



Alterra WZSV63

Indoor ground source heat station with
integrated 178 litre DHW cylinder



MODELS

2

 R290

OUTPUT (kW)

0.60 - 7.09

Alterra WZSV 63

The Alterra WZSV 63 from Modutherm is a compact brine/water source indoor heat station intended for use within 5th generation heat networks, where an ambient loop is the source of energy, or for standalone properties where energy is sourced from a series of geothermal probes or ground collectors. The WZSV 63 can provide heating and comfort cooling, and the 178-litre storage cylinder can deliver domestic hot water for the whole family.

The Alterra WZSV 63 provides the perfect solution for achieving high output within limited space constraints whilst being energy efficient. The inverter drive technology adapts output to match the property and its occupants, saving on electricity costs and energy. A low starting current also assists the network operator accordingly.

The attractive and modern appearance means the unit will not look out of place in a kitchen or other living area should a utility cupboard not be available. With internal parts accessible from the front of the appliance, the WZSV 63 can also be installed in tight spaces.



2

2 Year
Warranty*

SG

Smart Grid
Ready

PV

Solar PV
Ready

Compact dimensions

Despite the many integrated components, the dimensions of the Alterra WZSV 63 are very frugal, and the unit takes up less than half a square meter of floor space, making the WZSV ideal where space is at a premium, such as within city apartment buildings.

- A+++ energy efficiency - low energy costs
- COP up to 4.75
- Heating, domestic hot water and comfort cooling all in one appliance
- Space-saving dimensions and flexible positioning
- Integrated/wall-mounted user interface
- Completely pre-assembled including 178-litre DHW cylinder
- Up to 6kW of electrical elements for back up of heating and DHW
- Ultra-quiet operation
- Weather compensation of heating

Easy controls

The Alterra WZSV 63 is equipped with an integrated/wall-mounted user interface. The unit is also manageable remotely via a smartphone app.

- 75°C maximum flow temperature
- Up to 16 bar source working pressure (with optional plate kit)
- Removable heat pump module box for ease of transportation and servicing
- Heating and DHW available via electrical immersion even when heat pump module box is removed
- Top connections
- Integration with photovoltaic systems, solar thermal and other technologies is possible
- BMS compatible
- Energy consumption meter
- Optional kit for unvented DHW application



V-line
This label immediately identifies the
inverter-controlled heat pumps

Models

H	Heating / DHW
K	Heating / DHW / Cooling

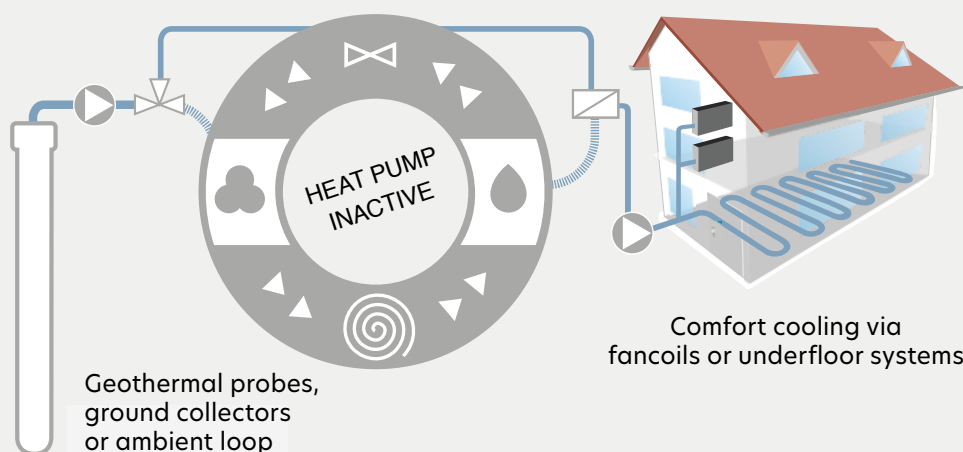
Comfort Cooling Included

With the K models of Alterra WZSV 63, natural comfort cooling can be provided. Natural comfort cooling is a very cost-effective and environmentally friendly way of providing cooling as the compressor of the WZSV remains switched off during this time, which saves energy and lengthens the serviceable life of the appliance. Low-temperature brine/water, sourced from the ground or ambient loop, is passed through a

heat exchanger within the unit and then onto fan coils or underfloor systems that will maintain the temperature within the room at a comfortable level.

When installed as a ground source appliance, natural cooling provided by the unit is especially beneficial, as comfort cooling is provided for virtually no cost.

NATURAL COOLING



Controllers

Luxtronic

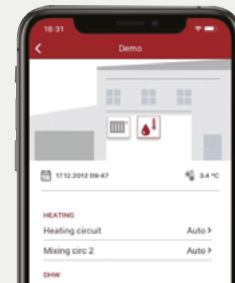
The Alterra WZSV 63 features the Luxtronic 'turn and tip' controller, where desired temperatures and required settings can be stored to allow automatic regulation of the heat pump. The simple and user-friendly interface can be installed on the front of the appliance or mounted on a wall.

Connection to the USB port of the interface allows qualified personnel to apply software updates, log data or see historical fault codes. The integrated RJ45 port allows direct connection of the WZSV to the internet for remote control.



Did you know?

The Alpha Control app allows the Alterra WZSV 63 to be controlled via a smartphone or tablet. Download it from:

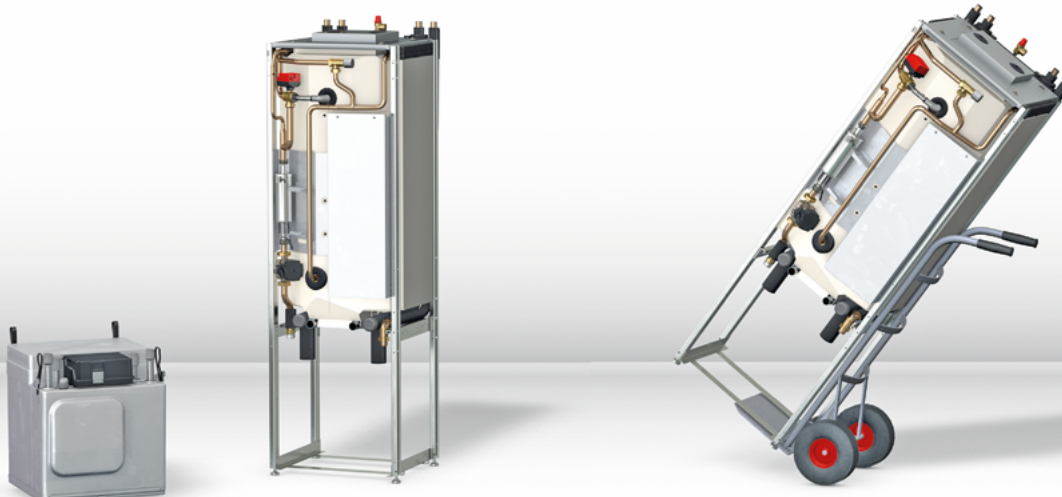


Easy to Transport & Install

Once the decorative case panels have been removed from the Alterra WZSV 63, the self-contained refrigeration circuit module box can be quickly and easily extracted to lighten the load for ease of transportation. During the manoeuvre of the appliance, the tower can be laid flat on either side, ensuring that the module box is removed first. Removal of the box will reduce the dry weight of the WZSV by at least a third, making extraction of the box the sensible choice.

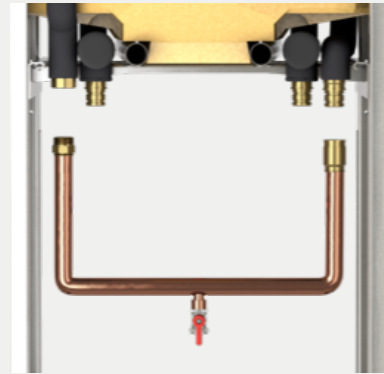
Finally, the tower and module box can be transported separately to the final position by sack truck, flatbed trolley, stair climber or man handling, where the box can be re-instated within the unit.

See the Alterra WZSV 63 operating manual for guidance regarding transportation at: modutherm.co.uk.

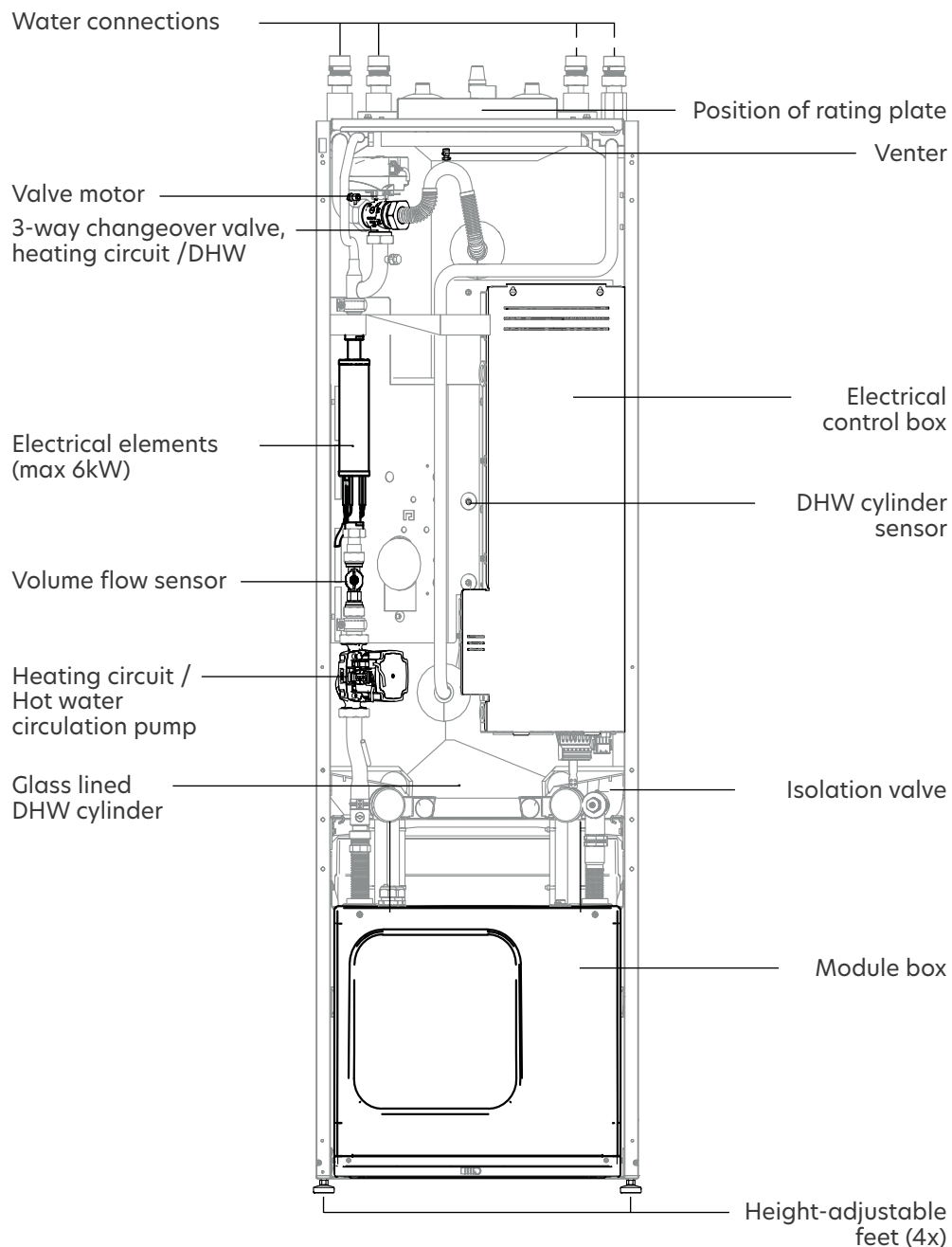


Bypass Set

If for any reason the refrigeration circuit module box of the Alterra WZSV 63 needs to be removed, such as for a lengthy repair or replacement, a bypass pipework set can be installed across the water connections that are situated above where the module box would normally be housed. This enables domestic hot water (DHW) and heating to be provided to the apartment via the integrated electrical elements (max. 6kW) installed within the primary pipework of the WZSV.



Internal Components



Performance Data

63H1/3M

63K1/3M

Performance

Heating capacity B0/W35	Min./Max.	kW	0.87 / 6.00	
COP B0/W35			4.66	
SCOP 35/55°C			5.14 / 3.96	
Cooling capacity B10/W18	Max.	kW	-	4.1
CO ₂ equivalent		t CO ₂	-	-

Energy efficiency

Heating operation	A ⁺⁺⁺			
Domestic hot water operation	A			

Operating limits

Heat source temperature	Min./Max.	°C	-13 / 30	
Heating circuit flow temp	Min./Max.	°C	20 / 75	

Sound

Sound pressure level at 1 metre distance	Min./Max.	dB(A)	32 / 39	
Sound power level	Min./Max.	dB(A)	39 / 51	
Sound power level (DIN EN 12102-1)		dB(A)	40	

Heat source

Flow rate (pipe sizing)		l/h	1450	
Residual head		bar	0.80	0.65
Anti-freeze concentration: minimum frost protection down to		°C	-15	
Source operating pressure	Max.	bar	4.5	
Source operating pressure (with optional plate kit)		bar	16	
Circulation pump control range	Min./Max.	l/h	200 / 2500	

General

Total weight (empty)		kg	223	230
Tower weight (empty)		kg	160	
Heat pump module box weight		kg	63	70
Refrigerant type			R290	
Refrigerant volume		kg	0.165	
Allowable refrigerant circuit operating pressure	Low/High Press.	MPa (g)	3.73 / 1.37	
Safety valve response pressure		bar	3	

DHW tank

Net volume		litres	178	
Heat exchanger area		m ²	2.14	
DHW temperature (heat pump operation)	Max.	°C	65	
DHW temperature (electric element heating element)	Max.	°C	65	
Standing loss ErP: 2009/125/EG (at 65°C)		W	54	
Mixed water quantity according to ErP: 2009/125/EG (at 40°C, draw-off of 10 l/min)		litres	242	
Allowable temperature	Max.	°C	95	
Pressure	Operating	bar	6	
	Max.	bar	10	
	Test	bar	13	

Electrical

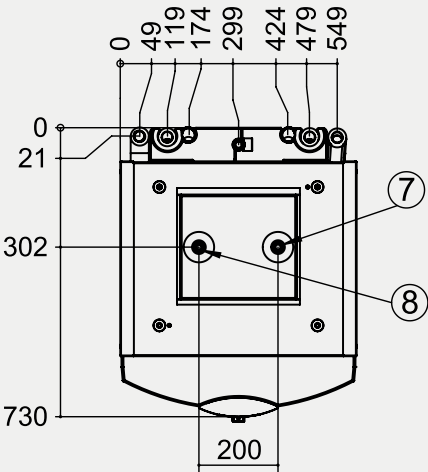
Electrical supply		V / Ph / Hz	400 / 3 / 50	
Electrical supply (alternative)		V / Ph / Hz	230 / 1 / 50	
Max power consumption		kW	-	
Starting current		A	<5	
Electrical element			3 x 2kW	
Source pump consumption	Min./Max.	W	5 / 87	3 / 140
Apartment pump consumption	Min./Max.	W	2 / 60	

Performance Data

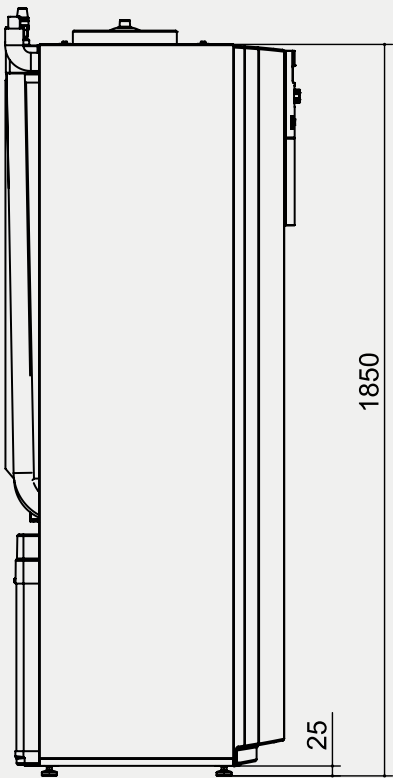
			63H1/3M	63K1/3M
Performance (additional)				
Heating capacity B0/W35 (DIN EN 14511-x)		kW		2.45
COP B0/W35 (DIN EN 14511-x)				4.66
Heating capacity B0/W45 (DIN EN 14511-x)		kW		2.20
COP B0/W45 (DIN EN 14511-x)				3.13
Heating capacity B0/W55 (DIN EN 14511-x)		kW		2.70
COP B0/W55 (DIN EN 14511-x)				2.97
Heating capacity B7/W35 (DIN EN 14511-x)		kW		2.51
COP B7/W35 (DIN EN 14511-x)				4.75
Heating capacity B0/W35	Min./Max.	kW		0.87 / 6.00
Heating capacity B0/W45	Min./Max.	kW		0.77 / 5.47
Heating capacity B0/W55	Min./Max.	kW		0.60 / 5.08
Heating capacity B7/W35	Min./Max.	kW		1.10 / 7.09

Dimensions

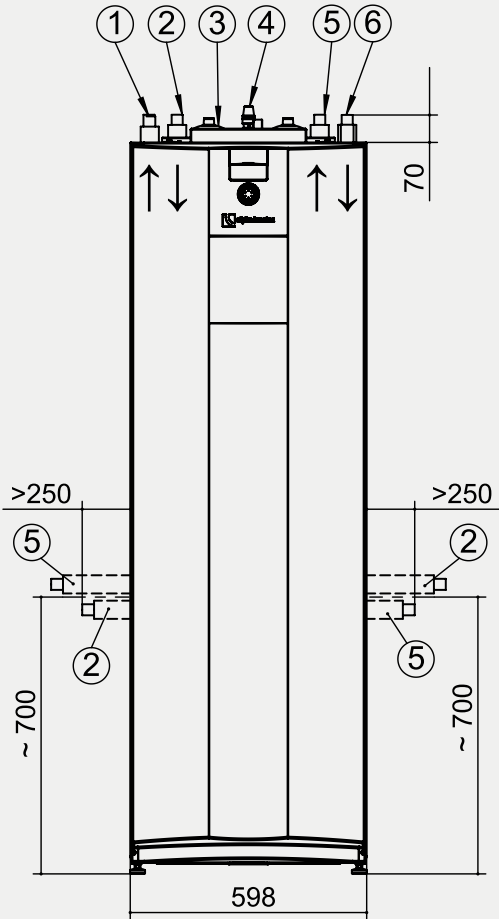
- 1 Apartment Circuit Flow (Ø1" BSP female)
- 2 Source Inlet (Ø1" BSP female)
- 3 Wiring cable duct
- 4 Heating Circuit Safety Valve (Ø½" BSP female)
- 5 Heating Source Outlet (Ø1" BSP female)
- 6 Apartment Circuit Return (Ø1" BSP female)
- 7 DHW Outlet (Ø¾" BSP female)
- 8 Cold Water Inlet (Ø¾" BSP female)



TOP VIEW



REAR VIEW



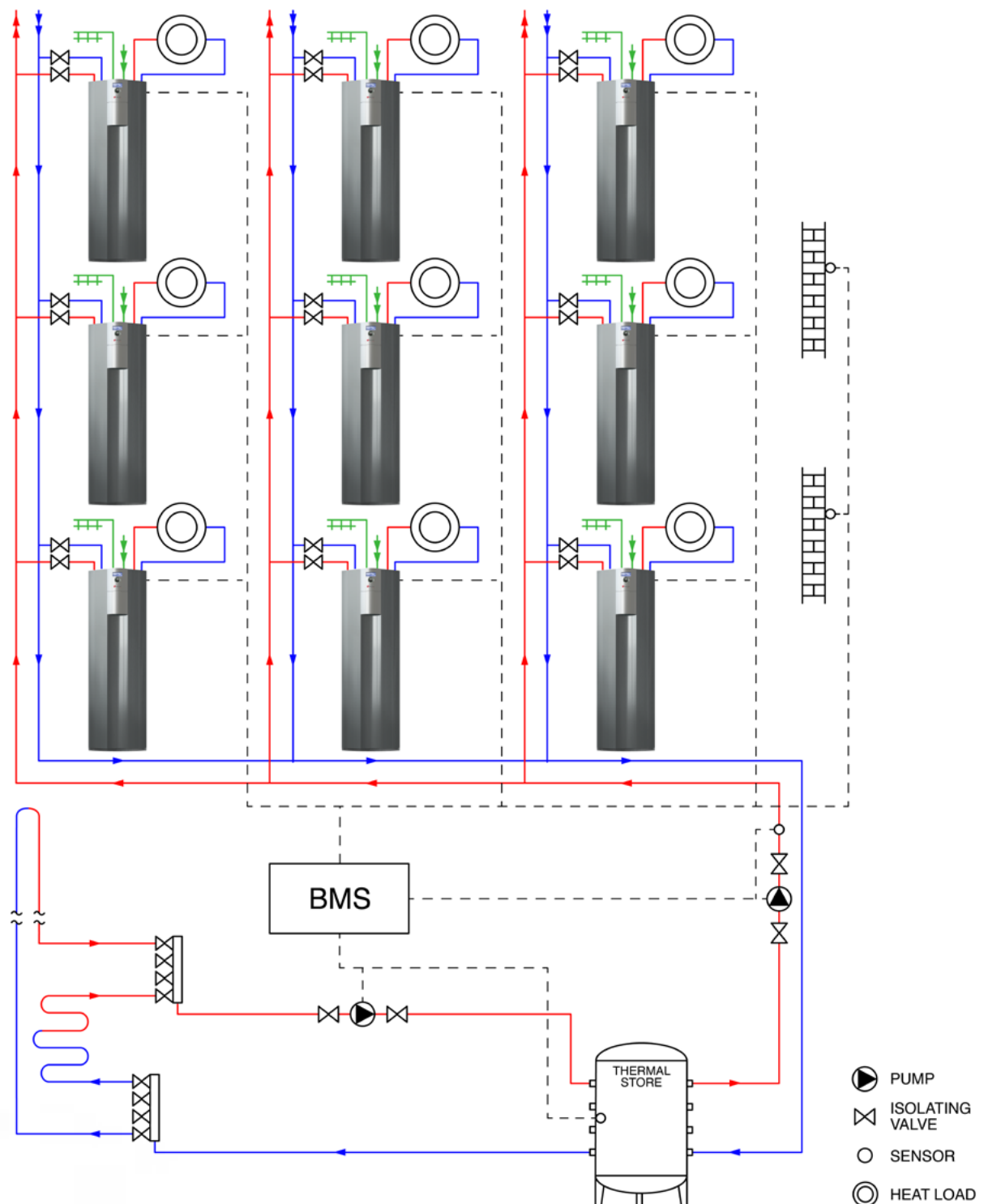
FRONT VIEW

Clearances (mm)	
Front	950
Rear	>1
Sides	180
Top	>1*

*Increase to 400mm if pipes enter either side

Schematics

Ground collector system



Modutherm Limited
Unit 4 Genesis
Endeavour Drive
Basildon, SS14 3WF

Modutherm® Limited
modutherm.co.uk
Tel: 0345 521 5666
modutherm@modularhg.co.uk

Your local contact is:

