

Dimplex

The air-to-water heat pump system
with cooling function.

System M Flex Cooling.

Heating and cooling
in a system.



System M Flex Cooling.

The heat pump system with a plug and heat principle can now provide cooling as well!

2 regulated performance class.

6 kW – 9 kW
9 kW – 16 kW

Heat output with active cooling.

- + For heating and cooling in dynamic cooling mode via fan convectors with minimal return temperatures of 12 °C and a resulting minimal flow temperature of 8 °C
- + Clever dew point control via the heat pump manager and the room temperature controller smart RTC+ in silent cooling mode – minimal return temperature is approx. 18 °C – 20 °C

2 Types of cooling – so cool.

With the so-called **“silent cooling”**, underfloor, wall and ceiling heating systems are additionally used to provide cooling. Thanks to the expansive transfer areas, no active fan assistance is required and there are no noise emissions. The cooling water temperature must be maintained above the dew point to prevent the formation of condensate. A smart room temperature controller (smart RTC) monitors the temperature and humidity in the rooms being cooled. The required mixing valve automatically keeps the cooling water temperature above the dew point calculated by the heat pump manager. Silent cooling is ideal for preventing the building from gradually warming up.

Dynamic **cooling** allows for a higher cooling capacity. It can be achieved using fan convectors. Through the active support of the heat transfer process using fans, a greater cooling capacity can be transferred, even when humidity levels are high. The cooling water temperatures are below the dew point, enabling them to cool and dehumidify the indoor air. The condensate that forms has to be drained away via a condensate drain.

So quiet.
So flexible.
So efficient.

Since it was launched, the M Flex air-to-water heat pump from Dimplex has become a best-selling product thanks to the integration of many hydraulic components, enabling it to be planned and installed quickly and easily. Combined with the M Flex Air central ventilation unit and a domestic hot water cylinder, an exceptionally flexible overall system can be created.

This cooling variant naturally also features all of the advantages of the previous System M Flex range.

1 Extremely quiet.

The speed-controlled fan of the outdoor unit and the compressor (shifted to inside) are acoustically decoupled. This is what makes the heat pump system so quiet – such that even when installed in small back gardens and dense housing areas, it won't disturb the neighbours. On full power, the outdoor unit reaches a maximum of 35 dB(A) when standing 5 m away from the unit.

2 Intelligent technology integrated.

The modern inverter technology enables the heat pump output to be intelligently adapted to the actual heat consumption of the building. In night mode, with a maximum reduction of 5 % of the output, it still provides sufficient energy.

3 Plug-and-play solution.

All the key components are factory-installed in the indoor unit. This saves time and money on installation. The indoor and outdoor units are connected by a refrigerant pipe up to 10 m in length.

4 Convenient control.

The entire system is intuitive to control using a clearly laid out 4.3 inch colour touch display. Alternatively, the unit can be controlled using the Dimplex Home app.

5 Compact and sleek design.

Space-saving dimensions, reassuringly outstanding workmanship, and a sleek design.

6 Practical wall unit.

Optionally, the outdoor unit can be directly mounted on the wall of the building using a wall bracket. The necessary connections and lines are hidden by the wall bracket.

Air-to-water heat pump in integral design.

Step 1:
Choose System M Flex Cooling variants.

6-9 kW

9-16 kW


Space-saving indoor unit.

- + Ready-for-use heat pump hydraulics with refrigeration circuit and hydraulic unit for excellent reliability and minimum space requirement.
- + Modern intuitive operation using 4.3 inch colour touch display.
- + 9-16 kW version achieves the highest efficiency class A+++ in a low-temperature application.
- + Indoor and outdoor unit are connected by a refrigerant line up to 10 m long. No time-consuming and costly core drilling necessary.

Integrated components:

- + 50 l buffer tank with dual differential pressureless manifold.
- + 3-way reversing valve (heating/domestic hot water).
- + Pipe heating max. 6 kW to support heating operation and for hot water reheating.
- + Separate pump for generator and consumer circuit.
- + Expansion vessel 24 l.
- + Safety valve.
- + Dirt trap, flow and pressure sensor.

Fully equipped:
All key components are pre-installed in the indoor unit. This saves valuable time during installation.



Buffer tank
Domestic hot water reversing valve
2 pumps with dual differential pressureless manifold
Expansion vessel



Optional: Wall bracket.

Easily save the costs of additional foundations and fit the wall bracket early in the construction work. All lines and connections are covered by the wall bracket.



Compact outdoor unit.

- + Speed-controlled fan (extremely quiet operation).
- + Controlled condensate drain with energy-efficient pan heating for reliable operation in cold climatic regions.
- + Invisible refrigerant line connection possible.
- + Evaporator.
- + Expansion valve.

Flexible combinations.

With domestic hot water and ventilation.

Step 2:

Add a domestic hot water cylinder.

While better thermal insulation is continuously reducing heat consumption in buildings, the requirements for convenient domestic hot water are increasing.

A compatible domestic hot water cylinder can be planned and ordered independently of the M Flex heat pump. Individually tailored to specific customer requirements.

+ WWSP 335

Nominal capacity: 300 l

Effective capacity: 277 l

+ WWSP 442

Nominal capacity: 400 l

Effective capacity: 352 l

+ WWSP 556

Nominal capacity: 500 l

Effective capacity: 433 l



Step 3:

Add central ventilation.

Our recommendation: M Flex Air. For flexible installation.

- + Ventilation unit with heat recovery (version with moisture recovery also available).
- + Direction of air flow easy to reverse.
- + Automatic operation using integrated air quality sensors in exhaust air and outside air.
- + Pollen filter as standard.
- + Fireplace safety function for volume flow balance.
- + Suitable for installation in cupboards or kitchen units thanks to compact dimensions.
- + Optional comfort features: Fine dust filter, electric reheating and pre-heating register, feed air side condensate connection for cool buildings. Condensate siphon with dry-running and low pressure protection.
- + The perfect combination: the flexible and easy to install Air 56 air distribution system.



The plug and heat principle:

Lots included.
Yet still allowing
flexible installation.

The System M Flex has numerous factory-fitted components that have to be bought and installed as add-ons with comparable heat pumps. This saves value time and, above all, money during planning and installation. With System M Flex, a complete heating system is quick and easy to install. The option of combining with a central ventilation unit and domestic hot water cylinder ensures exceptionally good flexibility.





Model name / Performance level	System M Flex Cooling 6-9 kW air-to-water heat pump.	System M Flex Cooling 9-16 kW air-to-water heat pump.
Item number	381080	381090
Order reference	M Flex 0609HBC M	M Flex 0916HBC
Energy efficiency class (35°C)/ η_s *	A++/154 %	A+++/180 %
Energy efficiency class (55°C)/ η_s *	A+/116 %	A++/136 %
Max. flow temperature	60 °C	60 °C
Operating limits for air (heating operation)	- 22 °C to + 35 °C	- 22 °C to + 35 °C
Sound power level of outdoor unit (normal / reduced operation)	52 dB(A) / 48 dB(A)	55 dB(A) / 47 dB(A)
Sound pressure level at 10 m distance (air outlet side) (normal operation/reduced operation)	25 dB(A) / 24 dB(A)	25 dB(A) / 24 dB(A)
Connection voltage	1 / N / PE ~ 230 V 50 Hz 3 / N / PE ~ 400 V, 50 Hz	3 / N / PE ~ 400 V 50 Hz
Heat output A7 / W 35 / COP	4.7 kW / 4.76	6.8 kW / 4.96
Heat output A2 / W 35 / COP	4.2 kW / 4.16	6.5 kW / 4.33
Heat output A-7 / W 35 / COP	6.0 kW / 3.0	9.4 kW / 3.0
Cooling capacity / coefficient of performance (COP) at A27 / W18 / COP	6.8 kW / 4.1	10.4 kW / 4.2
Cooling capacity / coefficient of performance (COP) at A35 / W18 / COP	4.8 kW / 2.1	4.8 kW / 2.1
Dimensions, indoor unit (W x H x D)	600 x 1400 x 750 mm	600 x 1400 x 750 mm
Dimensions, outdoor unit (W x H x D)	850 x 1230 x 600 mm	850 x 1230 x 600 mm
Flexible expansion options:		
2. heating circuit	Accessories	Accessories
Domestic hot water	Accessories	Accessories
Bivalent/renewable	Accessories	Accessories
Optional accessories:		
	Order reference	Item number
M Flex wall bracket	MWMB 16	M99026
M Flex facade Larch wood covering, 1 side unit	MWOOD	M99028
M Flex facade Larch wood covering, set of 2 side units	MWOOD set	M99031

Model name / Performance level	M Flex Air. Ventilation unit with heat recovery.	M Flex Air Plus. Ventilation unit with heat and moisture recovery.
Item number	378020	378030
For use in residential properties	Up to approximately 250 m ²	Up to approximately 250 m ²
Air volume flow min. - max.	50 - 320 m ³ /h	50 - 320 m ³ /h
Air volume flow levels 1 / 2 / 3	90 / 160 / 225 m ³ /h	90 / 160 / 225 m ³ /h
Ext. pressure difference (at 300 m ³ /h)	170 Pa	170 Pa
Air quality sensors	Integrated into exhaust air and outside air	Integrated into exhaust air and outside air
Sound pressure level (at 250 m ³ /h at 1m)	42 dB	42 dB
Heat exchanger	Crosscurrent flow	Countercurrent with moisture recovery
Max. heat supply rate	Up to 92 %	Up to 85 %
Electrical efficiency	0.25 Wh/m ³	0.25 Wh/m ³
Summer bypass	Yes	Yes
Fireplace safety function	Yes	Yes
Power supply	1 / N / PE ~230 V, 50 Hz	1 / N / PE ~230 V, 50 Hz
Air duct connection	Ø 160 mm	Ø 160 mm
Filter class	ePM10 (M5)	ePM10 (M5)
Dimensions (W x H x D)	534 x 1360 x 560 mm	534 x 1360 x 560 mm
Energy efficiency class**	A	A
DIBt approval	Requested	Requested
"Passive House" certificate	Requested	Requested

The values provided are preliminary data, which may still change before the start of series production.
* In a range from A+++ to D.
** In a range from A+ to G.

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