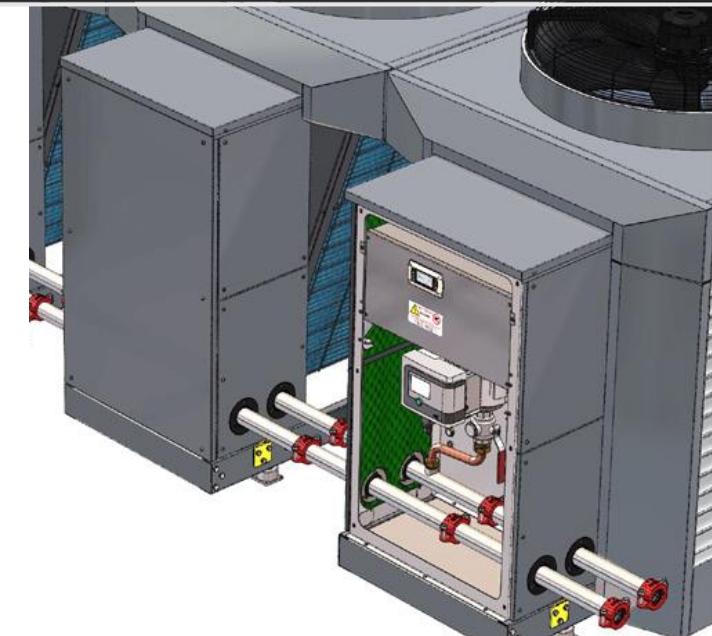
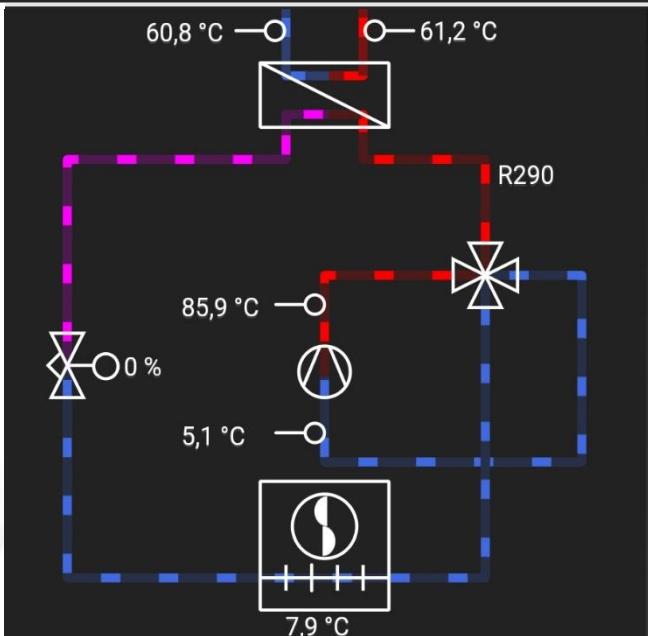


R290 Product Launch - 2026

Barry Piorkowski, PhD CEng MIMechE.



Product Datasheet

Leeds Air to Water Heat Pump

Product Name	Leeds Single	
Product Number	GE40501-001-00	
Refrigerant Amount (kg)	4.0	
Electrical Booster Heater (External)	9kW	
EEI Rating	A++	
Heat Pump Space Heater (@ 65°C)	BSHEE+* (T_2)	128%
SCOP	3.22	
EER Rating	A++	
Heat Pump Space Heater (@ 35°C)	BSHEE+* (T_2)	151%
SCOP	3.85	
Heating (Air-35°C/ Water 35°C)	Rated Output (kW)	26.5
	Power Consumption (kW)	8.0
	COP	3.3
Cooling (Air 35°C/ Water 16°C)	Rated Output (kW)	35.7
	EER	3.39
Min/ Max Outlet Temperature (°C)	7 to 70	
Mass (kg)	600	
Heat Pump Voltage / Frequency	400V 3ph+N+PE AC / 50Hz	
Max Running Current (A) Compressor	32	
Max Electrical Power (kW) Compressor	21	
Sound Pressure Level @ 10m (dBa) ^{1,2}	40	
Operating Ambient Temperature (°C)	-25 to 45	
Max Starting Current (A) with / without Soft Starter	95 / 140	
Water Connections (inch)	2	

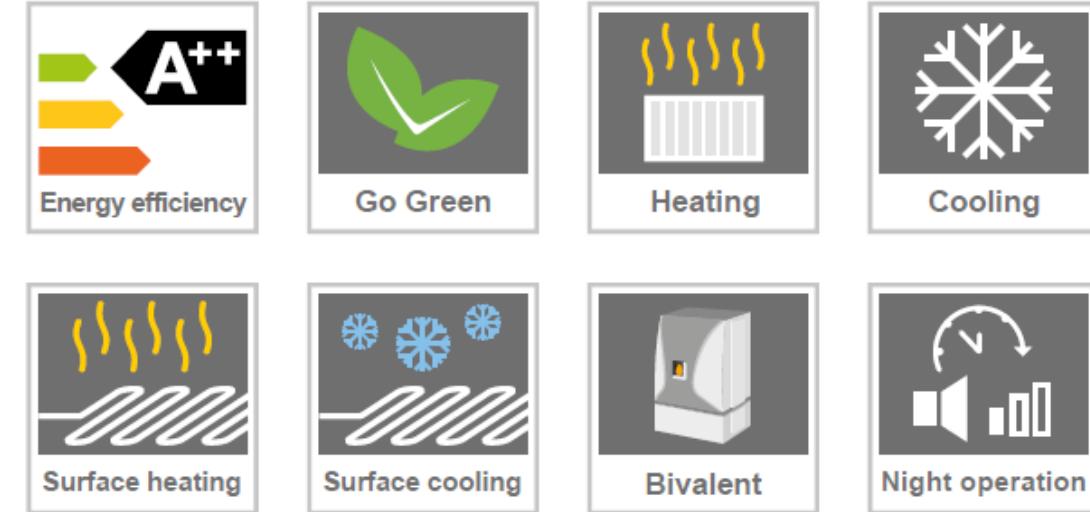
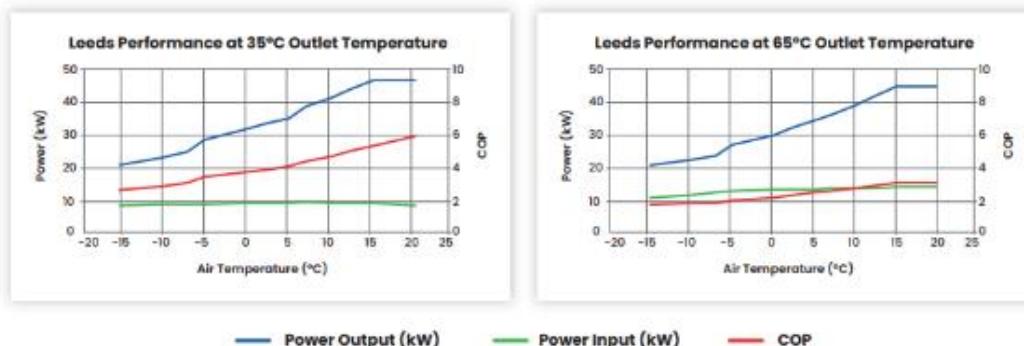
*1 - VDE tested, A7/WS6, with fully spherical spread
*2 - Seasonal Space Heating Energy Efficiency
*3 - Sound power level is 6dB(A) less than BS EN 12103





WARRANTY
5
YEARS

Dimensions (mm)
W: 1400 H: 1770 D: 2280



Cascade circuit made simple with pre-fabricated Victualic connections.

Booster heater 9kW per compressor, including emergency heating function 400V.

Up to 70°C flow temperatures means heating is comparable to legacy boilers but more efficient.

BS EN 12831-1:2017



BSI Standards Publication

Energy performance of buildings - Method for calculation of the design heat load

Part 1: Space heating load, Module M3-3

BRITISH STANDARD

Eurocode 1 — Actions on structures

**Part 1-6: General actions —
Actions during execution**

**BS EN
1991-1-6:2005**

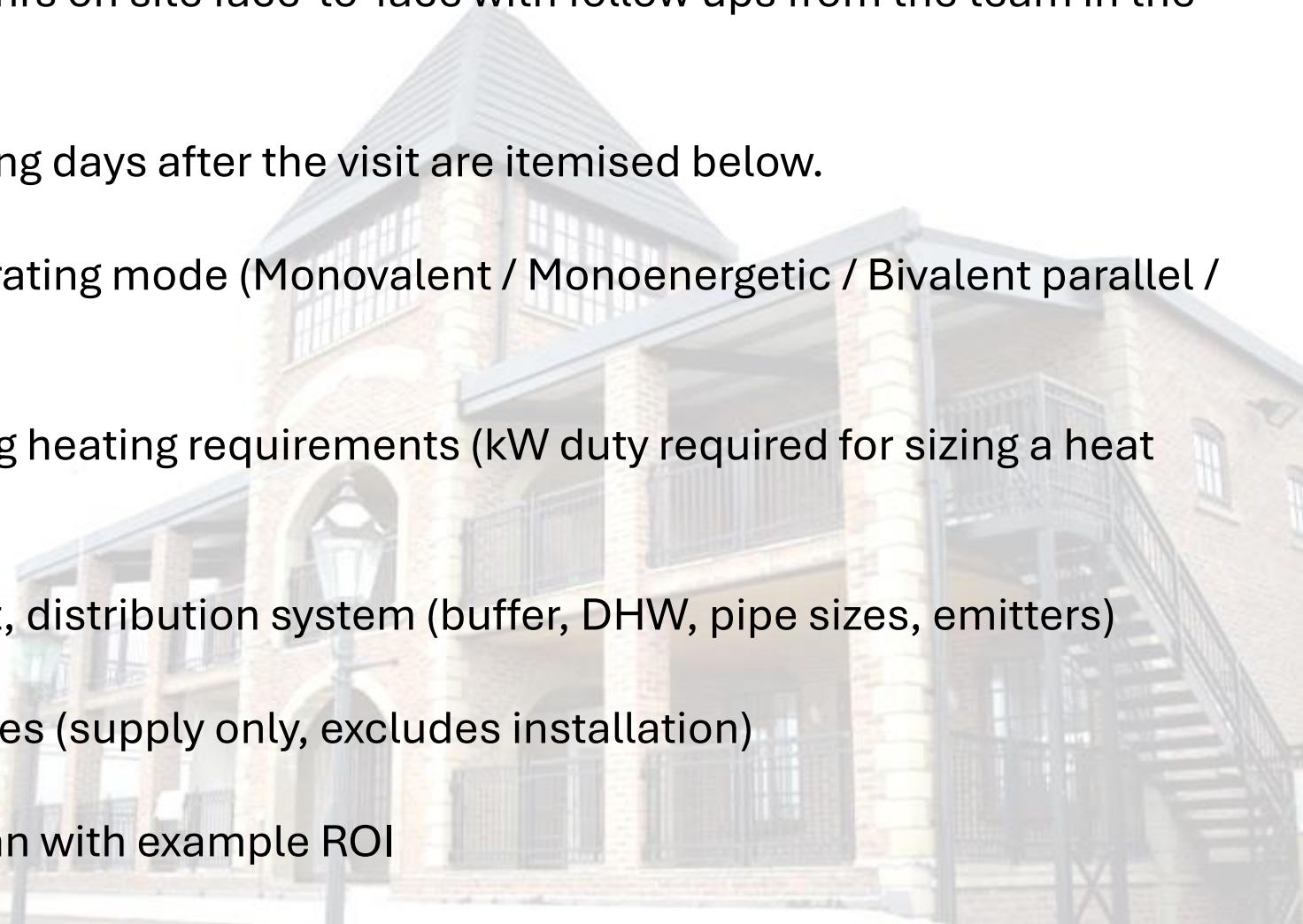
*Incorporating
corrigenda
July 2008,
November 2012
and February 2013*



Technical expert Plan derives from, approx. 2hrs on site face-to-face with follow ups from the team in the office on the phone / email.

Deliverable outputs, approximately ten working days after the visit are itemised below.

- Requirements analysis for heat pump operating mode (Monovalent / Monoenergetic / Bivalent parallel / Bivalent alternative)
- Basic indicative assessment of the building heating requirements (kW duty required for sizing a heat pump system)
- Review of existing heating / hot water plant, distribution system (buffer, DHW, pipe sizes, emitters)
- Budget estimate of heat pump + accessories (supply only, excludes installation)
- Written Proposal to formulate a Project Plan with example ROI



Specify @ £8,000



ONLINE VERSION



The Building Regulations 2010

Conservation of
fuel and power

APPROVED DOCUMENT

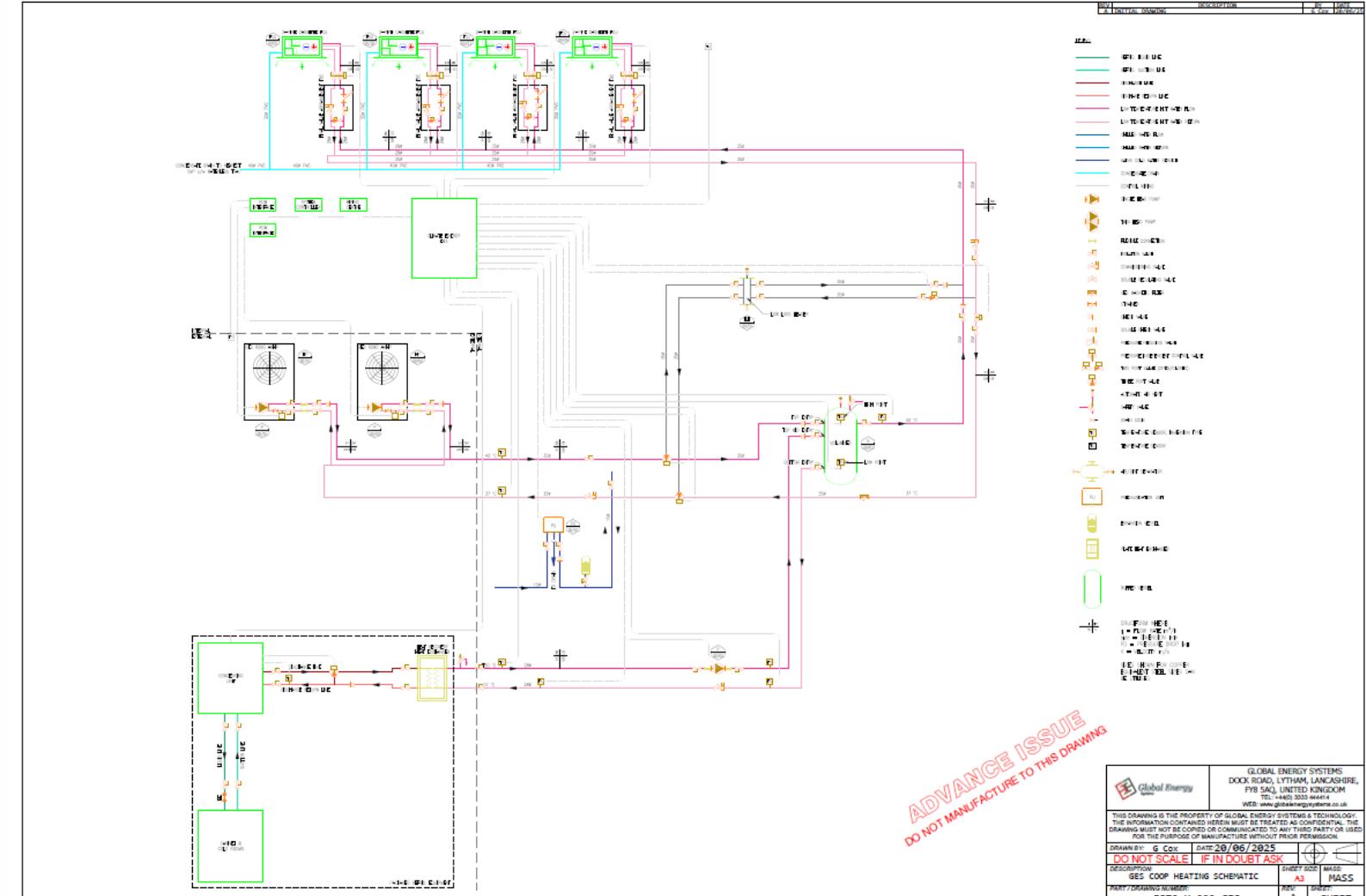
Volume 2: Buildings other than dwellings

Requirement L1: Conservation of fuel and power

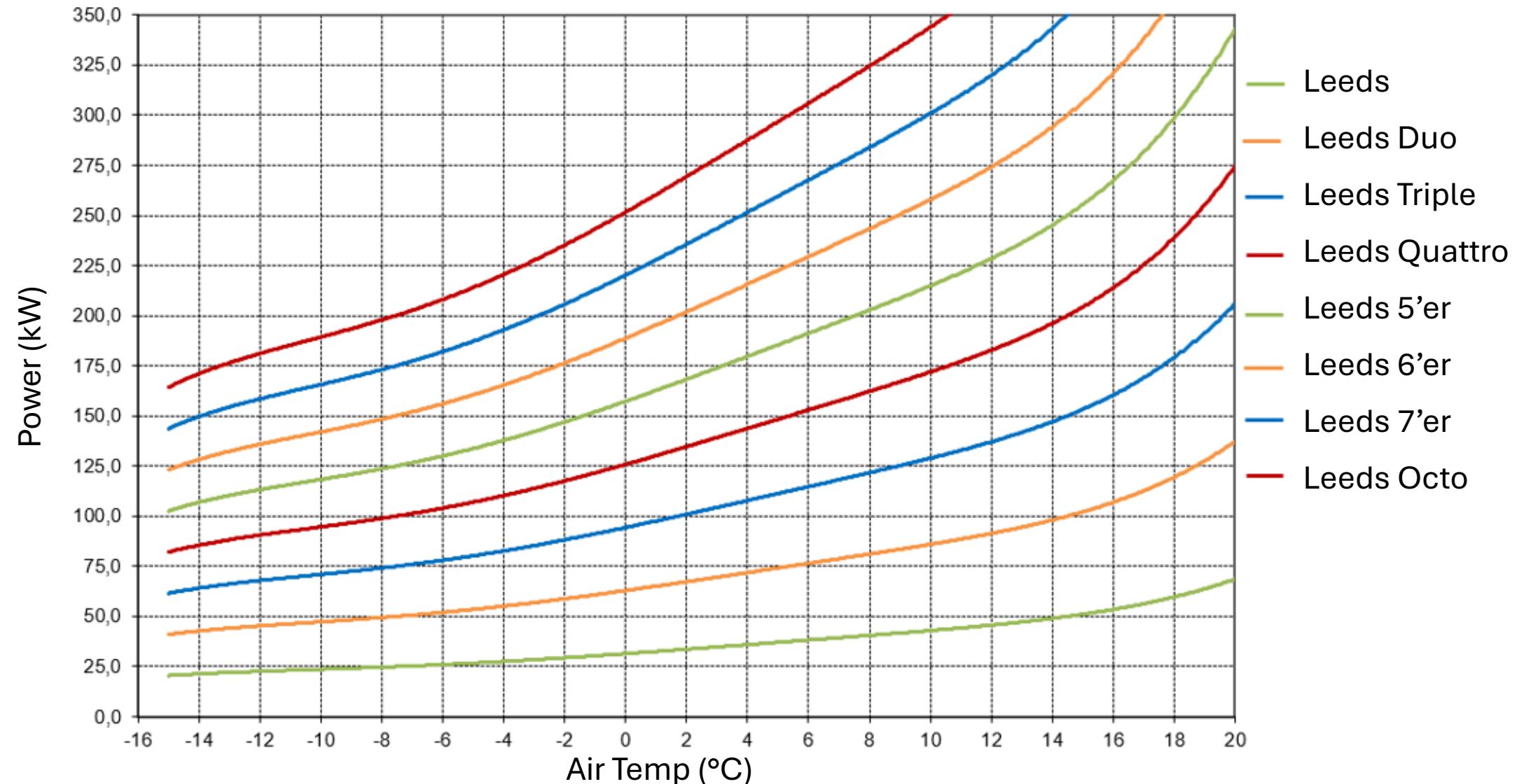
Requirement L2: On-site generation of electricity

Regulations: 6, 22, 23, 24, 25, 25A, 25B, 26, 26C, 27, 27C, 28, 40, 40A, 43, 44 and 44ZA

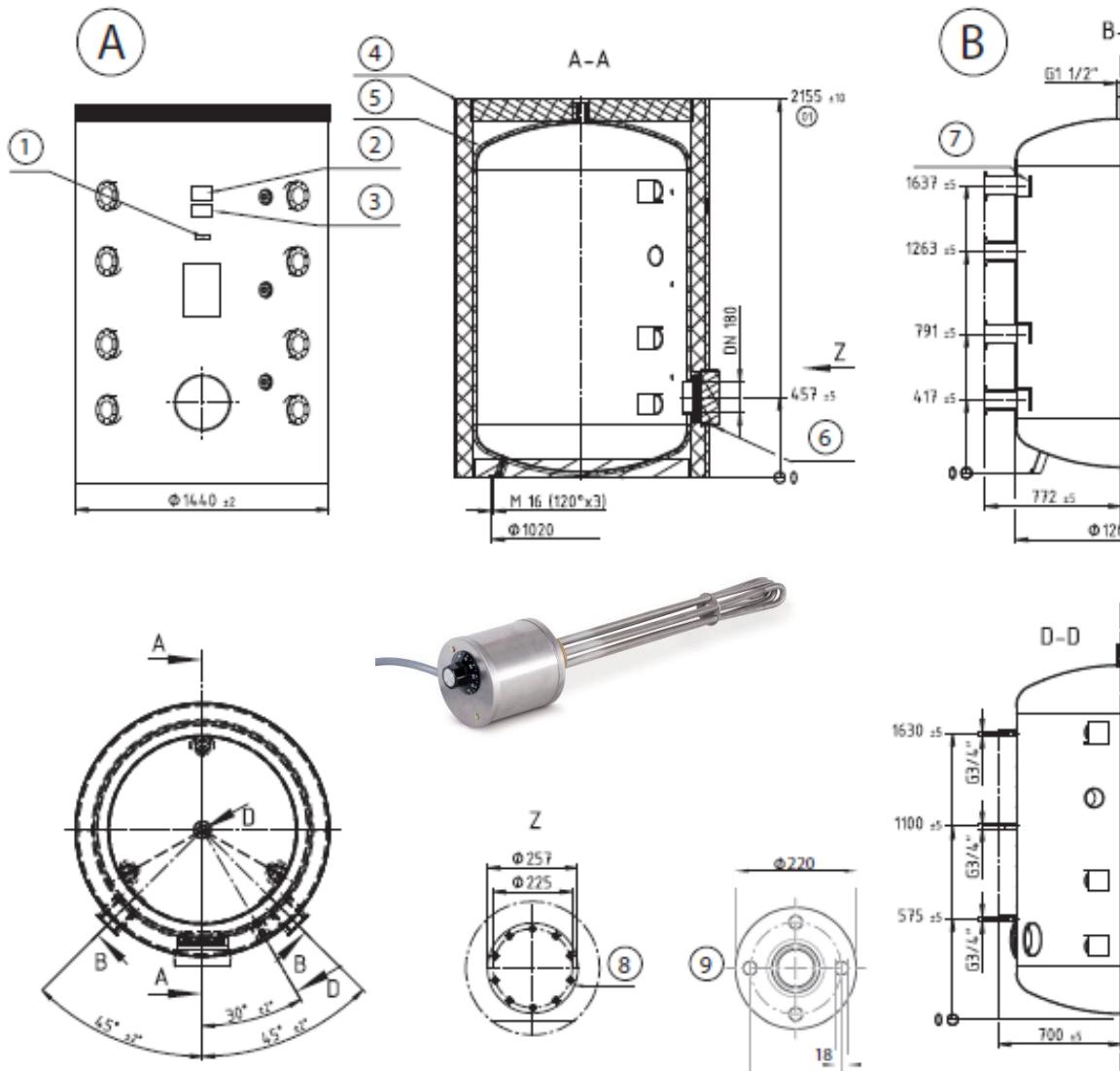
2021 edition incorporating 2023 amendments –
for use in England



Leeds Cascade W35



Buffer 2000 litre



Cascade made simple with pre-sized flanged connections.

Booster heater (optional) 6kW per Buffer.

Optimized for Leeds in heating, cooling and bivalent modes



Product Datasheet

Leeds Quattro Air to Water Heat Pump

Product Name	Leeds Quattro
Product Number	GE40501-004-00
Refrigerant Amount (kg)	R290 4 x 4.0
Electrical Booster Heater (External)	4 x 9kW Optional
Heat Pump Space Heater @ 55°C	SEHEE ¹ (%) 120%
SCOP	3.22
EER Rating	A++
Heat Pump Space Heater @ 35°C	SEHEE ² (%) 151%
SCOP	3.65
Heating (Air-3°C / Water 35°C)	Rated Output (kW) 106.0
	Power Consumption (kW) 32.1
	COP 3.3
Cooling (Air 35°C / Water 18°C)	Rated Output (kW) 142.8
	EER 3.29
Min/ Max Outlet Temperature (°C)	7 to 70
Mass (kg)	2400
Heat Pump Voltage / Frequency	400V 3ph+N+PE AC / 50Hz
Max Running Current (A) Compressor	32
Max Electrical Power (kW) Compressor	21
Sound Pressure Level @ 10m (dBa) ³	40
Operating Ambient Temperature (°C)	-25 to +45
Max Starting Current (A) with/ without Soft Starter	95 / 140
Water Connections (inch)	3

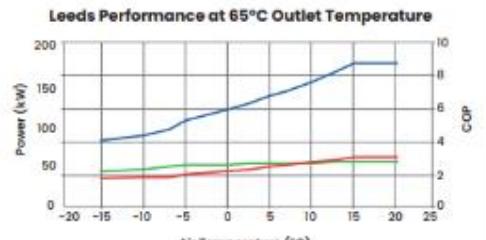
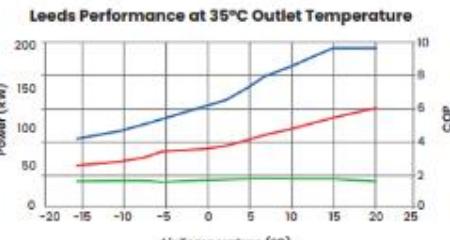
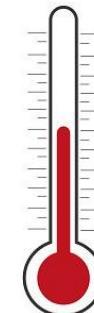
¹ - VDE tested, A7/W5B, with fully spherical spray

² - Seasonal Space Heating Energy Efficiency

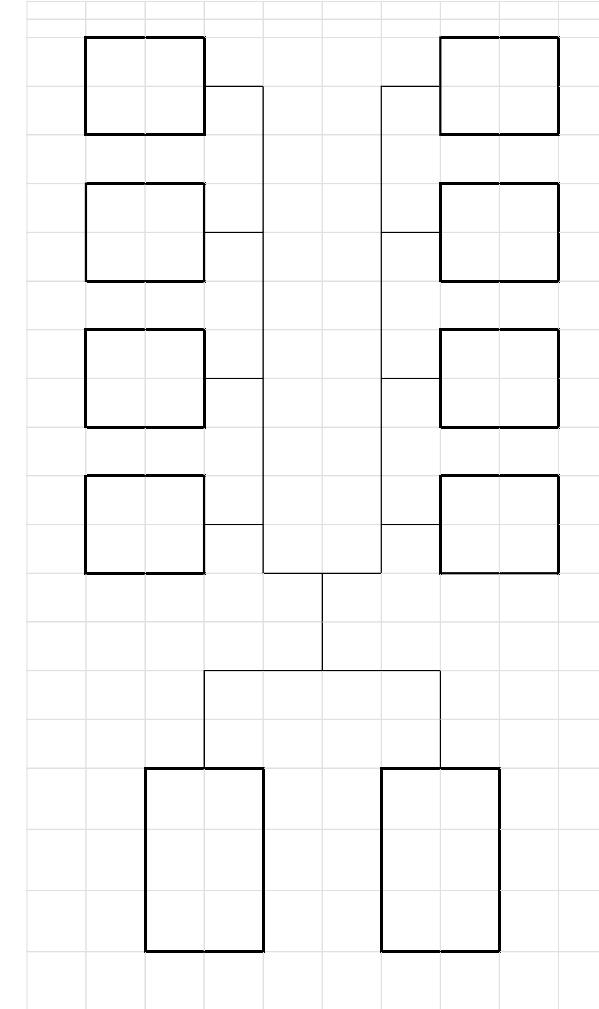
³ - Sound power level is 68dB(A) as tested to BS EN 12102



Dimensions (mm)
W: 5600 H: 1770 D: 2280



— Power Output (kW) — Power Input (kW) — COP



Leeds Octo + Boosters



Product Datasheet

Leeds Quattro Air to Water Heat Pump

Product Name	Leeds Quattro
Product Number	GE40501-004-00
Refrigerant Amount (kg)	R290
	4 x 4.0
Electrical Booster Heater (External)	4 x 9kW
	Optional
Heat Pump Space Heater @ 55°C	EiP Rating
	A++
Heat Pump Space Heater @ 55°C	SGHEE ¹ (%)
	120%
	SCOP
	3.22
Heat Pump Space Heater @ 35°C	EiP Rating
	A++
Heat Pump Space Heater @ 35°C	SGHEE ² (%)
	151%
	SCOP
	3.65
Heating (Air 3°C / Water 35°C)	Rated Output (kW)
	106.0
Heating (Air 3°C / Water 35°C)	Power Consumption (kW)
	32.1
Heating (Air 3°C / Water 35°C)	COP
	3.3
Cooling (Air 35°C / Water 18°C)	Rated Output (kW)
	142.8
Cooling (Air 35°C / Water 18°C)	EER
	3.29
Min/Max Outlet Temperature (°C)	7 to 70
Mass (kg)	2400
Heat Pump Voltage / Frequency	400V 3ph+N+PE AC / 50Hz
Max Running Current (A) Compressor	32
Max Electrical Power (kW) Compressor	21
Sound Pressure Level @ 10m (dBa) ³	40
Operating Ambient Temperature (°C)	-25 to +45
Max Starting Current (A) with/without Soft Starter	95 / 140
Water Connections (Inch)	3

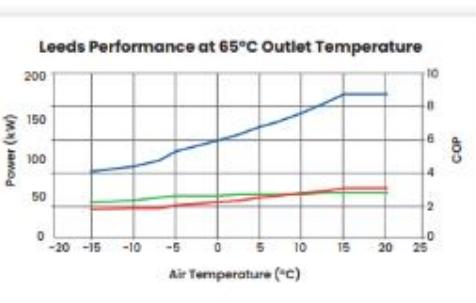
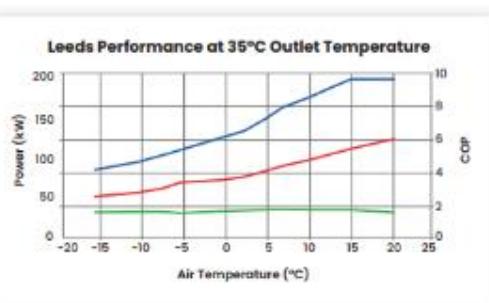
¹ - VDE tested, A7/W55, with fully spherical spray

² - Seasonal Space Heating Energy Efficiency

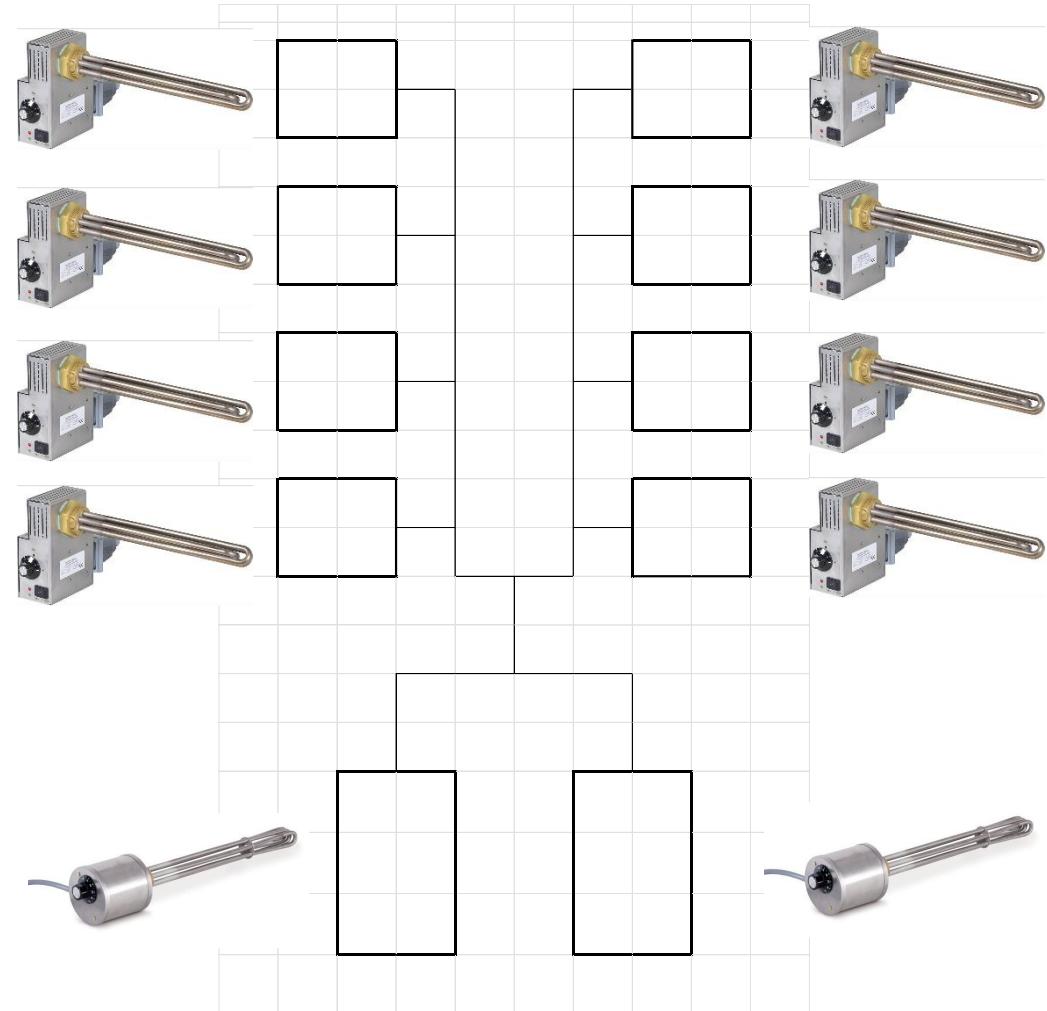
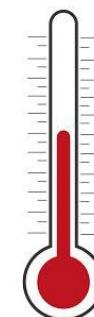
³ - Sound power level is 68dB(A) as tested to BS EN 12102



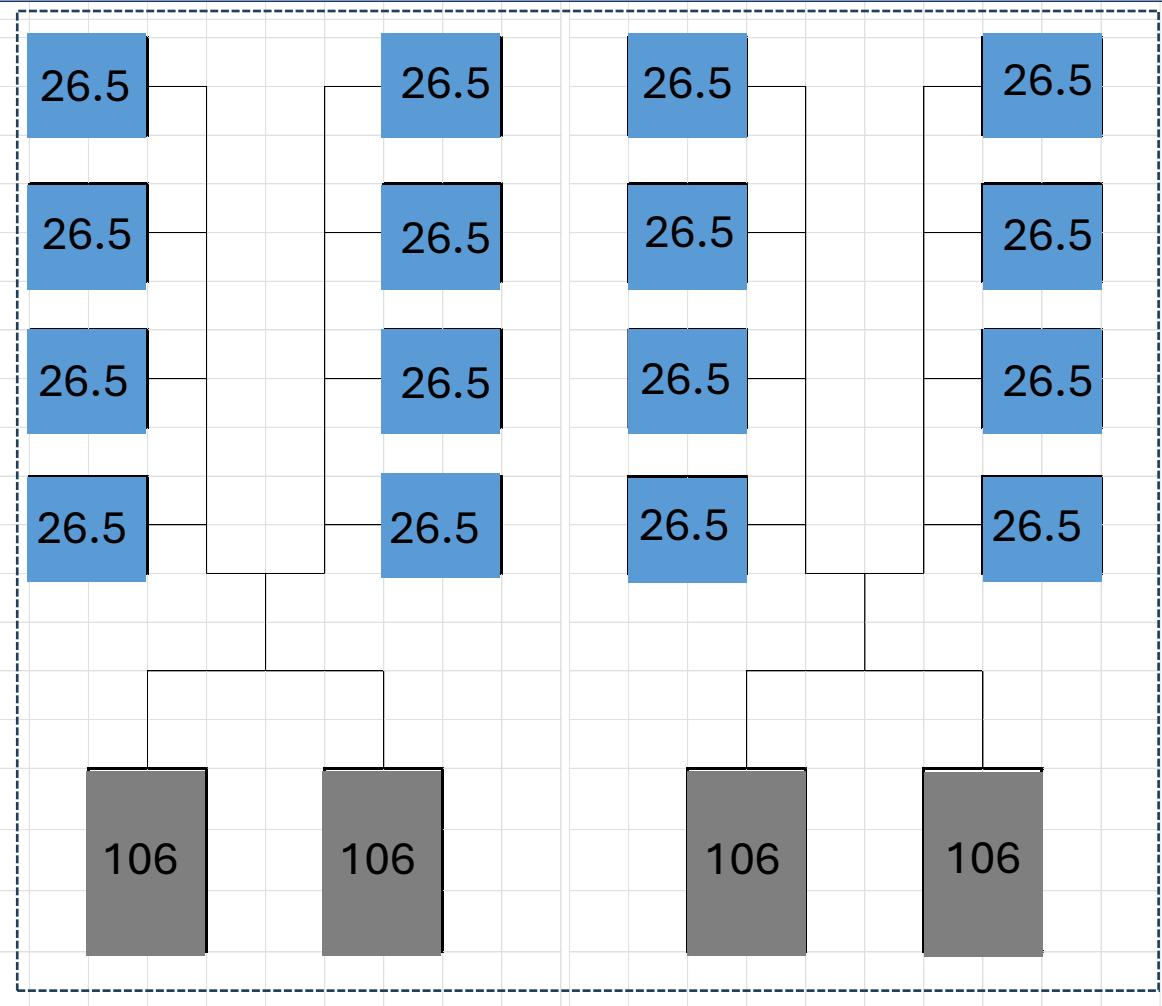
Dimensions (mm)
W: 5600 H: 1770 D: 2280



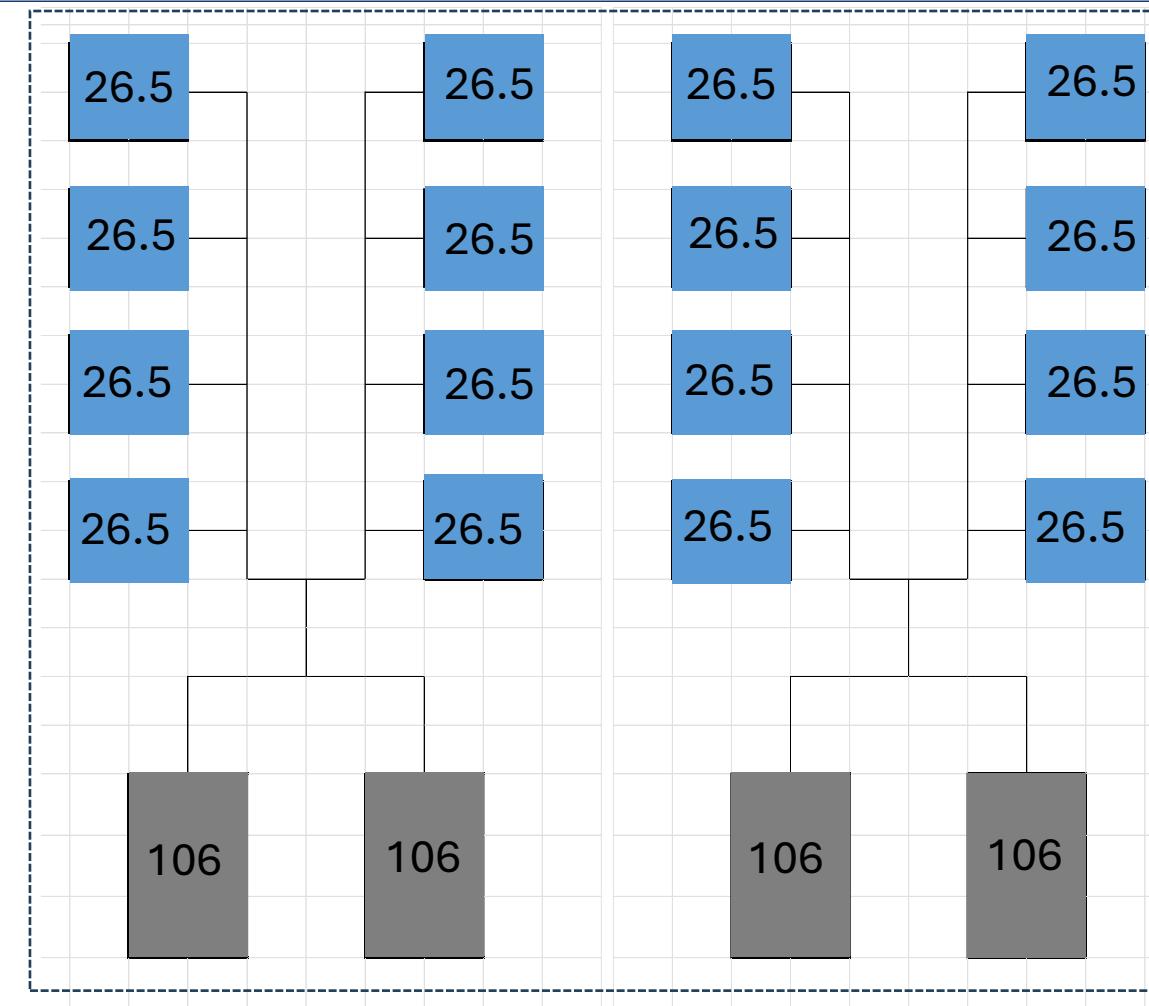
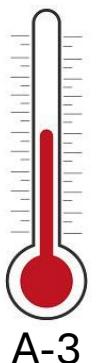
— Power Output (kW) — Power Input (kW) — COP



Leeds 2off 8+8

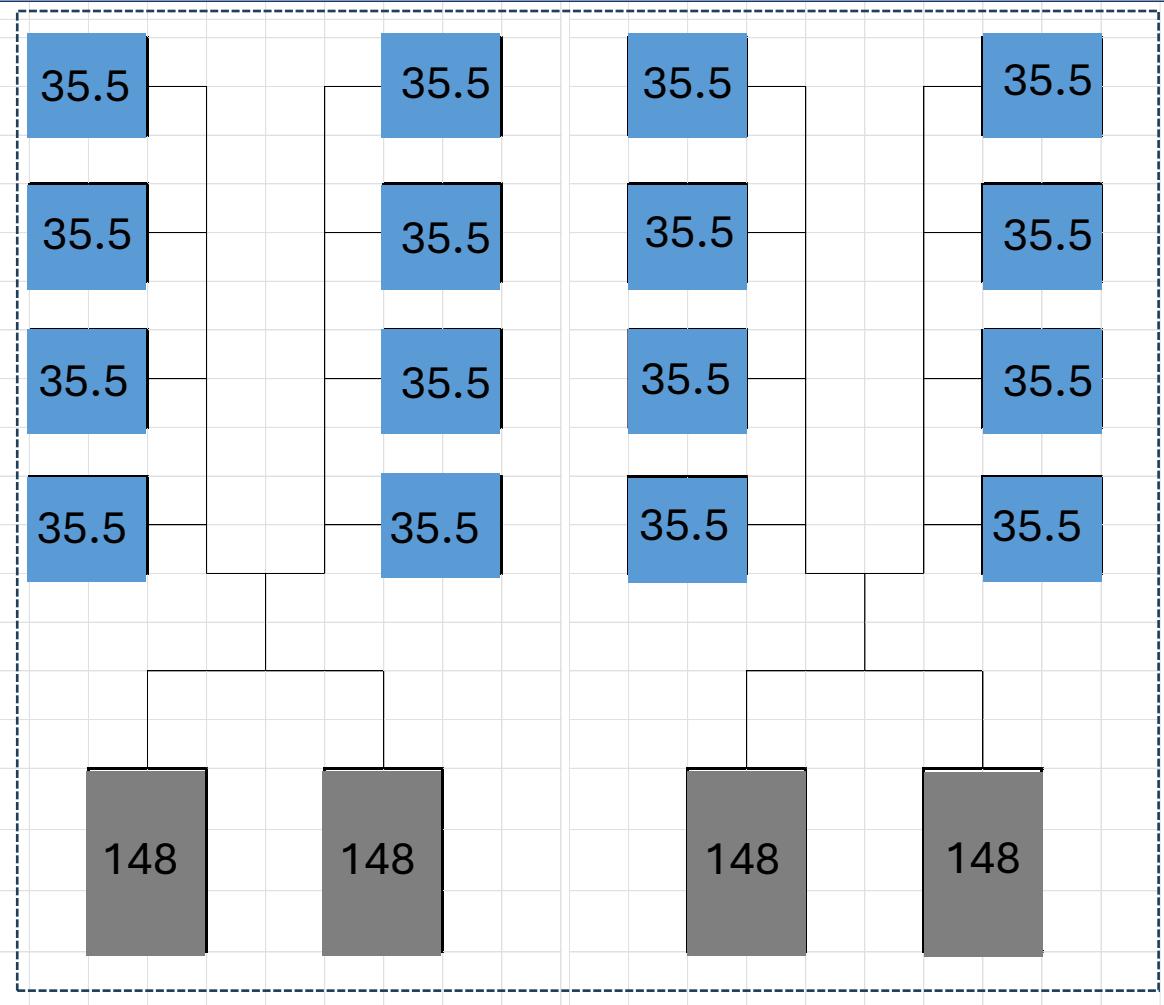


$$4 \times 106 = 424 \text{ kW}$$

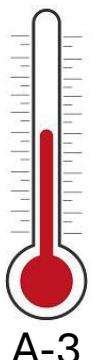


$$4 \times 106 = 424 \text{ kW}$$

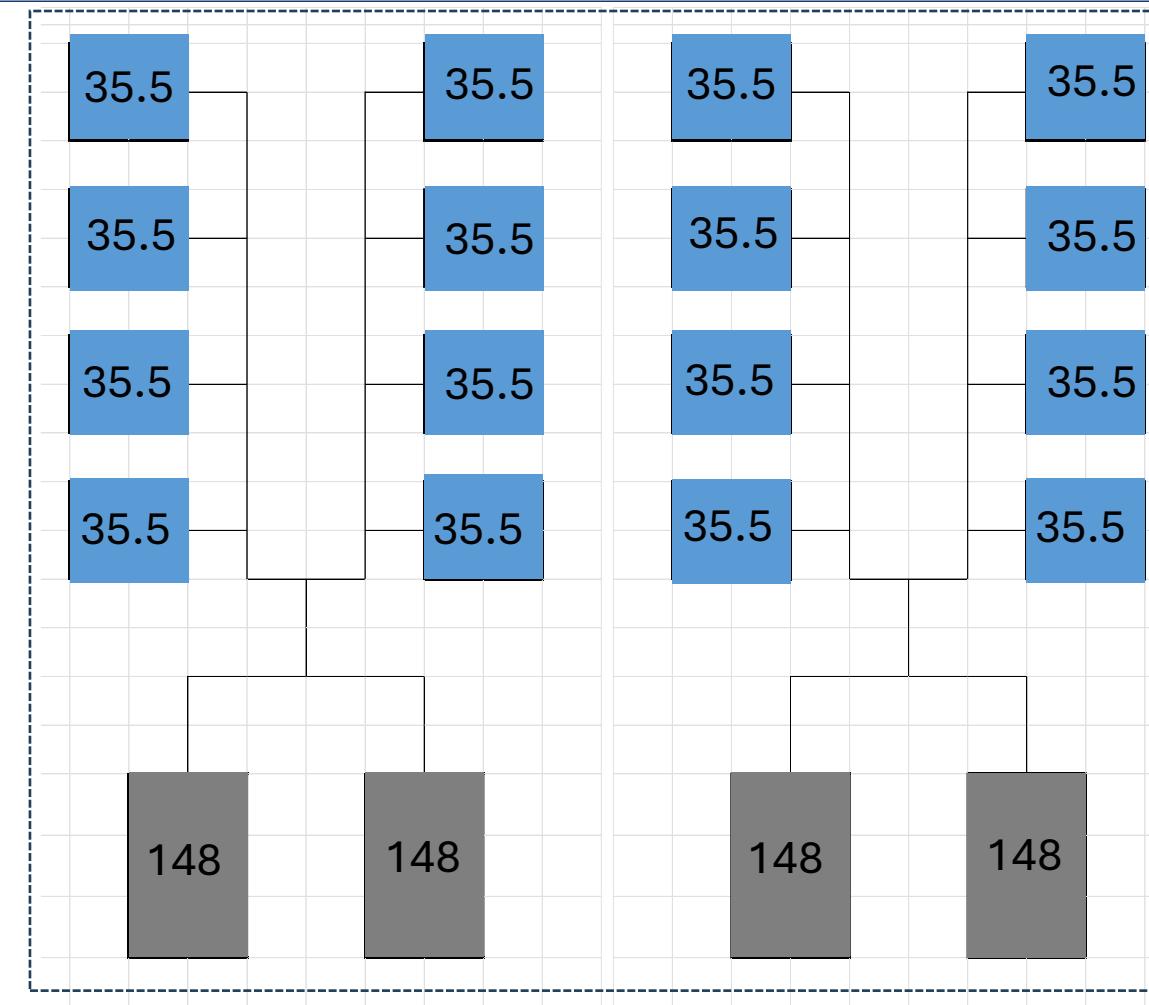
Leeds 2off 8+8 + Boosters



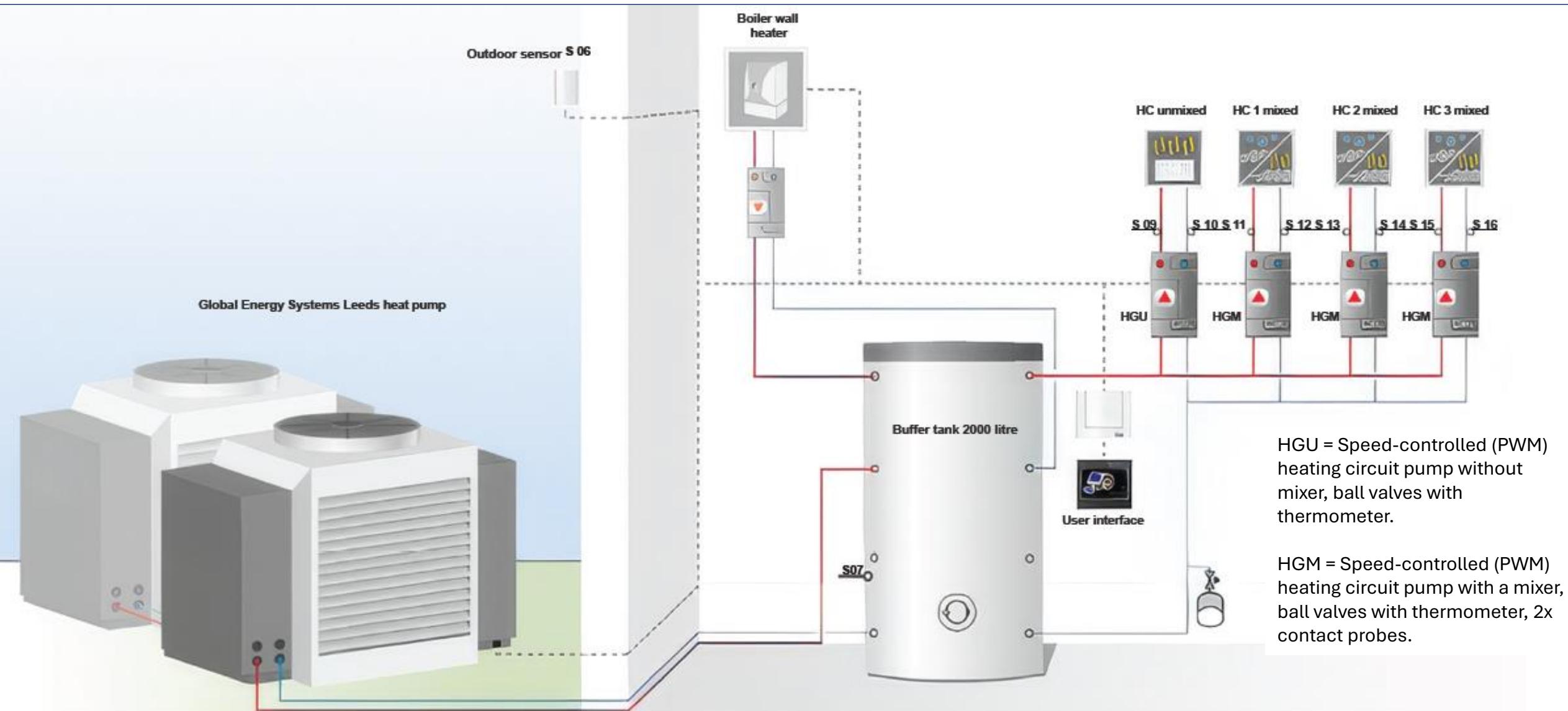
4 x148 = 592 kW

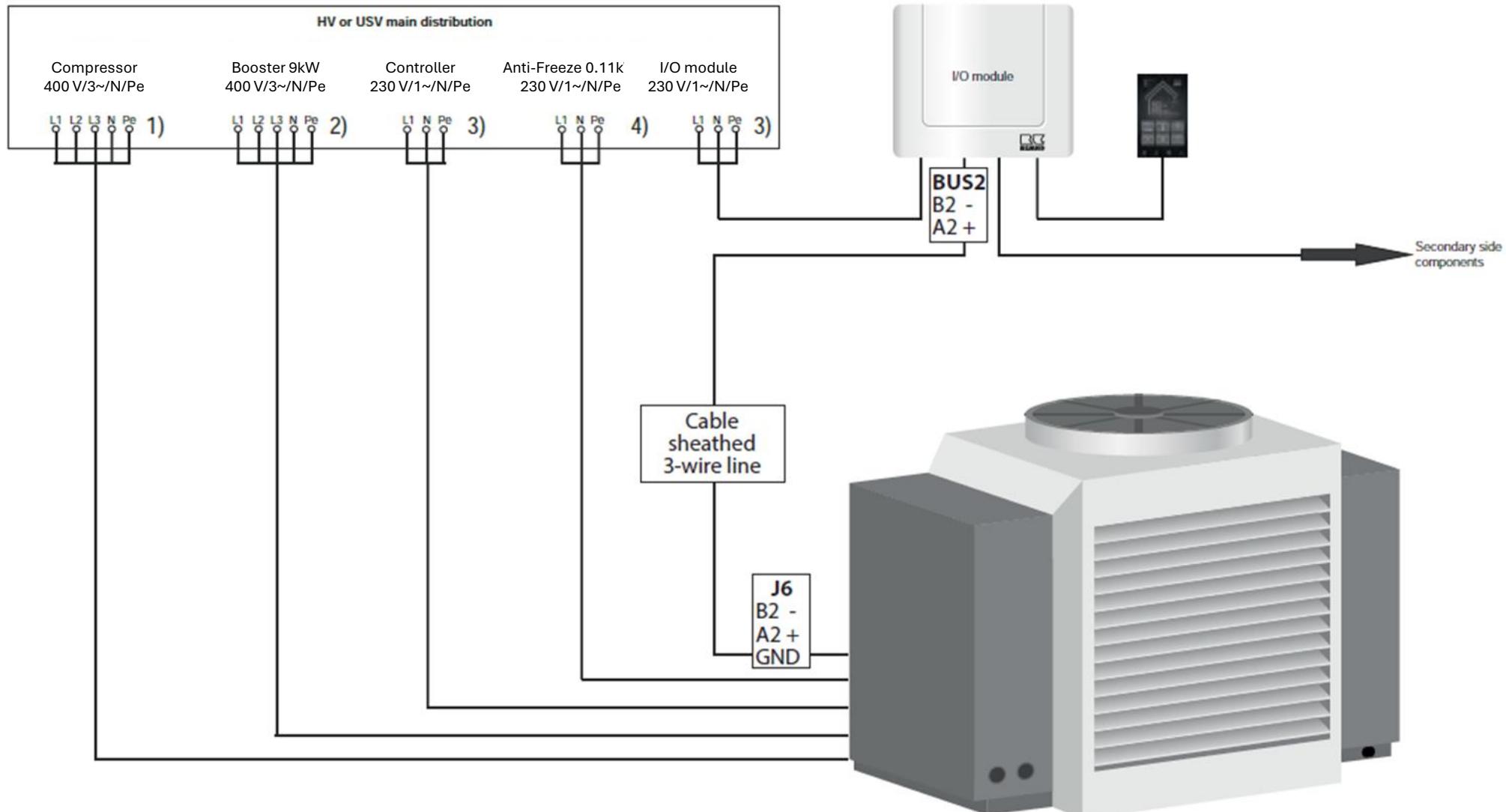


A-3



4 x148 = 592 kW





Ethernet



Connection of the remote control to the I/O module via a WLAN router

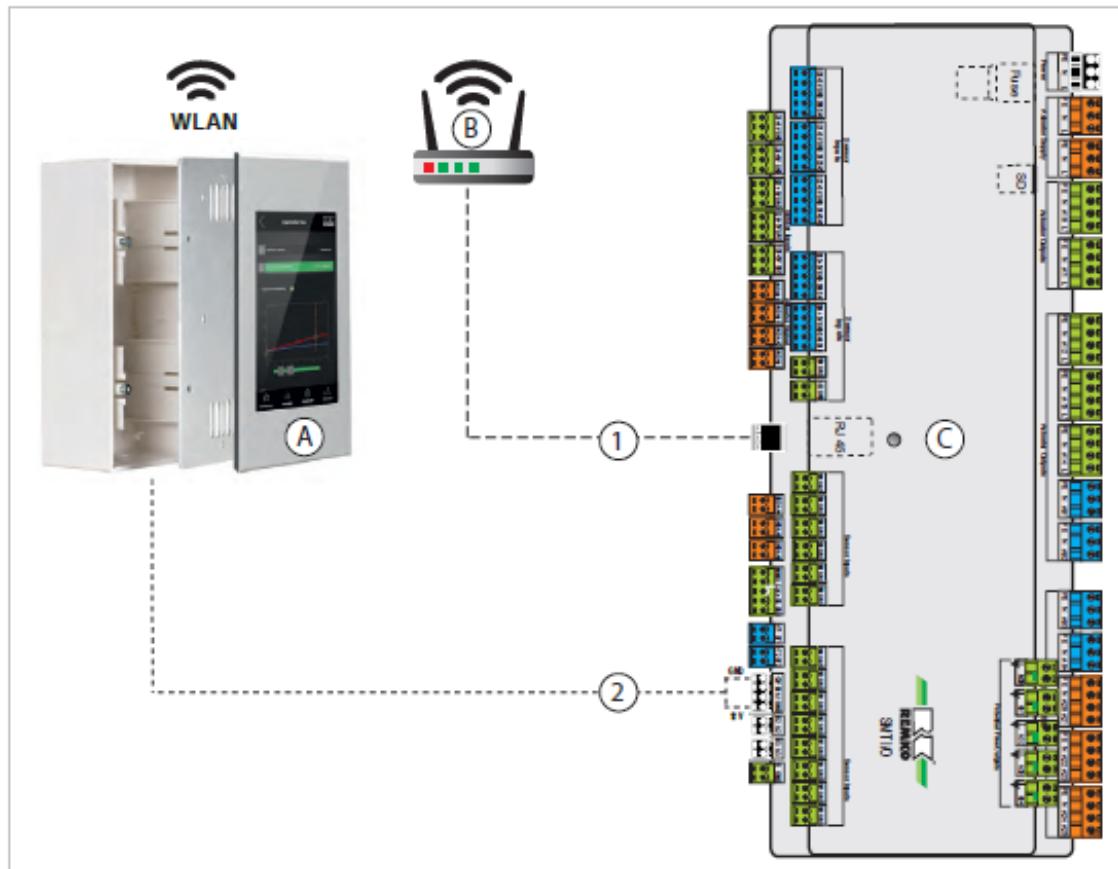
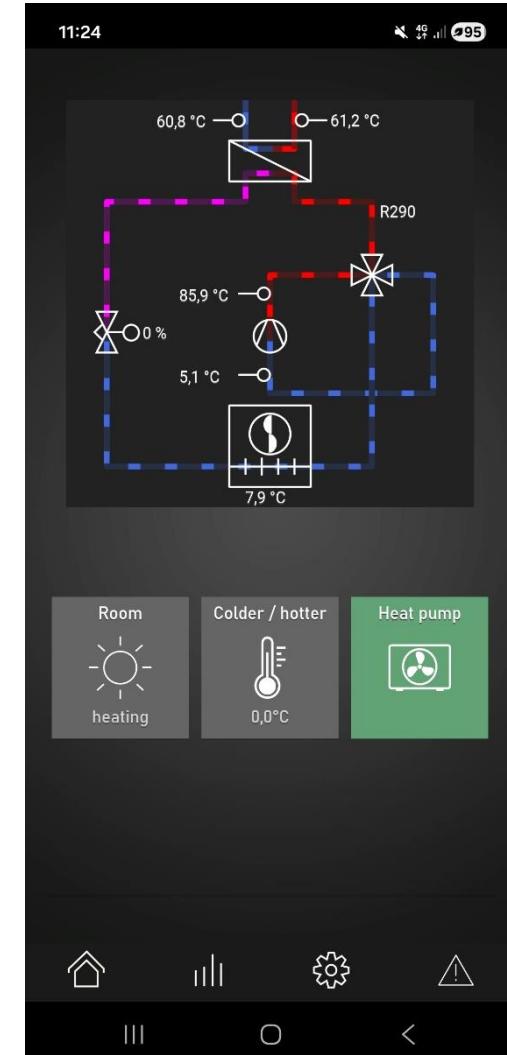
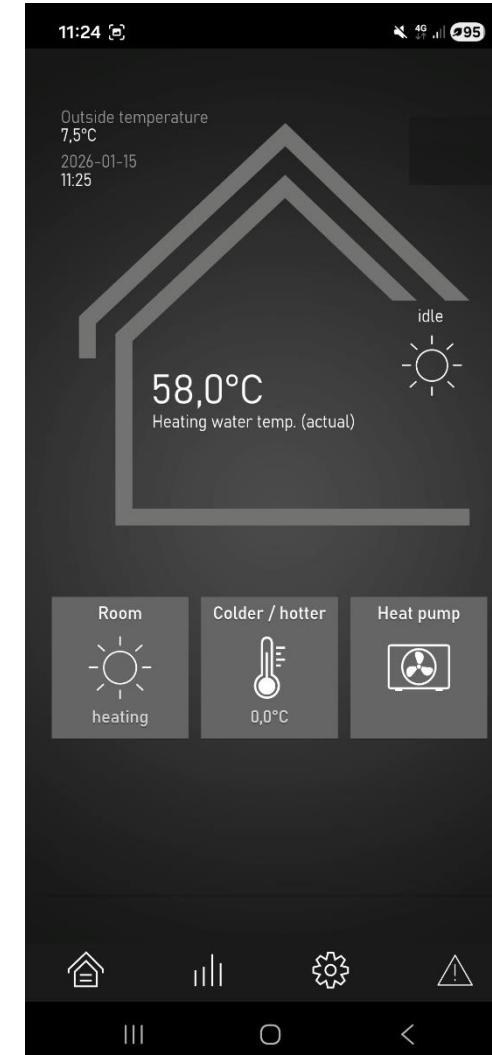
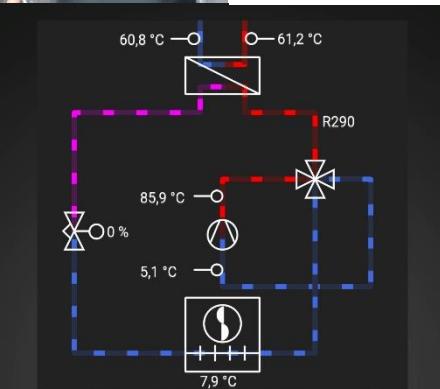


Fig. 17: Connection to the I/O module

- A: Remote control
- B: Customer's WLAN router
- C: I/O module



Options



R290 Product Launch - 2026

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