

Engineering and installation

WPL-A 05 HK 230 Premium

WPL-A 07 HK 230 Premium

Engineering and installation

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STIEBEL ELTRON GmbH & Co. KG, D-37603 Holzminden

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Specification

Dimensions in the diagrams are in millimetres unless stated otherwise. Pressure figures may be stated in pascals (MPa, hPa, kPa) or in bars (bar, mbar). The details of threaded connections are given in accordance with ISO 228. Fuse types and sizes are stated in accordance with VDE. Output data applies to new appliances with clean heat exchangers.

WPL-A Premium



Appliance types and applications

Appliance types and applications

	WPL-A 05 HK 230 Premium	WPL-A 07 HK 230 Premium
Ideal for the following:		
Detached and two-family house	•	•
Apartment building	•	•
Non-residential building		
Suitable for the following building projects:		
New build	•	•
Modernisation, heating flow temperature < 75 °C	•	•
With the following functions and features:		
Heating	•	•
Cooling	•	•
DHW heating with a floor mounted cylinder	•	•
DHW heating with a cylinder module	•	•
Mono mode DHW heating > 60 °C	•	•
Integral booster heater for mono energetic operation	•	•
Appliance installation		
External installation	•	•
Little installation effort, compact	•	•
Flexible system solution for the following:		
Combination of several heat pumps (cascade)	•	•
Installation in tight spaces	•	•
Swimming pool water heating	•	•
Mono mode operation	•	•
Mono energetic operation	•	•
Combination with other heat generators (dual mode)	•	•

Air source heat pumps

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At a glance

- » Air source heat pump installed outdoors for heating and cooling
- » Inverter technology: Variable speed compressor for perfectly matched heating output
- » 75 °C flow temperature enables high DHW temperatures and use in modernisation projects
- » Low operating noise thanks to infinitely adjustable fan speed and encapsulated refrigerant circuit
- » Futureproof and eco-friendly refrigerant with high efficiency
- » Highest efficiency all year round for low operating costs thanks to optimally matched components
- » Can be integrated into a home network and controlled via smartphone

Safety and quality



APPLICATION: Inverter air source heat pump with output-dependent control, designed as a mono block appliance for outdoor installation. Can be used for heating and DHW operation; also provides efficient cooling via circuit reversal. Suitable for new build and modernisation due to very high flow temperatures all year round.

EQUIPMENT / CONVENIENCE: Optimum noise reduction due to encapsulated refrigerant circuit and isolated compressor. The wide gaps between the evaporator fins create low air resistance and, in combination with the modulating fan, result in a low sound power level. The heat pumps achieve very high flow temperatures even at low outside temperatures. This ensures 60 °C in the DHW cylinder without electrical backup all year round. In combination with the ISG, the on-site heat pump controller can be used to control the system in the home network or via a mobile device. Heat and electricity metering is implemented using refrigerant circuit data. An emergency/booster heater enables mono energetic operation. The refrigerant circuit works with the eco-friendly and futureproof refrigerant R454 C. It has optimum properties for heat pump applications.

EFFICIENCY: Due to the refrigerant used and the optimally matched components, efficiency can be maintained at a high level all year round. Energy efficient defrosting is carried out as necessary through circuit reversal. The condensate pan is heated by the refrigerant circuit to enable efficient defrosting.

INSTALLATION: Integral anti-vibration mounts for direct connection to the heating system. Pivoting electrical connection panel for better accessibility. Quick access to the condensate pan via cleaning aperture at the rear. The metal casing is corrosion-protected and made from galvanised, powder coated sheet steel, with an alpine white stove enamel finish. The fan grille, recessed grips and cover are made from weatherproof and UV-resistant plastic in aluminium white.

Function

Heat is extracted from the outdoor air via the heat exchanger (evaporator) on the air side across the entire application range (see specification). The heating water is heated to the flow temperature in the heat exchanger on the water side (condenser) using electrical energy (compressor). At low air temperatures, the humidity in the air precipitates as hoarfrost on the evaporator fins. This hoarfrost is automatically defrosted. Water created by this defrosting process collects in the defrost pan and is drained off via a hose. The energy required for defrosting is drawn from the heating system. The heat pump automatically reverts to heating mode at the end of the defrost cycle. The heat pump manager and output control function match the heat pump heating output variably to the actual heat demand.

Air source heat pumps

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Specification

		WPL-A 05 HK 230 Premium	WPL-A 07 HK 230 Premium
		202669	200123
Heating output			
Heating output at A7/W35 (min./max.)	kW	2.65/7.40	2.65/10.75
Heating output at A2/W35 (min./max.)	kW	2.10/6.55	2.10/9.70
Heating output at A-7/W35 (min./max.)	kW	2.05/4.97	2.05/6.87
Heating output at A7/W35 (EN 14511)	kW	3,31	3,31
Heating output at A2/W35 (EN 14511)	kW	3,19	4,3
Heating output at A-7/W35 (EN 14511)	kW	4,97	6,87
Heating output at A-7/W55 (EN 14511)	kW	4,94	7,01
Heating output at A-15/W35 (EN 14511)	kW	4,18	6,4
Heating output in reduced night mode A-7/W35	kW	3,4	5,2
Heating output in max. reduced night mode A-7/W35	kW	2,9	2,9
Heating output in reduced night mode A-7/W55	kW	3,2	4,9
Heating output in max. reduced night mode A-7/W55	kW	2,7	2,7
Max. cooling capacity at A35/W7	kW	4,73	7,3
Cooling capacity at A35/W7 partial load	kW	1,81	3,31
Max. cooling capacity at A35/W18	kW	6,86	10,15
Cooling capacity at A35/W18 partial load	kW	3,37	4,94
Power consumption			
Power consumption at A7/W35 (EN 14511)	kW	0,61	0,61
Power consumption at A2/W35 (EN 14511)	kW	0,69	1
Power consumption at A-7/W35 (EN 14511)	kW	1,44	2,36
Power consumption at A-7/W55 (EN 14511)	kW	1,97	2,97
Power consumption at A-15/W35 (EN 14511)	kW	1,44	2,4
Power consumption, emergency/booster heater	kW	6,2	6,2
Coefficients of performance			
COP at A7/W35 (EN 14511)		5,42	5,42
COP at A2/W35 (EN 14511)		4,6	4,3
COP at A-7/W35 (EN 14511)		3,45	2,93
COP at A-7/W55 (EN 14511)		2,51	2,36
COP at A-15/W35 (EN 14511)		2,9	2,67
SCOP (EN 14825)		4,7	4,88
Max. cooling capacity factor at A35/W7		2,86	2,35
Cooling capacity factor at A35/W7 partial load		2,97	3,02
Max. cooling capacity factor at A35/W18		3,84	2,87
Cooling capacity factor at A35/W18 partial load		4,35	4,28
Sound emissions			
Sound power level W35 (EN 12102)	dB(A)	48,00	48,00
Sound power level W55 (EN 12102)	dB(A)	47,00	47,00
Sound power level max.	dB(A)	58	59
Sound power level, reduced night mode	dB(A)	47	51
Sound power level max. reduced night mode	dB(A)	47	47
Application limits			
Min. application limit, heat source	°C	-25	-25
Max. application limit, heat source	°C	40	40
Min. application limit on the heating side	°C	15	15
Max. application limit on the heating side	°C	75	75
Application limit heat source at W65	°C	-25	-25
Min. cooling mode application limit for outside temperature	°C	15	15
Max. cooling mode application limit for outside temperature	°C	40	40
Energy data			
Energy efficiency class		A+++/A+++	A+++/A+++

Air source heat pumps

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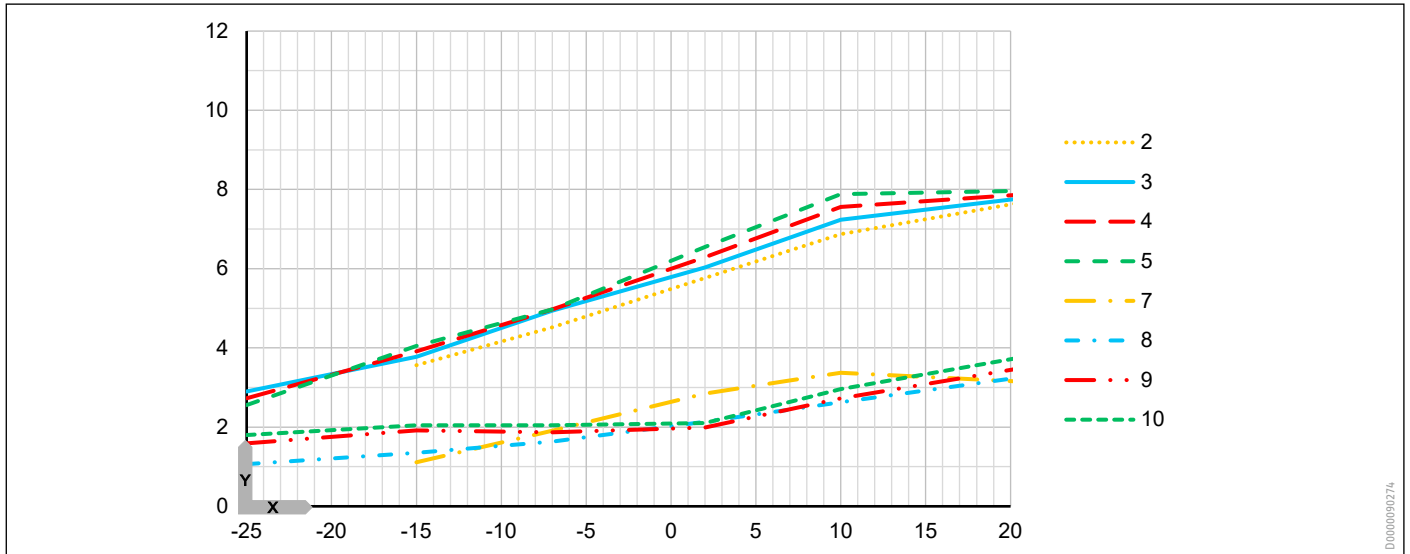
		WPL-A 05 HK 230 Premium	WPL-A 07 HK 230 Premium
Electrical data			
Max. power consumption without emergency/booster heater	kW	2,9	5,4
Rated voltage, compressor	V	230	230
Rated voltage, control unit	V	230	230
Rated voltage, emergency/booster heater	V	230	230
Compressor phases		1/N/PE	1/N/PE
Control unit phases		1/N/PE	1/N/PE
Emergency/booster heater phases		2/N/PE	2/N/PE
Compressor fuse protection	A	1 x B 25	1 x B 25
Control unit fuse protection	A	1 x B 16	1 x B 16
Emergency/booster heater fuse protection	A	2 x B 16	2 x B 16
Starting current	A	2	2
Max. operating current	A	12,5	24
Max. mains impedance Zmax to EN 61000-3-11	Ω	0,33	0,33
Versions			
Refrigerant		R454 C	R454 C
Refrigerant charge	kg	3	3
CO ₂ equivalent (CO ₂ e)	t	0,44	0,44
Global warming potential of the refrigerant (GWP100)		148	148
IP rating		IP 14B	IP 14B
Condenser material		1.4401/Cu	1.4401/Cu
Dimensions			
Height	mm	900	900
Width	mm	1270	1270
Depth	mm	593	593
Weights			
Weight	kg	135	135
Connections			
Connection, heating flow/return		28 mm	28 mm
Heating water quality requirements			
Water hardness	°dH	≤3	≤3
pH value (with aluminium fittings)		8,0-8,5	8,0-8,5
pH value (without aluminium fittings)		8,0-10,0	8,0-10,0
Conductivity (softening)	μS/cm	<1000	<1000
Conductivity (desalination)	μS/cm	20-100	20-100
Chloride	mg/l	<30	<30
Oxygen 8-12 weeks after filling (softening)	mg/l	<0.02	<0.02
Oxygen 8-12 weeks after filling (desalination)	mg/l	<0.1	<0.1
Values			
Permissible operating pressure, heating circuit	MPa	0,3	0,3
Heating flow rate (EN 14511) at A7/W35, B0/W35 and 5 K	m ³ /h	0,56	0,56
Flow rate on heat source side	m ³ /h	2250	2250
Nominal heating flow rate at A-7/W35 and 7 K	m ³ /h	0,64	0,842
Nominal internal pressure drop, heating	hPa	51	88
Min. heating flow rate	m ³ /h	0,64	0,64

Air source heat pumps

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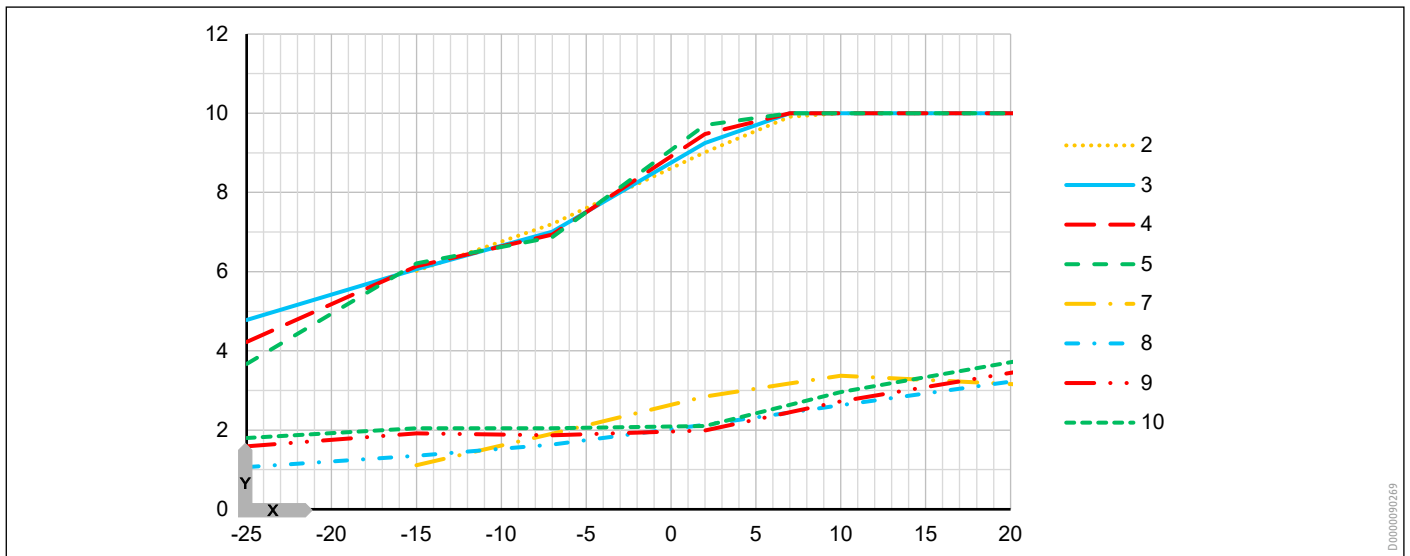
Output data

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X	Outside temperature [°C]	2	Max. W65	4	Max. W45	7	Min. W65	9	Min. W45
Y	Heating output [kW]	3	max. W55	5	Max. W35	8	min. W55	10	Min. W35

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X	Outside temperature [°C]	2	Max. W65	4	Max. W45	7	Min. W65	9	Min. W45
Y	Heating output [kW]	3	max. W55	5	Max. W35	8	min. W55	10	Min. W35

Air source heat pumps

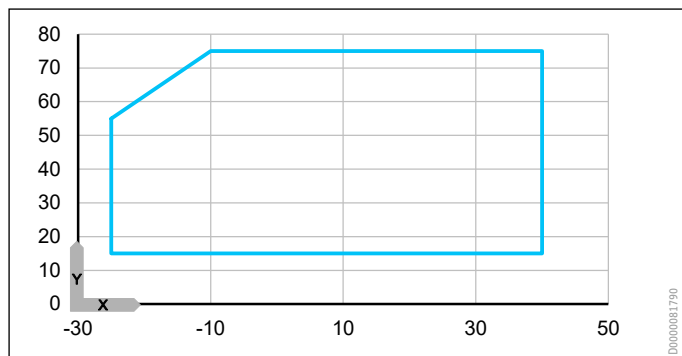
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Application limits

Heating

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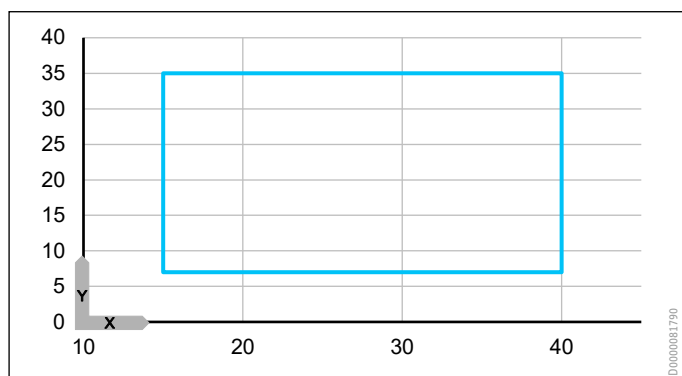
X Outside temperature [°C]

Y Flow temperature [°C]

Cooling

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X Outside temperature [°C]

Y Flow temperature [°C]

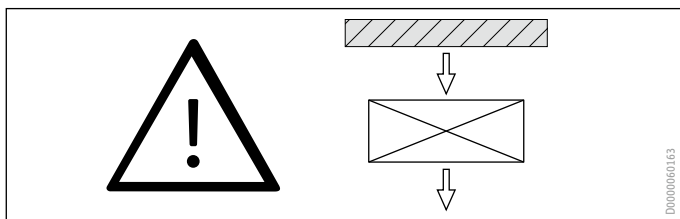
Air source heat pumps

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Installation location requirements

- » Never install the appliance inside a shaft.
- » The heat pump module must be level (horizontal).
- » The main wind direction must not be towards the fan.
- » When selecting the installation site, remember that the appliance generates noise during operation.
- » Maintain as small a clearance as possible between the heat pump module and the hydraulic module in order to keep line losses to a minimum.
- » The heat pump module must not become covered with snow in winter or submerged if there is heavy rainfall.
- » The appliance must be firmly attached to the mounting rail, which in turn must be secured to the foundation/kerbstones.

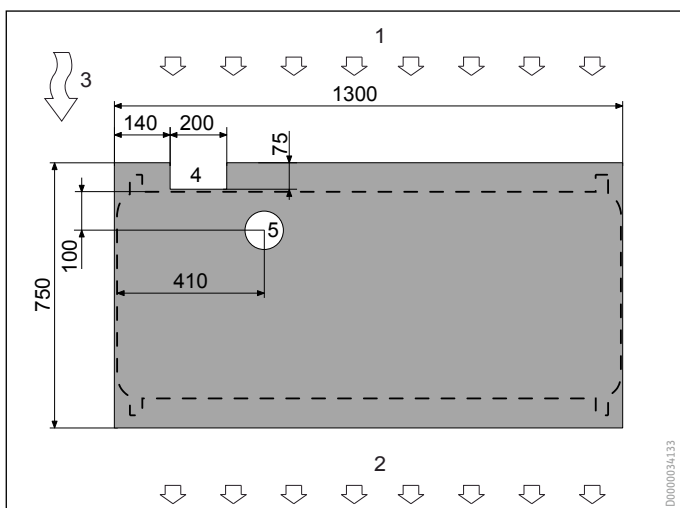
Installation in an open space



The appliance is designed for siting in front of a wall. Observe the minimum clearances. If the appliance is installed in an open space or on a roof, protect the air intake side. Do this by erecting a wall to shield it against the wind.

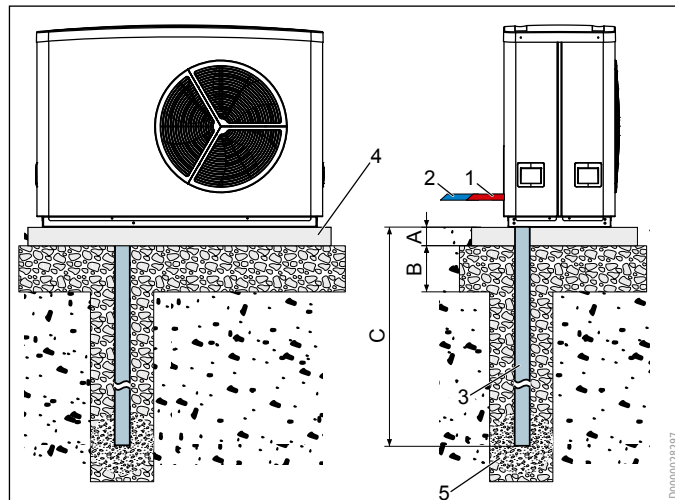
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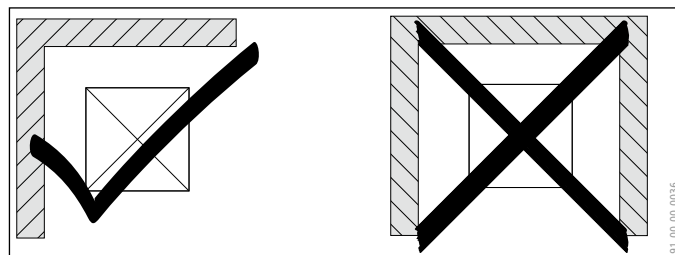
- 1 Air intake
- 2 Air discharge
- 3 Main wind direction
- 4 Supply line recess
- 5 Condensate drain recess

Example: Laying pipes above ground

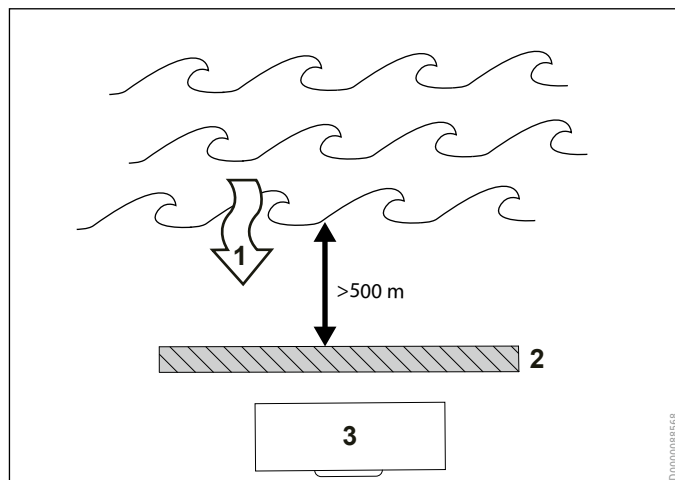


- A 100
- B 300
- C Depth of frost line
- 1 Heating flow
- 2 Heating return
- 3 Condensate drain
- 4 Foundation
- 5 Gravel bed

Installation conditions



Installation in coastal areas



- 1 Main wind direction
- 2 Building, wall or wind protection
- 3 appliance

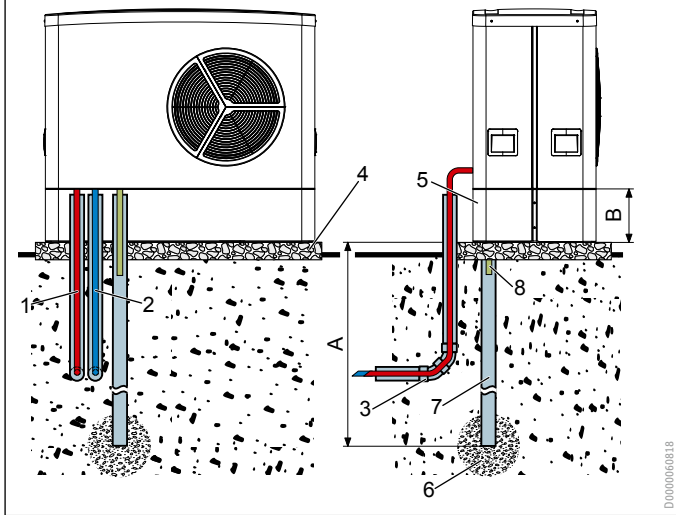
Air source heat pumps

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Mounting bracket

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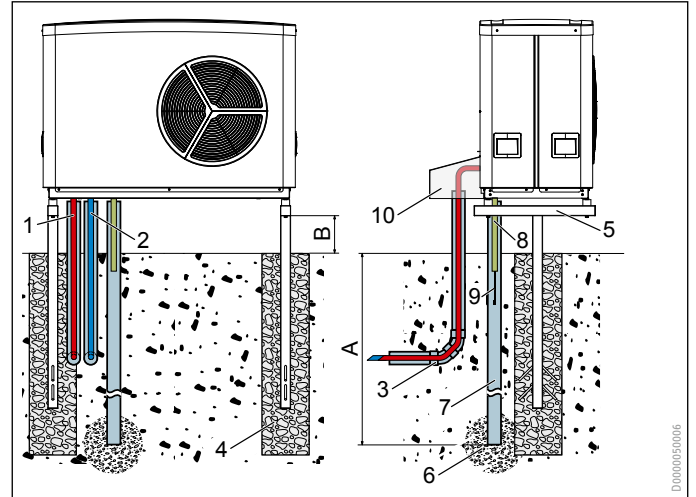
- A Depth of frost line
- B Height of the mounting bracket
- 1 Heating flow
- 2 Heating return
- 3 Conduit for supply line
- 4 Foundation
- 5 Mounting bracket
- 6 Gravel bed
- 7 Condensate drain conduit
- 8 Condensate drain

		MK 1
		232129
Height	mm	245
Width	mm	1260
Depth	mm	575
Weight	kg	135

T-support

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- A Depth of frost line
- B 300
- 1 Heating flow
- 2 Heating return
- 3 Conduit for supply line
- 4 Foundation
- 5 T-support
- 6 Gravel bed
- 7 Condensate drain conduit
- 8 Condensate drain
- 9 Ribbon heater
- 10 Cover

		SK 1
		232964
Height	mm	950
Depth	mm	570
Weight	kg	175

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Wall mounting bracket

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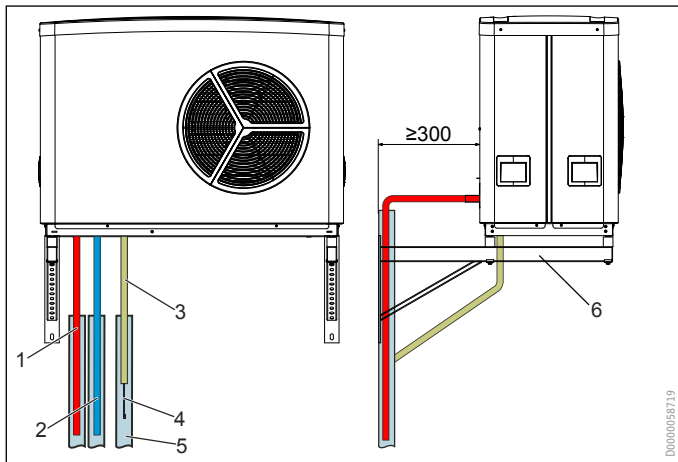
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Note

To prevent disturbance due to structure-borne noise transmission, never install the wall mounting bracket on the external walls of living areas or bedrooms.

- ▶ Install the wall mounting bracket on a garage wall, for example.



- 1 Heating flow
- 2 Heating return
- 3 Condensate drain
- 4 Ribbon heater
- 5 Condensate drain conduit
- 6 Wall mounting bracket

		WK 2
		234722
Support length	mm	800
Weight	kg	175

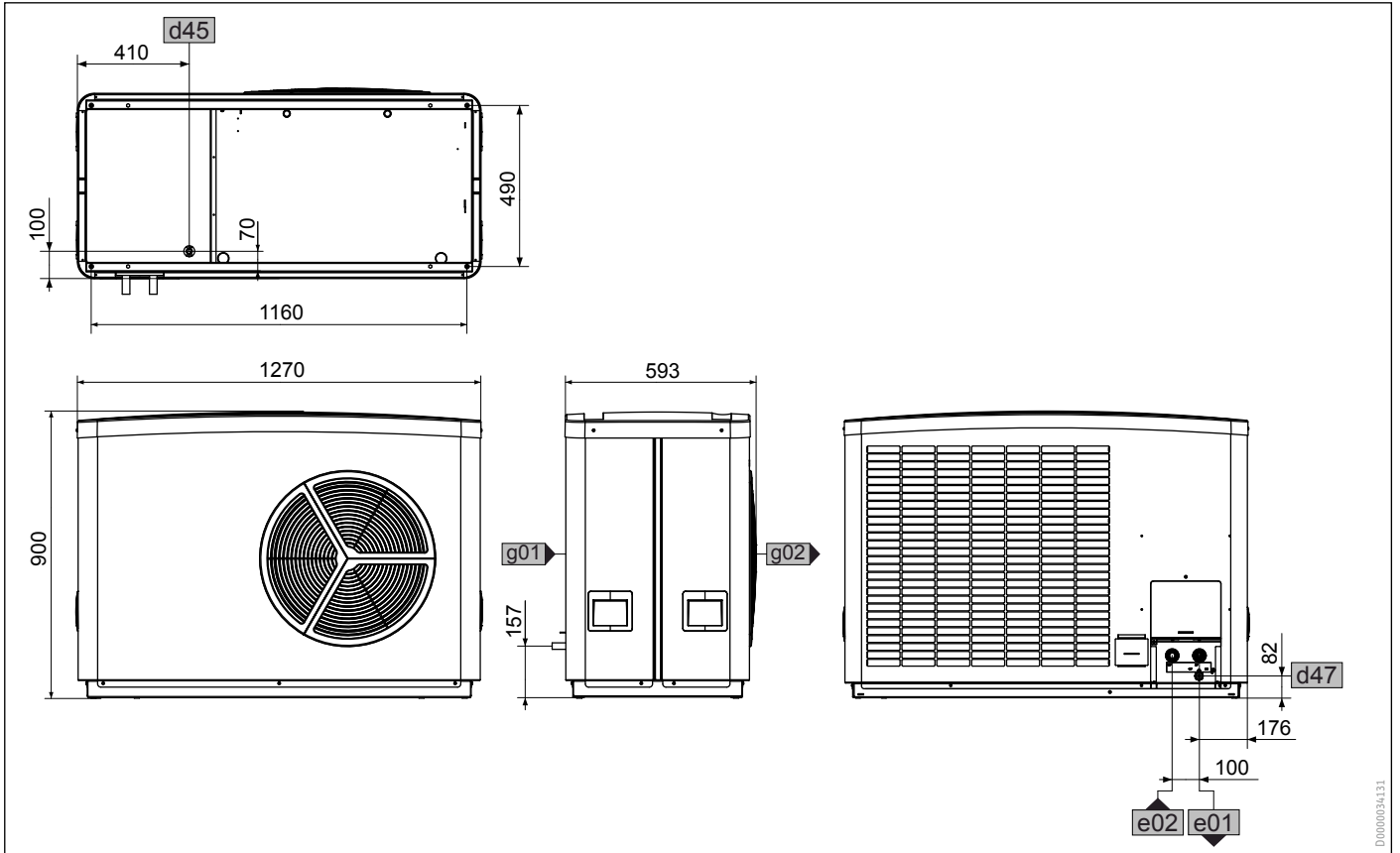
Air source heat pumps

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Siting

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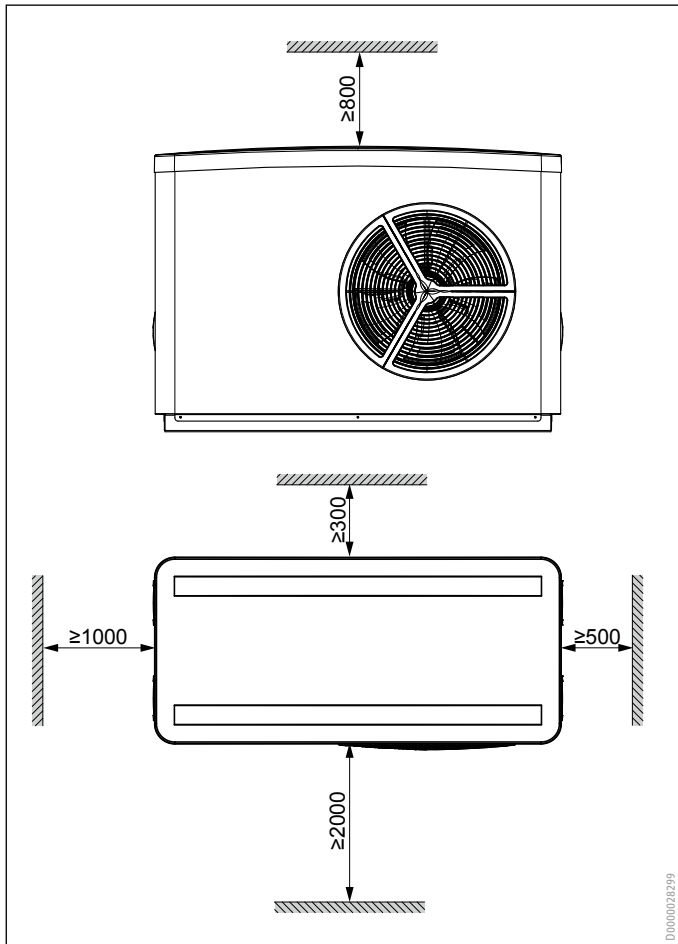


		WPL-A 05 HK 230 Premium		WPL-A 07 HK 230 Premium	
e01	Heating flow	Type of connection		Plug-in connection	Plug-in connection
		Diameter	mm	28	28
e02	Heating return	Type of connection		Plug-in connection	Plug-in connection
		Diameter	mm	28	28
d45	Condensate drain	Diameter	mm	29,6	29,6
d47	Drain				
g01	Air intake				
g02	Air discharge				

Air source heat pumps

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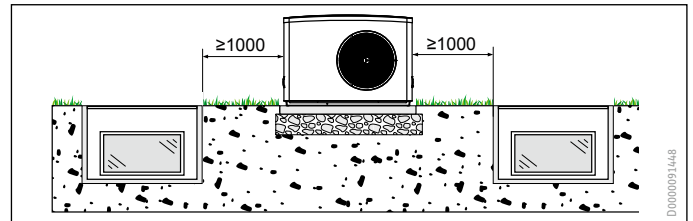
Minimum clearances



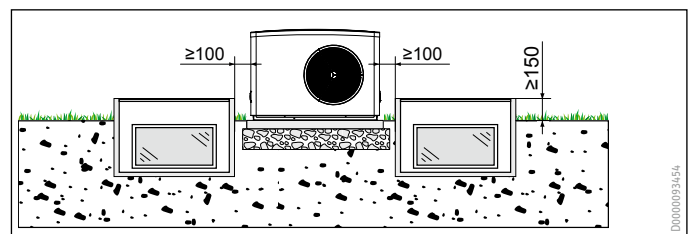
Minimum clearances to light wells

In order to comply with the appliance's safety concept, safety clearances to light wells must be observed.

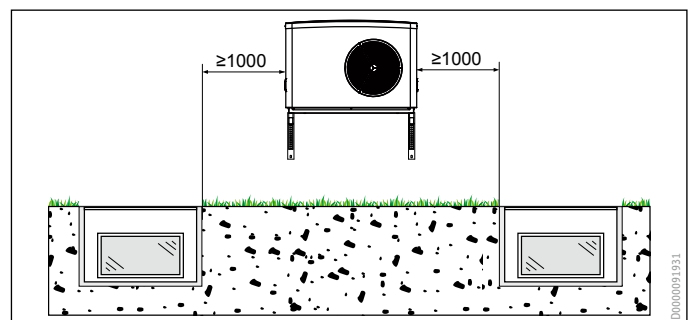
Foundation installation, light well at ground level



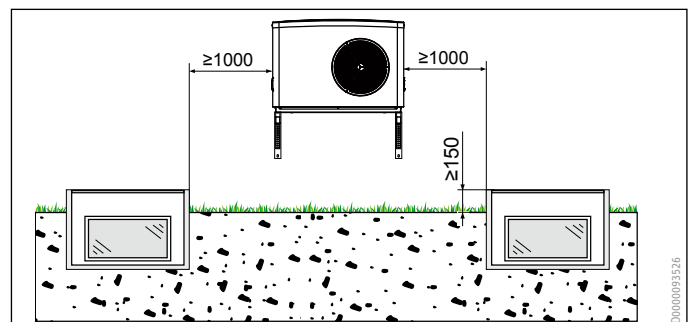
Foundation installation, light well above ground level



Bracket installation, light well at ground level



Bracket installation, light well above ground level



Air source heat pumps

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Installation – cascade

If the heating output of the largest heating heat pump is insufficient, several heat pumps are started in addition as a cascade.

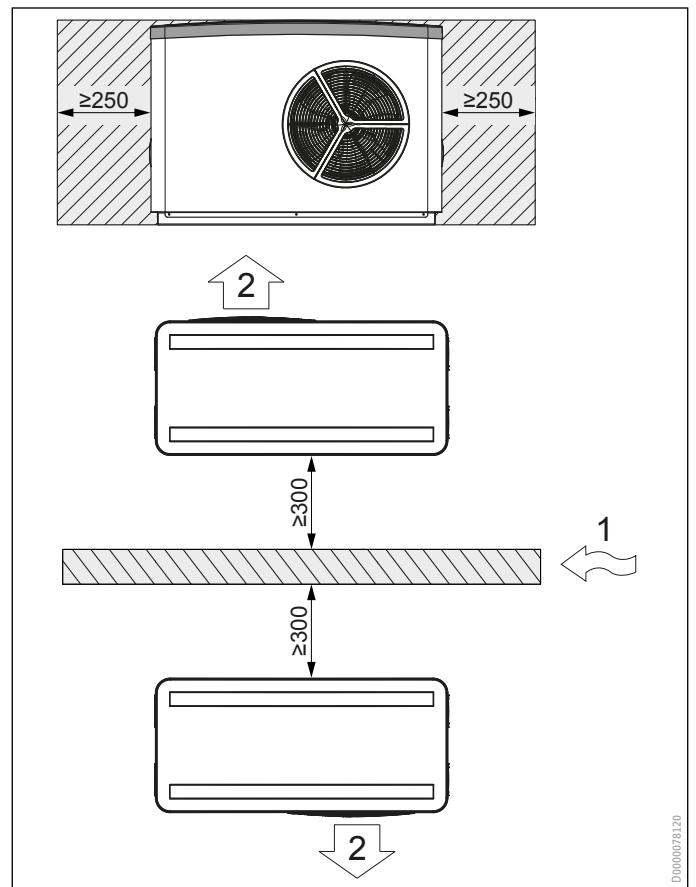
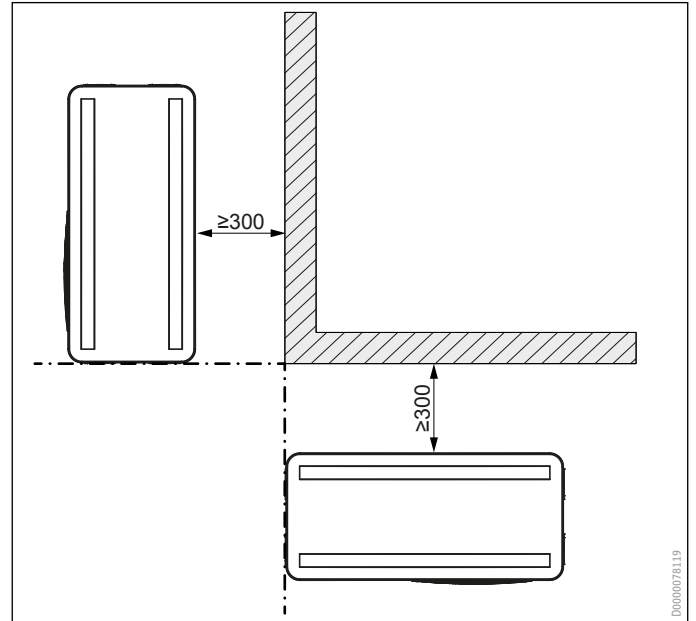
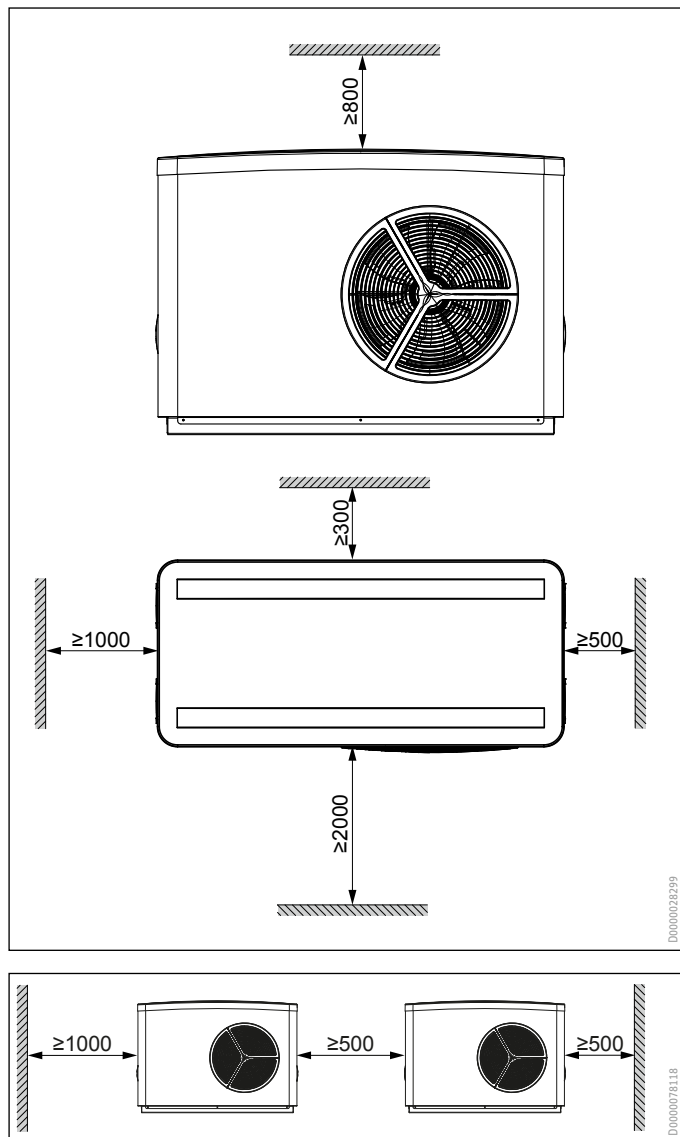
Cascades can comprise heat pumps of the same output or ones with different ratings.

The heat pumps must belong to the same product group.

Control system

Heat pumps / function	WPM	WPE	FET
1	1		
2	1		
3-6	1	1	
Cooling			1

Minimum clearances



- 1 Main wind direction
- 2 Air discharge
- 3 Wall or wind protection

Air source heat pumps

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Instantaneous water cylinders

Instantaneous water cylinders can be operated in two operating modes. A distinction is made between zoned and non-zoned operation.

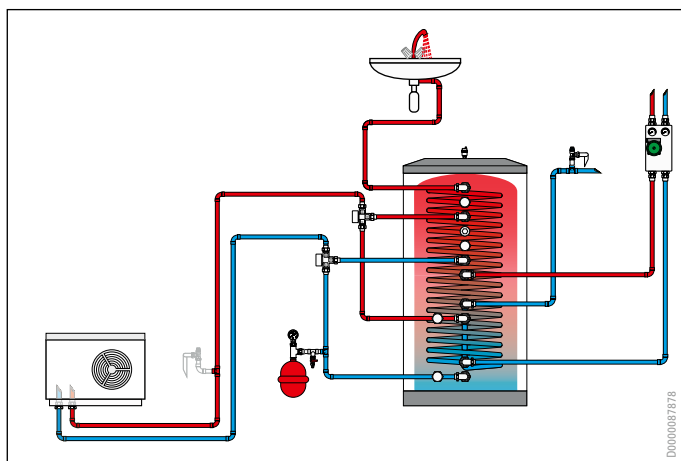
Zoned operation

Zoned operating mode is used for simultaneous DHW heating and room heating.

The temperature level in the cylinder is divided into an upper and a lower zone.

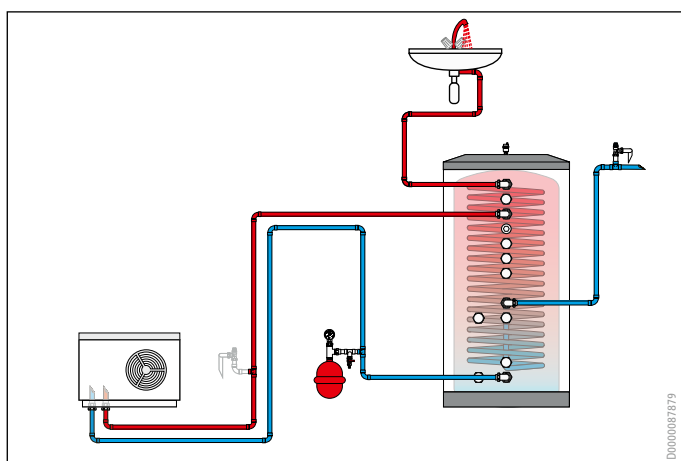
The upper zone is used for DHW heating and the lower zone for room heating.

The maximum flow rates for charging and discharging must be maintained in order to ensure zoning in the cylinder.



Non-zoned operation

Non-zoned operating mode is only used for DHW heating. The entire heat content of the cylinder is available for DHW heating.



Hydraulic connection

In zoned operation, the cylinder is charged in two zones.

The cylinder is charged in the upper zone for DHW heating and in the lower zone for room heating. Charging is switched over accordingly with the diverter valves.

In non-zoned operation, the connection to the heat pump is made without diverter valves.

Automatic changeover

Automatic and demand-dependent charging and discharging must be ensured so that the instantaneous water cylinder can be used simultaneously for room heating and DHW heating.

The changeover is brought about with the use of two diverter valves.

The diverter valves are controlled by the control unit subject to the upper and lower temperature sensors.

Air source heat pumps

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Sizing tables

Underfloor heating in the lead room

Heat pump	System water content min. litres	Composite pipework 16 x 2 mm, installation spacing 10 cm		Composite pipe-work 20 x 2.25 mm, installation spacing 15 cm		Buffer cylinder required	Buffer cylinder volume		Booster heater
		Surface area m ²	Circuits n x m	Surface area m ²	Circuits n x m		Area heating min. litres	Heating element min. litres	
WPL-A 05 HK 230 Premium	20	21	3x70	21	2x70	No	100	100	Enable
WPL-A 07 HK 230 Premium	20	21	3x70	21	2x70	No	100	100	Enable

DHW heating

	Non-zoned										Zoned																									
	DHW heating										DHW heating and room heating																									
	SBB 301 WP	SBB 302 WP	SBB 401 WP SOL	SBB 501 WP SOL	SBBE 301 WP	SBBE 302 WP	SBBE 401 WP SOL	SBBE 501 WP SOL	SBB 300-1 Plus	SBB 400-1 Plus	SBB 500-1 Plus	SBB 600 WP SOL	SBB 800 WP SOL	SBB 1000 WP SOL	HSBB 200	HSBC 200	HSBC 200 L	HSBC 300 cool	HSBC 300 L cool	SBS 601 W	SBS 601 W SOL	SBS 801 W	SBS 801 W SOL	SBS 1001 W	SBS 1001 W SOL	SBS 1501 W	SBS 1501 W SOL	SBS 601 W	SBS 601 W SOL	SBS 801 W	SBS 801 W SOL	SBS 1001 W	SBS 1001 W SOL	SBS 1501 W	SBS 1501 W SOL	
WPL-A 05 HK 230 Premium	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x		x		x	x	x	x					x	x	x	x					
WPL-A 07 HK 230 Premium	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x		x		x	x	x	x					x	x	x	x					

Buffer cylinders

	SBP 100	SBP 100 classic	SBP 200 E	SBP 400 E	SBP 700 E	SBP 700 E SOL	SBPE 400	SBP 1000 E	SBP 1500 E	SBP 1500 E	SBP 1000 E SOL	SBP 1500 E SOL	SBP 1000 E cool	SBP 1000 E cool	SBP 1500 E cool	HSBC 200	HSBC 200 L	HSBC 300 cool	HSBC 300 L cool
WPL-A 05 HK 230 Premium	x	x	x													x		x	
WPL-A 07 HK 230 Premium	x	x	x													x		x	

Air source heat pumps

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Systems without a buffer cylinder

In systems without a buffer cylinder, the minimum flow rate of the heat pump must be ensured via permanently open heating circuits for the underfloor heating system.

The design of the underfloor heating system determines the possible flow rate through the permanently open heating circuits.

If the flow rate of the permanently open heating circuits is less than the minimum flow rate of the heat pump, check whether the available external delivery head of the heating circulation pump is sufficient.

Delivery head test

$$\Delta p_{HM} \geq (V_{\min} / V_{HKo})^2 \times (\Delta p_{HK} + \Delta p_V) + \Delta p_{WP}$$

Δp_{UPmin}	External delivery head of the heating circulation pump at V_{\min}
V_{\min}	Minimum flow rate of the heat pump
V_{HKo}	Design flow rate of the permanently open heating circuits
Δp_{HK}	Design pressure drop of the permanently open heating circuits
Δp_V	Design pressure drop to and from floor distributors
Δp_{WP}	Pressure drop in the heat pump at V_{\min}

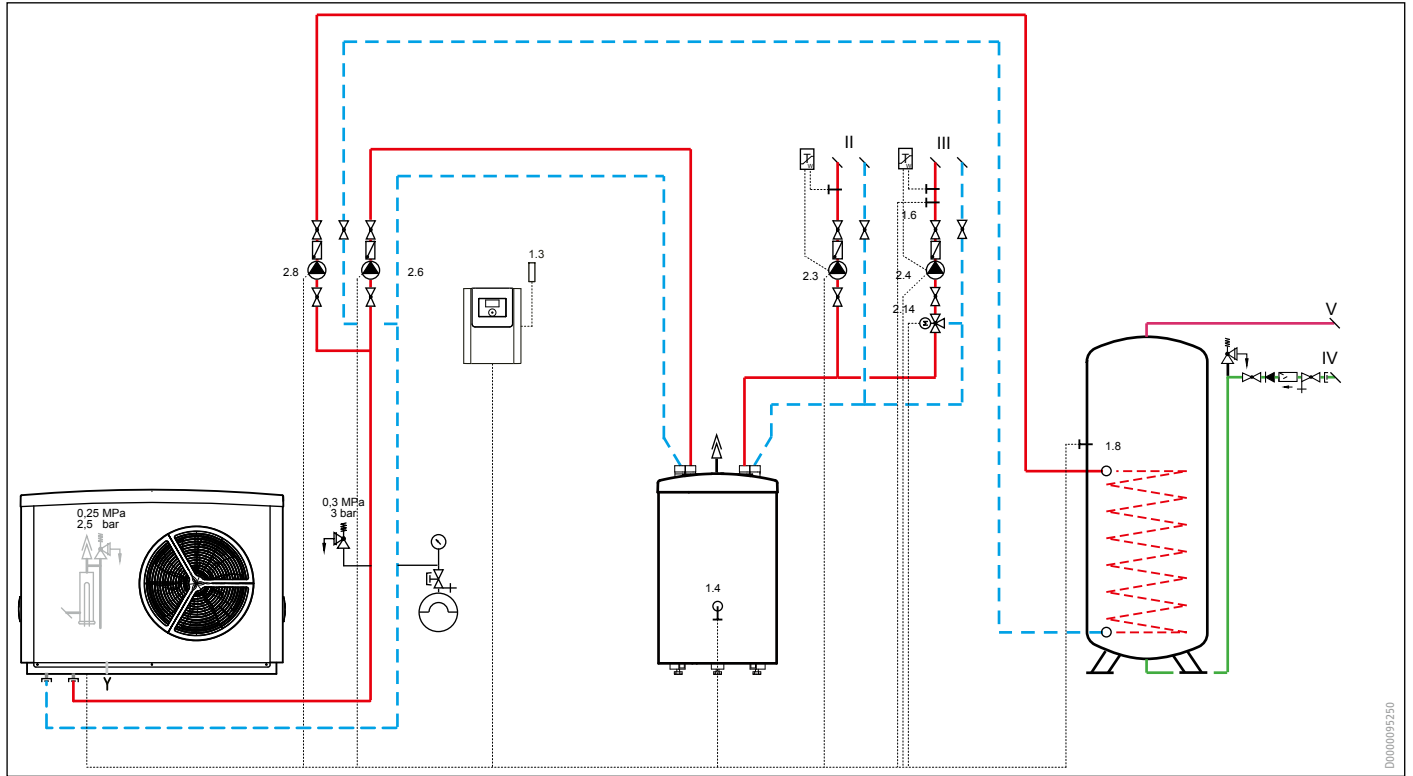
For heat pumps with an integral circulation pump, the pressure drop of the heat pump (Δp_{WP}) is not taken into account.

If the external delivery head is not sufficient for the minimum flow rate, additional heating circuits for the underfloor heating must be permanently opened.

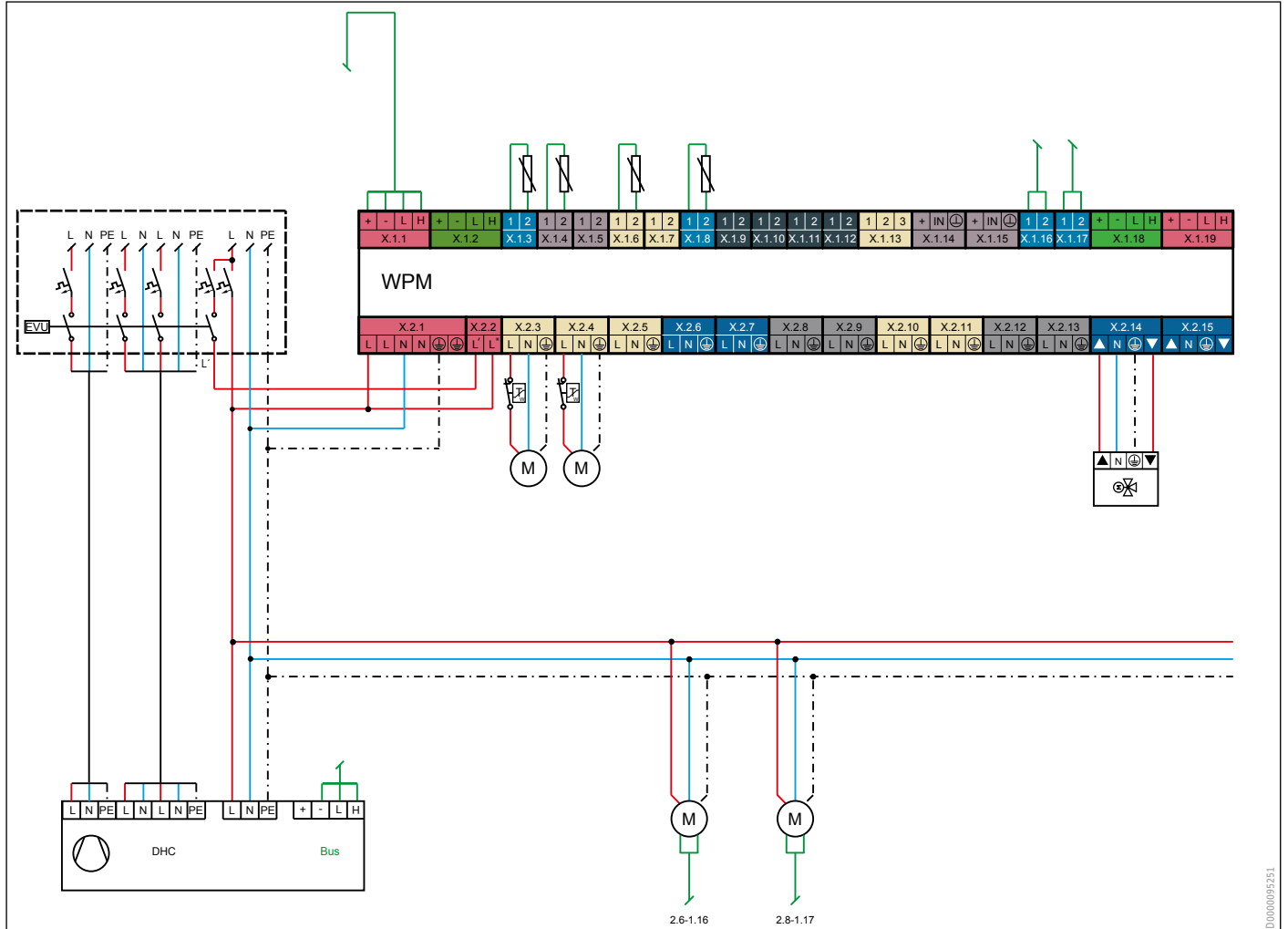
Air source heat pumps WPL-A Premium

WPL-A 05 HK 230 Premium

WPL-A 07 HK 230 Premium



D0000095230



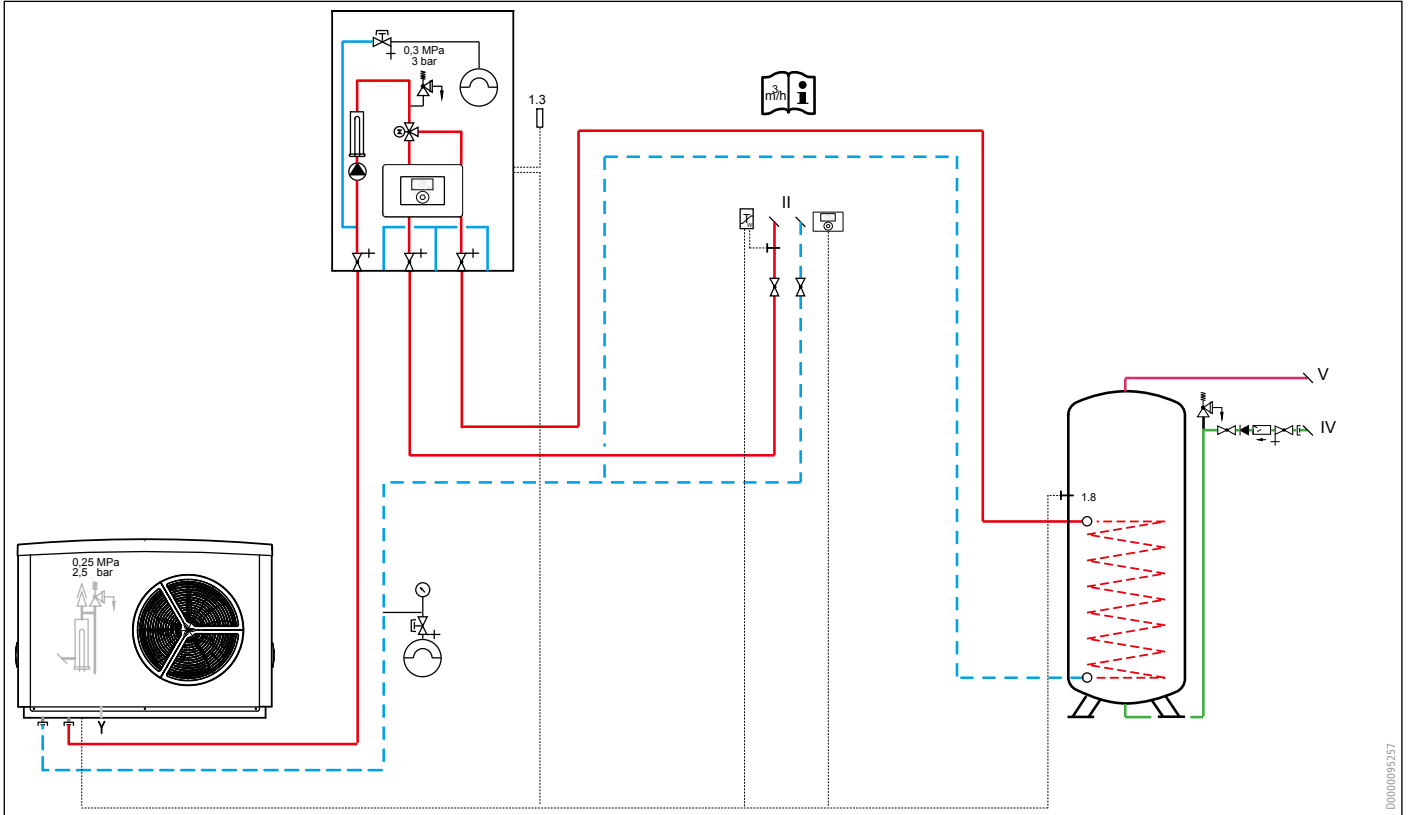
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Air source heat pumps

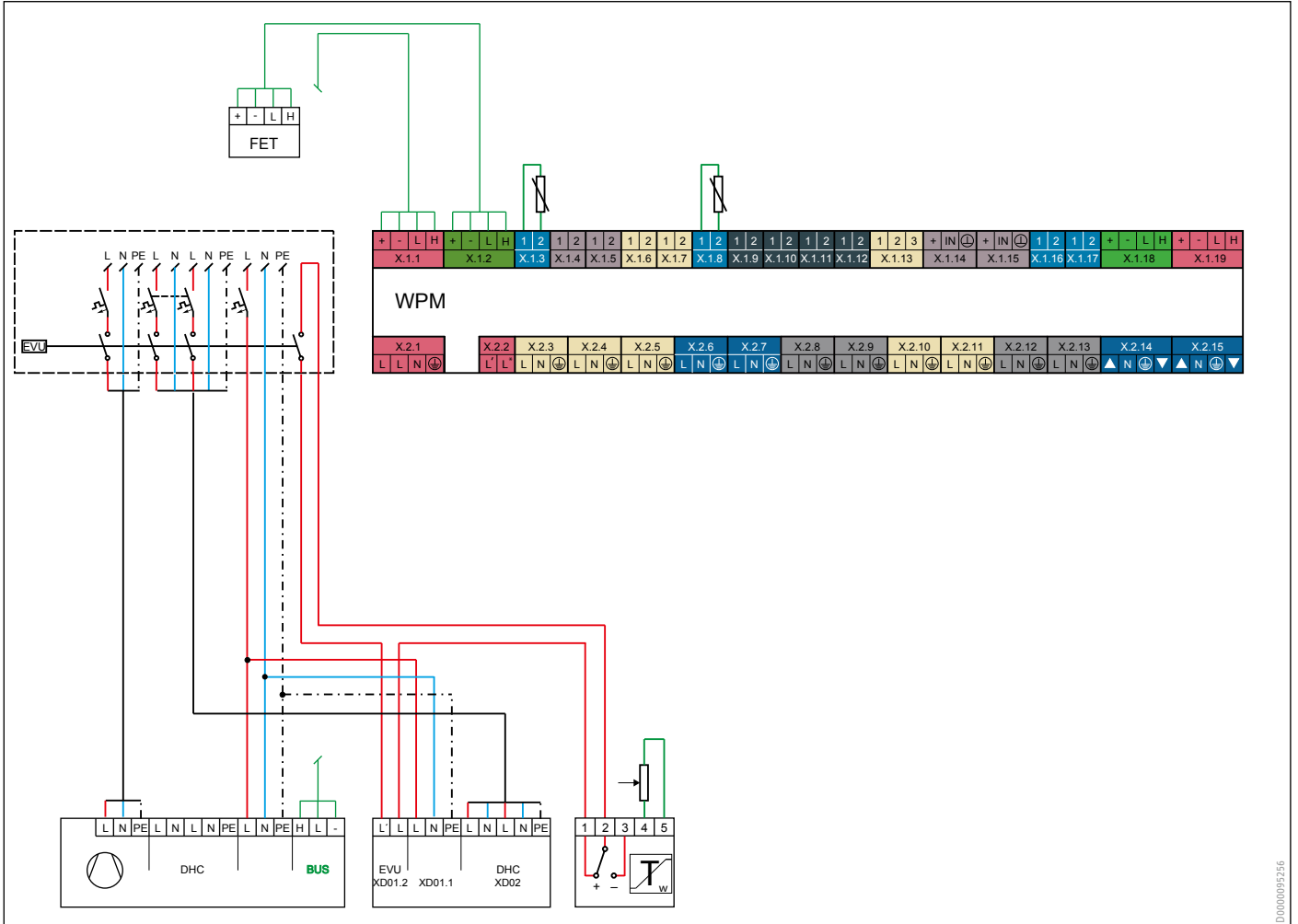
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WPL-A 05 HK 230 Premium

WPL-A 07 HK 230 Premium



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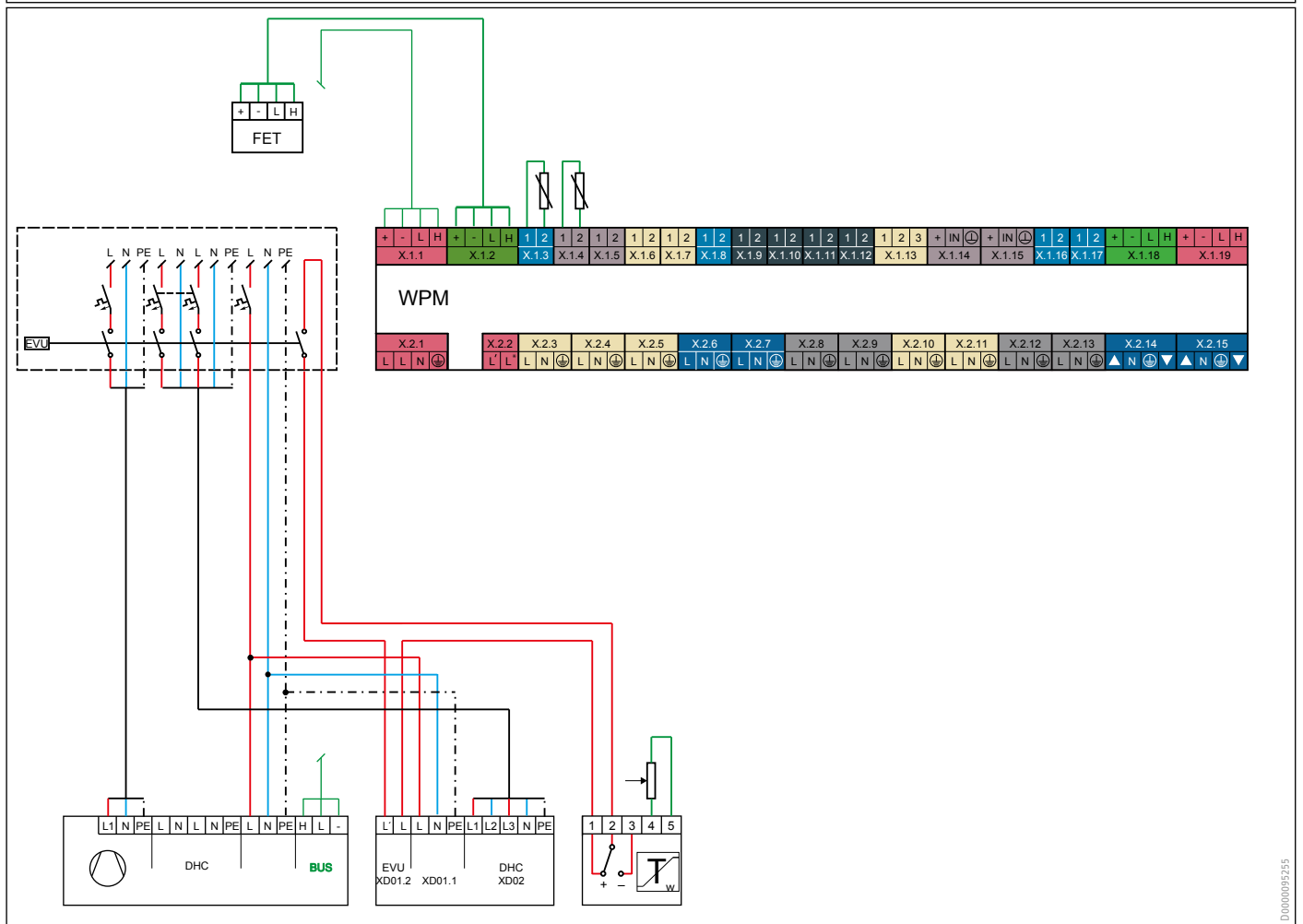
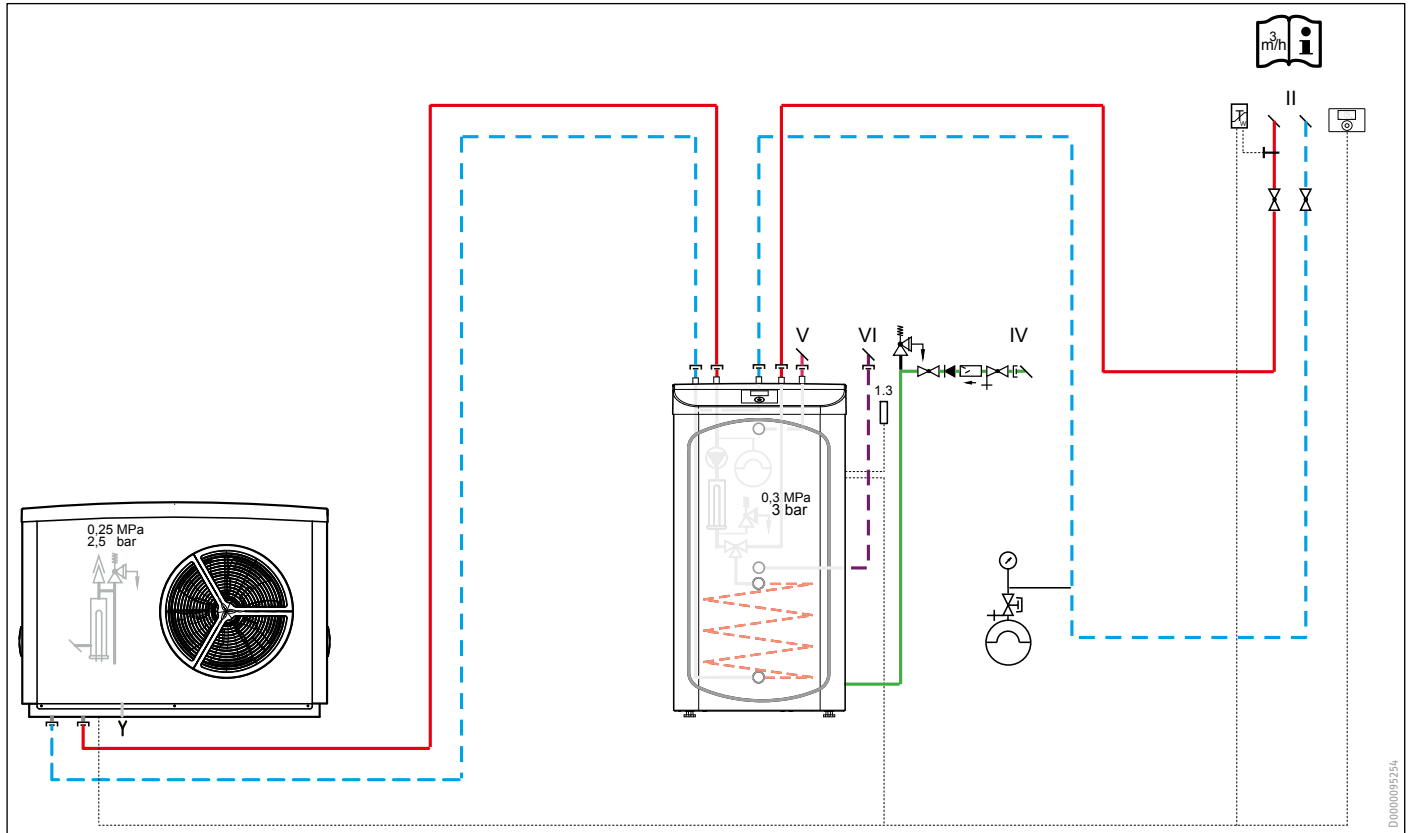


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Air source heat pumps WPL-A Premium

WPL-A 05 HK 230 Premium

WPL-A 07 HK 230 Premium

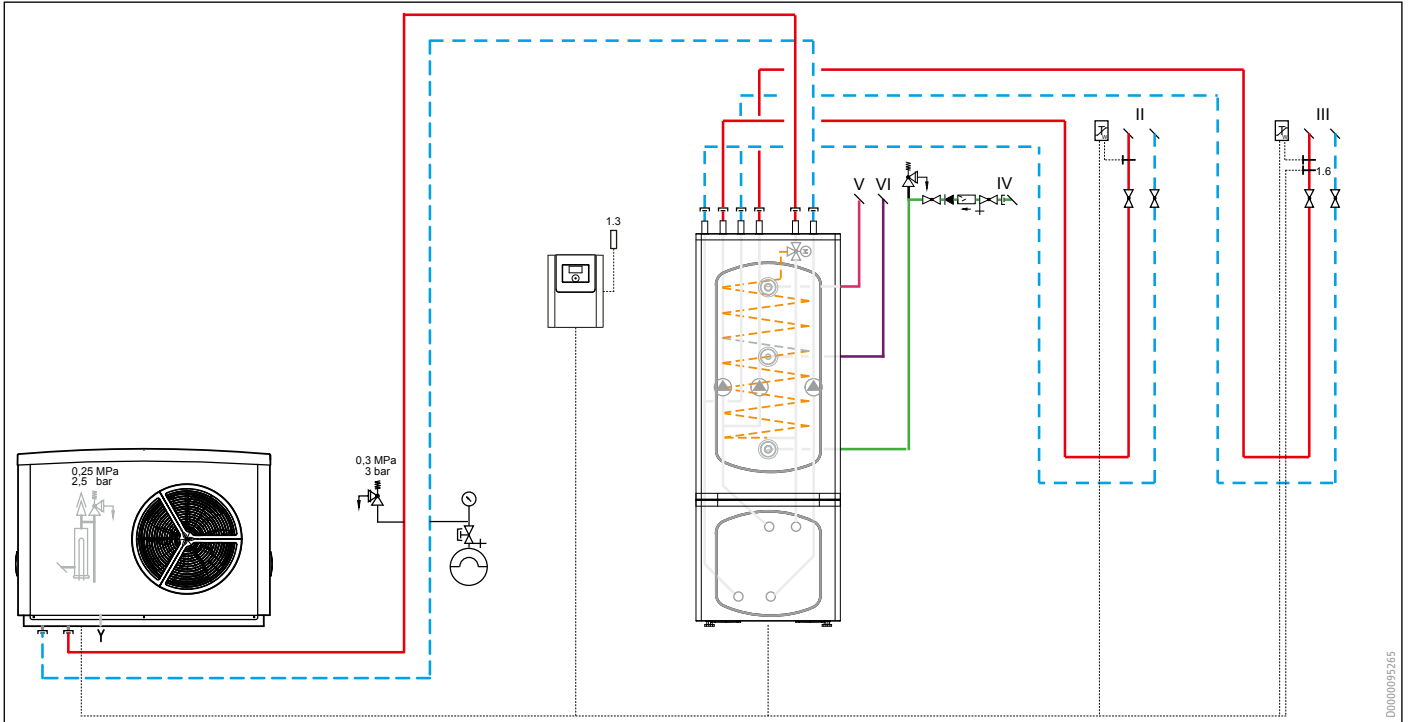


Air source heat pumps

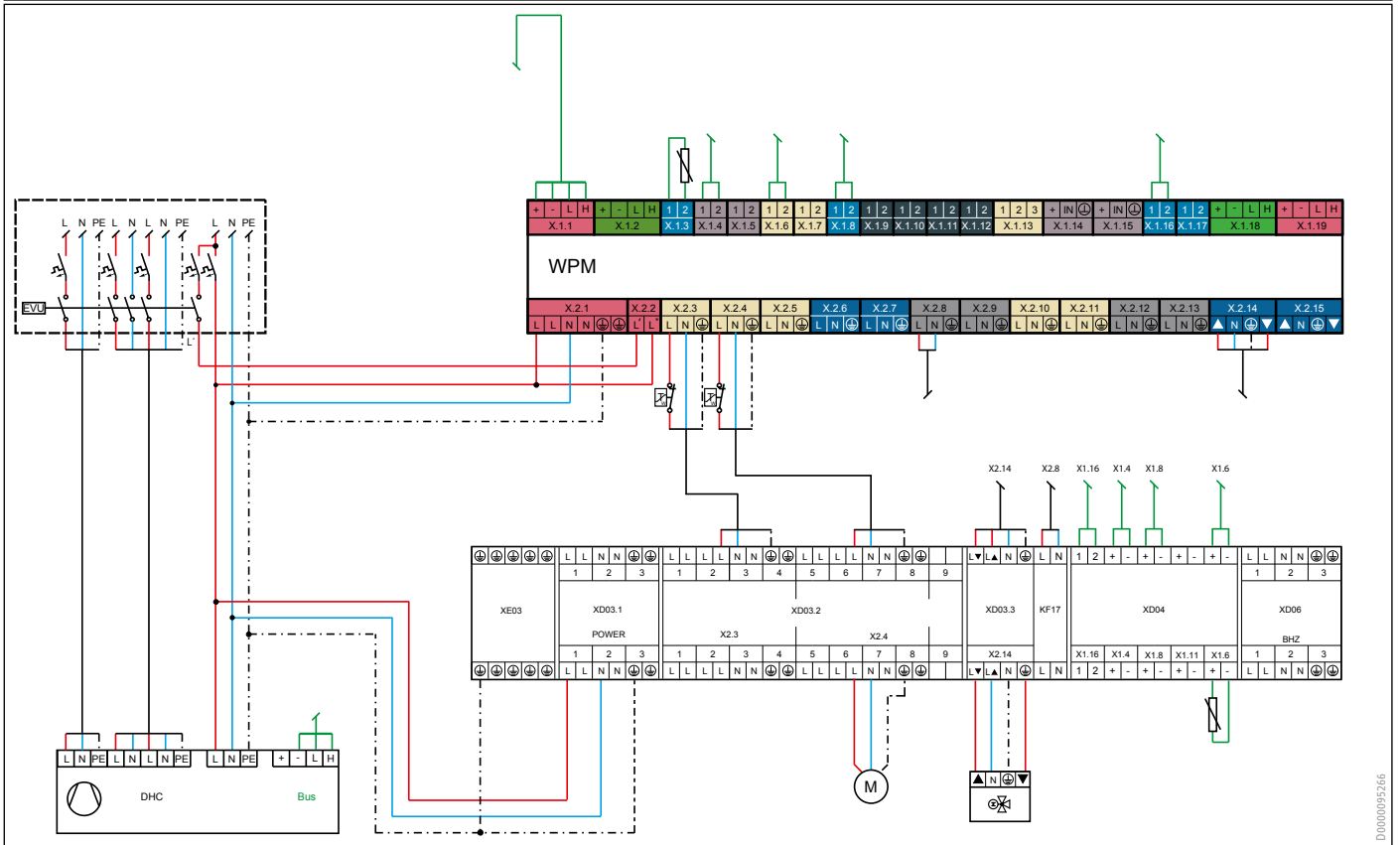
WPL-A Premium

WPL-A 05 HK 230 Premium

WPL-A 07 HK 230 Premium



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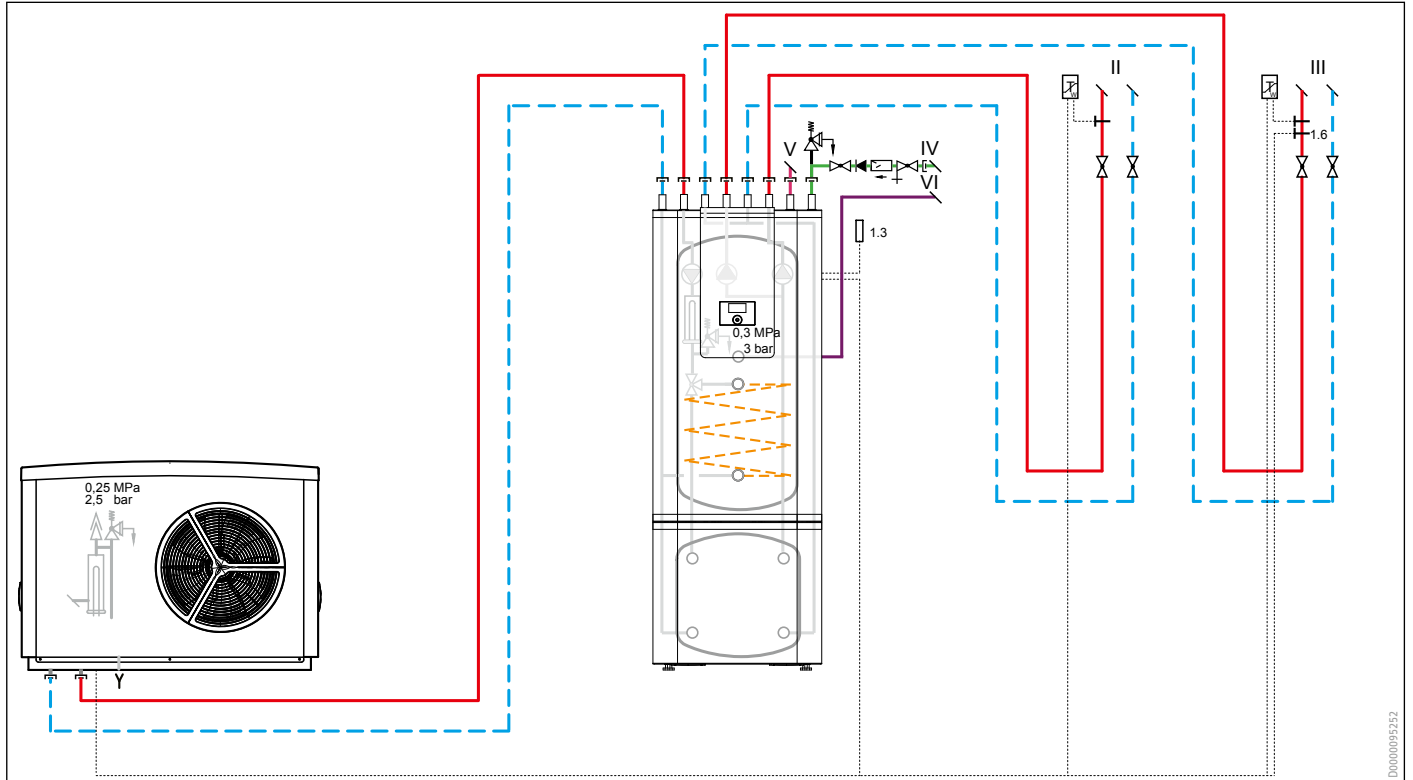


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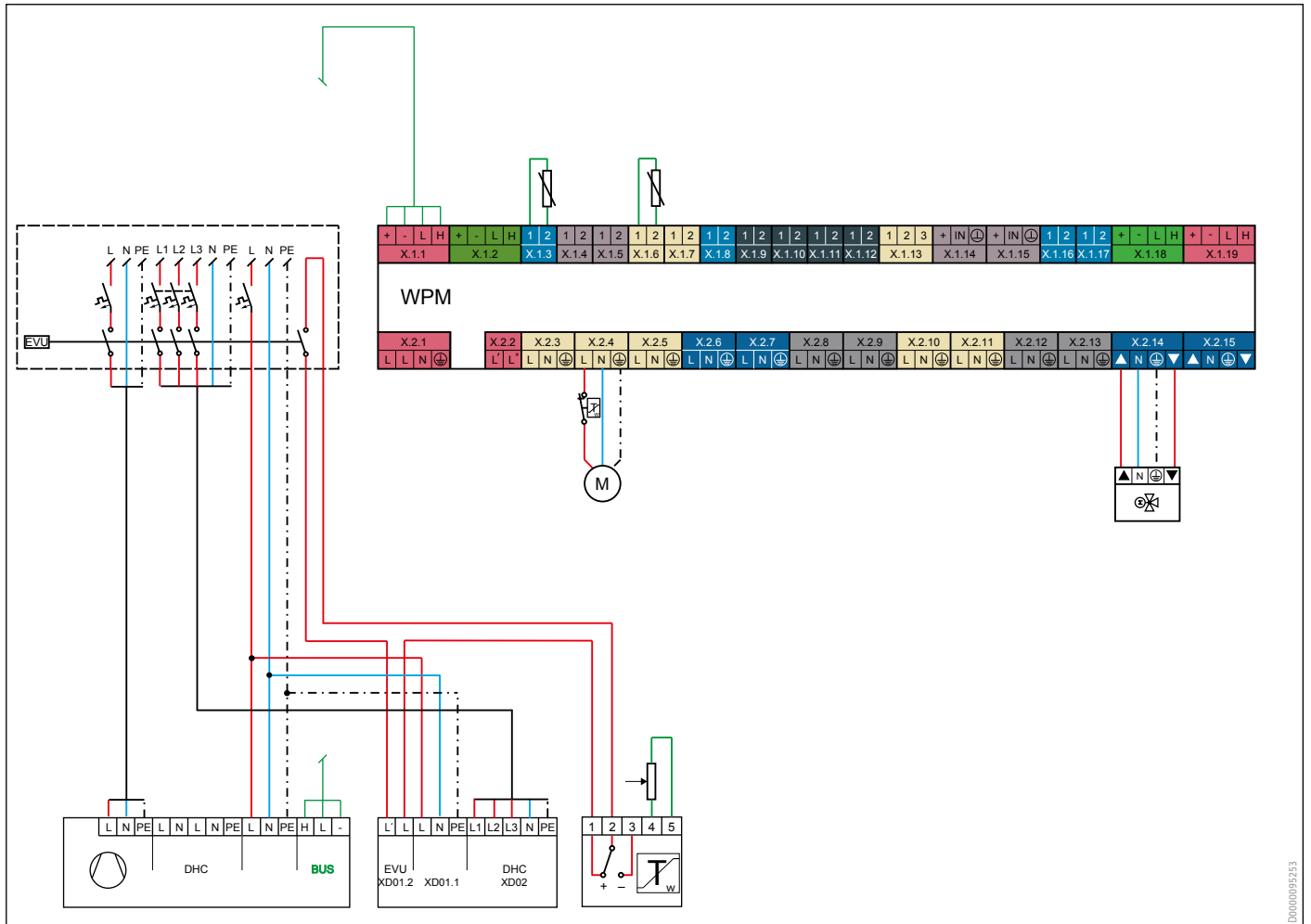
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WPL-A 05 HK 230 Premium

WPL-A 07 HK 230 Premium



D0000095252



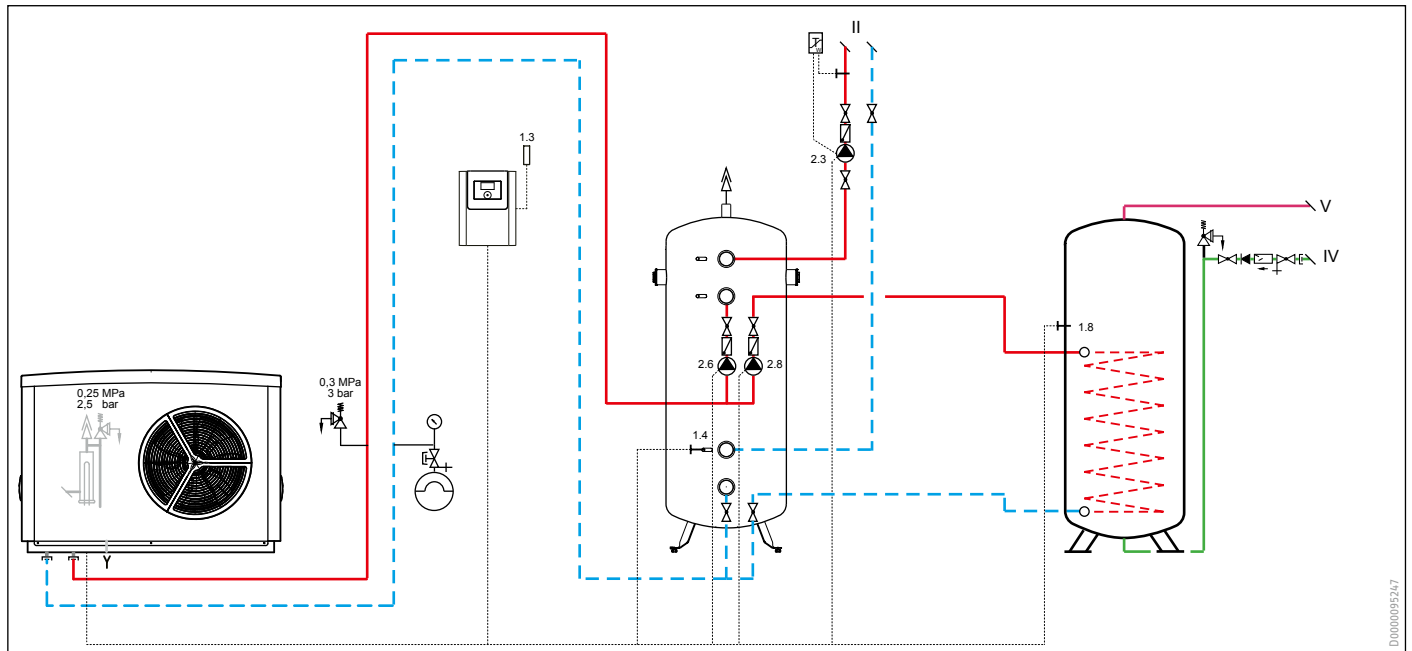
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Air source heat pumps

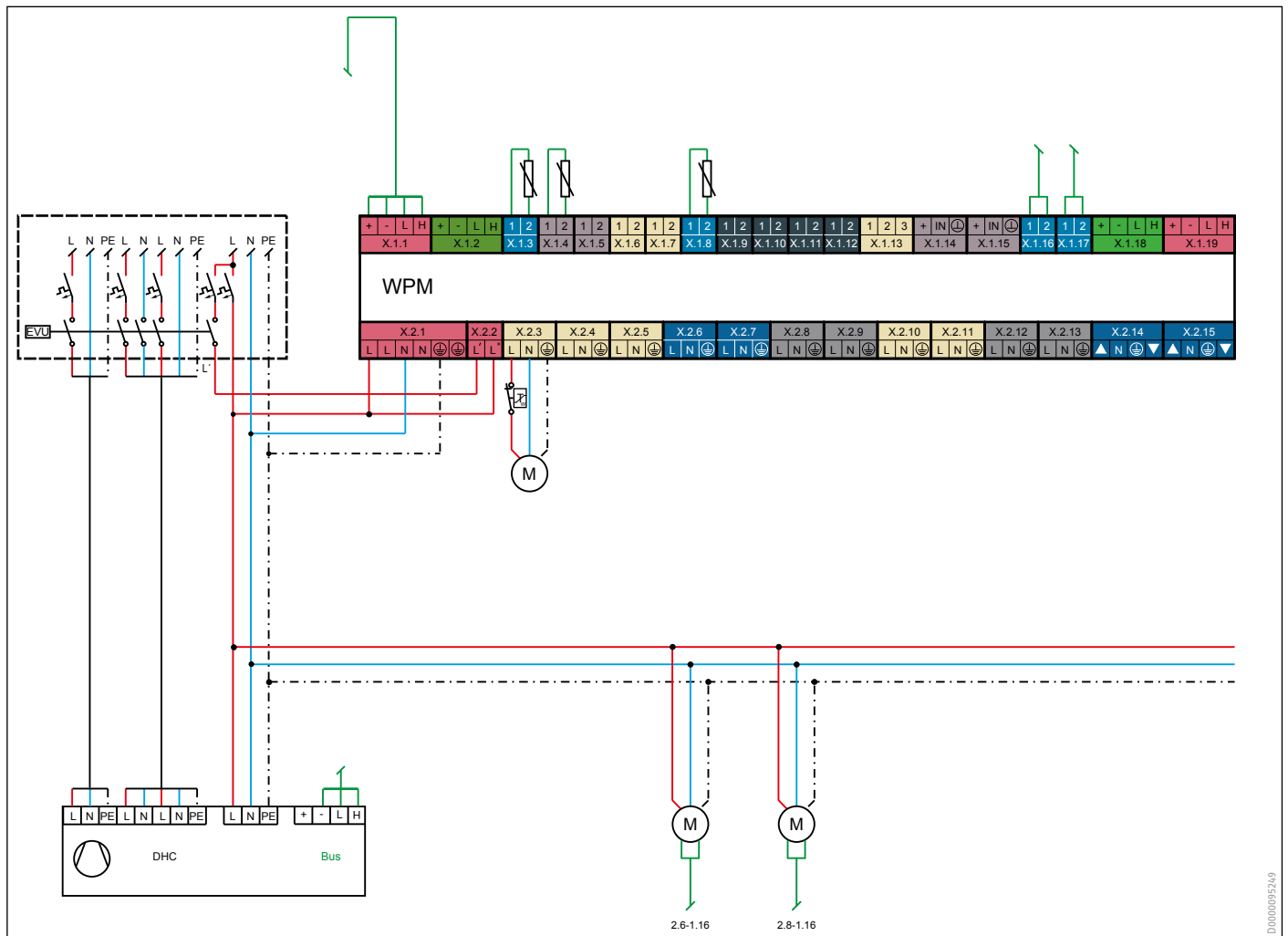
WPL-A Premium

WPL-A 05 HK 230 Premium

WPL-A 07 HK 230 Premium



D0000095247



D0000095249

Appendix

Key Pos.	WPMsystem				
X1.1	CAN A	X3.1	CAN A	I	Source
X1.2	CAN B	X3.2	CAN B	II	Heating circuit without mixer
X1.3	Outside sensor	X3.3	Not assigned	III	Heating circuit with mixer
X1.4	Buffer or heating circuit sensor 1	X3.4	Swimming pool sensor, primary	IV	Cold water connection
X1.5	Flow sensor	X3.5	Swimming pool sensor, secondary	V	DHW connection
X1.6	Heating circuit sensor 2	X3.6	Heating circuit sensor 4	VI	DHW circulation connection
X1.7	Heating circuit sensor 3	X3.7	Heating circuit sensor 5	VII	Swimming pool
X1.8	DHW cylinder sensor	X3.8	DHW cylinder 2 sensor	VIII	Solar collector
X1.9	Source sensor	X3.9	Differential sensor 1.1 / thermostat sensor 1	IX	Differential control
X1.10	Heat source 2 sensor	X3.10	Differential sensor 1.2	X	DHW circulation / pasteurisation pump
X1.11	Sensor, cooling	X3.11	Differential sensor 2.1 / thermostat sensor 2		
X1.12	DHW circulation sensor	X3.12	Differential sensor 2.2		
X1.13	FE7 remote control	X3.13	Not assigned		
	Telephone remote switch	X3.14	Analogue input 3, 0-10 V		
	Heating curve optimisation	X3.15	Analogue input 4, 0-10 V		
	SG Ready	X3.16	PWM output 3		
X1.14	Analogue input 1, 0-10 V	X3.17	PWM output 4		
X1.15	Analogue input 2, 0-10 V	X3.18	CAN B		
X1.16	PWM output 1	X3.19	CAN A		
X1.17	PWM output 2				
X1.18	CAN B	X4.1	Power supply		
X1.19	CAN A	X4.2	Swimming pool input		
			Pumps L		
X2.1	Power supply	X4.3	Heating circuit pump 4		
X2.2	Power supply utility, enable contact (country specific)	X4.4	Heating circuit pump 5		
	Pumps L	X4.5	DHW charging pump 2		
X2.3	Heating circuit pump 1	X4.6	Buffer charging pump 3		
X2.4	Heating circuit pump 2	X4.7	Buffer charging pump 4		
X2.5	Heating circuit pump 3	X4.8	Buffer charging pump 5		
X2.6	Buffer charging pump 1	X4.9	Buffer charging pump 6		
X2.7	Buffer charging pump 2	X4.10	Output, differential controller 1, thermostat 1		
X2.8	DHW charging pump				
X2.9	Source pump / defrost	X4.11	Output, differential controller 2, thermostat 2		
X2.10	Fault output				
X2.11	Heat source 2 DHW	X4.12	Pool pump, primary		
X2.12	Heat source 2 heating	X4.13	Pool pump, secondary		
X2.13	Cooling	X4.14	Heating circuit mixer 4		
X2.14	Heating circuit mixer 2	X4.15	Heating circuit mixer 5		
X2.15	Heating circuit mixer 3				
X2.16	Solar circuit pump				

Accessories

Required accessories

WPL-A 05 HK 230 Premium

234727 WPM

233622 AS-WP 1

233623 AS-WP 2

WPL-A 07 HK 230 Premium

234727 WPM

233622 AS-WP 1

233623 AS-WP 2

Notes

Support brackets for outdoor installation

Support bracket

WK 2



Corrosion-protected wall mounting bracket made from zinc-plated steel for on-site installation. Height adjustments can be made on the wall rail, while the appliance rail provides the possibility to align the appliance. Standard delivery includes: 2 pce incl. anti-vibration mounts and 2 m self-limiting ribbon heater.

		WK 2
		234722

Support length	mm	800
Weight	kg	175

Suitable for

- 236641 WPL 20 AC
- 236640 WPL 20 A
- 236645 WPL 25 AC
- 236638 WPL 15 AS
- 236644 WPL 25 A
- 236639 WPL 15 ACS
- 202669 WPL-A 05 HK 230 Premium
- 200123 WPL-A 07 HK 230 Premium

SK 1



Stainless steel, T-shaped support for floorstanding, concrete-embedded installation. Standard delivery includes: 2 pce incl. installation aid for a defined clearance dimension, anti-vibration mounts, plus 1 m self-limiting ribbon heater.

		SK 1
		232964

Height	mm	950
Depth	mm	570
Weight	kg	175

Suitable for

- 236641 WPL 20 AC
- 236640 WPL 20 A
- 236645 WPL 25 AC
- 236638 WPL 15 AS
- 236644 WPL 25 A
- 236639 WPL 15 ACS
- 202669 WPL-A 05 HK 230 Premium
- 200123 WPL-A 07 HK 230 Premium

Support brackets for outdoor installation

Support bracket

MK 1



Corrosion-proof bracket for floor mounting, designed to match the casing. For weather-proof connection of the heat pump.

		MK 1
		232129
Height	mm	245
Width	mm	1260
Depth	mm	575
Weight	kg	135

Suitable for

236639 WPL 15 ACS

236638 WPL 15 AS

202669 WPL-A 05 HK 230 Premium

200123 WPL-A 07 HK 230 Premium

Connection set

AS-WP

AS-WP 1



The connection set is suitable for connecting 32 x 2.9 supply lines coming from the ground. In addition to the connection pieces, the standard delivery includes a white painted cover hood to protect against the elements.

	AS-WP 1
	233622
Connection	32 x 2.9 mm

Suitable for

- 236641 WPL 20 AC
- 236640 WPL 20 A
- 236645 WPL 25 AC
- 236638 WPL 15 AS
- 236639 WPL 15 ACS
- 236644 WPL 25 A
- 200123 WPL-A 07 HK 230 Premium
- 202669 WPL-A 05 HK 230 Premium

AS-WP 2



The connection set is suitable for connecting supply lines coming from the ground with the option of G 1 1/4 A connection. In addition to the connection pieces, the standard delivery includes a white painted cover hood to protect against the elements.

	AS-WP 2
	233623
Connection	G 1 1/4

Suitable for

- 236641 WPL 20 AC
- 236640 WPL 20 A
- 236638 WPL 15 AS
- 236645 WPL 25 AC
- 236644 WPL 25 A
- 236639 WPL 15 ACS
- 202669 WPL-A 05 HK 230 Premium
- 200123 WPL-A 07 HK 230 Premium

Ribbon heater for condensate connection

HZB

HZB-1



Self-limiting flexible ribbon heater to keep the condensate connection for air source heat pumps free of ice.

		HZB-1
		232978
Length of connecting cable	mm	2000
Heated length	mm	1000
Rated output per metre at 10 °C outdoor air temperature	W	10
Max. ambient temperature	°C	65
Min. handling/installation temperature	°C	-45
Min. bending radius	cm	2,5
Outer sheath material		TPE-0
Width	mm	5,5
Height	mm	8,0
Weight	kg	0,200

Suitable for

- 229938 WPL 33 HT
- 236641 WPL 20 AC
- 236640 WPL 20 A
- 236638 WPL 15 AS
- 236645 WPL 25 AC
- 236644 WPL 25 A
- 202669 WPL-A 05 HK 230 Premium
- 200123 WPL-A 07 HK 230 Premium

HZB-2



Self-limiting flexible ribbon heater to keep the condensate connection for air source heat pumps free of ice.

		HZB-2
		232979
Length of connecting cable	mm	2000
Heated length	mm	2000
Rated output per metre at 10 °C outdoor air temperature	W	10
Max. ambient temperature	°C	65
Min. handling/installation temperature	°C	-45
Min. bending radius	cm	2,5
Outer sheath material		TPE-0
Width	mm	5,5
Height	mm	8,0
Weight	kg	0,240

Suitable for

- 229938 WPL 33 HT
- 236641 WPL 20 AC
- 236640 WPL 20 A
- 236638 WPL 15 AS
- 236645 WPL 25 AC
- 236644 WPL 25 A
- 202669 WPL-A 05 HK 230 Premium
- 200123 WPL-A 07 HK 230 Premium

WPM



The main controller of the new, expandable WPMsystem. The WPM assists the control of one direct heating circuit and two heating circuits with mixer. Two heat pumps can be operated in a cascade, with additional heat pumps being connected via the WPMsystem extension. The WPM provides a 230 V fault contact for external pick-up of system faults. High efficiency circulation pumps can be connected directly via relay outputs or PWM outputs. The PCB of the WPM is located in a drip-proof wall mounting enclosure which can also accommodate other components, such as the relay for the top-hat rail. The entire system is operated via the integral programming unit. A well designed cable layout and the large installation area for the electrical connections ensure easy, fail-safe connection. The standard delivery includes three sensors which can be used as either immersion or contact sensors, as well as an outside sensor. An internet interface and smart home interfaces are available as options.

		WPM
		234727
Power consumption	VA	8
Relay breaking capacity	A	2
IP rating		IP21
Ambient temperature	°C	0...55
Sensor resistance	Ω	1000
Communication system		CAN
Max. relay output breaking capacity	A	2 (2)
Design peak voltage	V	4000
Max. total breaking capacity of all relay outputs	A	10 (10)
Number of automatic cycles		100000
Level of contamination		2
Function		1.B
Suitable for		Wall mounting
Height	mm	400
Width	mm	310
Depth	mm	100
Weight	kg	2,9
Power supply		1/N/PE ~ 230 V 50 Hz

WPE



The WPE extends the WPM system with numerous functions. The extension offers two additional heating circuits with mixer, enables the integration of a swimming pool controller for primary and secondary integration of a swimming pool, and cascades of up to 6 heat pumps. It also expands the basic functions of the WPM controller, adding options for connecting a building management system. Two additional 0...10 V interfaces, a differential controller and switching outputs are available. The enclosure is simply installed next to the WPM on the right or left-hand side and connected to the power supply and bus. The module's additional functions can be adjusted from the programming unit of the WPM.

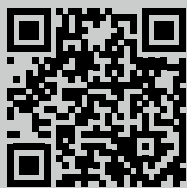
		WPE
		234725
IP rating		IP21
Ambient temperature	°C	0...55
Sensor resistance	Ω	1000
Communication system		CAN bus interface
Max. relay output breaking capacity	A	2 (2)
Design peak voltage	V	4000
Max. total breaking capacity of all relay outputs	A	6 (6)
Number of automatic cycles		100000
Level of contamination		2
Function		1.B
Suitable for		Wall mounting
Height	mm	400
Width	mm	310
Depth	mm	100
Weight	kg	2,9
Power supply		1/N/PE ~ 230 V 50 Hz

FET



The FET digital remote control enables convenient operation of one heating zone. The remote control measures the relative humidity and room temperature.

		FET
		234723
Height	mm	96,00
Width	mm	145,00
Depth	mm	31



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STIEBEL ELTRON GmbH & Co. KG | Dr.-Stiebel-Straße 33
37603 Holzminden | www.stiebel-eltron.de

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