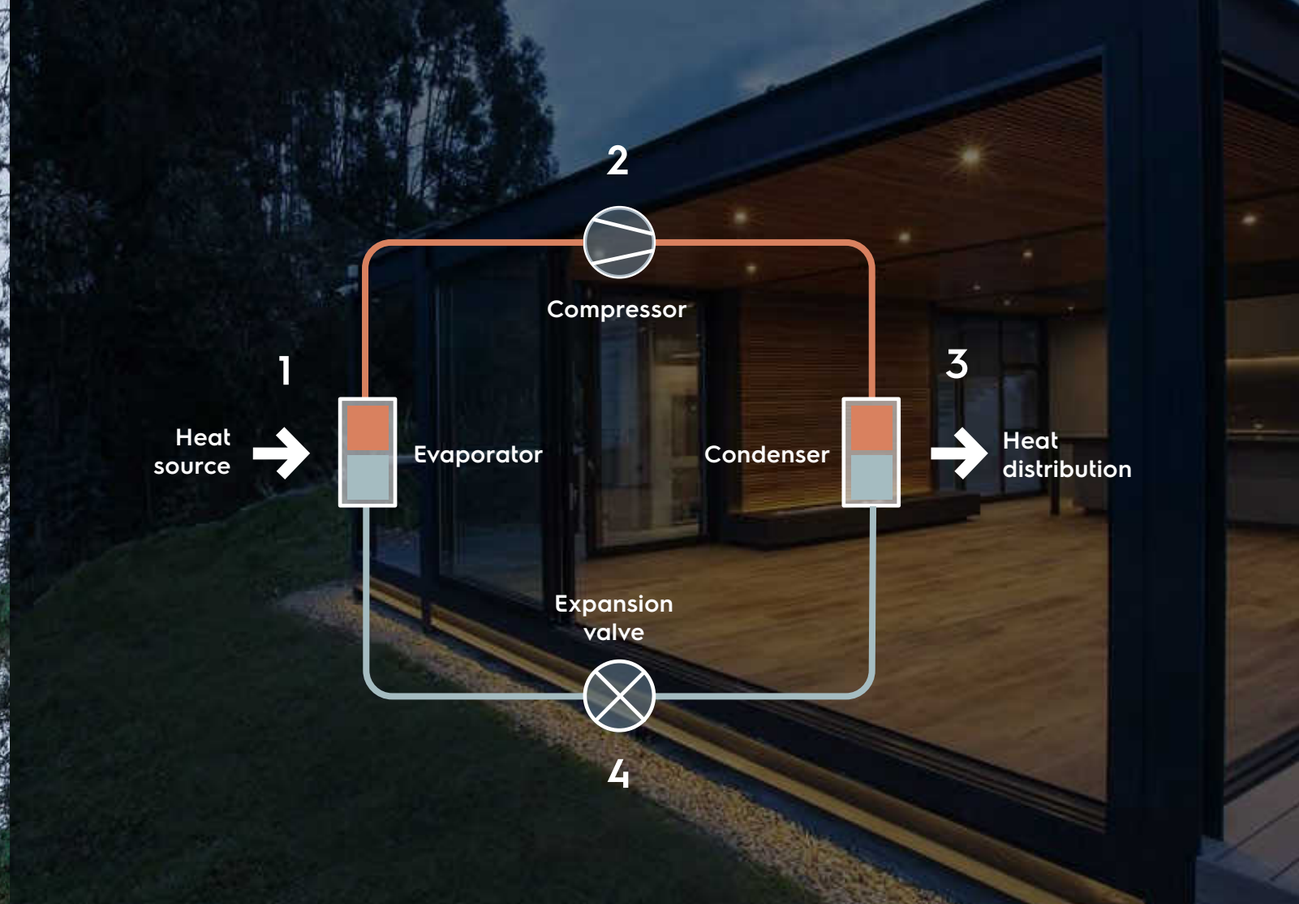
Outdoor unit

Underfloor heating

Multifunctionality
Heat pumps can be used simultaneously as a hot water supply system (HWS), air conditioning, radiator heating and with underfloor heating system.

Air-to-water heat-pump

An air-to-water heat pump uses the energy of air to heat water, providing heating and hot water systems, while consuming significantly less electricity than traditional electrical appliances. Heat pumps are widely used in Europe to reduce heating and HWS costs and are considered alternative heating sources that can replace gas, wood and electric heaters.



1 The liquid refrigerant passes through the heat exchanger-evaporator, in which, due to the heat supplied to it from the outside air, its phase transformation into superheated vapor occurs. In other words, it evaporates like water in a boiling kettle.

2 This superheated refrigerant vapor then enters the compressor, where pressure and temperature increase. As a result, a high-pressure hot gas with a temperature higher than the temperature of the water in the hydraulic system exits the compressor.

3 The hot gaseous refrigerant passes through the plate heat exchanger-condenser «refrigerant-water», in which the heat from the gas passes to the coolant (water). The heated water is supplied to the space heating terminals or the hot water tank. At the same time, when heat is removed from the refrigerant, it condenses.

4 The high-pressure liquid refrigerant enters the expansion device, which lowers the pressure and temperature of the refrigerant. Liquid refrigerant at low pressure under the influence of the heat of the outside air begins to boil away, and then the process is repeated again.

Environmentally friendly refrigerant R32

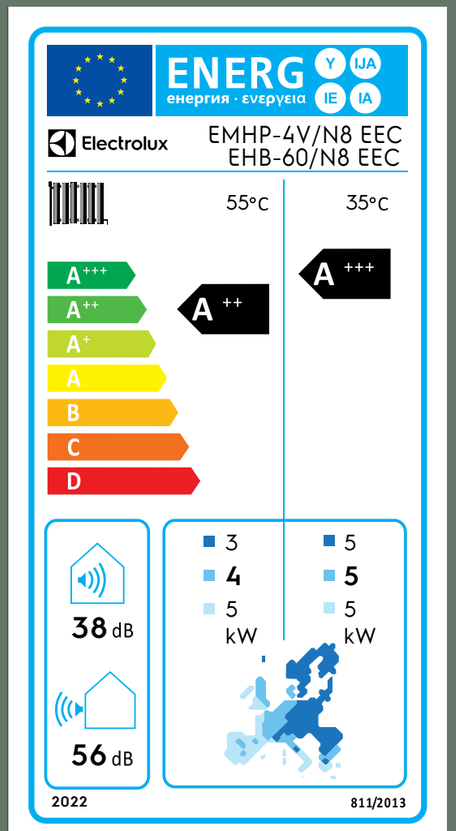
- Low GWP 675 (global warming potential). In comparison, GWP(R410A)=2088
- ODP (Ozone Depletion Potential) is zero!
- Low carbon emissions
- High heat transfer coefficient
- High efficiency under adverse operating conditions
- Low pressure loss
- No temperature difference. In the event of a refrigerant leak from the system, it can be topped up
- Available to buy and small refillable volume
- Acceptable price

-25°C

The use of the latest R32 refrigerant allows to operate the heat pump down to -25 °C in water heating mode.

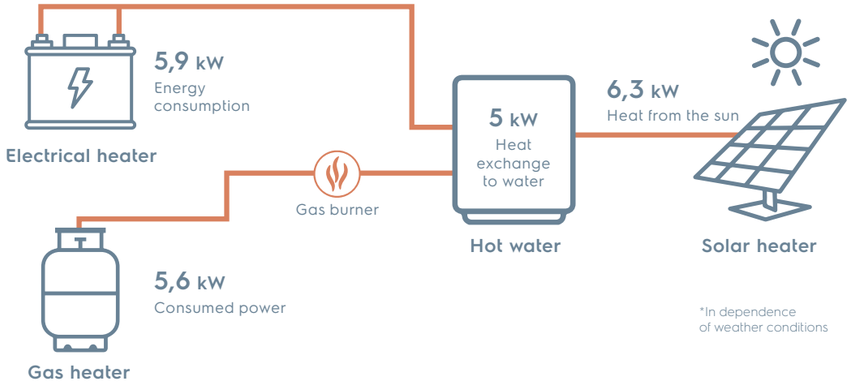
Energy Equipment Directive

- ERP*ηs directive. Seasonal space heating energy efficiency
- Average value ηs is up to A+++ at 35 °C
- Average value ηs is up to A++ at 55 °C

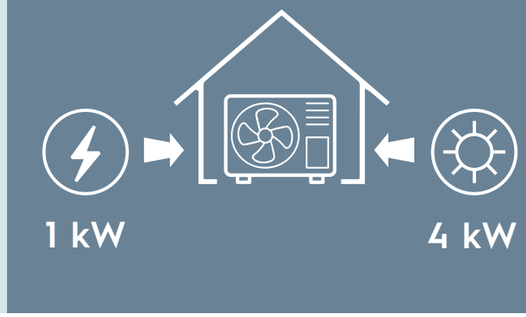


*Indicates the maximum possible grade for a product line. For information about the class of a particular model, see the technical specifications.

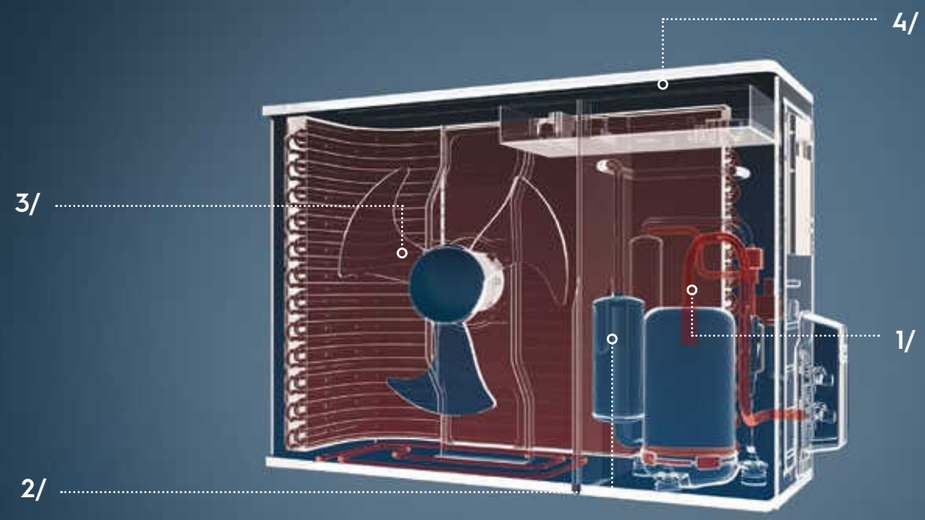
High energy efficiency



The heat pump provides pumping into the room from 3 up to 5 kW of heat at the cost of electrical energy of only 1 kW. The Electrolux range includes heat pumps with COP up to 5.2 and efficiency up to 500%.



Reliability and quality



01/ Hydraulic components from renowned manufacturers

- Plate heat exchanger
- Expansion tank
- Water pump
  - DC inverter
  - European Certificate of Conformity
  - High efficiency
  - High pressure pump
  - Insulation class F
  - IPX4D protection level

02/ DC inverter compressor

- CE certification
- Wide operating frequency
  - High efficiency
  - Six poles
  - Insulation class E
- Double eccentric cams
  - 2 balance weights
  - Better balance
  - Low vibrationя
- Spray cooling control
  - Reduce discharge temperature
  - High reliability
- Compact structure
  - High strength bearings
  - Highly stable moving parts

03/ Fan inverter motor

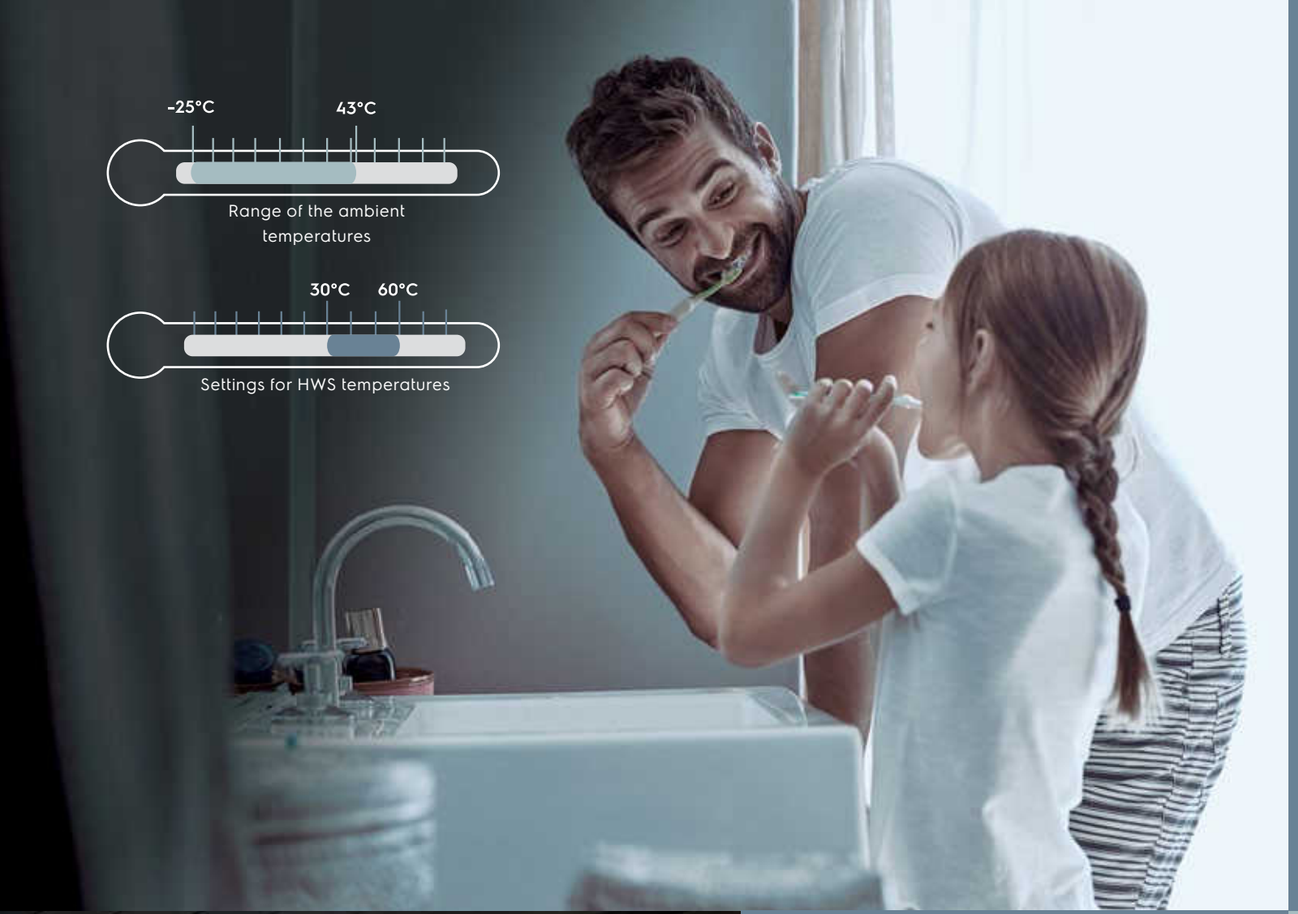
- Certification according to EU standards
- Brushless DC fan motor
- Silent operation
- Low power consumption
- 8 poles
- Insulation class E

04/ Plate-finned heat exchanger

- Standard products:
  Withstands 200 hours of exposure to neutral salt fog test
- Products with increased corrosion resistance:
  Withstands 1000 hours of exposure to neutral salt fog test
  Withstands 140 hours of exposure to acid-salt fog test

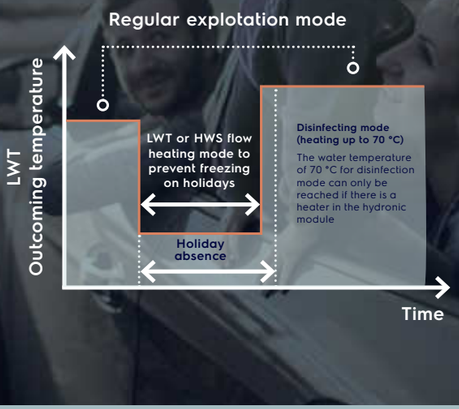
Heat exchanger with copper pipes

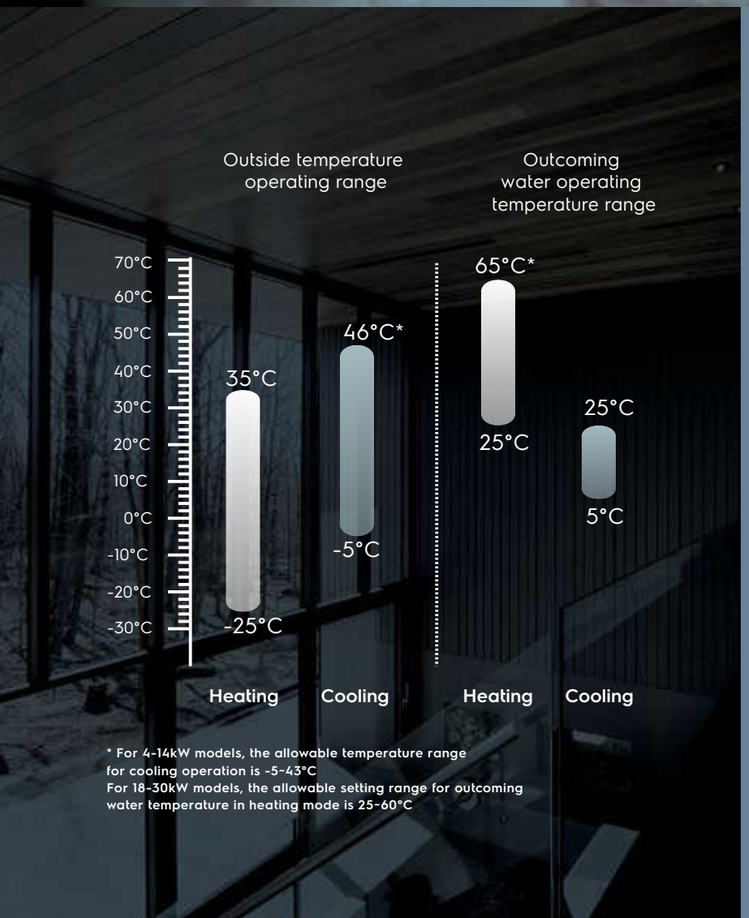
- Standard products:
  Withstands 24 hours exposure to neutral salt fog
- Products with increased corrosion resistance:
  Withstands 150 hours exposure to neutral salt fog test on the outdoor unit



Preheating and drying the floor
If there is a lot of water on the floor before floor heating, there is a dehumidification mode applied after the water circuit is installed in the floor, and a preheating mode applied before seasonal heating to protect the floor. During the heating process, the temperature of the water gradually increases.

Holiday function
Can be used to protect the device from freezing depending on the climate.
This is a mode to improve system reliability and save energy. The heat pump is operating in heating mode and/or in HWS mode.
This keeps the water temperature low and prevents freezing of water in winter, with a long absence of people.





* For 4-14kW models, the allowable temperature range for cooling operation is -5-43°C
For 18-30kW models, the allowable setting range for outcoming water temperature in heating mode is 25-60°C

Main functions

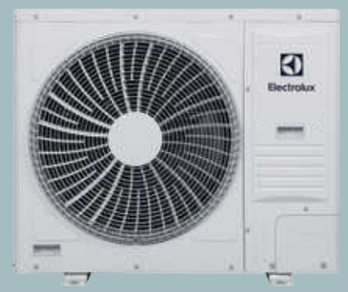
- HWS priority
- Automatic mode
- Desinfection mode*
- Eco mode
- Advanced settings for water temperature
- Accelerated HWS
- One-day and weekly programming

* Water temperature of 70°C for disinfection mode is only achieved with a heater, installed in tank

Power limit function
The power limit function allows the heat pump to be used with different power sources.

According to the maximum allowable current, the user can choose one of 8 configurations.

To select the desired configuration, you need to perform a simple setup using the wired remote control.



High reliability

Smart power grids

To save energy, the heat pump regulates its operation according to various electrical signals from the network. If the electricity price is low or zero, the heat pump has HWS priority. If the electricity price is high, the HWS related functions are limited.

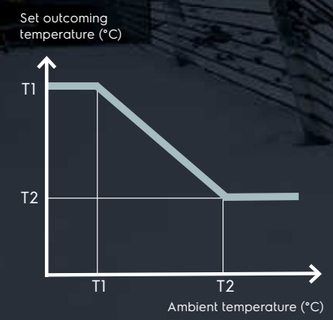
If the electricity price is normal, the heat pump works according to the user's set requirements.

Energy saving technology
To save energy, the heat pump regulates the operating mode.

Temperature change

With this function, the water temperature automatically changes when the outdoor temperature changes.

With an increase/decrease in the outdoor temperature, the heating load and the water temperature change. There are 32 fixed weather and temperature setpoints, set manually, and one individual.



Comfort

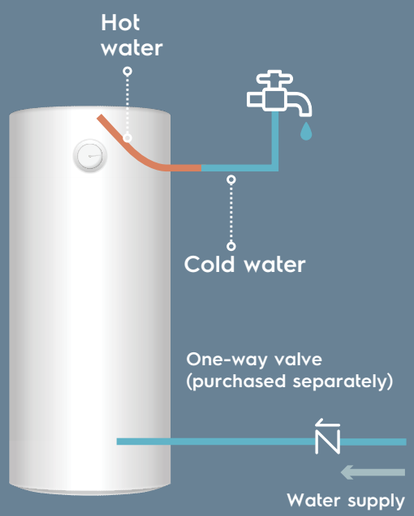
Minimum noise level operation

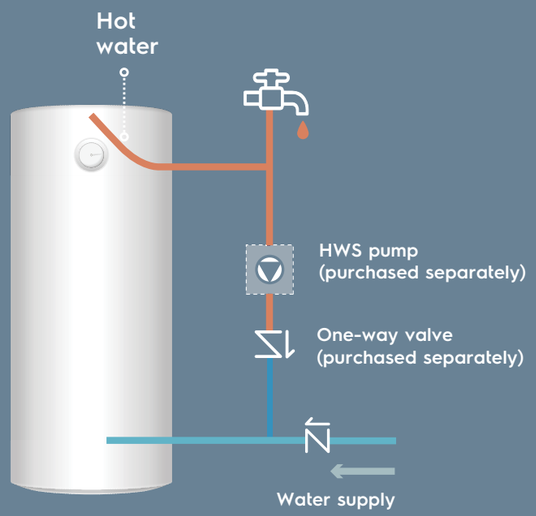
Inner Electrolux heat pump units are characterized by low noise – from 38 to 43 dB(a) (depending on size type)

- Low noise inverter pumps
- Optimized hydraulic circuit

WHS pump function

The WHS pump function is used to return water from the mains to the hot water tank according to the set timer. This guarantees the use of hot water without a long wait.





12 timers

A total of 12 timers can be set for a day, allowing users to set the operating time of the HWS pump according to the habits of the user.

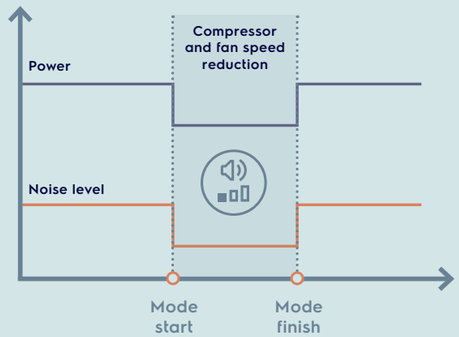
Triple noise reduction

The outdoor units of the Electrolux heat pump are characterized by a low noise level - from 56 to 68 dB (A) (depending on size type).

The low noise operation makes the outdoor unit noiseless.

Low-noise fan impellers with optimized blade shape in conjunction with an inverter motor.

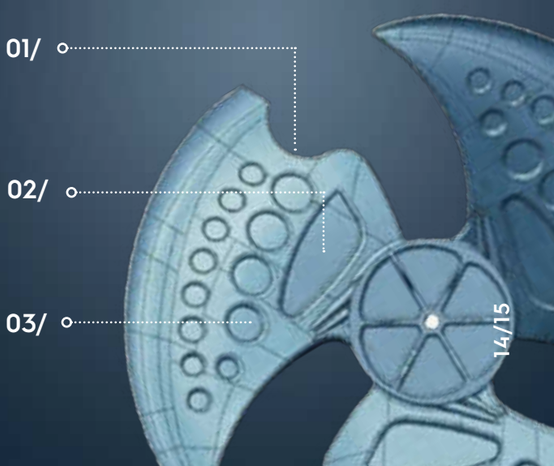
Optimized refrigerant wiring.



01/ **Notched trailing edge design**
- Changing the pressure distribution on the trailing edge of the blade
- Noise reduction from turbulence around the blades

02/ **Thickened leading edge design**
- Reduces low frequency noise
- Effective increase in strength of the blade

03/ **Concave suction surface design**
- Reduced vortex flow
- Improved field of flow around the surfaces of the blades
- Reduced weight and increased efficiency



Convenience of operation

Weekends at home

This function is used to control the heat-pump without changing the daily or weekly schedule when the user stays home for the weekend.

Built-in remote control

- User-friendly control
- Touch design
- Liquid crystal display
- Error code display
- Working parameters check
- Check function in certain points
- Child lock feature
- Buzzer alarm
- Built-in temperature sensor
- Modbus protocol

Convenient software update
Updating the block program is implemented via USB. Parameter settings transfer between wired controllers is available via USB.

Choosing procedure

Step 1:
Calculation of total heat load

Calculate the area of the air-conditioned surface and select the heating devices (type, quantity, water temperature and thermal load)

Step 2:
System configuration

Decide if AHS (additional heat source) is needed and set the turn-on temperature. Decide whether the backup electric heater should be activated or deactivated.

Step 3:
Choosing outdoor units

Determine the overall heat load required on the outdoor units

Set the power reserve rate

Select the type of heat-pump (mono or split)

Select power supply

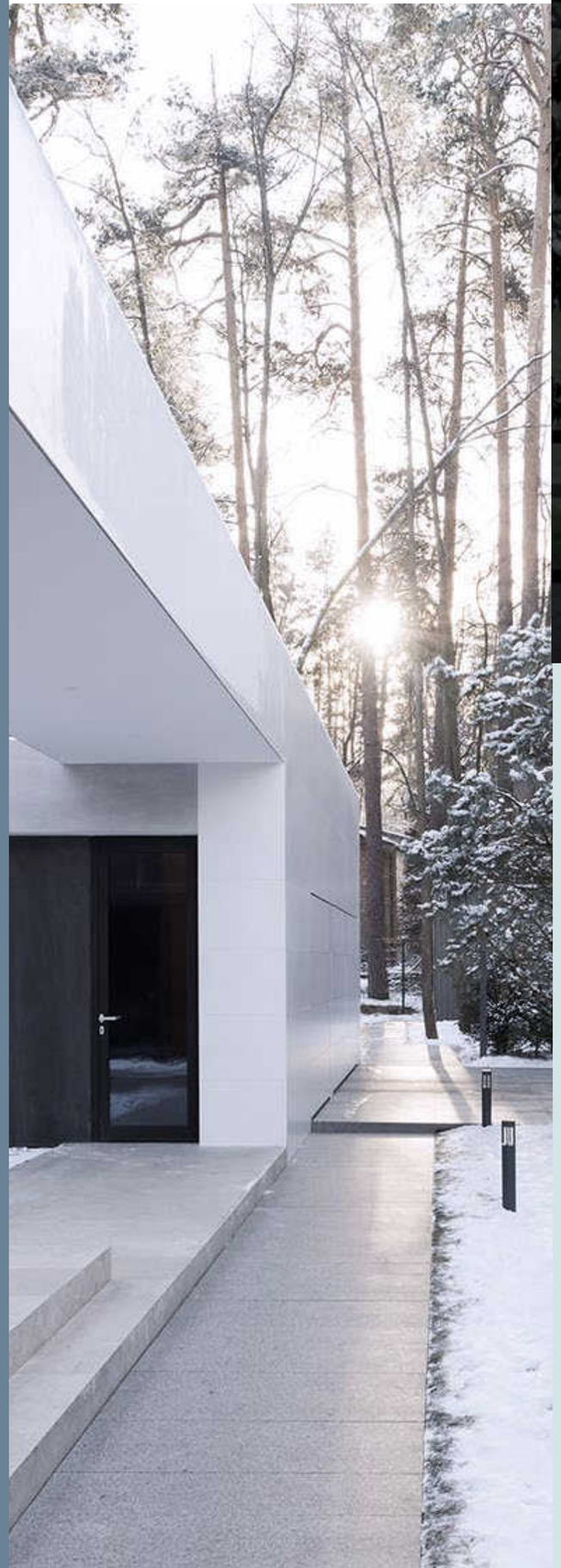
Pre-select the power of the heat pump based on the nominal power.

Adjust the power of the outdoor units according to the following points: Outdoor temperature / Outdoor humidity/ Outlet water temperature/ Altitude

Is the following condition met: Adjusted heat pump capacity > Required total heat load on outdoor units?

Yes
Heat-pump choosing completed

No
Choose a more powerful model or activate the backup electric heater

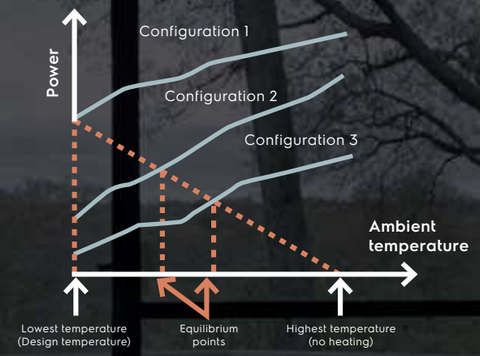


Typical scope of application

System Configuration

Electrolux heat pumps can be used to work with an on or off electric heater and in combination with an additional heat source (for example, a boiler). The selected configuration of the heating system determines the size of the required heat pump.

The Electrolux heat-pump can be used in combination with floor heating circuits, fan coils, radiators and a domestic water tank (HWS). Besides it can be connected to solar panels, gas furnace, boiler or other heat source.



1. **Heat-pump only**
2. **Heat-pump and electric heater**
3. **Heat-pump with auxiliary heat source**

Required power
Heat-pump capacity

System configurations

01/ Heat pump only

The heat-pump provides the required power and no additional heating capacity is needed.

The choice of a more powerful heat pump and, accordingly, a higher initial investment is required.

Ideal for new construction in projects where energy efficiency is paramount

02/ Heat-pump and electric heater

The heat pump provides the required power until the ambient temperature drops below the minimum point at which the heat pump is still able to provide sufficient power. After the ambient temperature drops below this equilibrium point, the required additional heating capacity is provided by the electric heater.

The best balance between initial investments and operating costs provides minimal life cycle cost.

Ideal for new construction.

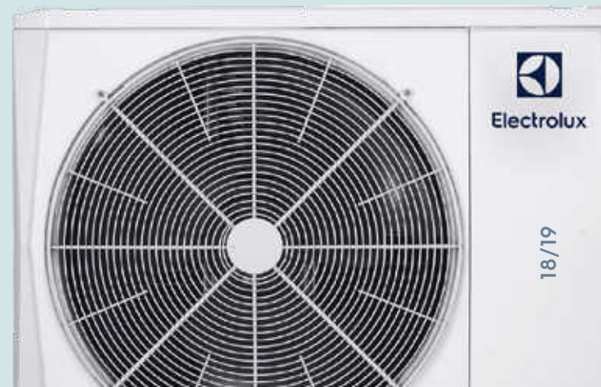
03/ Heat-pump with auxiliary heat source

The heat pump provides the required power until the ambient temperature drops below the minimum point at which the heat pump is still capable of providing sufficient power.

After the ambient temperature drops below this equilibrium point, depending on the system settings, the additional heating capacity required is provided by an auxiliary heat source when the heat pump is running or not running.

You can choose a less powerful heat pump.

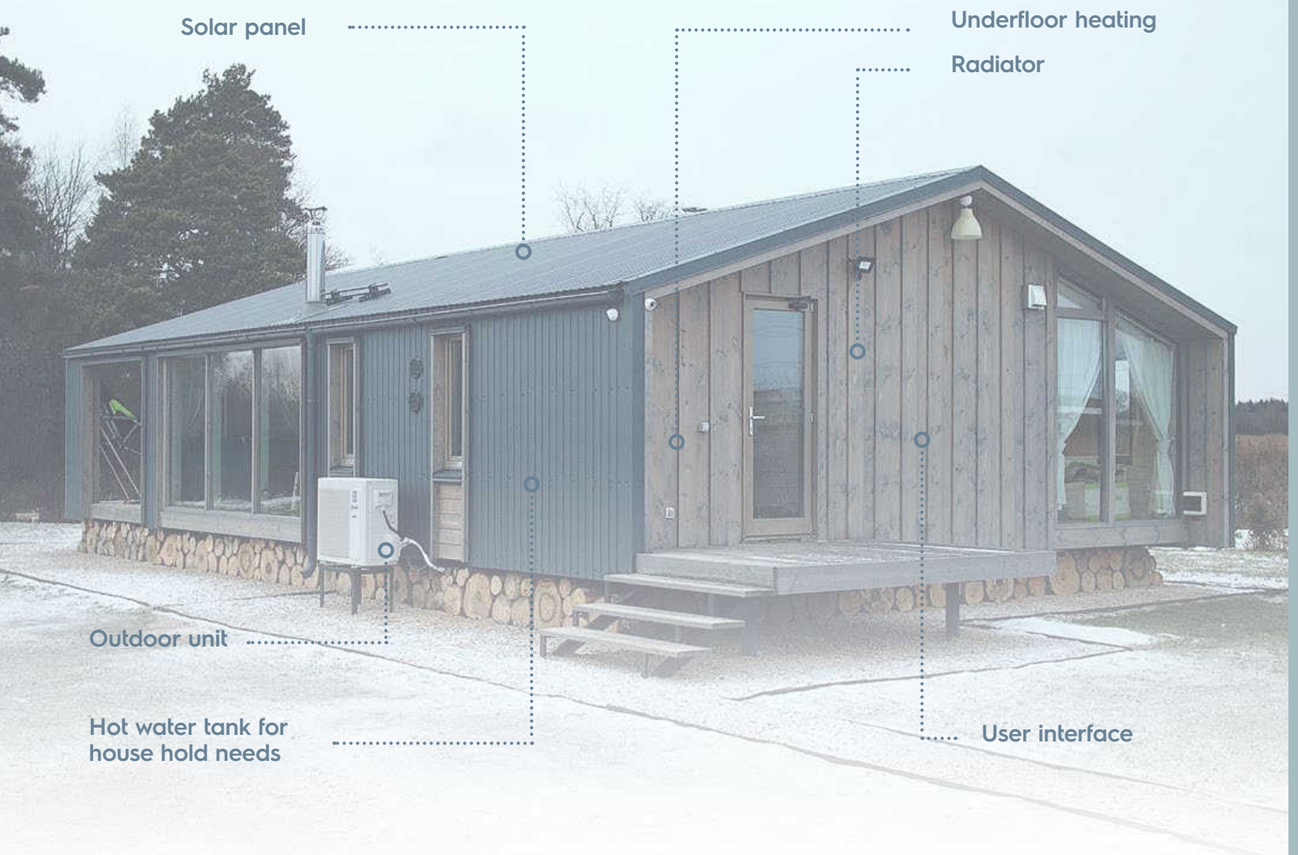
Ideal for refurbishment and modernization.



Comprehensive solution

Heat-pump is an integrated system that provides heating, cooling and hot water supply, is a complete solution for all seasons that either eliminates the need for traditional gas or oil boilers or can work with them. The heat-pump can be used in combination with floor heating circuits, fan coils, radiators and a domestic water tank (HWS). Besides it can be connected to solar panels, gas furnace, boiler or other heat source.

The Smart Grid (Intelligent Transmission Network) certificate means that a heat pump can use electricity from different sources at different financial costs. The power source can be either a photovoltaic device or an ordinary urban power grid, so that you can choose a mode of operation that provides maximum cost savings.



Typical scope of application

The scope of application varies according to the specific purpose of the system. The following examples are for illustrative purposes only.

Outdoor heat-pump unit

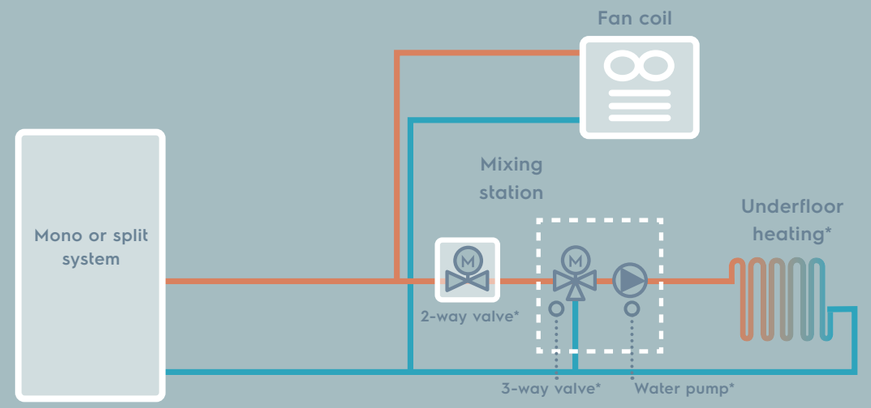
Split (Outdoor unit and heat-pump hydraulic module)

Heat-pump can operate for heating or cooling

Underfloor heating is used for heating, and fan coil - for both heating and cooling of the room. Different operating water temperatures are provided for underfloor heating circuits and fan coil heating circuits.

To obtain these two temperatures, a mixing station is used (purchased separately), consisting of a 3-way valve and a water pump, and adapting the water temperature to the required heating parameters of the underfloor heating.

The mixing station is controlled by air conditioning. For cooling operation, a 2-way valve is used to prevent cold water from entering the underfloor heating circuit.



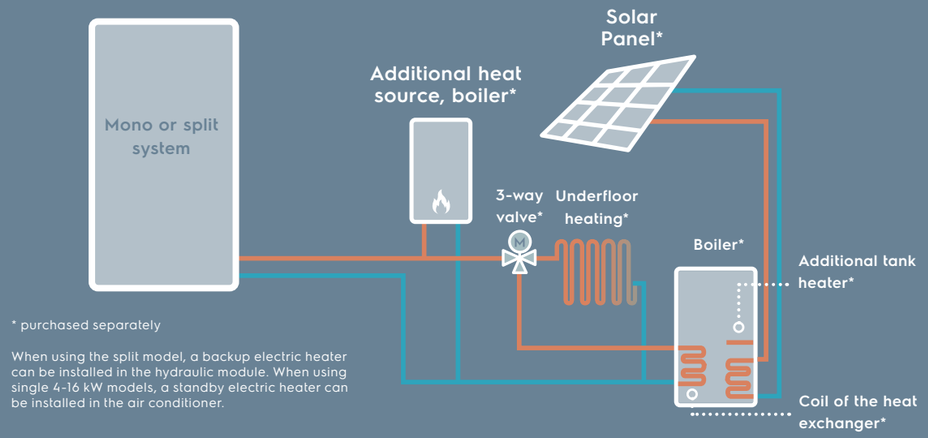
*purchased separately

Heat-pump with auxiliary heat source

The standby electric heater and an additional heat source (boiler) provide additional heating to increase the water temperature to the temperature at the outlet of the heat-pump.

The boiler heats the water HWS with a heat pump, solar panels and a built-in heater.

The 3-way valve is used for switching between heating mode and HWS mode.



* purchased separately

When using the split model, a backup electric heater can be installed in the hydraulic module. When using single 4-16 kW models, a standby electric heater can be installed in the air conditioner.

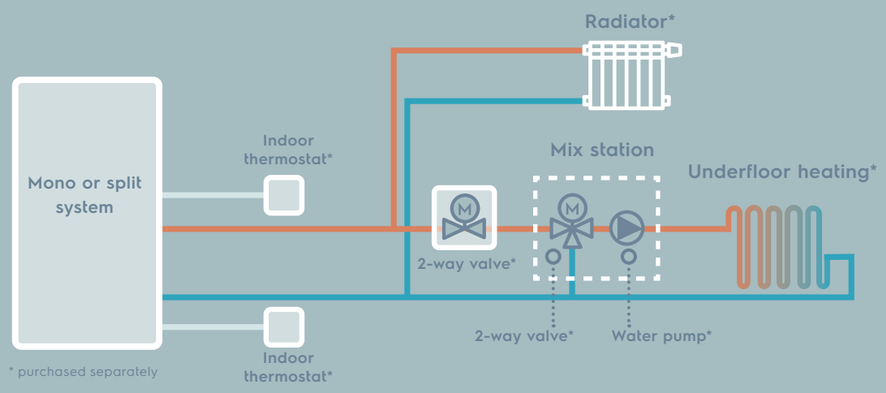
Two zones control

Two zones control is available only for heating mode. It can manage different areas to reach set temperatures to meet all needs of daily use.

1. Usage only wired controller. Wired controller sets mode, temperature and on/off.

Zone 1 is adjusted according to the outlet water temperature. Zone 2 is adjustable by the outlet water temperature or by an integrated sensor wired controller.

2. Usage wired controller and thermostat. The wired controller sets the water mode and temperature. Both Zone 1 and Zone 2 are controlled by the thermostat.

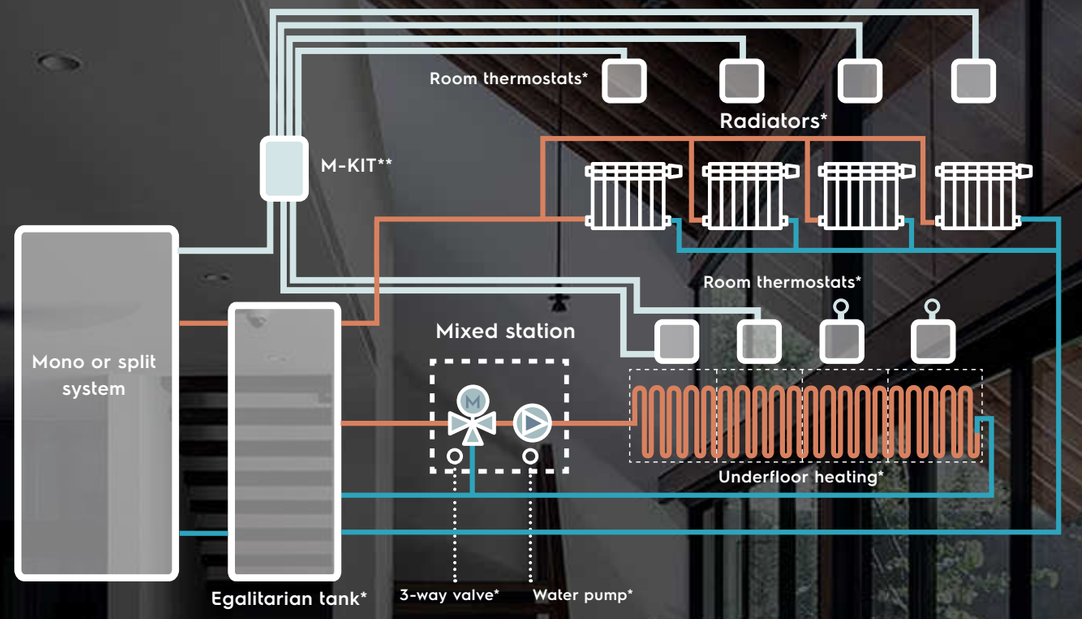


* purchased separately

Management of several rooms

M-KIT is designed to collect data on indoor temperature. It helps to control the temperature in several rooms. The M-KIT can be connected up to 6, and up to 2 room thermostats can be connected to the hydraulic unit, i.e. in total a maximum of 8 rooms can be controlled.

The M-KIT is connected to the hydraulic module.



* purchased separately
** optional

Connection set M-KIT*

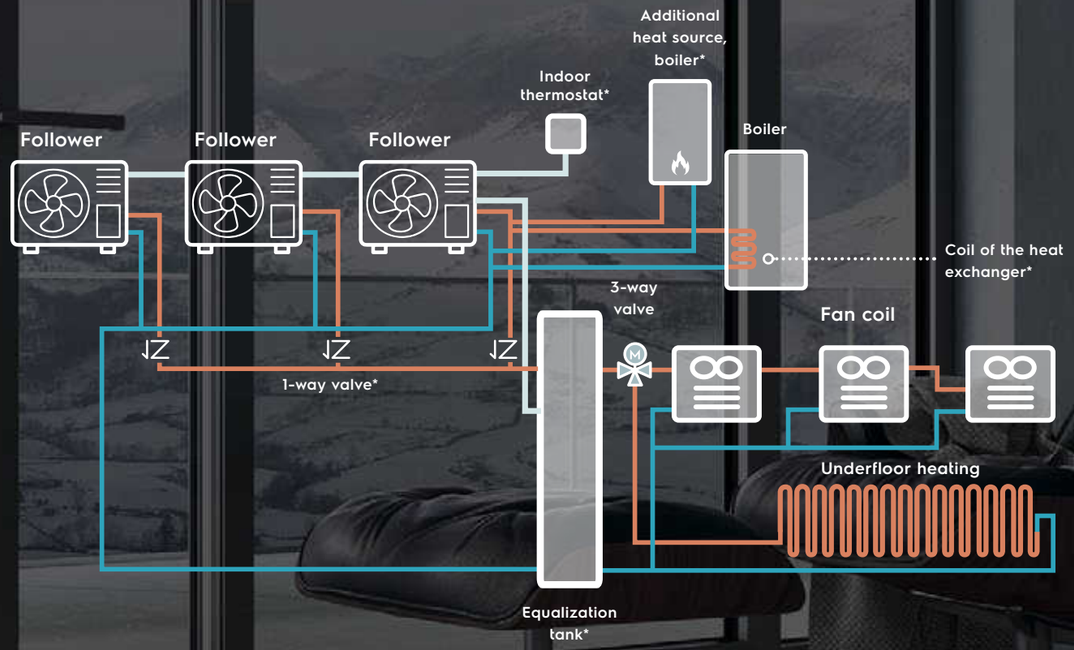
- Wall Mounted Version
- Simple construction
- Small dimensions
- Multiple installation options
- Can be connected up to 6 thermostats

* option

Cascade systems

A cascade system - is ideal if you want to increase productivity in line with the increased need for cooling or heating the building. A maximum of 6 devices in a group can be controlled from a single remote control. The temperature control in the equalizing tank allows more precise determination of the water temperature.

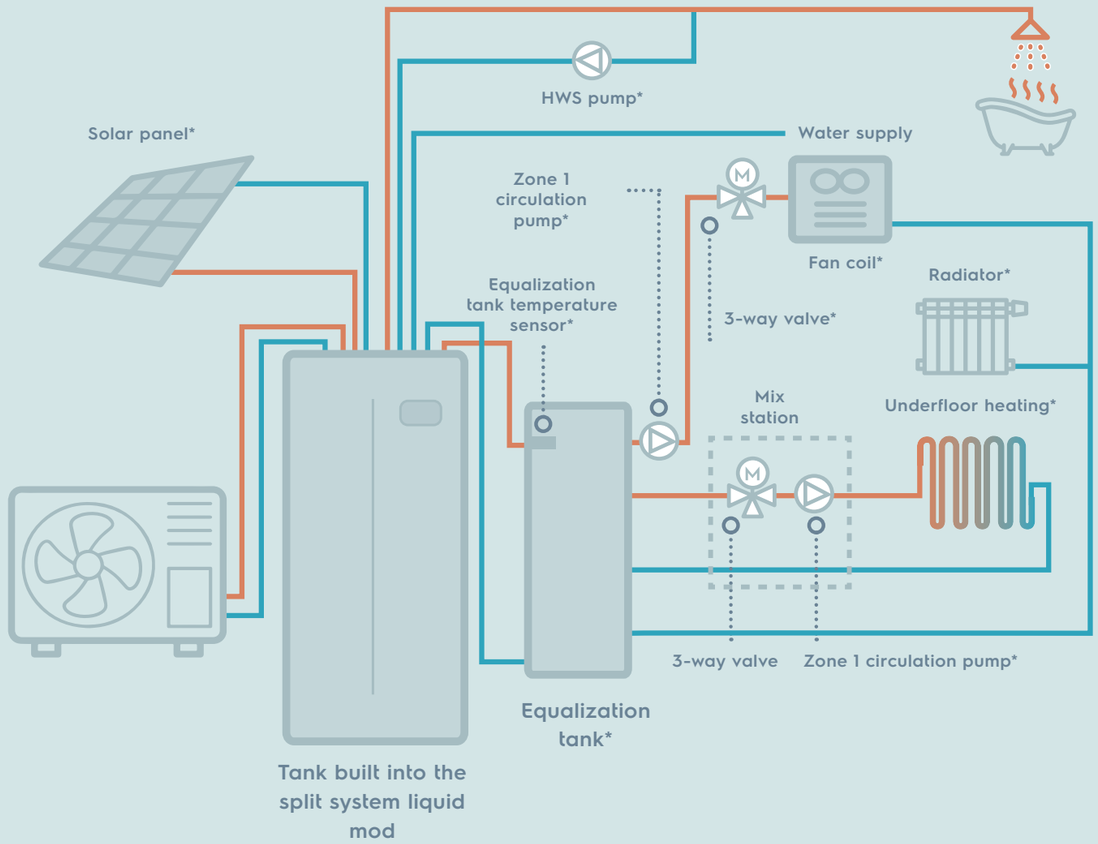
The water tank can only be connected to the water circuit of the drive device through a 3-way valve and is controlled by a driving device. Additional heat source can only be connected to the main water supply and is controlled by a drive unit.

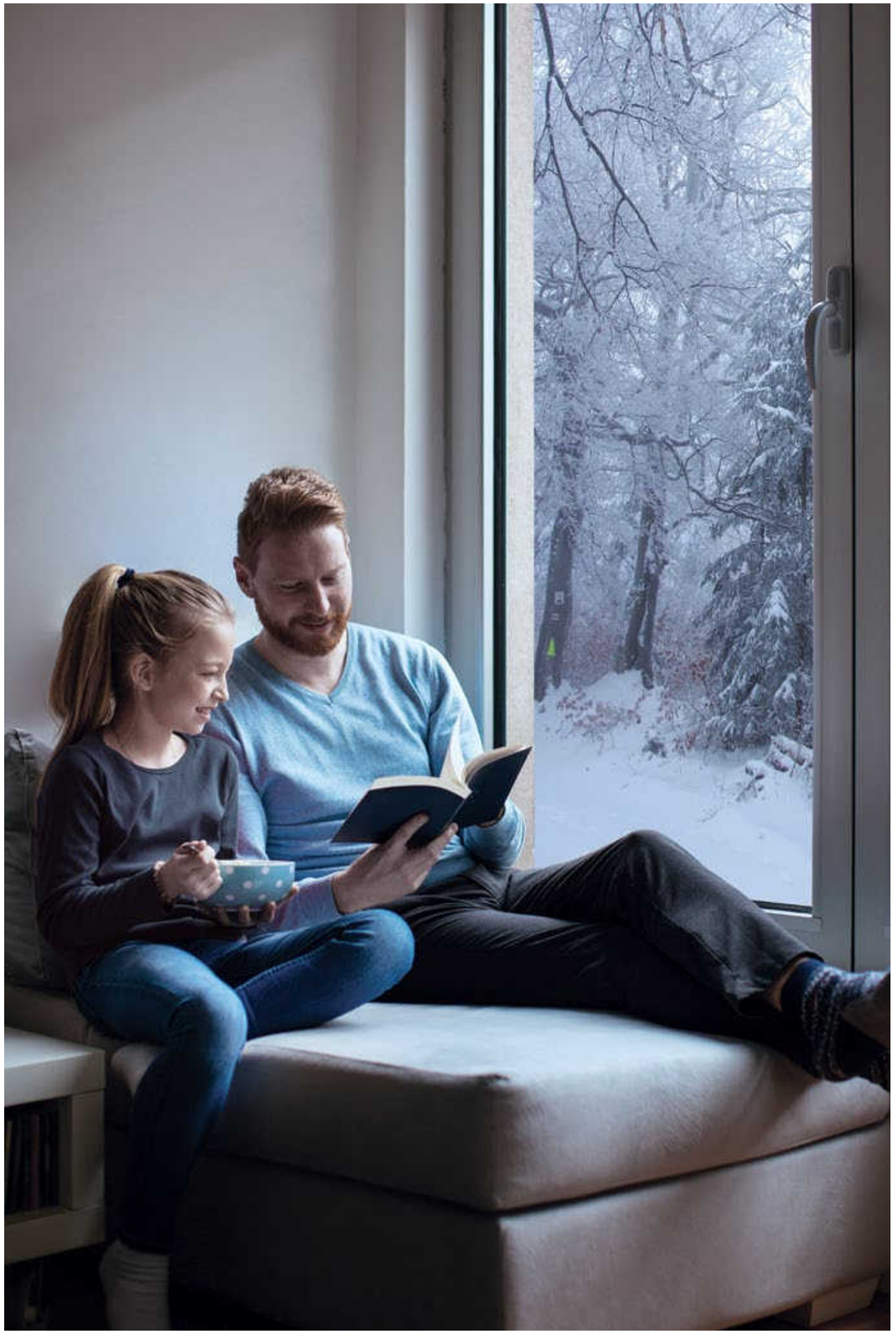


*option

Split (Outdoor unit and hydronic box with tank)

The stainless steel water tank and the 3-way valve, which is used to change the direction of the water flow between the heating mode and the HWS mode, are integrated design of the indoor unit, which significantly reduces installation and commissioning costs on site.





Model range

Monoblock heat-pumps

	4	6	8	10	12	14	16	18	22	26	30
Power (kW)											
220-240 V, 1 phase, 50 Hz	·	·	·	·	·	·	·				
380-415 V, 3 phase, 50 Hz					·	·	·	·	·	·	·

Heat-pump outdoor unit

	4	6	8	10	12	14	16
Power (kW)							
220-240 V, 1 phase, 50 Hz	·	·	·	·	·	·	·
380-415 V, 3 phase, 50 Hz					·	·	·

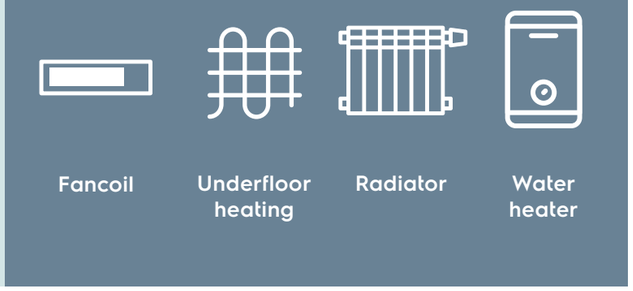
Hydronic box. Heat-pump indoor unit

	60	100	160
Power (kW)			
220-240 V, 1 phase, 50 Hz	·	·	·

Indoor unit tank

	190	240
Volume, l		
220-240 V, 1 phase, 50 Hz	·	·

Electrolux heat pumps are compatible with other heat sources: solar panels, boilers. Electrolux heat pumps can work with various consumers.



EMHPM
Monoblock
heat-pumps

Advantages

- High Efficiency: COP up to 5.10
- Hot water production at any time of the year due to the thermal energy of the environment
- Possibility of connection to fan coils, water tank, system «underfloor heating»
- Precise temperature maintenance in the water circuit
- Cooling is possible with fan coils

Technical characteristics

			EMHPM-4V/N8	EMHPM-6V/N8	EMHPM-8V/N8	EMHPM-10V/N8	EMHPM-12V/N8	EMHPM-14V/N8	EMHPM-16V/N8	EMHPM-12Y/N8	EMHPM-14Y/N8	EMHPM-16Y/N8
Power options		V/phase/Hz	220-240/1/50							380-415/3/50		
Heating capacity*1	Power	kW	4,20	6,35	8,40	10,0	12,1	14,5	15,9	12,1	14,5	15,9
	Rated power consumption	kW	0,82	1,28	1,63	2,02	2,44	3,15	3,53	2,44	3,15	3,53
	COP		5,10	4,95	5,15	4,95	4,95	4,60	4,50	4,95	4,60	4,50
Heating capacity*2	Power	kW	4,30	6,30	8,10	10,0	12,3	14,1	16,0	12,3	14,1	16,0
	Rated power consumption	kW	1,13	1,70	2,10	2,67	3,32	3,92	4,57	3,32	3,92	4,57
	COP		3,80	3,70	3,85	3,75	3,70	3,60	3,50	3,70	3,60	3,50
Heating capacity*3	Power	kW	4,40	6,00	7,50	9,50	11,9	13,8	16,0	11,9	13,8	16,0
	Rated power consumption	kW	1,49	2,03	2,36	3,06	3,90	4,68	5,61	3,90	4,68	5,61
	COP		2,95	2,95	3,18	3,10	3,05	2,95	2,85	3,05	2,95	2,85
Cooling capacity*4	Power	kW	4,50	6,50	8,30	9,90	12,00	13,50	14,90	12,00	13,50	14,90
	Rated power consumption	kW	0,82	1,35	1,64	2,18	3,04	3,74	4,38	3,04	3,74	4,38
	EER		5,50	4,80	5,05	4,55	3,95	3,61	3,40	3,95	3,61	3,40
Cooling capacity*5	Power	kW	4,70	7,00	7,45	8,20	11,5	12,4	14,0	11,5	12,4	14,0
	Rated power consumption	kW	1,36	2,33	2,22	2,52	4,18	4,96	5,60	4,18	4,96	5,60
	EER		3,45	3,00	3,35	3,25	2,75	2,50	2,50	2,75	2,50	2,50
Seasonal Heating Efficiency Class*6	Water yield at 35 °C		A+++									
	Water yield at 55 °C		A++									
Refrigerant	Type (GWP)		R32 (675)									
	Refueling volume	kg	1,40		1,40			1,75				
Power sound level*7		dB	55	58	59	60	65	65	68	65	65	68
Unit dimensions (W×H×D)		mm	1295×718×429				1385×865×526					
Package Dimensions (W×H×D)		mm	1375×885×475		1465×1035×560							
Net/Gross Weight		kg	86/107		105/132		129/155			144/172		
Water pump	Max. pump head height	m	9									
Water pipes connection		mm	R1"				R5/4"					
Ambient temperature range	Cooling	°C	-5 ~ 43									
	Heating	°C	-25 ~ 35									
	HWS	°C	-25 ~ 43									
Output water temperature setting range	Cooling	°C	5 — 25									
	Heating	°C	25 ~ 65									
	HWS	°C	30 ~ 60									
Backup electric heater*8	As standard set	kW	/									
	Optional	kW	3	3	3/9	3/9	3/9	3/9	3/9	3/9	3/9	3/9
	Stages of power regulation		1	1	1/3	1/3	1/3	1/3	1/3	1/3	1/3	1/3
	Power supply 3 kW	V/phase/Hz	220-240/1/50									
	Power supply 9 kW	V/phase/Hz	380-415/3/50									

Notes:
1. Outdoor air temperature 7°C dry bulb, 6°C wet bulb; input water temperature 30°C, outlet water temperature 35°C.
2. Outdoor air temperature 7°C dry bulb, 6°C wet bulb; input water temperature 40°C, outlet water temperature 45°C.
3. Outdoor air temperature 7°C dry bulb, 6°C wet bulb; input water temperature 47°C, outlet water temperature 55°C.
4. Outdoor air temperature 35°C dry bulb; input water temperature 23°C, outlet water temperature 18°C.
5. Outdoor air temperature 35°C dry bulb; input water temperature 12°C, outlet water temperature 7°C.
6. Heat efficiency class tests under average climatic conditions.
7. Standard for test conditions: EN12102-1.
8. Relevant EU standards and regulations:: EN14511; EN14825; EN50564; EN12102; (EU) No 811/2013; (EU) No 813/2013; OJ 2014/C 207/02:2014.

EMHPM
Monoblock
heat-pumps

Advantages

- High Efficiency: COP up to 4.70
- Hot water production at any time of the year due to the thermal energy of the environment
- Possibility of connection to fan coils, water tank, system «underfloor heating»
- Precise temperature maintenance in the water circuit
- Cooling is possible with fan coils

Technical characteristics

			EMHPM-18Y/N8	EMHPM-22Y/N8	EMHPM-26Y/N8	EMHPM-30Y/N8
Power options		V/phase/Hz	380-415/3/50			
Heating capacity*1	Power	kW	18,00	22,00	26,00	30,10
	Rated power consumption	kW	3,83	5,00	6,37	7,70
	COP		4,70	4,40	4,08	3,91
Heating capacity*2	Power	kW	18,00	22,00	26,00	30,00
	Rated power consumption	kW	5,14	6,47	8,39	10,35
	COP		3,50	3,40	3,10	2,90
Heating capacity*3	Power	kW	18,00	22,00	26,00	30,00
	Rated power consumption	kW	6,55	8,30	10,61	13,04
	COP		2,75	2,65	2,45	2,30
Cooling capacity*4	Power	kW	18,50	23,00	27,00	31,00
	Rated power consumption	kW	3,90	5,00	6,28	7,75
	EER		4,75	4,60	4,30	4,00
Cooling capacity*5	Power	kW	17,00	21,00	26,00	29,50
	Rated power consumption	kW	5,57	7,12	9,63	11,57
	EER		3,05	2,95	2,70	2,55
Seasonal Heating Efficiency Class*6	Water yield at 35°C		A+++	A+++	A+++	A++
	Water yield at 55°C		A++	A++	A+	A+
Refrigerant	Type (GWP)		R32 (675)			
	Refueling volume	kg	5,0			
Power sound level*7		dB	71	73	75	77
Unit dimensions (W×H×D)		mm	1129×1558×440			
Package Dimensions (W×H×D)		mm	1220×1735×565			
Net/Gross Weight			177/206			
Water pump	Max. pump head height	m	12	12	12	12
Water pipes connection		inch	1 1/4 inch	1 1/4 inch	1 1/4 inch	1 1/4 inch
Ambient temperature range	Cooling	°C	-5-46			
	Heating	°C	-25-35			
	HWS	°C	-25-43			
Output water temperature setting range	Cooling	°C	5-25			
	Heating	°C	25-60			
	HWS	°C	30-60			

Notes:
1. Outdoor air temperature 7°C dry bulb, 6°C wet bulb; input water temperature 30°C, outlet water temperature 35°C.
2. Outdoor air temperature 7°C dry bulb, 6°C wet bulb; input water temperature 40°C, outlet water temperature 45°C.
3. Outdoor air temperature 7°C dry bulb, 6°C wet bulb; input water temperature 47°C, outlet water temperature 55°C.
4. Outdoor air temperature 35°C dry bulb; input water temperature 23°C, outlet water temperature 18°C.
5. Outdoor air temperature 35°C dry bulb; input water temperature 12°C, outlet water temperature 7°C.
6. Heat efficiency class tests under average climatic conditions.
7. Standard for test conditions: EN12102-1.
8. All models have a backup electric heater.

In the case of a three-phase backup electric heater, the power of 3 or 6 kW is achieved by changing the position of the two-position switch if the liquid module is designed for 9 kW.
9. Relevant EU standards and regulations:: EN14511; EN14825; EN50564; EN12102; (EU) No 811/2013; (EU) No 813/2013; OJ 2014/C 207/02:2014.

Advantages

- High Efficiency: COP up to 5.20
- Hot water production at any time of the year due to the thermal energy of the environment
- Possibility of connection to fan coils, water tank, system «underfloor heating»
- Precise temperature maintenance in the water circuit
- Cooling is possible with fan coils

DC-invertor technology

High energy efficiency

Cost-efficiency

HWS Priority

Automatic mode

Disinfection mode

Technical characteristics

Hydronic box model			EMHP-4V/N8 EHB-60/N8	EMHP-6V/N8 EHB-60/N8	EMHP-8V/N8 EHB-100/N8	EMHP-10V/N8 EHB-100/N8	EMHP-12V/N8 EHB-160/N8	EMHP-14V/N8 EHB-160/N8	EMHP-16V/N8 EHB-160/N8	EMHP-12Y/N8 EHB-160/N8	EMHP-14Y/N8 EHB-160/N8	EMHP-16Y/N8 EHB-160/N8
Heating capacity*1	Power	kW	4,25	6,20	8,30	10,0	12,1	14,5	16,0	12,1	14,5	16,0
	Rated power consumption	kW	0,82	1,24	1,60	2,00	2,44	3,09	3,56	2,44	3,09	3,56
	COP		5,20	5,00	5,20	5,00	4,95	4,70	4,50	4,95	4,70	4,50
Heating capacity*2	Power	kW	4,35	6,35	8,20	10,0	12,3	14,2	16,0	12,3	14,2	16,0
	Rated power consumption	kW	1,14	1,69	2,08	2,63	3,24	3,89	4,44	3,24	3,89	4,44
	COP		3,80	3,75	3,95	3,80	3,80	3,65	3,60	3,80	3,65	3,60
Heating capacity*3	Power	kW	4,40	6,00	7,50	9,50	12,0	13,8	16,0	12,0	13,8	16,0
	Rated power consumption	kW	1,49	2,00	2,36	3,06	3,87	4,60	5,52	3,87	4,60	5,52
	COP		2,95	3,00	3,18	3,10	3,10	3,00	2,90	3,10	3,00	2,90
Cooling capacity*4	Power	kW	4,50	6,55	8,40	10,00	12,00	13,50	14,2	12,00	13,50	14,2
	Rated power consumption	kW	0,81	1,34	1,66	2,08	3,00	3,74	3,93	3,00	3,74	3,93
	EER		5,55	4,90	5,05	4,80	4,00	3,61	3,61	4,00	3,61	3,61
Cooling capacity*5	Power	kW	4,70	7,00	7,40	8,20	11,6	12,7	14,0	11,6	12,7	14,0
	Rated power consumption	kW	1,36	2,33	2,19	2,48	4,22	4,98	5,71	4,22	4,98	5,71
	EER		3,45	3,00	3,38	3,30	2,75	2,55	2,45	2,75	2,55	2,45
Seasonal Heating Efficiency Class*6	Water yield at 35°C		A+++									
	Water yield at 55°C		A++									
Sound power level of inner unit*7		dB	38		42		43					

Notes:
1. Outdoor air temperature 7°C dry bulb, 6°C wet bulb; input water temperature 30°C, outlet water temperature 35°C.
2. Outdoor air temperature 7°C dry bulb, 6°C wet bulb; input water temperature 40°C, outlet water temperature 45°C.
3. Outdoor air temperature 7°C dry bulb, 6°C wet bulb; input water temperature 47°C, outlet water temperature 55°C.
4. Outdoor air temperature 35°C dry bulb; input water temperature 23°C, outlet water temperature 18°C.
5. Outdoor air temperature 35°C dry bulb; input water temperature 12°C, outlet water temperature 7°C.

Model with liquid tank				EMHP-4V/N8 EHBT-A100/190/N8	EMHP-6V/N8 EHBT-A100/190/N8	EMHP-8V/N8 EHBT-A100/190/N8	EMHP-10V/N8 EHBT-A100/190/N8
Hot water supply	Water extraction according to EN16147			L			
	Water Heating Efficiency Class	Average climate	class	A+	A+	A+	A+
			COP	3,10	3,10	3,02	3,02
		Warm climate	class	A+	A+	A+	A+
			COP	3,80	3,80	3,66	3,66
		Cold climate	class	A	A	A	A
			COP	2,50	2,50	2,61	2,61
Heating capacity*1	Power		kW	4,25	6,20	8,30	10,00
	Rated power consumption		kW	0,82	1,24	1,60	2,00
	COP			5,20	5,00	5,20	5,00
Heating capacity*2	Power		kW	4,35	6,35	8,20	10,00
	Rated power consumption		kW	1,14	1,69	2,08	2,63
	COP			3,80	3,75	3,95	3,80
Cooling capacity*1	Power		kW	4,50	6,55	8,40	10,00
	Rated power consumption		kW	0,81	1,34	1,66	2,08
	EER			5,55	4,90	5,05	4,80
Cooling capacity*2	Power		kW	4,70	7,00	7,40	8,20
	Rated power consumption		kW	1,36	2,33	2,19	2,48
	EER			3,45	3,00	3,38	3,30
Heating	Seasonal Heating Efficiency Class*3	Water yield at 35°C		A+++	A+++	A+++	A+++
		Water yield at 55°C		A++	A++	A++	A++
Sound power level of inner unit*4			dB	38		40	

Notes:
1. Outdoor air temperature 7°C dry bulb, 6°C wet bulb; input water temperature 30°C, outlet water temperature 35°C.
2. Outdoor air temperature 7°C dry bulb, 6°C wet bulb; input water temperature 40°C, outlet water temperature 45°C.
3. Outdoor air temperature 35°C dry bulb; input water temperature 23°C, outlet water temperature 18°C.
4. Outdoor air temperature 35°C dry bulb; input water temperature 12°C, outlet water temperature 7°C.
5. Heat efficiency class tests under average climatic conditions.
6. Standard for test conditions: EN12102-1.
7. Relevant EU standards and regulations:: EN16147; (EU) No 812/2013

Model with hydronic box				EMHP-4V/N8 EHBT-A100/240/N8	EMHP-6V/N8 EHBT-A100/240/N8	EMHP-8V/N8 EHBT-A100/240/N8	EMHP-10V/N8 EHBT-A100/240/N8
Hot water supply	Water extraction according to EN16147			XL			
	Water Heating Efficiency Class*1	Average climate	class	A+	A+	A+	A+
			COP	3,34	3,34	3,36	3,36
		Warm climate	class	A+	A+	A+	A+
			COP	4,24	4,24	4,18	4,18
		Cold climate	class	A	A	A	A
			COP	2,63	2,63	2,72	2,72
Heating capacity	A7W35*2		Power	kW	4,25	6,20	8,30	10,00
			Rated power consumption	kW	0,82	1,24	1,60	2,00
			COP		5,20	5,00	5,20	5,00
	A7W45*3		Power	kW	4,35	6,35	8,20	10,00
			Rated power consumption	kW	1,14	1,69	2,08	2,63
			COP		3,80	3,75	3,95	3,80
Cooling capacity	A35W18*4		Power	kW	4,50	6,55	8,40	10,00
			Rated power consumption	kW	0,81	1,34	1,66	2,08
			EER		5,55	4,90	5,05	4,80
	A35W7*5		Power	kW	4,70	7,00	7,40	8,20
			Rated power consumption	kW	1,36	2,33	2,19	2,48
			EER		3,45	3,00	3,38	3,30
Heating	Seasonal Heating Efficiency Class*3	Water yield at 35 °C		class	A+++	A+++	A+++	A+++
		Water yield at 55 °C		class	A++	A++	A++	A++
Sound power level of inner unit*6				dB	38		40	

Model with hydronic box				EMHP-12V/N8 EHBT-A160/240/N8	EMHP-14V/N8 EHBT-A160/240/N8	EMHP-16V/N8 EHBT-A160/240/N8	EMHP-12Y/N8 EHBT-A160/240/N8	EMHP-14Y/N8 EHBT-A160/240/N8	EMHP-16Y/N8 EHBT-A160/240/N8
Hot water supply	Water extraction according to EN16147			XL					
	Water Heating Efficiency Class*1	Average climate	class	A+	A+	A+	A+	A+	A+
			COP	3,00	3,00	3,00	3,00	3,00	3,00
		Warm climate	class	A+	A+	A+	A+	A+	A+
			COP	3,73	3,73	3,73	3,73	3,73	3,73
		Cold climate	class	A	A	A	A	A	A
			COP	2,24	2,24	2,24	2,24	2,24	2,24
Heating capacity	A7W35*2		Power	kW	12,10	14,50	16,00	12,10	14,50	16,00
			Rated power consumption	kW	2,44	3,09	3,56	2,44	3,09	3,56
			COP		4,95	4,70	4,50	4,95	4,70	4,50
	A7W45*3		Power	kW	12,30	14,20	16,00	12,30	14,20	16,00
			Rated power consumption	kW	3,24	3,89	4,44	3,24	3,89	4,44
			COP		3,80	3,65	3,60	3,80	3,65	3,60
Cooling capacity	A35W18*4		Power	kW	12,00	13,50	14,2	12,00	13,50	14,2
			Rated power consumption	kW	3,00	3,74	3,93	3,00	3,74	3,93
			EER		4,00	3,61	3,61	4,00	3,61	3,61
	A35W7*5		Power	kW	11,60	12,70	14,00	11,60	12,70	14,00
			Rated power consumption	kW	4,22	4,98	5,71	4,22	4,98	5,71
			EER		2,75	2,55	2,45	2,75	2,55	2,45
Heating	Seasonal Heating Efficiency Class*3	Water yield at 35°C		class	A+++	A+++	A+++	A+++	A+++	A+++
		Water yield at 55°C		class	A++	A++	A++	A++	A++	A++
Sound power level of inner unit*6				dB	42	44		42	44	

Notes:
1. Outdoor air temperature 7°C dry bulb, 6°C wet bulb; input water temperature 30°C, outlet water temperature 35°C.
2. Outdoor air temperature 7°C dry bulb, 6°C wet bulb; input water temperature 40°C, outlet water temperature 45°C.
3. Outdoor air temperature 35°C dry bulb; input water temperature 23°C, outlet water temperature 18°C.
4. Outdoor air temperature 35°C dry bulb; input water temperature 12°C, outlet water temperature 7°C.
5. Heat efficiency class tests under average climatic conditions.
6. Standard for test conditions: EN12102-1.
7. Relevant EU standards and regulations:: EN16147; (EU) No 812/2013

			EMHP-4V/N8	EMHP-6V/N8	EMHP-8V/N8	EM-HP-10V/N8	EM-HP-12V/N8	EM-HP-14V/N8	EM-HP-16V/N8	EM-HP-12Y/N8	EM-HP-14Y/N8	EM-HP-16Y/N8
Power options		V/phase/Hz	220–240/1/50							380–415/3/50		
Refrigerant	Type (GWP)		R32 (675)									
	Refueling volume	kg	1,50		1,65		1,84					
Power sound level1		dB	56	58	59	60	64	64	68	64	65	68
Unit dimensions (W×H×D)		mm	1008×712×426				1118×865×523					
Package Dimensions (W×H×D)		mm	1065×810×485				1190×970×560					
Net/Gross Weight		kg	58/63,5		77/89		97/110,5			112/125,5		
External pipe diameters	Liquid	mm	6,35				9,52					
	Gas	mm	15,88				15,88					
Connection Method			Socket connection									
Between indoor and outdoor units	Height difference	m	Max. 20									
	Track length	m	2–30									
	Refueling	g/m	20		38							
Additional refrigerant	Maximum track length without additional refrigerant	m	15									
Ambient temperature range	Cooling	°C	-5 – 43									
	Heating	°C	-25 – 35									
	HWS	°C	-25 – 43									

Notes:
1. Standard for test conditions: EN12102-1.

Technical characteristics

EHB

Hydronic box

Advantages

- Installation indoors
- Built-in electric heater at 9 kW/3f and pump
- Control and protection system: safety valve, low pressure relay, flow switch, pressure gauge, shut-off valve
- Compact dimensions, depth only 600 mm
- Water heating up to 70 °C (disinfection mode)

Technical characteristics

				EHB-60/N8	EHB-100/N8	EHB-160/N8
Power options			V/phase/Hz		220-240/1/50	
Unit dimensions (W×H×D)			mm		420×790×270	
Package Dimensions (W×H×D)			mm		525×1050×360	
Net/Gross Weight			kg	37/43	37/43	39/45
Water pump	Max. pump head height		m		9	
Connection	Water side		mm		R1"	
	Liquid refrigerant		mm	6,35	9,52	
	Gaseous refrigerant		mm	15,88	15,88	
Backup electric heater*1	As standard set		kW		/	
	Optional		kW	3/9	3/9	3/9
	Number of power control stages			1/3	1/3	1/3
	Power options	3 kW	V/phase/Hz		220-240/1/50	
		9 kW			380-415/3/50	
Output water temperature setting range	Cooling		°C		5 ~ 25	
	Heating		°C		25 ~ 65	
	HWS		°C		30 ~ 60	

				EHBT-A100/190/N8	EHBT-A160/240/N8	EHBT-A100/240/N8
Power options			V/phase/Hz		220-240/1/50	
Unit dimensions (W×H×D)			mm	600×1683×600	600×1943×600	
Package Dimensions (W×H×D)			mm	730×1920×730	730×2180×730	
Net/Gross Weight			kg	140/161	157/178	159/180
Water pump	Max. pump head height		m		9	
Connection	Water side		mm		R1"	
	Liquid refrigerant		mm	6,35	9,52	
	Gaseous refrigerant		mm	15,88	15,88	
Backup electric heater*1	As standard set		kW		3	
	Optional		kW	6/9	6/9	6/9
	Number of power control stages			2/3	2/3	2/3
	Power options	6 kW	V/phase/Hz		220-240/1/50	
		9 kW			380-415/3/50	
Output water temperature setting range	Cooling		°C		5 ~ 25	
	Heating		°C		25 ~ 65	
	HWS		°C		30 ~ 60	

Notes:

1. In the case of a three-phase backup electric heater, the power of 3 or 6 kW is achieved by changing the position of the two-position switch if the liquid module is designed for 9 kW.

Learn more on our website
www.home-comfort.com

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