ecoGEO+ B/C 4-16 PRO

R290

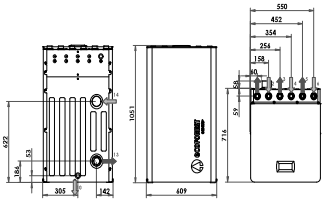
- **Modulating thermal power control** within a wide range (15-100%) and modulating flow rate control of both brine and production circuits (20-100%).
- **Natural refrigerant R290** : GWP 3.
- **Inverter technology**.
- **Compact design** including brine and production circulation pumps, brine and production expansion vessels (8l and 12l respectively), brine and production safety valves and DHW three-way valve.
- **Integrated management of up to 4 different emission temperatures, 2 buffer tanks** (heating and cooling), **1 DHW tank, 1 pool and hourly control of DHW recirculation.**
- **Integrated management of air source collection modulating units**, in case of air source or hybrid configurations.
- **Integrated management of external On/Off or modulating auxiliary systems**, such as electrical heaters, On/Off boilers or modulating boilers.
- **Integrated free cooling in models 2 and 4.**
- **Integrated active cooling in models 3 and 4.**
- **Single-phase (230V) and three-phase (400V) version available.**
- **Integrated photovoltaic hybridisation.**
- **Integrated energy meters** to measure the electrical consumption, the heating/cooling thermal power, the COP and the monthly and annual SPF.

SPECIFICATIONS ecoGEO+ B/C 4-16 PRO		UNITS	B1/C1	B2/C2	B3/C3	B4/C4
APPLICATION	Place of installation	-	Indoors			
	Type of brine system [1]	-	Ground source / Air source / Hybrid source			
	DHW, Heating and Pool	-	✓	✓	✓	✓
	High Temperature Recovery (HTR) system option [11]	-	✓	✓	✓	✓
	Integrated Active cooling	-	-	-	✓	✓
	Integrated Passive cooling	-	-	✓	-	✓
PERFORMANCE	Modulation range of the compressor	%	15 to 100			
	Heating power output [2], B0W35	kW	3,1 to 16,1			
	COP [2], B0W35	-	4,6			
	Active cooling power output [2], B35W7	kW	-		2,2 to 13,8	
	EER [2], B35W7	-	-		3,7	
	Max. DHW temperature without / with support [5]	°C	70 / 80			
	Noise power emission level [6]	db	35 to 46			
	Energy label / ηs / SCOP W35 average climate control	-	A+++ / 190% / 4,85			
	Energy label / ηs / SCOP W55 average climate control	-	A++ / 146% / 3,84			
OPERATION LIMITS	Distribution / Set heating outlet temperature range	°C	10 to 70 / 70			
	Distribution / Set cooling outlet temperature range	°C	-20 to 35 /-15		5 to 35 / 7	
	Brine inlet temperature range in heating applications	°C	-25 to 35			
	Brine inlet temperature range in cooling applications	°C	10 to 70			
	Minimum / Maximum refrigerant circuit pressure	bar	1 / 32			
	Production / Pre-load circuit pressure	bar	0,5 to 3,0 / 1,5			
	Brine / Pre-load circuit pressure	bar	0,5 to 3,0 / 0,7			
	Volume / Max. DHW storage tank pressure (ecoGEO+ C)	l / bar	165 / 8			
WORKING FLUIDS	R290 Refrigerant load	kg	0,86			
	Compressor oil type / load	kg	HXL4467 / 1,18			
CONTROL ELECTRICAL DATA	1/N/PE 230 V / 50-60 Hz [8]	-	✓			
	Maximum recommended external protection [9]	-	C16A			
	Transformer primary circuit fuse	A	0,5			
	Transformer secondary circuit fuse	A	2,5			
ELECTRICAL DATA: SINGLE-PHASE	1/N/PE 230 V / 50-60 Hz [8]	-	✓			
	Maximum recommended external protection [9]	-	C32A			
	Maximum consumption [2], B0W35	kW / A	4,4 / 19,2			
	Maximum consumption [2], B0W35	kW / A	5,5 / 23,9			
	Minimum / Maximum starting current [7]	A	2,6 / 12,5			
	Correction of cosine Ø	-	0,96 - 1			
ELECTRICAL DATA: THREE-PHASE	3/N/PE 400 V / 50-60 Hz [8]	-	✓			
	Maximum recommended external protection [9]	-	C13A			
	Maximum consumption [2], B0W35	kW / A	4,4 / 6,4			
	Maximum consumption [2], B0W35	kW / A	5,5 / 7,9			
	Minimum / Maximum starting current [7]	A	0,9 / 4,2			
	Correction of cosine Ø	-	0,96 - 1			
DIMENSIONS/WEIGHT	Height x width x depth	mm	ecoGEO+ B: 1051x609x716 · ecoGEO+ C: 1943x609x724			
	Empty weight (without assembly)	kg	B 195 · C 260	B 205 · C 270	B 195 · C 260	B 205 · C 270

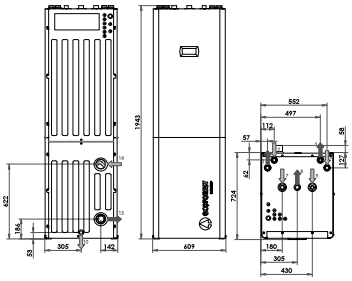
1. Air source by replacing the ground source circuit by one or more ecoGEO+ AU air units. Consult the ecoGEO+ AU aerothermal units manual for more detailed information.
2. In compliance with EN 14511, this includes the consumption of the circulation pumps and the compressor driver.
3. Considering brine and production flow rates in compliance with EN 14511.
4. Considering a heat slope from 20°C to 50°C in absence of consumption.
5. Considering support provided by the emergency electrical heater.
6. In compliance with EN 12102.
7. Starting current depends on the working conditions of the hydraulic circuits.
8. The admissible voltage range for proper operation of the heat pump is ±10%.
9. Maximum consumption can vary significantly according to working conditions, or if the compressor's operation range is restricted. Consult the technical service manual for more detailed information.
10. Certification in process.
11. Integrated by default in modules B3/C3 and B4/C4.

Dimensions and hydraulic connections

ecoGEO+ B

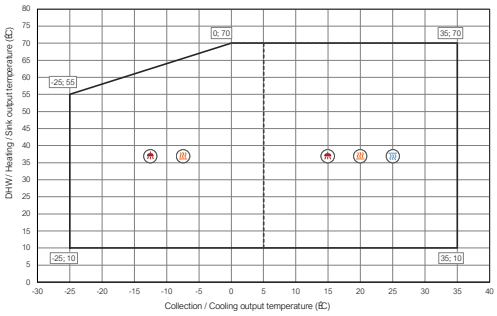


ecoGEO+ C

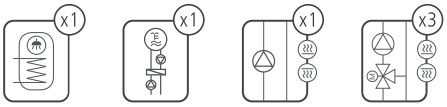


1. Heating/Cooling Outlet - 1 1/4" M
2. Heating/Cooling Inlet - 1 1/4" M
3. Brine Outlet - 1 1/4" M
4. Brine Inlet - 1 1/4" M
5. DHW system Outlet - 1 1/4" M
6. DHW System Inlet - 1 1/4" M
7. CW Inlet - 1" F
8. DHW Outlet - 1" F
9. DHW Recirculation Inlet - 3/4" F
10. Drain - 16 mm
11. Safety duct outlet - Ø80
12. Safety duct inlet - Ø80

Operational chart

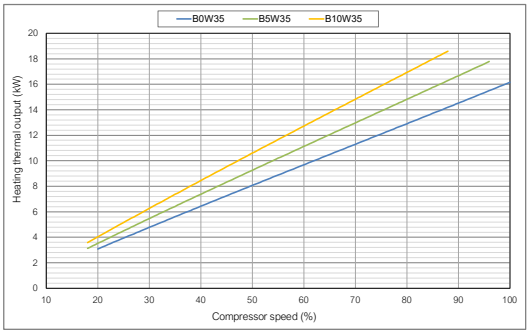


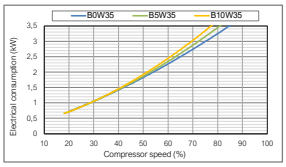
Installation management

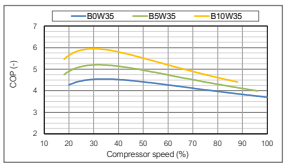


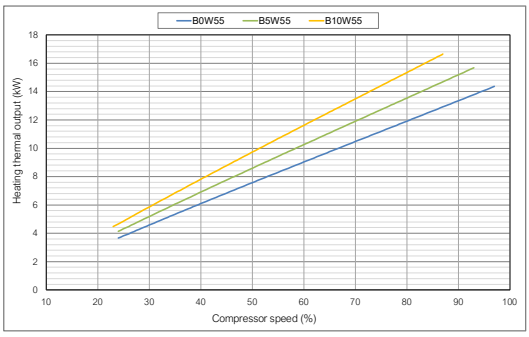
Performance curves

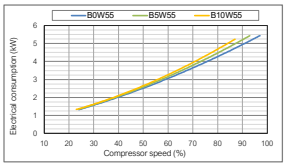
Thermal performance

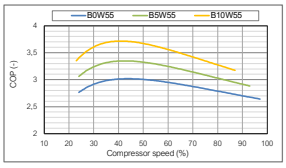


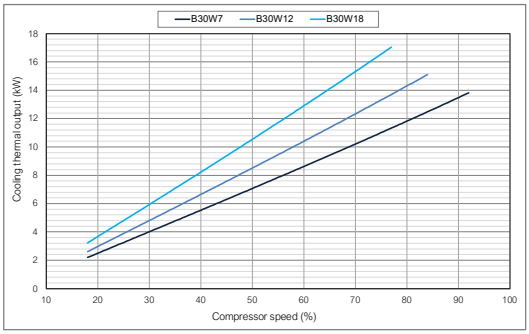


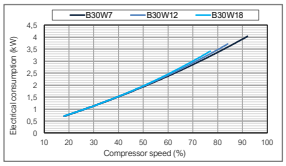


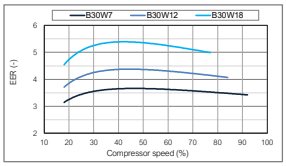
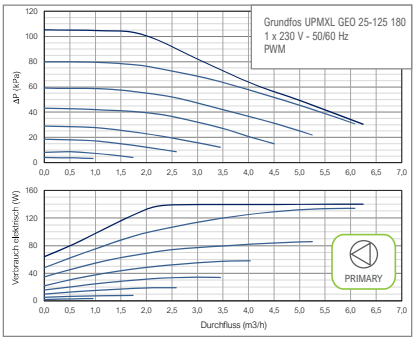
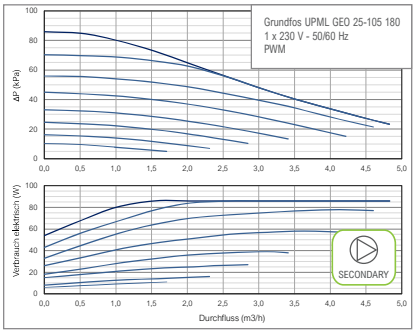
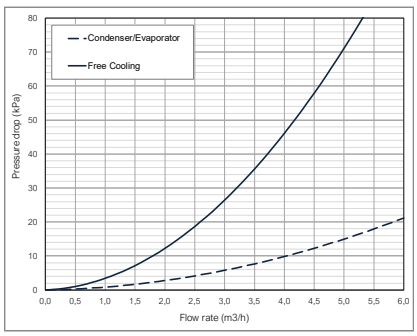












Hydraulic performance