



ecoGEO⁺ B/C PRO

R290 1-6kW/2-10kW/4-16kW
Brine to Water Heat Pumps
with Inverter Technology



ecoGEO⁺ B/C PRO



Models



Options

ecoGEO ⁺ B1/C1	ecoGEO ⁺ B2/C2	ecoGEO ⁺ B3/C3	ecoGEO ⁺ B4/C4
DHW *	DHW *	DHW *	DHW *
Heating	Heating	Heating	Heating
Pool	Pool	Pool	Pool
	Passive Cooling	Active cooling	Passive cooling
			Active cooling

* External DHW tank in B models

Services



DHW



Heating



Cooling



Pool

Compatible production systems



Heat./Cool. floor

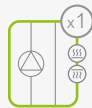


Fancoils



Radiators

Management of shunt groups



Performance



Plug & Play



Min. acoustic level



HTR Technology



Lifespan

Cascade

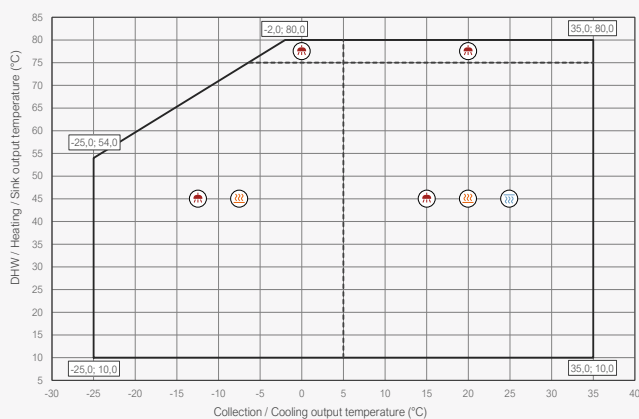


Characteristics

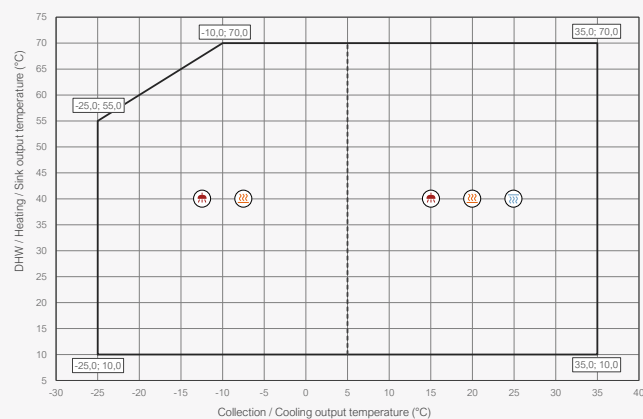
- Modulating thermal output control across a wide range (17%–100%) and modulating flow control in both source and production circuits (20%–100%).
- Natural refrigerant R290: GWP 3.
- Inverter technology.
- Compact design including source and production circulators, 8L and 12L expansion vessels for source and production respectively, source and production safety valves, and a 3-way DHW valve.
- High Temperature Recovery (HTR) system for DHW production up to 70 °C without auxiliary support and simultaneous production of DHW and heating/cooling in ecoGEO+ B/C 2-10 PRO and ecoGEO+ B/C 4-16 PRO models.
- Integrated management of up to four different flow temperatures, two buffer tanks (heating and cooling), one DHW tank, one swimming pool, and time scheduling of DHW recirculation.
- Integrated control of external auxiliary backup systems—on/off or modulating (electric heaters, boilers, etc.).
- Cascade management for up to three heat pumps.
- Integrated management of simultaneous heating/cooling production and emission systems according to the system layout.
- Passive cooling integrated in B2/C2 and B4/C4 models.
- Active cooling via cycle inversion integrated in B3/C3 and B4/C4 models.
- Available in both single-phase and three-phase versions.
- Integrated photovoltaic hybridisation.
- Integrated energy meters for monitoring electrical consumption, thermal output (heating/cooling), and instantaneous as well as seasonal efficiency monthly and annual.
- Integrated refrigerant detection and evacuation system in ecoGEO+ B/C 2-10 PRO and ecoGEO+ B/C 4-16 PRO models – not required in ecoGEO+ B/C 1-6 PRO models.

Operational chart

ecoGEO+ B/C 1-6 PRO



ecoGEO+ B/C 2-10 PRO | ecoGEO+ B/C 4-16 PRO



ecoGEO⁺ B/C 1-6 PRO

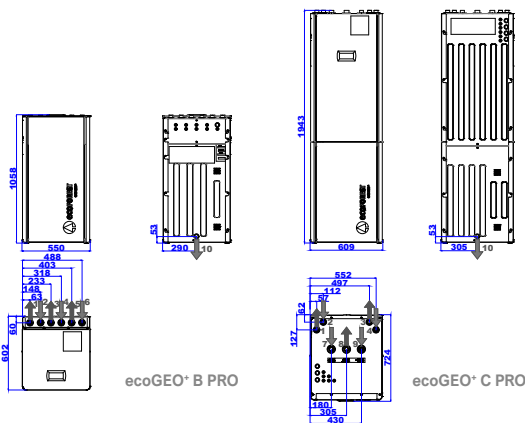
Brine to water heat pumps with Inverter technology and natural R290 refrigerant



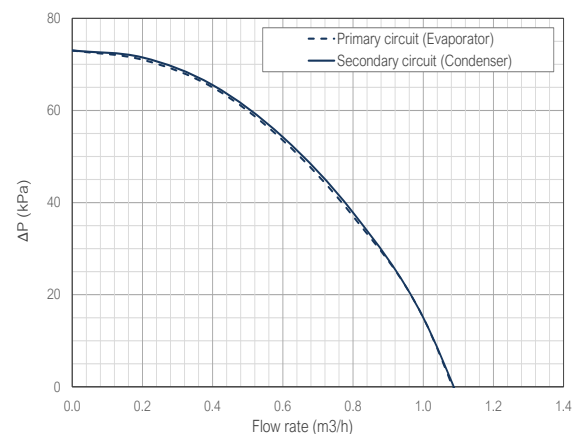
SPECIFICATIONS ecoGEO+ Basic / Compact PRO		ecoGEO+ 1-6 PRO			
		B1 / C1	B2 / C2	B3 / C3	B4 / C4
APPLICATION	Place of installation	-	Indoor		
	Collection system	-	Ground source / Open loop		
	DHW, Heating and Pool heating	-	■	■	■
	Integrated passive cooling	-	-	-	■
	Integrated active cooling	-	-	-	■
PERFORMANCE	Compressor modulation range	%	12.5 - 100		
	⁽²⁾ Heating power output / COP B0W35	kW / -	1.0 - 6.0 / 4.3		
	⁽²⁾ Heating power output / COP B0W55	kW / -	1.0 - 5.5 / 2.7		
	⁽²⁾ Cooling power output / EER B30W7	kW / -	-	-	1.0 - 6.0 / 4.4
	⁽⁶⁾ Max. DHW temperature without / with support	°C	75 / 80		
	⁽⁶⁾ Maximum noise power level (LWA)	dB (A)	44		
	Energy label / η _s / SCOP W35 average clim. with control	-	A+++ / 184% / 4.71		
	Energy label / η _s / SCOP W55 average clim. with control	-	A++ / 146% / 3.76		
OPERATION LIMITS	Distribution / Set heating outlet temperature range	°C	10 - 75 / 20 - 75		
	Distribution / Set cooling outlet temperature range	°C	-	5 - 30 / 7 - 30	
	Collection temperature range in heating / cooling mode	°C	-22 - 35 / 10 - 70		
	Minimum / Maximum refrigerant circuit pressure	bar	0.5 / 32.0		
	Collection / Production circuit pressure range (preload)	bar	0,5 - 3,0 (0,7) / 0,5 - 3,0 (1,5)		
	DHW tank capacity / maximum pressure	l / bar	165 / 8.0 (ecoGEO+ C)		
	WORKING FLUIDS	R290 refrigerant load (GWP: 3)	kg	0.15	
Compressor oil type / load		kg	PZ46M / 0.30		
Primary circ. flow rate (Pmax, B0W35) ΔT 3°C / ΔT 5°C		m³/h	1.5 / 0.9		
Secondary circ. flow rate (Pmax, B0W35) ΔT 5°C / ΔT 7°C		m³/h	1.0 / 0.7		
CONTROL ELECTRICAL DATA		⁽⁶⁾ 1/N/PE 230 V / 50-60 Hz	-	■	
	⁽⁹⁾ Recommended external protection	-	-		
	Transformer primary circuit fuse	A	0.5		
	Transformer secondary circuit fuse	A	2.5		
HEAT PUMP ELECTRICAL DATA: SINGLE-PHASE VERSION	⁽⁶⁾ 1/N/PE 230 V / 50-60 Hz	-	■		
	⁽⁹⁾ Recommended external protection	-	C16A		
	⁽²⁾ Maximum consumption B0W35	kW / A	1.6 / 6.8		
	⁽²⁾ Maximum consumption B0W55	kW / A	2.0 / 8.6		
	⁽⁷⁾ Minimum / Maximum starting current	A	0.6 / 1.8		
	Correction of cos Ø	-	0.96 / 1		
DIMENSIONS & WEIGHT	Height x width x depth	mm	ecoGEO+ B: 1051x559x606 / ecoGEO+ C: 1943x609x724		
	Empty weight (without packaging)	kg	B: 125 / C: 186	B: 133 / C: 194	B: 125 / C: 186

- Air-to-water by means of a brine-to water heat pump combined with a hydraulic outdoor air unit.
- In compliance with EN 14511, including circulation pumps, fan and compressor driver consumptions.
- Production flow rate according to EN 14511.
- Considering a heat slope from 20 to 50 °C in absence of consumption.
- Considering support provided by an emergency electrical heater or HTR. Max. DHW temp. with HTR can be limited by the compressor discharge temp.
- In compliance with EN 12102.
- Starting current depends on the working conditions of the hydraulic circuits.
- The admissible voltage range for proper operation of the heat pump is ±10%.
- 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 information.
- Certification in process.

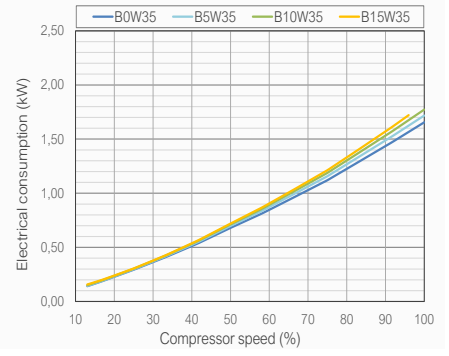
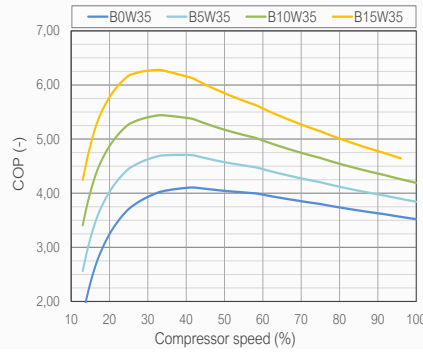
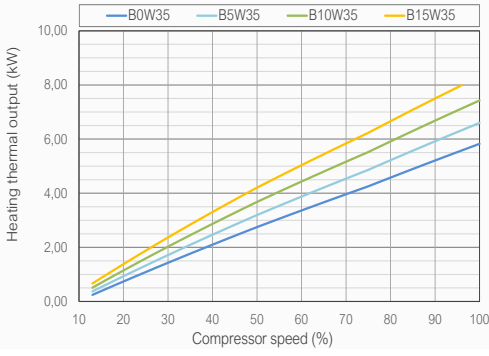
Dimensions and hydraulic connections



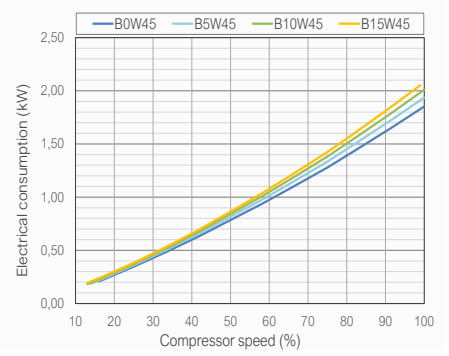
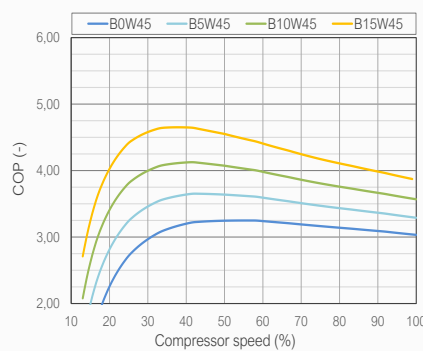
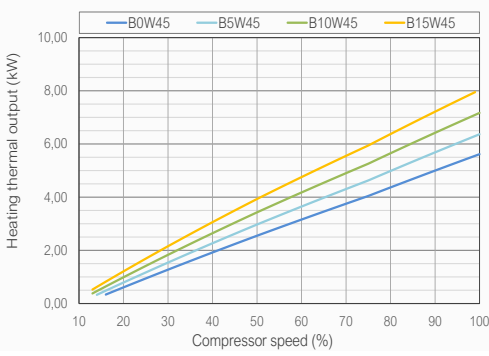
Available pressure drop



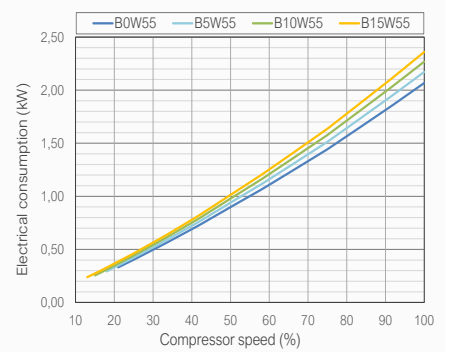
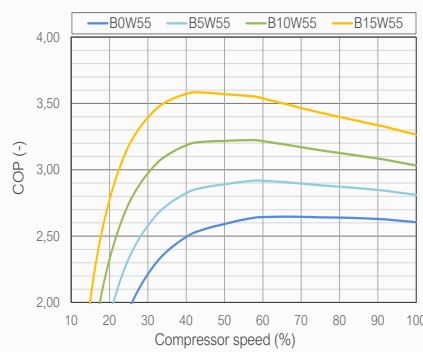
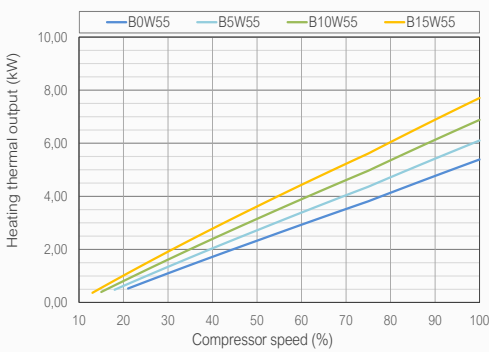
Heating W35



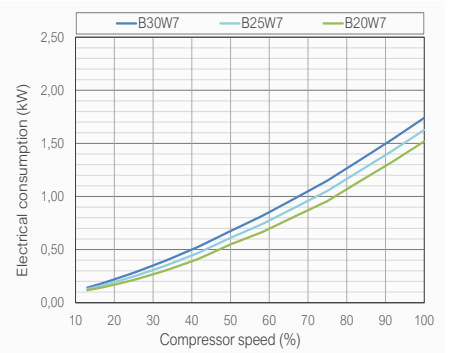
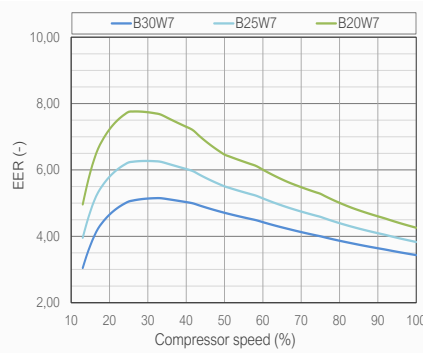
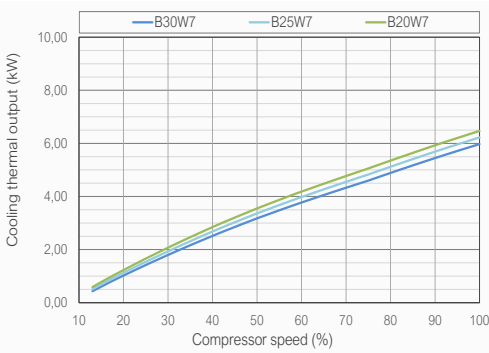
Heating W45



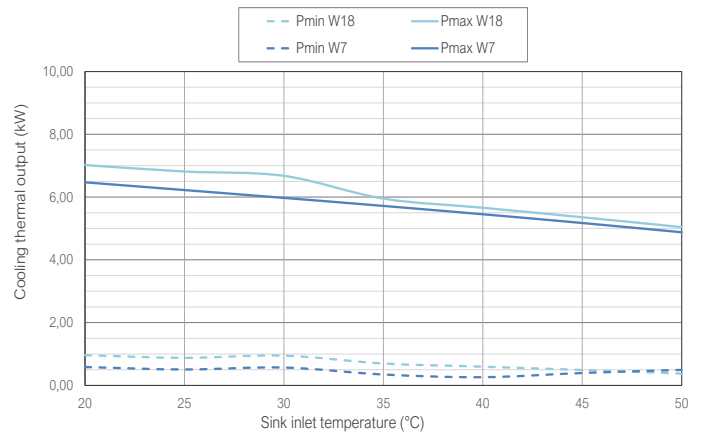
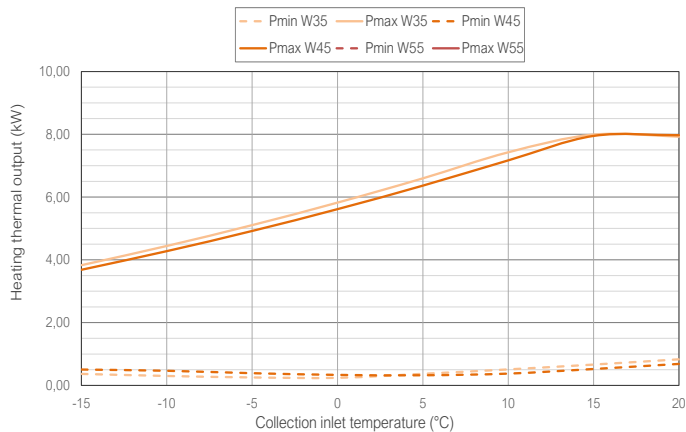
Heating W55



Cooling W7



Thermal power - Brine system temperature



ecoGEO⁺ B/C 2-10 PRO

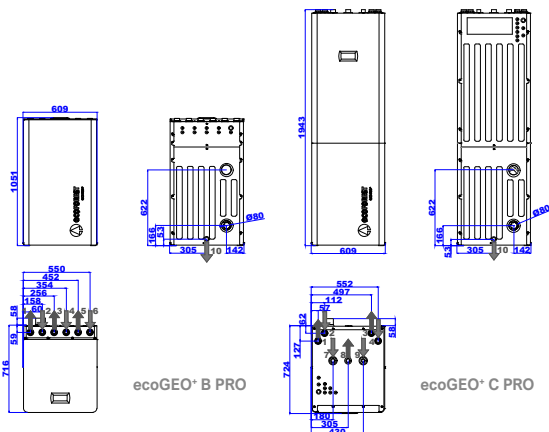
Brine to water heat pumps with Inverter technology and natural R290 refrigerant



SPECIFICATIONS ecoGEO+ Basic / Compact PRO		ecoGEO+ 2-10 PRO			
		B1 / C1	B2 / C2	B3 / C3	B4 / C4
APPLICATION	Place of installation	-	Indoor		
	Collection system	-	Ground source / Open loop		
	DHW, Heating and Pool heating	-	■	■	■
	Integrated passive cooling	-	-	-	■
	Integrated active cooling	-	-	-	■
PERFORMANCE	Compressor modulation range	%	15 - 100		
	⁽²⁾ Heating power output / COP B0W35	kW / -	1.9 - 10.2 / 4.3		
	⁽²⁾ Heating power output / COP B0W55	kW / -	2.5 - 9.3 / 2.7		
	⁽²⁾ Cooling power output / EER B30W7	kW / -	-	1.6 - 8.6 / 4.1	
	⁽⁶⁾ Max. DHW temperature without / with support	°C	70 / 80		
	⁽⁶⁾ Maximum noise power level (LWA)	dB (A)	42		
	Energy label / η _s / SCOP W35 average clim. with control	-	A+++ / 187% / 4.78		
	Energy label / η _s / SCOP W55 average clim. with control	-	A++ / 144% / 3.75		
OPERATION LIMITS	Distribution / Set heating outlet temperature range	°C	10 - 70 / 20 - 70		
	Distribution / Set cooling outlet temperature range	°C	-	5 - 30 / 7 - 30	
	Collection temperature range in heating / cooling mode	°C	-22 - 35 / 10 - 70		
	Minimum / Maximum refrigerant circuit pressure	bar	1.0 / 32.0		
	Collection / Production circuit pressure range (preload)	bar	0,5 - 3,0 (0,7) / 0,5 - 3,0 (1,5)		
	DHW tank capacity / maximum pressure	l / bar	165 / 8,0 (ecoGEO+ C)		
	WORKING FLUIDS	R290 refrigerant load (GWP: 3)	kg	0.60	
Compressor oil type / load		kg	HXL4467 / 0.74		
Primary circ. flow rate (Pmax, B0W35) ΔT 3°C / ΔT 5°C		m³/h	2.4 / 1.5		
Secondary circ. flow rate (Pmax, B0W35) ΔT 5°C / ΔT 7°C		m³/h	1.8 / 1.3		
CONTROL ELECTRICAL DATA		⁽⁶⁾ 1/N/PE 230 V / 50-60 Hz	-	■	
	⁽⁶⁾ Recommended external protection	-	C16A		
	Transformer primary circuit fuse	A	0.5		
	Transformer secondary circuit fuse	A	2.5		
	HEAT PUMP ELECTRICAL DATA: SINGLE-PHASE VERSION	⁽⁶⁾ 1/N/PE 230 V / 50-60 Hz	-	■	
⁽⁶⁾ Recommended external protection		-	C25A		
⁽²⁾ Maximum consumption B0W35		kW / A	2.9 / 12.4		
⁽²⁾ Maximum consumption B0W55		kW / A	3.7 / 15.9		
⁽⁷⁾ Minimum / Maximum starting current		A	2.8 / 5.8		
Correction of cos φ		-	0.96 / 1		
HEAT PUMP ELECTRICAL DATA: THREE-PHASE VERSION	⁽⁶⁾ 3/N/PE 400 V / 50-60 Hz	-	■		
	⁽⁶⁾ Recommended external protection	-	C16A		
	⁽²⁾ Maximum consumption B0W35	kW / A	2.9 / 4.1		
	⁽²⁾ Maximum consumption B0W55	kW / A	3.7 / 5.3		
	⁽⁷⁾ Minimum / Maximum starting current	A	0.9 / 4.2		
	Correction of cos φ	-	0.96 / 1		
DIMENSIONS & WEIGHT	Height x width x depth	mm	ecoGEO+ B: 1051x609x716 / ecoGEO+ C: 1943x609x724		
	Empty weight (without packaging)	kg	B: 195 / C: 260	B: 205 / C: 270	B: 195 / C: 260 B: 205 / C: 270

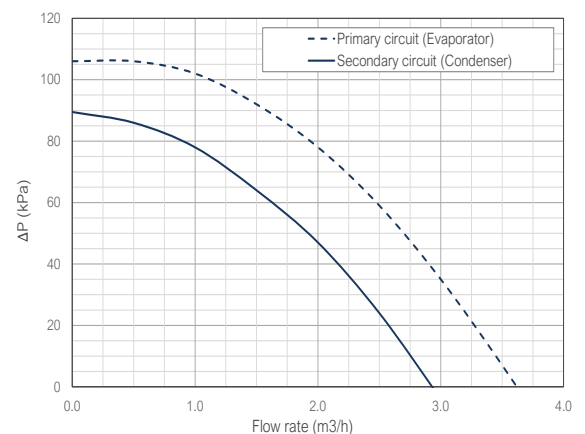
- Air-to-water by means of a brine-to water heat pump combined with a hydraulic outdoor air unit.
- In compliance with EN 14511, including circulation pumps, fan and compressor driver consumptions.
- Production flow rate according to EN 14511.
- Considering a heat slope from 20 to 50 °C in absence of consumption.
- Considering support provided by an emergency electrical heater or HTR. Max. DHW temp. with HTR can be limited by the compressor discharge temp.
- In compliance with EN 12102.
- Starting current depends on the working conditions of the hydraulic circuits.
- The admissible voltage range for proper operation of the heat pump is ±10%.
- 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 information.
- Certification in process.

Dimensions and hydraulic connections

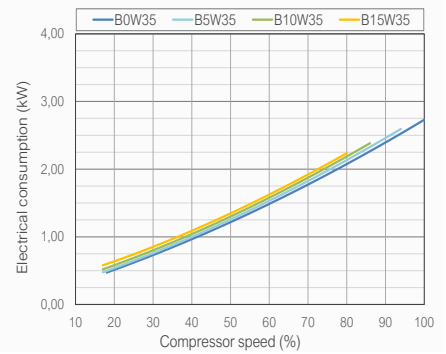
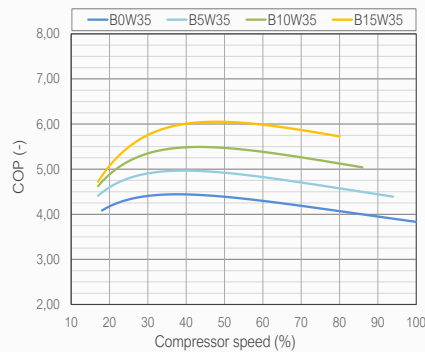
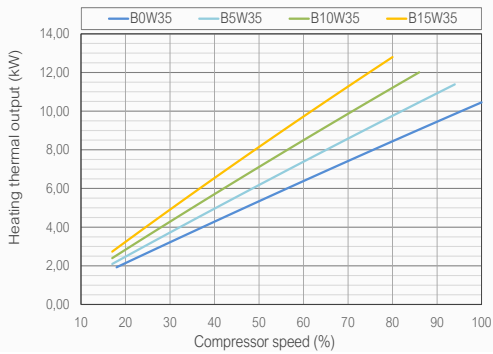


- Heating/Cooling outlet 1 1/4" M
- Heating/Cooling inlet 1 1/2" M
- Brine outlet 1 1/4" M
- Brine inlet 1 1/4" M
- DHW system outlet 1 1/2" M
- DHW system inlet 1 1/4" M
- CW inlet 1" H
- DHW outlet 1" H
- DHW recirculation inlet 3/4" H
- Drain 16mm

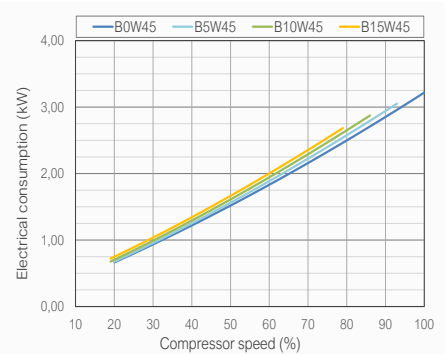
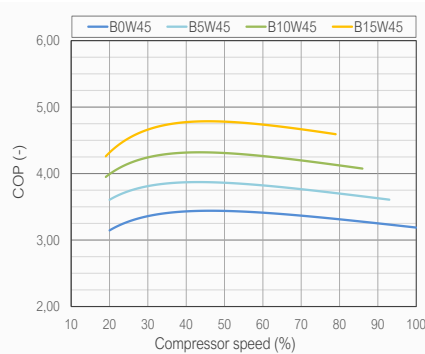
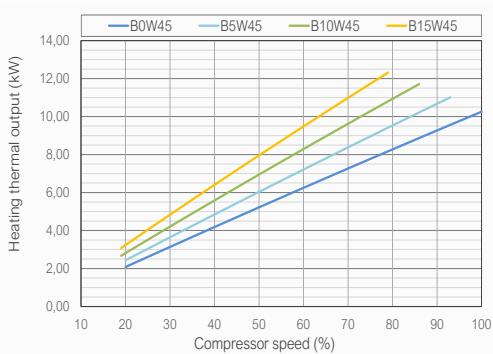
Available pressure drop



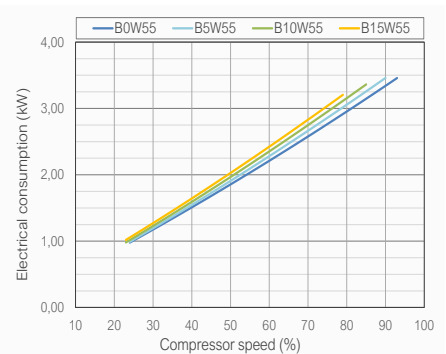
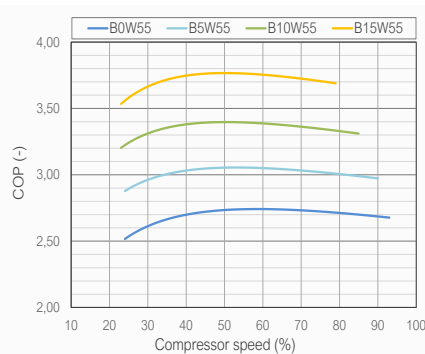
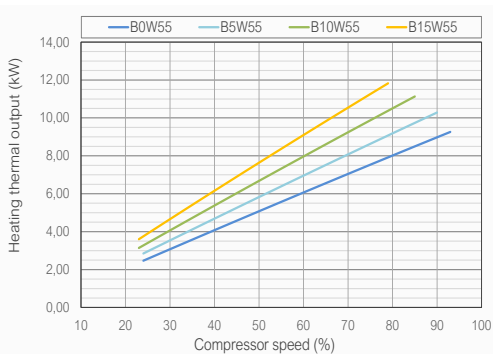
Heating W35



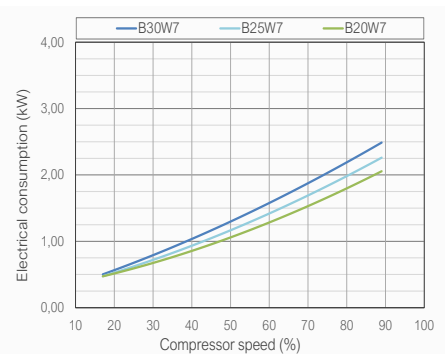
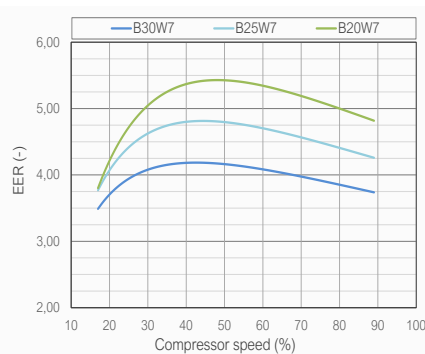
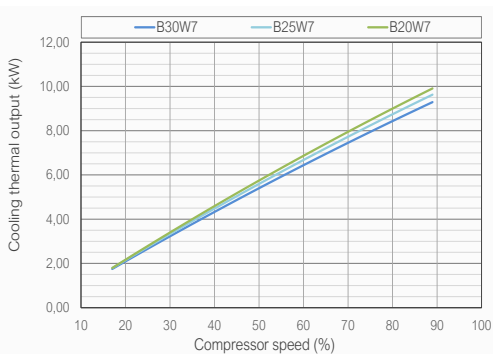
Heating W45



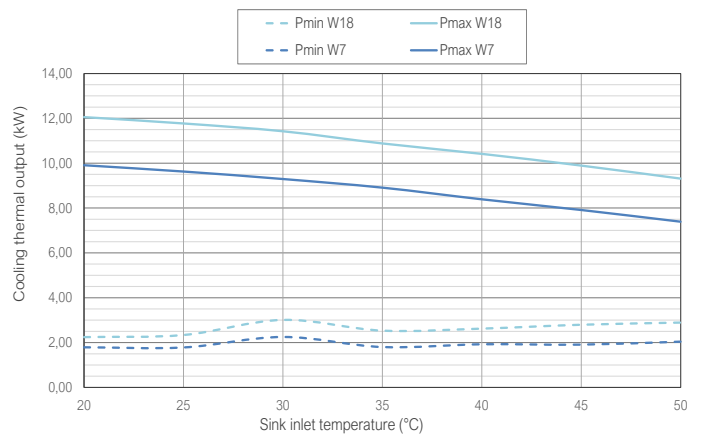
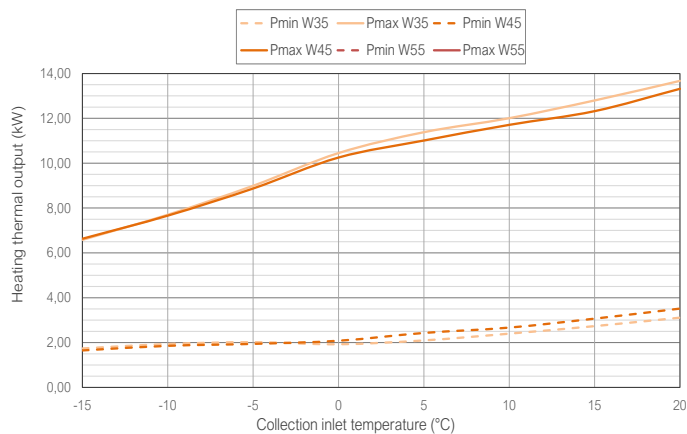
Heating W55



Cooling W7



Thermal power - Brine system temperature



ecoGEO⁺ B/C 4-16 PRO

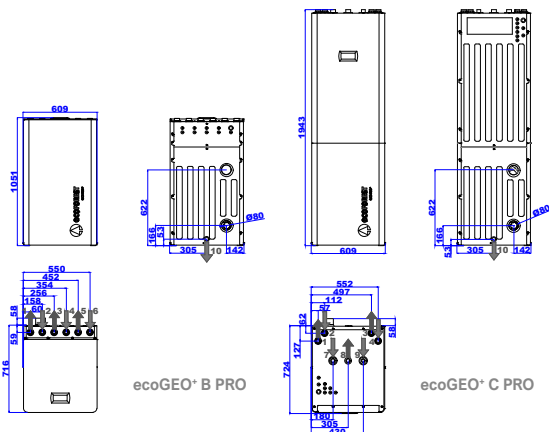
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		B1 / C1	B2 / C2	B3 / C3	B4 / C4
APPLICATION	Place of installation	-	Indoor		
	Collection system	-	Ground source / Open loop		
	DHW, Heating and Pool heating	-	■	■	■
	Integrated passive cooling	-	-	-	■
	Integrated active cooling	-	-	■	■
PERFORMANCE	Compressor modulation range	%	15 - 100		
	⁽²⁾ Heating power output / COP B0W35	kW / -	3,1 - 16,1 / 4,6		
	⁽²⁾ Heating power output / COP B0W55	kW / -	3,7 - 14,4 / 3,0		
	⁽²⁾ Cooling power output / EER B30W7	kW / -	-	2,2 - 13,8 / 3,7	
	⁽⁶⁾ Max. DHW temperature without / with support	°C	70 / 80		
	⁽⁶⁾ Maximum noise power level (LWA)	dB (A)	42		
	Energy label / η _s / SCOP W35 average clim. with control	-	A+++ / 190% / 4,89		
Energy label / η _s / SCOP W55 average clim. with control	-	A++ / 150% / 3,87			
OPERATION LIMITS	Distribution / Set heating outlet temperature range	°C	10 - 70 / 20 - 70		
	Distribution / Set cooling outlet temperature range	°C	-	5 - 30 / 7 - 30	
	Collection temperature range in heating / cooling mode	°C	-22 - 35 / 10 - 70		
	Minimum / Maximum refrigerant circuit pressure	bar	1,0 / 32,0		
	Collection / Production circuit pressure range (preload)	bar	0,5 - 3,0 (0,7) / 0,5 - 3,0 (1,5)		
	DHW tank capacity / maximum pressure	l / bar	165 / 8,0 (ecoGEO+ C)		
WORKING FLUIDS	R290 refrigerant load (GWP: 3)	kg	0,86		
	Compressor oil type / load	kg	HXL4467 / 1,18		
	Primary circ. flow rate (Pmax, B0W35) ΔT 3°C / ΔT 5°C	m³/h	3,9 / 2,3		
	Secondary circ. flow rate (Pmax, B0W35) ΔT 5°C / ΔT 7°C	m³/h	2,9 / 2,0		
CONTROL ELECTRICAL DATA	⁽⁶⁾ 1/N/PE 230 V / 50-60 Hz	-	■		
	⁽⁶⁾ Recommended external protection	-	C16A		
	Transformer primary circuit fuse	A	0,5		
	Transformer secondary circuit fuse	A	2,5		
HEAT PUMP ELECTRICAL DATA: SINGLE-PHASE VERSION	⁽⁶⁾ 1/N/PE 230 V / 50-60 Hz	-	■		
	⁽⁶⁾ Recommended external protection	-	C32A		
	⁽²⁾ Maximum consumption B0W35	kW / A	4,4 / 19,2		
	⁽²⁾ Maximum consumption B0W55	kW / A	5,5 / 23,9		
	⁽⁷⁾ Minimum / Maximum starting current	A	2,6 / 12,5		
HEAT PUMP ELECTRICAL DATA: THREE-PHASE VERSION	Correction of cos Ø	-	0,96 / 1		
	⁽⁶⁾ 3/N/PE 400 V / 50-60 Hz	-	■		
	⁽⁶⁾ Recommended external protection	-	C16A		
	⁽²⁾ Maximum consumption B0W35	kW / A	4,4 / 6,4		
	⁽²⁾ Maximum consumption B0W55	kW / A	5,5 / 7,9		
DIMENSIONS & WEIGHT	Height x width x depth	mm	ecoGEO+ B: 1051x609x716 / ecoGEO+ C: 1943x609x724		
	Empty weight (without packaging)	kg	B: 195 / C: 260	B: 205 / C: 270	B: 195 / C: 260

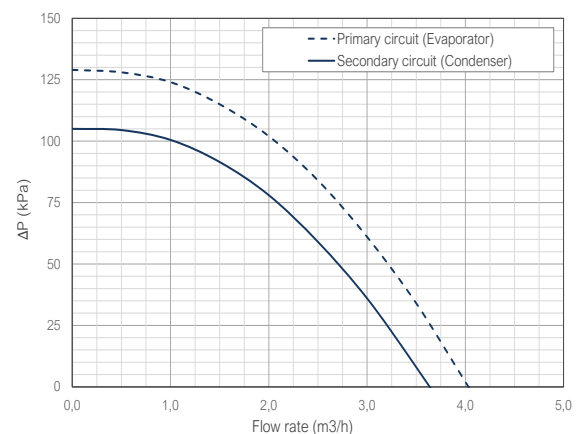
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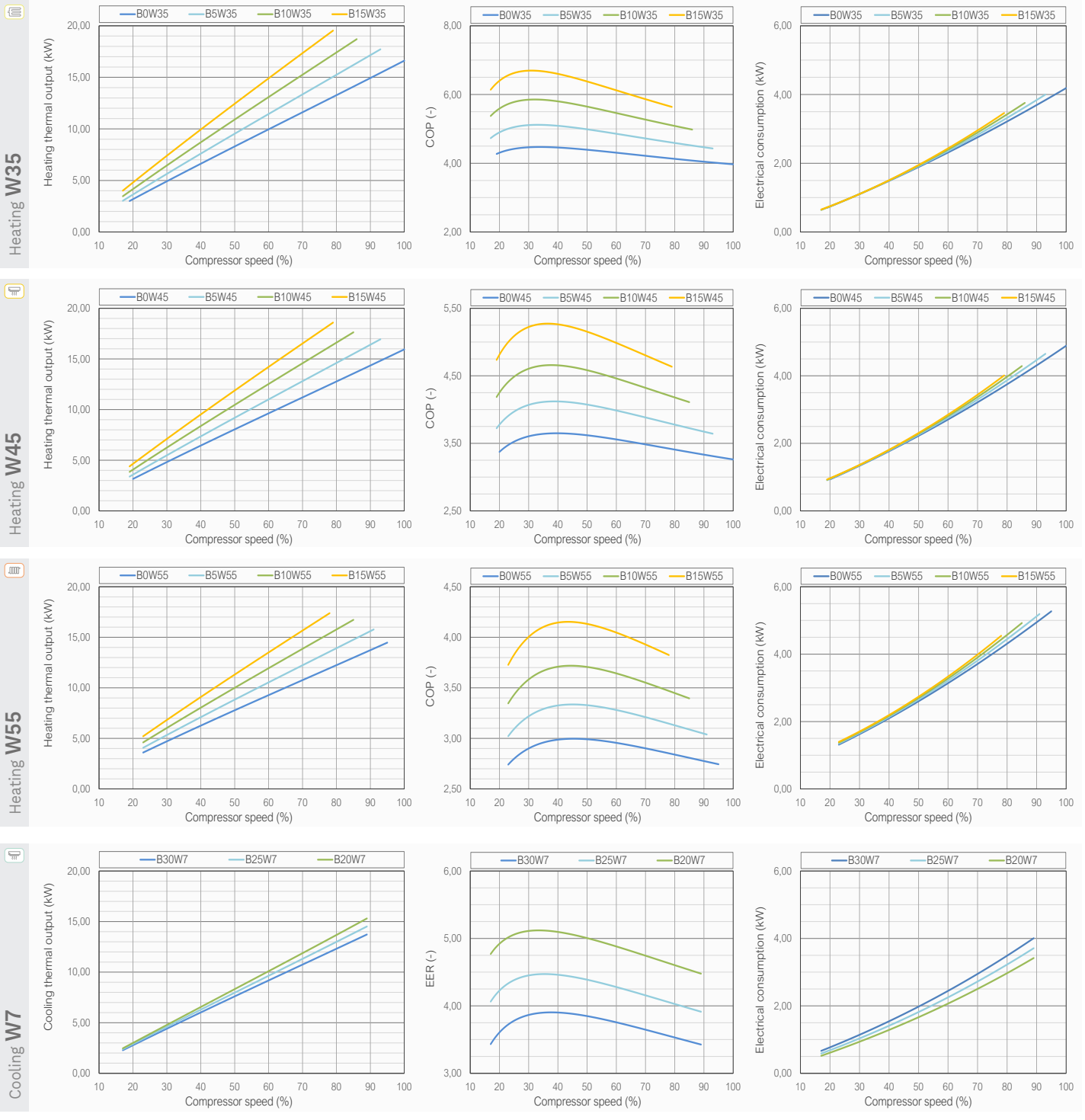
Dimensions and hydraulic connections



- Heating/Cooling outlet 1 ¼" M
- Heating/Cooling inlet 1 ½" M
- Brine outlet 1 ¼" M
- Brine inlet 1 ¼" M
- DHW system outlet 1 ½" M
- DHW system inlet 1 ¼" M
- CW inlet 1" H
- DHW outlet 1" H
- DHW recirculation inlet ¾" H
- Drain 16mm

Available pressure drop





Thermal power - Brine system temperature

