



Air-to-water heat pumps



aroTHERM plus

Installer's Quick Guide

aroTHERM plus



Important Note:

This quick guide shall support the professional installer in planning, installing and commissioning the appliance. It shall on no account replace or modify the installation, operating and maintenance instructions delivered with the appliance which always have to be observed.

The non-observance of the instructions delivered with the appliance can lead to malfunctions of the appliance and can result in death or serious injuries. Some characteristics of the appliance shown in this quick guide may vary from those of the most current series version. Vaillant Group UK Limited shall not be held liable for any damages or injuries arising directly or indirectly from the use of this quick guide.

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Hint:



Follow the symbol to dedicated documents for more detailed information.





Get started quickly!

Your perfect installation with aroTHERM plus step-by-step:

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Check the product installation manuals for further information.

We are here to help you!

Don't hesitate to contact us for further support

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Plan your work ...

Select the ideal aroTHERM plus to fit your needs

Performance data

When designing a heating system that utilises a heat pump, there are a number of design factors that need to be considered.

Heat loss

MCS recommend using the MIS 3005 installation standard for designing a heat pump system. Systems should be specified to cover peak winter requirements, depending on location, to ensure year round comfort as detailed in the table below. The table below shows the hourly dry-bulb temperatures equal to or exceeded for 99% (Column A) and 99.6% (Column B) of the hours in a year. In the absence of more localised information, data from the closest location may be used, decreased by 0.6°C for every 100m by which the height above sea level of the site exceeds that of the location in the table.

MIS 3005 design temperatures		Hourly dry-bulb temperature (°C) equal to or exceeded for % of the hours in a year	
Location	Altitude (m)	A 99%	B 99.6%
Belfast	68	-1.2	-2.6
Birmingham	96	-3.4	-5.4
Cardiff	67	-1.6	-3.2
Edinburgh	35	-3.4	-5.4
Glasgow	5	-3.9	-5.9
London	25	-1.8	-3.3
Manchester	75	-2.2	-3.6
Plymouth	27	-0.2	-1.6

A room-by-room heat loss calculation check will then need to be carried out at the set outside temperature in order to understand the heating needs of the total property.

aroTHERM plus output data -actual values will depend upon system and application due to the modulating nature of an inverter driven compressor.

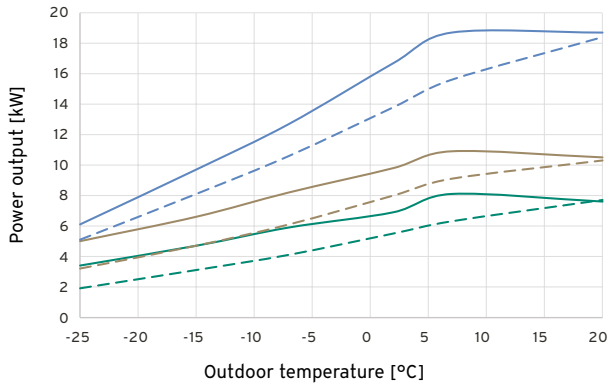
aroTHERM output		35°C flow		40°C flow		45°C flow		50°C flow		55°C flow	
		Output	SCOP	Output	SCOP	Output	SCOP	Output	SCOP	Output	SCOP
3.5kW	-5°C	4.2	4.41	4.1	4.03	4	3.65	3.9	3.37	3.8	3.10
	-3°C	4.6		4.4		4.3		4.2		4	
	0°C	4.7		4.7		4.6		4.5		4.4	
	2°C	4.9		4.9		4.9		4.7		4.6	
5kW	-5°C	6.3	4.48	6	4.13	5.6	3.77	5.5	3.41	5.4	3.06
	-3°C	6.8		6.4		6.1		5.9		5.8	
	0°C	6.9		6.7		6.6		6.4		6.2	
	2°C	7.1		7		6.9		6.7		6.5	
7kW	-5°C	8.2	4.36	8.1	4.13	8	3.91	7.5	3.65	7	3.39
	-3°C	8.8		8.6		8.4		7.9		7.4	
	0°C	9.5		9.3		9.1		8.6		8.1	
	2°C	10		9.8		9.6		9		8.5	
10kW	-5°C	9.9	5.03	9.7	4.58	9.4	4.13	9.1	3.85	8.8	3.58
	-3°C	10.7		10.3		10		9.6		9.2	
	0°C	11.9		11.6		11.3		10.7		10.2	
	2°C	12.8		12.5		12.1		11.5		10.9	
12kW	-5°C	13.1	4.88	12.8	4.55	12.5	4.21	11.7	3.92	10.8	3.63
	-3°C	13.9		13.4		12.9		12.1		11.2	
	0°C	15.2		14.6		14.1		13.2		12.3	
	2°C	16		15.5		14.9		13.9		13	



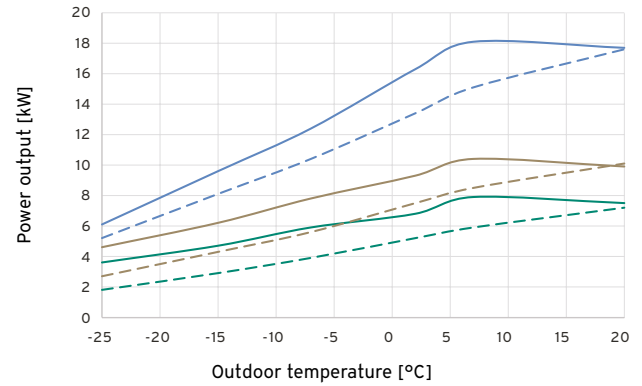
Heating output **

—●— VWL 35/6 S2
 —●— *VWL 65/6 S2
 —●— VWL 105/6 (230 V/400 V) S2
—●— VWL 55/6 S2
 —●— VWL 75/6 S2
 —●— VWL 125/6 (230 V/400 V) S2

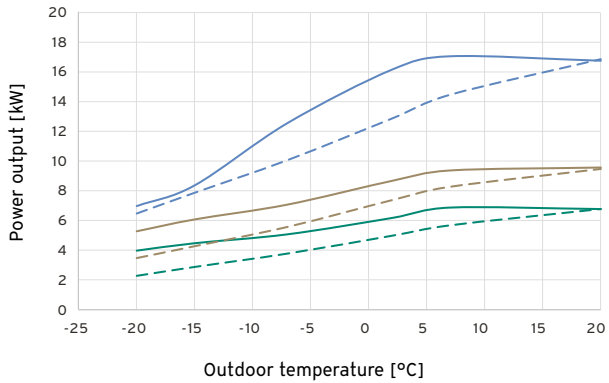
Flow temperature 35 °C



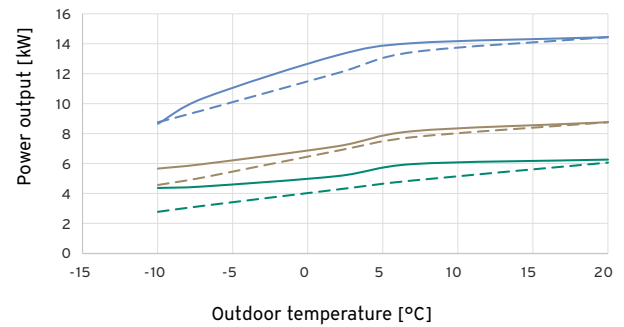
Flow temperature 45 °C



Flow temperature 55 °C



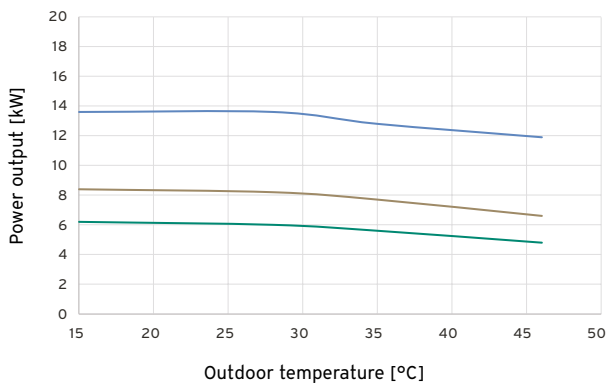
Flow temperature 65 °C



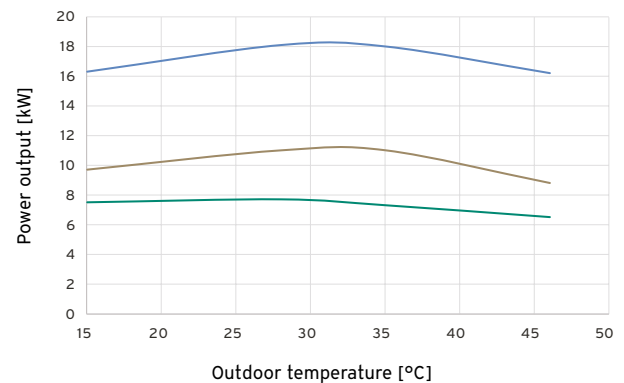
Cooling output **

—●— VWL 35/6 S2
 —●— *VWL 65/6 S2
 —●— VWL 105/6 (230 V/400 V) S2
—●— VWL 55/6 S2
 —●— VWL 75/6 S2
 —●— VWL 125/6 (230 V/400 V) S2

Flow temperature 7 °C



Flow temperature 18 °C



* not available in the UK.

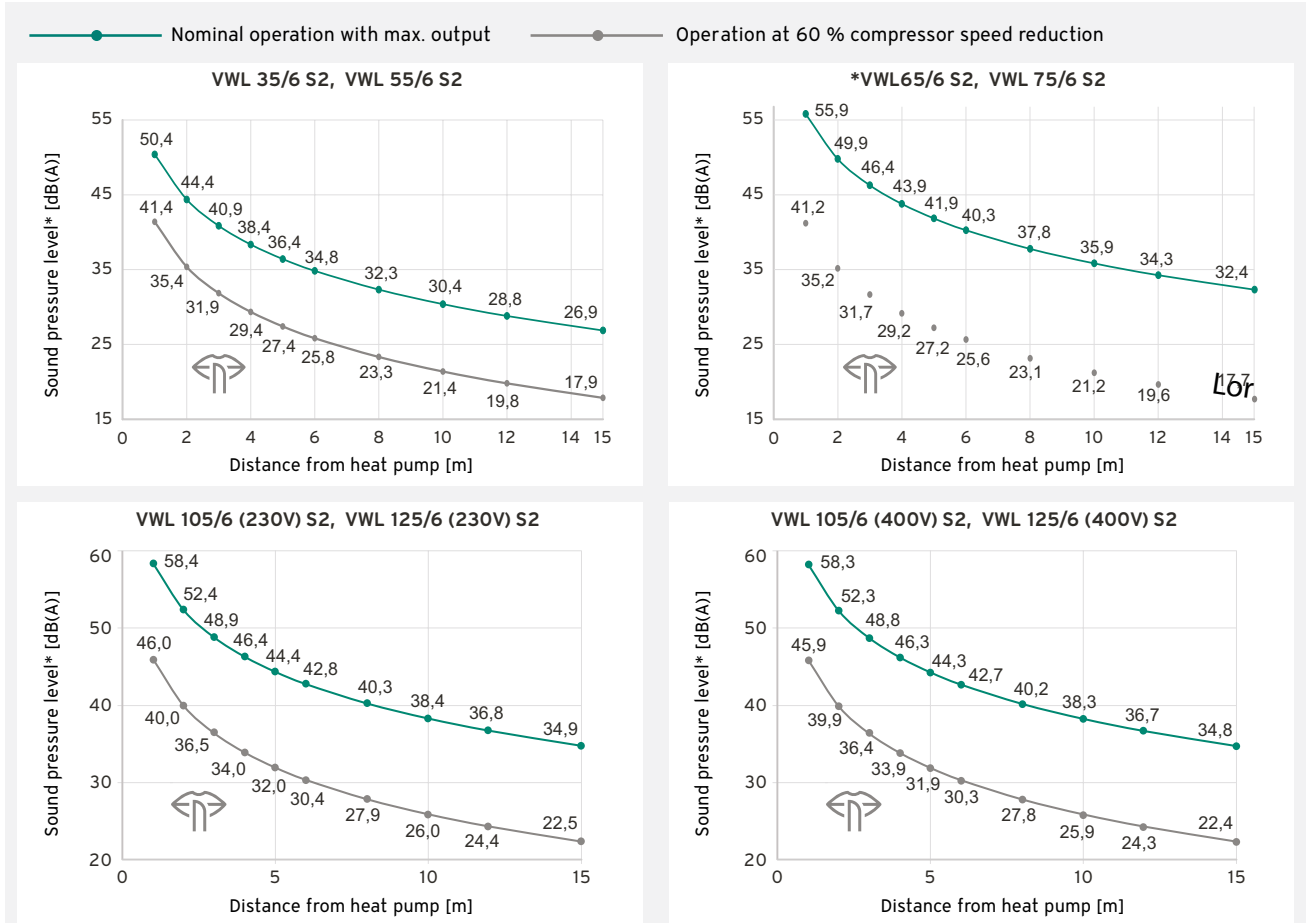
** at maximum compressor speed.

Actual values will depend upon system and application due to the modulating nature of an inverter driven compressor.

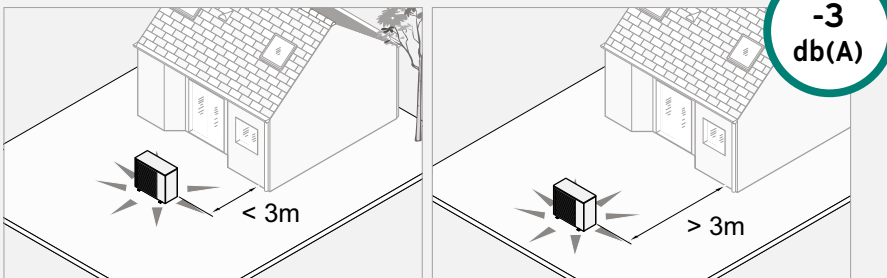


Sound power pressure level

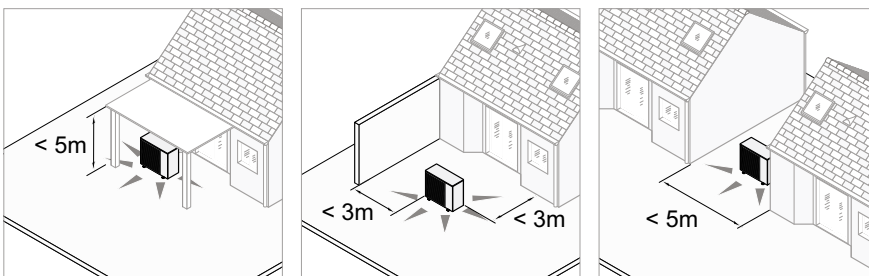
aroTHERM plus	3.5 kW	5 kW	7 kW	10 kW	12 kW
Sound power level A7/W55	54 dB	54 dB	55 dB	60 dB	60 dB



* Sound pressure level applicable to the following installation situation:



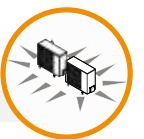
The sound pressure level increases by 3 dB(A) in the following installation situations:



Higher sound pressure level with cascades:

Surcharge for cascades of identical units on the level of the first unit:

cascade of 2:	+3,0 dB(A)
cascade of 3:	+4,8 dB(A)
cascade of 4:	+6,0 dB(A)
cascade of 5:	+7,0 dB(A)
cascade of 6:	+7,8 dB(A)



*not available in the UK.



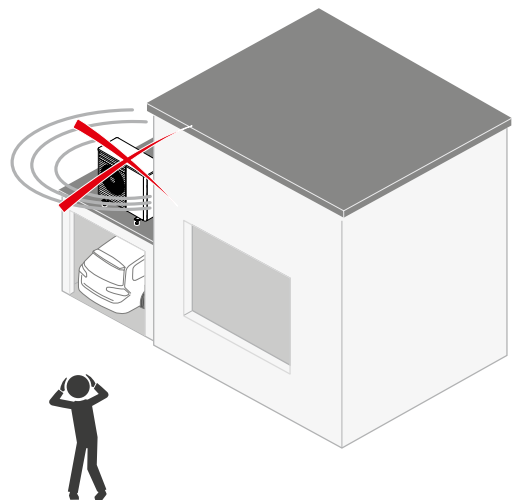
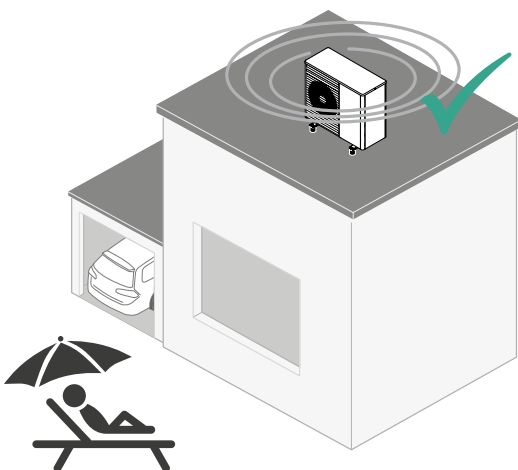
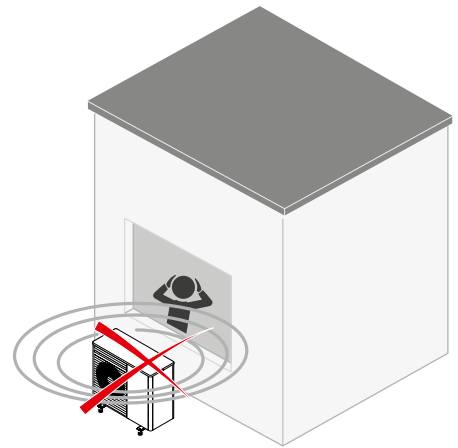
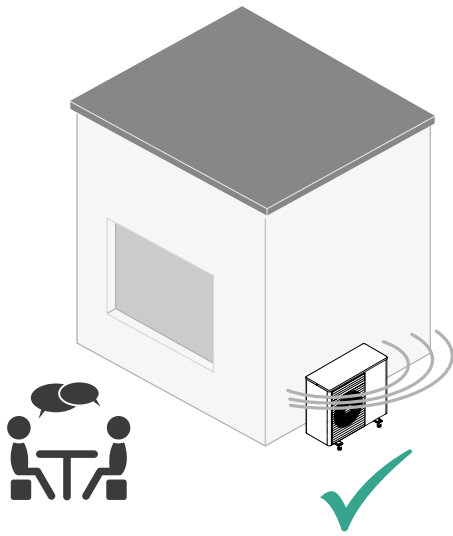
Find the perfect space for your installation

A quiet space for your installation

Whilst the aroTHERM plus has been accredited by Quiet Mark* for its super low noise levels. When siting the unit, consideration to bedroom windows and flat roof installations.

Do! 

Don't 



*Models 3.5, 5, 7 and 12kW

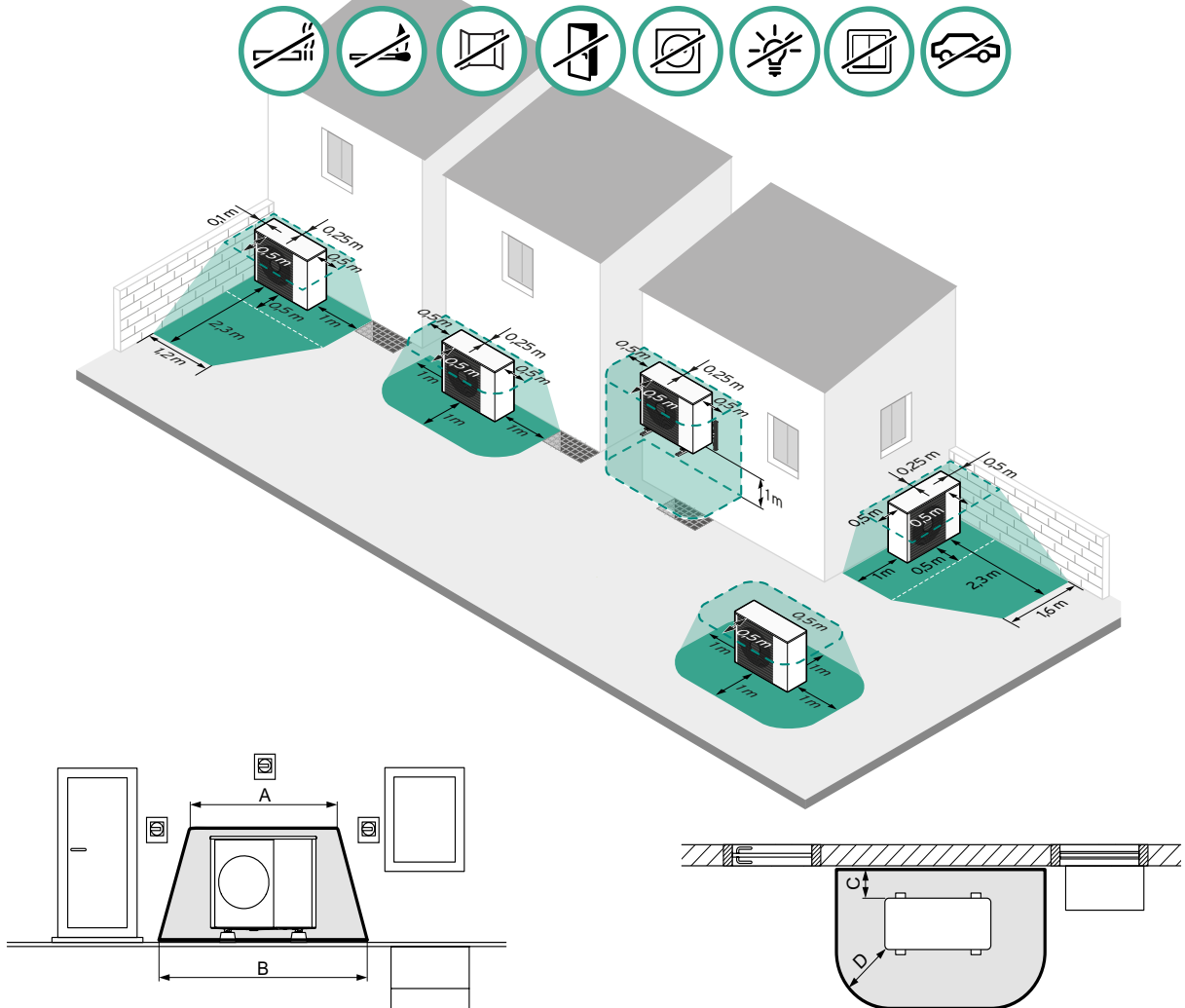


A safe space for carefree operation

When placing the unit you must be aware of drains and openings.

In the unlikely event of a refrigerant leak the gas needs to be allowed to disperse to stop the risk of the gas becoming lit.

Follow the diagrams below to ensure adequate clearance.



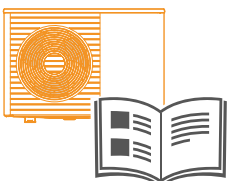
There must be no ignition sources, such as plug sockets, light shafts, lamps or electrical switches in the protective zone.

Air vents to void areas and air tight drains can be within the protective zone.

The condensate that accumulates can be guided into a sewer, pump sump or soakaway via a downpipe, gully, balcony run-off or roof run-off. Open gullies or downpipes within the protective zone do not pose any safety risk.

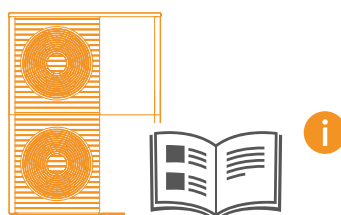
Minimum clearances	Unit	Dimension
A	mm	2100
B	mm	3100
C	mm	200/250
D	mm	1000

* VWL 35-75 A S2



0020330791

* VWL 105-125 A S2



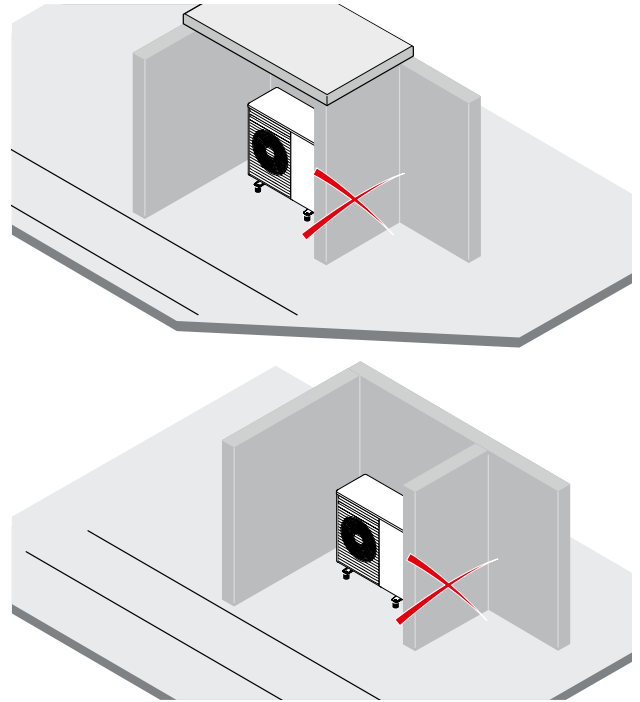
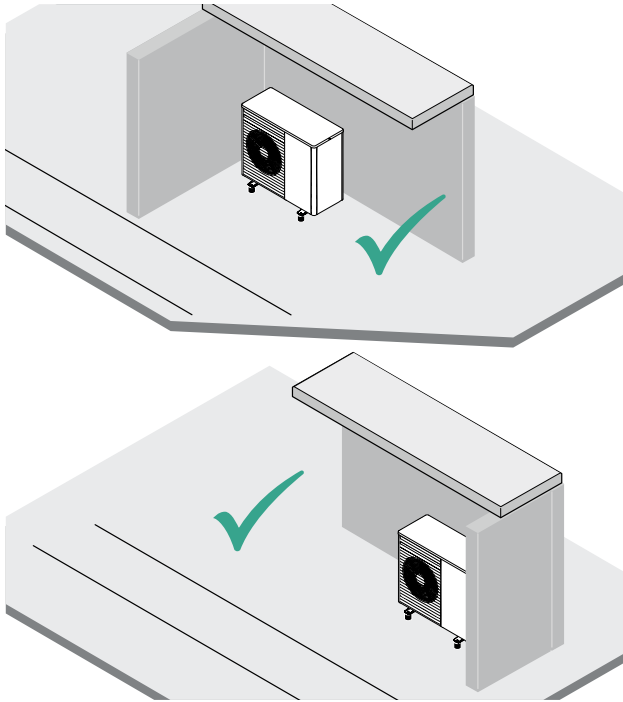
0020330792



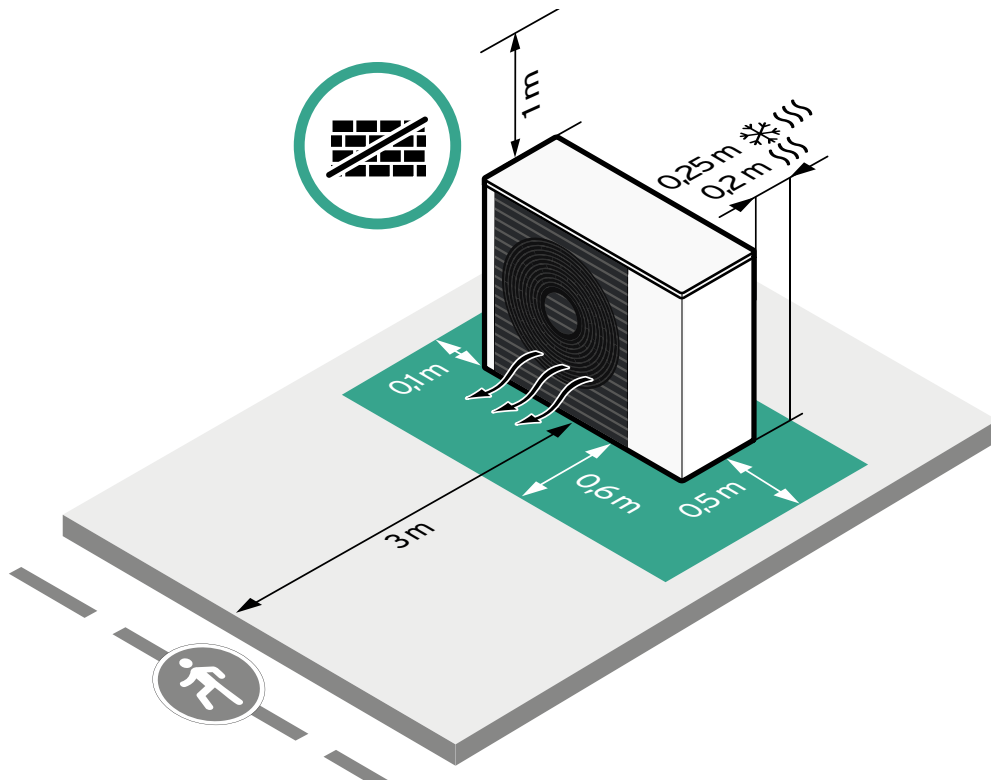
A vented space for perfect operation

Do!

Don't!

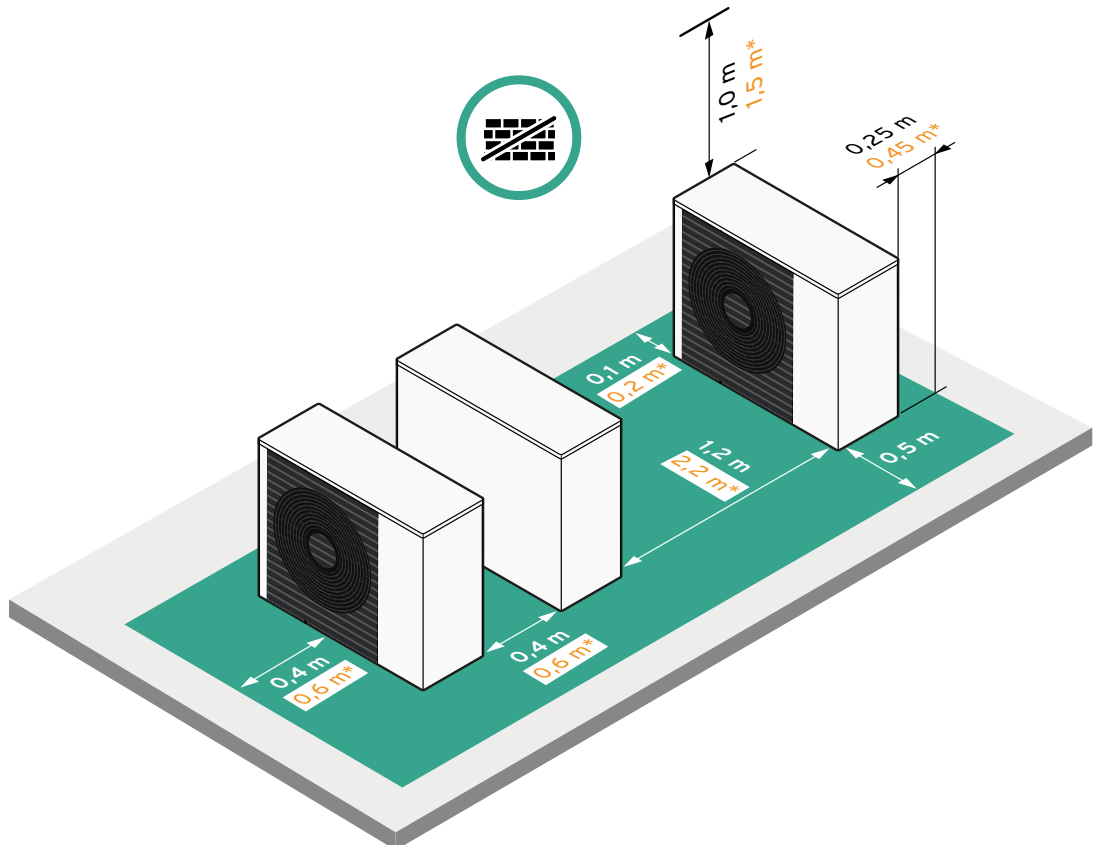
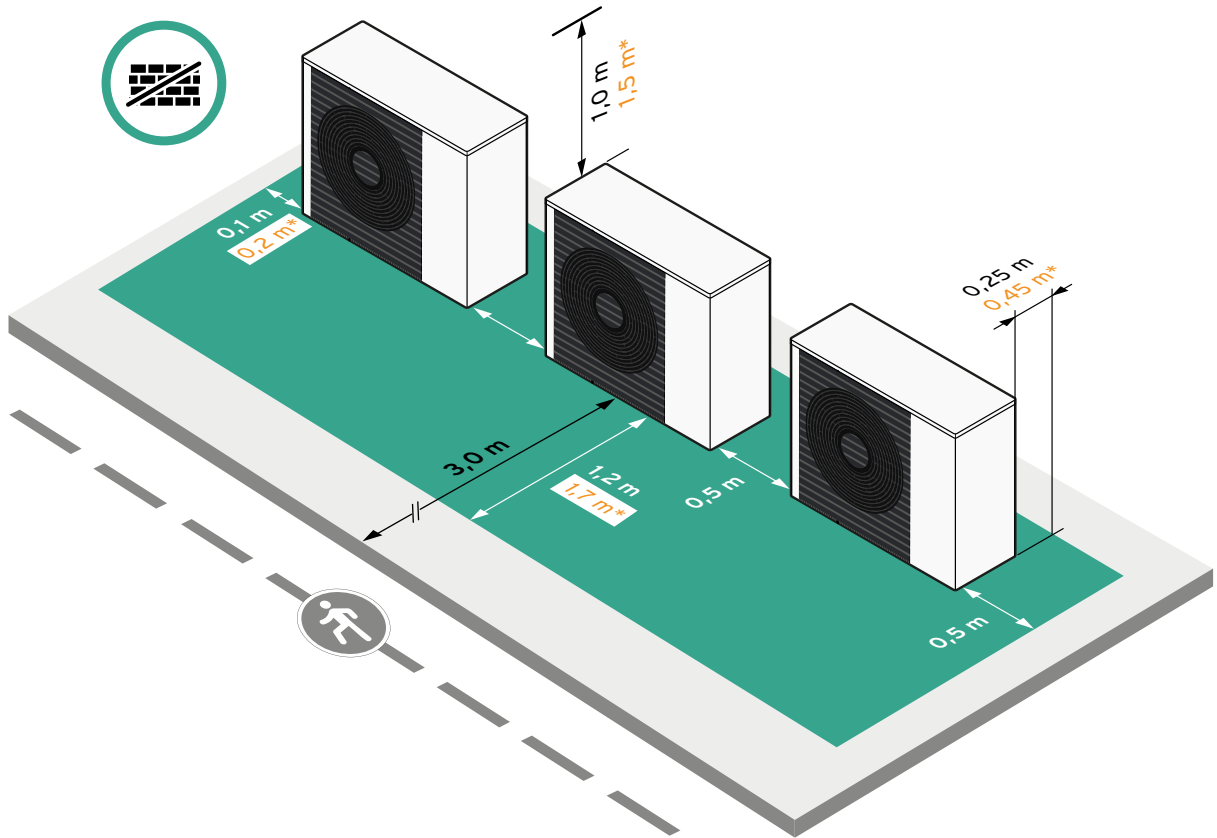


Operational and servicing clearances

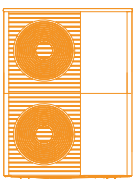




aroTHERM plus cascade options: quiet, vented safe!

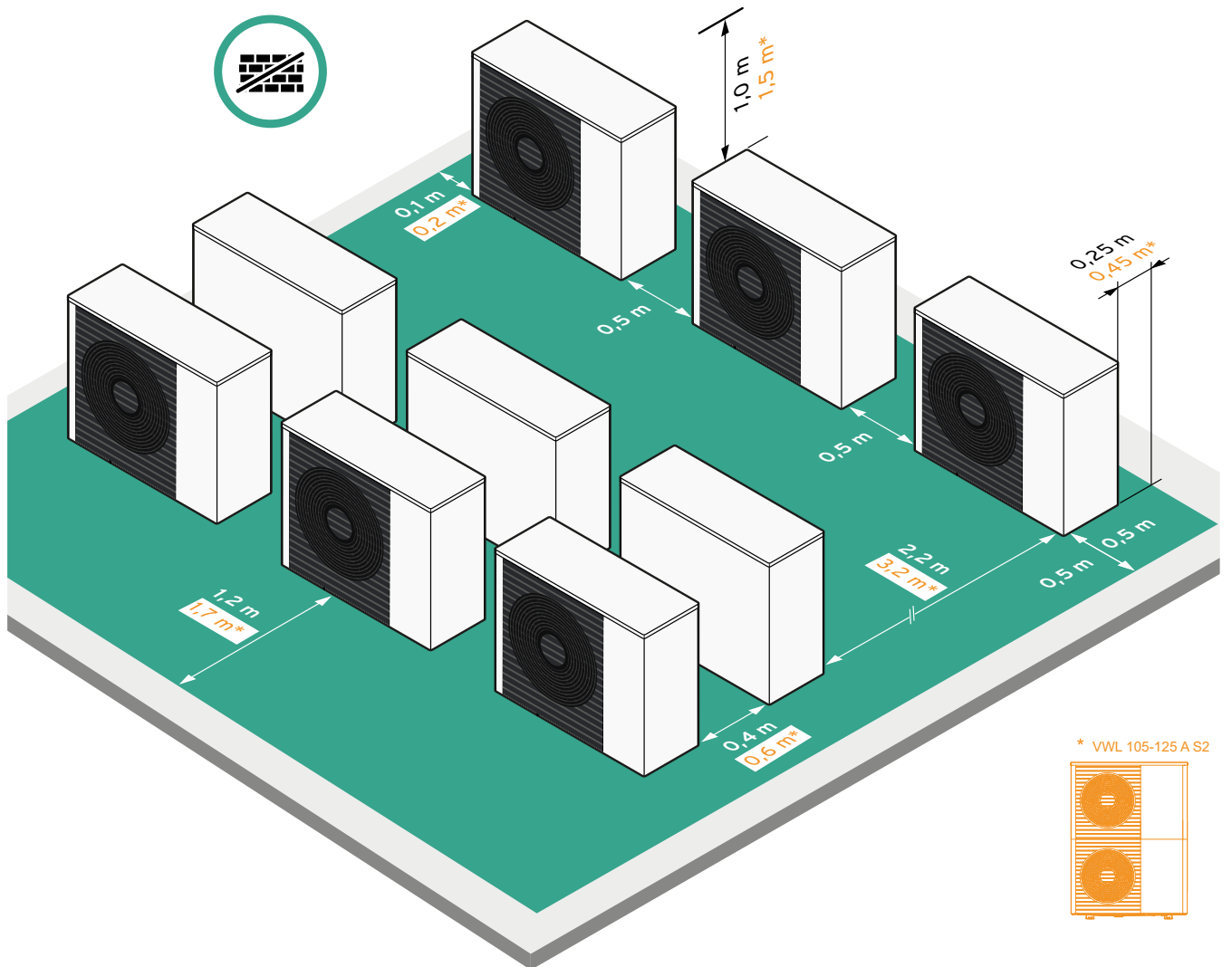


* VWL 105-125 A S2








aroTHERM plus cascade options: quiet, vented safe!



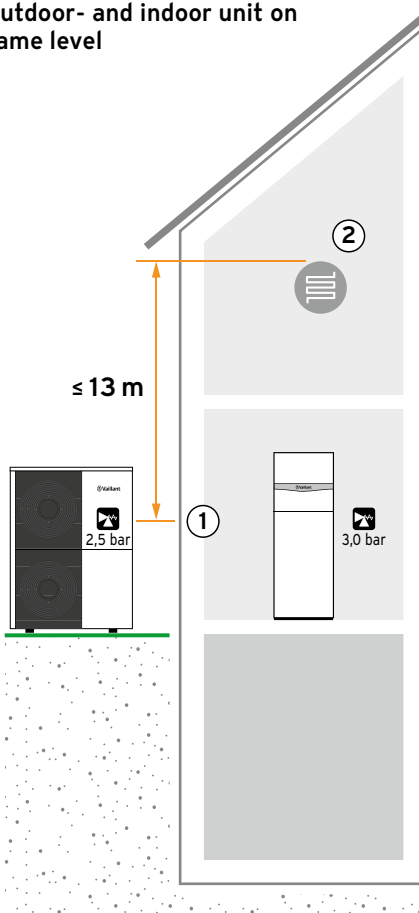


Safety concept aroTHERM plus (for each unit size):

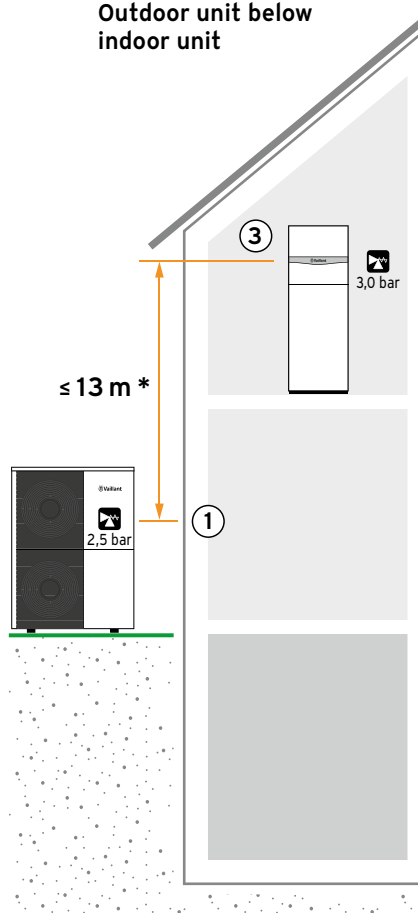
Heat pump	Automatic air vent in the unit	Closing the automatic air vent following start-up	Expansion relief valve in the unit	Max. static height between the aroTHERM and the highest point in the heating system
 VWL 35/6 S2 VWL 55/6 S2	✓	✓	✗	18 m
 VWL 75/6 S2	✓	✓	✗	18 m
 VWL 105/6 S2 VWL 125/6 S2	✓	✗	✓ 2,5 bar	13 m

Maximum height difference - only for VWL 105/6 S2 and VWL 125/6 S2

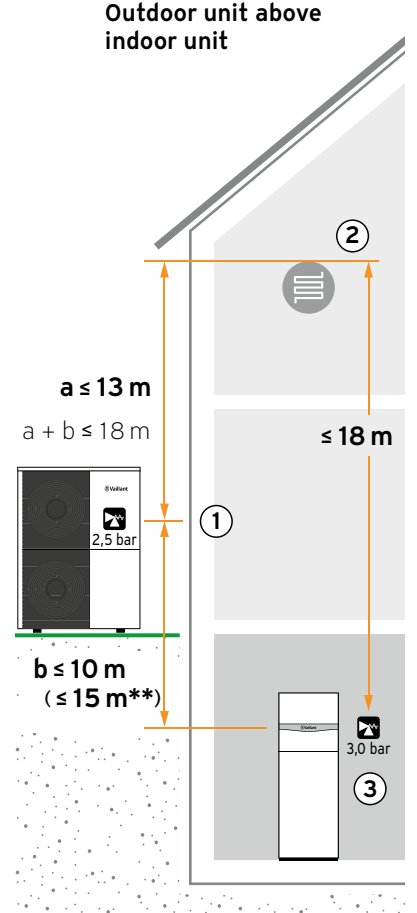
Outdoor- and indoor unit on same level



Outdoor unit below indoor unit



Outdoor unit above indoor unit

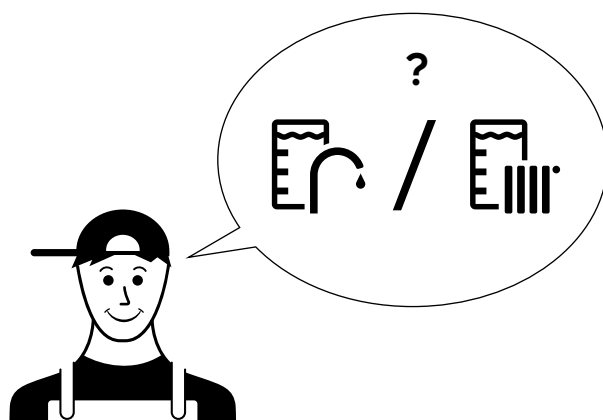
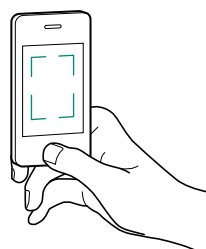


- 1 Position of the expansion relief valve in the outdoor unit
- 2 Highest point in the heating system
- 3 Position of the safety valve on the indoor unit

- * No additional pump is permitted in the heating system.
- ** For a height difference of 10 m to 15 m, the volume of the heating system, the size of the expansion vessel and the pre-charge pressure of the expansion vessel must be taken into consideration.



Select the perfect domestic hot water storage



Scan the QR code for DHW sizing

Cylinder compatibility matrix

aroTHERM plus	uniSTOR 150 litre cylinder	uniSTOR 200 litre cylinder	uniSTOR 250 litre cylinder	uniSTOR 300 litre cylinder	uniSTOR 500 litre cylinder	auroSTOR 500 litre cylinder	uniSTOR 800 litre cylinder
3.5kW	✓	✓					
5kW	✓	✓	✓				
7kW	✓	✓	✓	✓			
10kW	✓	✓	✓	✓	✓	✓	
12kW		✓	✓	✓	✓	✓	✓

uniSTOR heat pump pre-plumbed cylinder range

Storage temperature in cylinder	150*	200	250	300
	Amount of useable hot water at point of use (litres)			
50°C	200	267	333	400
55°C	225	300	375	450
60°C	250	333	417	500
65°C	275	367	458	550

* 150 litre slimline cylinder.

Note: 40°C temperature at point of use

uniSTOR heat pump non pre-plumbed cylinder range

Storage temperature in cylinder	150	200	250	300	500	800
	Amount of useable hot water at point of use (litres)					
50°C	200	267	333	400	667	1067
55°C	225	300	375	450	750	1200
60°C	250	333	417	500	833	1333
65°C	275	367	458	550	917	1467

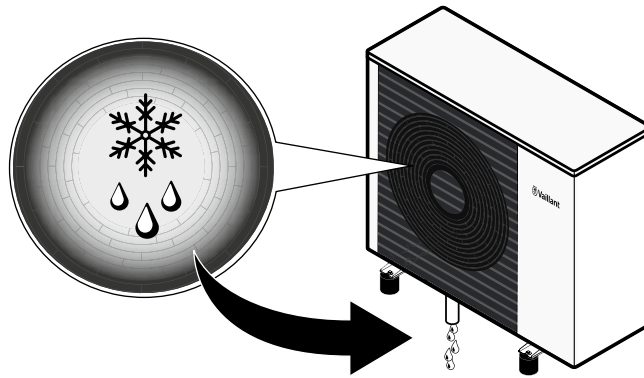
Note: 40°C temperature at point of use



Minimum required buffer water volume for de-icing

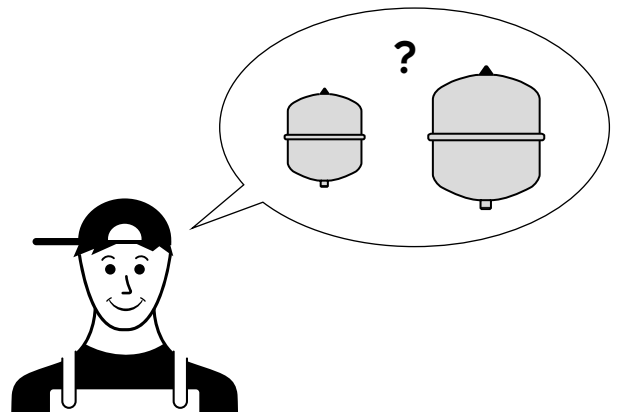
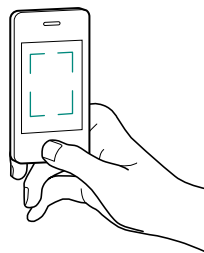
aroTHERM plus	Minimum open volume required
aroTHERM plus 3.5 and 5kW	15 litres
aroTHERM plus 7kW	20 litres
aroTHERM plus 10 and 12kW*	45 litres

For each aroTHERM plus installation a minimum water volume is required within the heating system. This is a necessity to reduce the risk of the heat pump cycling and also to allow the unit to enter defrost mode. If the volume of the system, excluding the zone controlled heating circuits, is greater than that detailed below, then a buffer tank MAY not be required.



Dimension the expansion vessel

Scan the QR code to easily dimension your expansion vessel

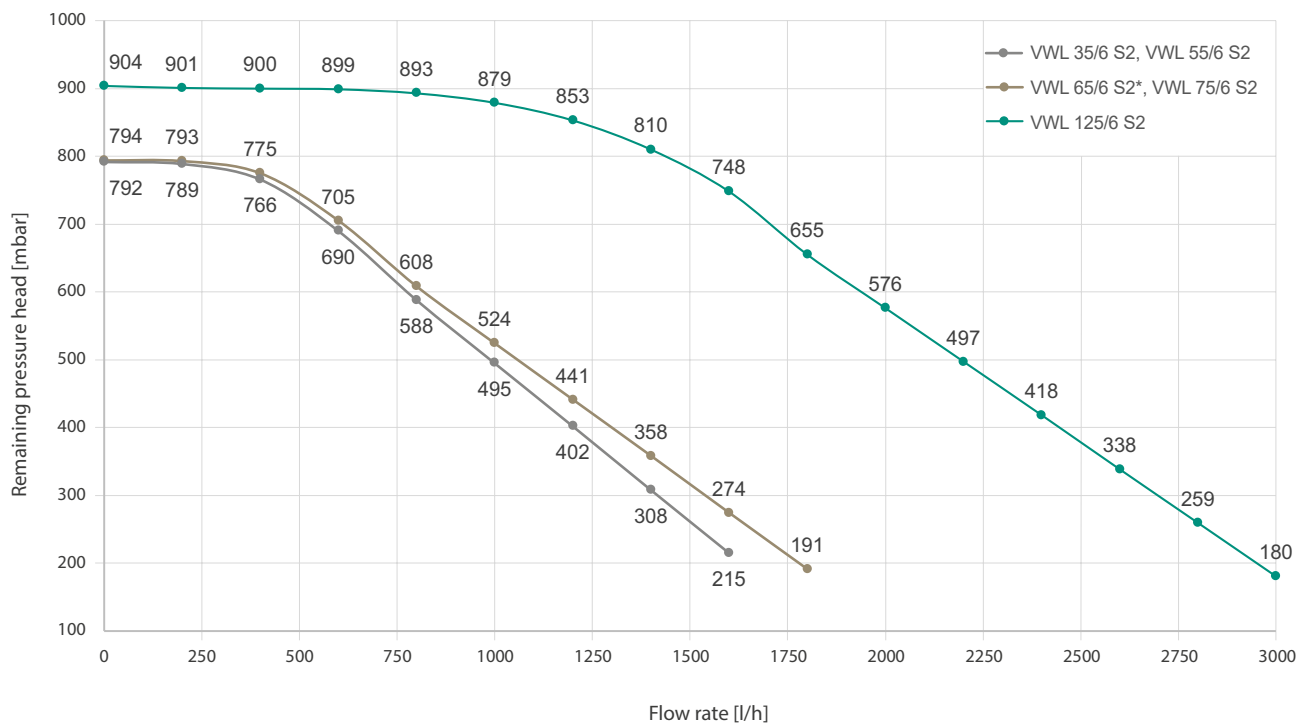


Scan or click the QR-Code for dimensions of the expansion vessel

*230v and 400v models.

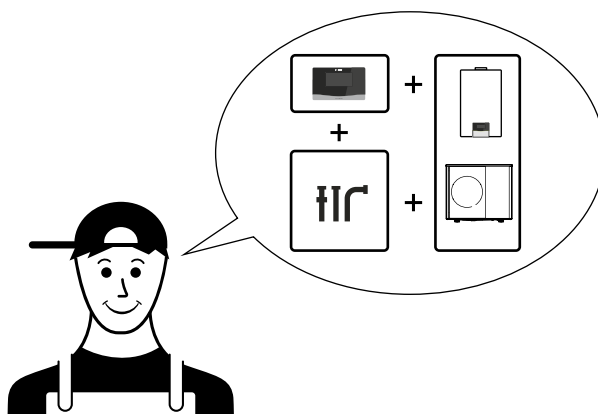
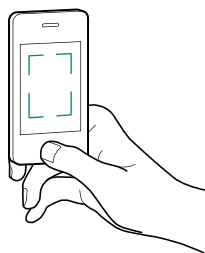


Remaining pressure head of heating circuit pump



Select your system scheme (system components, hydraulics and wiring)

Scan the QR code to select a system scheme from our schematic booklet



Scan or click the QR-Code to select system scheme

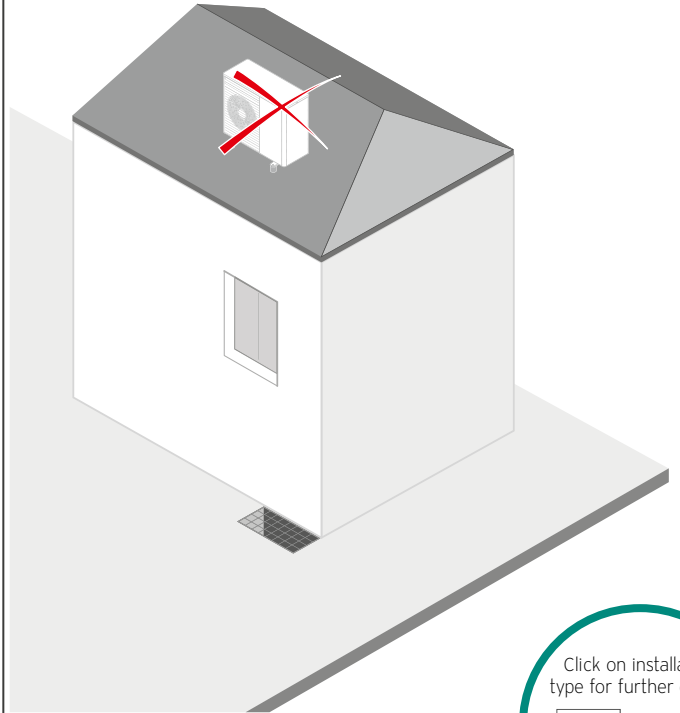
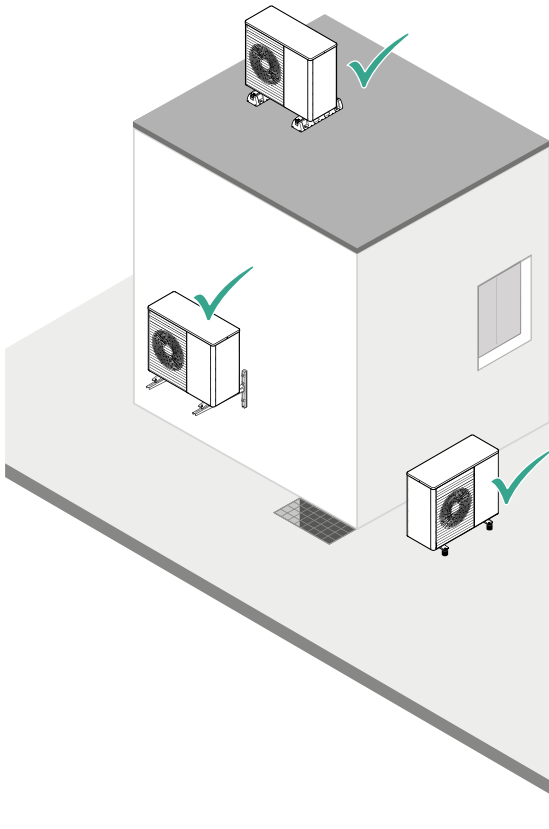
*not available in the UK.



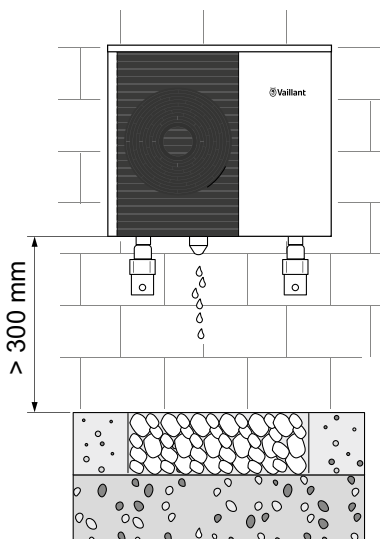
Decide on the installation type

Do!

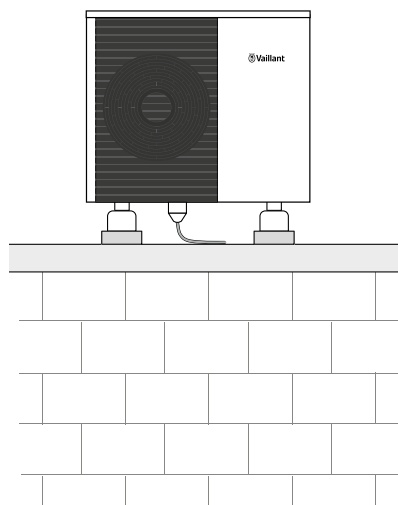
Don't



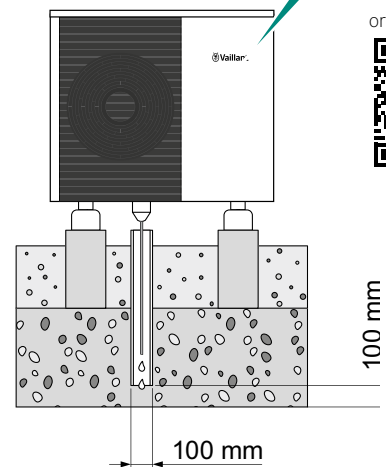
On the wall ...



On the flat roof ...



On the ground ...



or scan QR-Code:

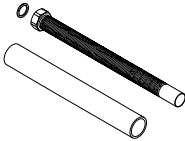


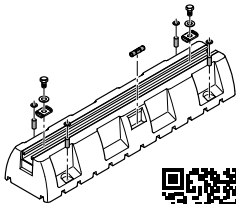



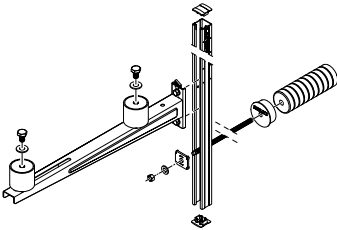

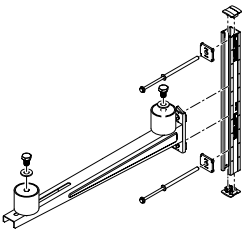





Select mounting accessories

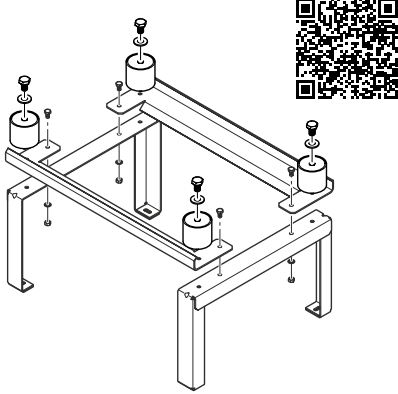

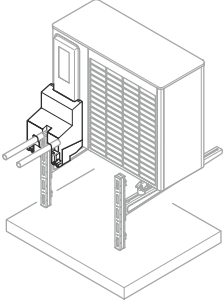

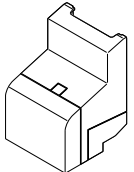

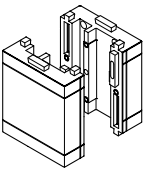

Click on images for installation instructions



Connection	Installation option		
	Ground/Roof	Wall	
Plain	425mm straight ppipe connection 35mm plain end Art.-No.: 0010027976  		
	750mm flexible hose 28mm compression fitting Art.-No.: 0010027989 		
Mounting	600mm large rubber feet (90mm height) Art.-No.: 0020250226  		
	Small rubber feet Art.-No.: 0020252091  	Wall brackets for insulated walls* Art.-No.: 0020250224  	Wall brackets for non-insulated walls* Art.-No.: 0020250225  

*Only suitable for 3.5/5 & 7kW models.



	Installation option	
	Ground/Roof	Wall
Mounting		
Snow	<p>Snow spacer Art.-No.: 0010027984 (excludes rubber feet)</p>  	
Connections kits - piping and insulation		
Simple		<p>Wall EPP insulation kit Art.-No.: 0010027974 (includes short straight flexible hose 125mm with 35mm plain end)</p>  
Snow	<p>Floor EPP insulation kit Art.-No.: 0010027971 (includes short right angled flexible hose 125mm, 2 x beulco suitable for 40mm PE pipe)</p>   <p>Floor EPP extension kit Art.-No.: 0010027972 (for use with snow spacer 0010027984)</p>  	



Check your plan!

Tick your planning checklist 

- Heat pump depending on the heating and cooling load calculation chosen
- Installation site planned (quiet, vented, safe)
- System temperatures chosen (underfloor, radiator, fan coil)
- Domestic hot water and buffer tank chosen
- Expansion vessel determined
- System scheme selected
- System components incl. accessories for installation ordered



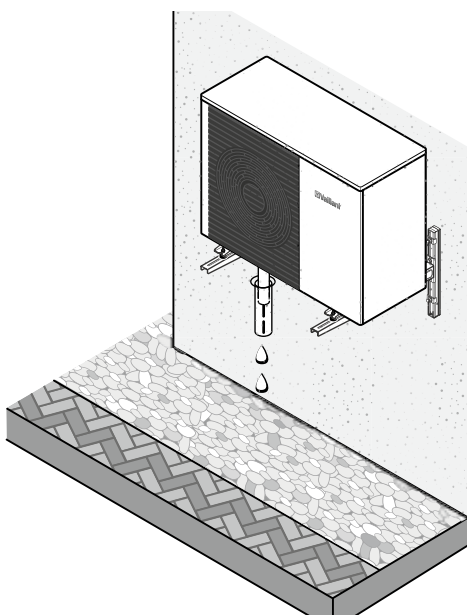
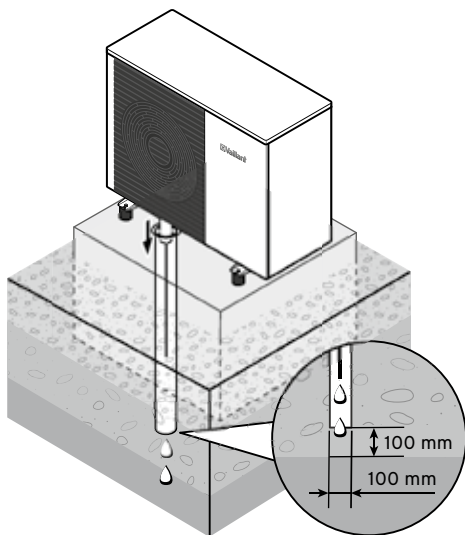
... work your plan

Install the aroTHERM plus system.

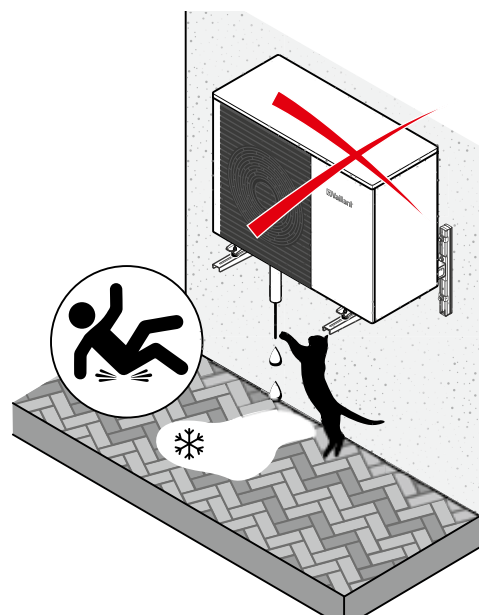
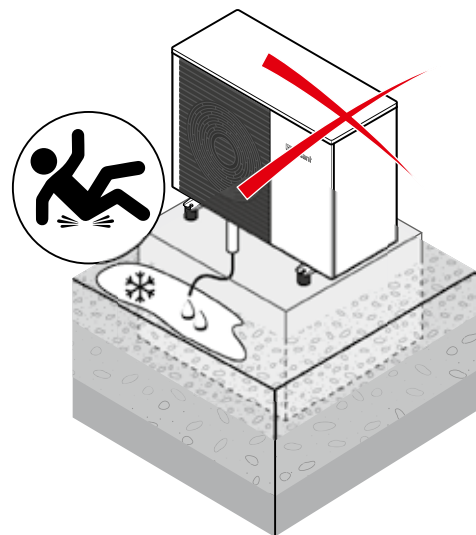
Start with the hydraulic installation

Realize the condensate drain

Do! 

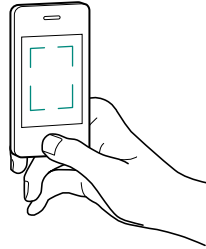
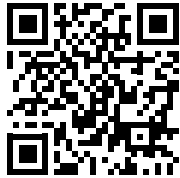


Don't 

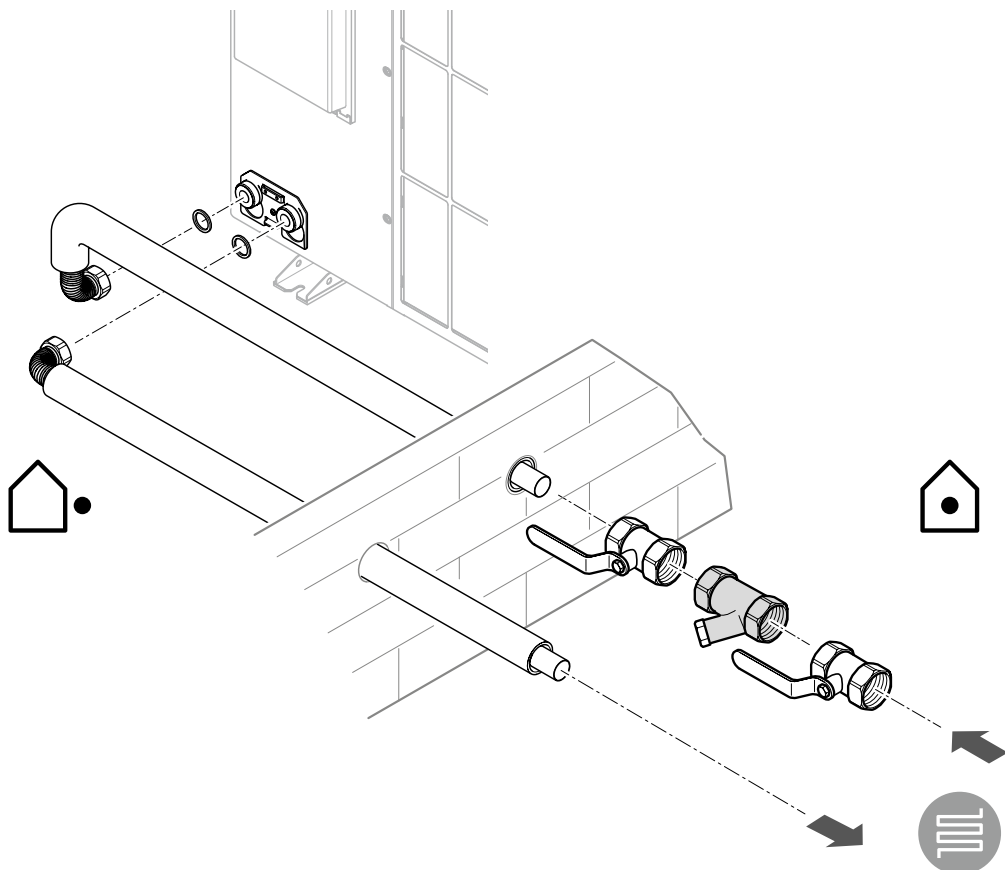




Hydraulic connection



Scan or click the QR-Code for installation video

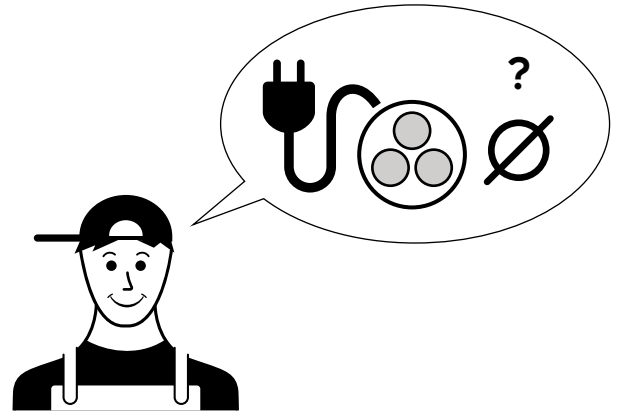
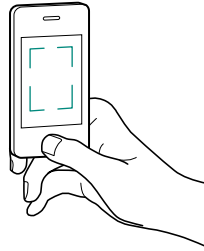




Proceed to the power supply and eBUS connection

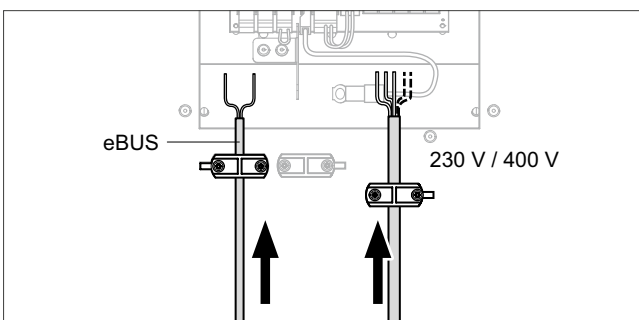
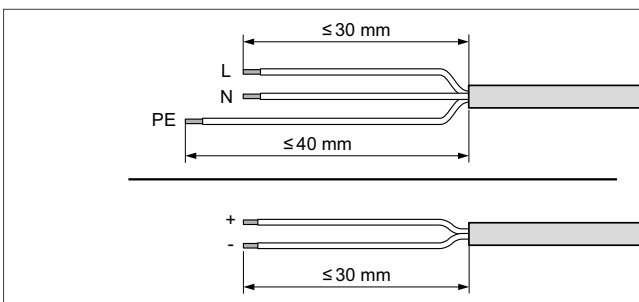
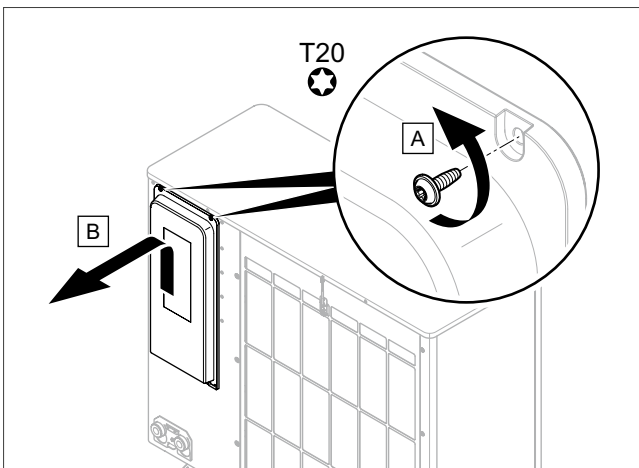
Calculate the cable cross section

Scan the QR-Code to easily calculate the required cable cross section for the wiring

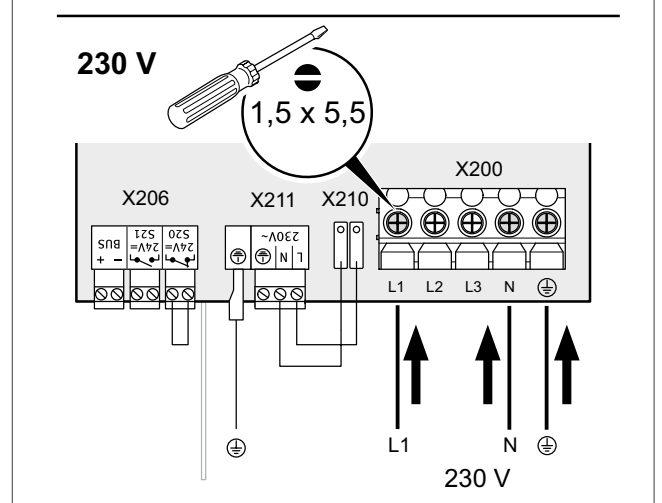
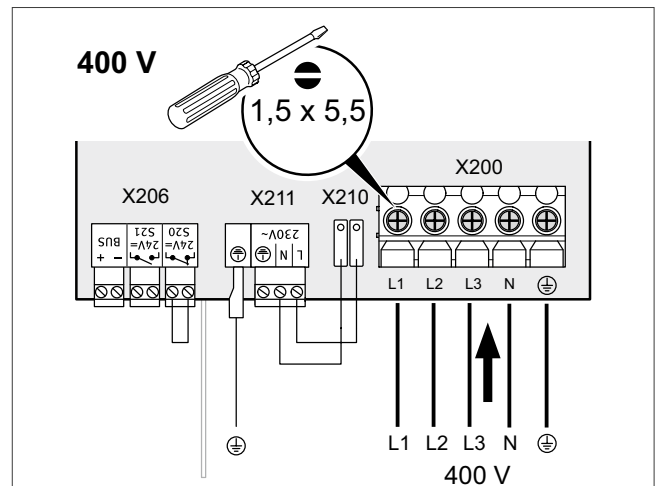


Scan or click the QR-Code for calculating the cable cross section

Preparation

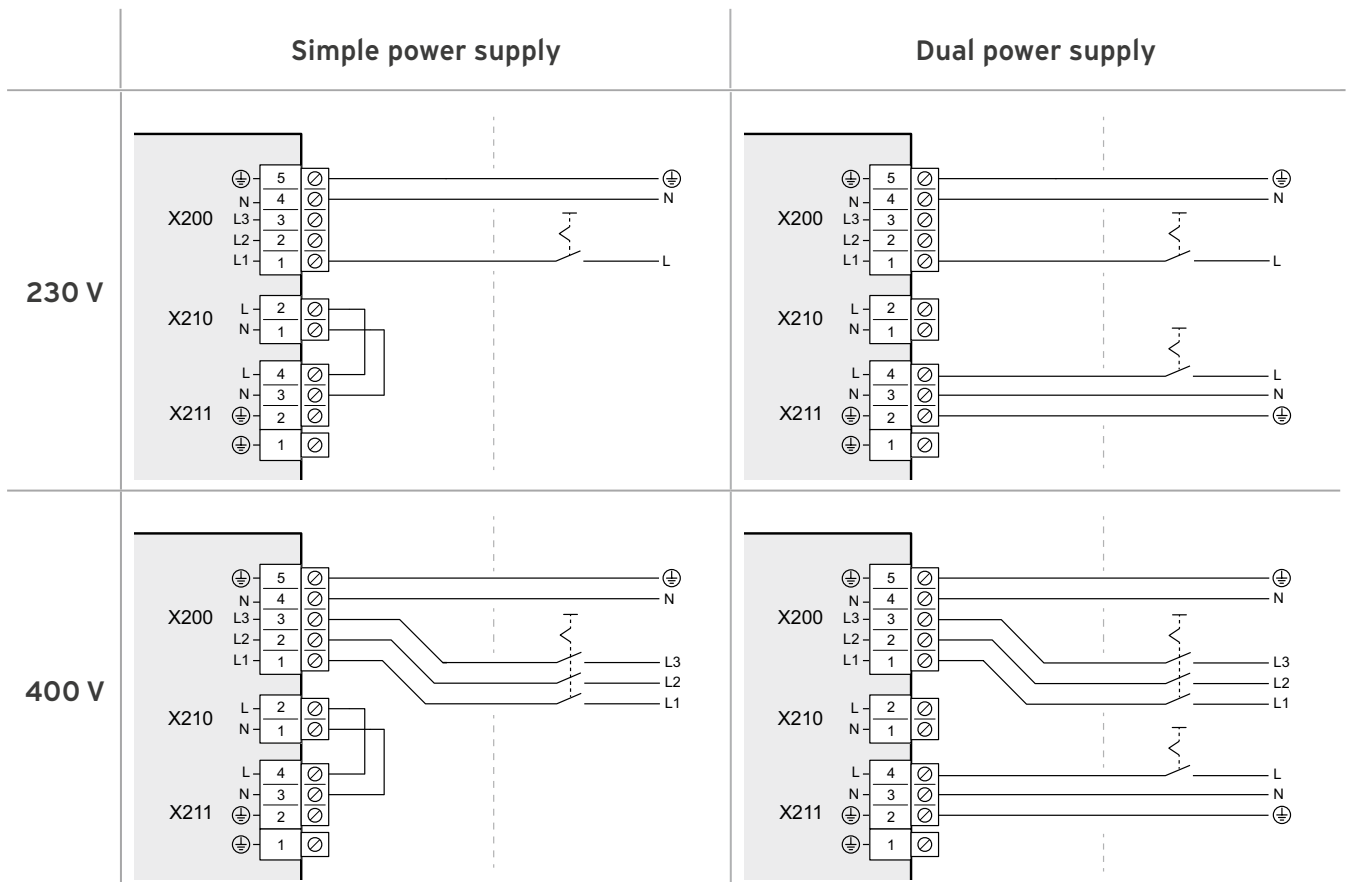
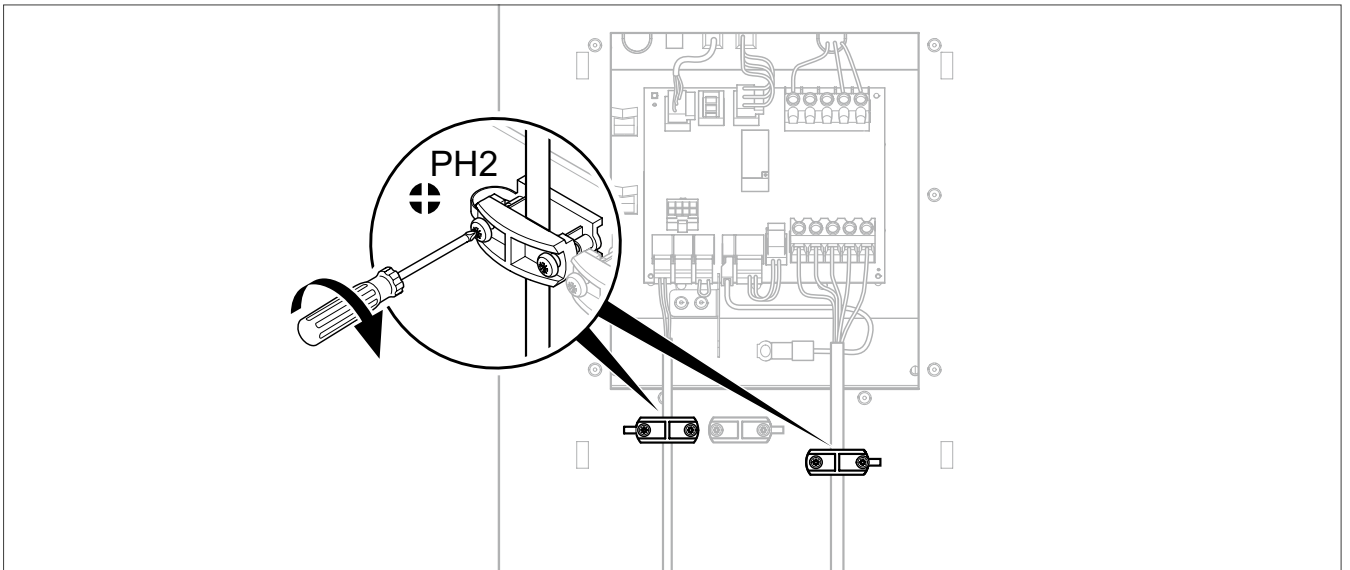


Power supply connection (230 V / 400 V)





Fasten cable strain reliefs





eBUS connection

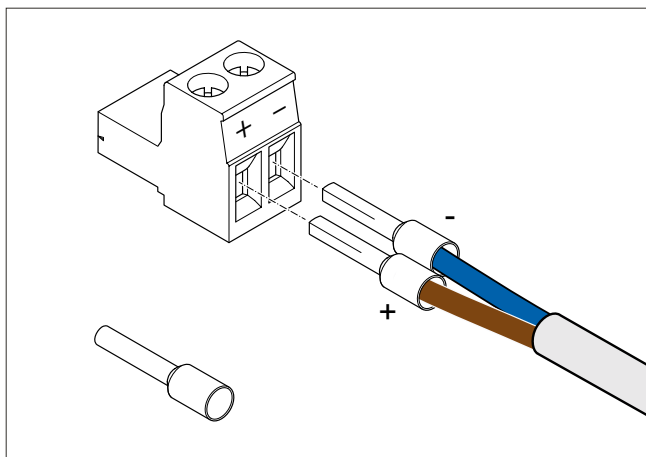
Note: It is not permitted to use twisted and shielded cable.

Note: Pay attention to polarity of the eBUS connection.

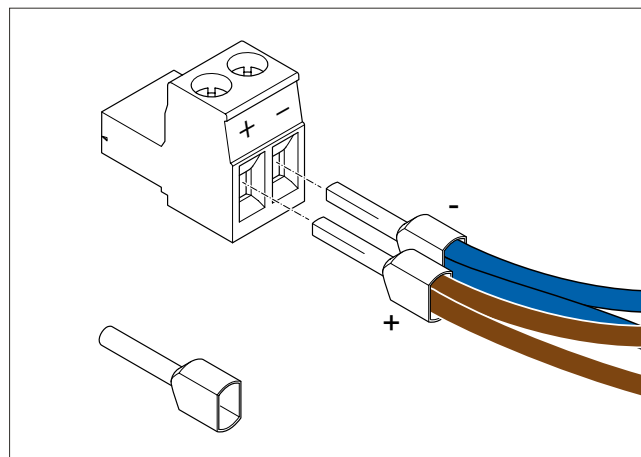
Note: eBUS cables must not be routed parallel to mains cables, e.g. in empty conduits.

Note: Do not lay eBUS cables near strong electrical consumers.

Crimp flexible ducts with conductor end sleeves



Use double conductor end sleeves when looping through



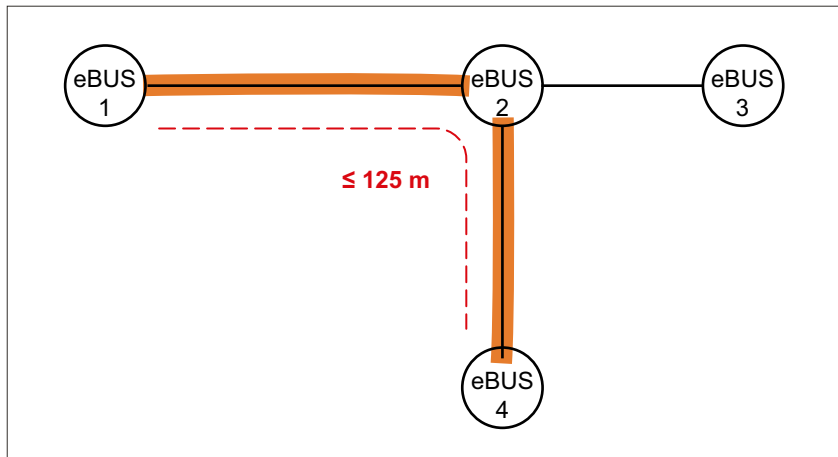
Maximum distance between two eBUS participants

Note: The two eBUS participants that are furthest away from each other determine the critical path (≤ 125 m).

Planning module
aroTHERM plus

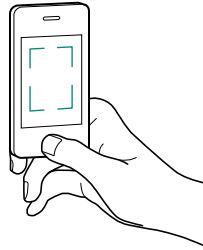


0020222099

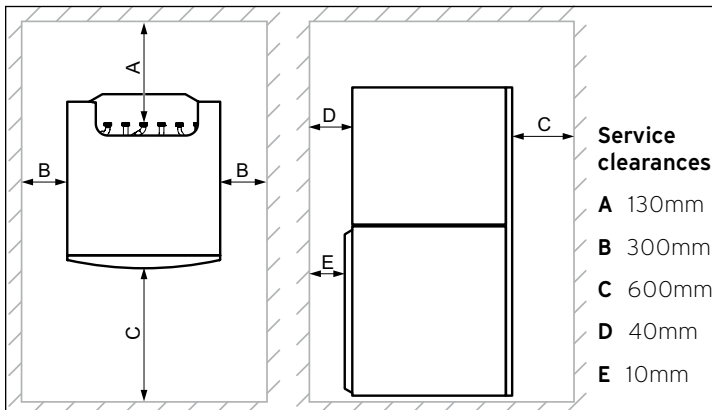
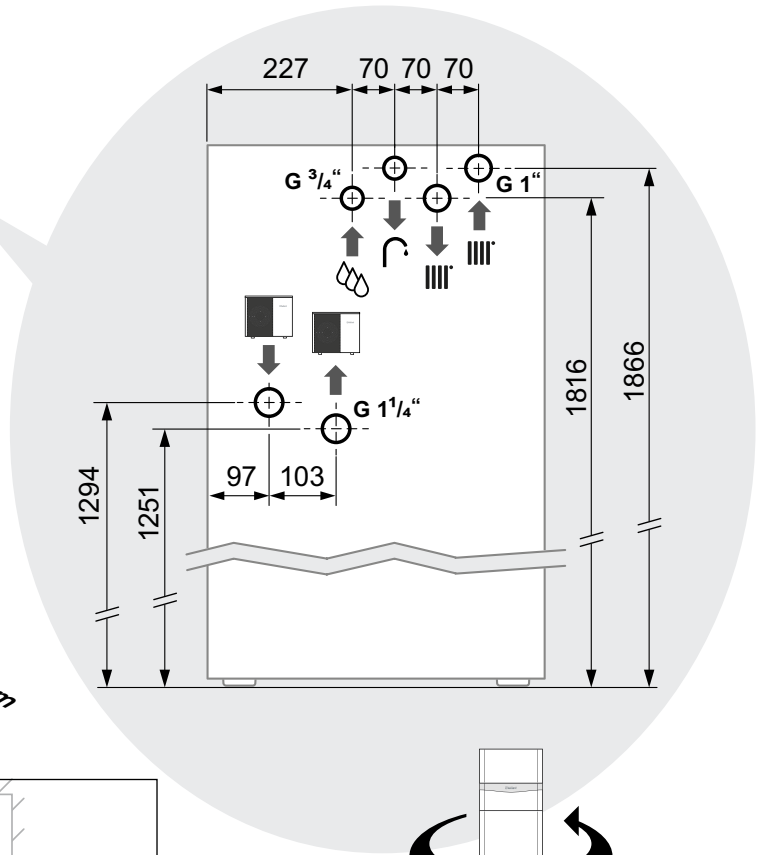
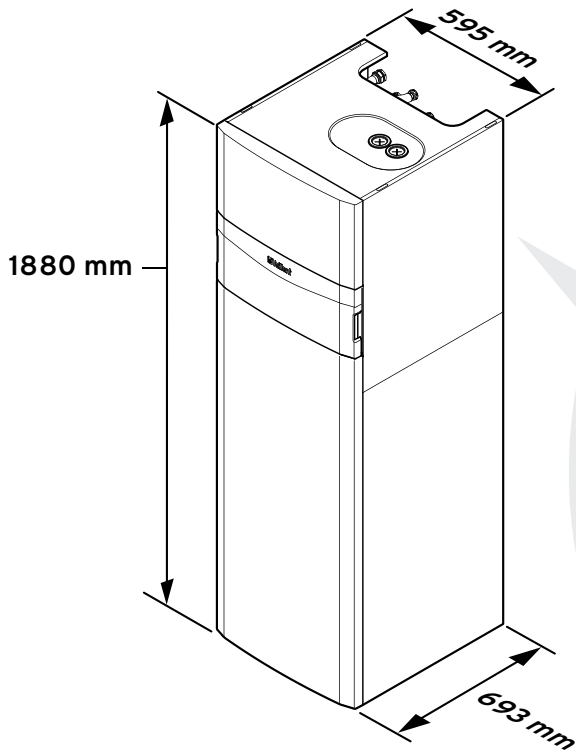




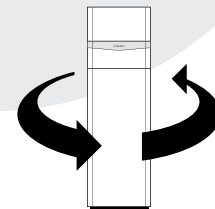
Install the uniTOWER



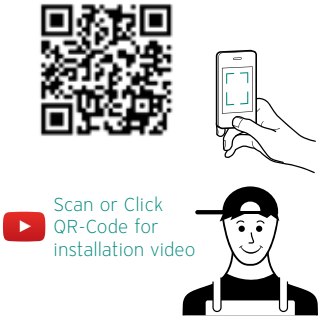
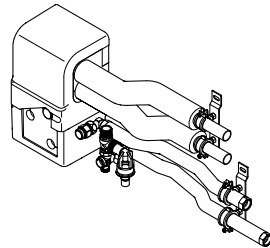
Scan or click the QR-Code for installation video



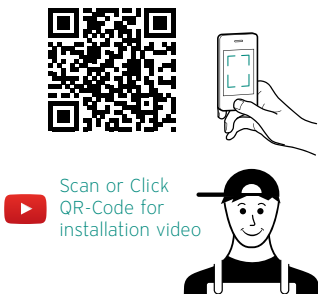
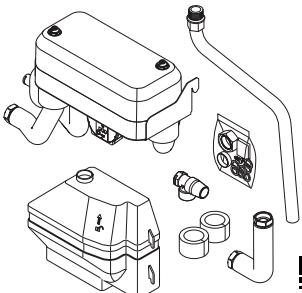
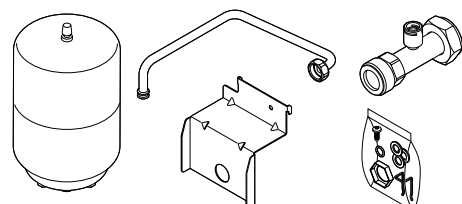
Please note these are servicing clearances not installation clearances, please refer to manual.


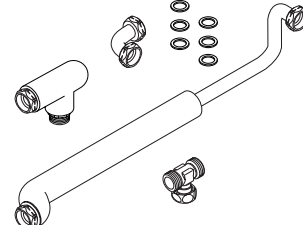
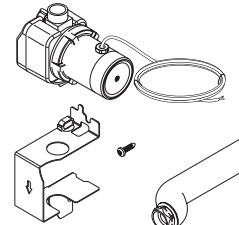


Supplied hydraulic accessories for the uniTOWER

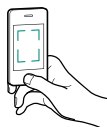
Connection ...	to heating circuit
 <p>Scan or Click QR-Code for installation video</p>	<p>On wall: On wall connection set (supplied with uniTOWER) (10 bar) Art.-No.: 0020250219</p> 

Select optional hydraulic accessories for the uniTOWER

System separation		
 <p>Scan or Click QR-Code for installation video</p>	<p>uniTOWER heat exchanger module (supplied with a single zone pump) Art.-No.: 0010027982 for the 3.5, 5 and 7kW Art.-No.: 0010027973 for the 10 and 12kW</p> 	<p>Brine expansion vessel Art.-No.: 0020218627</p> 

Circulation ...	without pump	with integrated pump
 <p>Scan or click the QR-Code for installation video</p>	<p>Recirculation pipe set Art.-No.: 0020170502</p> 	<p>Recirculation pump Art.-No.: 0020170503</p> 

Additional system components

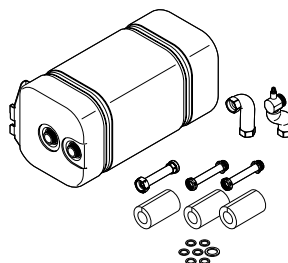


Scan or Click
QR-Code for
installation video



18l buffer tank for uniTOWER

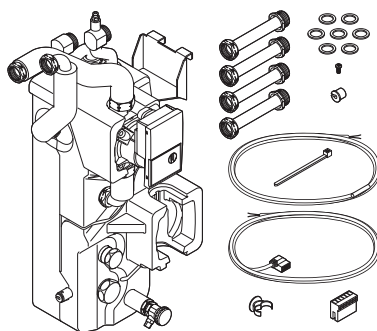
Art.-No.: 0020269273



Additional system components

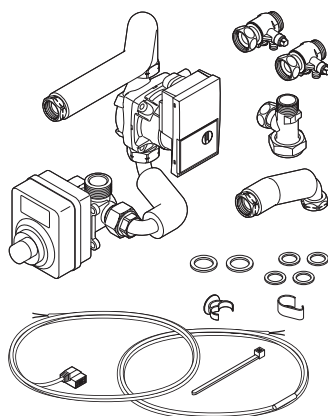
uniTOWER multizone kits

Art.-No.: 0020170507

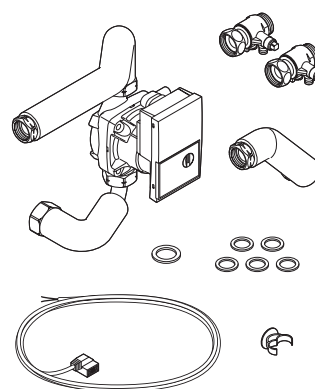


Single heating zone	Single zone heating with low loss header	1 direct and one mixed heating zone (radiators and underfloor)	2 direct heating zones 2 radiator zones
No accessories required	0020170507	0020170507 + 0020170508	0020170507 + 0020170509

Art.-No.: 0020170508



Art.-No.: 0020170509

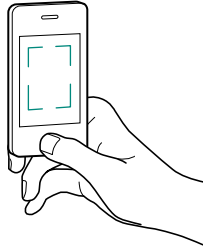


Important note: you can use the 18l buffer OR the multizone kits as they fit in the same space at the rear of the uniTOWER.

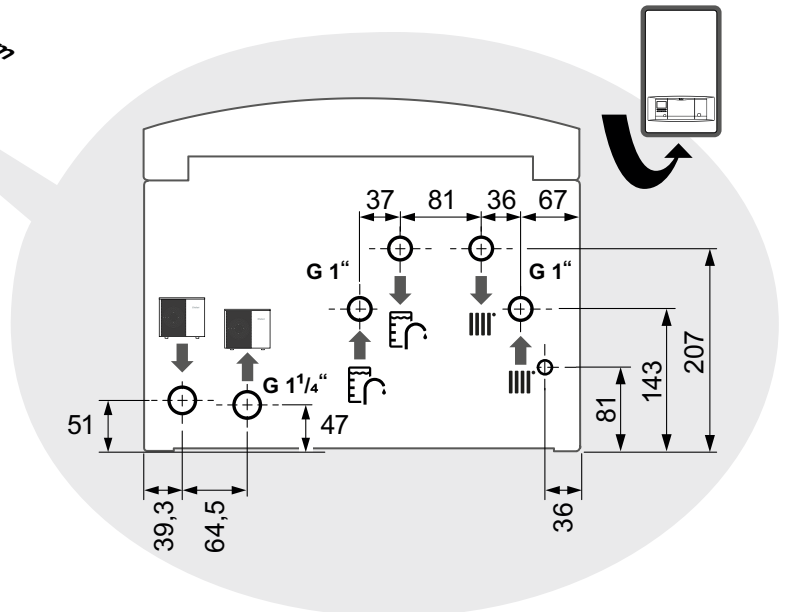
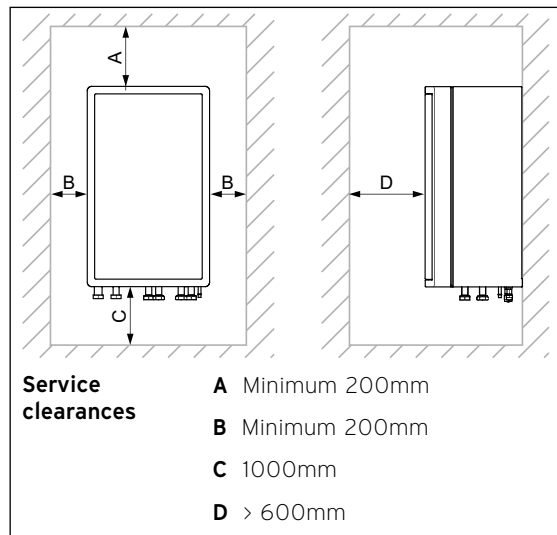
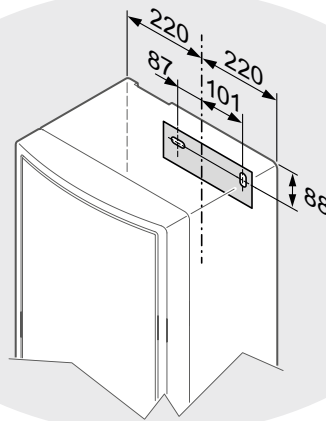
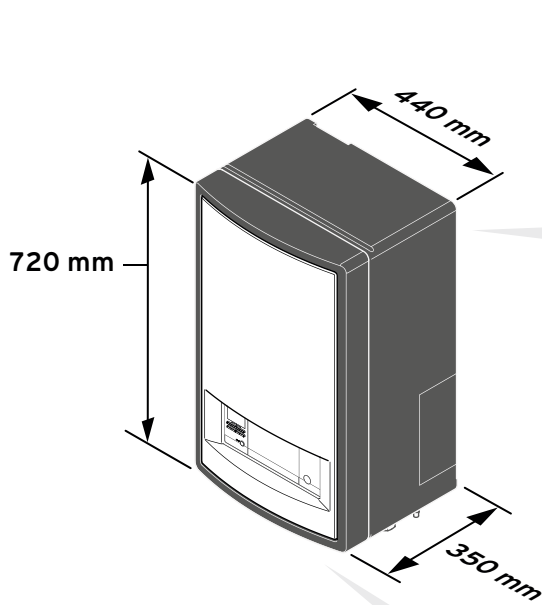


Hydraulic module

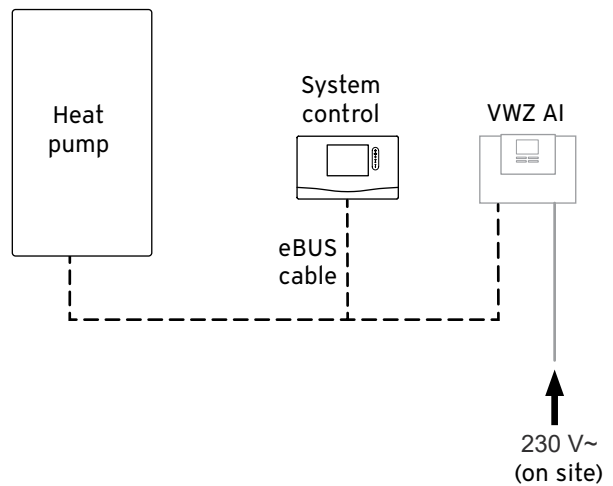
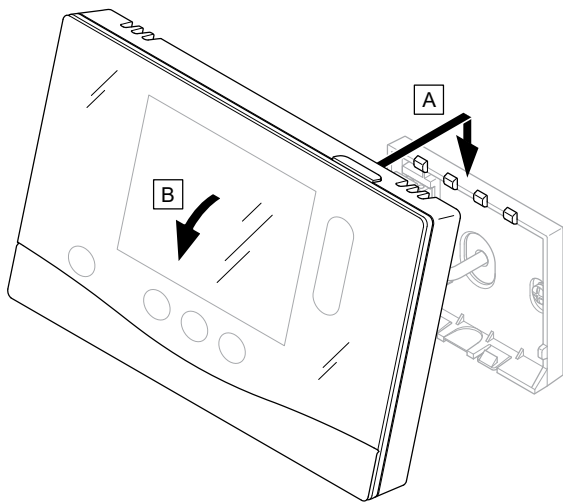
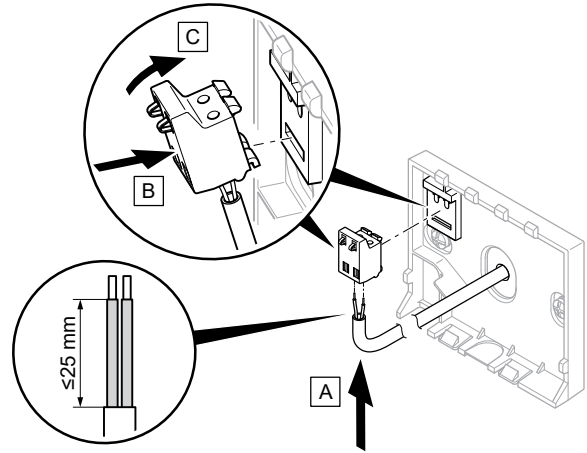
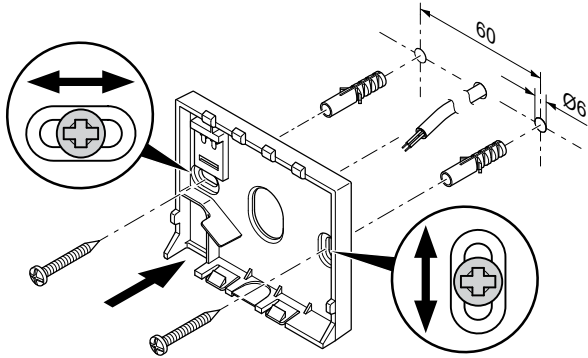
In the case of higher hot water demand, the aroTHERM plus can be used together with a wall-mounted hydraulic station and a wide range of accessories, including the uniSTOR heat pump cylinders and buffer tanks.



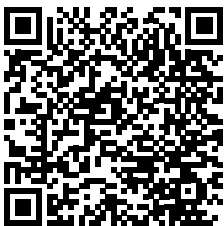
Scan or Click QR-Code for installation video



sensoCOMFORT



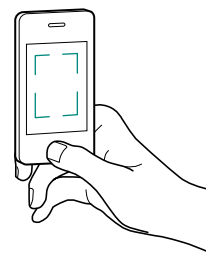
For parameterisation assistance, please refer to the schematics supplied with the control.



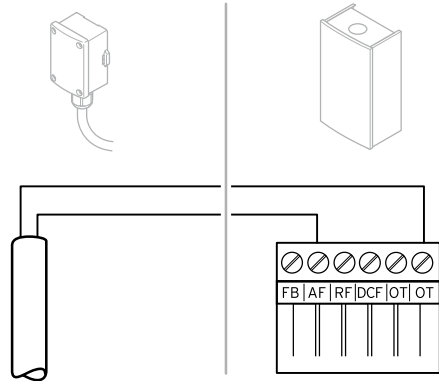
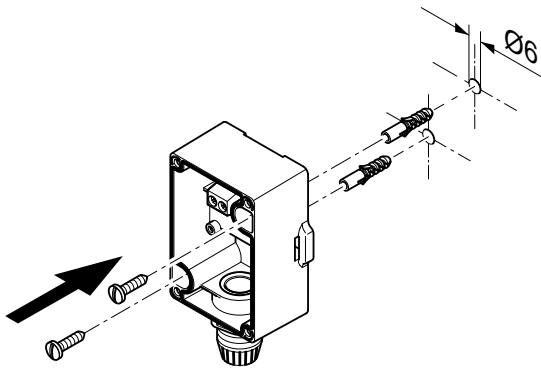
Click QR-Code for myVAILLANT connect



Click QR-Code for top 10 schematics



Outdoor sensor



Note: The red plug is supplied with the sensoCOMFORT control (next to X41). When using AI connect to DCF/AF.

Outdoor sensor



Outdoor sensor installation site

The outdoor sensor should be installed in a location with the following characteristics:

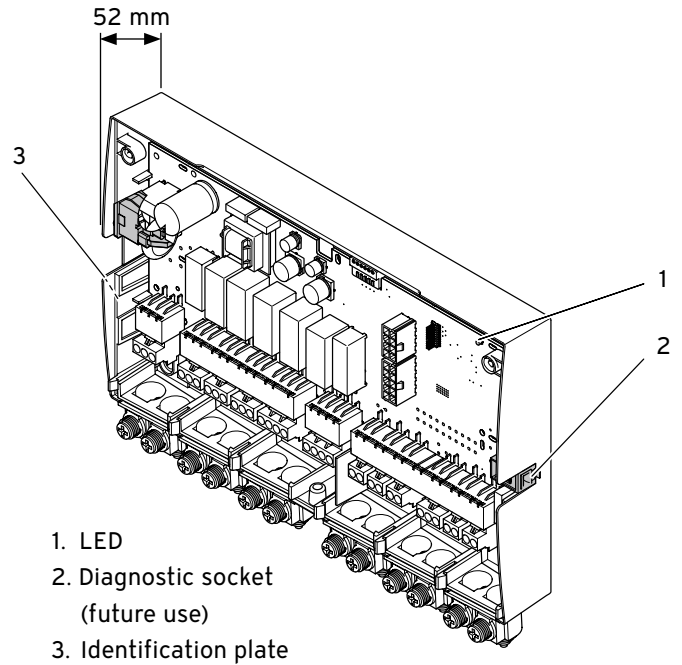
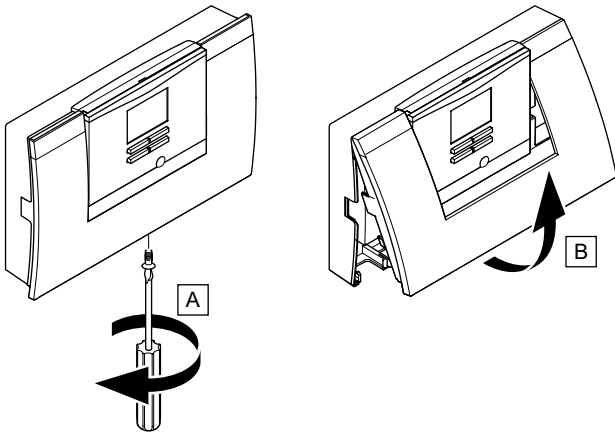
- Not fully sheltered
- Not particularly draughty
- Not affected by heat sources
- On a north- or north-west-facing facade

When installing the outdoor sensor on

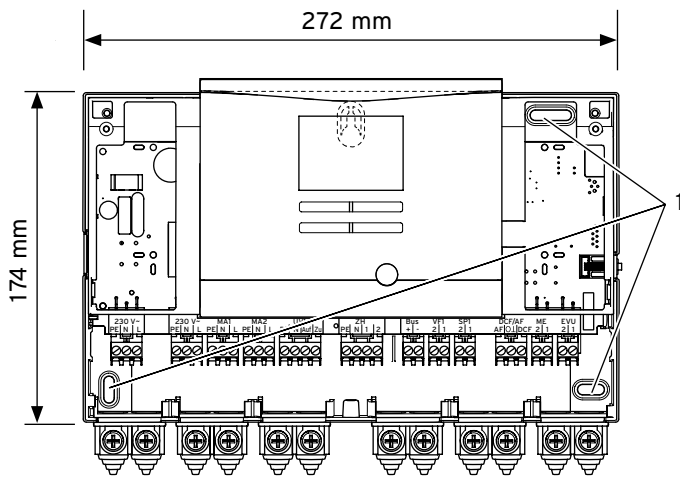
- Buildings with up to three floors, it should be located two-thirds of the way up the facade
- Buildings with more than three floors, it should be fitted between the second and third floor

Heat pump interface (VWZ AI)

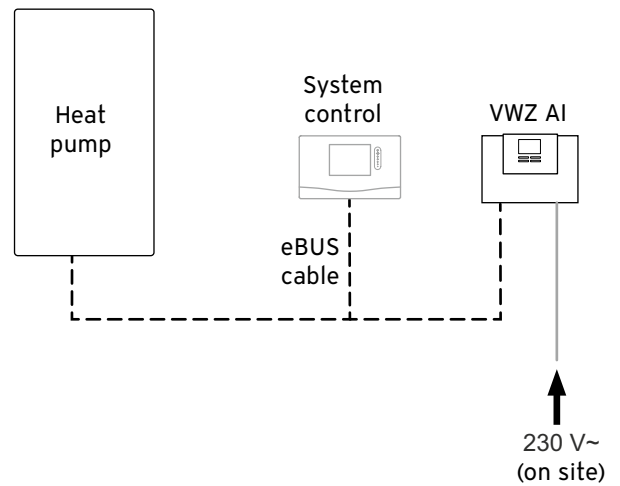
For more bespoke systems where the hydraulic module and the uniTOWER are unsuitable, the heat pump interface must be fitted with all the hydraulic components installed separately.



1. LED
2. Diagnostic socket (future use)
3. Identification plate

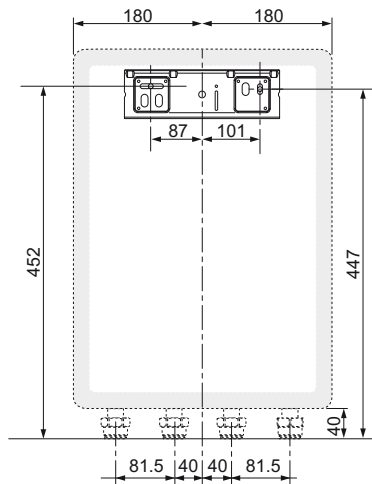
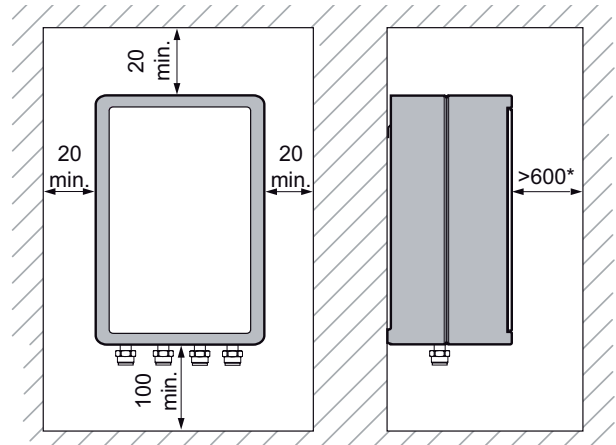
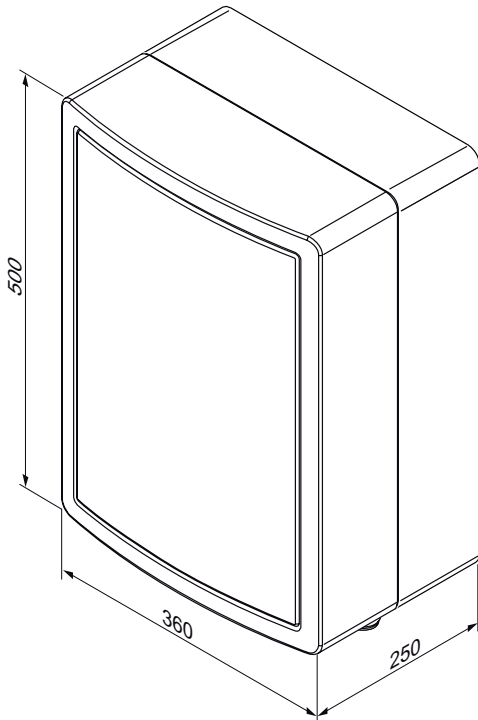


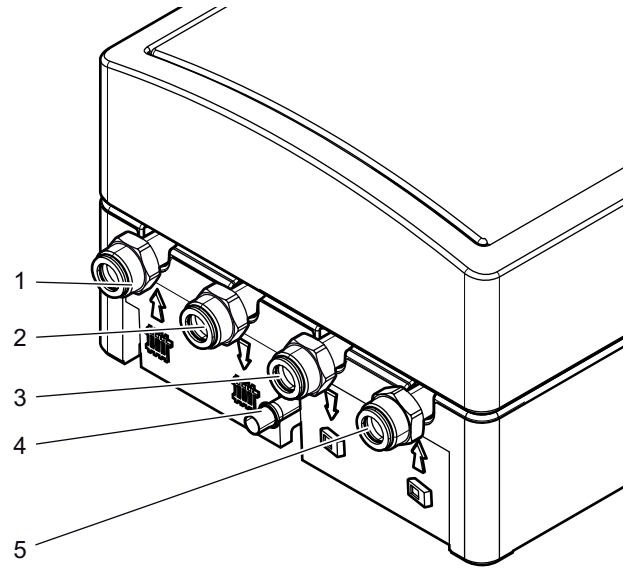
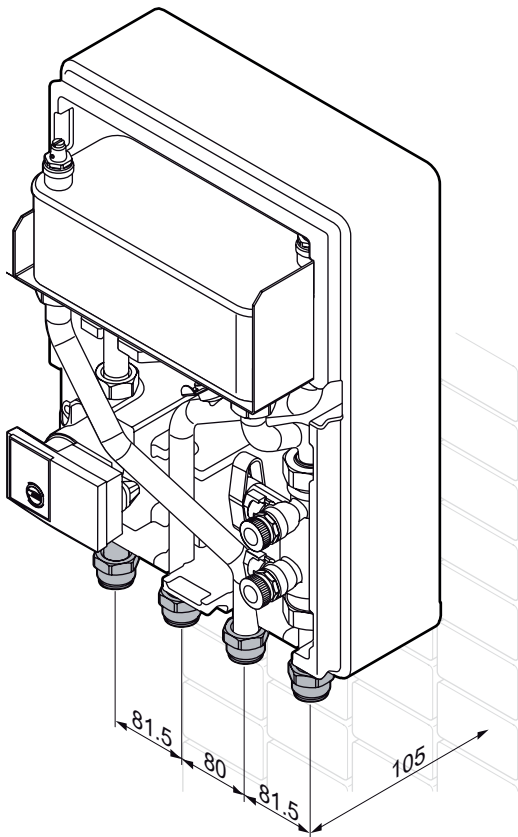
1. Fixing points



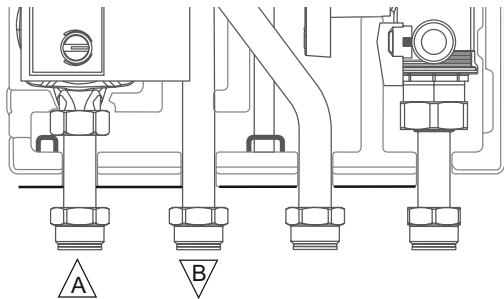
Connect the system accessories

Install the heat exchanger module (not for use with uniTOWER)

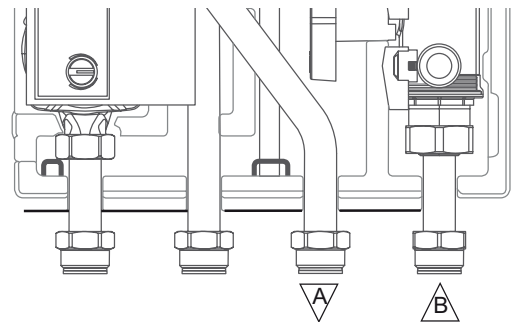




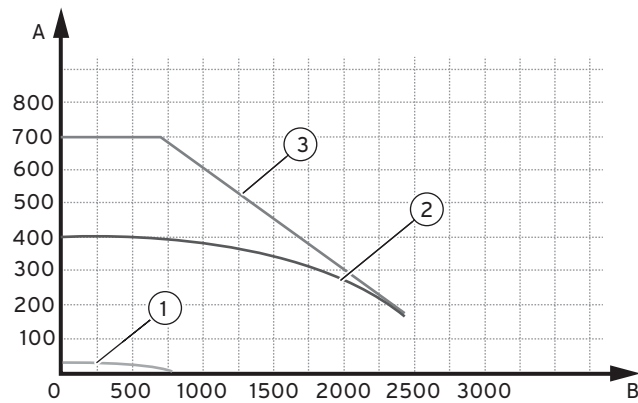
- | | |
|--|--|
| 1 Installation heating circuit inlet 1" | 3 Glycol water circuit outlet to heat pump 1" |
| 2 Installation heating circuit outlet 1" | 4 Safety valve drain |
| | 5 Glycol water circuit inlet from heat pump 1" |



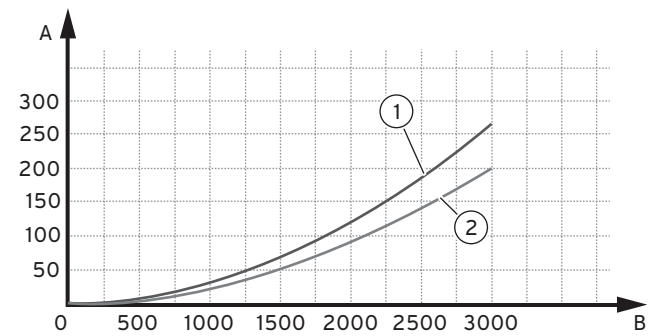
A Installation heating circuit flow B Installation heating circuit flow



A Glycol water circuit flow to heat pump B Glycol water circuit return from heat pump

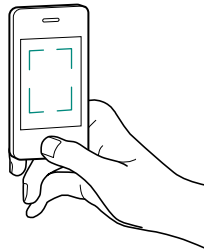


A Pressure (mbar) 2 Position "II"
 B Flow rate (l/hour) 3 Position "I"
 1 Position "III"

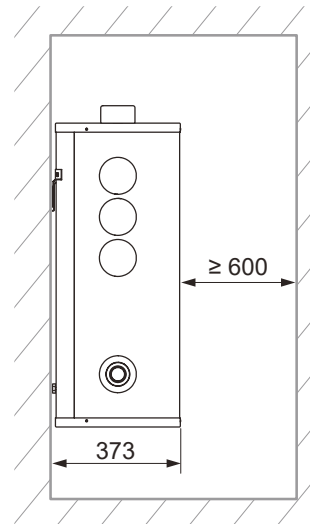
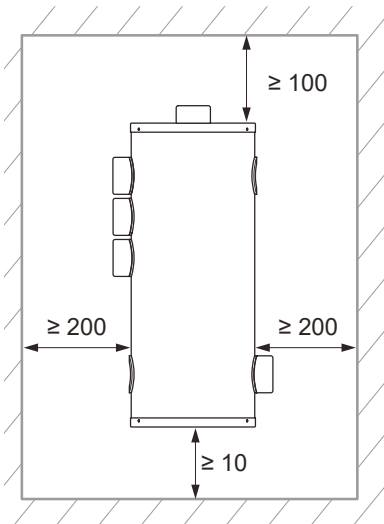
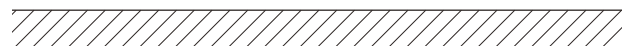
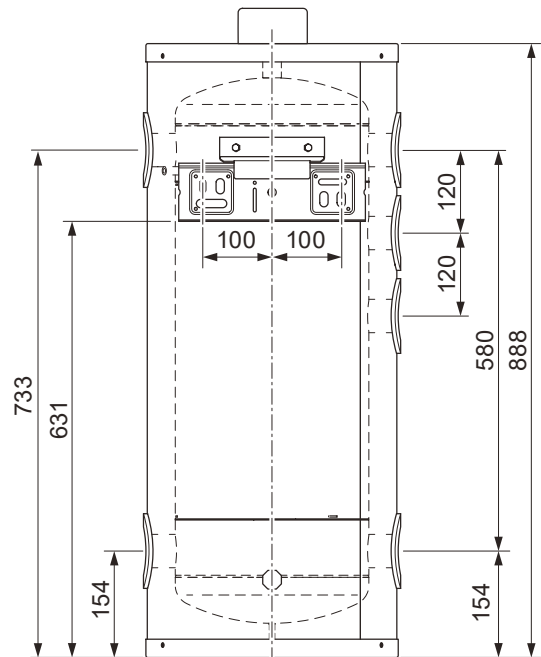
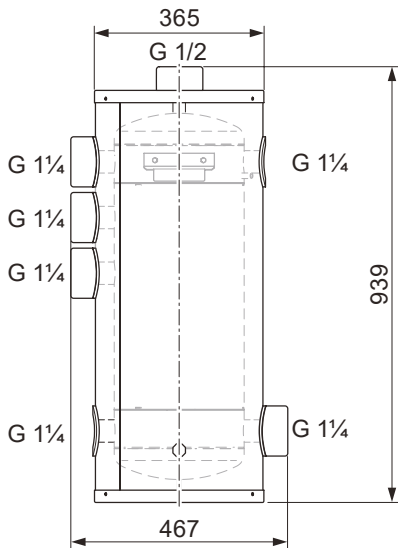


A Pressure (mbar) 1 50% glycol circuit flow rate
 B Flow rate (l/hour) 2 Water circuit flow rate

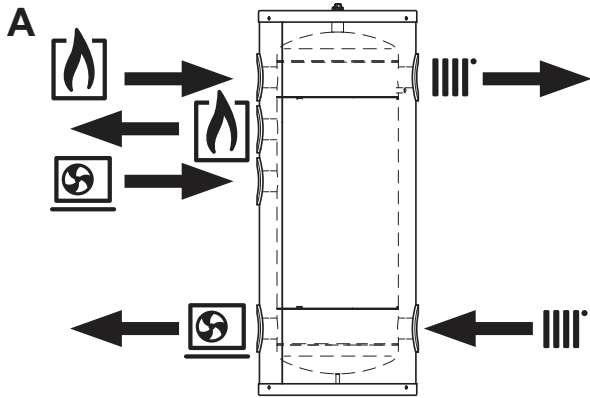
Installing the 45 litre buffer tank



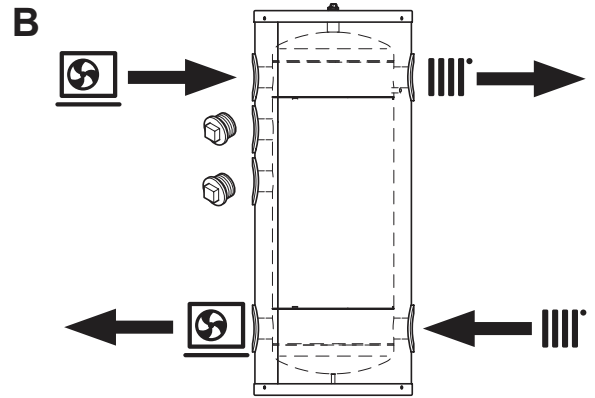
Scan or Click QR-Code for the quick guide



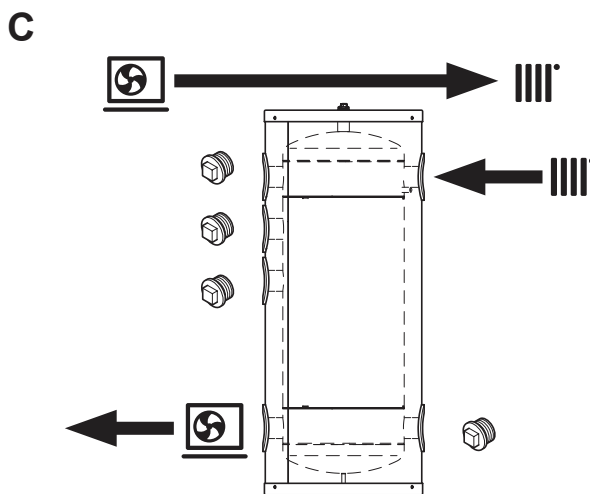
Flow and return system options



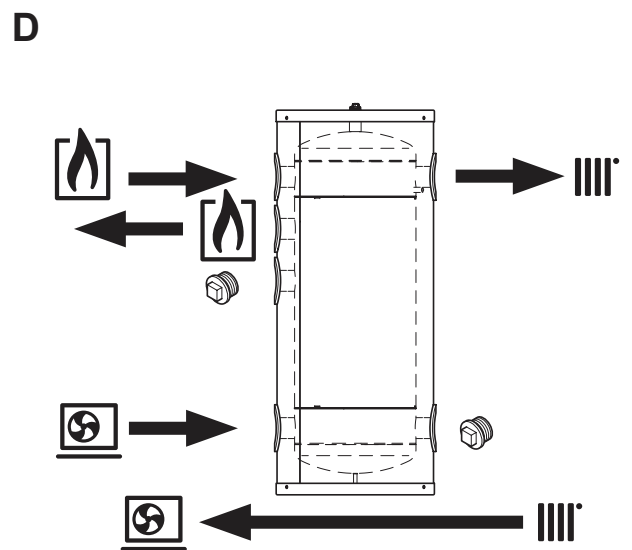
Hybrid, decoupled buffer



Decoupled 4 pipe heat pump buffer



Buffer as return volumiser



Hybrid, using heat pump for system circulation



Check your installation!

Tick your installation checklist

- Heat pump positioned according to type of installation (ground, wall, roof)
- Dirt filter installed in the return flow
- Safety valve installed
- Expansion vessel installed and connected
- Manometer installed
- All valves installed in system
- Hydraulic connected and tight (pressure test performed)
- Wiring connection done
- Heating system vented
- Optional: warranty extension/ maintenance and service contract signed



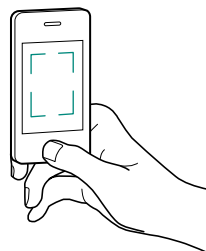
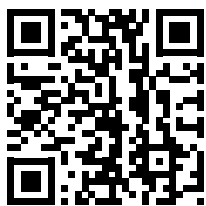
... and start your system

Scan the QR code to easily set up the system ...



Just in case ...

Find error, status and maintenance codes



Scan or click the QR-Code to find remedies



Technical Data - aroTHERM plus

aroTHERM plus	Unit	3.5kW VWL 35 / 6	5kW VWL 55 / 6	7kW VWL 75 / 6	10kW VWL 105 / 6	12kW VWL 125 / 6
General						
Width	mm	1,100				
Height	mm	765	965		1,565	
Depth	mm	450				
Weight, ready for operation	kg	114	128	194	210**	
Connection, heating circuit		G 1 1/4"				
Rated voltage	V	230 V (+10%/- 15%), 50 Hz, 1~/N/PE			400 V (+10%/-15%), 50 Hz, 3~/N/PE**	
Rated current, maximum	A	14.3	15.0	15.0*	23.3	
Fuse size		16			25	
Fuse type	A	C/D				
RCD type*		B				
eBUS (2-core communication cable)	mm ²	0.75				
Maximum length eBUS cable (communication cable)	m	50				
IP rating		IP 15 B				
Fan, power consumption	W	40			50	
Fan quantity		1			2	
Fan, air flow, maximum	m ³ /h	2,300			5,100	
Heating pump, power consumption	W	2 - 50			3 - 87	
Heating circuit						
Heating water temperature, minimum/maximum	°C	20 - 75				
Basic length of the heating water pipe, maximum, between the outdoor unit and indoor unit	m	20				
Maximum height difference between outdoor and indoor unit	m	15				
Operating pressure, minimum	bar	0.50				
Operating pressure, maximum	bar	3.00				
Volume flow, minimum	l/h	400	540	995		
Volume flow, maximum	l/h	860	1,205	2,065		
Water volume, in the outdoor unit	l	1.5	2.0	2.5		
Minimum open water volume	l	15	20	45		

***All Vaillant heat pumps must be installed with a type B RCD rated to 20kHz or greater and with a minimum trigger point of 150mA above 1kHz.**

****400v models 10 and 12kW only.**



aroTHERM plus	Unit	3.5kW VWL 35 / 6	5kW VWL 55 / 6	7kW VWL 75 / 6	10kW VWL 105 / 6	12kW VWL 125 / 6
Refrigerant circuit						
Fluid type		R290				
Fluid fill quantity	kg	0.6		0.9		1.3
Refrigerant, Global Warming Potential (GWP)		3				
CO ₂ equivalent	t	0.0018		0.0027		0.0039
Permissible operating pressure	bar	31.5				
Compressor type		Rotary piston			Scroll compressor	
Compressor oil type		Specific polyalkylene glycol (PAG)				
Compressor, control		Electronic				

Noise emissions, heating mode						
Sound power, EN 12102, EN 14511 LWA, A7/W35	dB(A)	51		53	58	59*
Sound power, EN 12102, EN 14511 LWA, A7/W45	dB(A)	53			58	
Sound power, EN 12102, EN 14511 LWA, A7/W55	dB(A)	54		55		60

Efficiency						
Energy efficiency class 35°C	(A+++ to F)	A+++				
Energy efficiency class 55°C	(A+++ to F)	A++				

Combination with uniTOWER						
Energy efficiency class	(A+++ to F)	A++				
Energy efficiency class for hot water supply	(A+ to F)	A				

uniTOWER	Unit	VIH QW 190 / 6
Total storage cylinder capacity	l	188
Temperature hot water (maximum – with auxiliary heating)	°C	55 - 75
Dimensions, unpacked (height/width/depth)	mm	1880 x 599 x 693
Weight, unpacked	kg	175
Auxiliary electric heater	kW	6kW (230V/50Hz) / 9kW (400V/50Hz)

Hydraulic station	Unit	VWZ MEH 97
Dimensions, unpacked (height/width/depth)	mm	720 x 440 x 350
Weight, unpacked	kg	15
Power electric backup heater	kW	6 kW (230V/50Hz) / 9 kW (400V/50Hz)

*400v models 10 and 12kW only.

Technical Data - uniTOWER

	Unit	VIH QW 190/6 E
Rated voltage 230 V (+10%/- 15%), 50 Hz	V	230 V 1~/N/PE
Rated voltage 400 V (+10%/- 15%), 50 Hz	V	400 V 3~/N/PE
Rated power, maximum	kW	8,6
Rated current, maximum , 230 V	A	23,5
Rated current, maximum , 400 V	A	13,6 A
IP rating		IP 10B
Heating circuit		
Maximum heating mode flow temperature with compressor	°C	75
Water content	l	16
Operating pressure, minimum	MPa (bar)	0,05 (0,50)
Operating pressure, maximum	MPa (bar)	0,30 (3,00)
Domesitc hot water circuit		
Water capacity hot water tank	l	185
Cylinder temperature by heat pump max.	°C	70

Technical Data - hydraulic module VWZ MEH 97/6

	Unit	VWZ MEH 97/6
Rated voltage 230 V (+10%/- 15%), 50 Hz	V	230 V 1~/N/PE
Rated voltage 400 V (+10%/- 15%), 50 Hz	V	400 V 3~/N/PE
Rated power, maximum	kW	8,6 kW
Rated current, maximum , 230 V	A	23,5 A
Rated current, maximum , 400 V	A	13,6 A
IP rating		IP 10B
Heating circuit		
Maximum heating mode flow temperature with compressor	°C	75 °C
Water content	l	8 l
Operating pressure, minimum	MPa (bar)	0,05 (0,50)
Operating pressure, maximum	MPa (bar)	0,30 (3,00)

Accessories

Description	Article number
aroTHERM plus with heat pump interface	
aroTHERM plus 3.5kW - VWL 35 / 6	0010037211
aroTHERM plus 5kW - VWL 55 / 6	0010037212
aroTHERM plus 7kW - VWL 75 / 6	0010037213
aroTHERM plus 10kW - VWL 105 / 6	0010037214
aroTHERM plus 12kW - VWL 125 / 6	0010037215
aroTHERM plus 10kW 400v & interface	0010048453
aroTHERM plus 12kW 400v & interface	0010048454
aroTHERM plus with hydraulic module	
aroTHERM plus 3.5kW - VWL 35 / 6	0010037206
aroTHERM plus 5kW - VWL 55 / 6	0010037207
aroTHERM plus 7kW - VWL 75 / 6	0010037208
aroTHERM plus 10kW - VWL 105 / 6	0010037209
aroTHERM plus 12kW - VWL 125 / 6	0010037210
aroTHERM plus with uniTOWER	
aroTHERM plus 3.5kW - VWL 35 / 6	0010037201
aroTHERM plus 5kW - VWL 55 / 6	0010037202
aroTHERM plus 7kW - VWL 75 / 6	0010037203
aroTHERM plus 10kW - VWL 105 / 6	0010037204
aroTHERM plus 12kW - VWL 125 / 6	0010037205
uniTOWER accessories	
uniTOWER connection kit (HP circuit)	0010027979
uniTOWER connection kit on wall	0010027981
uniTOWER decoupling module (small)	0010027982
uniTOWER decoupling module (large)	0010027973
uniTOWER 1" adapter connection kit	0020269275
18l Buffer cylinder for uniTOWER	0020269273
uniTOWER multi-zone kit - 1 direct	0020170507
uniTOWER extension set - 2 direct	0020170509
uniTOWER extension set - 1 mixed	0020170508
Circulation set without pump	0020170502
Circulation set with pump	0020170503
2 litre brine expansion vessel	0010030975

Accessories	Article number
aroTHERM connection kit for ground install	0010027971
aroTHERM connection kit for ground install extension	0010027972
aroTHERM connection kit for wall install	0010027974
aroTHERM straight pipe connection kit	0010027976
750mm flexihose for air-to-water heat pump (pair)	0020165288
Snow spacer	0010027984
Wall bracket for insulated wall	0020250224
Wall bracket for non-insulated wall	0020250225
Anti-vibration feet large	0020250226
Anti-vibration rubber feet small	0020252091
Coding resistor active cooling	0020269259
Discharge vessel	0020145563
aroTHERM 45 litre buffer	0010038365
aroTHERM heat exchanger module	0020222285
aroTHERM inline 6kW back-up heater	0020222286
VR 10 temperature sensor	306787
WH40 low-loss header (flow rates up to 3,000 litres per hour)	306720
VR 32/B eBUS coupler (includes housing)	0020235465
VR 32 eBUS coupler	0020139895
Ball filter valve 28mm	0010038133
Protection vessel 18 litres (volumiser)	0020048753
Filling device, mobile GB	0020145706
Filling pump solar (UK-version)	0020166591

Description	Article number
uniSTOR cylinders	
150 litre pre-plumbed slimline uniSTOR	0020237129
200 litre pre-plumbed uniSTOR	0020237130
250 litre pre-plumbed uniSTOR	0020237131
300 litre pre-plumbed uniSTOR	0020237132
150 litre non-plumbed uniSTOR	0020235271
200 litre non-plumbed uniSTOR	0020235272
250 litre non-plumbed uniSTOR	0020235273
300 litre non-plumbed uniSTOR	0020235274
500 litre large capacity uniSTOR	0010019228
800 litre large capacity uniSTOR	0010019229
500 litre large capacity auroSTOR*	0010019234
uniSTOR and auroSTOR	
Immersion heater 7kW (800 litre uniSTOR only)	0020235671
Unvented cylinder kit 1"	0020235964
Unvented cylinder kit 1¼"	0020235965
Unvented cylinder kit 1½"	0020235966
Unvented cylinder kit 2"	0020235967
Expansion vessel 50 litre (for uniSTOR and auroSTOR 500 litre)	0020229941
Expansion vessel 80 litre (for uniSTOR 800 litre)	0020229942

*One unvented kit and expansion vessel required with each cylinder.



Air-to-water heat pumps



aroTHERM plus

Contacts

Sales enquires

Vaillant sells its products through plumbing and heating merchants in the UK. For further information, contact your local Vaillant sales representative.

Phone: **0345 602 0262**

Training

For information on training centres and courses in your area.

Phone: **0345 601 8885**

Email: training@vaillant.co.uk

Technical enquiries

If you have a technical query, you can contact us by phone or email.

Phone: **0344 693 3133**

Email: technical@vaillant.co.uk

Advance support line

There's a Regional Business Manager near you to support your business, along with dedicated Advance support lines.

Call us: **0330 678 0878** or

Email us: advance-support@vaillant.co.uk

General enquiries

If you are unsure of who you need to speak to or you have a general enquiry, our friendly reception staff will happily point you in the right direction.

Phone: **0345 602 2922**

System Sales and Design

At Vaillant, our expert System Sales and Design (SSAD) team provides installers with comprehensive heating system design support on their projects.

Phone: **0330 123 1767**

mail us: systemdesignuk@vaillant.com



Vaillant



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Hot water



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