Hybrox

21

Outdoor air source heat pump
Heating & cooling

R290

OUTPUT (kW)

18

Hybrox 21

The Hybrox 21 is a high-performance, high temperature air source heat pump designed to meet heating, cooling, and domestic hot water demands across a wide range of applications, from apartment buildings and commercial properties to challenging refurbishments. The Hybrox utilises natural R290 refrigerant for exceptional energy efficiency and a reduced environmental impact.

With an output of 18kW, up to 4 units can be cascaded together to provide combined capacity up to 72kW, making the Hybrox 21 an ideal choice for larger commercial installations.

Featuring inverter-driven technology and the Luxtronik weather-compensated controller, the Hybrox 21 ensures optimal system efficiency by automatically adjusting output to match heating demand. With flow temperatures

up to 78°C, it delivers stable, reliable performance year-round — achieving COP up to 5.09 (A7/W35) and A++/A+++ energy efficiency ratings while minimising energy consumption.

2 2 Year Parts Warranty*

- Perfect for high temperature heating systems
- Quiet & compact
- Flow temperatures up to 78°C
- BACnet, Modbus TCP, PV-ready & Smart Grid Ready
- Cascadable up to 4 units (72kW)
- Controllable via myUplink app

Energy efficiency (35/55°C)	A+++ / A++
COP (A7/W35)	5.31
Heating output	18kW
Max. flow temperature	78°C
Working range (min/max)	-22 / 35°C
Power supply	400V
Sound power level (min/max)	51 / 65 dB(A)

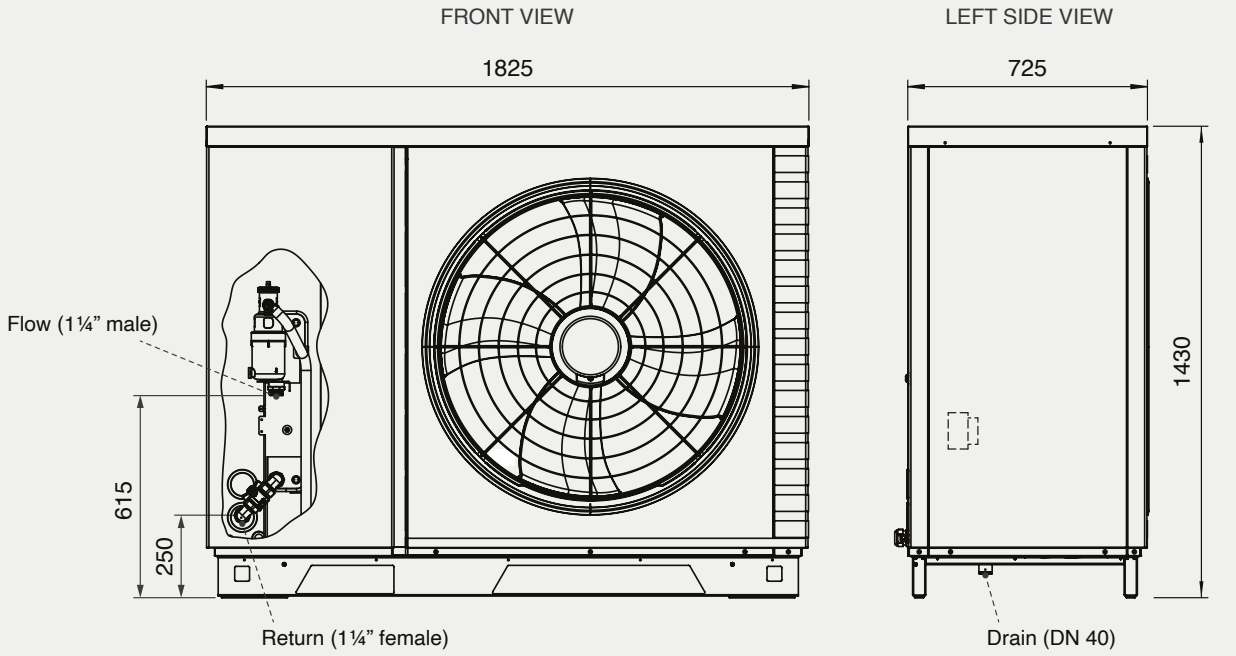
Luxtronik wall controller

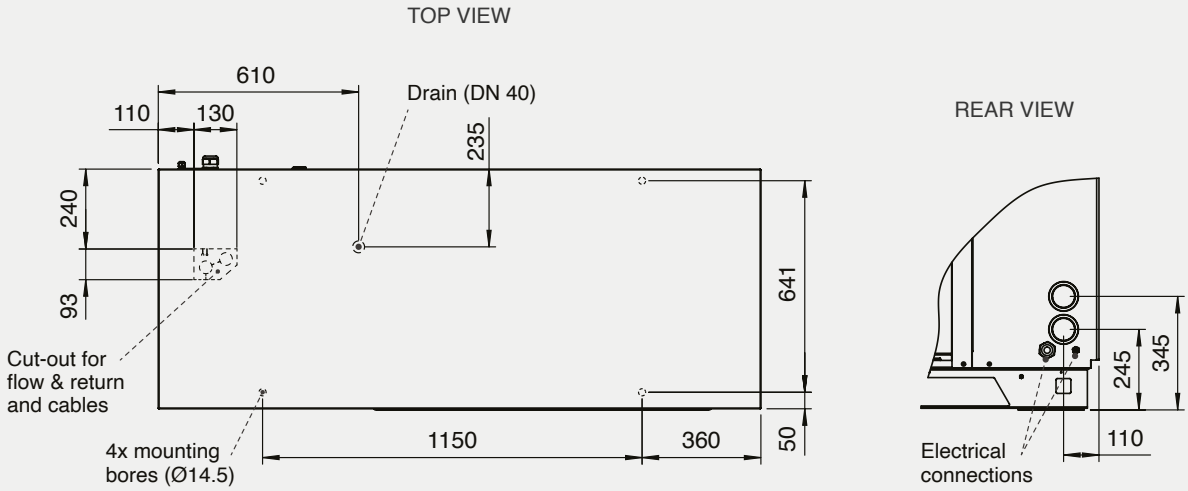
The Luxtronik indoor weather-compensated controller enables precise control and can be individually combined with various units and accessories on the market. Each unit includes a high-efficiency circulation pump and flow sensor as standard. Featuring a full graphic display with intuitive menu navigation, all operating modes are individually programmable with runtime-optimised and heat demand-dependent compressor control. An outdoor temperature sensor, operating hours counter and diagnostic programme with fault memory allow heating performance to be optimally adjusted and monitored. Additional features include screed heating, pump optimisation, control of several heat generators, mixing circuit control, data logger, commissioning assistant, holiday mode and rapid domestic hot water heating, with network-compatible USB interface and multilingual support.

**Subject to Terms & Conditions*

Dimensions

Dimensions: mm





Clearances (mm)	
Front	2000
Rear	400
Left	1000
Right	1000
Top	1000

Performance data

			21
Performance			
Heating capacity / COP (DIN EN 14511-x)	A10/W35 – Partial load	kW / COP	7.23 / 5.68
	A7/W35 – Partial load	kW / COP	7.15 / 5.31
	A7/W55 – Partial load	kW / COP	6.90 / 2.05
	A2/W35 – Partial load	kW / COP	5.77 / 4.32
	A-7/W35 – Partial load	kW / COP	18.00 / 2.95
	A-7/W55 – Partial load	kW / COP	16.97 / 2.17
Heating capacity (min/max)	A10/W35	kW	7.23 / 18.00
	A7/W35	kW	7.15 / 18.00
	A7/W55	kW	6.90 / 18.00
	A2/W35	kW	5.77 / 18.00
	A-7/W35	kW	6.12 / 18.00
	A-7/W55	kW	5.66 / 16.97
Cooling capacity / EER	A35/W18 – Partial load	kW / EER	7.23 / 4.71
	A35/W7 – Partial load	kW / EER	5.33 / 3.46
Cooling capacity (min/max)	A35/W18	kW	7.23 / 16.00
	A35/W7	kW	5.33 / 16.00
DHW heating capacity		kW	18
Energy efficiency class	35°C / 55°C		A+++ / A++
Maximum flow temperature		°C	78
Air flow rate at max external pressure		m³/h	9000
Flow rate (pipe dimensioning)		l/h	3300
Minimum volume buffer tank in series / separation buffer tank		litres	180
Pressure loss at flow rate	At 3300 l/h	bar	0.28
Maximum allowable operating pressure		bar	3
Operating limits			
Heating circuit return/flow (min/max)	Within operating temperatures	°C	20 / 65
Operating temperature (min/max)	Heating	°C	-22 / 35
Average bivalence temperature (DIN EN 14825)	Low / Medium	°C	-7 / -7
Sound			
Sound power level (min/night/max)		dB(A)	51 / 58 / 65
Sound power level (DIN EN 12102-1)		dB(A)	53
General			
Total weight		kg	264
Refrigerating circuit maximum allowable operating pressure	High pressure / low pressure	MPa (g)	3.15 / 3.00
Refrigerant type / capacity		/ kg	R290 / 2.3
Safety valve – heating circuit response pressure		bar	3
Electrical			
Voltage	Heat pump supply		3~N/PE/400V/50Hz
All-pole fuse protection [1] [2]	Compressor only	A	B20
Control voltage fuse protection [2]		A	B10
Effective power consumption (DIN EN 14511-x)	A7/W35 – Partial load	kW	1.35
Electrical consumption	A7/W35 – Partial load	A	1.95
Power factor	A7/W35 – Partial load	cosϕ	0.96
Effective power consumption (min/max) [1]	A7/W35	kW	1.35 / 3.82
Maximum machine current [1]		A	15
Maximum power consumption [1]	Within operating limits	kW	11
IP protection			IP 24
Residual current circuit breaker	If required		Type B
Luxtronik wall controller			
Dimensions	H x W x D	mm	535 x 330 x 166
Weight		kg	5.3

[1] Compressor only | [2] Note legal regulations

Schematic

Simplified diagram for illustration only - safety devices may have been omitted for clarity.

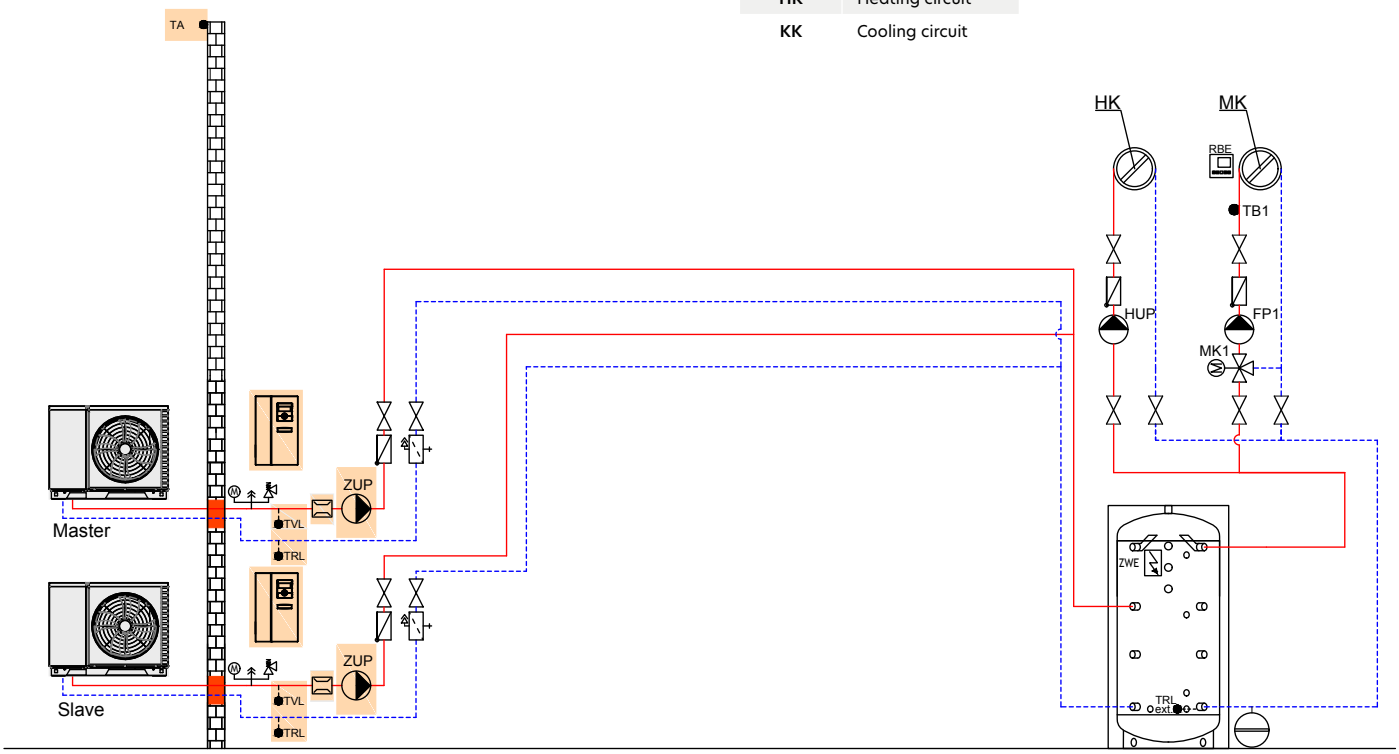
For additional schematics, refer to the installation guide.

Supplied with heat pump

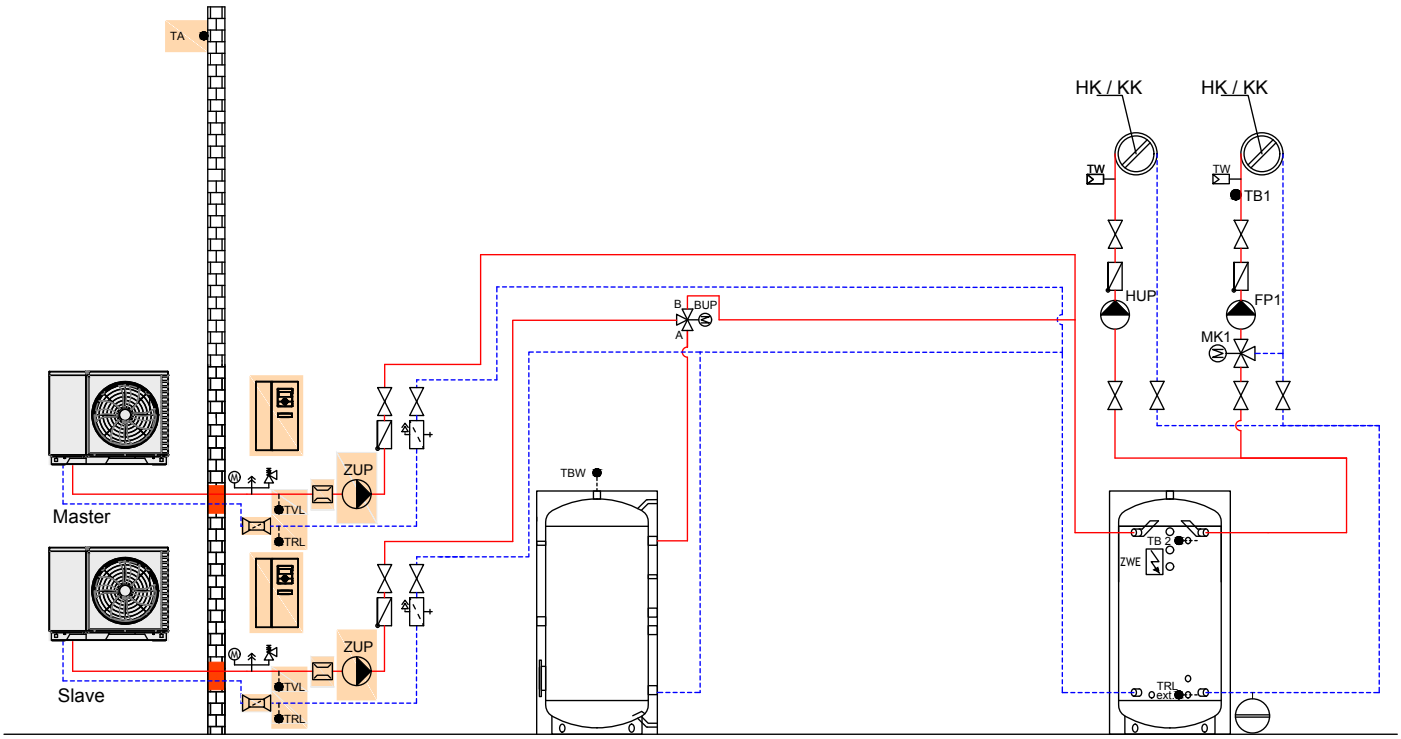
Symbol	Description
MK1	Mixer circuit 1 (heating or cooling function)
HUP	Circulation pump heating circuit
ZUP	Feed circulating pump
TA	Outdoor temperature sensor
TBW	DHW sensor
TRL ext	Sensor external return
TRL	Sensor return
TVL	Flow sensor
HK	Heating circuit
KK	Cooling circuit

Symbol	Description
	Isolating valve
	Non-return valve
	Dirt-trap
	Circulation pump
	Shut off device with dirt trap
	Safety group
	3-way mixing valve
	Immersion heater
	Volume flow meter
	Dew-point monitor
	Membrane expansion vessel
	Room control unit

Heating only

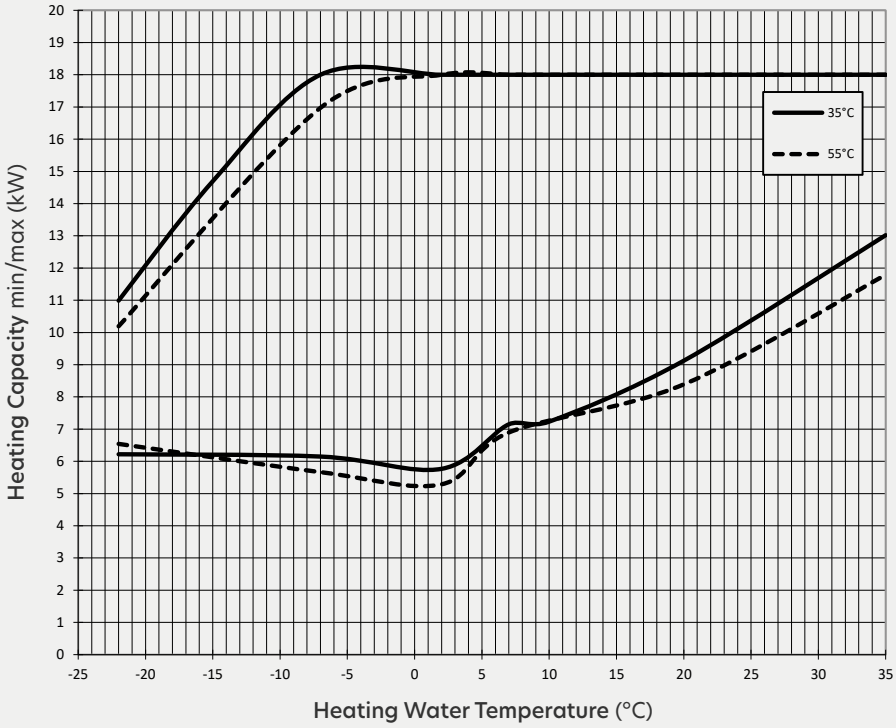


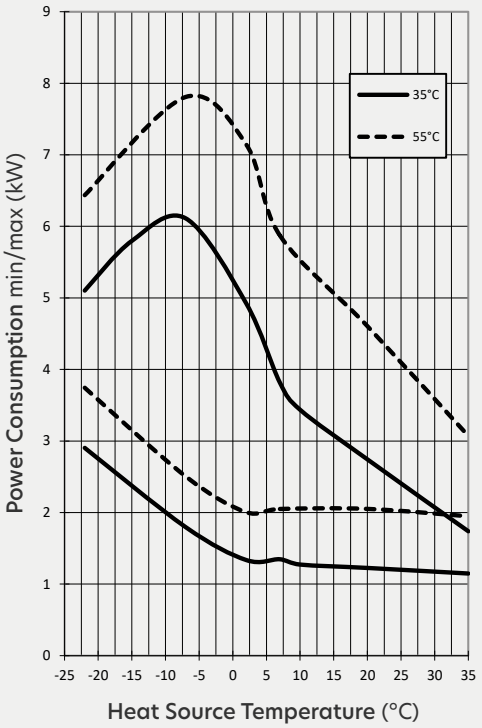
Heating & DHW

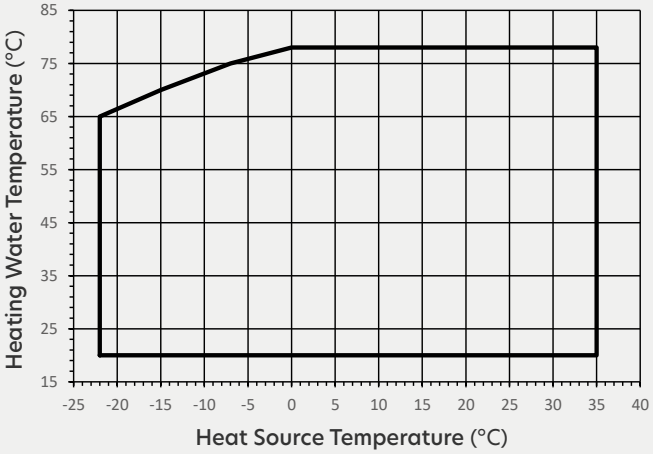


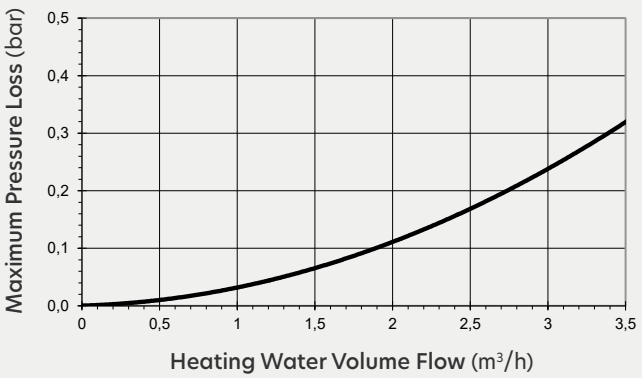
Performance curves

Heating



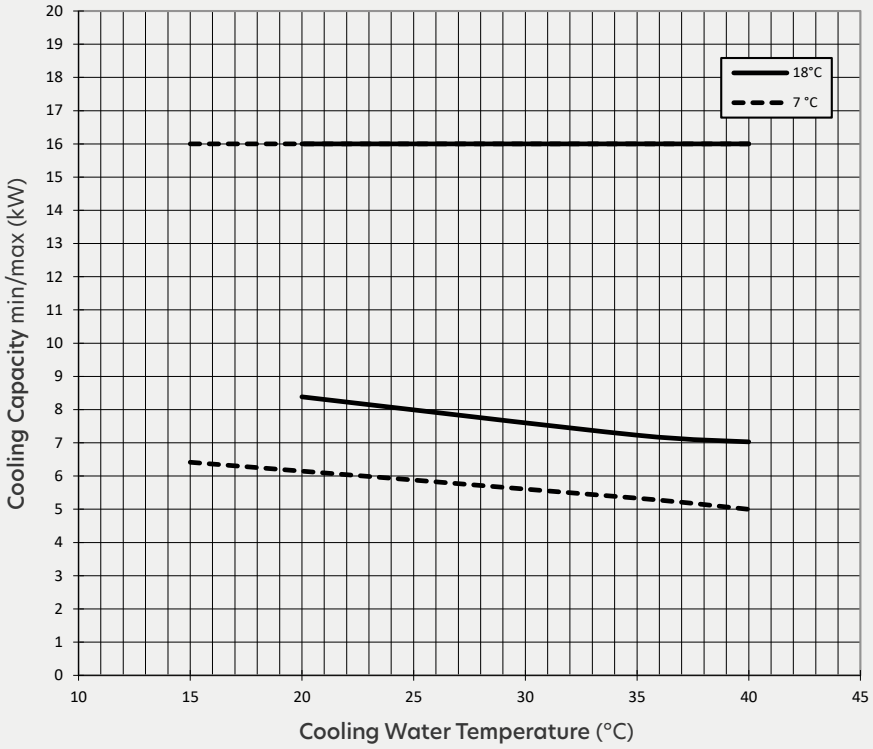


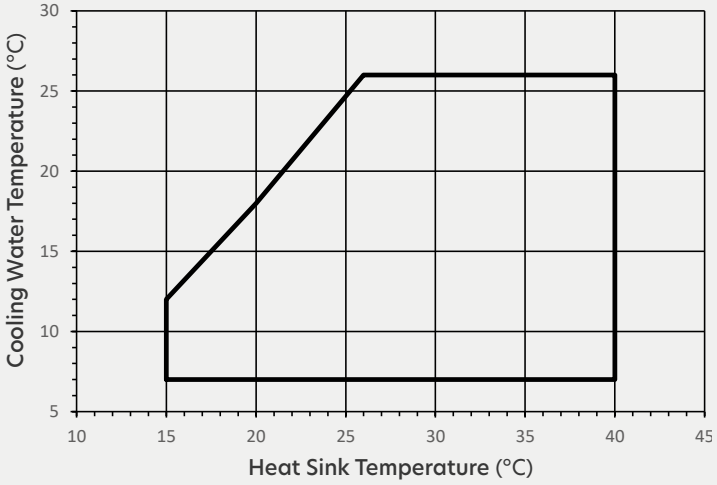


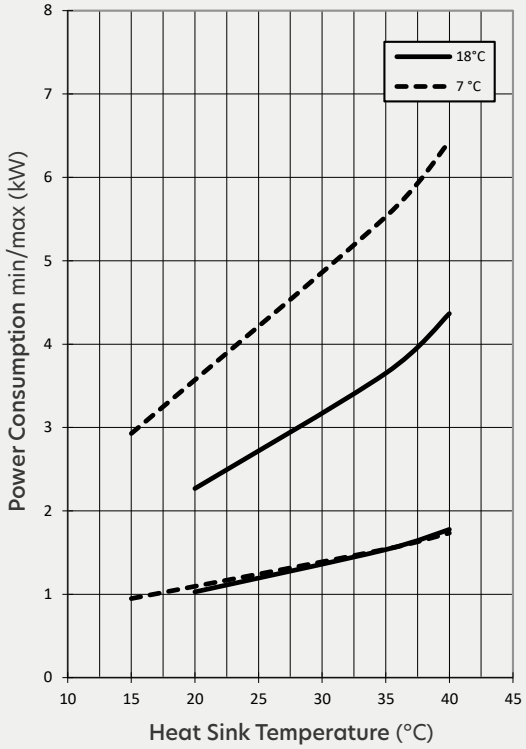


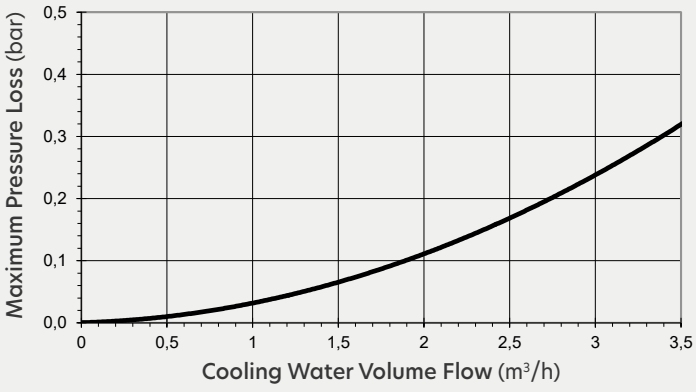
Performance curves

Cooling









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