

EXHAUST AIR HEAT PUMP



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What is a Victorum exhaust air heat pump?

A Victorum EAHP system Combines the aspects of both a conventional air source heat pump and a mechanical extract ventilation system (MEV) to provide 100% of the space heating requirements and DHW demand of a well insulated apartment unit. Ensuring compliance with domestic ventilation regulations and when working efficiently, it can reduce your home's energy consumption for heating by up to 50% when compared to conventional heating systems.

The system functions whereby latent heat from "wet rooms" i.e. kitchen, bathrooms and utility's is extracted via a system of ventilation ductwork to the unit. At the first stage of the process the extracted air passes through a heat exchanger into the sealed refrigerant circuit. The units compression cycle beings to raises the temperature of the refrigerant. The heat is then transferred into a water circuit and finally into either a DHW cylinder or space heating emitters like radiators or UFH systems. The cooled air is then discharged from the unit and exhausted outside.



Benefits Of The Victorium

The Victorium's control produces a very high and economical heat output. The Victorium gives you control over energy consumption and will be a key part of your connected lifestyle. The smart control system automatically adjusts to the indoor climate efficiently for maximum comfort.

- Stand alone heating, hot water & ventilation system
- Satisfies 100% of heating and hot water demand
- Whole house mechanical extract ventilation (MEV)
- Energy recycled from the apartment
- Full compliance with Part L and SAP using an all electric solution
- Lower running costs
- Heat pump COP of up to 490% (A20/W35)
- Lower capex and opex cost versus district heating
- No occupier standing charges or scheme management fees
- No gas connection, plantroom maintenance, metering or billing
- Maintenance via central BMS system which can be accessed remotely



Touchscreen Control Panel



Our Victorium EAHP system controller is responsible for controlling a variety of functions and features for your home including setting the time and temperature for your domestic hot water cylinder and central heating zones.

For information on all of the functionality of the touchscreen controller consult the homeowners operation and maintenance manual which is available upon request



Smartphone Control

Complete control of your heating and hotwater from your smartphone.

- Simple to use controls
- Set the domestic hot water cylinders temperature and also program the time schedule for the cylinder to heat.
- Set the different temperatures of the heating zones and also program the time schedule for those zones to heat.
- View the current outdoor ambient air temperature.



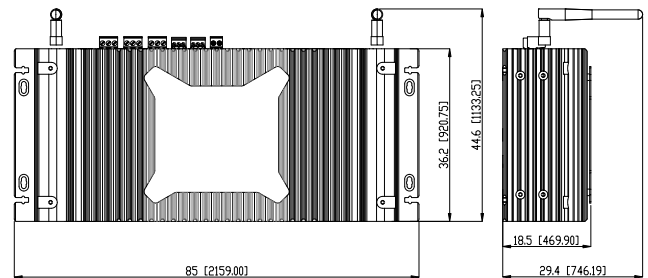
BOSS



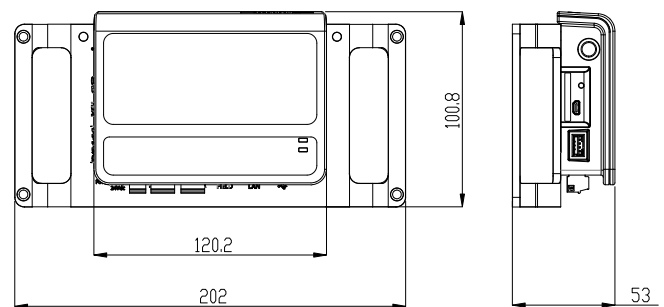
Capabilities:

See Page 34 for Controller Schematic

- The Victorium EAHP BOSS controller can function as a BMS in its own right or it can be tailored to work with the main BMS system to meet client requirements.
- The BOSS Controller is available in two versions the BOSS Mini which is capable of servicing up to 30 individual units or the BOSS Pro controller which is capable of up to 300 units with further expansion available by addition of second controller meaning the BOSS system can suit any site scale.
- The BOSS controller can be tailored to have various levels of access and functionality depending on the client's requirements. Full functionality allows adjustments to be made and software updated remotely.



BOSS Pro (300/100) Dimensions



BOSS Mini Dimensions



Functionality:

The BOSS controller function whereby if the system registers a fault, a generic error is communicated to the main BMS panel of the specific apartment in question. Either BOSS or the BMS autogenerates an email to the management company. At this point the management company can remotely or locally sign into the BOSS portal to view the apartment and specific error in question.

BOSS controller will form part of a network when integrated with a BMS. This is achieved using CAT5/6 cable from each EAHP apartment unit to plantroom (via a switch per floor or block), the BOSS controller connects into the final switch. Network communication to the BOSS controller is created by issuing addresses (IP, Gateway etc.) specific to each apartment and set during commissioning.

Example levels of access

- Management (read only)
- Maintenance (temp adjustment etc), Secondary service
- Joule Service



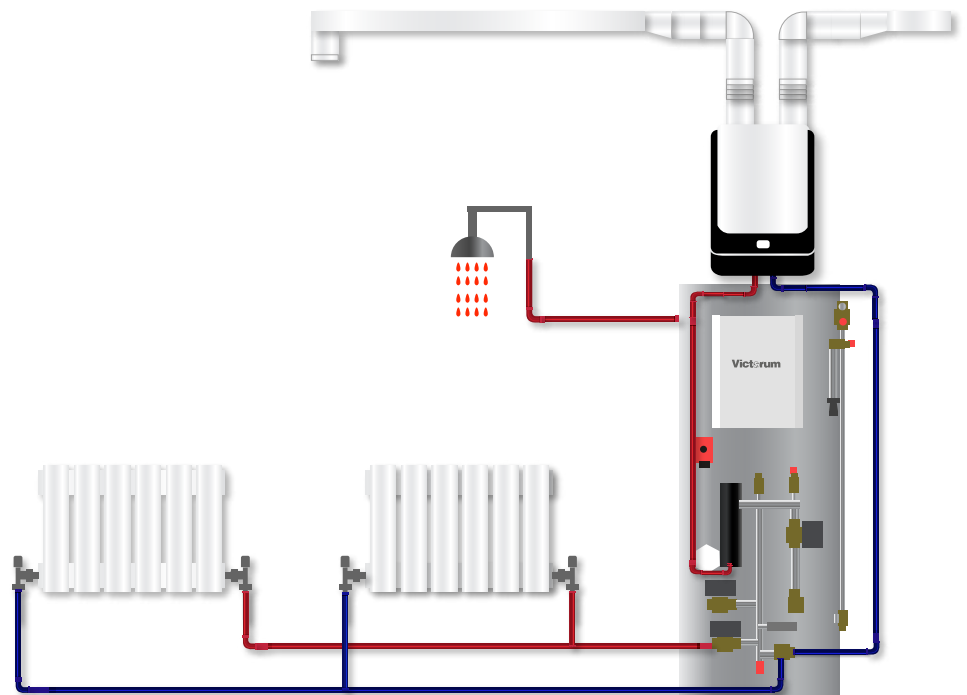
System Options Specification

Option 1:

Victorum EAHP & Pre-Plumbed Cyclone Cylinder

The Victorium EAHP & Cyclone pre-plumbed cylinder are the perfect combination solution for your DHW, central heating and ventilation needs, working perfectly with steel / aluminium radiators or UFH systems.

- DHW.
- 1 or 2 RAD/UFH CH zones.
- Complies with ventilation regulations.

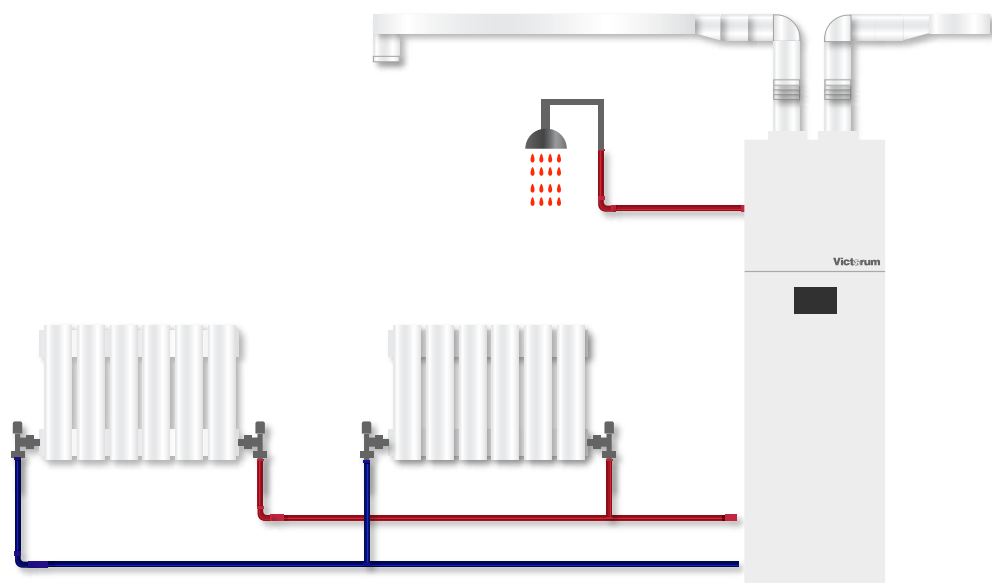


Option 2:

Victorum Compact EAHP

A Victorium Compact retains all of the benefits of a standard Victorium system while combining both the EAHP unit & cylinder into a single aesthetically pleasing cased unit. Its minimalist and unobtrusive design means it is the perfect choice to blend seamlessly into any environment.

- DHW.
- 1 or 2 RAD/UFH CH zones.
- Complies with ventilation regulations.



Ensure that No Pre Paid Meters are installed with the below Victorium Exhaust Air Heat Pump Systems

System Options Specification

Option 3:

EAHP & Cyclone Combination Pre-Plumbed Cylinder

Option 2: EAHP & Cyclone Combination Pre-Plumbed Cylinder

A Victorium Combi retains all of the benefits of a standard Victorium system but with the added advantage of having an integrated open vented cold water storage tank combined with the DHW tank in one seamless cylinder design, providing you with unique cost effective solution for any restrictive storage space application.

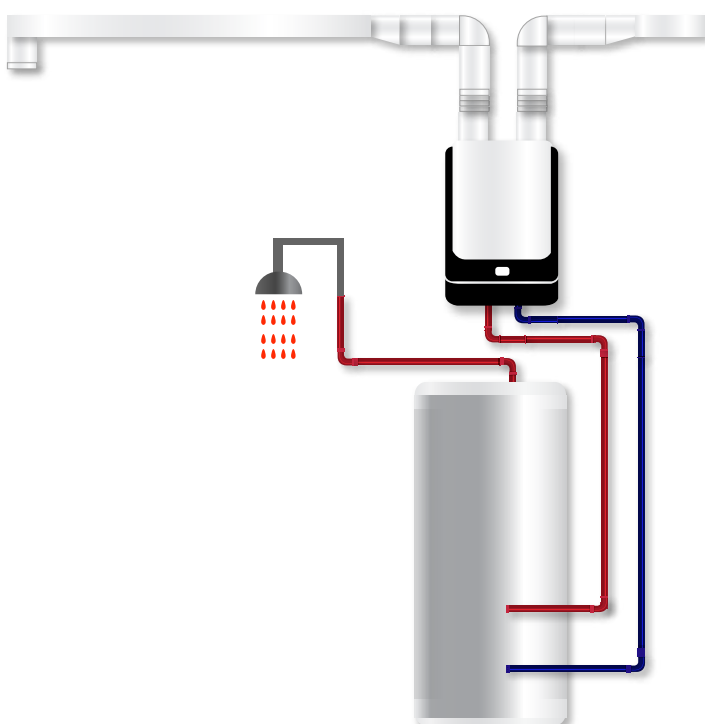
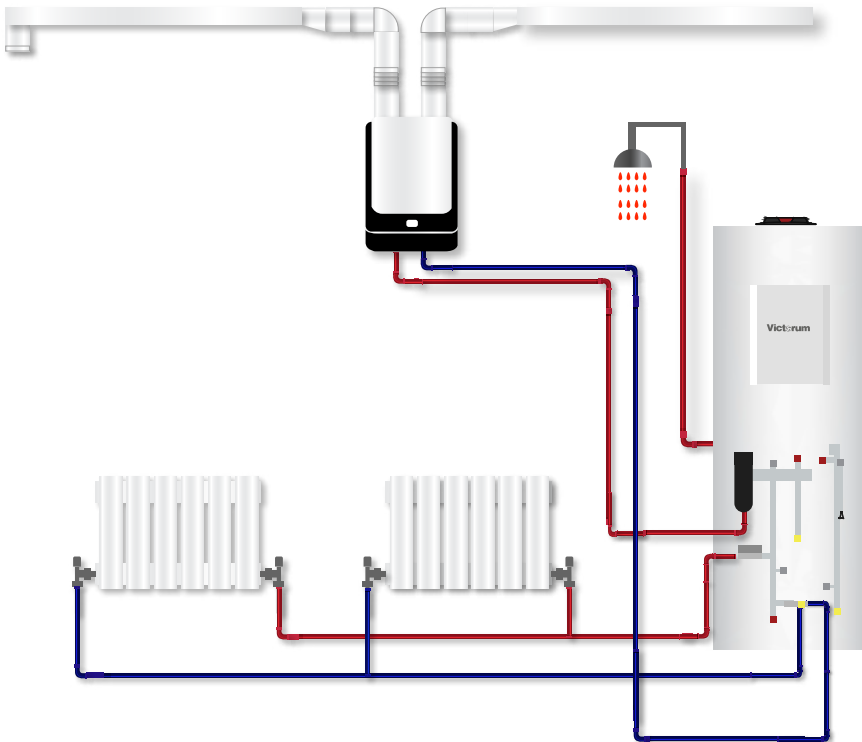
- DHW.
- Cold Water Storage Tank.
- 1 or 2 RAD/UFH CH zones.
- Complies with ventilation regulations.

Option 4:

Victorium EAHP & Cyclone Cylinder DHW Heater

A Victorium EAHP system Combines the aspects of both a conventional air source heat pump and a mechanical extract ventilation system (MEV) to provide 100% of the space heating requirements and DHW demand of a well insulated apartment unit. Ensuring compliance with dome for heating by up to 50%

- DHW.
- Complies with ventilation regulations.



Option 1: Victorum EAHP & Pre-Plumbed Cyclone Cylinder

See page 20 for M&E Schematics
See Page 34 for Installation Detail for 200L PP Cyl
See Page 35 for Installation Detail for 250L PP Cyl

Victorum EAHP Specification

Item Number	HHH-0-0000-VHP
Total Heating Capacity	5 Kw
Max Electrical Power	620 W
Max Thermal Output	2 Kw
COP (A20, W35)	4.9
Refrigerant	R 134a
Max Flow Temperature	60°C
Max Vent Flow Rate Heating:	100-250m3/h
Ventilation Rate Speed 1, 2, 3	50-350 m3/h
Height:	570mm
Width:	500mm
Depth:	500mm
Weight:	45kg
Unit Connections:	15mm
Air Inlet/ Outlet Connections:	150mm
Certifications:	
For Space Heating	I.S. EN 14825
For Hot Water	I.S. EN 16147
Test Conditions	I.S. EN 14511

Cyclone Cylinder Specification

Capacity	200L	250L
Item Number	TUMI-H0200-L3B	TUMI-H0250-L3B
Cylinder Material	Stainless Steel Duplex LDX 2101	
Thermal Insulation	Polyurethane foam CFC-Free & HCFC Free	
Casing	Painted Galvanised Carbon Steel DX51D	
Coil Material	Stainless Steel Tube AISI 316L	
Weight (empty) kg	59 kg	69 kg
Weight (full) kg	256kg	315 kg
Max. Operating Pressure	5 (bar)	
Test Pressure	10 (bar)	
Max. Working Temperature	90°C	
Heating Elements	1. No. Incoloy Immersion	
Heat Loss	78 W	87 W
Heat up Time (mins)	31	37
Energy Efficiency Class C	C	
Height (mm)	1490mm	1405mm
Diameter (mm)	530mm	600mm

SAP Appendix Q

Kitchen + 1 Wet Room	0.32
Kitchen + 2 Wet Room	0.29
Kitchen + 3 Wet Room	0.29
Kitchen + 4 Wet Room	0.33
Kitchen + 5 Wet Room	0.39
Kitchen + 6 Wet Room	0.45

EAHP Operation



- 1.1 Stand Alone heating, hot water & ventilation system
- 1.2 EAHP Unit to have the following built in components: Heat exchanger, Pump, Flow switch, Unit controls.
- 1.3 Hot water to be provided via manufacturers pre plumbed cylinder.
- 1.4 The EAHP will kick into operation to heat the cylinder as soon as a 5° dead band is reached to increase the operational efficiency of the system.
- 1.5 The system will provide central heating priority.
- 1.6 The System will incorporate an In-Line 3Kw back up emersion heater.
- 1.7 Accessories: Strainer, Fill & Flush, Isolation Valve, Remote Controller.
- 1.8 Optional Accessories: Victorum EAHP Unit is capable of integration with a district heating system with the inclusion of the "DM-MOD-EAHP District Heating Module – Victorum"

DHW Cylinder Operation



- 1.1 Joule Cyclone pre-plumbed / pre-wired Indirect DHW cylinder c.w Victorum system wiring centre.
- 1.2 1 bar working head c/w 3 port control valve.

Compact EAHP Operation



- 1.1 Stand Alone heating, hot water & ventilation system
- 1.2 EAHP Unit to have the following built in components: Heat exchanger, Pump, Flow switch, Unit controls.
- 1.3 Hot water to be provided via manufacturers pre plumbed cylinder.
- 1.4 The EAHP will kick into operation to heat the cylinder as soon as a 5° dead band is reached to increase the operational efficiency of the system.
- 1.5 The system will provide central heating priority.
- 1.6 The System will incorporate an In-Line 3Kw back up emersion heater.
- 1.7 Optional Accessories: Victorium EAHP Unit is capable of integration with a district heating system with the inclusion of the "DM-MOD-EAHP District Heating Module – Victorium"



Option 2: Victorium EAHP Compact

See page 24 for M&E Schematics
See Page 33 for Installation Detail

Victorium EAHP Specification

Item Number	TCDMVI-0180LFC
Total Heating Capacity	5 Kw
Max Electrical Power	620 W
Max Thermal Output	2 Kw
COP (A20, W35)	4.9
Refrigerant	R 134a
Max Flow Temperature	60°C
Max Vent Flow Rate Heating:	100-250m3/h
Ventilation Rate Speed	50-350 m3/h
Height:	2100mm
Width:	592mm
Depth:	672mm
Weight:	45kg
Air Inlet/ Outlet Connections:	150mm
Certifications:	
For Space Heating	I.S. EN 14825
For Hot Water	I.S EN 16147
Test Conditions	I.S EN 14511

Cyclone Cylinder Specification

Capacity	180L
Cylinder Material	Stainless Steel Duplex LDX 2101
Thermal Insulation	Polyurethane foam CFC-Free & HCFC Free
Coil Material	Stainless Steel Tube AISI 316L
Weight (empty) kg	47 kg
Weight (full) kg	244 kg
Max. Operating Pressure	5 (bar)
Test Pressure	10 (bar)
Max. Working Temperature	90°c
Heating Elements	1. No. Incoloy Immersion
Heat Loss	81 W
Energy Efficiency Class C	C

SAP Appendix Q

Kitchen + 1 Wet Room	0.32
Kitchen + 2 Wet Room	0.29
Kitchen + 3 Wet Room	0.29
Kitchen + 4 Wet Room	0.33
Kitchen + 5 Wet Room	0.39
Kitchen + 6 Wet Room	0.45

Option 3: EAHP & Cyclone Combination Pre-Plumbed Cylinder

Cylinder See page 28 for M&E Schematics
See Page 36 for Installation Detail

Victorum EAHP Specification

Item Number	HHH-0-0000-VHP
Total Heating Capacity	5 Kw
Max Electrical Power	620 W
Max Thermal Output	2 Kw
COP (A20, W35)	4.9
Refrigerant	R 134a
Max Flow Temperature	60°C
Max Vent Flow Rate Heating:	100-250m3/h
Ventilation Rate Speed	50-350 m3/h
Height:	570mm
Width:	597mm
Depth:	617mm
Weight:	45kg
Unit Connections:	15mm
Air Inlet/ Outlet Connections:	150mm
Certifications:	
For Space Heating	I.S. EN 14825
For Hot Water	I.S. EN 16147
Test Conditions	I.S. EN 14511

Combi Cylinder Specification

Item Number	
DHW Capacity	180L
Cold Water Storage Capacity	220L
Cylinder Material	Stainless Steel Duplex LDX 2101
Thermal Insulation	Polyurethane foam CFC-Free & HCFC Free
Coil Material	Stainless Steel Tube AISI 316L
Weight (empty)	TBC kg
Weight (full)	TBC kg
Max. Operating Pressure	5 (bar)
Test Pressure	10 (bar)
Max. Working Temperature	90°C
Heating Elements	1. No. Incoloy Immersion
Heat Loss	TBC W
Energy Efficiency	Class C
Height (mm)	1830 mm
Diameter (mm)	660 mm
Kitchen + 1 Wet Room	0.32
Kitchen + 2 Wet Room	0.29
Kitchen + 3 Wet Room	0.29
Kitchen + 4 Wet Room	0.33
Kitchen + 5 Wet Room	0.39
Kitchen + 6 Wet Room	0.45



- 1.1 Stand Alone heating, hot water & ventilation system.
- 1.2 Integrated open vented cold water storage tank.
- 1.3 EAHP Unit to have the following built in components: Heat exchanger, Pump, Flow switch, Unit controls.
- 1.4 Hot water to be provided via manufacturers pre plumbed cylinder.
- 1.5 The EAHP will kick into operation to heat the cylinder as soon as a 5° dead band is reached to increase the operational efficiency of the system.
- 1.6 The system will provide central heating priority.
- 1.7 The System will incorporate an In-Line 3Kw back up emersion heater.
- 1.8 Accessories: Strainer, Fill & Flush, Isolation Valve, Remote Controller.
- 1.9 Optional Accessories: Victorium EAHP Unit is capable of integration with a district heating system with the inclusion of the "DM-MOD-EAHP District Heating Module – Victorium"





Option 4:

Victorum EAHP & Cylone Cylinder DHW Only

See page 32 for M&E Schematics

See Page 37 for Installation Detail

Victorum EAHP Specification

Item Number	HHH-0-0000-VHP
Total Heating Capacity	5 Kw
Max Electrical Power	620 W
Max Thermal Output	2 Kw
COP (A20, W35)	4.9
Refrigerant	R 134a
Max Flow Temperature	60°C
Max Vent Flow Rate Heating:	100-250m ³ /h
Ventilation Rate Speed	50-350 m ³ /h
Height:	570mm
Width:	597mm
Depth:	617mm
Weight:	45kg
Unit Connections:	15mm
Air Inlet/ Outlet Connections:	150mm
Certifications:	
For Hot Water	I.S EN 16147

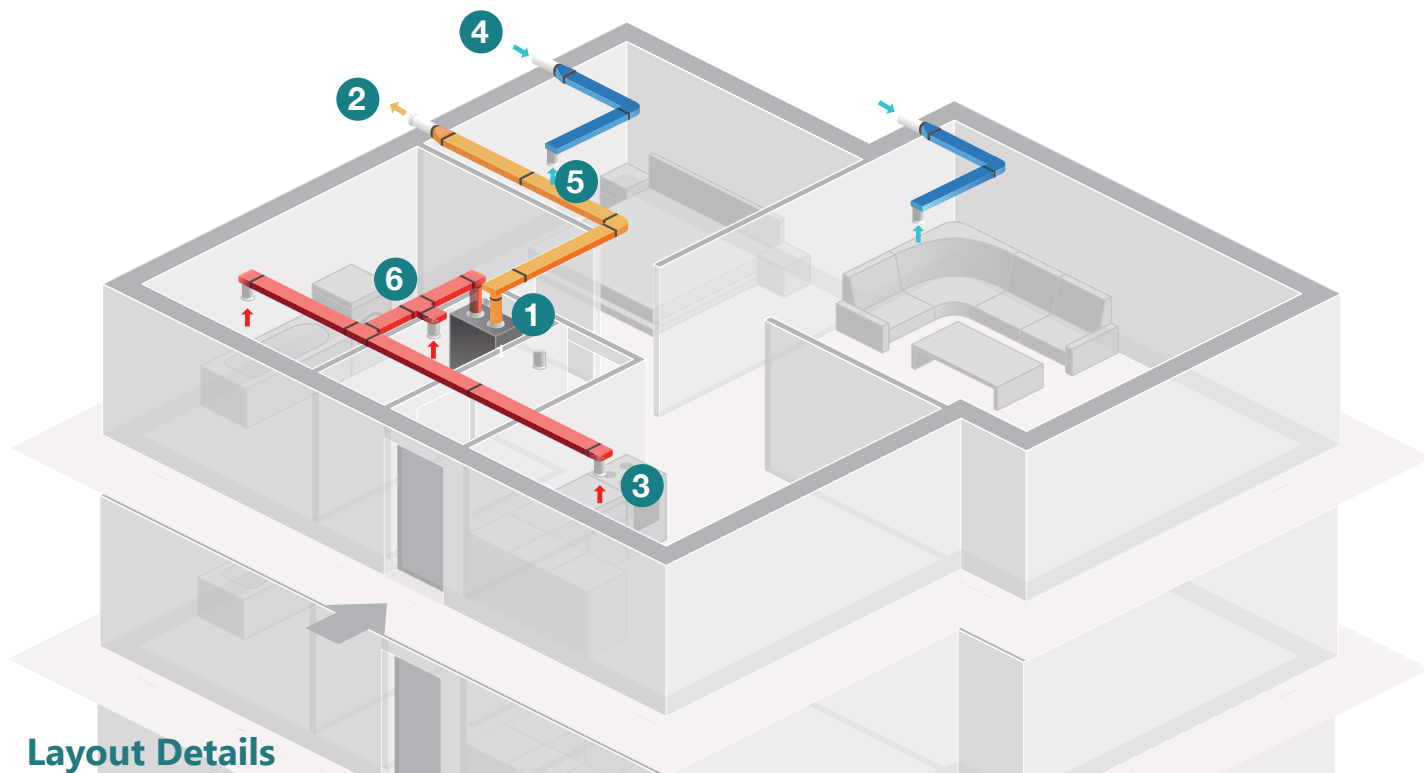
Cyclone Cylinder Specification

Item Number		
Capacity	200L	250L
Cylinder Material	Stainless Steel Duplex LDX 2101	
Thermal Insulation	Polyurethane foam CFC-Free & HCFC Free	
Casing	Painted Galvanised Carbon Steel DX51D	
Coil Material	Stainless Steel Tube AISI 316L	
Weight (empty) kg	47 kg	56 kg
Weight (full) kg	244 kg	302 kg
Max. Operating Pressure	5 (bar)	
Test Pressure	10 (bar)	
Max. Working Temperature	90°C	
Heating Elements	1. No. Incoloy Immersion	
Heat Loss	78 W	87 W
Heat up Time (mins)	31	37
Energy Efficiency Class C	C	C
Height (mm)	1425mm	1535mm
Diameter (mm)	530mm	560mm

SAP Appendix Q

Kitchen + 1 Wet Room	0.32
Kitchen + 2 Wet Room	0.29
Kitchen + 3 Wet Room	0.29
Kitchen + 4 Wet Room	0.33
Kitchen + 5 Wet Room	0.39
Kitchen + 6 Wet Room	0.45

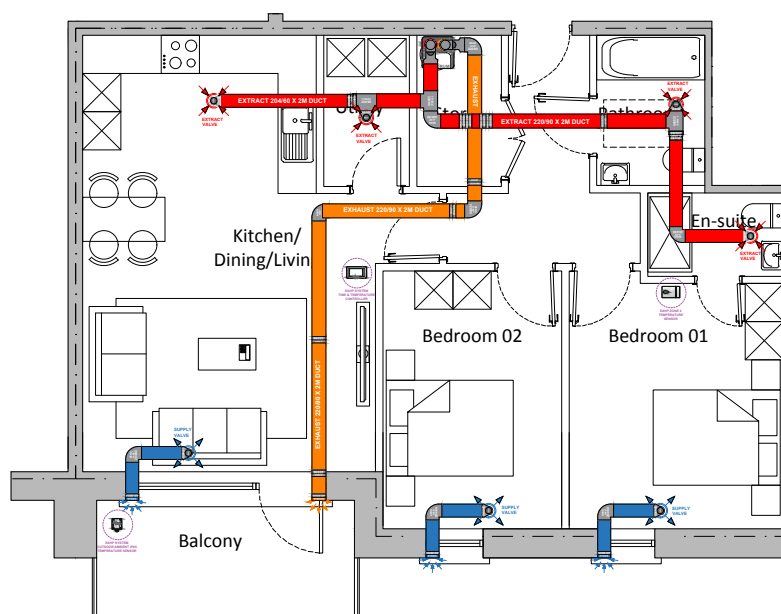
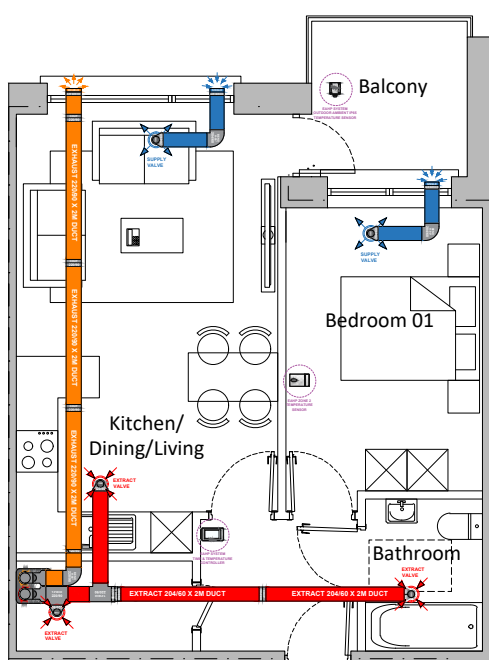
Example Ventilation Layouts



Layout Details

Joule provides state of the art ventilation with our InvaVent system. This simple to install and easy to use system is accompanied with full ventilation installation layouts, detailed within these layouts are everything from unit positioning, valve location and external vent termination, reassuring your consultant and installer that they will have a comprehensive support service when it comes installing a Victorium EAHP system.

- 1 EAHP Unit location and positioning.
- 2 Termination point for exhaust vent.
- 3 Location of extract & supply valves.
- 4 Termination point for fresh air supply vents.
- 5&6 Extract and exhaust ducting run positioning.



Ventilation Valve & Vent Ducting Options



Extraction Valve & Supply Valve		
Type	Extract Valve	Supply Valve
Application	Internal Ceiling Mounted	
Connection Size	125mm Ø	
Material	Metal	
Colour Available	White	
Fire Rated Version Available	Yes	



Acoustic KWI Extract & KNI Supply Valves		
Type	Extract Air Valve	
Application	Internal Ceiling Mounted (Extract Version)	Internal Ceiling or Wall Mounted (Supply Version)
Connection Size	125mm Ø	
Material	Metal	
Colour Available	White	
Fire Rated Version Available	No	



TLF Supply Wall Valve	
Type	Supply Valve
Application	Internal Wall Mounted
Connection Size	100mm Ø
Material	Plastic
Colour Available	White
Fire Rated Version Available	No

Louvred Air Vents	
Type	Supply Air Vent
Application	External Wall Mounted
Connection Size	100mm Ø 125mm Ø 150mm Ø
Material	Plastic
Colour Available	White, Terracotta, Brown, Beige
Fire Rated Version Available	No



Double Air Brick Vent	
Type	Exhaust Air Vent
Application	External Wall Mounted
Connection Size	220 x 90mm (Adapter Required)
Material	Plastic
Colour Available	White, Terracotta, Brown, Beige
Fire Rated Version Available	No

Single Air Brick Vent	
Type	Supply Air Vent
Application	External Wall Mounted
Connection Size	204 x 60mm (Adapter Required)
Material	Plastic
Colour Available	White, Terracotta, Brown, Beige
Fire Rated Version Available	No



Aluminium Radiators

With its compact design and its attractive linear shape, RIVA provides a high thermal emission with a low water content and a reduced inertia.

The performance of this radiator perfectly combines with modern heating systems and is an effective response to the need for reduction of energy costs.

- Available in modular sections
- Ideal for use with Heat Pumps
- 15 years guarantee



Steel Radiators

Our competitive steel range has compact design paired with its high efficiency/ thermal emission making it the perfect choice for any heating systems.

- With or without hanger
- High efficiency,
- Suitable for low temperature
- Perfect corrosion resistance with nano-ceramic surface coating
- 10 year guarantee



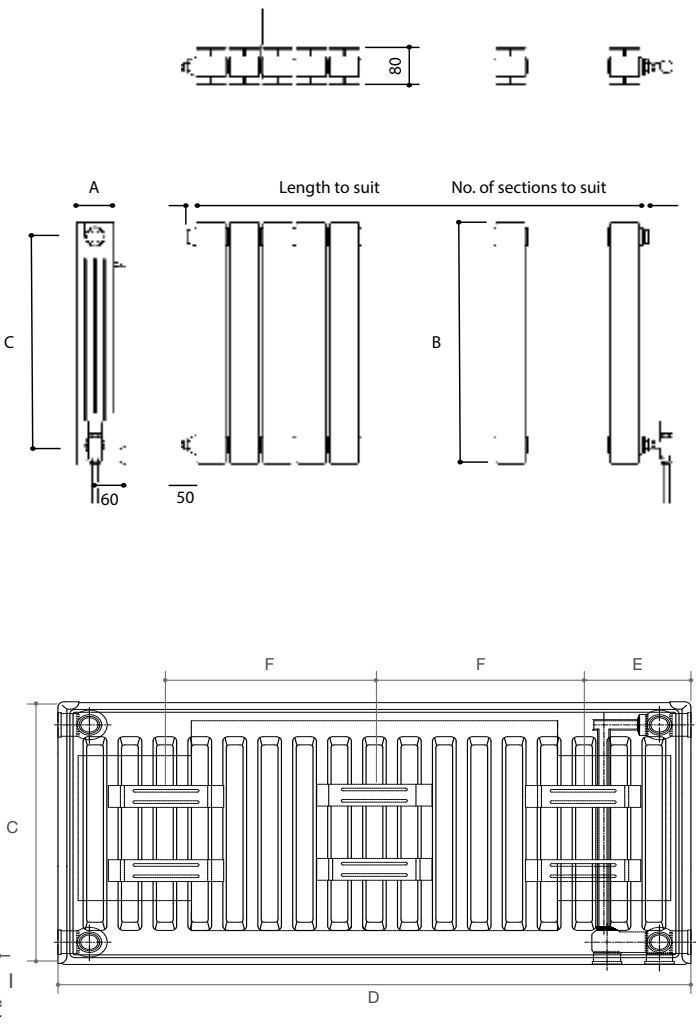
Radiator Specs

Aluminium Radiators

Dimensions				
	430	580	680	780
(A)	80mm	80mm	80mm	80mm
(B)	430mm	580mm	680mm	780mm
(C)	350mm	500mm	600mm	700mm

Steel Radiators

Dimensions			
	600	500	400
(A)	104 mm	104mm	104mm
(B)	76.5 mm	76.5mm	76.5mm
(C)	600 mm	500mm	400mm
(D)	0.4 m - 2 m	0.4m - 2m	0.4m - 2m
(E)	101 mm	101mm	101mm
(F)	(C-2D)/2	(C-2D)/2	(C-2D)/2



Radiator Thermal Output Calculation

$$Q = Km * (\Delta T ^n)$$

ΔT = see talbe 2
 Km = see table below
 n = see table below

Table 2

$$\Delta T = \text{Mean Water Temp } (^{\circ}\text{C}) - \text{Design Room Temp } (^{\circ}\text{C}).$$

Example: $\Delta T = 40 - 18$

Mean Water Temp $^{\circ}\text{C} = \text{Heat Source Flow Temp } (^{\circ}\text{C}) - (\text{System Temp Drop } ^{\circ}\text{C}/2).$

Example: $MWT = 45 - (10/2)$

[†]The required internal temperatures of each room (Design Room Temp $^{\circ}\text{C}$) which are derived

Aluminium

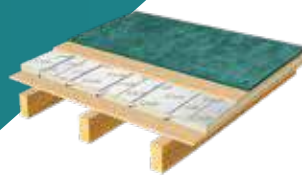
Release of Dangerous Substances					None					
					A1					
Maximum Operating Pressure					16 bar					
Test Pressure					27 bar					
Aluminium Horizontal					Aluminium Vertical					
Height (mm):	430	580	680	780	1080	1280	1480	1680	1880	2080
Km (Coefficient)	0.5667	0.62828	0.7582	0.7996	1.063	1.159	1.3	1.434	1.562	1.685
n (Exponent)	1.2845	1.3262	1.3043	1.3332	1.312	1.326	1.327	1.329	1.33	1.331
"QΔt20 (Thermal effect) Watts per Section (80mm)"	26.58	33.39	37.73	43.39	54.14	61.55	69.25	76.85	83.96	90.84

Steel

None			
A1			
6 bar			
10 bar			
Steel Type 11		Steel Type 22	
500	600	500	600
6.35134	7.33984	10.3724	11.4097
1.25304	1.25649	1.282	1.295
271.09	316.53	482.84	552.21

UFH System Options

Joule provides state of the art underfloor heating with our Invaheat system. These simple to install and easy to use systems are accompanied with full UFH pipe installation layouts, upon request your chosen MEP installer can also be provided with "Underfloor Heating Installation & Maintenance Manual" demonstrating everything you need to know from Pre-installation Notes right through to system filling and testing.



Inva Lite

Application	Floating Floor System
Thermal Output	65w/m ²
Floor Build-Up	25mm (On Hard Base) 43mm (On Joists)
Maximum Circuit Length	100m
Pipe Diameter/ Material	16mm Pert/AL/Pert
Pipe Centres (mm)	100mm, 200mm
Drying Time	No Drying Time



Inva Clip & Rail

Application	Solid Floor System
Thermal Output	90 w/m ²
Floor Build-Up	45-70mm
Maximum Circuit Length	100m
Pipe Diameter/ Material	16mm Pert/AL/Pert
Pipe Centres (mm)	100mm, 150mm, 200mm
Drying Time	1 day/mm



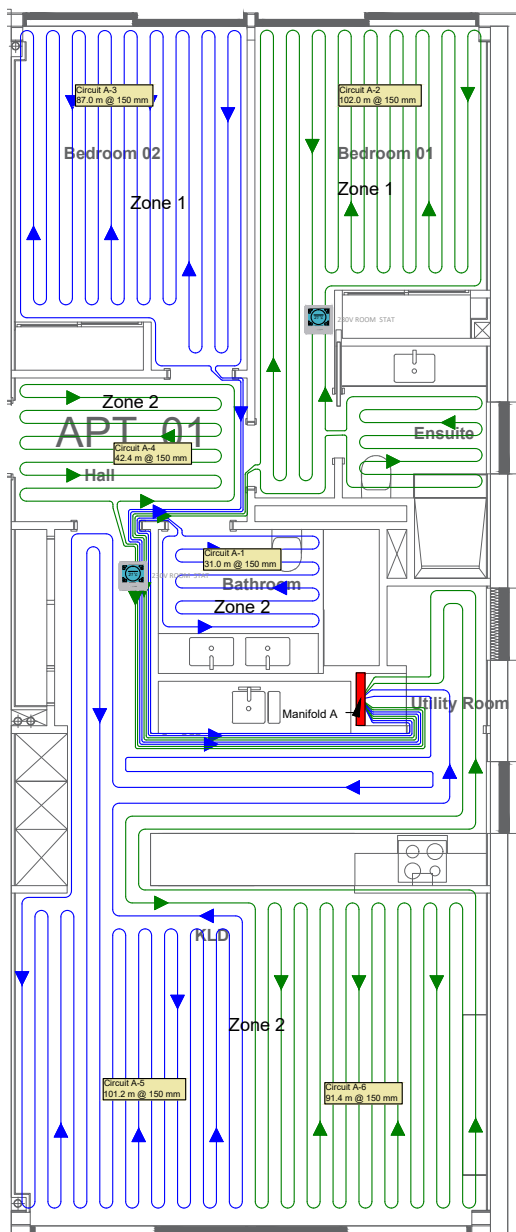
Inva Screed

Application	Overlay Floor System
Thermal Output	95w/m ²
Floor Build-Up	15mm (On Hard Base) 33mm (On Joists)
Maximum Circuit Length	75m
Pipe Diameter/ Material	12mm Pert
Pipe Centres (mm)	100mm, 150mm, 200mm
Drying Time	8hr Foot Traffic 72hr Floor Covering



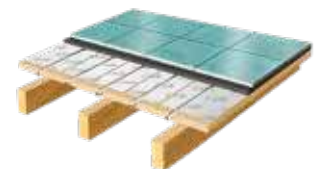
Inva Matt

Application	Solid Floor System
Thermal Output	90 w/m ²
Floor Build-Up	45-70mm
Maximum Circuit Length	100m
Pipe Diameter/ Material	16mm Pert/AL/Pert
Pipe Centres (mm)	100mm, 150mm, 200mm
Drying Time	1 day/mm



Inva Board

Application	Overlay Floor System
Thermal Output	65w/m ²
Floor Build-Up	18mm (On Hard Base) 36mm (On Joists)
Maximum Circuit Length	75m
Pipe Diameter/ Material	12mm Pert
Pipe Centres (mm)	150mm,
Drying Time	8hr Foot Traffic 72hr Floor Covering



Inva Struct

Application	Suspended Floor System
Thermal Output	55w/m ²
Floor Build-Up	22mm
Maximum Circuit Length	75m
Pipe Diameter/ Material	12mm Pert
Pipe Centres (mm)	100mm, 150mm, 200mm
Drying Time	No Drying Time

UFH System Primary Component Specifications



E.91 Touch Screen Heating Thermostat

Supply Voltage	220V/230V
Power Consumption	2W
Setting Range	70
Limitation Setting	42
Switch Differential	52
Ambient Temperature	46
IP Rating	IP20
Housing Material	Anti-Flammable PC



Wiring Centre

Supply Voltage	220V/230V
Output Voltage	2W
Max Load	70
No. Of Zone Outputs	42
Potential-Free Outputs	52
Dimensions (mm)	46



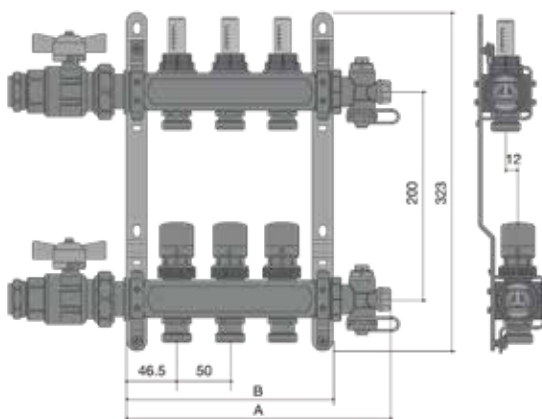
Electro-Thermal Acuator

Supply Voltage	230VAC, 50Hz
Output Voltage	230VAC, 50Hz
Max Load	70
No. Of Zone Outputs	42
Potential-Free Outputs	52
Dimensions (mm)	46



UFH Manifold

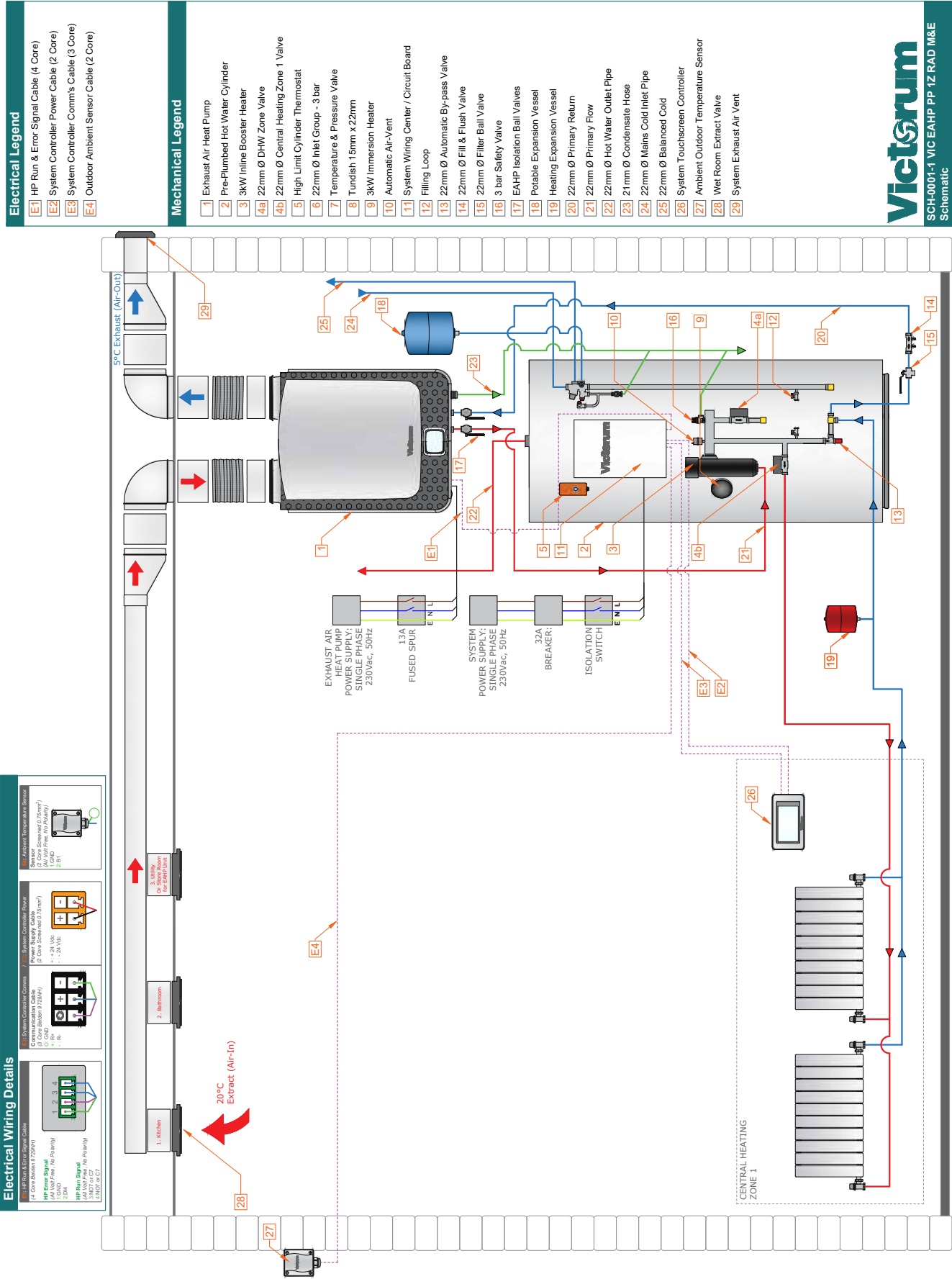
Field of Application	Heating/Floor Heating	
Temperature Range	0°C to 70°C	
Max Operating Pressure	6bar	
Outlet Connection Sizes	3/4" Eurokonus	
Material	Stainless Steel	
No of Ports	3 - 13 Port	
PortNo.	A (mm)	B (mm)
3	249	193
4	299	243
5	349	293
6	399	343
7	449	393
8	499	443
9	549	493
10	599	543
11	649	593
12	699	543
13	749	693



Mixing Valve & Controller

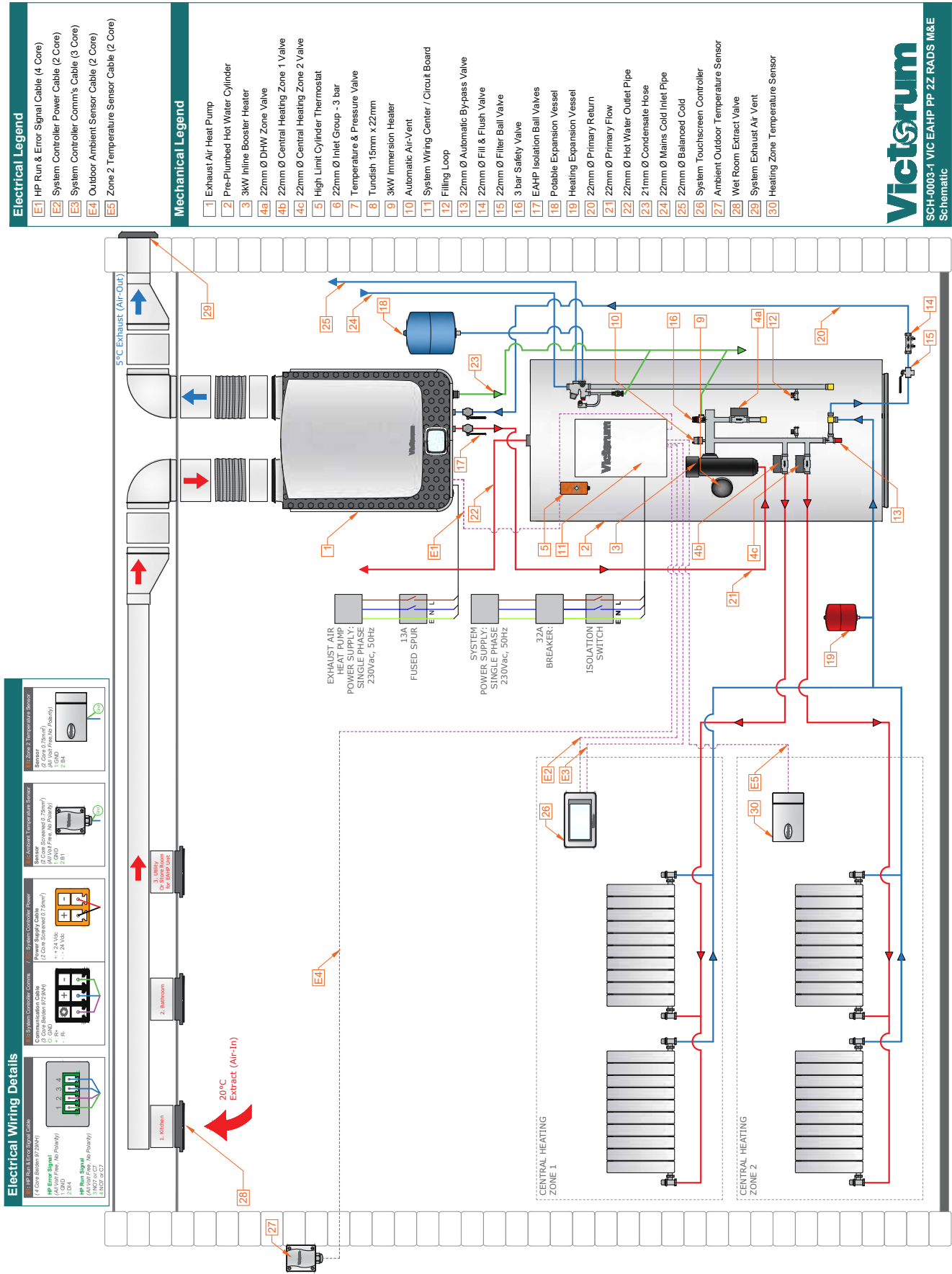
Temp. Range	5-95°C
Encloser Rating	IP41
Output Voltage	230VAC
Weight	0.40
Connection	1/2" Inch
A	36
B	72
C	32
D	50
E	36





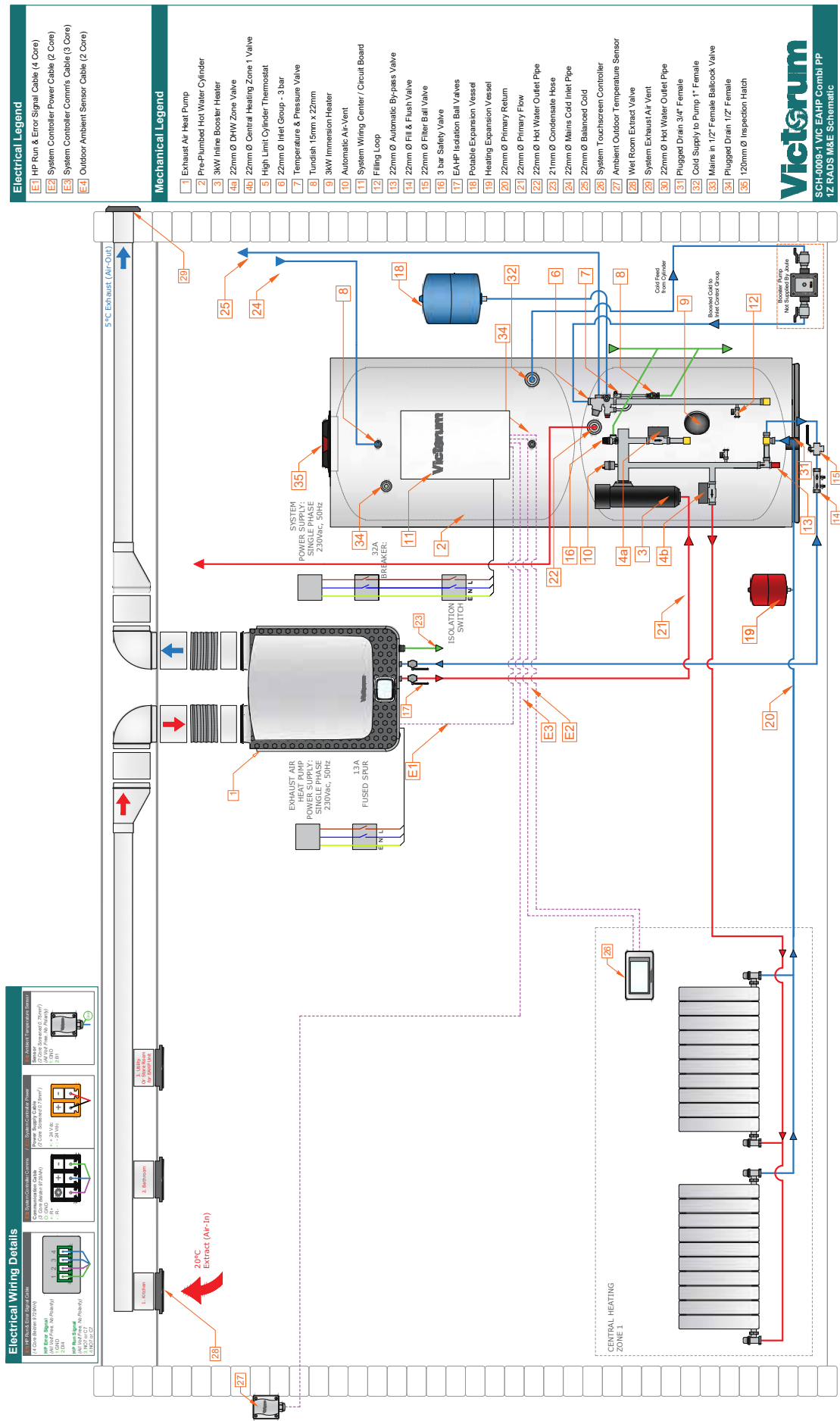
Victorium

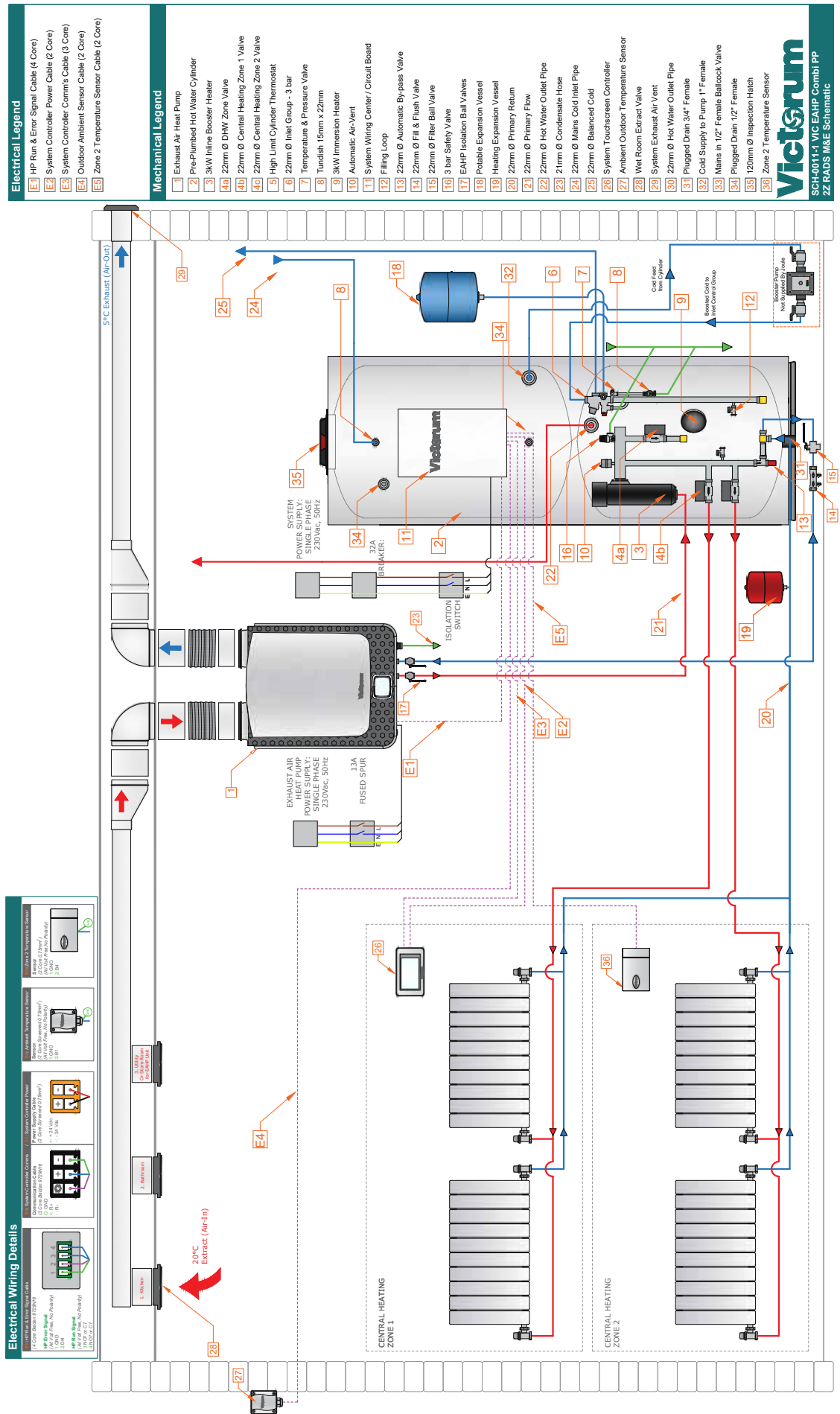
SCH-0001-1 VIC EAHP PP 1Z RAD M&E Schematic

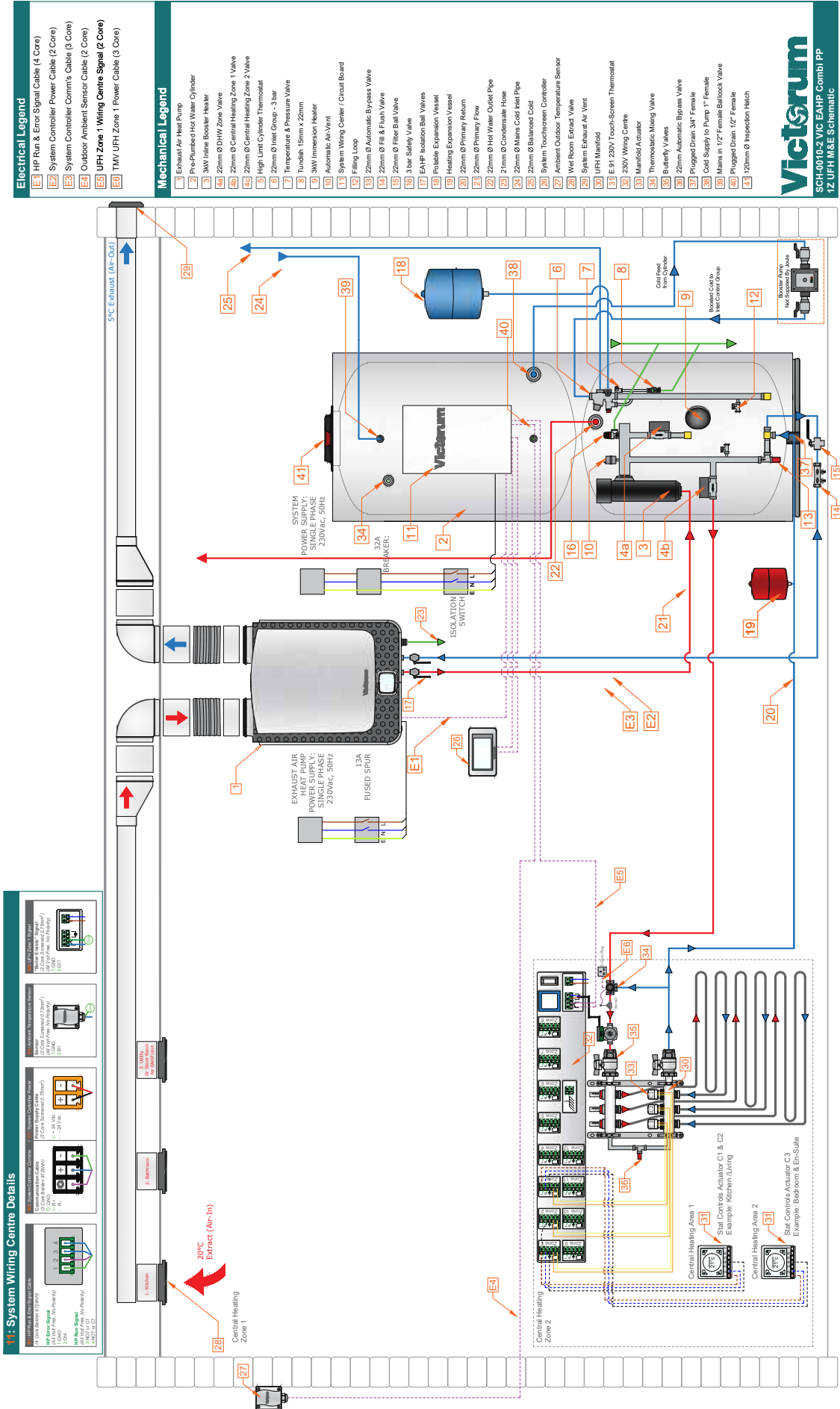


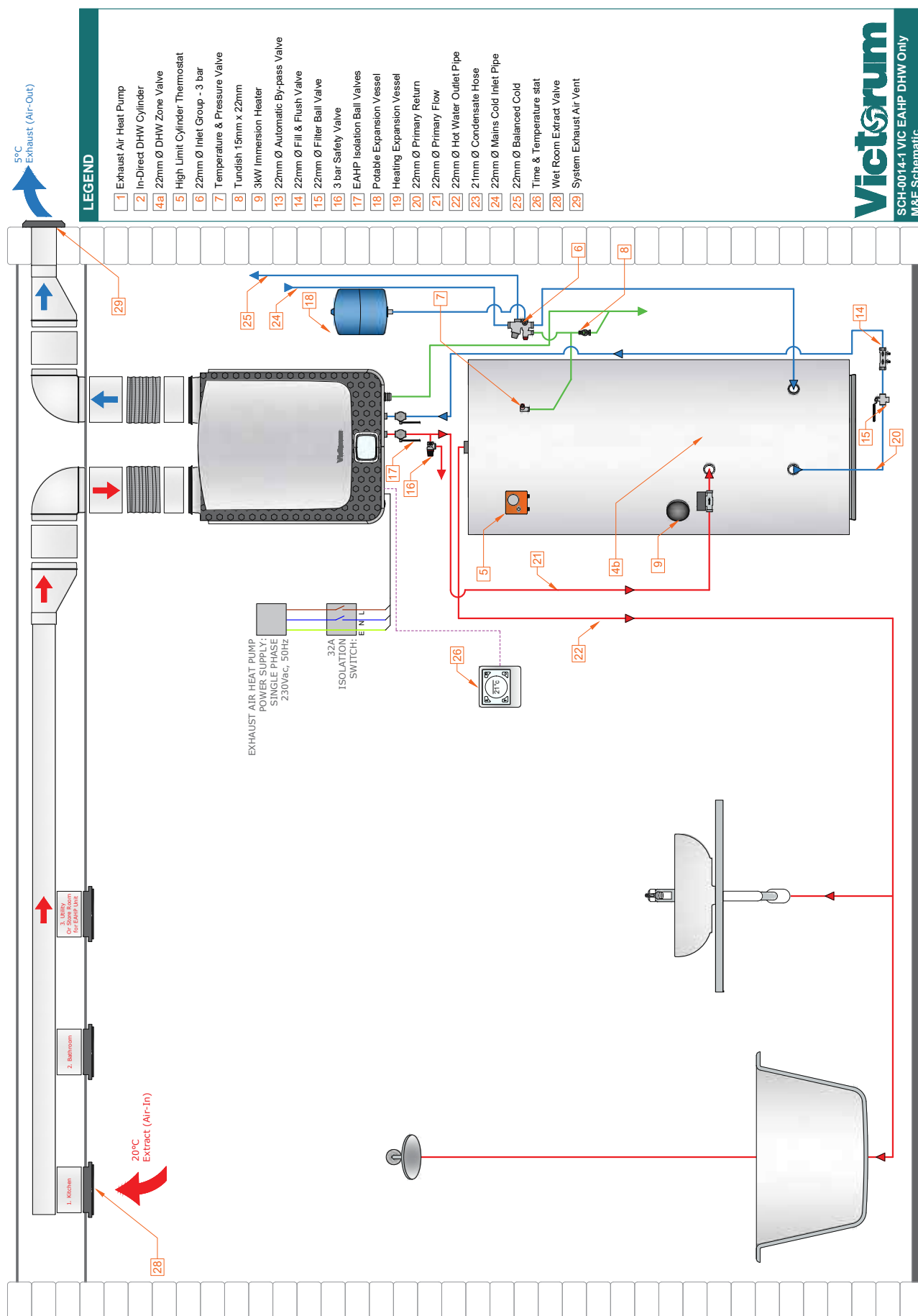


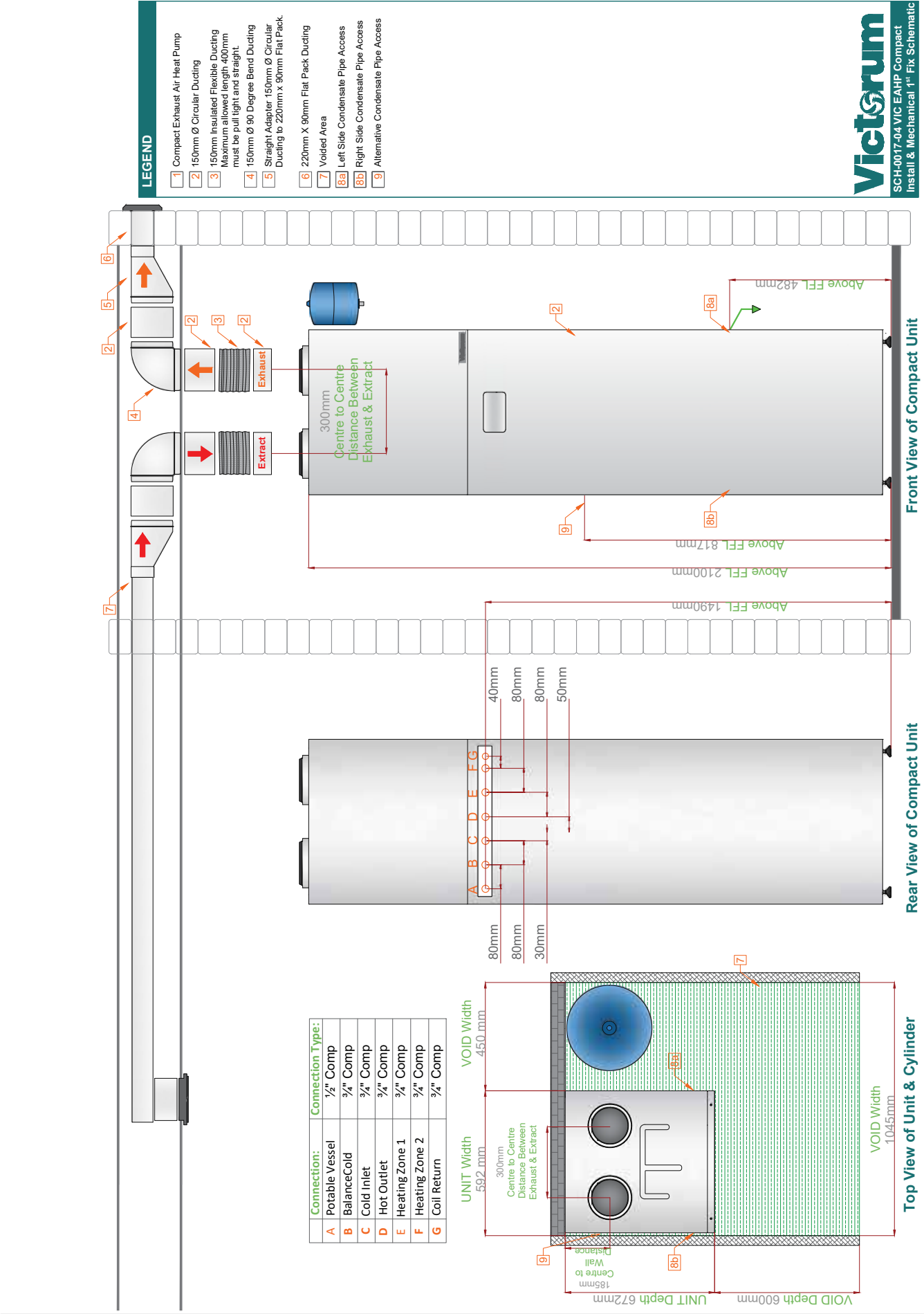


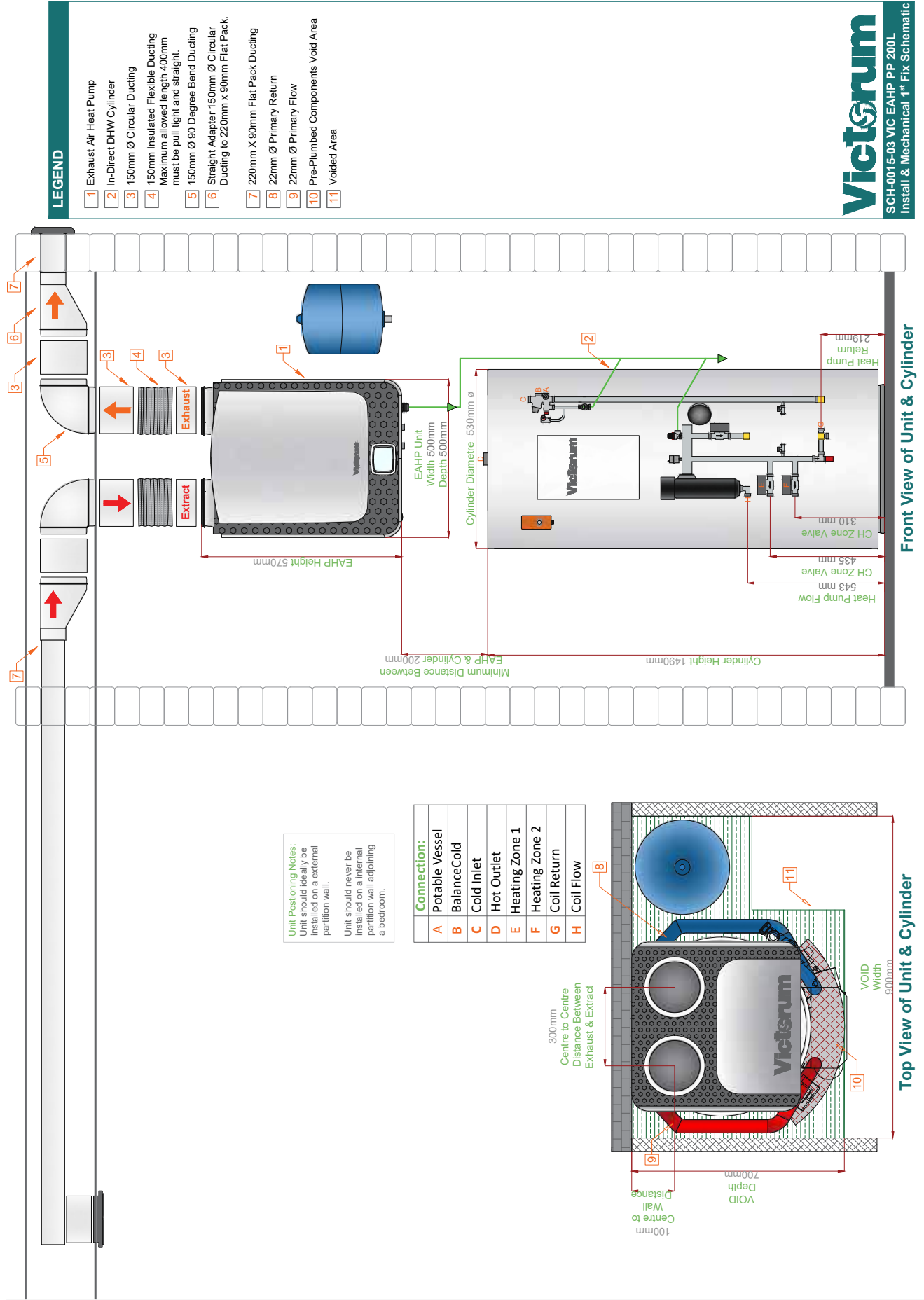






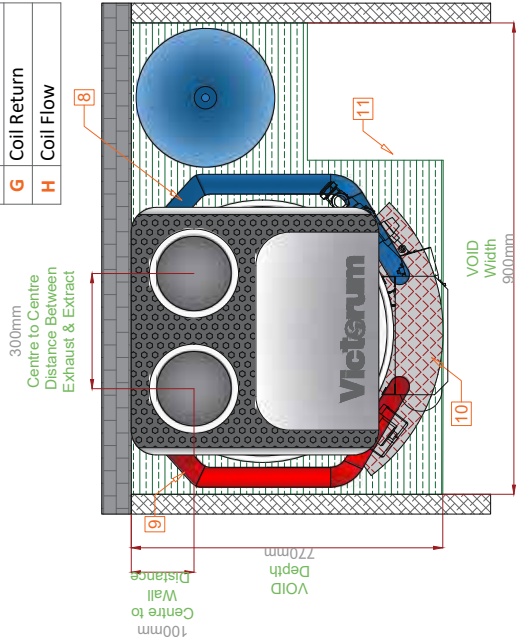




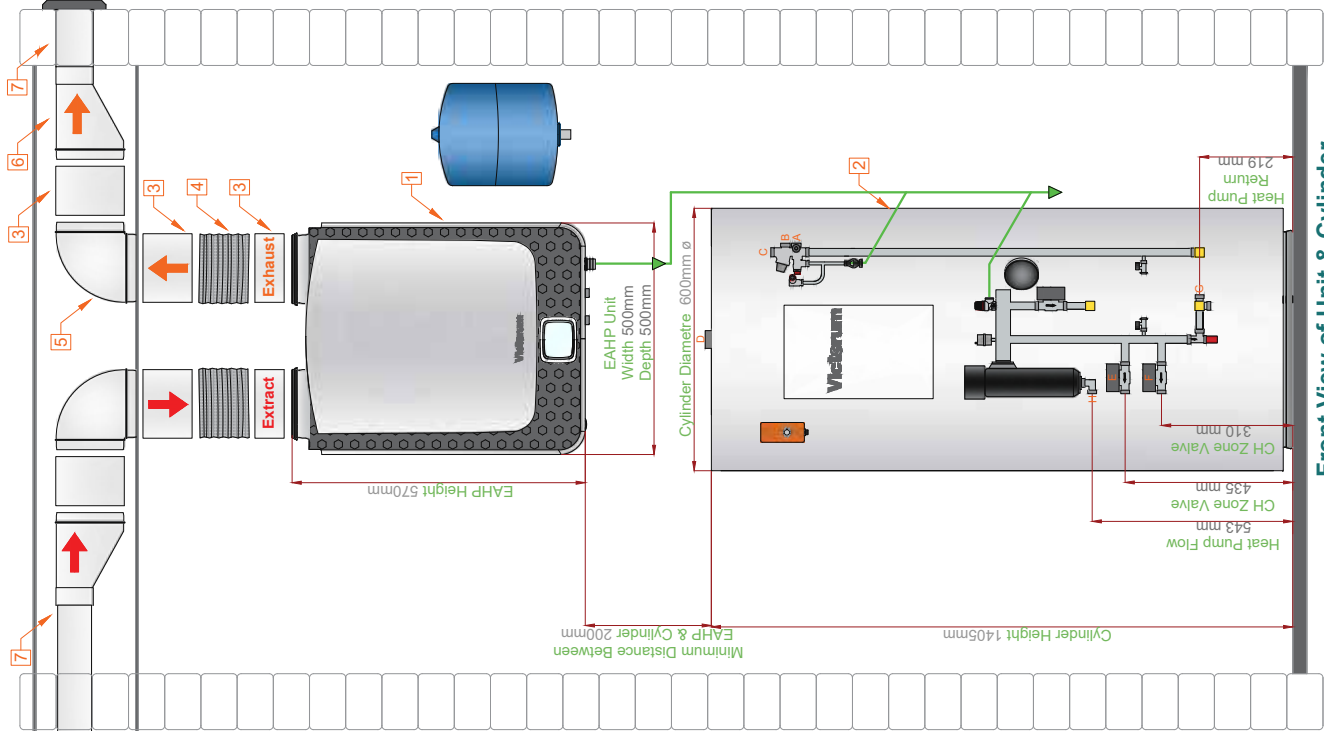


Unit Positioning Notes:
Unit should ideally be installed on an external partition wall.
Unit should never be installed on an internal partition wall adjoining a bedroom.

Connection:	
A	Potable Vessel
B	Balance Cold
C	Cold Inlet
D	Hot Outlet
E	Heating Zone 1
F	Heating Zone 2
G	Coil Return
H	Coil Flow



Top View of Unit & Cylinder



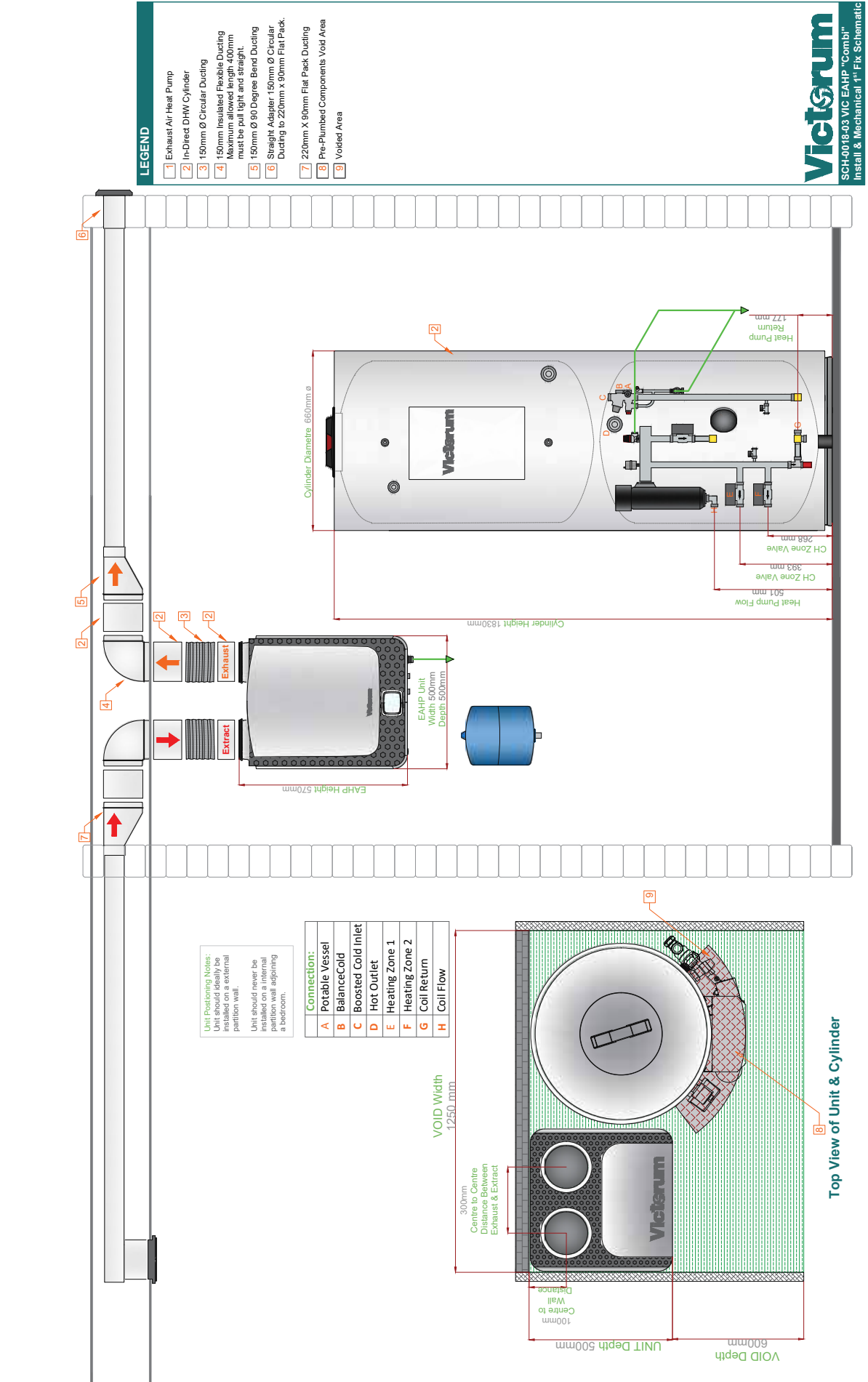
Front View of Unit & Cylinder

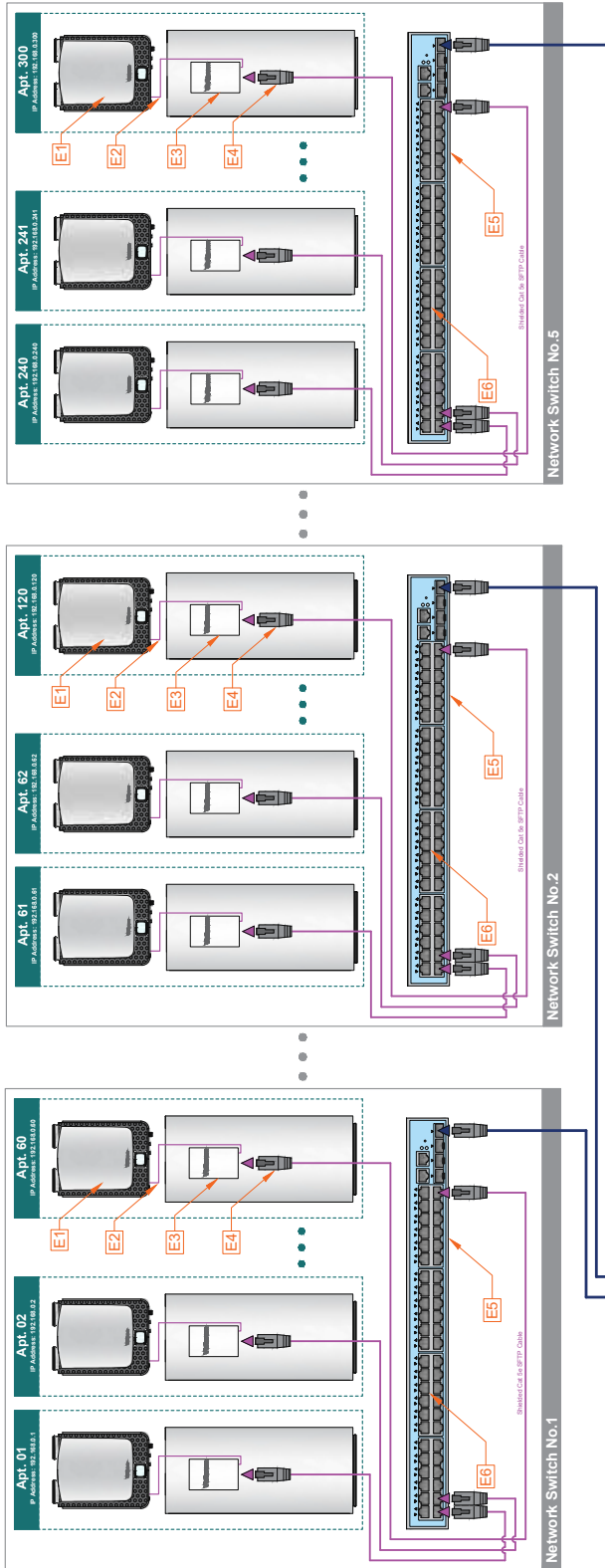
LEGEND

- 1 Exhaust Air Heat Pump
- 2 In-Direct DHW Cylinder
- 3 150mm Ø Circular Ducting
- 4 150mm Insulated Flexible Ducting Maximum allowed length 400mm must be pull tight and straight.
- 5 150mm Ø 90 Degree Bend Ducting
- 6 Straight Adapter 150mm Ø Circular Ducting to 220mm x 90mm Flat Pack.
- 7 220mm X 90mm Flat Pack Ducting
- 8 22mm Ø Primary Return
- 9 22mm Ø Primary Flow
- 10 Pre-Plumbed Components Void Area
- 11 Voided Area

Victorium

SCH-0016-03 VIC EAHP PP 250L
Install & Mechanical 1" Fix Schematic





Electrical Legend

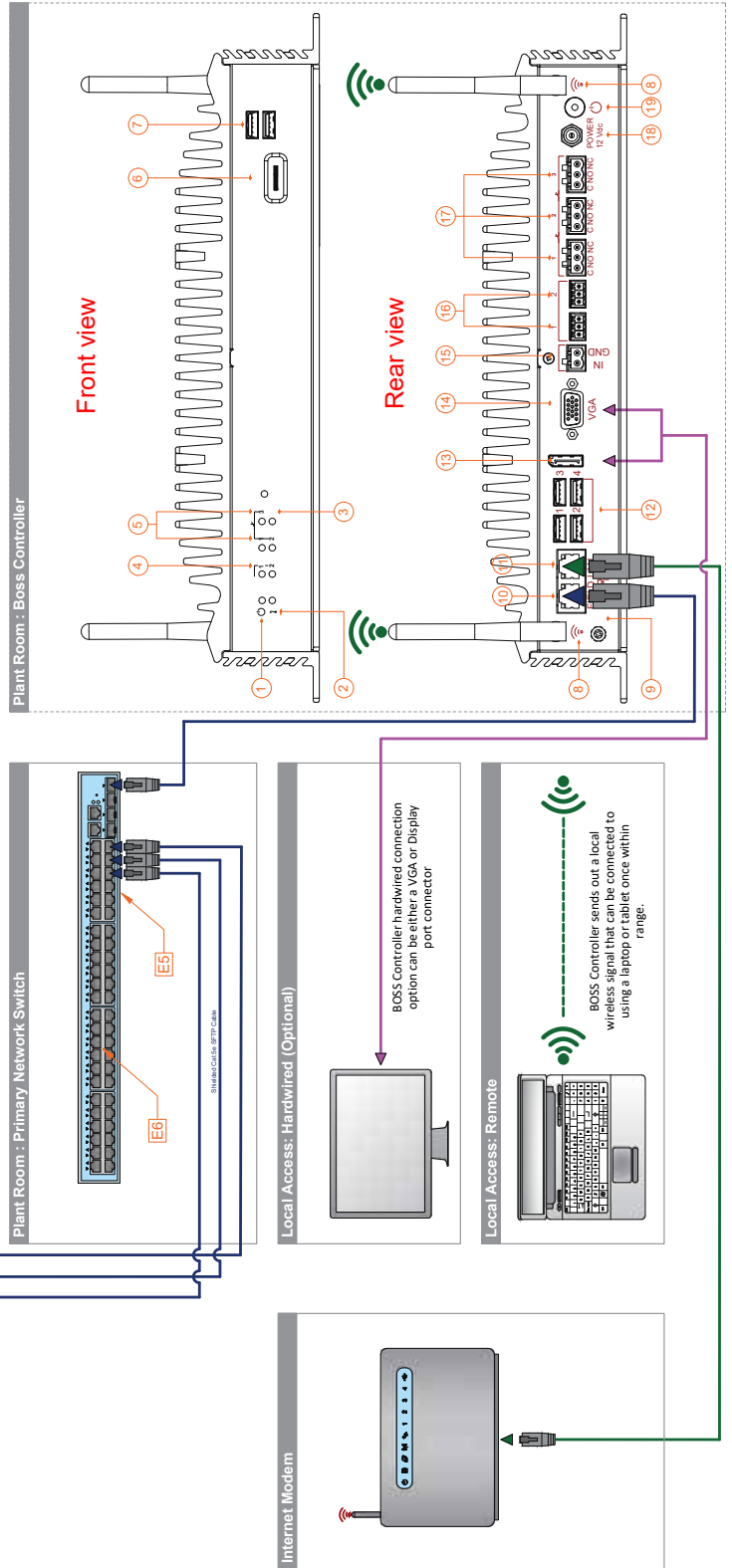
- E1** Victorium Exhaust Air Heat Pump
- E2** HP Run & Error Signal Cable (4 Core)
- E3** System Wiring Centre / DHW Cylinder
- E4** RJ-45 Shielded Cat 5e SFTP Cable
- E5** Network Switch
- E6** Network Switch RJ-45 Port Array
- E7** VPN Firewall Router

BOSS Controller Legend

- 1** Status: LED ON / OFF
- 2** Status: LED Alarm
- 3** Status: LED Digital Input
- 4** Status: LED RS485 (1,2)
- 5** Status: LED Relay (1,2,3)
- 6** µSD Port
- 7** USB Port (1,2)
- 8** 2 Antennas
- 9** Earth Screw
- 10** Ethernet FIELD
- 11** Ethernet LAN
- 12** USB Ports (1,2,3,4)
- 13** Display Port
- 14** VGA Port
- 15** Digital Input
- 16** RS485 Lines
- 17** Relay Output (1,2,3)
- 18** Power Connection
- 19** ON/OFF Button

Victorium

SCH-0013-2 VIC EAHP BOSS Controller
M&E Schematic





Don't trust
anybody, we
won't have a
sense of
humor!

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