en

EASYLIFE

ALEZIO S



User Guide

Reversible air/water "Split Inverter" heat pump

ALEZIO S

MIV-S 4-8/H
MIV-S 4-8/HI
MIV-S 4-8/EM
MIV-S 4-8/EMI
MIV-S 11-16/H
MIV-S 11-16/HI
MIV-S 11-16/EM
MIV-S 11-16/EMI
MIV-S 11-16/ET
MIV-S 11-16/ETI

De Dietrich
SUSTAINABLE COMFORT®

Dear Customer,

Thank you very much for buying this appliance.

Please read through the manual carefully before using the product, and keep it in a safe place for later reference. In order to ensure continued safe and efficient operation we recommend that the product is serviced regularly. Our service and customer service organisation can assist with this.

We hope you enjoy years of problem-free operation with the product.

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1 Safety instructions and recommendations

1.1 Safety

Operation	**Danger** This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
Electrical	Before any work on the appliance, carefully read all documents that accompany the product. These documents are also available on our website. See the last page. Install the appliance in accordance with national rules on electrical installation. A disconnection device must be fitted to the fixed wiring in accordance with installation rules. If a power supply cable comes with the appliance and it turns out to be damaged, it must be replaced by the manufacturer, its after sales service or persons with similar qualifications in order to obviate any danger. If the appliance is not wired in the factory, carry out the wiring according to the wiring diagram described in the chapter Electrical Connections. See the Installation and Service Manual. This appliance must be connected to the protective earthing. Earthing must comply with the prevailing installation standards. Earth the appliance before making any electrical connections. Type and calibre of the protective equipment: refer to the "Recommended cable cross-sections" chapter. See the Installation and Service Manual. To connect the appliance to the electricity mains, refer to the chapter Electrical Connections. See the Installation and Service Manual. In order to prevent any danger owing to the unexpected reset of the thermal circuit breaker, this appliance must not be powered through an external switch, such as a timer, or be connected to a circuit which is regularly switched on and off by the electricity provider.
Hydraulics	**Caution** Respect the minimum and maximum water pressure and temperature to ensure the appliance operates correctly. See chapter on Technical Specifications.
Installation	**Important** Allow the space required to install the appliance correctly, referring to the chapter Dimensions of the Appliance. See the Installation and Service Manual.

1.2 General instructions

The system must satisfy each point in the rules in force in the country that govern works and interventions in individual homes, blocks of flats or other buildings.

Only qualified professionals are authorised to work on the appliance and the heating installation. They must respect prevailing local and national regulations during fitting, installation and maintenance of the installation.

Commissioning must be performed by a qualified professional.

1.3 Electrical safety

Before making any electrical connections, earth the appliance in accordance with prevailing standards.

Danger
Danger of electric shock: the length of the conductors between the traction arrester device and the terminal blocks must be such that the active conductors are put under tension before the earth conductor.

Only qualified professionals may carry out electrical connections, always with the power off.

Separate the very low voltage cables from the 230/400 V power supply cables.

1.4 Refrigerant safety

Warning
Refrigerant fluid and pipes:

- Use only **R410A** refrigerant fluid to fill the installation.
- Use tools and pipe components especially designed for use with **R410A** refrigerant fluid.
- Use copper pipes deoxidised with phosphorus to carry the refrigerant fluid.
- Store the refrigerant connection pipes away from dust and humidity (risk of damage to the compressor).
- Do not use a load cylinder.
- Protect the heat pump components, including the insulation and structural elements. Do not overheat the pipes as brazed components may cause damage.
- Contact between the refrigerant fluid and a flame may result in emissions of toxic gases.

France: Pursuant to Article L. 113-3 of the French Consumer Code, the equipment must be installed by a certified operator whenever the refrigerant load is in excess of 5 tonnes of CO_2 equivalent or when a refrigerant connection is necessary (the case with split systems, even when fitted with a quick coupling device).

All work on the refrigeration circuit must be done by a qualified professional, according to prevailing codes of practice and safety in the profession (recovery of the refrigerant, brazing under nitrogen). All brazing work must be done by qualified welders.

Do not touch the refrigeration connection pipes with your bare hands while the heat pump is running. Danger of burn or frost injury.

In the event of a refrigerant leakage:

1. Switch off the appliance.
2. Open the windows.
3. Do not use a naked flame, do not smoke, do not operate electrical contacts.
4. Avoid contact with the refrigerant. Danger of frost injuries.

Locate the probable leak and seal it immediately. Use only original parts to replace a defective refrigeration component.

Use only dehydrated nitrogen for detecting leaks or for pressurised tests.

Do not allow the refrigerant fluid to escape into the atmosphere.

1.5 Domestic water safety

In accordance with safety rules, a safety valve calibrated to 0.7 MPa (7 bar) is mounted on the tank's domestic cold water inlet.

A pressure reducer (not provided) is required when the supply pressure exceeds 80% of the safety valve or safety unit calibration and must be located upstream of the appliance.

There must be no cut-off devices between the safety valve or unit and the domestic hot water tank.

The hydraulic installation must be capable of handling a minimum flow rate at all times.

Heating water and domestic water must not come into contact with each other. Domestic water must not circulate through the exchanger.

Limit temperature at the draw-off point: the maximum domestic hot water temperature at the draw-off point is subject to special regulations in the various countries in which the appliance is sold in order to protect the user. These special regulations be observed when installing the appliance.

Take precautions with the domestic hot water. Depending on the heat pump settings, the domestic hot water temperature may exceed 65°C.

In order to limit the risk of being scalded, a thermostatic mixing valve must be installed on the domestic hot water flow pipes.

1.6 Hydraulic safety

When making the hydraulic connection, it is imperative that the standards and corresponding local directives be respected.

If radiators are connected directly to the heating circuit: install a differential valve between the indoor unit and the heating circuit.

Fit drainage valves between the indoor unit and the heating circuit.

Do not add any chemical products to the heating water without first consulting a water treatment specialist. For example: antifreeze, water softeners, products to increase or reduce the pH value, chemical additives and/or inhibitors. These may cause faults in the heat pump and damage the heat exchanger.

1.7 Recommendations for operation

The frost protection function does not work if the heat pump is switched off.

If the home is unoccupied for a long period and there is a risk of frost, drain the indoor unit and the heating system.

Keep the heat pump accessible at all times.

Never remove or cover the labels and data plates affixed to appliances. Labels and data plates must be legible throughout the entire lifetime of the appliance.

Immediately replace damaged or illegible instructions and warning stickers.

Give preference to the OFF or frost protection mode rather than switching off the system to leave the following functions running:

- Anti blocking of pumps
- Frost Protection

Regularly check the presence of water and pressure in the heating system.

Do not touch radiators for long periods. Depending on the heat pump settings, the temperature of the radiators may exceed 60°C.

Do not drain the installation, except in cases of absolute necessity. E.g.: several months' absence with the risk of temperatures in the building falling below freezing.

1.8 Specific instructions for service, maintenance and breakdowns

Maintenance work must be carried out by a qualified professional.

Only a qualified professional is authorised to set, correct or replace the safety devices.

Before any work, switch off the power supply to the heat pump, the indoor unit and the hydraulic/electrical back-up.

Wait for approx. 20-30 seconds for the outdoor unit capacitors to be discharged, and check that the lights on the outdoor unit PCBs have gone out.

Before working on the refrigeration circuit, switch off the appliance and wait a few minutes. Certain items of equipment such as the compressor and the pipes can reach temperatures in excess of 100°C and high pressures, which may cause serious injuries.

Locate and correct the cause of power cut before resetting the safety thermostat.

Only genuine spare parts may be used.

Removal and disposal of the heat pump must be carried out by a qualified professional in accordance with prevailing local and national regulations.

After maintenance or repair work, check the entire heating system to ensure that there are no leaks.

Remove the casing only to perform maintenance and repair work. Put the casing back in place after maintenance and repair work.

For heat pumps with a refrigerant fluid load of more than 5 tonnes of CO_2 equivalent, the user must have an annual leak-tightness test performed on the refrigerant equipment.

1.9 Liabilities

Tab.1

Manufacturer's liability	Our products are manufactured in compliance with the requirements of the various Directives applicable. They are therefore delivered with the CE marking and any documents necessary. In the interests of the quality of our products, we strive constantly to improve them. We therefore reserve the right to modify the specifications given in this document. Our liability as manufacturer may not be invoked in the following cases: • Failure to abide by the instructions on installing the appliance. • Failure to abide by the instructions on using the appliance. • Faulty or insufficient maintenance of the appliance.
Installer's liability	The installer is responsible for the installation and initial commissioning of the appliance. The installer must observe the following instructions: • Read and follow the instructions given in the manuals provided with the appliance. • Install the appliance in compliance with prevailing legislation and standards. • Carry out initial commissioning and any checks necessary. • Explain the installation to the user. • If maintenance is necessary, warn the user of the obligation to check the appliance and keep it in good working order. • Give all the instruction manuals to the user.
User's liability	To guarantee optimum operation of the system, the user must abide by the following instructions: • Read and follow the instructions given in the manuals provided with the appliance. • Call on a qualified professional to carry out installation and initial commissioning. • Ask your installer to explain your installation to you. • Have the required inspections and maintenance carried out by a qualified installer. • Keep the instruction manuals in good condition close to the appliance.

2 Symbols used

2.1 Symbols used in the manual

This manual uses various danger levels to draw attention to special instructions. We do this to improve user safety, to prevent problems and to guarantee correct operation of the appliance.

Danger
Risk of dangerous situations that may result in serious personal injury.

Danger of electric shock
Risk of electric shock.

Warning
Risk of dangerous situations that may result in minor personal injury.

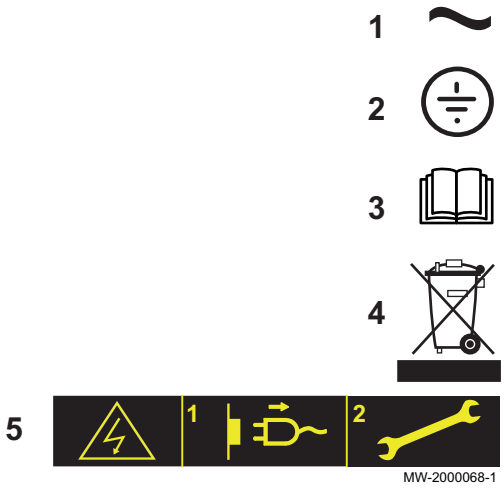
Caution
Risk of material damage.

Important
Please note: important information.

See
Reference to other manuals or pages in this manual.

2.2 Symbols used on the appliance

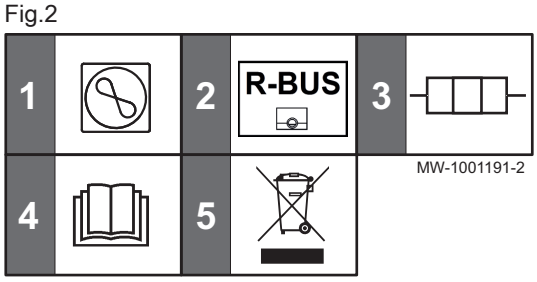
Fig.1



1 Alternating current
2 Protective earthing
3 Before installing and commissioning the appliance, carefully read the instruction manuals provided.
4 Dispose of used products through an appropriate recovery and recycling structure.
5 Caution: danger of electric shock, live parts. Disconnect the mains power prior to carrying out any work.

2.3 Symbols used on the data plate

Fig.2



1 Information concerning the heat pump: refrigerant type, maximum allowable operating pressure
2 The symbol indicates compatibility with the Smart TC° connected thermostat.
3 Information on the electrical back-up: power supply and maximum output (only for versions with electrical back-up)
4 Before installing and commissioning the appliance, carefully read the instruction manuals provided
5 Dispose of used products in an appropriate recovery and recycling structure

3 Technical specifications

3.1 Directives

Hereby, De Dietrich declares that the radio equipment type ALEZIO S is in compliance with Directive 2014/53/EU.

The original declaration of conformity is available from the manufacturer.

This product also complies with the requirements of the following European Directives and Standards:

- European Directive 2009/125/EC on the ecodesign of energy-related products
- Pressure Equipment Directive 2014/68/EU
- Low Voltage Directive 2014/35/EU
  Generic standard: EN 60335-1
  Relevant standards: EN 60335-2-21, EN 60335-2-40
- Electromagnetic Compatibility Directive 2014/30/EU
  Generic standards: EN 61000-6-3, EN 61000-6-1
  Relevant Standard: EN 55014

In addition to the legal requirements and guidelines, the supplementary guidelines in this manual must also be followed.

Supplements or subsequent regulations and guidelines that are valid at the time of installation shall apply to all regulations and guidelines specified in this manual.

3.2 Technical data

3.2.1 Compatible heating devices

Tab.2

Outdoor unit	Associated/compatible indoor units
AWHP 4.5 MR	MIV-S 4-8/EM MIV-S 4-8/EMI MIV-S 4-8/H MIV-S 4-8/HI
AWHP 6 MR-3	MIV-S 4-8/EM MIV-S 4-8/EMI MIV-S 4-8/H MIV-S 4-8/HI
AWHP 8 MR-2	MIV-S 4-8/EM MIV-S 4-8/EMI MIV-S 4-8/H MIV-S 4-8/HI
AWHP 11 MR-2	MIV-S 11-16/EM MIV-S 11-16/EMI MIV-S 11-16/ET MIV-S 11-16/ETI MIV-S 11-16/H MIV-S 11-16/HI
AWHP 11 TR-2	MIV-S 11-16/EM MIV-S 11-16/EMI MIV-S 11-16/ET MIV-S 11-16/ETI MIV-S 11-16/H MIV-S 11-16/HI

Outdoor unit	Associated/compatible indoor units
AWHP 16 MR-2	MIV-S 11-16/EM MIV-S 11-16/EMI MIV-S 11-16/ET MIV-S 11-16/ETI MIV-S 11-16/H MIV-S 11-16/HI
AWHP 16 TR-2	MIV-S 11-16/EM MIV-S 11-16/EMI MIV-S 11-16/ET MIV-S 11-16/ETI MIV-S 11-16/H MIV-S 11-16/HI

3.2.2 Heat pump

The specifications are valid for a new appliance with clean heat exchangers.

Maximum operating pressure: 0.3 MPa (3 bar)

Tab.3 Indoor unit technical specifications

Specifications	AWHP MIV-S
Operating temperature range	+7 °C to +30 °C
Bluetooth frequency band	2400 – 2483.5 MHz
Bluetooth power	+5 dBm

Tab.4 Outdoor unit conditions of use

Limit operating temperatures	AWHP 4.5 MR	AWHP 6 MR-3	AWHP 8 MR-2	AWHP 11 MR-2 AWHP 11 TR-2	AWHP 16 MR-2 AWHP 16 TR-2
Water in heating mode	+18 °C/+55 °C	+18 °C/+60 °C	+18 °C/+60 °C	+18 °C/+60 °C	+18 °C/+60 °C
Outdoor air in heating mode	-15 °C/+35 °C	-15 °C/+35 °C	-20 °C/+35 °C	-20 °C/+35 °C	-20 °C/+35 °C
Water in cooling mode for the non-insulated models	+18 °C/+25 °C	+18 °C/+25 °C	+18 °C/+25 °C	+18 °C/+25 °C	+18 °C/+25 °C
Water in cooling mode for the insulated models	+7 °C / +25 °C	+7 °C / +25 °C	+7 °C / +25 °C	+7 °C / +25 °C	+7 °C / +25 °C
Outdoor air in cooling mode	+7 °C/+46 °C	+7 °C/+46 °C	+7 °C/+46 °C	+7 °C/+46 °C	+7 °C/+46 °C

Tab.5 Heating mode: outdoor air temperature +7 °C, water temperature at the outlet +35 °C. Performances in accordance with EN 14511-2.

Measurement type	Unit	AWHP 4.5 MR	AWHP 6 MR-3	AWHP 8 MR-2	AWHP 11 MR-2	AWHP 11 TR-2	AWHP 16 MR-2	AWHP 16 TR-2
Heat output	kW	4.60	5.82	7.9	11.39	11.39	14.65	14.65
Coefficient of Performance (COP)		5.11	4.22	4.34	4.65	4.65	4.22	4.22
Absorbed electrical power	kWe	0.90	1.38	1.82	2.45	2.45	3.47	3.47
Nominal water flow rate (ΔT = 5 K)	m^3/hour	0.88	1.00	1.53	1.96	1.96	2.53	2.53

Tab.6 Heating mode: outdoor air temperature +2 °C, water temperature at the outlet +35 °C. Performances in accordance with EN 14511-2.

Measurement type	Unit	AWHP 4.5 MR	AWHP 6 MR-3	AWHP 8 MR-2	AWHP 11 MR-2	AWHP 11 TR-2	AWHP 16 MR-2	AWHP 16 TR-2
Heat output	kW	3.47	3.74	6.8	10.19	10.19	12.90	12.90
Coefficient of Performance (COP)		3.97	3.37	3.3	3.20	3.20	3.27	3.27
Absorbed electrical power	kWe	0.88	1.11	2.06	3.19	3.19	3.94	3.94

Tab.7 Cooling mode: outdoor air temperature +35 °C, water temperature at the outlet +18 °C. Performances in accordance with EN 14511-2.

Measurement type	Unit	AWHP 4.5 MR	AWHP 6 MR-3	AWHP 8 MR-2	AWHP 11 MR-2	AWHP 11 TR-2	AWHP 16 MR-2	AWHP 16 TR-2
Cooling output	kW	3.80	4.69	7.90	11.16	11.16	14.46	14.46
Energy efficiency ratio (EER)		4.28	4.09	3.99	4.75	4.75	3.96	3.96
Absorbed electrical power	kWe	0.89	1.15	2.00	2.35	2.35	3.65	3.65

Tab.8 Common specifications

Measurement type	Unit	AWHP 4.5 MR	AWHP 6 MR-3	AWHP 8 MR-2	AWHP 11 MR-2	AWHP 11 TR-2	AWHP 16 MR-2	AWHP 16 TR-2
Power voltage of the outdoor unit	V	230	230	230	230	400	230	400
Start-up amperage	A	5	5	5	5	3	6	3
Maximal amperage	A	12	13	17	29.5	13	29.5	13
Refrigerant fluid R410A	kg	1.3	1.4	3.2	4.6	4.6	4.6	4.6
R410A refrigerant(1)	tCO_2e	2.714	2.923	6.680	9.603	9.603	9.603	9.603
Refrigerant connection (Liquid - Gas)	inch	1/4 - 1/2	1/4 - 1/2	3/8 - 5/8	3/8 - 5/8	3/8 - 5/8	3/8 - 5/8	3/8 - 5/8
Max. pre-charged length	m	7	10	10	10	10	10	10

(1) The quantity of refrigerant in CO_2 equivalent is calculated using the following formula: quantity (in kg) of refrigerant x GWP / 1000. The Global-Warming Potential (GWP) of R410A gas is 2088.

3.2.3 Heat pump weight

Tab.9 Indoor module

Indoor module	Unit	MIV-S 4-8/EM	MIV-S 4-8/EMI	MIV-S 4-8/H	MIV-S 4-8/HI
Weight (empty)	kg	35.5	36.7	36.1	38.2

Tab.10 Indoor module

Indoor module	Unit	MIV-S 11-16/EM	MIV-S 11-16/EMI	MIV-S 11-16/ET	MIV-S 11-16/ETI	MIV-S 11-16/H	MIV-S 11-16/HI
Weight (empty)	kg	35.5	36.7	35.5	36.7	36.1	38.2

Tab.11 Outdoor unit

Outdoor unit	Unit	AWHP 4.5 MR	AWHP 6 MR-3	AWHP 8 MR-2	AWHP 11 MR-2	AWHP 11 TR-2	AWHP 16 MR-2	AWHP 16 TR-2
Weight (empty)	kg	54	42	75	118	130	118	130

3.2.4 Combination heaters with medium-temperature heat pump

Tab.12 Technical parameters for heat pump combination heaters (parameters declared for medium-temperature application)

Product name			AWHP 4.5 MR	AWHP 6 MR-3
Air-to-water heat pump			Yes	Yes
Water-to-water heat pump			No	No
Brine-to-water heat pump			No	No
Low-temperature heat pump			No	No
Equipped with a supplementary heater			Yes	Yes
Heat pump combination heater			No	No
Rated heat output under average conditions(1)	*Prated*	kW	4	4
Rated heat output under colder conditions	*Prated*	kW	5	4
Rated heat output under warmer conditions	*Prated*	kW	4	5
Declared capacity for heating for part load at an indoor temperature of 20 °C and outdoor temperature T_j				
T_j = -7 °C	*Pdh*	kW	3.8	3.5
T_j = +2°C	*Pdh*	kW	4.3	4.5
T_j = +7 °C	*Pdh*	kW	4.5	4.8
T_j = +12 °C	*Pdh*	kW	5.5	5.2
T_j = bivalent temperature	*Pdh*	kW	3.9	3.6
T_j = operation limit temperature	*Pdh*	kW	3.9	3.6
Bivalent temperature	T_{biv}	°C	-10	-10
Degradation coefficient(2)	*Cdh*	—	1.0	1.0
Seasonal space heating energy efficiency under average conditions	η_s	%	134	138
Seasonal space heating energy efficiency under colder conditions	η_s	%	109	116
Seasonal space heating energy efficiency under warmer conditions	η_s	%	179	172
Declared coefficient of performance or primary energy ratio for part load at an indoor temperature of 20 °C and outdoor temperature T_j				
T_j = -7 °C	*COPd*	-	1.64	1.89
T_j = +2 °C	*COPd*	-	3.46	3.53
T_j = +7 °C	*COPd*	-	4.96	4.74
T_j = +12 °C	*COPd*	-	7.90	7.08
T_j = bivalent temperature	*COPd*	-	1.20	1.52
T_j = operation limit temperature	*COPd*	-	1.20	1.52
Operation limit temperature for air-to-water heat pumps	*TOL*	°C	-10	-10
Heating water operating limit temperature	*WTOL*	°C	55	60
Electrical power consumption				
Off mode	P_{OFF}	kW	0.009	0.009
Thermostat-off mode	P_{TO}	kW	0.049	0.049
Stand-by	P_{SB}	kW	0.009	0.015

Product name			AWHP 4.5 MR	AWHP 6 MR-3
Crankcase heater mode	P_{CK}	kW	0.000	0.055
Supplementary heater				
Rated heat output	*Psup*	kW	0.0	0.0
Type of energy input			Electricity	Electricity
Other specifications				
Capacity control			Variable	Variable
Sound power level, indoors - outdoors	L_{WA}	dB	53 - 61	48 - 65
Annual energy consumption under average conditions	Q_{HE}	kWh	2353	2124
Annual energy consumption under colder conditions	Q_{HE}	kWh	4483	3721
Annual energy consumption under warmer conditions	Q_{HE}	kWh	1249	1492
Rated air flow rate, outdoors for air-to-water heat pumps	—	m^3/h	2680	2700

(1) The rated heat output *Prated* is equal to the design load for heating *Pdesignh*, and the rated heat output of a supplementary heater *Psup* is equal to the supplementary capacity for heating *sup(Tj)*.
(2) If *Cdh* is not determined by measurement, the default degradation coefficient is *Cdh* = 0.9.

Tab.13 Technical parameters for heat pump combination heaters (parameters declared for medium-temperature application)

Product name			AWHP 8 MR-2	AWHP 11 MR-2 AWHP 11 TR-2	AWHP 16 MR-2 AWHP 16 TR-2
Air-to-water heat pump			Yes	Yes	Yes
Water-to-water heat pump			No	No	No
Brine-to-water heat pump			No	No	No
Low-temperature heat pump			No	No	No
Equipped with a supplementary heater			Yes	Yes	Yes
Heat pump combination heater			No	No	No
Rated heat output under average conditions(1)	*Prated*	kW	6	6	9
Rated heat output under colder conditions	*Prated*	kW	6	4	7
Rated heat output under warmer conditions	*Prated*	kW	6	8	13
Declared capacity for heating for part load at an indoor temperature of 20 °C and outdoor temperature T_j					
T_j = -7 °C	*Pdh*	kW	5.6	5.9	9.0
T_j = +2 °C	*Pdh*	kW	2.9	5.3	6.5
T_j = +7 °C	*Pdh*	kW	6.4	9.0	12.9
T_j = +12 °C	*Pdh*	kW	4.3	7.7	10.0
T_j = bivalent temperature	*Pdh*	kW	5.6	6.3	8.8
T_j = operation limit temperature	*Pdh*	kW	5.6	6.3	8.8
Bivalent temperature	T_{biv}	°C	-10	-10	-10
Degradation coefficient(2)	*Cdh*	—	1.0	1.0	1.0
Seasonal space heating energy efficiency under average conditions	η_s	%	129	125	121
Seasonal space heating energy efficiency under colder conditions	η_s	%	119	113	113
Seasonal space heating energy efficiency under warmer conditions	η_s	%	169	167	161
Declared coefficient of performance or primary energy ratio for part load at an indoor temperature of 20 °C and outdoor temperature T_j					
T_j = -7 °C	*COPd*	-	1.95	1.87	1.85

Product name			AWHP 8 MR-2	AWHP 11 MR-2 AWHP 11 TR-2	AWHP 16 MR-2 AWHP 16 TR-2
T_j = +2 °C	*COPd*	-	3.22	3.17	3.02
T_j = +7 °C	*COPd*	-	4.57	4.54	4.34
T_j = +12 °C	*COPd*	-	6.55	6.19	5.75
T_j = bivalent temperature	*COPd*	-	1.70	1.20	1.35
T_j = operation limit temperature	*COPd*	-	1.70	1.20	1.35
Operation limit temperature for air-to-water heat pumps	*TOL*	°C	-10	-10	-10
Heating water operating limit temperature	*WTOL*	°C	60	60	60
Electrical power consumption					
Off mode	P_{OFF}	kW	0.009	0.009	0.009
Thermostat-off mode	P_{TO}	kW	0.049	0.023	0.035
Stand-by	P_{SB}	kW	0.015	0.021	0.021
Crankcase heater mode	P_{CK}	kW	0.055	0.055	0.055
Supplementary heater					
Rated heat output	*Psup*	kW	0.0	0.0	0.0
Type of energy input			Electricity	Electricity	Electricity
Other specifications					
Capacity control			Variable	Variable	Variable
Sound power level, indoors - outdoors	L_{WA}	dB	53 - 67	53 - 69	53 - 69
Annual energy consumption under average conditions	Q_{HE}	kWh	3499	3999	5861
Annual energy consumption under colder conditions	Q_{HE}	kWh	4621	3804	5684
Annual energy consumption under warmer conditions	Q_{HE}	kWh	1904	2580	4120
Rated air flow rate, outdoors for air-to-water heat pumps	—	m^3/h	3300	6000	6000

(1) The rated heat output *Prated* is equal to the design load for heating *Pdesignh*, and the rated heat output of a supplementary heater *Psup* is equal to the supplementary capacity for heating *sup(Tj)*.
(2) If *Cdh* is not determined by measurement, the default degradation coefficient is *Cdh* = 0.9.

See
The back cover for contact details.

3.2.5 Circulating pump

Important
The benchmark for the most efficient circulating pumps is EEI ≤ 0.20.

4 Description of the product

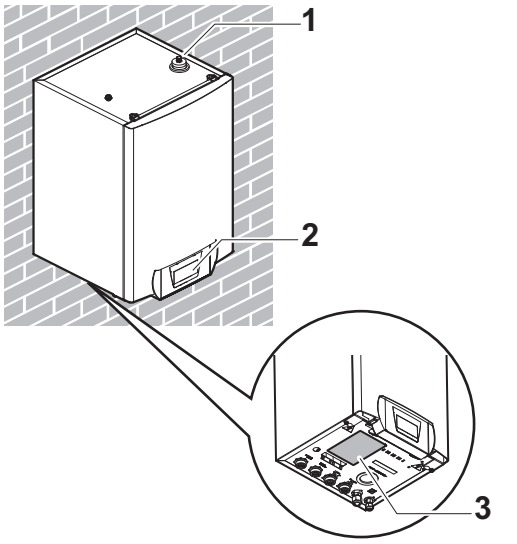
4.1 Operating principle

The outdoor unit produces heat or cold and transfers it to the indoor module via the refrigerant in the plate exchanger.

The indoor module is equipped with a specific control system which is used to adjust the temperature of the heating water to the needs of the home.

4.2 Main components

Fig.3

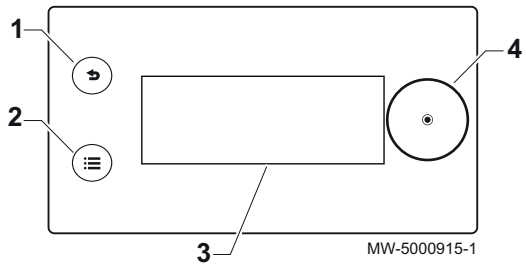


1 Automatic air vent
2 (HMI) user interface
3 Location of the data plate

4.3 Control panel description

4.3.1 Description of the interface

Fig.4



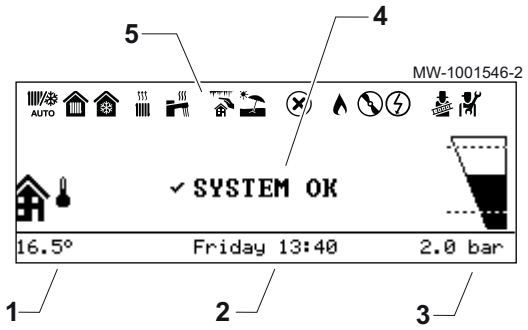
1 Return key
2 Main menu key
3 Display
4 Selection/validation button

4.3.2 Description of the standby screen

The control panel on your appliance automatically goes into standby mode if no keys are pressed for a period of 5 minutes: the backlighting is switched off and information relating to the general status of the appliance is displayed.

Press one of the buttons on the user interface to switch standby off.

Fig.5



1 Temperature measured by the outdoor temperature sensor
2 Day and time
3 Hydraulic pressure in the installation
4 General status of the appliance
5 Icons indicating the appliance status

4.3.3 Description of status icons

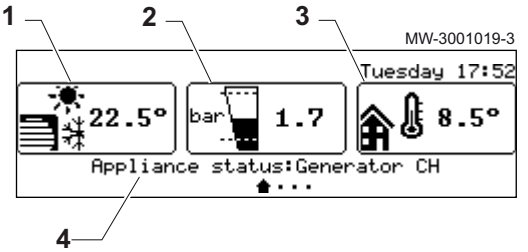
Tab.14 Icons indicating the appliance status

Icons	Description
AUTO	Automatic switch from heating mode to cooling mode
	• Steady symbol: heating active • Flashing symbol: heating in progress
	• Steady symbol: cooling active • Flashing symbol: cooling in progress
	• Steady symbol: domestic hot water available • Flashing symbol: domestic hot water production in progress
	Frost protection mode activated
	Summer mode activated. No heating possible. Cooling and domestic hot water production only.
	Error detected
	The heat pump compressor is running.
	The electrical back-up is running.
	Operating test mode activated
	Installer level activated

4.3.4 Description of the home screen

If the control panel is in standby, turn the selection button to access the home screen.

Fig.6

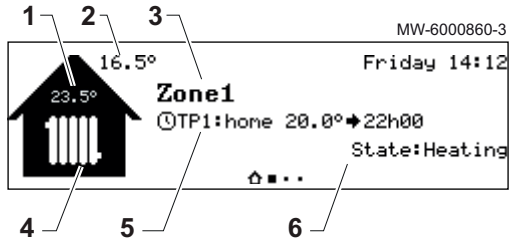


1 Symbol for the appliance and circuit flow temperature
2 Hydraulic pressure
3 Temperature measured by the outdoor temperature sensor
4 Status of the appliance

4.3.5 Description of the Zone display

From the home screen, turn the selection button to access the screens for the various zones within your installation.

Fig.7



1 Room temperature (if a room thermostat is installed)
2 Outdoor temperature
3 Name of the zone
4 Zone symbol
5 Operating mode currently active
6 Information on the circuit status

4.3.6 Description of the carousel

Fig.8



The carousel is used to quickly access the main control panel menu.

Display the carousel by pressing the Main menu key ☰.

Scroll through the menu from right to left by turning the selector ⊙.

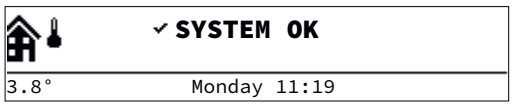
Tab.15

Symbol menu	Description of the symbols	Description
	Central heating On/Off	Switching the central heating on/off
	Domestic Hot Water On/Off	Switching domestic hot water production on/off
	Heating temperature	Setting the activities temperature
	Water temperature	Modifying the domestic hot water setpoint temperatures
	Temporary heating temperature change	Changing the room temperature temporarily
	Hot water boost	Forcing domestic hot water production (override)
	System holiday mode	Periods of absence or going on holiday
	User settings	
	Test mode	Chimney mode
	Installer	Menu not accessible to the user Installer level: List of Installer menu parameters
	Finder	Menu not accessible to the user Installer level: Using the parameter search
	Signals status set points	Menu not accessible to the user Installer level: Reading out measured values
	Energy counter	Monitoring the energy consumption
	Settings	Personalising the control panel
	Version information	Version information

5 Operation

5.1 Browsing in the menus

Fig.9 Standby screen

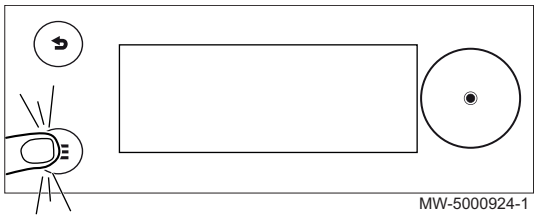


MW-5000949-2

Press any key or turn the ⊙ selector to turn on the backlight for the control panel screen.

Important
If no key is pressed for 3 minutes, the control panel backlight will go out.

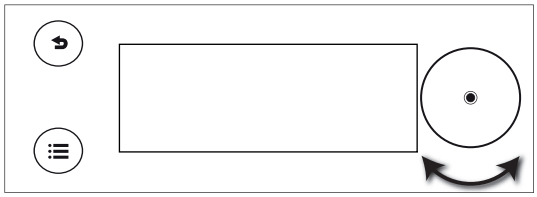
Fig.10 Access to main menu



MW-5000924-1

Press the ☰ key to access the main menu.

Fig.11 Selection

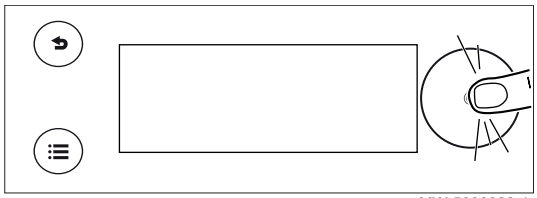


MW-5000921-1

Turn the ⊙ selector to select:

- a menu,
- a page on the home screen,
- a parameter,
- a setting.

Fig.12 Confirmation

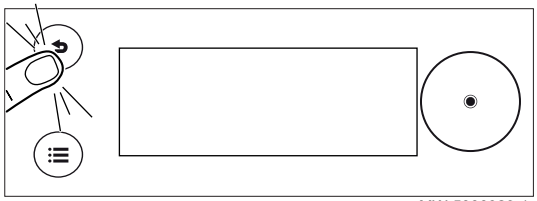


MW-5000922-1

Press the selector ⊙ to confirm:

- a menu,
- a page on the home screen,
- a parameter,
- a setting.

Fig.13 Back to home screen



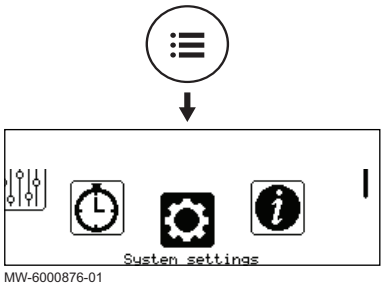
MW-5000923-1

Press the ↩ return key as many times as necessary to return to the home screen.

Press and hold the back key ↩ to return to the home screen.

5.2 Activating/Deactivating the child lock

Fig.14



MW-6000876-01

The child lock prevents children from accidentally altering the settings.

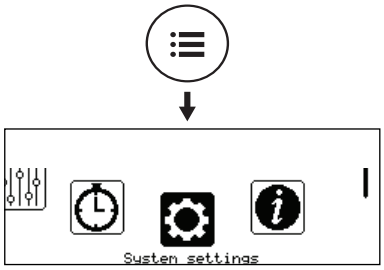
1. Press the ☰ key.
2. Select ⚙ **System settings**.
3. Select **Display settings**.
4. Modify the value of the **Child lock** parameter:

Yes	Child lock activated
No	Child lock deactivated

When the child lock is activated, you can temporarily deactivate the display by briefly pressing the ☰ and ⊙ keys simultaneously.

5.3 Personalising the control panel

Fig.15



MW-6000876-01

It is possible to personalise the control panel by modifying the basic settings.

1. Press the ☰ key.
2. Select ⚙ **System settings**.
3. Perform the required settings.

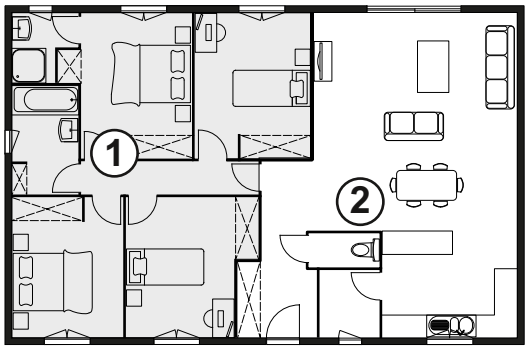
Tab.16 List of parameters

Menu	Setting
Country and language	Select the country and language
Date and time	Set the date and time, then the automatic switch between summer and winter time
Installer details	Save the name and phone number of the installer
Activity names	Modify the name of activities used to program the heating or cooling periods
Display settings	Set the display settings: • Select the unit displayed. • Set the screen brightness. • Activate/deactivate the child lock.

5.4 Personalising the zones

5.4.1 Definition of the term "zone"

Fig.16



MW-1001145-2

Term given to the different hydraulic circuits. It indicates several rooms served by the same circuit.

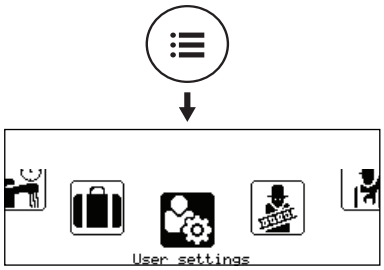
Tab.17 Example:

Key	Zone	Factory-set name
①	Zone 1	Zone1
②	Zone 2	Zone2

5.4.2 Changing the name and symbol for a zone

The name and symbol for a zone are factory-set. If required, you can personalise the name and symbol used for the zones in your installation.

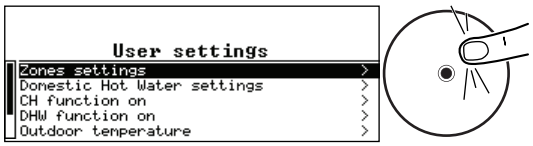
Fig.17



MW-6000865-02

1. Press the ☰ key.
2. Select **User settings**.

Fig.18



MW-6000877-1

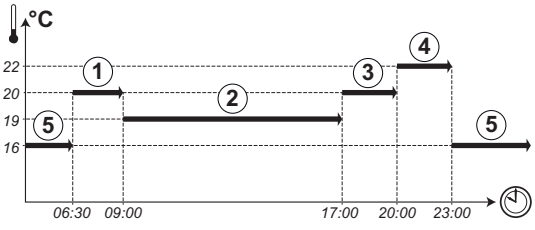
3. Select **Zones settings**.
4. Select the zone to be changed.
5. Select **General** to access the parameters enabling the name and symbol for the zone to be changed.
6. Change the name and/or the symbol for the zone.

5.5 Personalising the activities

5.5.1 Definition of the term "Activity"

Activity: this term is used when programming time ranges. It refers to the client's desired comfort level for different activities during the course of the day. One set point temperature is associated to each activity. The last activity of the day remains valid until the first activity of the following day.

Fig.19



MW-1001144-2

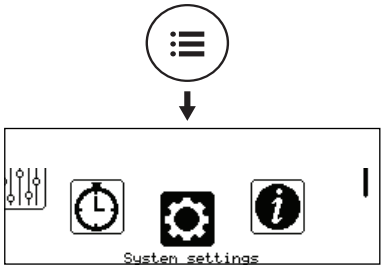
Tab.18 Example

Start of the activity	Activity	Set point temperature
6:30	Morning ①	20 °C
9:00	Sleep ②	19 °C
17:00	Home ③	20 °C
20:00	Evening ④	22 °C
23:00	Away ⑤	16 °C

5.5.2 Changing the name of an activity

The name of the different activities is factory-set: Morning, Sleep, Home, Evening, Away and Custom. If you desire, you can personalise the name of the activities for all of the zones in your installation.

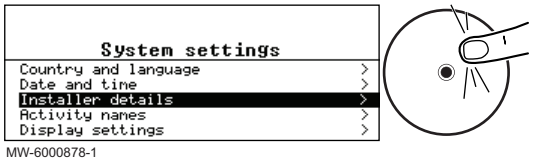
Fig.20



MW-6000876-01

1. Press the ☰ key.
2. Select **System settings**.

Fig.21



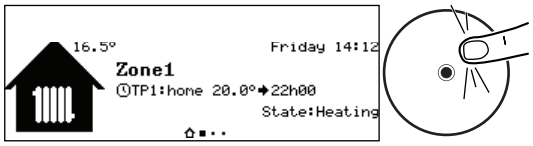
MW-6000878-1

3. Select **Activity names**.
4. Select **Set heating activity names** or **Set cooling activity names**.
5. Select the activity you want to change.
6. Change the name of the activity (10 characters max.) and confirm with **OK**.

5.5.3 Changing the temperature of an activity

The activities are used in the timer programming to define the temperature required at different times of the day. You can customise the temperature associated with each activity for each zone within your installation.

Fig.22



MW-6000861-02

1. From the home screen, access the screen for the relevant zone by turning the ⊙ selector.
2. Press the ⊙ selector.

Fig.23



MW-6000879-1

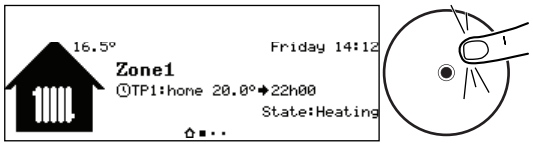
3. Select one of the following menus:
   - **Set heating temperatures** to change the temperature for the activities used for programming the heating mode
   - **Set cooling temperatures** to change the temperature for the activities used for programming the cooling mode
4. Select the activity you want to change.
5. Modify the temperature for the activity.

5.6 Room temperature for a zone

5.6.1 Selecting the operating mode

To set the room temperature for the different living zones, you can choose between five operating modes. We recommend the **Programming** operating mode which enables the room temperature to be modulated according to your needs and optimises your energy consumption.

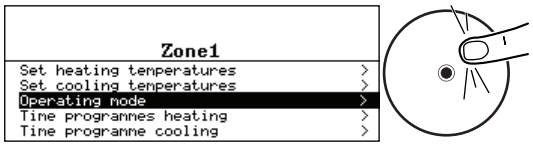
Fig.24



MW-6000861-02

1. From the home screen, access the screen for the relevant zone by turning the ⊙ selector.
2. Press the ⊙ selector.

Fig.25



MW-6000874-1

3. Select **Operating mode**.
4. Select the desired operating mode:

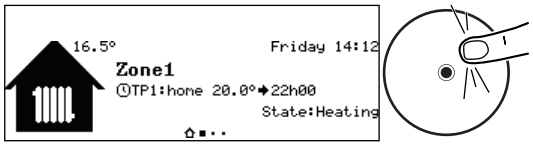
Tab.19

Operating mode	Description
Programming	The room temperature is regulated according to the selected timer programme. Recommended mode.
Manual	The room temperature is constant.
Temporary temperature change	The room temperature is forced for a defined period.
Holiday	The room temperature is reduced during an absence period to save energy.
Frost protection	The selected zone within the installation is protected from frost in winter.

5.6.2 Activating and configuring a timer programme for heating

A timer programme can be used to vary the room temperature in a living zone depending on activities during the day. This can be programmed for each day of the week.

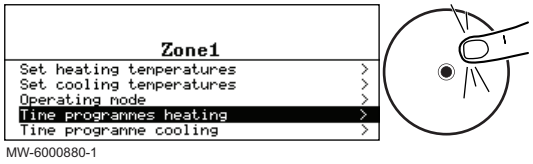
Fig.26



MW-6000861-02

1. From the home screen, access the screen for the relevant zone.
2. Press the ⊙ button.

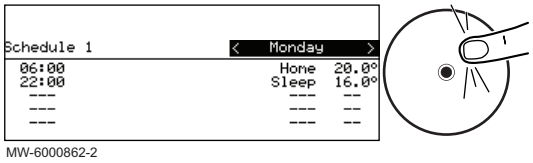
Fig.27



MW-6000880-1

3. Select **Time programmes heating**.
   ⇨ Three timer programmes are available. The programme that is currently active is marked with a tick.
4. To activate another timer programme, select **ZoneTimeProg Select**.

Fig.28



MW-6000862-2

5. To change the timer programming, select the programme you wish to change.
   ⇨ The programmed activities for Monday are displayed.
   The last activity of the day remains active until the first activity of the following day.
6. Select the day to be modified.
7. Carry out the following actions according to your needs:

Tab.20

Action	Procedure
Modify the timer settings for programmed activities.	• Select a programmed activity. • Press the ⊙ button. • Change the start time and/or the associated activity. • Select **Confirm** to save the modification.
Add a new time range.	• Move the cursor to an empty line. • Press the ⊙ button. • Select the start time for the activity. • Select the activity required at this time. • Select **Confirm** to save the new time range.
Deleting a programmed activity	• Select the activity you want to delete. • Press the ⊙ button. • Select **Delete** to delete the activity.
Copying programmed daily activities to other days	• Position the cursor on the **Copy to other days** line which appears at the end of the empty lines. • Press the ⊙ button. • Check the days of the week which are to follow the same timer programming as the current day. • Select **Confirm** to apply the current timer programme to all of the selected days.

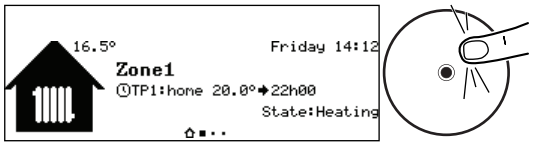
5.6.3 Activating and configuring a timer programme for cooling

In the **Programming** operating mode, the Cooling timer programme is activated automatically when the average outdoor temperature over a 24-hour period has been greater than 22 °C. If you would prefer that this mode is triggered at a different temperature, ask your installer to modify this parameter in your installation or use the **Forced cooling mode** mode.

Important
To guarantee comfort in **Cooling** mode, the Smart TC° connected room thermostat must be installed.

The timer programme linked to the **Cooling** mode can be modified.

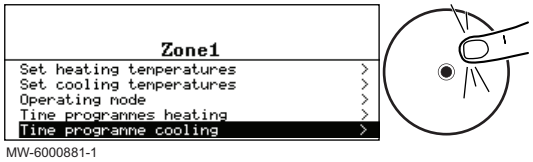
Fig.29



MW-6000861-02

1. From the home screen, access the screen for the relevant zone.
2. Press the ⊙ button.

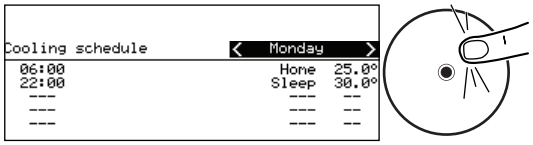
Fig.30



MW-6000881-1

3. Select **Time programme cooling**.
   ⇨ The programmed activities for Monday are displayed.
   The last activity of the day remains active until the first activity of the following day.

Fig.31



MW-6000882-1

4. Select the day to be modified.
5. Carry out the following actions according to your needs:

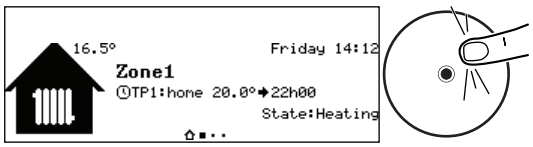
Tab.21

Action	Procedure
Modify the timer settings for programmed activities.	• Select a programmed activity. • Press the ⊙ button. • Change the start time and/or the associated activity. • Select Confirm to save the modification.
Add a new time range.	• Move the cursor to an empty line. • Press the ⊙ button. • Select the start time for the activity. • Select the activity required at this time. • Select Confirm to save the new time range.
Deleting a programmed activity	• Select the activity you want to delete. • Press the ⊙ button. • Select Delete to delete the activity.
Copying programmed daily activities to other days	• Position the cursor on the Copy to other days line which appears at the end of the empty lines. • Press the ⊙ button. • Check the days of the week which are to follow the same timer programming as the current day. • Select Confirm to apply the current timer programme to all of the selected days.

5.6.4 Changing the room temperature temporarily

Regardless of the operating mode selected for a zone, it is possible to modify the room temperature for a defined period. Once this time has elapsed, the selected operating mode will restart.

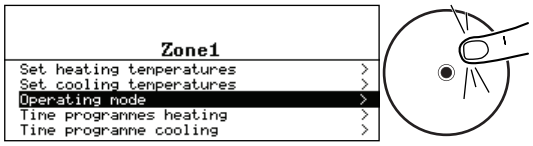
Fig.32



MW-6000861-02

1. From the home screen, access the screen for the relevant zone by turning the ⊙ selector.
2. Press the ⊙ selector.

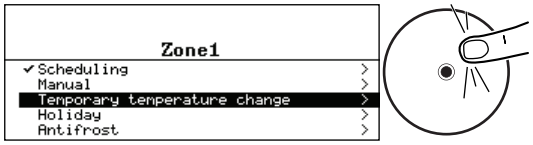
Fig.33



MW-6000874-1

3. Select **Operating mode**.

Fig.34



MW-6000883-1

4. Select **Temporary temperature change**.
5. Indicate the temperature required throughout the override period.
6. Indicate the time when the override will end.
7. Select **Confirm** to confirm the override.

5.7 Domestic hot water temperature

5.7.1 Selecting the operating mode

For the production of domestic hot water, you can choose between five operating modes. We recommend the **Programming** mode which enables domestic hot water production periods to be programmed according to your needs and optimises your energy consumption.

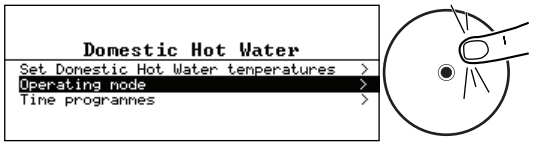
Fig.35



MW-6000863-2

1. From the home screen, access the screen for the relevant zone.
2. Press the ⊙ button.

Fig.36



MW-6000884-1

3. Select **Operating mode**.
4. Select the desired operating mode:

Tab.22

Operating mode	Description
Programming	The domestic hot water is produced according to the defined timer programme.
Manual	The domestic hot water temperature remains at the comfort temperature permanently
Temporary temperature change	The production of domestic hot water is forced to the comfort temperature until the defined time
Holiday	The domestic hot water temperature is reduced during an absence period to save energy.
Frost protection	The installation and equipment are protected during the winter period.

5.7.2 Activating and configuring a timer programme for domestic hot water

A timer programme can be used to vary the domestic hot water temperature depending on activities during the day. This can be programmed for each day of the week.

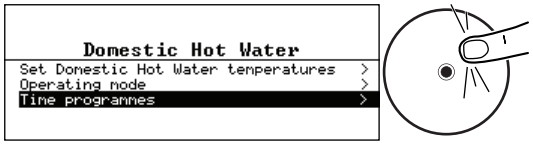
Fig.37



MW-6000863-2

1. From the home screen, access the screen for the Domestic Hot Water zone.
2. Press the ⊙ button.

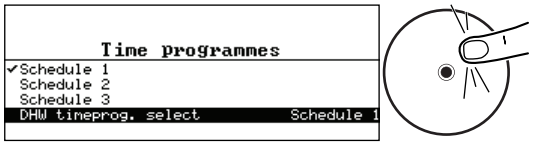
Fig.38



MW-6000885-1

3. Select **Time programmes**.
   ⇨ Three timer programmes are available. The programme that is currently active is marked with a tick.

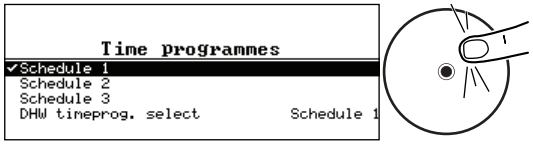
Fig.39



MW-6000886-1

4. To activate another timer programme, select **DHW timeprog. select**.

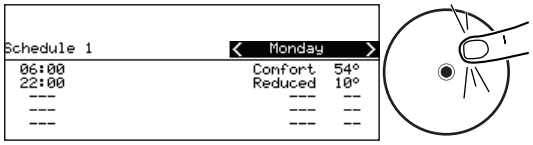
Fig.40



MW-6000887-1

5. To change the timer programming, select the programme you wish to change.
   ⇨ The programmed activities for Monday are displayed.
   The last activity of the day remains active until the first activity of the following day.

Fig.41



MW-6000864-2

6. Select the day to be modified.
7. Carry out the following actions according to your needs:

Tab.23

Action	Procedure
Modify the timer settings for programmed activities	• Select a programmed activity. • Press the ⊙ button. • Change the start time and/or the associated activity. • Select Confirm to save the modification.
Add a new time range	• Move the cursor to an empty line. • Press the ⊙ button. • Select the start time for the activity. • Select the activity required at this time. • Select Confirm to save the new time range.
Deleting a programmed activity	• Select the activity you want to delete. • Press the ⊙ button. • Select Delete to delete the activity.
Copying programmed daily activities to other days	• Position the cursor on the Copy to other days line which appears at the end of the empty lines. • Press the ⊙ button. • Check the days of the week which are to follow the same timer programming as the current day. • Select Confirm to apply the current timer programme to all of the selected days.

5.7.3 Forcing domestic hot water production (override)

Regardless of the selected operating mode, you can force domestic hot water production to the comfort temperature (**DHW comfort setpoint** parameter) until the required time.

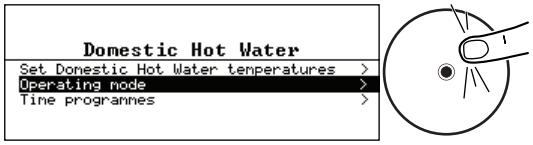
Fig.42



MW-6000863-2

1. From the home screen, access the screen for the Domestic Hot Water zone.
2. Press the ⊙ button.

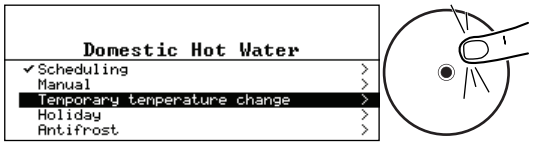
Fig.43



MW-6000884-1

3. Select **Operating mode**.

Fig.44



MW-6000888-1

4. Select **Temporary temperature change**.
5. Indicate the time when the override will end.
6. Select **Confirm** to confirm the override.

To cancel the override, select another operating mode.

5.7.4 Modifying the domestic hot water set point temperatures

The production of domestic hot water operates with two set point temperature parameters:

- **DHW comfort setpoint** : used in the **Programming**, **Manual** and **Temporary temperature change** modes
- **DHW reduced setpoint** : used in the **Programming**, **Holiday** and **Frost protection** modes.

You can change these set point temperature settings to adapt them to your needs.

Fig.45



MW-6000863-2

1. From the home screen, access the screen for the Domestic Hot Water zone.
2. Press the ⊙ button.

Fig.46



MW-6000889-1

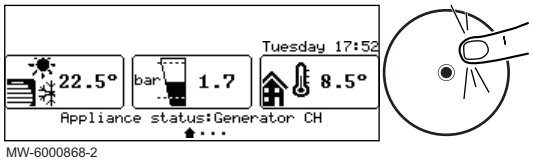
3. Select **DHW temperature setting**.
4. Change the required set point temperature:
   - **DHW comfort setpoint**
   - **DHW reduced setpoint**

5.8 Managing the central heating

5.8.1 Shutting off the heating and cooling

Your appliance will automatically regulate the heating and cooling based on the outdoor temperature. If you prefer, you can shut off the heating and cooling regardless of the outdoor temperature whilst maintaining production of domestic hot water.

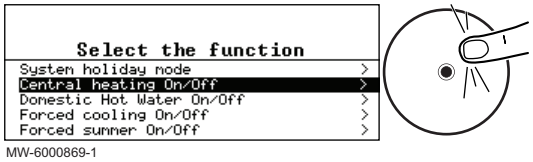
Fig.47



MW-6000868-2

1. From the home screen, access the screen for the relevant zone by turning the ⊙ selector.
2. Press the ⊙ selector.

Fig.48



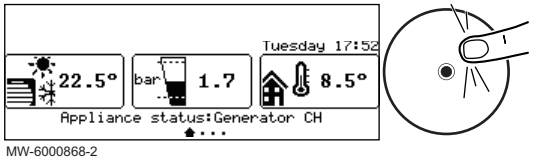
MW-6000869-1

3. Select **Central heating On/Off**.
4. Select the desired value:
   - **Off** : heating and cooling are shut off.
   - **On** : heating and cooling are automatically regulated based on the outdoor temperature.
5. Select **Confirm** to confirm the modification.

5.8.2 Forcing the cooling mode

In the Programming operating mode, the Cooling timer programme is activated automatically when the average outdoor temperature exceeds 22 °C. If you wish, you can force Cooling mode to come on regardless of the outdoor temperature.

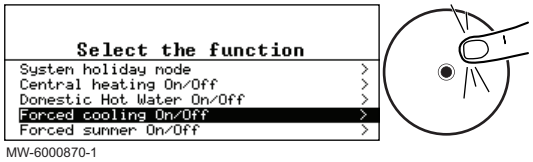
Fig.49



MW-6000868-2

1. From the home screen, access the screen for the relevant zone by turning the ⊙ selector.
2. Press the ⊙ selector.

Fig.50



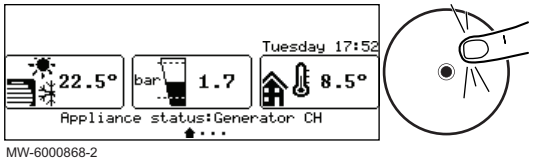
MW-6000870-1

3. Select **Forced cooling On/Off**.
4. Select the desired value:
   - **Yes** : cooling is active, regardless of the outdoor temperature.
   - **No** : the system automatically activates cooling based on the outdoor temperature.
5. Select **Confirm** to confirm the modification.

5.8.3 Shutting off the heating in summer

Your appliance will automatically regulate the heating based on the outdoor temperature. If you prefer, you can shut off the heating regardless of the outdoor temperature whilst continuing to use the domestic hot water and cooling functions.

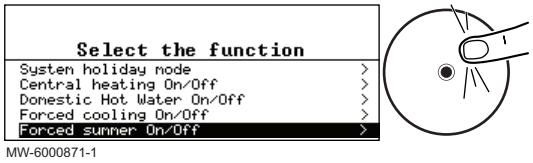
Fig.51



MW-6000868-2

1. From the home screen, press the ⊙ button.

Fig.52



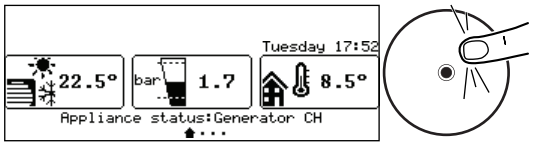
MW-6000871-1

2. Select **Forced summer On/Off**.
3. Select the desired value:
   - **Off** : the system automatically regulates the heating based on the outdoor temperature.
   - **On** : the heating is off. Domestic hot water production is maintained. Cooling is activated when the activation conditions are fulfilled.
4. Select **Confirm** to confirm the modification.

5.8.4 Shutting off domestic hot water production

If you wish, you can shut off the domestic hot water production whilst continuing to use the heating and cooling functions.

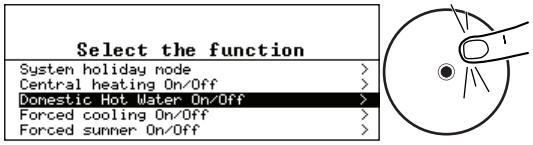
Fig.53



MW-6000868-2

1. From the home screen, press the ⊙ button.

Fig.54



MW-6000872-1

2. Select **Domestic Hot Water On/Off**.
3. Select the desired value:
   - **Off** : domestic hot water production is shut off. Heating and cooling are maintained.
   - **On** : domestic hot water production is active.
4. Select **Confirm** to confirm the modification.

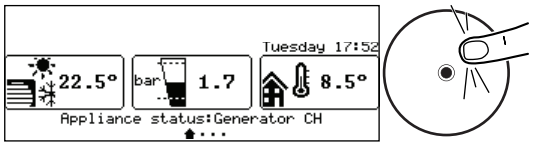
5.8.5 Periods of absence or going on holiday

If you will be absent for several weeks, you can reduce the room temperature and domestic hot water temperature in order to save energy. To do this, activate the **System holiday mode** operating mode for all zones, including domestic hot water, or for each zone individually.

■ Activating holiday mode for all zones

If you are planning on being away for several weeks, activate the **System holiday mode** operating mode for all zones, including domestic hot water. The room setpoint temperature is lowered to 6 °C and the domestic hot water setpoint is set to the DHW reduced setpoint parameter.

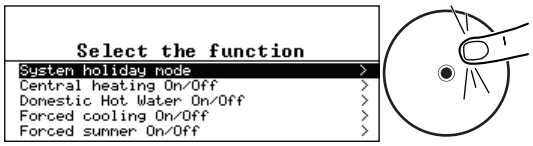
Fig.55



MW-6000868-2

1. From the home screen, press the ⊙ button.

Fig.56



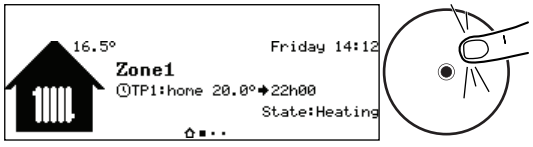
MW-6000873-1

2. Select **System holiday mode**.
3. Enter the start and end dates and times for the absence period.
4. Select **Confirm** to confirm the setting.

■ Activating holiday mode for a zone

If you will not be using a zone within your home for several weeks, you can reduce the room temperature in this zone to save energy. To do this, activate the **System holiday mode** operating mode for this zone.

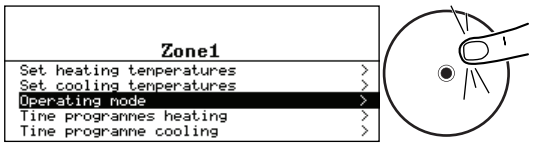
Fig.57



MW-6000861-02

1. From the home screen, access the screen for the relevant zone by turning the ⊙ selector.
2. Press the ⊙ selector.

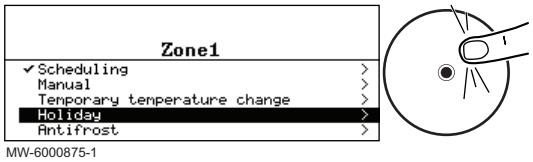
Fig.58



MW-6000874-1

3. Select **Operating mode**.

Fig.59



4. Select **Holiday**.
5. Enter the start and end dates and times for the absence period.
6. Indicate the temperature required throughout the absence period.

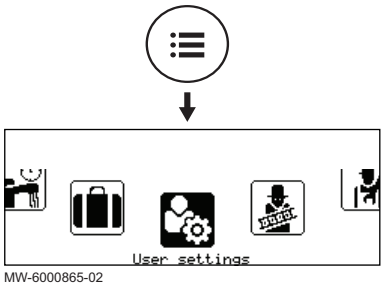
Important
For a domestic hot water zone, the setpoint temperature during an absence period is set automatically to the DHW reduced setpoint parameter.

7. Select **Confirm** to confirm the setting.

5.9 Monitoring the energy consumption

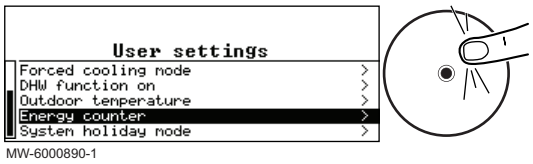
If the installation is equipped with an energy meter, the energy consumption can be monitored.

Fig.60



1. Press the ☰ key.

Fig.61



2. Select . **User settings**
3. Select **Energy counter**.

Tab.24

Parameter	Description
CH Energy Consumed AC005	Energy consumed for central heating
Cool Energy consumed AC007	Energy consumed for cooling

⇨ The energy consumed since the last energy consumption meter reset is displayed.

5.10 Starting and stopping the heat pump

5.10.1 Starting the heat pump

1. Switch on the outdoor unit and the indoor unit.
   ⇨ The heat pump will begin an automatic vent programme (which lasts approx. three minutes), run each time the power is switched on. If there is a problem, an error message is displayed on the home screen.
2. If an error message is displayed on the home screen, contact the installer.
3. Check the hydraulic pressure in the installation indicated on the user interface.

Important
Recommended hydraulic pressure between 1.5 and 2.0 bar.

5.10.2 Shutting down the heat pump

The heat pump must be shut down in certain situations, for example during any intervention on the equipment. In other situations, such as an extended absence period, we recommend that the **System holiday mode** operating mode is used in order to benefit from the heat pump anti-blocking function and to protect the installation from frost.

To shut down the heat pump:

1. Switch off the outdoor unit and the indoor unit.

5.11 Frost protection

If the temperature of the heating water in the heat pump falls too much, the integrated protection device switches itself on. This device functions as follows:

- If the water temperature is lower than 8 °C, the circulating pump starts up.
- If the water temperature is lower than 6 °C, the back-up starts up.
- If the water temperature is higher than 10°C, the back-up shuts down and the circulating pump continues to run for a short time.

The radiator valves in rooms where there is a risk of frost must be fully open.

6 Maintenance

6.1 General

Maintenance operations are important for the following reasons:

- To guarantee optimum performance.
- To extend the life of the equipment.
- To provide an installation which offers the user optimum comfort over time.

Caution
Only qualified professionals are authorised to carry out maintenance work on the heat pump and the heating system.

Danger of electric shock
Before any work, switch off the mains electricity to the heat pump and the hydraulic or electrical back-up if present.

Caution
Before working on the refrigeration circuit, switch off the appliance and wait a few minutes. Certain items of equipment such as the compressor and the pipes can reach temperatures in excess of 100°C and high pressures, which may cause serious injuries.

Caution
Do not drain the installation, except in cases of absolute necessity. E.g.: several months' absence with the risk of temperatures in the building falling below freezing.

6.2 Standard inspection and maintenance operations

An annual inspection with tightness check is obligatory. Schedule a service by a qualified professional at a cold time of the year to check the following points:

1. Operation of the installation.
2. Thermal output, by measuring the difference in temperature between heating flow and return.
3. The setting for the safety thermostats.

6.3 Check the hydraulic pressure

1. Checking the hydraulic pressure in the installation.
2. If the hydraulic pressure is less than 0.08 MPa (0.8 bar), top up the level of water in the heating installation so that the hydraulic pressure is between 0.15 and 0.2 MPa (1.5 and 2.0 bar).
3. Carry out a visual check for any water leaks.

6.4 Cleaning the casing

1. Clean the outside of the appliance using a damp cloth and a mild detergent.

7 Troubleshooting

7.1 Resolving operating errors

If your appliance malfunctions, a message containing an error code is displayed on the main screen of the control panel. This error code is important for the correct and rapid diagnosis of the type of malfunction and for any technical assistance that may be needed.

There are 3 error types.

Tab.25

Error type	Code format
Error	Hxx.xx
Fault	Exx.xx
Alarm	Axx.xx

Warning
Only qualified professionals are authorized to carry out maintenance and repair work.

1. Make a note of the code displayed on the screen.
2. Remedy the problem described by the error code.
3. Switch the heat pump off and back on to check that the cause of the error has been removed.
4. If the code is displayed again, contact the technical support.

7.2 Fault finding

Tab.26

Problems	Probable causes	Corrections
The radiators are cold.	The heating set point temperature is too low.	Increase the value of the room temperature set point or, if a room thermostat is connected, increase the temperature on it.
	The heating mode is deactivated.	Activate the heating mode.
	The radiator valves are closed.	Open the valves on all radiators connected to the heating system.
	The heat pump is not operating.	• Check that the heat pump is switched on. • Check the fuses and switches on the electrical installation.
	The water pressure is too low (< 1 bar).	Top up the system with water.
There is no domestic hot water.	The domestic hot water set point temperature is too low.	Increase the domestic hot water set point temperature.
	The domestic hot water mode is deactivated.	Activate the domestic hot water mode.
	The appliance is in reduced domestic hot water mode	• Check and modify the comfort and reduced time ranges for the domestic hot water. • Adapt the domestic hot water set point temperature.
	The shower head is restricting the water flow.	Clean the shower head; replace it if necessary.
	The heat pump is not operating.	• Check that the heat pump is switched on. • Check the fuses and switches on the electrical installation.
	The water pressure is too low (< 1 bar).	Top up the installation with water.
Significant variations in domestic hot water temperature	Insufficient water supply	• Check the water pressure in the installation. • Open the valve.
	The domestic hot water hysteresis is too high	Contact the professional responsible for maintenance of the heat pump.

Problems	Probable causes	Corrections
The heat pump does not work.	The heating set point temperature is too low.	Increase the value of the room temperature set point or, if a room thermostat is connected, increase the temperature on it.
	The heat pump is not operating.	• Check that the heat pump is switched on. • Check the fuses and switches on the electrical installation.
	The water pressure is too low (< 1 bar).	Top up the system with water.
	An error code appears on the display.	Correct the error if possible.
The heat pump runs short-cycling in domestic hot water mode	The temperature set point is too low	Increase the set point
The water pressure is too low (< 1 bar).	Not enough water in the installation.	Top up the system with water.
	Water leak.	Contact the professional responsible for maintenance of the heat pump.
Clicking in the central heating pipes	The central heating pipe clamps are too tight.	Slightly loosen the clamps.
	There is air in the heating pipes.	Vent any air in the domestic hot water tank, the pipes and the taps to prevent the annoying noises likely to be produced during heating or when drawing off water.
	The water is circulating too quickly in the central heating system.	Contact the professional responsible for maintenance of the heat pump.
Significant water leak underneath or in the vicinity of the heat pump.	The pipes on the heat pump or the central heating are damaged.	Contact the professional responsible for maintenance of the heat pump.

8 Decommissioning and disposal

8.1 Decommissioning procedure

To decommission the heat pump temporarily or permanently:

1. Contact the installer.

8.2 Disposal and recycling

Fig.62



MW-3000179-03

Warning
Removal and disposal of the heat pump must be carried out by a qualified professional in accordance with prevailing local and national regulations.

9 Environmental

9.1 Energy savings

Energy-saving advice:

- Do not block ventilation outlets.
- Do not cover the radiators. Do not hang curtains in front of the radiators.
- Install reflective panels behind the radiators to prevent heat losses.
- Insulate the pipes in rooms that are not heated (cellars and lofts).
- Close the radiators in rooms not in use.
- Do not run hot (or cold) water pointlessly.
- Install an energy-saving shower head, which can save up to 40 % energy.
- Take showers rather than baths. A bath consumes twice as much water and energy.

10 Appendix

10.1 Product fiche

Tab.27 Product fiche for heat pump space heaters

		AWHP 4.5 MR	AWHP 6 MR-3	AWHP 8 MR-2
Space heating energy efficiency class under average climate conditions		A++	A++	A++
Rated heat output under average climate conditions *(Prated or Psup)*	kW	4	4	6
Seasonal space heating energy efficiency under average climate conditions	%	134	138	129
Annual energy consumption	kWh	2353	2124	3499
Sound power level L_{WA} indoors(1)	dB (A)	53	48	53
Rated heat output, under **colder - warmer** climate conditions	kW	5 – 4	4 - 5	6 - 6
Seasonal space heating energy efficiency, under **colder - warmer** climate conditions	%	109 – 179	116 - 172	119 - 169
Annual energy consumption **colder - warmer**	kWh	4483 – 1249	3721 - 1492	4621 - 1904
Sound power level L_{WA} outdoors	dB (A)	61	65	67
(1) If applicable				

Tab.28 Product fiche for heat pump space heaters

		AWHP 11 MR-2 AWHP 11 TR-2	AWHP 16 MR-2 AWHP 16 TR-2
Space heating energy efficiency class under average climate conditions		A++	A+
Rated heat output under average climate conditions *(Prated or Psup)*	kW	6	9
Seasonal space heating energy efficiency under average climate conditions	%	125	121
Annual energy consumption	kWh	3999	5861
Sound power level L_{WA} indoors (1)	dB (A)	53	53
Rated heat output, under **colder - warmer** climate conditions	kW	4 - 8	7 - 13
Seasonal space heating energy efficiency, under **colder - warmer** climate conditions	%	113 - 167	113 - 161
Annual energy consumption **colder - warmer**	kWh	3804 - 2580	5684 - 4120
Sound power level L_{WA} outdoors	dB (A)	69	69
(1) If applicable.			

See
For specific precautions about assembling, installing and maintaining: See Safety

For more information, see
Compatible heating devices, page 11

10.2 Product fiche - Temperature Controls

Tab.29 Product fiche for the Temperature controls

		E-pilot
Class		II
Contribution to space heating energy efficiency	%	2

10.3 Package fiche

Important
'Medium-temperature application' means an application where the heat pump space heater or heat pump combination heater delivers its declared capacity for heating at an indoor heat exchanger outlet temperature of 55 °C.

Fig.63 Package fiche for medium-temperature heat pumps indicating the space heating energy efficiency of the package

Seasonal space heating energy efficiency of heat pump

① **'I'** %

Temperature control

from fiche of temperature control

Class I = 1%, Class II = 2%, Class III = 1.5%, Class IV = 2%, Class V = 3%, Class VI = 4%, Class VII = 3.5%, Class VIII = 5%

② + ____ %

Supplementary boiler

from fiche of boiler

Seasonal space heating energy efficiency (in %)

③ (____ - 'I') x 'II' = ± ____ %

Solar contribution

from fiche of solar device

Collector size (in m²) | Tank volume (in m³) | Collector efficiency (in %) | Tank rating (1): A* = 0.95, A = 0.91, B = 0.86, C = 0.83, D - G = 0.81

('III' x ____ + 'IV' x ____) x 0.45 x (____ /100) x ____ = + ④ ____ %

(1) If tank rating is above A, use 0.95

Seasonal space heating energy efficiency of package under average climate

⑤ ____ %

Seasonal space heating energy efficiency class of package under average climate

G	F	E	D	C	B	A	A+	A++	A+++
<30%	≥30%	≥34%	≥36%	≥75%	≥82%	≥90%	≥98%	≥125%	≥150%

Seasonal space heating energy efficiency under colder and warmer climate conditions

Colder: ⑤ ____ - 'V' = ____ %

Warmer: ⑤ ____ + 'VI' = ____ %

The energy efficiency of the package of products provided for in this fiche may not correspond to its actual energy efficiency once installed in a building, as this efficiency is influenced by further factors such as heat loss in the distribution system and the dimensioning of the products in relation to building size and characteristics.

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- **I** The value of the seasonal space heating energy efficiency of the preferential space heater, expressed in %.
- **II** The factor for weighting the heat output of preferential and supplementary heaters of a package as set out in the following table.
- **III** The value of the mathematical expression: 294/(11 · Prated), whereby "Prated" is related to the preferential space heater.

IV The value of the mathematical expression 115/(11 · Prated), whereby "Prated" is related to the preferential space heater.

V The value of the difference between the seasonal space heating energy efficiencies under average and colder climate conditions, expressed in %.

VI The value of the difference between the seasonal space heating energy efficiencies under warmer and average climate conditions, expressed in %.

Tab.30 Weighting of medium temperature heat pumps

Prated / (Prated + Psup)(1)(2)	II, package without hot water storage tank	II, package with hot water storage tank
0	1.00	1.00
0.1	0.70	0.63
0.2	0.45	0.30
0.3	0.25	0.15
0.4	0.15	0.06
0.5	0.05	0.02
0.6	0.02	0
≥ 0.7	0	0

(1) The intermediate values are calculated by linear interpolation between the two adjacent values.
(2) Prated is related to the preferential space heater or combination heater.

Tab.31 Package efficiency (temperature regulator + heat pump)

		AWHP 4.5 MR	AWHP 6 MR-3	AWHP 8 MR-2	AWHP 11 MR-2 AWHP 11 TR-2	AWHP 16 MR-2 AWHP 16 TR-2
E-pilot	%	136	140	131	127	123

For more information, see
Compatible heating devices, page 11

10.4 Package fiche - Combination heaters (boilers or heat pumps)

Fig.64 Package fiche for combination heaters (boilers or heat pumps) indicating the water heating energy efficiency of the package

Water heating energy efficiency of combination heater

(1) ‘I’ %

Declared load profile: ☐

Solar contribution

from fiche of solar device

Auxiliary electricity

(2) **(1.1 x ‘I’ - 10%) x ‘II’ - ‘III’ - ‘I’ = +** ☐ %

Water heating energy efficiency of package under average climate

(3) ☐ %

Water heating energy efficiency class of package under average climate

	G	F	E	D	C	B	A	A+	A++	A+++
☐ M	<27%	≥27%	≥30%	≥33%	≥36%	≥39%	≥65%	≥100%	≥130%	≥163%
☐ L	<27%	≥27%	≥30%	≥34%	≥37%	≥50%	≥75%	≥115%	≥150%	≥188%
☐ XL	<27%	≥27%	≥30%	≥35%	≥38%	≥55%	≥80%	≥123%	≥160%	≥200%
☐ XXL	<28%	≥28%	≥32%	≥36%	≥40%	≥60%	≥85%	≥131%	≥170%	≥213%

Water heating energy efficiency under colder and warmer climate conditions

Colder: (3) ☐ **- 0.2 x** (2) ☐ **=** ☐ **%**

Warmer: (3) ☐ **+ 0.4 x** (2) ☐ **=** ☐ **%**

The energy efficiency of the package of products provided for in this fiche may not correspond to its actual energy efficiency once installed in a building, as this efficiency is influenced by further factors such as heat loss in the distribution system and the dimensioning of the products in relation to building size and characteristics.

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I The value of the water heating energy efficiency of the combination heater, expressed in %.

II The value of the mathematical expression $(220 \cdot Q_{ref})/Q_{nonsol}$, where Q_{ref} is taken from Regulation EU 811/2013, Annex VII Table 15 and Q_{nonsol} from the product fiche of the solar device for the declared load profile M, L, XL or XXL of the combination heater.

III The value of the mathematical expression $(Q_{aux} \cdot 2{,}5)/(220 \cdot Q_{ref})$, expressed in %, where Q_{aux} is taken from the product fiche of the solar device and Q_{ref} from Regulation EU 811/2013, Annex VII Table 15 for the declared load profile M, L, XL or XXL.

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