ecoGEO HP 12-40 kW









- () Modulating thermal power control over a wide range (25-100%) and modulating flow control in brine and production circuits (20-100%)
- Integrated management of simultaneously heating and cooling production
- Integrated management of up to 5 different outlet temperatures, two different buffer tanks (1 for heating and 1 for cooling), 1 DHW tank and 1 pool
- Integrated management of external auxiliary systems like boilers or electrical resistances
- O Integrated management of up to 6 units in cascade
- Cascade management with maximum efficiency range tracking technology
- () Integrated energy meters for electrical consumption, heating and cooling power, COP and monthly and annual SPF measurement



Heating/cooling circuit pressure bar 0,5 to 3 0,5 to 3 0,5 to 3 Brine circuit pressure bar 0,5 to 3 0,5 to 3 0,5 to 3 Type of refrigerant/Refrigerant charge kg R410A/4,0 R410A/4,2 Type of compressor oil/Oil charge kg POE/3,3 POE/3,3 Recommended antifreeze for brine circuit ⁴ Propylene glycol Propylene glycol Brine circuit flow¹, B0W35 (ΔT = 3 °C) I/h 2405 to 9830 2405 to 9830 Production circuit flow¹, B0W35 (ΔT = 5 °C) I/h 1845 to 7685 1845 to 7685 All of the component	TECHNICAL DATA		Unit	HP1 12-40	HP3 12-40
Application DHW with external tank -	Application	Installation site	-	Interior	Interior
Application DHW with external tank -		Type of brine system	-	Ground source	Ground source
Active cooling intregated -			-	✓	✓
Control of external passive cooling -		DHW with external tank	-	✓	✓
Modulation range of the compressor % 25 to 100 25 to 100		Active cooling intregated	-		✓
Modulation range of the compressor % 25 to 100 25 to 100		Control of external passive cooling	-	✓	✓
Features COP¹, 80W35	Features		%	25 to 100	25 to 100
Features		Heating output ¹ , B0W35	kW	10,7 to 44,6	10,7 to 44,6
Features EER', B35W7		COP ¹ , B0W35	-	4,76	4,76
Max. DHW temperature without support Max. DHW temperature with support² °C 60 60 Max. DHW temperature with support² °C 70 70 Noise emission level³ dB 43 to 58 43 to 58 Energy label with control - A+++ A++++ Heating outlet temperature °C 20 to 60 20 to 60 Cooling outlet temperature °C -20 to 35 -20 to 35 Brine inlet temperature °C -20 to 35 -20 to 35 Refrigerant circuit pressure bar 2 to 45 2 to 45 Heating/cooling circuit pressure bar 0,5 to 3 0,5 to 3 Brine circuit pressure bar 0,5 to 3 0,5 to 3 Type of refrigerant/Refrigerant charge kg R410A/4,0 R410A/4,2 Type of refrigerant/Refrigerant charge kg POE/3,3 POE/3,3 Vorking fluids Recommended antifreeze for brine circuit⁴ - Propylene glycol Propylene glycol Propylene glycol Propylene glycol Propylene glycol Propylene glycol Brin		Active cooling power ¹ , B35W7	kW		12,1 to 49
Max. DHW temperature with support2 0°C 70 70		EER ¹ , B35W7	-		4,9
Noise emission level3		Max. DHW temperature without support	°C	60	60
Energy label with control -		Max. DHW temperature with support ²	°C	70	70
Heating outlet temperature		Noise emission level ³	dB	43 to 58	43 to 58
Vorking limits Cooling outlet temperature °C -20 to 35 -20 to 35 Brine inlet temperature °C -20 to 35 -20 to 35 Refrigerant circuit pressure bar 2 to 45 2 to 45 Heating/cooling circuit pressure bar 0,5 to 3 0,5 to 3 Brine circuit pressure bar 0,5 to 3 0,5 to 3 Type of refrigerant/Refrigerant charge kg R410A/4,0 R410A/4,2 Type of compressor oil/Oil charge kg POE/3,3 POE/3,3 Poropylene glycol Propylene glycol Propylene glycol Brine circuit flow¹, B0W35 (ΔT = 3 °C) l/h 2405 to 9830 2405 to 9830 Production circuit flow¹, B0W35 (ΔT = 5 °C) l/h 1845 to 7685 1845 to 7685 3/N/PE 400 V / 50-60 Hz - ✓ ✓ Maximum external recommended protection⁵ A C25A C25A Maximum electrical consumption¹ B0W35 kW/A 10,9/17,7 10,9/17,7 Maximum electrical consumption¹ B0W35 kW/A 15,5/24,6 15,5/24,6 Starting current		Energy label with control	-	A+++	A+++
Brine inlet temperature °C -20 to 35 -20 to 35 Refrigerant circuit pressure bar 2 to 45 2 to 45 Heating/cooling circuit pressure bar 0,5 to 3 0,5 to 3 Brine circuit pressure bar 0,5 to 3 0,5 to 3 Brine circuit pressure bar 0,5 to 3 0,5 to 3 Type of refrigerant/Refrigerant charge kg R410A/4,0 R410A/4,2 Type of compressor oil/Oil charge kg POE/3,3 POE/3,3 Recommended antifreeze for brine circuit - Propylene glycol Propylene glycol Brine circuit flow¹, B0W35 (ΔT = 3 °C) I/h 2405 to 9830 2405 to 9830 Production circuit flow¹,B0W35 (ΔT = 5 °C) I/h 1845 to 7685 1845 to 7685 Assimum external recommended protection A C25A C25A Maximum electrical consumption¹ B0W35 kW/A 10,9/17,7 10,9/17,7 Maximum electrical consumption¹ B0W35 kW/A 15,5/24,6 15,5/24,6 Starting current A 9,8 9,8 Cos φ correction - 0,96-1 0,96-1 Dimensions Height x width x depth mm 1000 x 950 x 900 285	Working limits	Heating outlet temperature	°C	20 to 60	20 to 60
Vorking limits Refrigerant circuit pressure bar 2 to 45 2 to 45 Heating/cooling circuit pressure bar 0,5 to 3 0,5 to 3 Brine circuit pressure bar 0,5 to 3 0,5 to 3 Type of refrigerant/Refrigerant charge kg R410A/4,0 R410A/4,2 Type of compressor oil/Oil charge kg POE/3,3 POE/3,3 Porolladis Recommended antifreeze for brine circuit ⁴ - Propylene glycol Propylene glycol Brine circuit flow¹, BOW35 (ΔT = 3 °C) I/h 2405 to 9830 2405 to 9830 Production circuit flow¹, BOW35 (ΔT = 3 °C) I/h 1845 to 7685 1845 to 7685 3/N/PE 400 V / 50-60 Hz - ✓ ✓ Maximum external recommended protection ⁵ A C25A C25A Maximum electrical consumption¹ BOW35 kW/A 10,9/17,7 10,9/17,7 Maximum electrical consumption¹ BOW35 kW/A 15,5/24,6 15,5/24,6 Maximum electrical consumption¹ BOW35 kW/A 15,5/24,6 15,5/24,6 Maximum electrical consumption¹ BOW35 kW/A		Cooling outlet temperature	°C	-20 to 35	-20 to 35
Heating/cooling circuit pressure bar 2 to 45 Heating/cooling circuit pressure bar 0,5 to 3 Brine circuit pressure bar 0,5 to 3 Brine circuit pressure bar 0,5 to 3 Type of refrigerant/Refrigerant charge kg R410A/4,0 R410A/4,2 Type of compressor oil/Oil charge kg POE/3,3 POE/3,3 Recommended antifreeze for brine circuit ⁴ - Propylene glycol Propylene glycol Brine circuit flow¹, B0W35 (ΔT = 3 °C) I/h 2405 to 9830 2405 to 9830 Production circuit flow¹, B0W35 (ΔT = 5 °C) I/h 1845 to 7685 1845 to 7685 A C25A C25A C25A Maximum external recommended protection ⁵ A C25A C25A Maximum electrical consumption¹ B0W35 kW/A 10,9/17,7 10,9/17,7 Maximum electrical consumption¹ B0W55 kW/A 15,5/24,6 15,5/24,6 Starting current A 9,8 9,8 cos φ correction - 0,96-1 0,96-1 Dimensions Height x width x depth mm 1000 x 950 x 900 1000 x 950 x 900 and weight Unladen weight (without packaging) kg 280 285 Cos φ correction 2 285 285 Cos φ correction 3 2 2 285 Cos φ correc		Brine inlet temperature	°C	-20 to 35	-20 to 35
Brine circuit pressure bar 0,5 to 3 0,5 to 3		Refrigerant circuit pressure	bar	2 to 45	2 to 45
Type of refrigerant/Refrigerant charge kg R410A/4,0 R410A/4,2 Type of compressor oil/Oil charge kg POE/3,3 PO		Heating/cooling circuit pressure	bar	0,5 to 3	0,5 to 3
Type of compressor oil/Oil charge kg POE/3,3 POE/3,3 Recommended antifreeze for brine circuit ⁴ - Propylene glycol Propylene glycol Brine circuit flow ¹ , B0W35 ($\Delta T = 3$ °C) J/h 2405 to 9830 2405 to 9830 Production circuit flow ¹ , B0W35 ($\Delta T = 5$ °C) J/h 1845 to 7685 1845 to 7685 3/N/PE 400 V / 50-60 Hz - \checkmark \checkmark Maximum external recommended protection ⁵ A C25A C25A Three-phase cower supply Maximum electrical consumption ¹ B0W35 kW/A 10,9/17,7		Brine circuit pressure	bar	0,5 to 3	0,5 to 3
Vorking fluidsRecommended antifreeze for brine circuit4 Brine circuit flow1, B0W35 ($\Delta T = 3$ °C) Production circuit flow1, B0W35 ($\Delta T = 3$ °C) Production circuit flow1, B0W35 ($\Delta T = 5$ °C) Production circuit flow1, B0W35 ($\Delta T = 5$ °C) J/h Blectrical data: Three-phase Dower supplyI/h Maximum external recommended protection5 Maximum electrical consumption1 B0W35 Starting current Cos φ correctionA A A A Blectrical cos Starting current Cos φ correction A Blectrical cos Starting current Cos φ correction A Blectrical cos Starting current Cos φ correction Blectrical cos Starting current Blectrical cos Starting current Cos φ correction Blectrical cos Starting current Cos φ cos φ correction Blectrical cos Starting current Cos φ cos φ cos φ cos φ correction Cos φ cos φ cos φ cos φ	Working fluids	Type of refrigerant/Refrigerant charge	kg	R410A/4,0	R410A/4,2
Brine circuit flow¹, B0W35 (ΔT = 3 °C) I/h 2405 to 9830 2405 to 9830 Production circuit flow¹, B0W35 (ΔT = 5 °C) I/h 1845 to 7685 1845 to 7685 3/N/PE 400 V / 50-60 Hz - ✓ ✓ Maximum external recommended protection⁵ A C25A C25A Maximum electrical consumption¹ B0W35 kW/A 10,9/17,7 10,9/17,7 Maximum electrical consumption¹ B0W55 kW/A 15,5/24,6 15,5/24,6 Starting current A 9,8 9,8 cos φ correction - 0,96-1 0,96-1 Dimensions Height x width x depth mm 1000 x 950 x 900 1000 x 950 x 900 and weight Unladen weight (without packaging) kg 280 285		Type of compressor oil/Oil charge	kg	POE/3,3	POE/3,3
Production circuit flow¹, β0W35 (ΔT = 5 $^{\circ}$ C) I/h 1845 to 7685 1845 to 7685 3/N/PE 400 V / 50-60 Hz - ✓ ✓ Maximum external recommended protection5 A C25A C25A Maximum electrical consumption¹ B0W35 kW/A 10,9/17,7 10,9/17,7 Maximum electrical consumption¹ B0W55 kW/A 15,5/24,6 15,5/24,6 Maximum electrical consumption¹ B0W55 kW/A 15,5/24,6 15,5/24,6 Starting current cos φ correction A 9,8 9,8 Cos φ correction - 0,96-1 0,96-1 Dimensions and weight Height x width x depth mm 1000 x 950 x 900 1000 x 950 x 900		Recommended antifreeze for brine circuit ⁴	-	Propylene glycol	Propylene glycol
		Brine circuit flow ¹ , B0W35 ($\Delta T = 3$ °C)	l/h	2405 to 9830	2405 to 9830
Maximum external recommended protection A C25A C25A		Production circuit flow¹,B0W35 (ΔT = 5 °C)	l/h	1845 to 7685	1845 to 7685
	Electrical data: Three-phase power supply	3/N/PE 400 V / 50-60 Hz	-	✓	✓
Three-phase power supply $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		Maximum external recommended protection ⁵	Α	C25A	C25A
Prower supply Maximum electrical consumption BOWSS kW/A 15,5/24,6 15,5/24,6 Starting current A 9,8 9,8 cos φ correction - 0,96-1 0,96-1 Dimensions Height x width x depth mm 1000 x 950 x 900 1000 x 950 x 900 and weight Unladen weight (without packaging) kg 280 285		Maximum electrical consumption ¹ B0W35	kW/A	10,9/17,7	10,9/17,7
Starting current A 9,8 9,8 9,8		Maximum electrical consumption ¹ B0W55	kW/A	15,5/24,6	15,5/24,6
Dimensions and weightHeight x width x depth Unladen weight (without packaging)mm1000 x 950 x 9001000 x 950 x 900kg280285		Starting current	Α	9,8	9,8
and weight Unladen weight (without packaging) kg 280 285		cos φ correction	-	0,96-1	0,96-1
	Dimensions	Height x width x depth	mm	1000 x 950 x 900	1000 x 950 x 900
Other Data Time required for reversing the cycle Min and sec 2' 10"	and weight	Unladen weight (without packaging)	kg	280	285
	Other Data	Time required for reversing the cycle	Min and sec		2′ 10′′

- 1) According to EN 14511, including circulation pumps and Inverter.
- 2) Considering a support with an auxiliary system as a boiler, electrical heater, etc.
- 3) According to EN 12102.
- Always check regional regulations before using the antifreeze.
- 5) The maximum consumption can vary significantly with operation conditions, or if the operating range of the compressor is limited. See the service manual for more details.