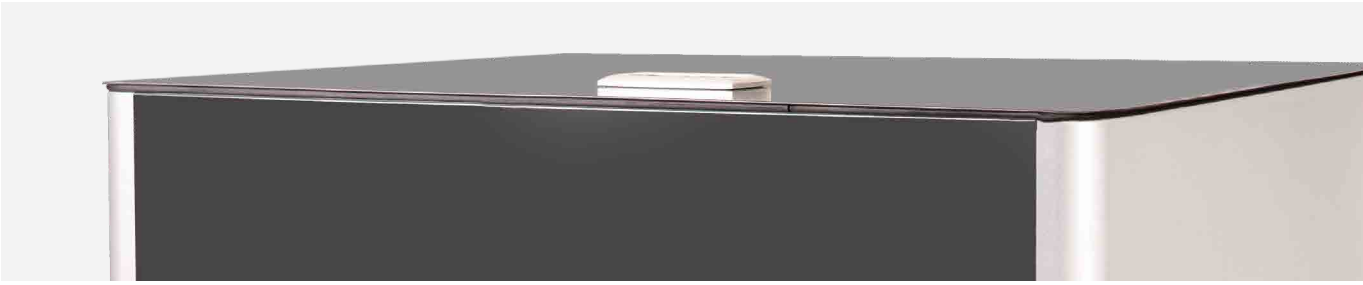
TECHNICAL DATASHEETS

Heat pumps



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ecoFOREST

Ecoforest

Technology for a sustainable future

The commitment to developing highly efficient renewable climate controls systems is one of the fundamental pillars of Ecoforest's history. This commitment has enabled the company to achieve numerous milestones in the sector, establishing it as a benchmark for innovation.

The ecoGEO+ brine to water and ecoAIR+ air to water modulating heat pump ranges feature exclusive solutions and unique technologies in the market.

Although Ecoforest had already been committed to the use of low-environmental-impact refrigerants such as R290 for years, new models have been added to both product families, and new equipment with alternative refrigerants has been developed in order to offer the most comprehensive range of solutions.

Index

Ground source 48

Air source

Ecoforest technology in air source solutions allows to achieve the highest performance and ensure the highest level of comfort.

These solutions include air to water heat pumps combined with various types of indoor units and brine to water heat pumps that use hydraulic air units as the primary system.

These product ranges are characterized by the use of natural refrigerants such as R290, which has minimal environmental impact and exceptional performance in different climatic conditions, and the integration of exclusive technologies that achieve optimal results.

ecoAIR+

Air to water monobloc heat pumps

R290 R410A EVI

ecoGEO+ & AU

Brine to water heat pump with air as heat source

R290 R410A

ecoAIR+

High efficiency monobloc air to water for new homes or retrofits

ecoAIR+ PRO

R290

ecoAIR+ 1-7 PRO

R290

ecoAIR+ 1-9 PRO

R290

ecoAIR+ 3-12 PRO

R290

ecoAIR+ 3-18 PRO

R290

ecoAIR+ 6-24 PRO

ecoAIR+ EVI

R410A EVI

ecoAIR+ EVI 4-20

New building

Retrofit

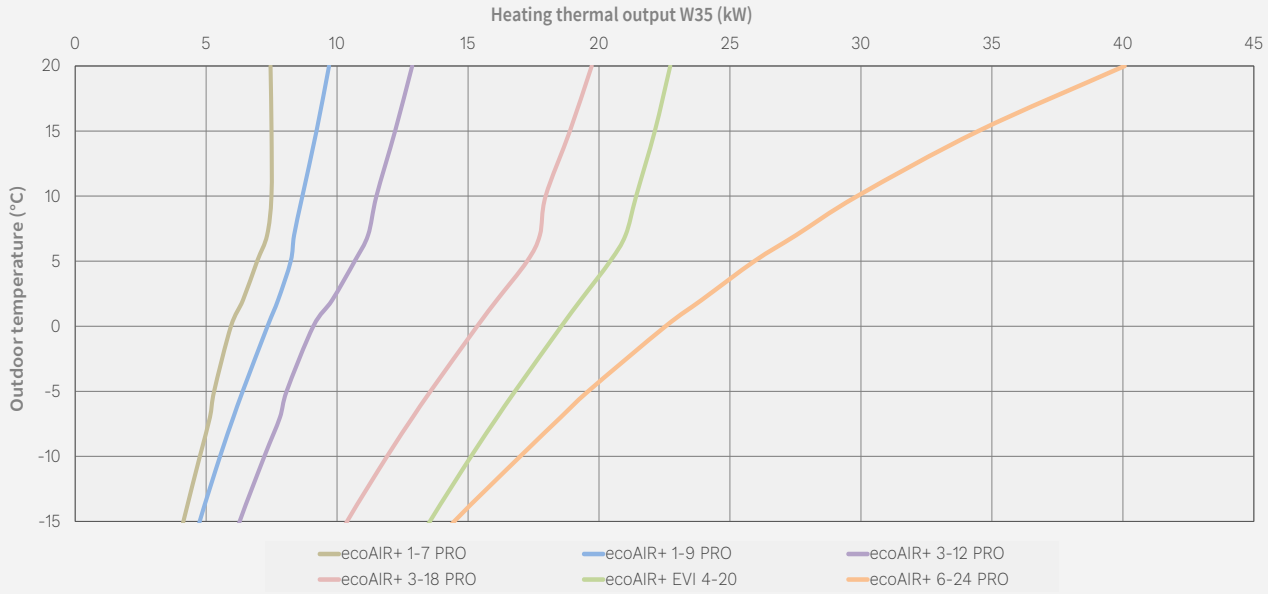
Single house

Multiple dwelling

Single-phase - 230 Vac

Three-phase - 400 Vac

Equipment selection



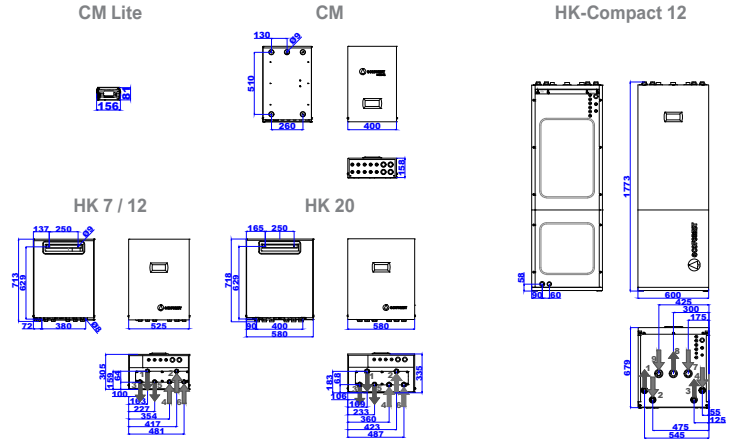
Indoor units ecoAIR+

CM Lite / CM / HK / HK-Compact

SPECIFICATIONS INDOOR UNITS ecoAIR+				CM Lite	CM	HK						HK-COMPACT	
						EH			EH-S			EH	EH-S
						7	12	20	7	12	20		
APPLICATION	Place of installation	-						Indoor					
	DHW	-		▪	▪			▪				▪	
	Heating and Pool heating	-		▪	▪			▪				▪	
	Cooling	-		▪	▪			▪				▪	
PERFORMANCE	Electrical box and control	-		-	▪	▪	▪	▪	▪	▪	▪	▪	▪
	Filling kit and filter	-		-	-	▪	▪	▪	▪	▪	▪	▪	▪
	DHW diverting three-way valve	-		-	-	▪	▪	▪	▪	▪	▪	▪	▪
	Support electrical heater	-		-	-	▪	▪	▪	▪	▪	▪	▪	▪
	Separation heat exchanger	-		-	-	-	-	-	▪	▪	▪	-	▪
	Secondary circuit circulation pump	-		-	-	-	-	-	▪	▪	▪	-	▪
	DHW INOX tank	-		-	-	-	-	-	-	-	-	▪	▪
	Primary circuit expansion vessel	-		-	-	-	-	-	-	-	-	▪	▪
	Secondary circuit expansion vessel	-		-	-	-	-	-	-	-	-	-	▪
OPERATION LIMITS	Production circuit pressure	bar		-	-			0,5 - 3,0				0,5 - 3,0	
	DHW tank capacity	l		-	-	-	-	-	-	-	-	165	
	DHW tank maximum pressure	bar		-	-	-	-	-	-	-	-	8,0	
	DHW tank maximum temperature	ºC		-	-	-	-	-	-	-	-	80	
CONTROL ELECTRICAL DATA	(1) 1/N/PE 230 V / 50-60 Hz	-		-	▪			▪				▪	
	Recommended external protection	-		-	C16A			C16A				C16A	
	Transformer primary circuit fuse	A		-	0,5			0,5				0,5	
	Transformer secondary circuit fuse	A		-	2,5			2,5				2,5	
INTEGRATED SUPPORT ELECTRICAL HEATER ELECTRICAL DATA	(1) Single-phase connection: 1/N/PE 230 V / 50-60 Hz	-		-	-			▪				▪	
	Number of elements	-		-	-	1	3	3	1	3	3	3	3
	Recommended external protection 1/2/3	-		-	-	C16A	C10A/C16A/C20A	C10A/C16A/C20A	C16A	C10A/C16A/C20A	C10A/C16A/C20A	C10A/C16A/C20A	
	Maximum consumption power 1/2/3	kW		-	-	2,0	1,3/2,7/4,0	2,0/4,0/6,0	2,0	1,3/2,7/4,0	2,0/4,0/6,0	1,3/2,7/4,0	
	Maximum consumption current 1/2/3	A		-	-	10,0	6,3/12,6/18,9	8,8/17,6/26,4	10,0	6,3/12,6/18,9	8,8/17,6/26,4	6,3/12,6/18,9	
	(1) Three-phase connection: 3/PE 400 V / 50-60 Hz	A		-	-	-	▪	▪	-	▪	▪	▪	▪
	Recommended external protection	-		-	-	-	C10A	C16A	-	C10A	C16A	C10A	C10A
	Maximum consumption power	kW		-	-	-	4	6	-	4	6	4	4
	Maximum consumption current	A		-	-	-	6,3	8,8	-	6,3	8,8	6,3	6,3
	Correction of cos Ø	-		-	-				0,96 / 1				
DIMENSIONS & WEIGHT	Height x width x depth	mm		156x81x42	600x400x158	713x525x304		718x580x335	713x525x304		718x580x335	1773x600x679	
	Empty weight (without packaging)	kg		0,4	15	37	40	40	43	47	47	130	145

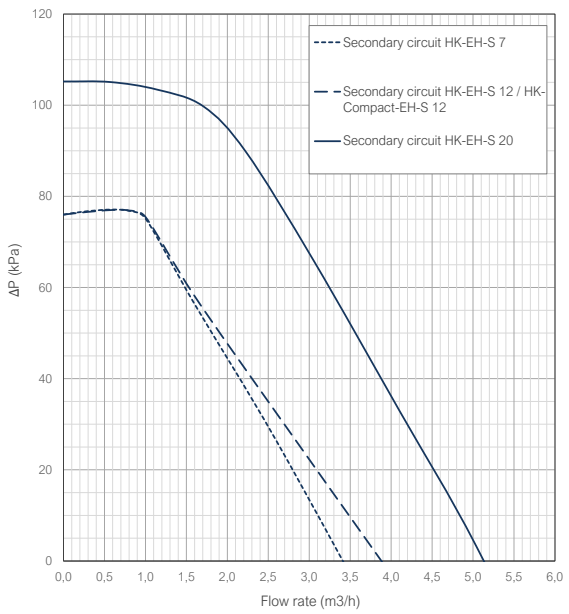
1. The admissible voltage range for proper of the heat pump is ±10%.

Dimensions and hydraulic connections



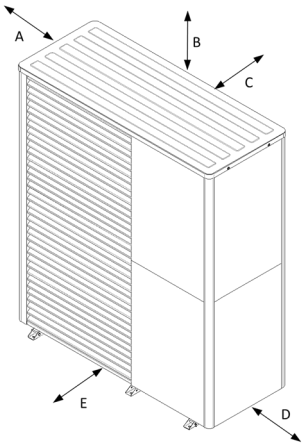
1. Outlet towards outdoor unit
   1" M (HK 7 / HK 12 / HK-Compact 12)
   1 ¼" M (HK 20)
2. Inlet towards outdoor unit
   1" M (HK 7 / HK 12 / HK-Compact 12)
   1 ¼" M (HK 20)
3. Heating/Cooling outlet
   1" M (HK 7 / HK 12 / HK-Compact 12)
   1 ¼" M (HK 20)
4. Heating/Cooling inlet
   1" M (HK 7 / HK 12 / HK-Compact 12)
   1 ¼" M (HK 20)
5. DHW system outlet
   1" M (HK 7 / HK 12 / HK-Compact 12)
   1 ¼" M (HK 20)
6. DHW system inlet
   1" M (HK 7 / HK 12 / HK-Compact 12)
   1 ¼" M (HK 20)
7. CW inlet
   1" H
8. DCW outlet
   1" H
9. DHW recirculation inlet
   ¾" M

Available pressure drop



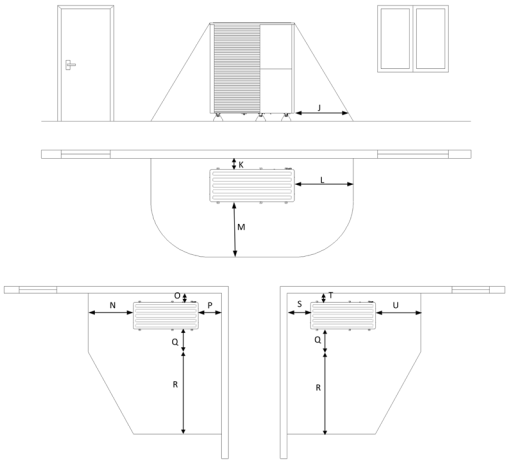
Outdoor units ecoAIR+
Minimum distances

Stand-alone service distances



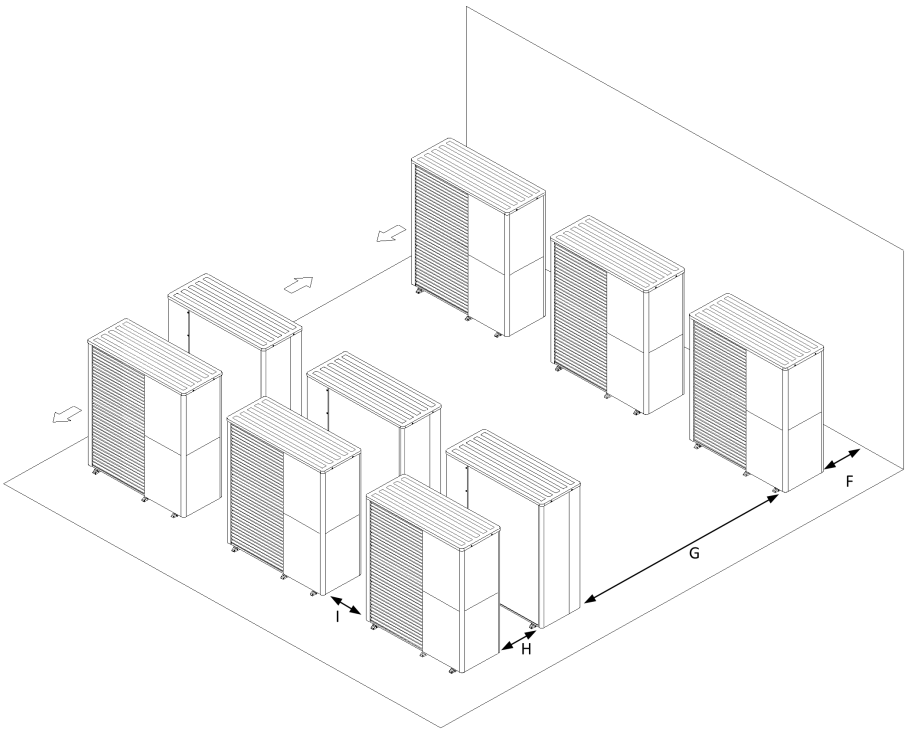
Heat pump model	A	B	C	D	E
ecoAIR+ 1-7 PRO ecoAIR+ 1-9 PRO ecoAIR+ 3-12 PRO	200 mm	500 mm	200 mm	300 mm	1200 mm
ecoAIR+ 3-18 PRO ecoAIR+ EVI 4-20 ecoAIR+ 6-24 PRO	600 mm	800 mm	400 mm	600 mm	1500 mm

ecoAIR+ PRO safety distances



Heat pump model	J	K	L	M	N	O	P	Q	R	S	T	U
ecoAIR+ 1-7 PRO ecoAIR+ 1-9 PRO ecoAIR+ 3-12 PRO	1000 mm	200 mm	1000 mm	1000 mm	1000 mm	200 mm	300 mm	500 mm	1800 mm	200 mm	200 mm	1000 mm
ecoAIR+ 3-18 PRO ecoAIR+ 6-24 PRO	1000 mm	400 mm	1000 mm	1000 mm	1000 mm	600 mm	600 mm	500 mm	1800 mm	600 mm	600 mm	1000 mm

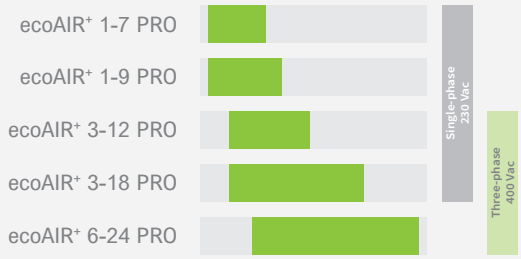
Cascade service distances



Heat pump model	F	G	H	I
ecoAIR+ 1-7 PRO ecoAIR+ 1-9 PRO ecoAIR+ 3-12 PRO	300 mm	2000 mm	600 mm	400 mm
ecoAIR+ 3-18 PRO ecoAIR+ EVI 4-20 ecoAIR+ 6-24 PRO	500 mm	2500 mm	700 mm	800 mm

ecoAIR+ PRO

Models



Monobloc heat pump

Outdoor unit — Indoor unit

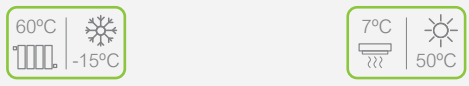
ecoAIR+ PRO | **CM Lite** | **CM** | **HK** | **HK-Compact**

Services

Compatible production systems

Management of shunt groups

Performance



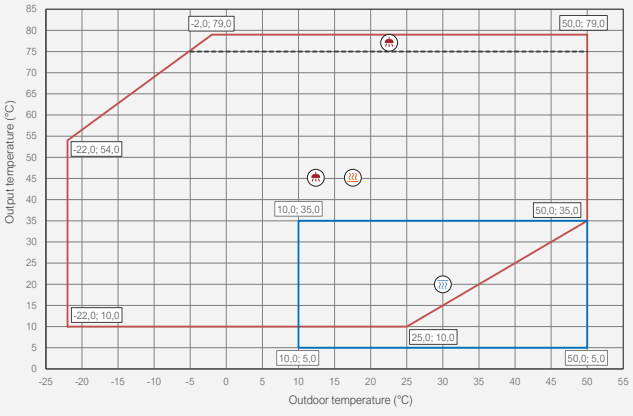
Cascade

Characteristics

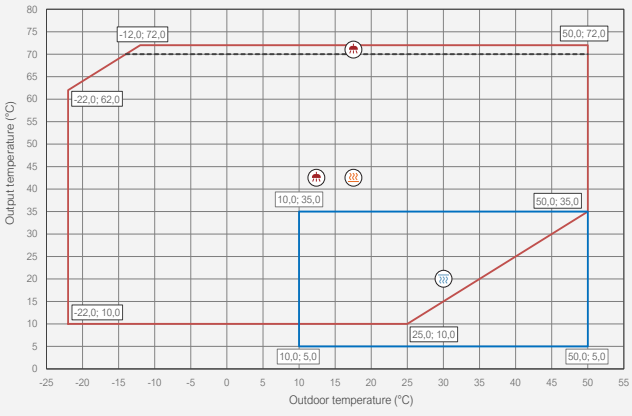
- Modulating thermal output control across a wide range (17%–100%), fan speed control (20%–100%), and modulating flow control in the production circuit (20%–100%).
- Natural refrigerant R290: GWP 3.
- Inverter technology.
- Compact design incorporating the production circulator in the outdoor unit.
- Hydraulic connection between the outdoor and indoor modules.
- High Temperature Recovery (HTR) system for domestic hot water (DHW) production up to 70 °C without auxiliary support, and simultaneous DHW and heating/cooling production in ecoAIR+ 6–24 PRO model.
- Integrated control of one flow temperature, one buffer tank (for heating and cooling), and one DHW tank with the CM Lite indoor unit.
- Integrated control of up to three different flow temperatures, two buffer tanks (heating and cooling), one DHW tank, one swimming pool, and time scheduling of DHW recirculation with CM, HK, and HK-Compact indoor units.
- Integrated cascade control of up to six heat pumps with CM indoor unit.
- Integrated control of simultaneous heating/cooling emission systems, depending on the system layout.
- Integrated control of external auxiliary backup systems—on/off or modulating (electric heaters, boilers, etc.).
- Reversible models with integrated active cooling production.
- Indoor unit selection based on project requirements.
- Models available in single-phase and three-phase versions.
- Integrated photovoltaic hybridisation.
- Integrated energy metering for electrical consumption, thermal output (heating/cooling), and instantaneous and seasonal performance monthly and annual.

Operational chart

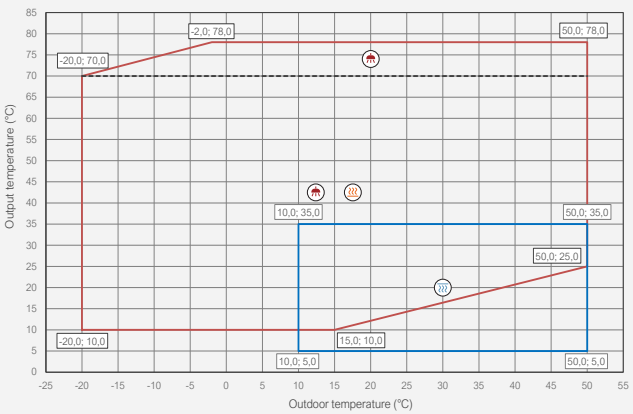
ecoAIR+ 1-7 PRO



ecoAIR+ 1-9 PRO I ecoAIR+ 3-12 PRO I ecoAIR+ 3-18 PRO



ecoAIR+ 6-24 PRO



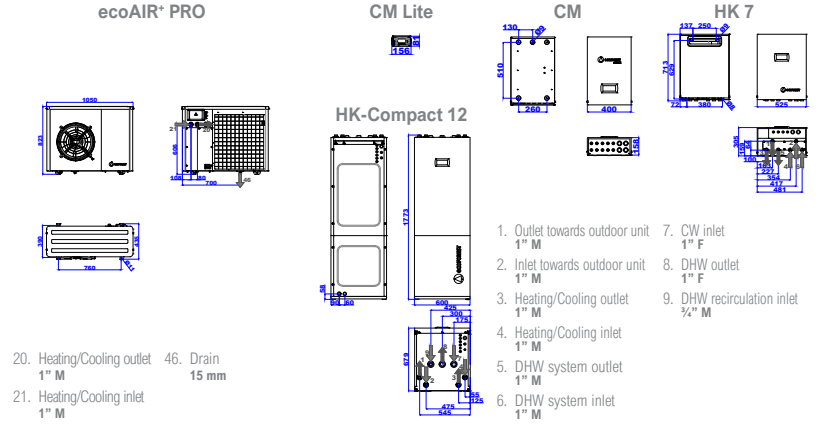
ecoAIR+ 1-7 PRO

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

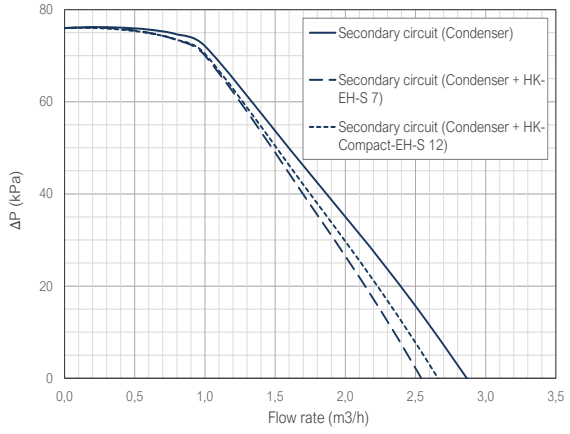
SPECIFICATIONS ecoAIR+ PRO			ecoAIR+ 1-7 PRO
APPLICATION	Place of installation	-	Outdoor
	Collection system	-	Air source
	DHW, Heating and Pool heating	-	▪
	Integrated active cooling	-	▪
PERFORMANCE	Compressor modulation range	%	12,5 - 100
	(2) Heating power output / COP A7W35	kW / -	1,0 - 7,0 / 5,2
	(2) Heating power output / COP A7W55	kW / -	1,0 - 6,5 / 3,3
	(2) Cooling power output / EER A35W7	kW / -	1,0 - 5,6 / 5,5
	(5) Max. DHW outlet temperature without / with support	°C	75 / 80
	(6) Noise power level (LWA)	dB (A)	58
	Energy label / ηs / SCOP W35 average clim. with control	-	A+++ / 179% / 4,45
	Energy label / ηs / SCOP W55 average clim. with control	-	A++ / 139% / 3,45
OPERATION LIMITS	Distribution / Set heating outlet temperature range	°C	10 - 75 / 20 - 75
	Distribution / Set cooling outlet temperature range	°C	5 - 30 / 7 - 30
	Outdoor temperature range	°C	-20 - 50
	Minimum / Maximum refrigerant circuit pressure	bar	0,5 / 31,5
	Production circuit pressure range	bar	0,5 - 3,0
WORKING FLUIDS	R290 refrigerant load (GWP: 3)	kg	0,75
	Compressor oil type / load	kg	PZ46M / 0,3
	Flow rate (Pmax, A7W35) ΔT 5°C / ΔT 7°C	m^3/h	1,3 / 0,9
	Min. water volume for defrosting (35°C, ΔT 5°C)	l	80,0
	Nominal air flow rate	m^3/h	2890
CONTROL ELECTRICAL DATA	(8) 1/N/PE 230 V / 50-60 Hz	-	▪
	(9) Recommended external protection	-	C6A
	Transformer primary circuit fuse	A	0,5
	Transformer secondary circuit fuse	A	2,5
HEAT PUMP ELECTRICAL DATA: SINGLE-PHASE VERSION	(8) 1/N/PE 230 V / 50-60 Hz	-	▪
	(9) Recommended external protection	-	C16A
	(2) Maximum consumption A7W35	kW / A	1,5 / 7,6
	(2) Maximum consumption A7W55	kW / A	2,0 / 9,8
	(2) Maximum consumption	kW / A	-
	(7) Minimum / Maximum starting current	A	1,1 / 1,3
	Correction of cos Ø	-	0,96 / 1
DIMENSIONS & WEIGHT	Height x width x depth	mm	823x1050x435
	Empty weight (without packaging)	kg	115

1. Air-to-water by means of a brine-to water heat pump combined with a hydraulic outdoor air unit.
2. In compliance with EN 14511, including circulation pumps, fan and compressor driver consumptions.
3. Production flow rate according to EN 14511.
4. Considering a heat slope from 20 to 50 °C in absence of consumption.
5. Considering support provided by an emergency electrical heater or HTR. Max. DHW temp. with HTR can be limited by the compressor discharge temp.
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 information.
10. Certification in process.

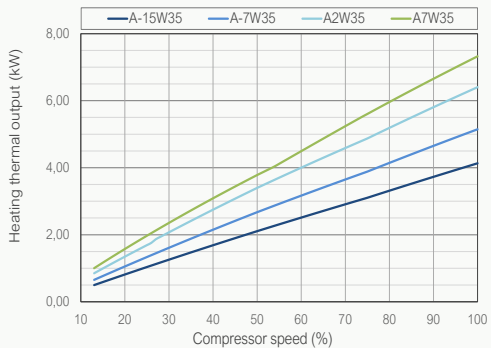
Dimensions and hydraulic connections

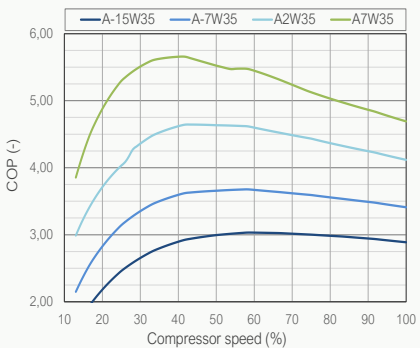


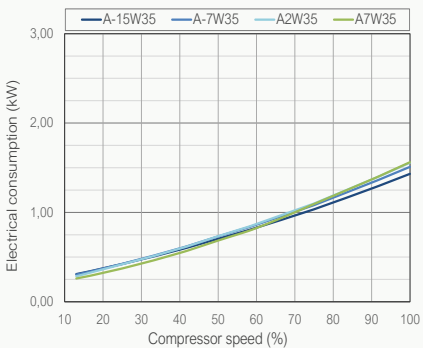
Available pressure drop



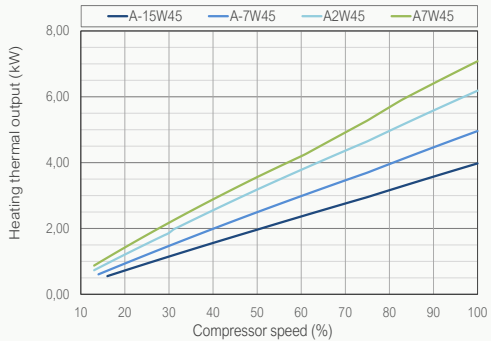
Heating **W35**

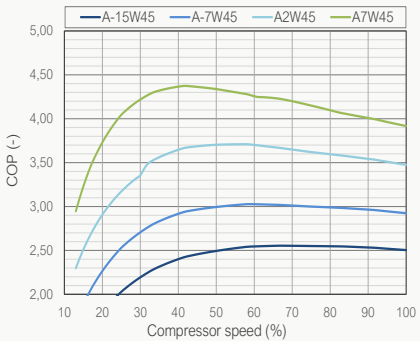


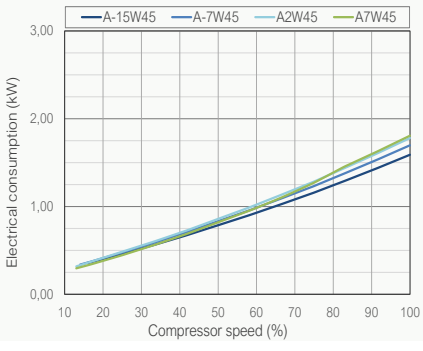




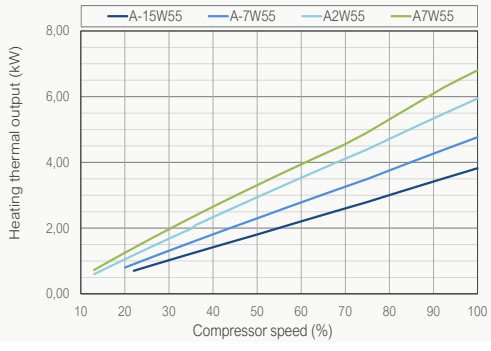
Heating **W45**

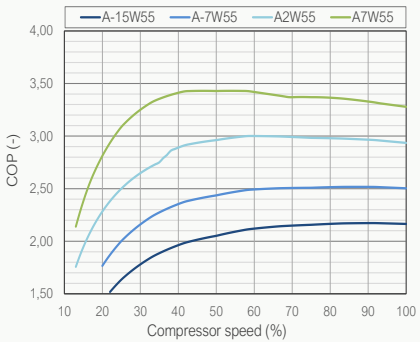


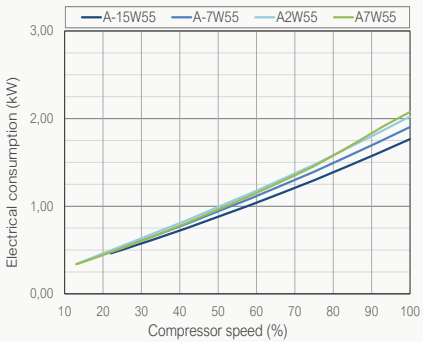




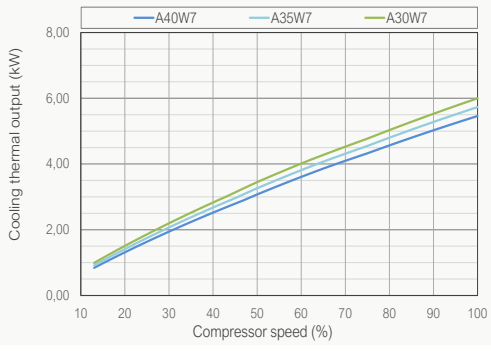
Heating **W55**

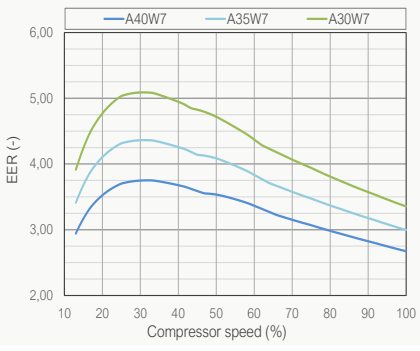


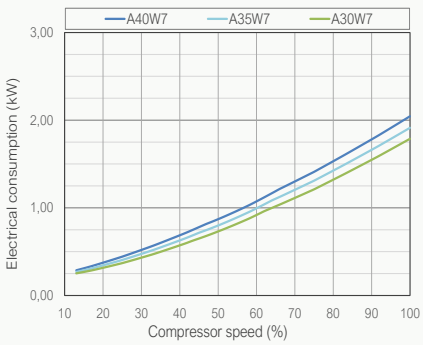




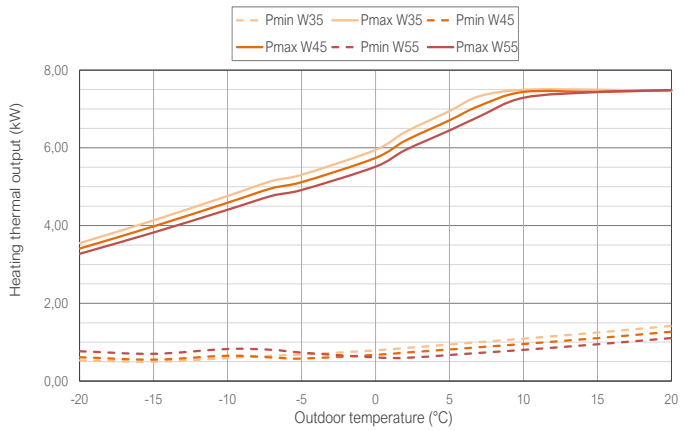
Cooling **W7**

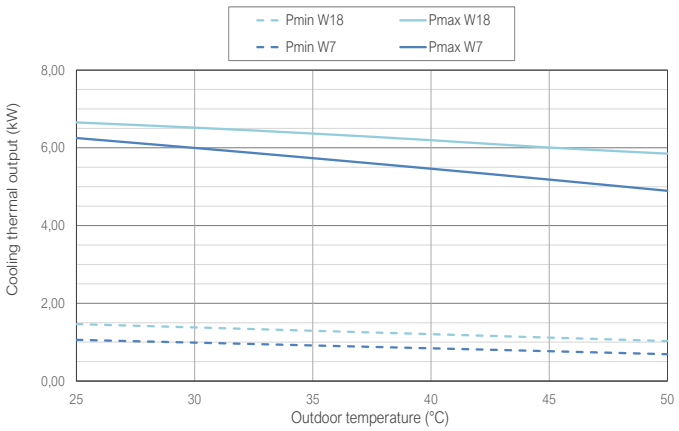






Thermal power - Outdoor temperature





ecoAIR+ 1-9 PRO

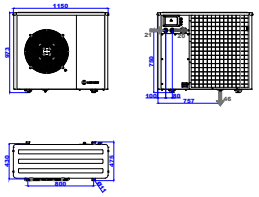
Air to water heat pumps with Inverter technology and natural R290 refrigerant

SPECIFICATIONS ecoAIR+ PRO			ecoAIR+ 1-9 PRO
APPLICATION	Place of installation	-	Outdoor
	Collection system	-	Air source
	DHW, Heating and Pool heating	-	▪
	Integrated active cooling	-	▪
PERFORMANCE	Compressor modulation range	%	17 - 100
	(2) Heating power output / COP A7W35	kW / -	1,7 - 8,7 / 5,0
	(2) Heating power output / COP A7W55	kW / -	2,1 - 8,0 / 3,2
	(2) Cooling power output / EER A35W7	kW / -	1,1 - 7,1 / 4,0
	(5) Max. DHW outlet temperature without / with support	°C	70 / 80
	(6) Noise power level (LWA)	dB (A)	60
	Energy label / ηs / SCOP W35 average clim. with control	-	A+++ / 183% / 4,56
	Energy label / ηs / SCOP W55 average clim. with control	-	A++ / 146% / 3,63
OPERATION LIMITS	Distribution / Set heating outlet temperature range	°C	10 - 70 / 20 - 70
	Distribution / Set cooling outlet temperature range	°C	5 - 30 / 7 - 30
	Outdoor temperature range	°C	-20 - 50
	Minimum / Maximum refrigerant circuit pressure	bar	0,5 / 27,5
	Production circuit pressure range	bar	0,5 - 3,0
WORKING FLUIDS	R290 refrigerant load (GWP: 3)	kg	0,85
	Compressor oil type / load	kg	HXL4467 / 0,74
	Flow rate (Pmax, A7W35) ΔT 5°C / ΔT 7°C	m^3/h	1,4 / 1,0
	Min. water volume for defrosting (35°C, ΔT 5°C)	l	100,0
	Nominal air flow rate	m^3/h	3510
CONTROL ELECTRICAL DATA	(8) 1/N/PE 230 V / 50-60 Hz	-	▪
	(9) Recommended external protection	-	C6A
	Transformer primary circuit fuse	A	0,5
	Transformer secondary circuit fuse	A	2,5
HEAT PUMP E LECTRICAL DATA: SINGLE-PHASE VERSION	(8) 1/N/PE 230 V / 50-60 Hz	-	▪
	(9) Recommended external protection	-	C16A
	(2) Maximum consumption A7W35	kW / A	1,9 / 9,5
	(2) Maximum consumption A7W55	kW / A	2,6 / 13,0
	(2) Maximum consumption	kW / A	-
	(7) Minimum / Maximum starting current	A	3,3 / 4,4
	Correction of cos Ø	-	0,97 / 1
DIMENSIONS & WEIGHT	Height x width x depth	mm	973x1150x475
	Empty weight (without packaging)	kg	134

1. Air-to-water by means of a brine-to water heat pump combined with a hydraulic outdoor air unit.
2. In compliance with EN 14511, including circulation pumps, fan and compressor driver consumptions.
3. Production flow rate according to EN 14511.
4. Considering a heat slope from 20 to 50 °C in absence of consumption.
5. Considering support provided by an emergency electrical heater or HTR. Max. DHW temp. with HTR can be limited by the compressor discharge temp.
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 information.
10. Certification in process.

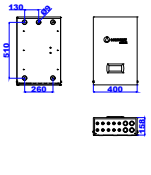
Dimensions and hydraulic connections

ecoAIR+ PRO

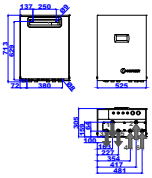


CM Lite

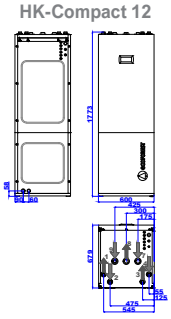
CM



HK 12



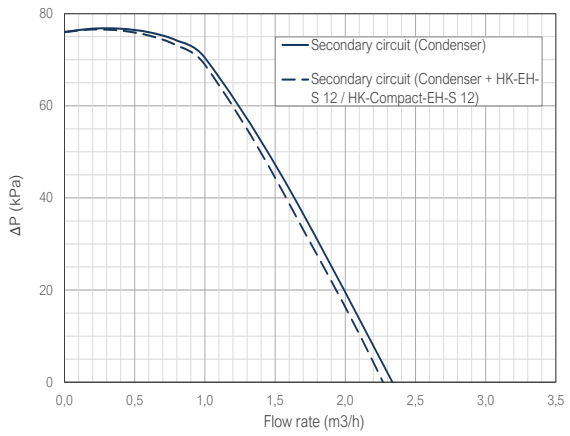
HK-Compact 12



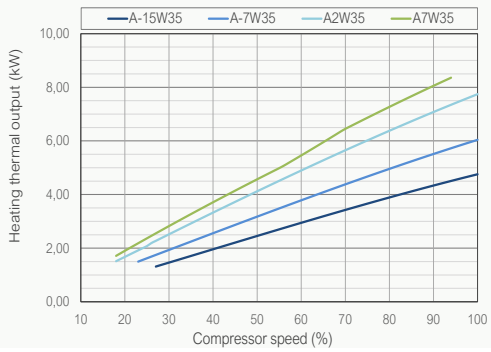
20. Heating/Cooling outlet 1" M
21. Heating/Cooling inlet 1" M
46. Drain 15 mm

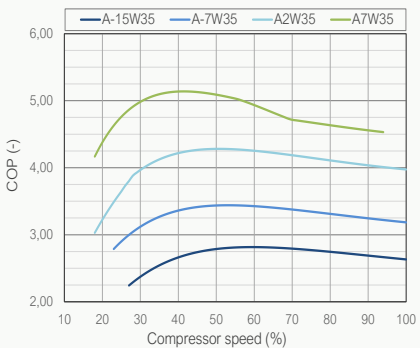
1. Outlet towards outdoor unit 1" M
2. Inlet towards outdoor unit 1" M
3. Heating/Cooling outlet 1" M
4. Heating/Cooling inlet 1" M
5. DHW system outlet 1" M
6. DHW system inlet 1" M
7. CW inlet 1" F
8. DHW outlet 1" F
9. DHW recirculation inlet ¾" M

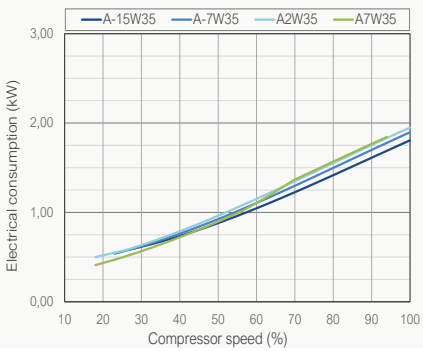
Available pressure drop



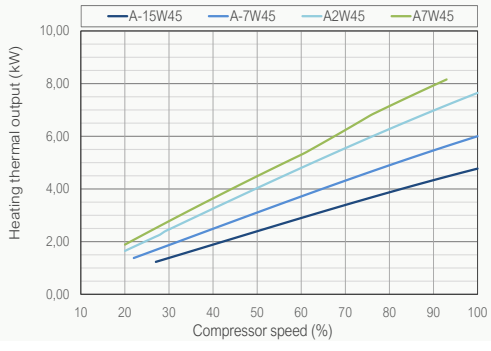
Heating **W35**

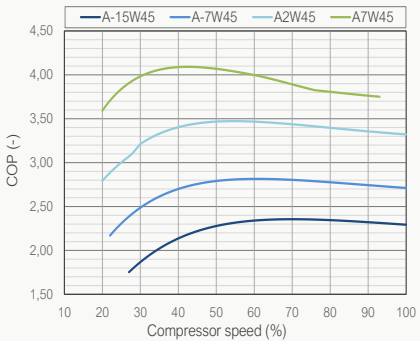


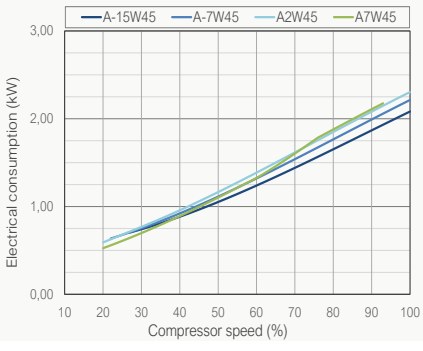




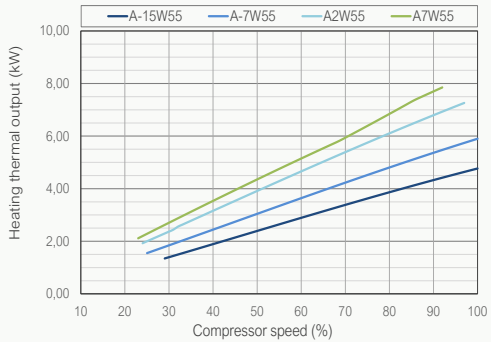
Heating **W45**

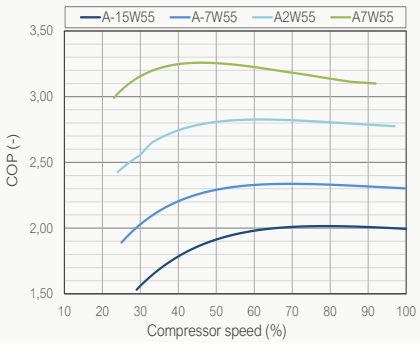


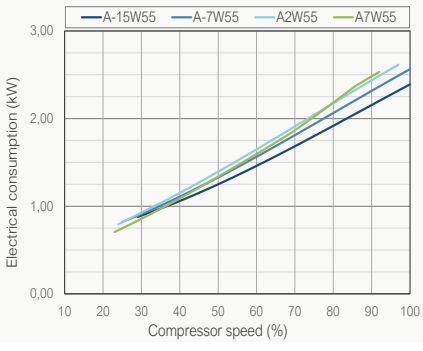




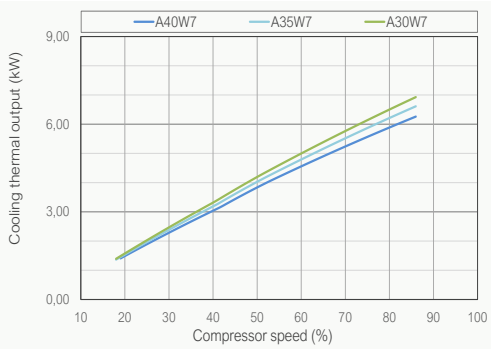
Heating **W55**

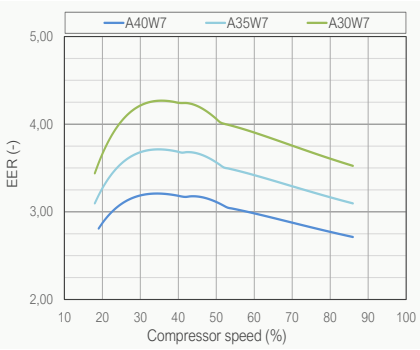


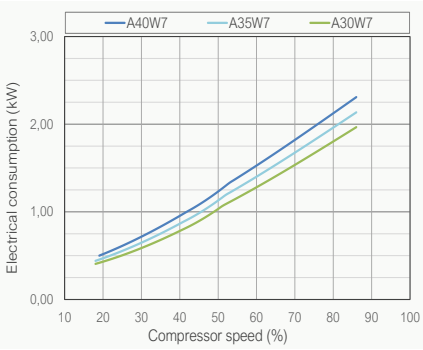




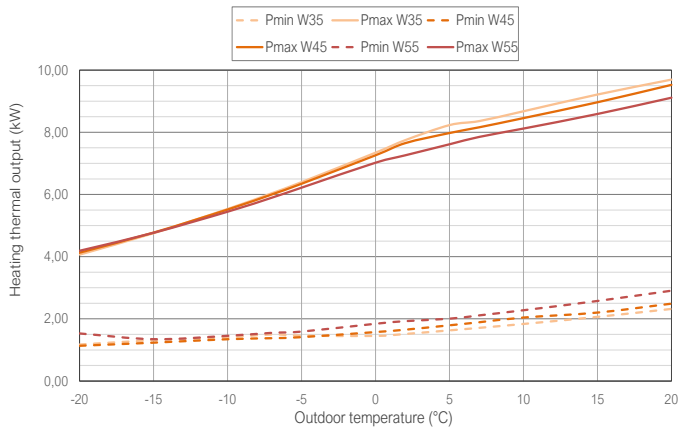
Cooling **W7**

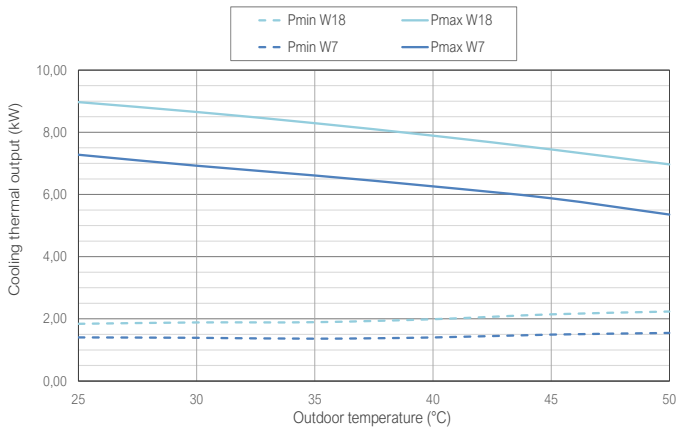






Thermal power - Outdoor temperature





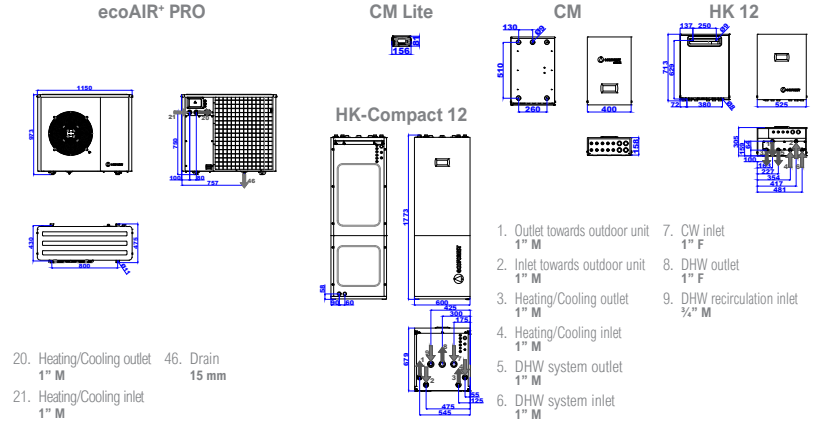
ecoAIR+ 3-12 PRO

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

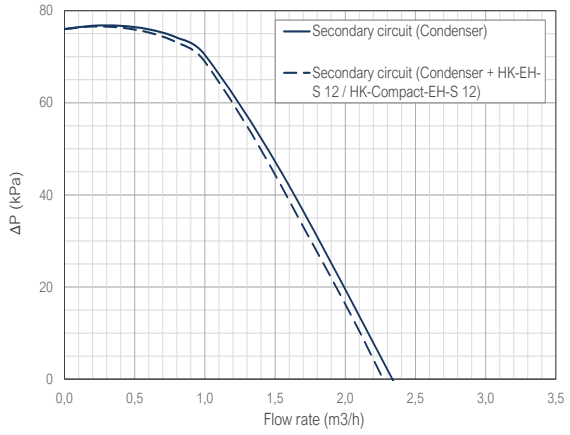
SPECIFICATIONS ecoAIR+ PRO			ecoAIR+ 3-12 PRO
APPLICATION	Place of installation	-	Outdoor
	Collection system	-	Air source
	DHW, Heating and Pool heating	-	▪
	Integrated active cooling	-	▪
PERFORMANCE	Compressor modulation range	%	17 - 100
	(2) Heating power output / COP A7W35	kW / -	3,0 - 11,0 / 4,8
	(2) Heating power output / COP A7W55	kW / -	3,0 - 10,0 / 3,0
	(2) Cooling power output / EER A35W7	kW / -	1,8 - 8,6 / 3,1
	(5) Max. DHW outlet temperature without / with support	°C	70 / 80
	(6) Noise power level (LWA)	dB (A)	57
	Energy label / ηs / SCOP W35 average clim. with control	-	A++ / 158% / 3,93
	Energy label / ηs / SCOP W55 average clim. with control	-	A++ / 129% / 3,21
OPERATION LIMITS	Distribution / Set heating outlet temperature range	°C	10 - 70 / 20 - 70
	Distribution / Set cooling outlet temperature range	°C	5 - 30 / 7 - 30
	Outdoor temperature range	°C	-20 - 50
	Minimum / Maximum refrigerant circuit pressure	bar	0,5 / 25,5
	Production circuit pressure range	bar	0,5 - 3,0
WORKING FLUIDS	R290 refrigerant load (GWP: 3)	kg	0,85
	Compressor oil type / load	kg	HXL4467 / 0,74
	Flow rate (Pmax, A7W35) ΔT 5°C / ΔT 7°C	m^3/h	1,9 / 1,4
	Min. water volume for defrosting (35°C, ΔT 5°C)	l	150,0
	Nominal air flow rate	m^3/h	3510
CONTROL ELECTRICAL DATA	(8) 1/N/PE 230 V / 50-60 Hz	-	▪
	(9) Recommended external protection	-	C6A
	Transformer primary circuit fuse	A	0,5
	Transformer secondary circuit fuse	A	2,5
HEAT PUMP ELECTRICAL DATA: SINGLE-PHASE VERSION	(8) 1/N/PE 230 V / 50-60 Hz	-	▪
	(9) Recommended external protection	-	C25A
	(2) Maximum consumption A7W35	kW / A	2,8 / 13,8
	(2) Maximum consumption A7W55	kW / A	3,5 / 17,7
	(2) Maximum consumption	kW / A	-
	(7) Minimum / Maximum starting current	A	4,5 / 5,4
	Correction of cos Ø	-	0,93 / 1
HEAT PUMP ELECTRICAL DATA: THREE-PHASE VERSION	(8) 3/PE 400 V / 50-60 Hz	-	▪
	(9) Recommended external protection	-	C16A
	(2) Maximum consumption A7W35	kW / A	2,8 / 4,6
	(2) Maximum consumption A7W55	kW / A	3,5 / 5,9
	(2) Maximum consumption	kW / A	-
	(7) Minimum / Maximum starting current	A	1,5 / 1,8
	Correction of cos Ø	-	0,93 / 1
DIMENSIONS & WEIGHT	Height x width x depth	mm	973x1150x475
	Empty weight (without packaging)	kg	134

1. Air-to-water by means of a brine-to water heat pump combined with a hydraulic outdoor air unit.
2. In compliance with EN 14511, including circulation pumps, fan and compressor driver consumptions.
3. Production flow rate according to EN 14511.
4. Considering a heat slope from 20 to 50 °C in absence of consumption.
5. Considering support provided by an emergency electrical heater or HTR. Max. DHW temp. with HTR can be limited by the compressor discharge temp.
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 information.
10. Certification in process.

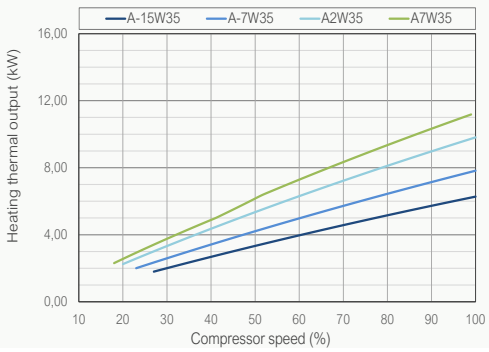
Dimensions and hydraulic connections

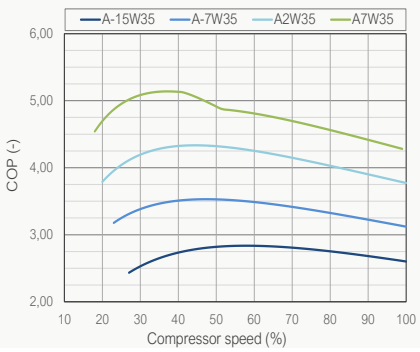


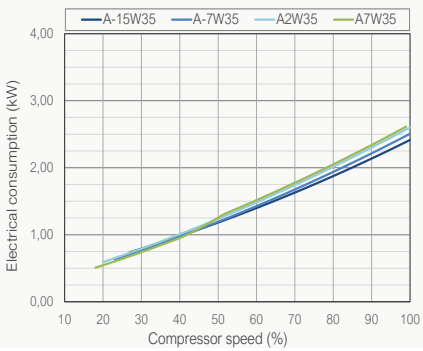
Available pressure drop



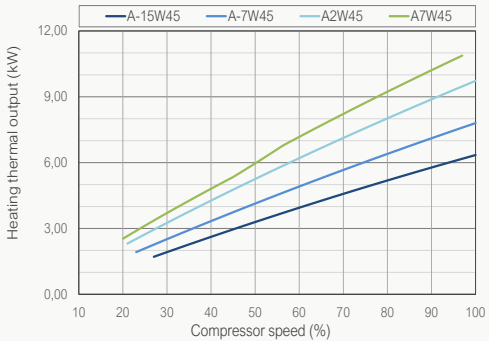
Heating W35

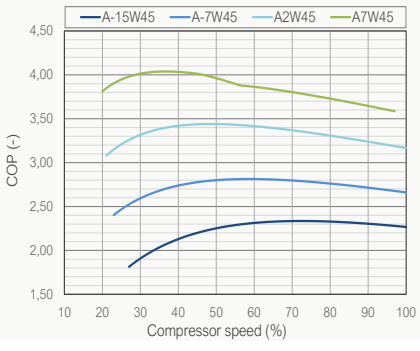


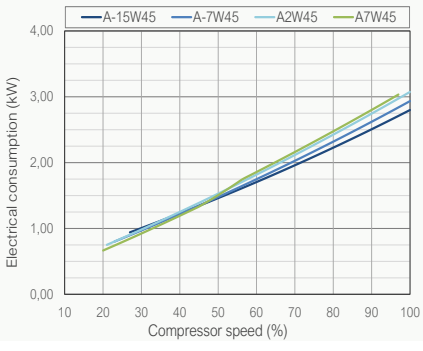




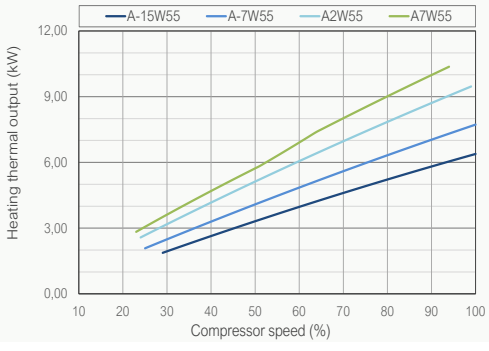
Heating W45

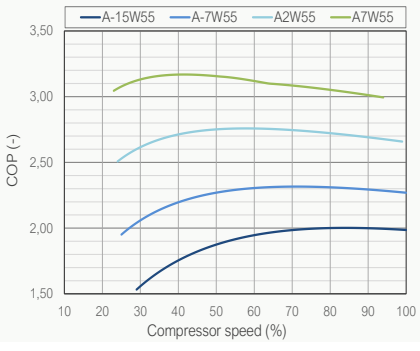


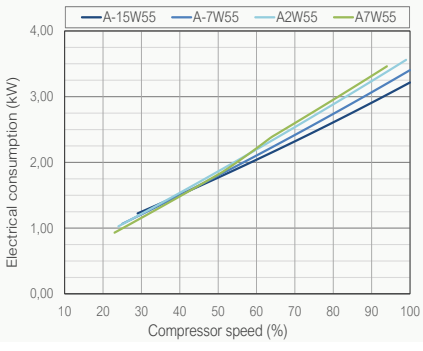




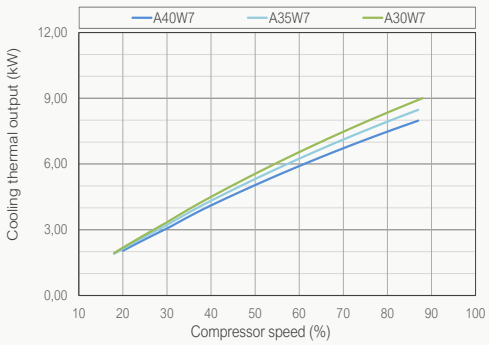
Heating W55

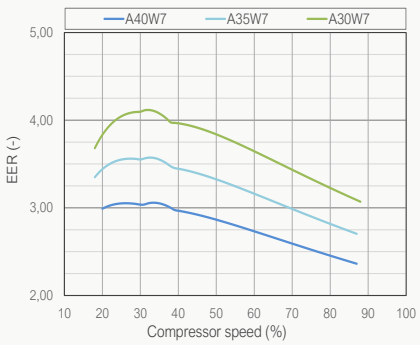


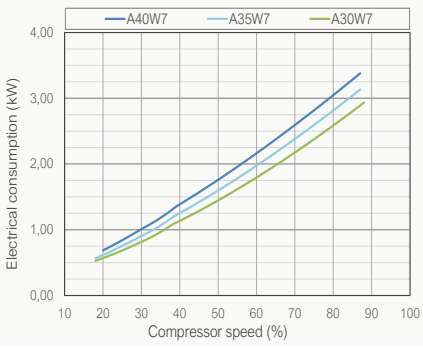




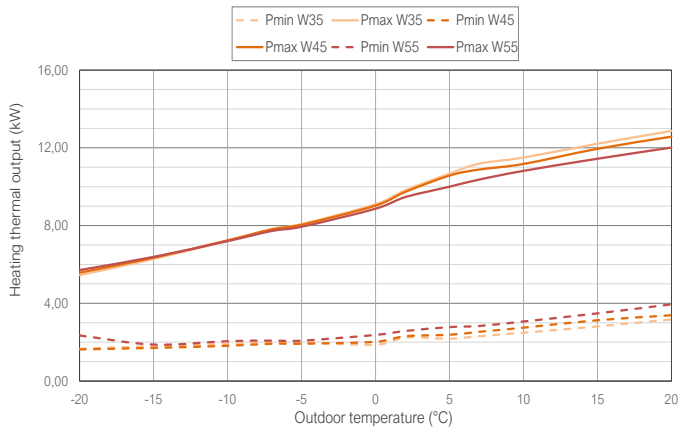
Cooling W7

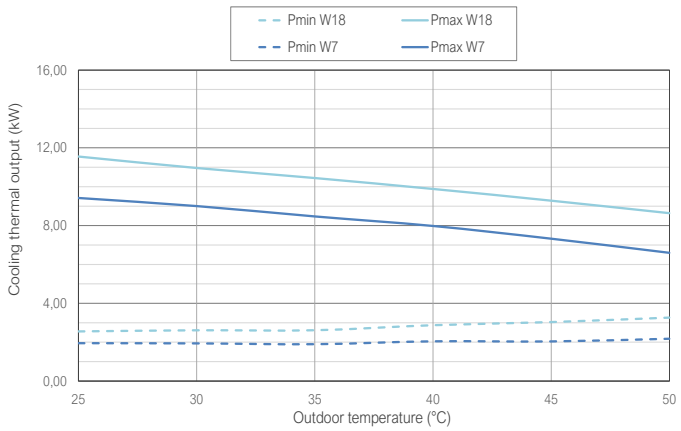






Thermal power - Outdoor temperature





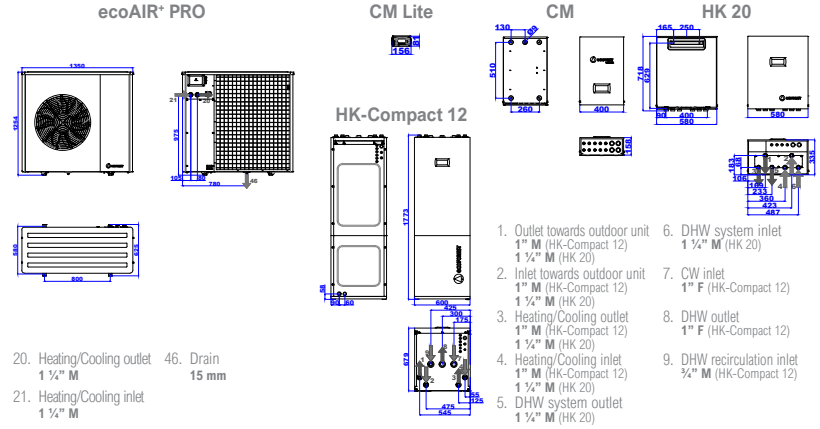
ecoAIR+ 3-18 PRO

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

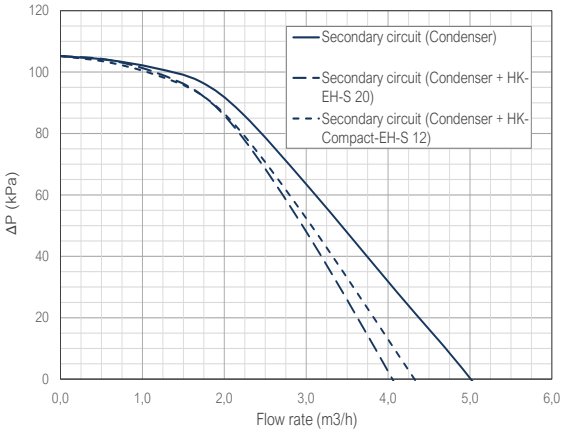
SPECIFICATIONS ecoAIR+ PRO			ecoAIR+ 3-18 PRO
APPLICATION	Place of installation	-	Outdoor
	Collection system	-	Air source
	DHW, Heating and Pool heating	-	▪
	Integrated active cooling	-	▪
PERFORMANCE	Compressor modulation range	%	17 - 100
	(2) Heating power output / COP A7W35	kW / -	3,5 - 18,0 / 5,1
	(2) Heating power output / COP A7W55	kW / -	4,7 - 15,9 / 3,4
	(2) Cooling power output / EER A35W7	kW / -	2,9 - 13,6 / 4,0
	(5) Max. DHW outlet temperature without / with support	°C	70 / 80
	(6) Noise power level (LWA)	dB (A)	57
	Energy label / ηs / SCOP W35 average clim. with control	-	A+++ / 179% / 4,46
	Energy label / ηs / SCOP W55 average clim. with control	-	A++ / 142% / 3,53
OPERATION LIMITS	Distribution / Set heating outlet temperature range	°C	10 - 70 / 20 - 70
	Distribution / Set cooling outlet temperature range	°C	5 - 30 / 7 - 30
	Outdoor temperature range	°C	-20 - 50
	Minimum / Maximum refrigerant circuit pressure	bar	0,5 / 25,5
	Production circuit pressure range	bar	0,5 - 3,0
WORKING FLUIDS	R290 refrigerant load (GWP: 3)	kg	1,37
	Compressor oil type / load	kg	HXL4467 / 1,18
	Flow rate (Pmax, A7W35) ΔT 5°C / ΔT 7°C	m^3/h	3,1 / 2,2
	Min. water volume for defrosting (35°C, ΔT 5°C)	l	200,0
	Nominal air flow rate	m^3/h	6771
CONTROL ELECTRICAL DATA	(8) 1/N/PE 230 V / 50-60 Hz	-	▪
	(9) Recommended external protection	-	C6A
	Transformer primary circuit fuse	A	0,5
	Transformer secondary circuit fuse	A	2,5
HEAT PUMP ELECTRICAL DATA: SINGLE-PHASE VERSION	(8) 1/N/PE 230 V / 50-60 Hz	-	▪
	(9) Recommended external protection	-	C32A
	(2) Maximum consumption A7W35	kW / A	4,2 / 18,3
	(2) Maximum consumption A7W55	kW / A	5,3 / 23,2
	(2) Maximum consumption	kW / A	-
	(7) Minimum / Maximum starting current	A	8,8 / 8,8
	Correction of cos Ø	-	0,94 / 1
HEAT PUMP ELECTRICAL DATA: THREE-PHASE VERSION	(8) 3/PE 400 V / 50-60 Hz	-	▪
	(9) Recommended external protection	-	C16A
	(2) Maximum consumption A7W35	kW / A	4,2 / 6,7
	(2) Maximum consumption A7W55	kW / A	5,4 / 8,7
	(2) Maximum consumption	kW / A	-
	(7) Minimum / Maximum starting current	A	2,7 / 3,5
	Correction of cos Ø	-	0,94 / 1
DIMENSIONS & WEIGHT	Height x width x depth	mm	1254x1350x625
	Empty weight (without packaging)	kg	175

1. Air-to-water by means of a brine-to water heat pump combined with a hydraulic outdoor air unit.
2. In compliance with EN 14511, including circulation pumps, fan and compressor driver consumptions.
3. Production flow rate according to EN 14511.
4. Considering a heat slope from 20 to 50 °C in absence of consumption.
5. Considering support provided by an emergency electrical heater or HTR. Max. DHW temp. with HTR can be limited by the compressor discharge temp.
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 information.
10. Certification in process.

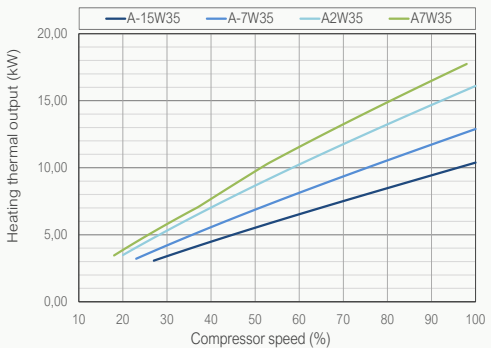
Dimensions and hydraulic connections

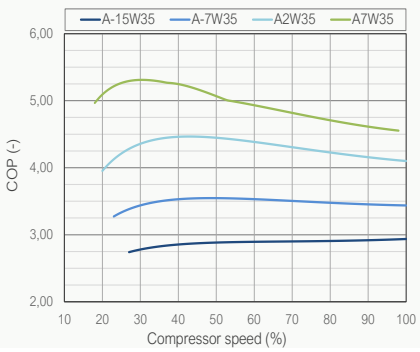


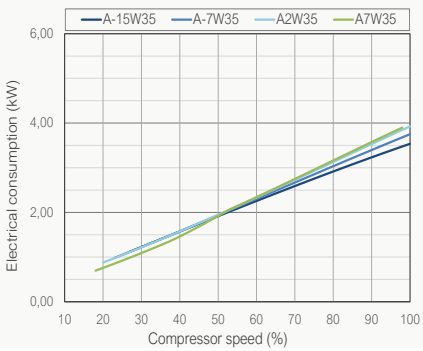
Available pressure drop



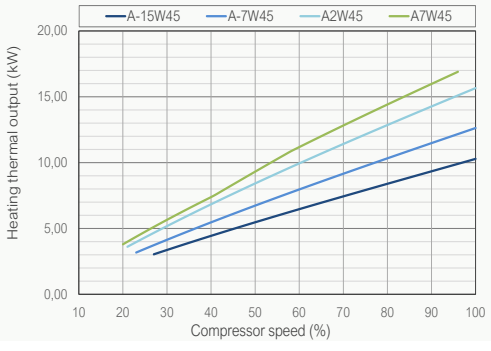
Heating W35

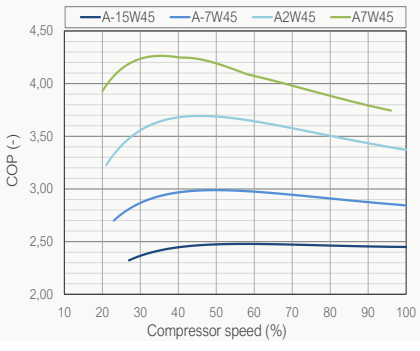


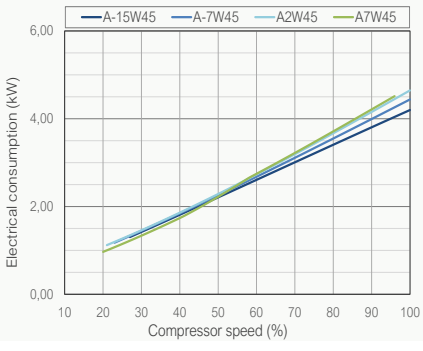




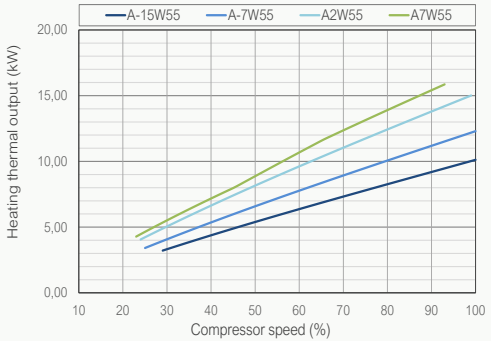
Heating W45

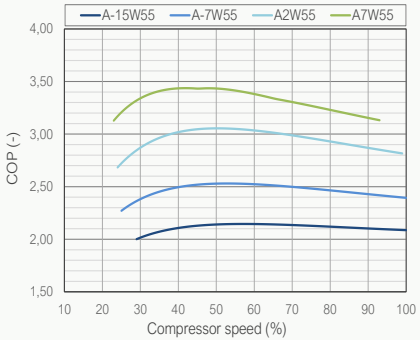


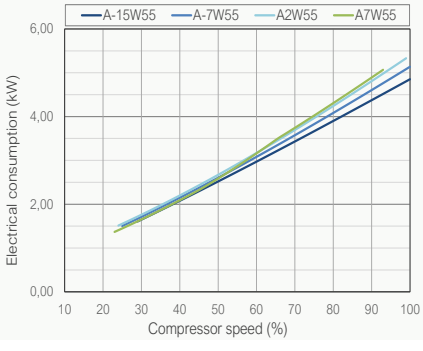




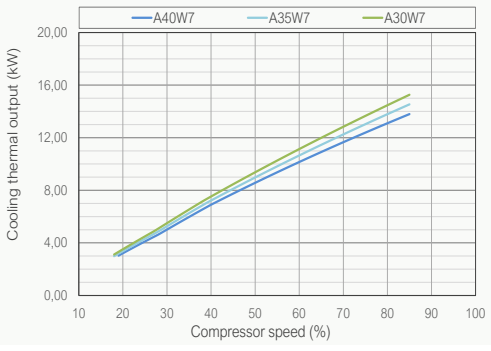
Heating W55

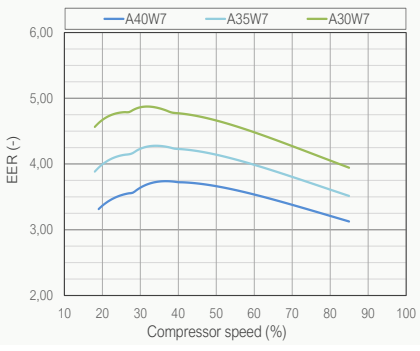


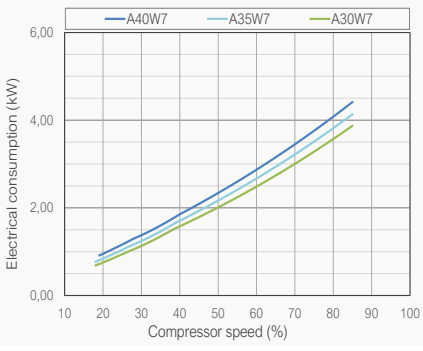




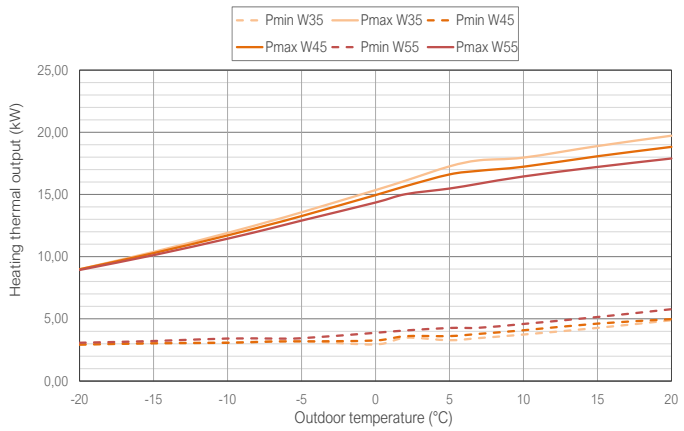
Cooling W7

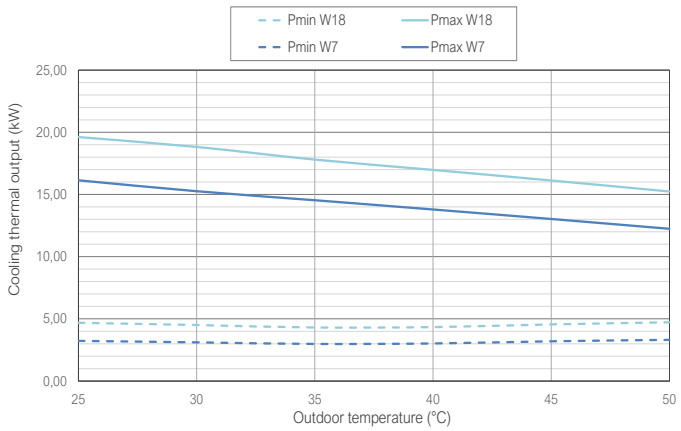






Thermal power - Outdoor temperature





ecoAIR+ 6-24 PRO

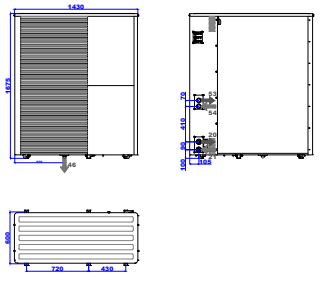
Air to water heat pumps with Inverter technology and natural R290 refrigerant

SPECIFICATIONS ecoAIR+ PRO			ecoAIR+ 6-24 PRO
APPLICATION	Place of installation	-	Outdoor
	Collection system	-	Air source
	DHW, Heating and Pool heating	-	▪
	Integrated active cooling	-	▪
PERFORMANCE	Compressor modulation range	%	22 - 100
	(2) Heating power output / COP A7W35	kW / -	4,8 - 27,5 / 5,1
	(2) Heating power output / COP A7W55	kW / -	6,5 - 25,9 / 3,2
	(2) Cooling power output / EER A35W7	kW / -	4,7 - 20,5 / 3,6
	(5) Max. DHW outlet temperature without / with support	°C	78 / 80
	(6) Noise power level (LWA)	dB (A)	63
	Energy label / ηs / SCOP W35 average clim. with control	-	A+++ / 183% / 4,55
	Energy label / ηs / SCOP W55 average clim. with control	-	A++ / 134% / 3,33
OPERATION LIMITS	Distribution / Set heating outlet temperature range	°C	10 - 70 / 20 - 70
	Distribution / Set cooling outlet temperature range	°C	5 - 30 / 7 - 30
	Outdoor temperature range	°C	-20 - 50
	Minimum / Maximum refrigerant circuit pressure	bar	0,5 / 25,5
	Production circuit pressure range	bar	0,5 - 6,0
WORKING FLUIDS	R290 refrigerant load (GWP: 3)	kg	1,75
	Compressor oil type / load	kg	RFL68 EP / 1,18
	Flow rate (Pmax, A7W35) ΔT 5°C / ΔT 7°C	m^3/h	4,7 / 3,4
	Min. water volume for defrosting (35°C, ΔT 5°C)	l	250,0
	Nominal air flow rate	m^3/h	10150
CONTROL ELECTRICAL DATA	(8) 1/N/PE 230 V / 50-60 Hz	-	▪
	(9) Recommended external protection	-	C6A
	Transformer primary circuit fuse	A	0,5
	Transformer secondary circuit fuse	A	2,5
HEAT PUMP ELECTRICAL DATA: THREE-PHASE VERSION	(8) 3/PE 400 V / 50-60 Hz	-	▪
	(9) Recommended external protection	-	C32A
	(2) Maximum consumption A7W35	kW / A	6,8 / 9,9
	(2) Maximum consumption A7W55	kW / A	9,1 / 13,2
	(2) Maximum consumption	kW / A	17,0 / 25,0
	(7) Minimum / Maximum starting current	A	3,0 / 12,0
	Correction of cos Ø	-	0,80 / 1
DIMENSIONS & WEIGHT	Height x width x depth	mm	1675x1430x640
	Empty weight (without packaging)	kg	266

1. Air-to-water by means of a brine-to water heat pump combined with a hydraulic outdoor air unit.
2. In compliance with EN 14511, including circulation pumps, fan and compressor driver consumptions.
3. Production flow rate according to EN 14511.
4. Considering a heat slope from 20 to 50 °C in absence of consumption.
5. Considering support provided by an emergency electrical heater or HTR. Max. DHW temp. with HTR can be limited by the compressor discharge temp.
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 information.
10. Certification in process.

Dimensions and hydraulic connections

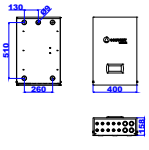
ecoAIR+ PRO



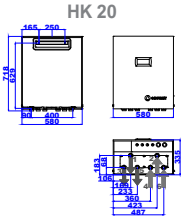
20. Heating/Cooling outlet 1 ½" M
21. Heating/Cooling inlet 1 ½" M
46. Drain ¾" M
53. HTR outlet 1" M
54. HTR inlet 1" M

CM Lite

CM

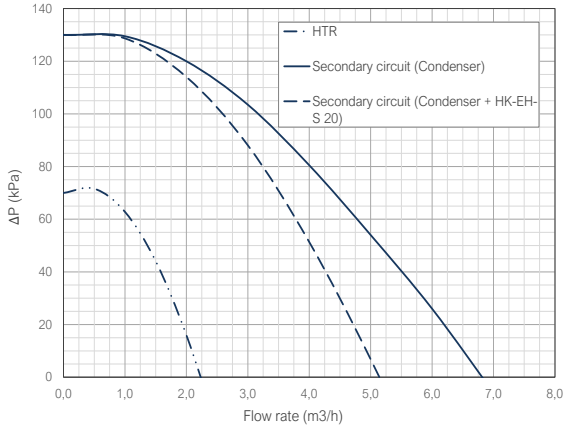


HK 20

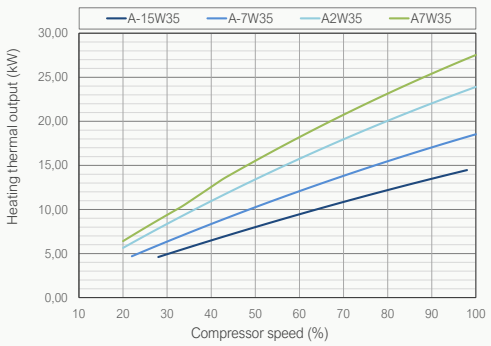


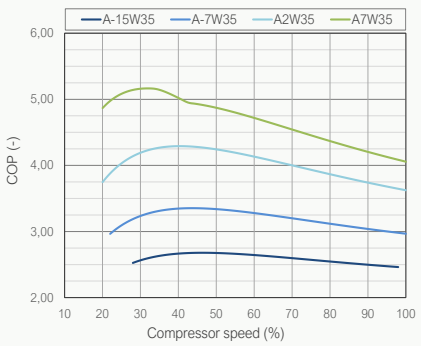
1. Outlet towards outdoor unit 1 ¼" M
2. Inlet towards outdoor unit 1 ¼" M
3. Heating/Cooling outlet 1 ¼" M
4. Heating/Cooling inlet 1 ¼" M
5. DHW system outlet 1 ¼" M
6. DHW system inlet 1 ¼" M

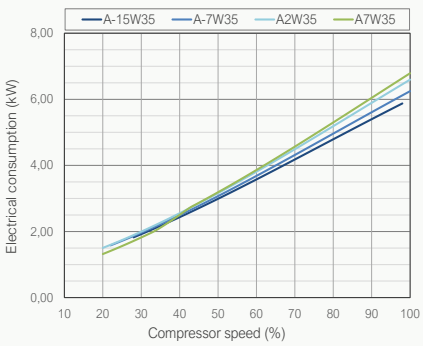
Available pressure drop



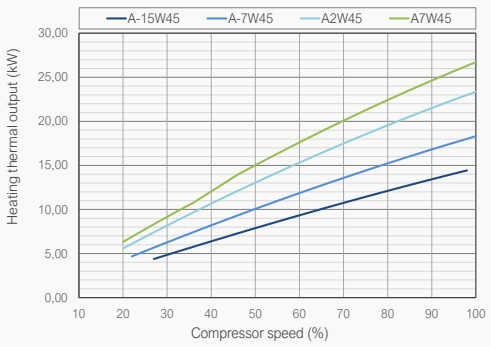
Heating W35

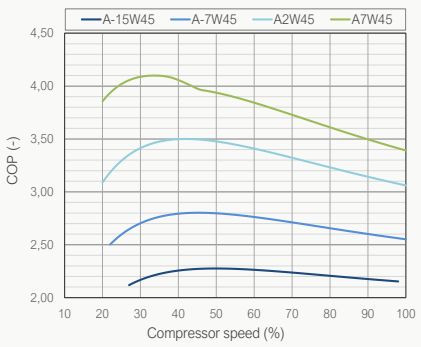


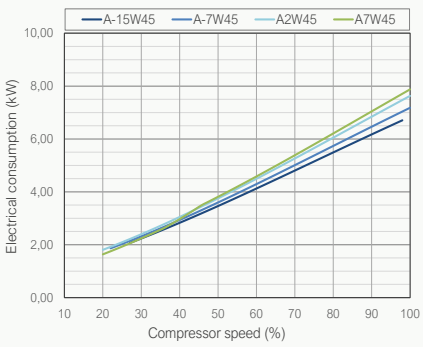




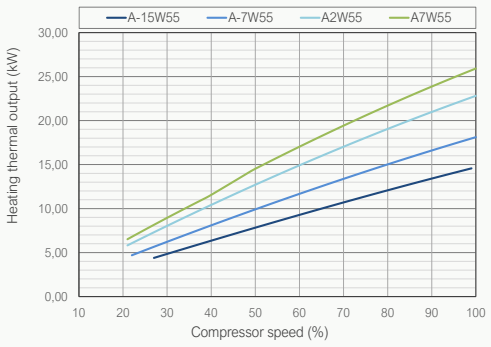
Heating W45

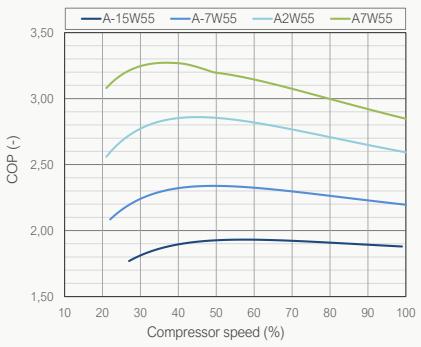


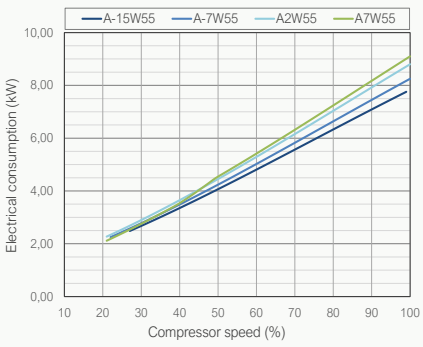




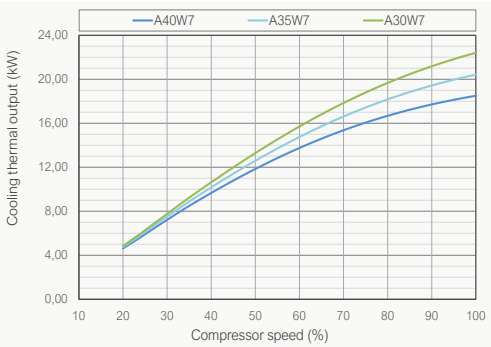
Heating W55

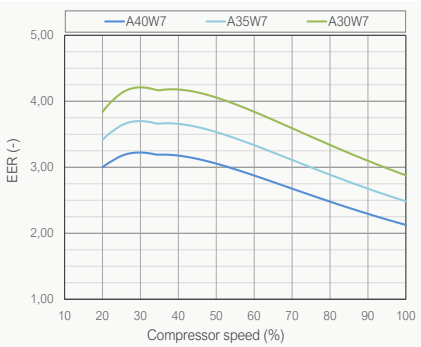


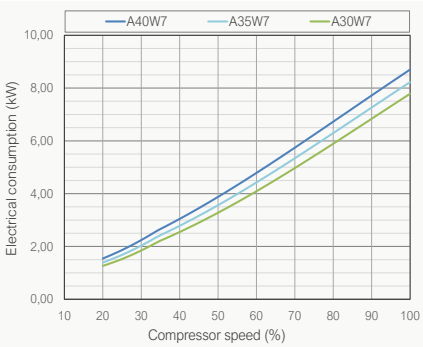




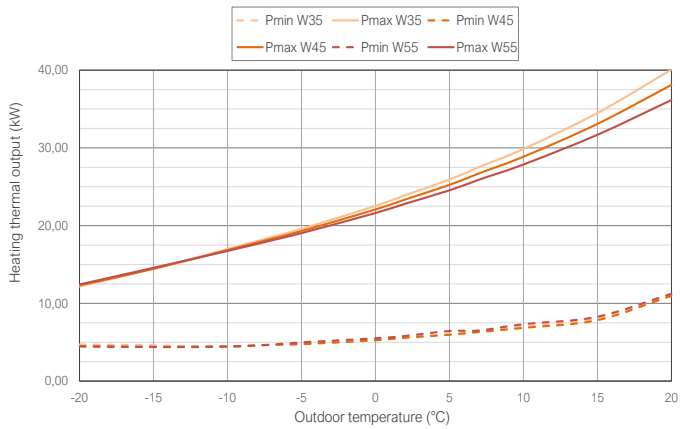
Cooling W7

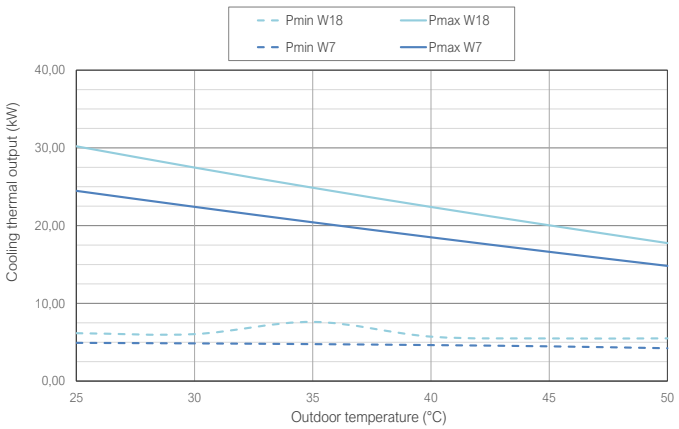






Thermal power - Outdoor temperature





ecoAIR+ EVI

Models

ecoAIR+ EVI 4-20 — 1-Phase 230 Vac — T-Phase 400 Vac

Monobloc heat pump

Outdoor unit: **ecoAIR+ EVI**

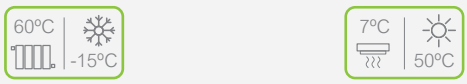
Indoor unit: **CM Lite** | **CM** | **HK** | **HK-Compact**

Services

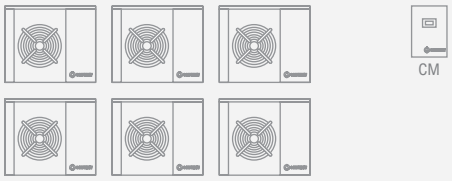
Compatible production systems

Management of shunt groups

Performance



Cascade

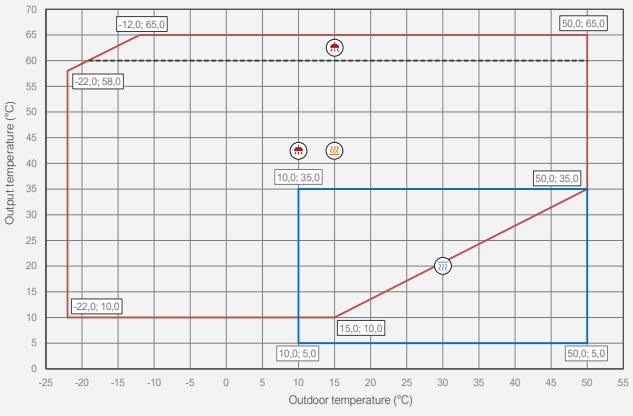


Characteristics

- Modulating thermal output control across a wide range (17%–100%), fan speed control (20%–100%), and modulating flow control in the production circuit (20%–100%).
- R410A refrigerant with EVI technology via flash tank system.
- Inverter technology.
- Compact design incorporating the production circulator in the outdoor unit
- Hydraulic connection between the outdoor and indoor modules.
- Integrated control of one flow temperature, one buffer tank (for heating and cooling), and one domestic hot water (DHW) tank with the CM Lite indoor unit.
- Integrated control of up to three different flow temperatures, two buffer tanks (heating and cooling), one DHW tank, one swimming pool, and time scheduling of DHW recirculation with CM, HK, and HK-Compact indoor units.
- Integrated cascade control of up to six heat pumps with the CM indoor unit.
- Integrated control of simultaneous heating/cooling emission systems, depending on system layout.
- Integrated control of external auxiliary backup systems on/off or modulating (electric heaters, boilers, etc.).
- Reversible models with integrated active cooling production.
- Indoor unit selection based on project requirements.
- Models available in both single-phase and three-phase versions.
- Integrated photovoltaic hybridisation.
- Integrated energy metering for electrical consumption, thermal output (heating/cooling), and instantaneous and seasonal performance monthly and annual.

Operational chart

ecoAIR+ EVI 4-20



ecoAIR+ EVI 4-20

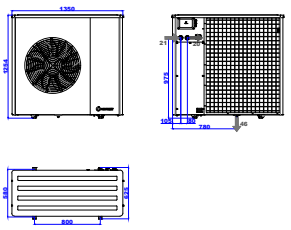
Air to water monobloc R410A heat pumps with Inverter and EVI technology

SPECIFICATIONS ecoAIR+ EVI			ecoAIR+ EVI 4-20
APPLICATION	Place of installation	-	Outdoor
	Collection system	-	Air source
	DHW, Heating and Pool heating	-	▪
	Integrated active cooling	-	▪
PERFORMANCE	Compressor modulation range	%	17 - 100
	(2) Heating power output / COP A7W35	kW / -	4,0 - 20,5 / 5,0
	(2) Heating power output / COP A7W55	kW / -	8,8 - 20,8 / 3,3
	(2) Cooling power output / EER A35W7	kW / -	4,0 - 14,8 / 3,3
	(5) Max. DHW outlet temperature without / with support	°C	63 / 80
	(6) Noise power level (LWA)	dB (A)	63
	Energy label / ηs / SCOP W35 average clim. with control	-	A+++ / 183% / 4,54
	Energy label / ηs / SCOP W55 average clim. with control	-	A++ / 155% / 3,84
OPERATION LIMITS	Distribution / Set heating outlet temperature range	°C	10 - 63 / 20 - 60
	Distribution / Set cooling outlet temperature range	°C	5 - 30 / 7 - 30
	Outdoor temperature range	°C	-20 - 50
	Minimum / Maximum refrigerant circuit pressure	bar	2,0 / 45,0
	Production circuit pressure range	bar	0,5 - 3,0
WORKING FLUIDS	R410A refrigerant load (GWP: 2088)	kg	3,50
	Compressor oil type / load	kg	POE / 1,18
	Flow rate (Pmax, A7W35) ΔT 5°C / ΔT 7°C	m^3/h	3,6 / 2,6
	Min. water volume for defrosting (35°C, ΔT 5°C)	l	200,0
	Nominal air flow rate	m^3/h	6771
CONTROL ELECTRICAL DATA	(8) 1/N/PE 230 V / 50-60 Hz	-	▪
	(9) Recommended external protection	-	C6A
	Transformer primary circuit fuse	A	0,5
	Transformer secondary circuit fuse	A	2,5
HEAT PUMP ELECTRICAL DATA: SINGLE-PHASE VERSION	(8) 1/N/PE 230 V / 50-60 Hz	-	▪
	(9) Recommended external protection	-	C40A
	(2) Maximum consumption A7W35	kW / A	5,3 / 23,0
	(2) Maximum consumption A7W55	kW / A	7,8 / 34,1
	(2) Maximum consumption	kW / A	-
	(7) Minimum / Maximum starting current	A	10,8 / 10,8
	Correction of cos Ø	-	0,87 / 1
HEAT PUMP ELECTRICAL DATA: THREE-PHASE VERSION	(8) 3/PE 400 V / 50-60 Hz	-	▪
	(9) Recommended external protection	-	C16A
	(2) Maximum consumption A7W35	kW / A	5,3 / 7,7
	(2) Maximum consumption A7W55	kW / A	7,8 / 11,4
	(2) Maximum consumption	kW / A	-
	(7) Minimum / Maximum starting current	A	3,6 / 3,6
	Correction of cos Ø	-	0,94 / 1
DIMENSIONS & WEIGHT	Height x width x depth	mm	1254x1350x625
	Empty weight (without packaging)	kg	177

1. Air-to-water by means of a brine-to water heat pump combined with a hydraulic outdoor air unit.
2. In compliance with EN 14511, including circulation pumps, fan and compressor driver consumptions.
3. Production flow rate according to EN 14511.
4. Considering a heat slope from 20 to 50 °C in absence of consumption.
5. Considering support provided by an emergency electrical heater or HTR. Max. DHW temp. with HTR can be limited by the compressor discharge temp.
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 information.
10. Certification in process.

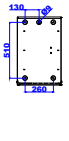
Dimensions and hydraulic connections

ecoAIR+ EVI

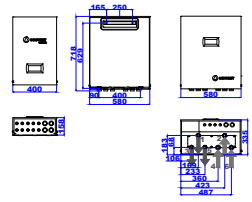


CM Lite

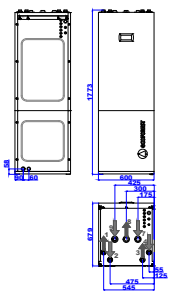
CM



HK 20



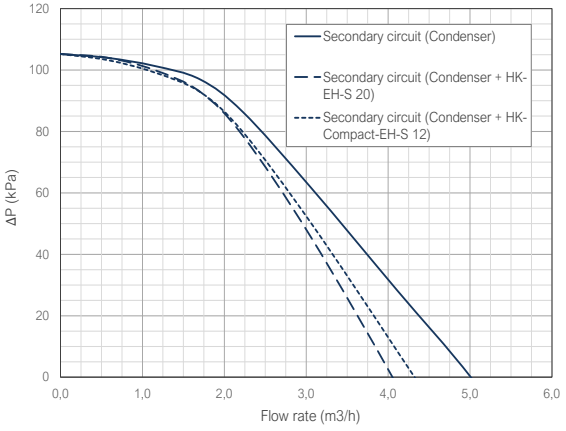
HK-Compact 12



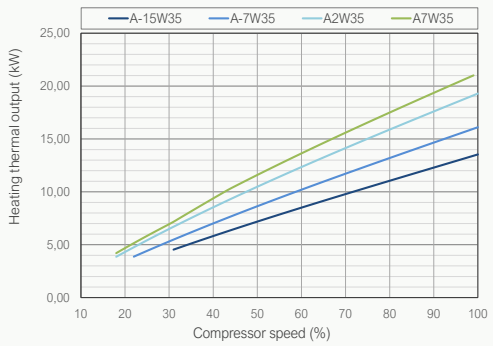
20. Heating/Cooling outlet **1 ¼" M**
21. Heating/Cooling inlet **1 ¼" M**
46. Drain **15 mm**

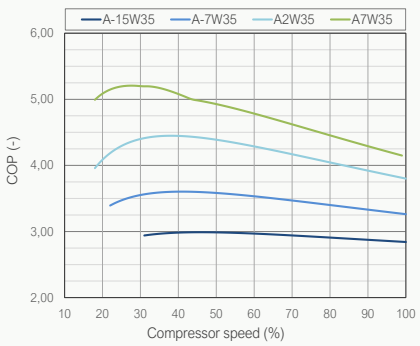
1. Outlet towards outdoor unit **1" M** (HK-Compact 12) **1 ¼" M** (HK 20)
2. Inlet towards outdoor unit **1" M** (HK-Compact 12) **1 ¼" M** (HK 20)
3. Heating/Cooling outlet **1" M** (HK-Compact 12) **1 ¼" M** (HK 20)
4. Heating/Cooling inlet **1" M** (HK-Compact 12) **1 ¼" M** (HK 20)
5. DHW system outlet **1 ¼" M** (HK 20)
6. DHW system inlet **1 ¼" M** (HK 20)
7. CW inlet **1" F** (HK-Compact 12)
8. DHW outlet **1" F** (HK-Compact 12)
9. DHW recirculation inlet **¾" M** (HK-Compact 12)

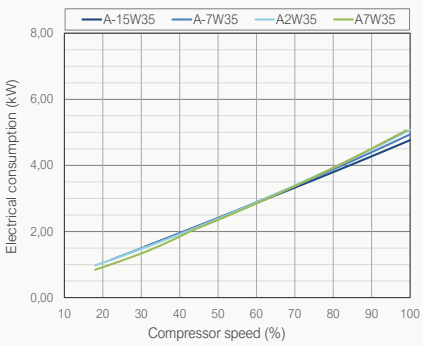
Available pressure drop



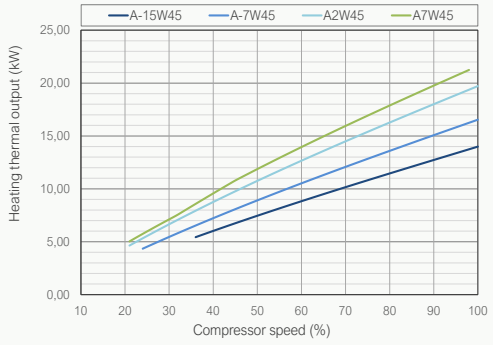
Heating W35

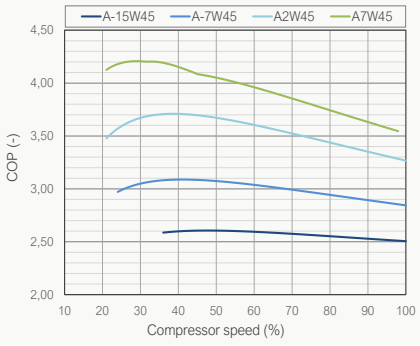


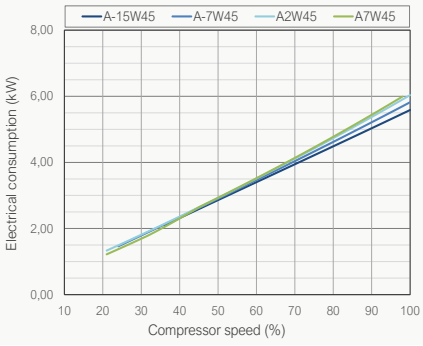




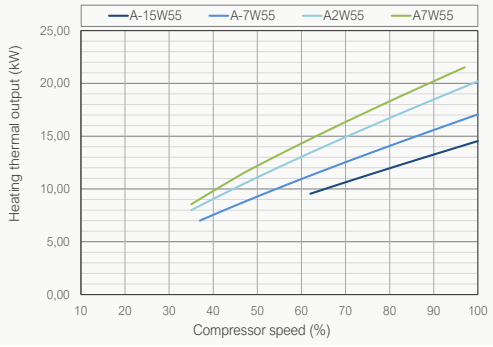
Heating W45

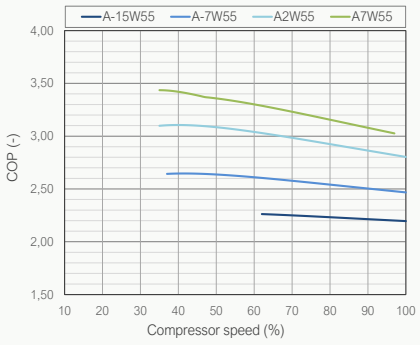


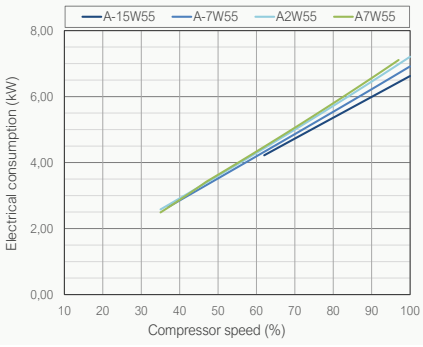




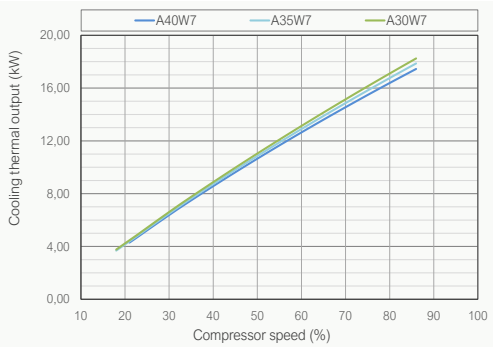
Heating W55

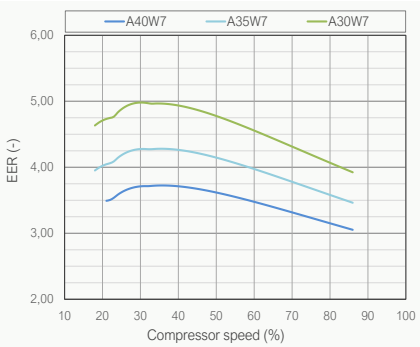


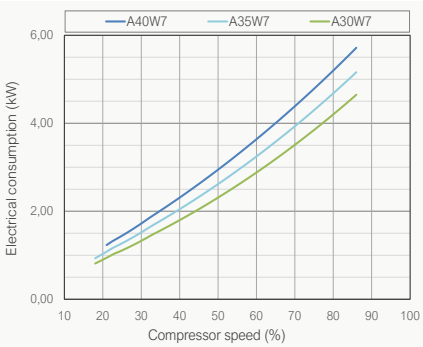




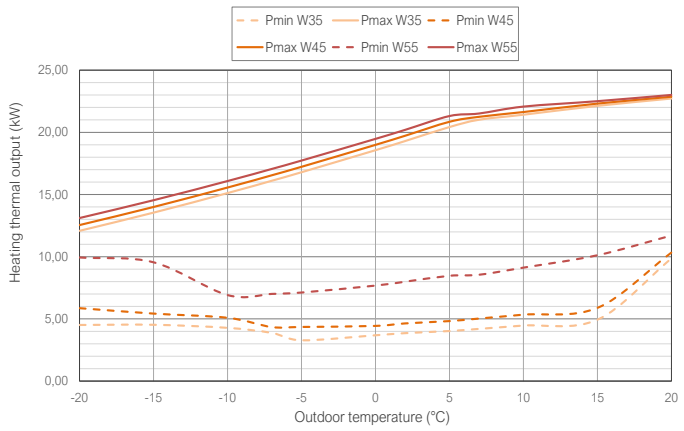
Cooling W7

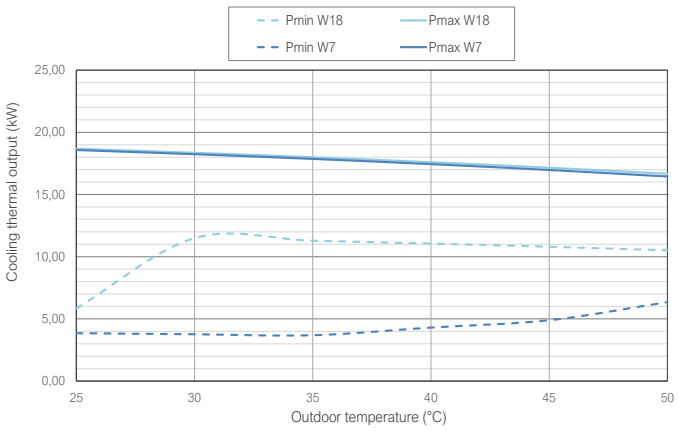






Thermal power - Outdoor temperature





ecoGEO+ & AU

Air source system by using brine-water heat pumps with dry coolers

ecoGEO+ B/C PRO & AU

R290

ecoGEO+ B/C 1-6 PRO & AU6

R290

ecoGEO+ B/C 2-10 PRO & AU12

R290

ecoGEO+ B/C 4-16 PRO & AU22

ecoGEO+ B/C & AU

R410A

ecoGEO+ B/C 1-9 & AU12

R410A

ecoGEO+ B/C 3-12 & AU12

R410A

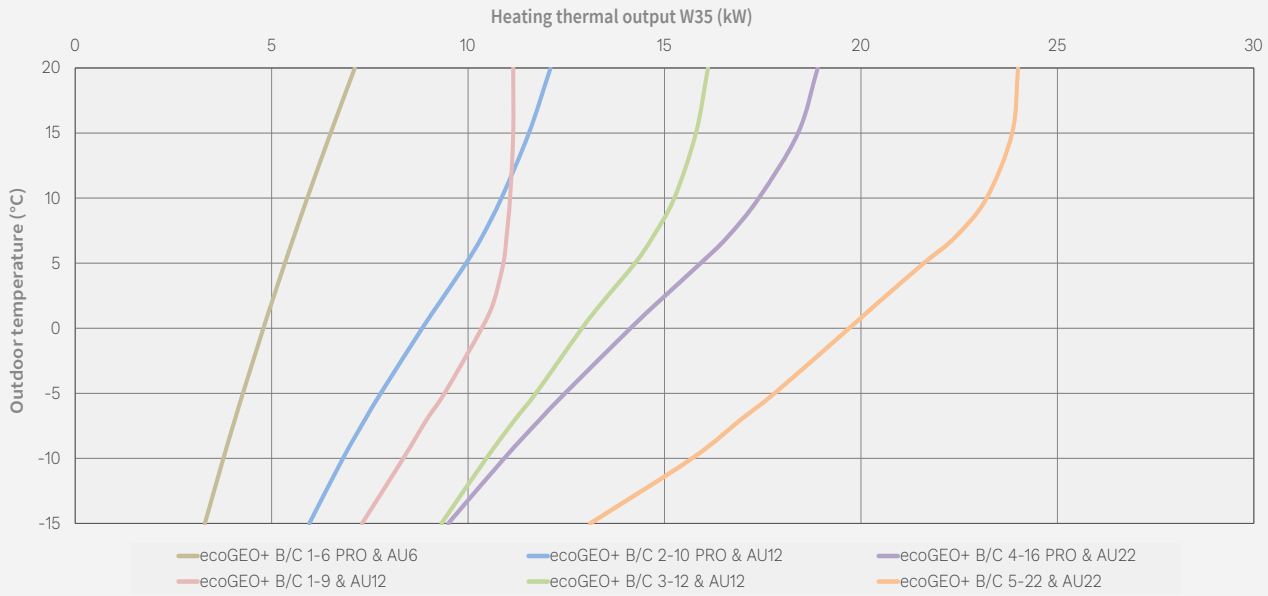
ecoGEO+ B/C 5-22 & AU22

New building — Retrofit

Single house — Multiple dwelling

Single-phase - 230 Vac — Three-phase - 400 Vac

Equipment selection



Outdoor units ecoGEO+

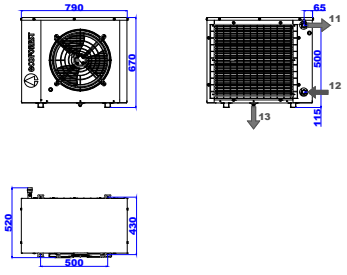
AU6 / AU12 / AU22

	SPECIFICATIONS AU		AU6	AU12	AU22
APPLICATION	Place of installation	-		Outdoor	
	Layout and air flow direction	-		Horizontal	
	(1) Collection system	-		Air source	
WORKING FLUIDS	(2) Recommended thermal fluid	-		Water - propylene glycol mixture	
	(3) Recommended frost temperature	ºC		-25	
	Filling volume	l	6	19	33
	(4) Maximum pressure	bar		6,0	
	(5) Nominal thermal fluid flow rate	m³/h	0,9	2,0	2,5
	(5) Thermal fluid nominal pressure drop	kPa	10,0	19,2	6,2
	(5) Nominal air flow rate	m³/h	2721	3309	6618
ACOUSTIC LEVEL	Number of fans	-	1	1	2
	(5) Noise power level (LWA)	dB (A)	54	55	55
ELECTRICAL DATA	(6) Type of power supply	-		1/N/PE 230 V / 50-60 Hz	
	Maximum consumption	kW / A	0,15 / 1,36	0,16 / 1,34	0,33 / 2,68
	Correction of cos Ø	-		0,96 / 1	
DIMENSIONS & WEIGHT	Height x width x depth	mm	670x790x500	900x1000x600	900x1800x600
	Empty weight (without packaging)	kg	54	92	175

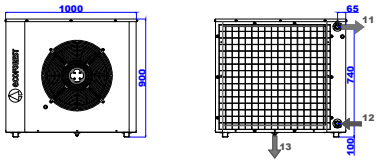
1. Air source/Hybrid source by replacing/combining the ground source circuit by/with one or more ecoGEO+ & AU. Consult the ecoGEO+ & AU manual for more detailed information.
2. Consult local regulations before selecting the antifreeze for the working fluid mixture.
3. To be defined according to the minimum attainable temperatures, depending on location.
4. Maximum allowable pressure for dry cooler AU circuits. Check the maximum admissible pressures of the ecoGEO+ heat pumps combined to the AU air source units.
5. Considering operation in collection mode at nominal regime.
6. The admissible voltage range for proper operation of the heat pump is ±10%.

Dimensions and hydraulic connections

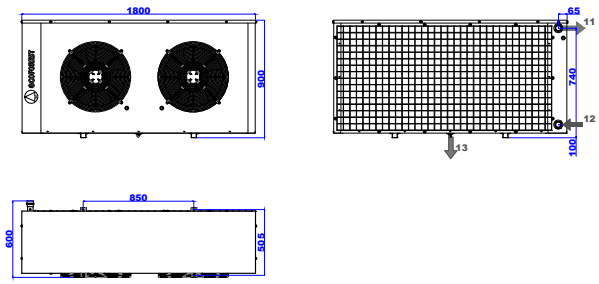
AU6



AU12



AU22

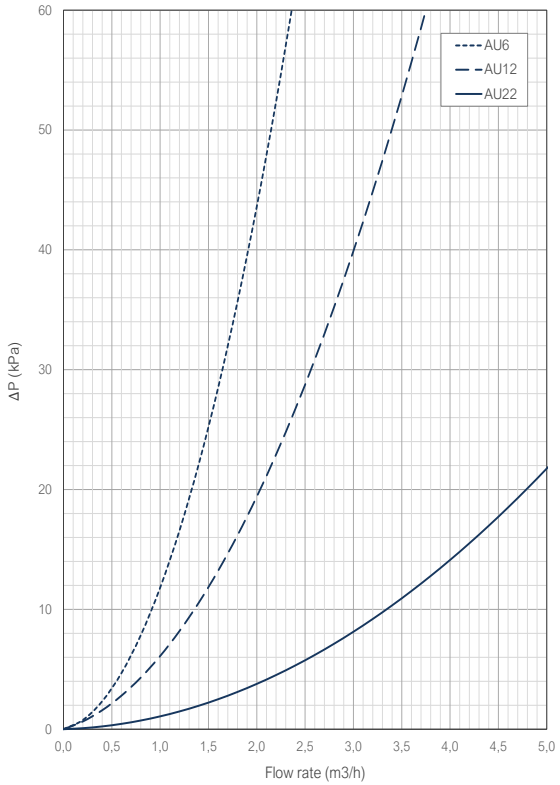


11. Brine outlet
1" M (AU6)
1 ½" M (AU12 / AU22)

12. Brine inlet
1" M (AU6)
1 ½" M (AU12 / AU22)

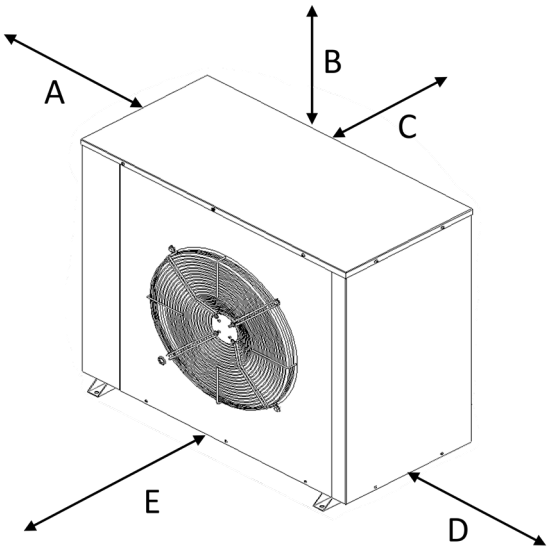
13. Drain
16mm

Available pressure drop



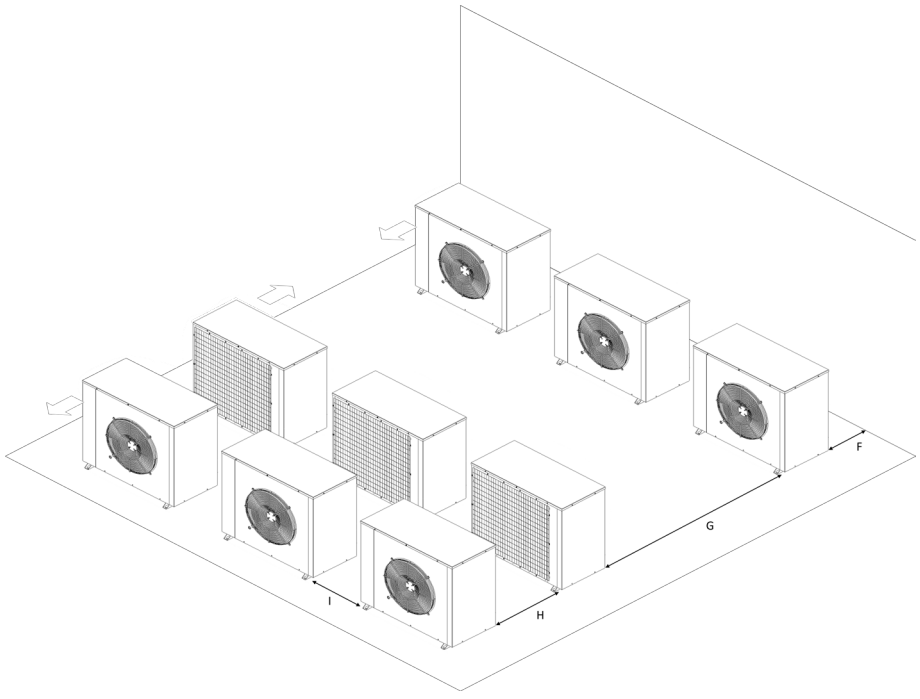
Outdoor units ecoGEO+
Minimum distances

Stand-alone service distances



AU model	A	B	C	D	E
AU6 AU12 AU22	300 mm	600 mm	300 mm	300 mm	1200 mm

Cascade service distances



AU model	F	G	H	I
AU6 AU12 AU22	200 mm	2000 mm	400 mm	500 mm

ecoGEO+ B/C PRO & AU

Models

- ecoGEO+ 1-6 PRO & AU6
- ecoGEO+ 2-10 PRO & AU12
- ecoGEO+ 4-16 PRO & AU22

Single-phase 230 Vac
Three-phase 400 Vac

Brine to water heat pump with air as heat source

Outdoor unit
AU

Indoor unit
ecoGEO+ B2/B4
ecoGEO+ C2/C4

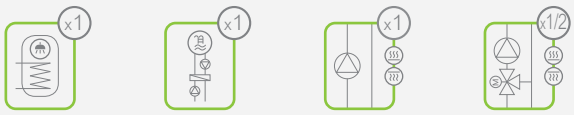
Services

DHW | Heating | Cooling | Pool

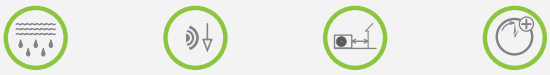
Compatible production systems

Heat./Cool. floor | Fancoils | Radiators

Management of shunt groups

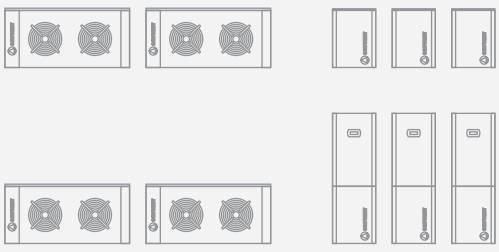


Performance



ecoGEO+ defrost | Min. acoustic level | Adaptability | Lifespan

Cascade

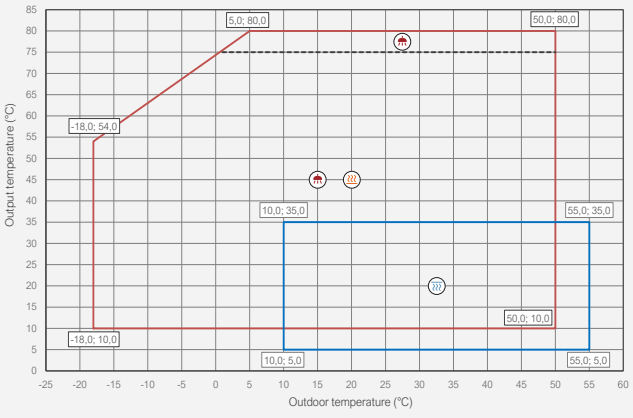


Characteristics

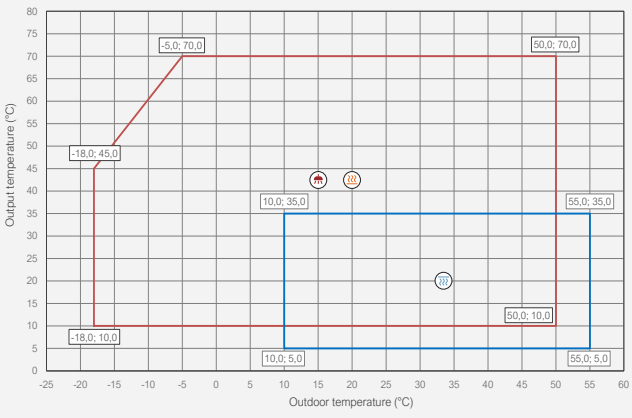
- Modulating thermal output control across a wide range (17%–100%), fan speed control (20%–100%), and modulating flow control in both source and production circuit (20%–100%).
- Natural refrigerant R290: GWP 3.
- Inverter technology.
- Compact design including source and production circulators, 8L and 12L expansion vessels for source and production respectively, source and production safety valves, and a DHW 3-way valve.
- High Temperature Recovery (HTR) system for domestic hot water (DHW) production up to 70 °C without auxiliary support, and simultaneous DHW and heating/cooling production in ecoGEO⁺ B/C 2-10 PRO and ecoGEO⁺ B/C 4-16 PRO models.
- Integrated control of up to three different flow temperatures, two buffer tanks (heating and cooling), one DHW tank, one swimming pool, and time scheduling of DHW recirculation.
- Integrated management of modulating air source units for use in air source or hybrid air-ground source systems.
- Integrated control of external auxiliary backup systems—on/off or modulating (electric heaters, boilers, etc.).
- Cascade control for up to three heat pumps.
- Exclusive defrost management.
- Active cooling via cycle inversion integrated in B4/C4 models.
- Models available in 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 & AU6



ecoGEO⁺ B/C 2-10 PRO & AU12 I ecoGEO⁺ B/C 4-16 PRO & AU22



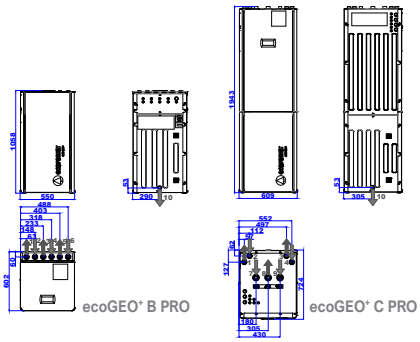
ecoGEO+ B/C 1-6 PRO & AU6

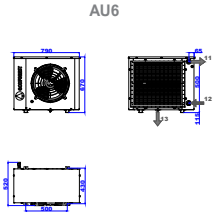
Brine to water heat pumps with Inverter technology, natural R290 refrigerant and air source collection

SPECIFICATIONS ecoGEO+ Basic / Compact PRO & AU			ecoGEO+ 1-6 PRO & AU6	
			B2 / C2	B4 / C4
APPLICATION	Place of installation	-	ecoGEO+ : indoor / AU : outdoor	
	(1) Collection system	-	Air source	
	DHW, Heating and Pool heating	-	▪	
	Integrated active cooling	-	-	▪
PERFORMANCE	Compressor modulation range	%	12,5 - 100	
	(2) Heating power output / COP A7W35	kW / -	0,5 - 5,6 / 4,0	
	(2) Heating power output / COP A7W55	kW / -	0,8 - 5,3 / 2,7	
	(2) Cooling power output / EER A35W7	kW / -	-	0,8 - 5,0 / 3,5
	(5) Max. DHW outlet temperature without / with support	°C	70 / 80	
	(6) Indoor / Outdoor noise power level (LWA)	dB (A)	44 / 54	
	Energy label / ηs / SCOP W35 average clim. with control	-	A++ / 174% / 4,42	
	Energy label / ηs / SCOP W55 average clim. with control	-	A++ / 136% / 3,48	
OPERATION LIMITS	Distribution / Set heating outlet temperature range	°C	10 - 75 / 20 - 75	
	Distribution / Set cooling outlet temperature range	°C	-	5 - 35 / 7 - 30
	Outdoor temperature range	°C	-18 - 50	
	Minimum / Maximum refrigerant circuit pressure	bar	1,0 / 32,0	
	Production circuit pressure range	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, A7W35) ΔT 3°C / ΔT 5°C	m^3/h	1,5 / 0,9	
	Secondary circ. flow rate (Pmax, A7W35) ΔT 5°C / ΔT 7°C	m^3/h	1,0 / 0,7	
	Min. water volume for defrosting (35°C, ΔT 5°C)	l	80,0	
	Nominal air flow rate	m^3/h	2721	
CONTROL ELECTRICAL DATA	(8) 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	(8) 1/N/PE 230 V / 50-60 Hz	-	▪	
	(9) Recommended external protection	-	C16A	
	(2) Maximum consumption A7W35	kW / A	1,6 / 6,8	
	(2) Maximum consumption A7W55	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 & AU6: 670x790x500	
	Empty weight (without packaging)	kg	ecoGEO+ B: 133 / ecoGEO+ C: 194 & AU6: 54	

1. Air-to-water by means of a brine-to water heat pump combined with a hydraulic outdoor air unit.
2. In compliance with EN 14511, including circulation pumps, fan and compressor driver consumptions.
3. Production flow rate according to EN 14511.
4. Considering a heat slope from 20 to 50 °C in absence of consumption.
5. Considering support provided by an emergency electrical heater or HTR. Max. DHW temp. with HTR can be limited by the compressor discharge temp.
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 information.
10. Certification in process.

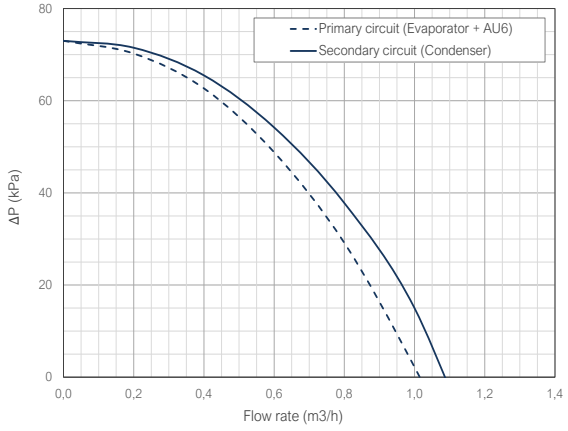
Dimensions and hydraulic connections



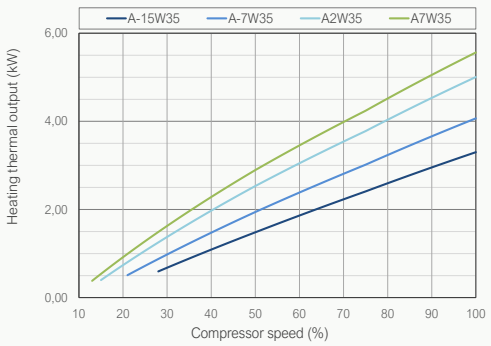


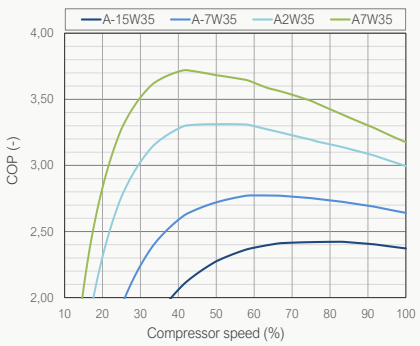
1. Heating/Cooling outlet 1" M
2. Heating/Cooling inlet 1" M
3. Brine outlet 1" M
4. Brine inlet 1" M
5. DHW system outlet 1" M
6. DHW system inlet 1" M
7. CW inlet 1" F
8. DHW outlet 1" F
9. DHW recirc. inlet 3/4" F
10. Drain 16mm
11. AU source inlet 1" M
12. AU source outlet 1" M
13. AU drain 16mm

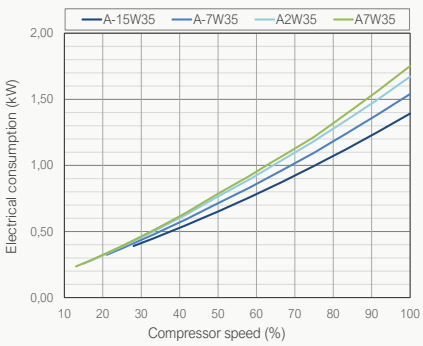
Available pressure drop



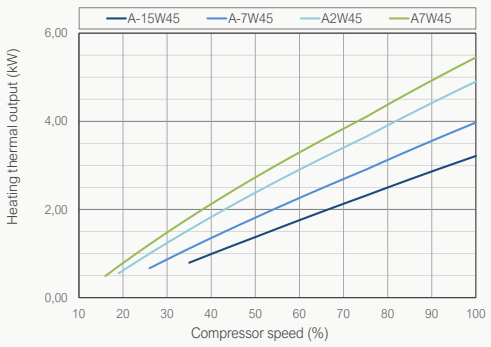
Heating W35

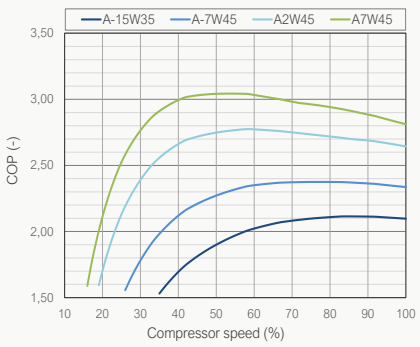


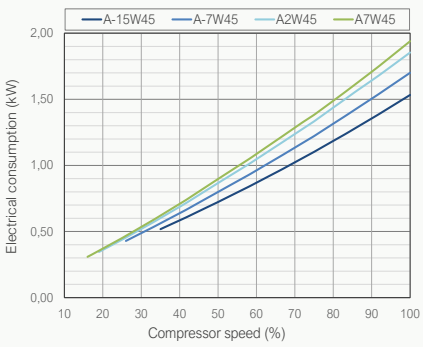




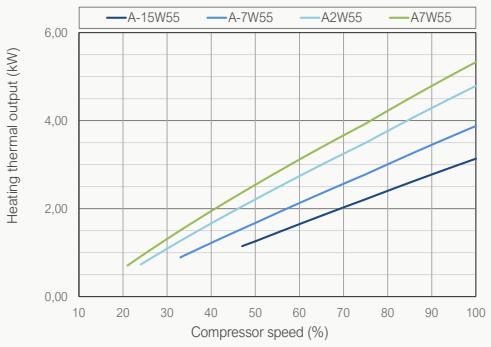
Heating W45

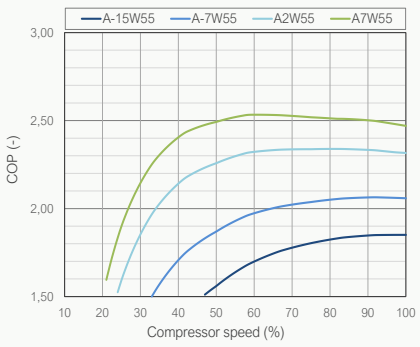


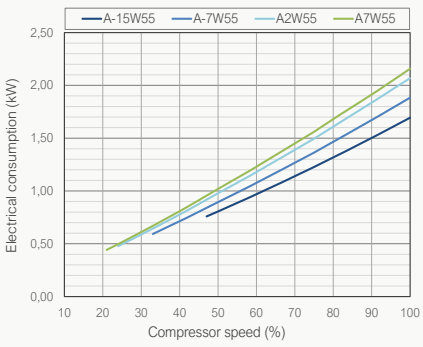




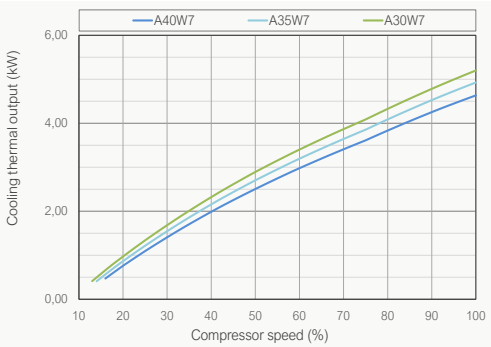
Heating W55

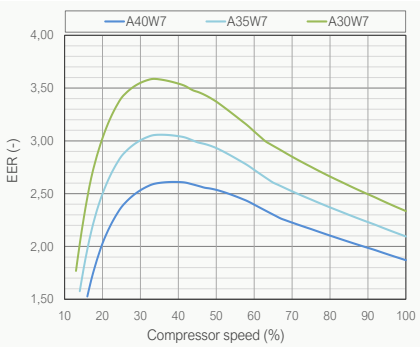


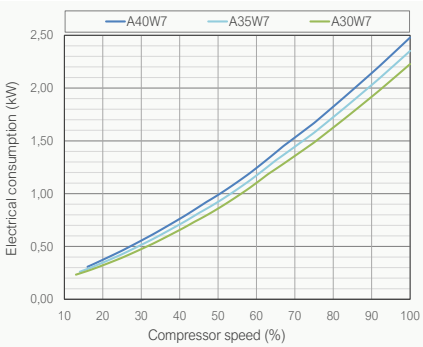




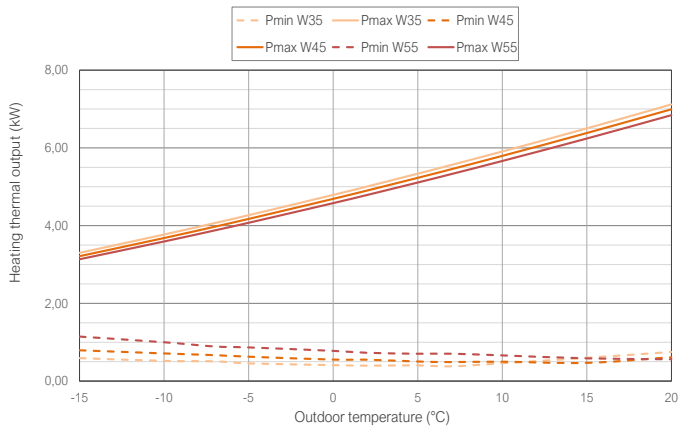
Cooling W7

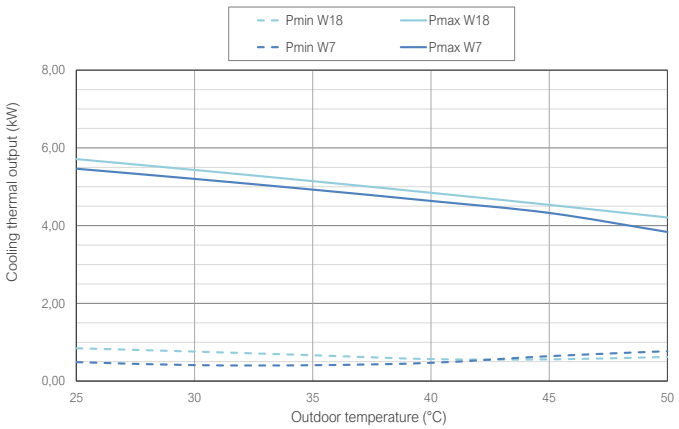






Thermal power - Outdoor temperature





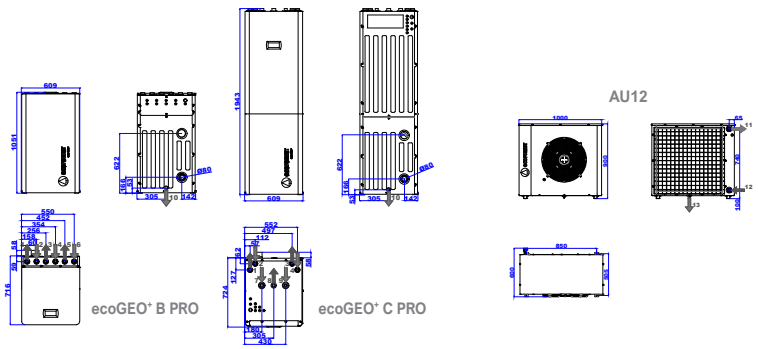
ecoGEO+ B/C 2-10 PRO & AU12

Brine to water heat pumps with Inverter technology, natural R290 refrigerant and air source collection

SPECIFICATIONS ecoGEO+ Basic / Compact PRO & AU			ecoGEO+ 2-10 PRO & AU12	
			B2 / C2	B4 / C4
APPLICATION	Place of installation	-	ecoGEO+ : indoor / AU : outdoor	
	(1) Collection system	-	Air source	
	DHW, Heating and Pool heating	-	▪	
	Integrated active cooling	-	-	▪
PERFORMANCE	Compressor modulation range	%	17 - 100	
	(2) Heating power output / COP A7W35	kW / -	2,1 - 10,5 / 4,6	
	(2) Heating power output / COP A7W55	kW / -	2,8 - 9,5 / 2,8	
	(2) Cooling power output / EER A35W7	kW / -	-	1,7 - 7,3 / 3,0
	(5) Max. DHW outlet temperature without / with support	°C	70 / 80	
	(6) Indoor / Outdoor noise power level (LWA)	dB (A)	42 / 55	
	Energy label / ηs / SCOP W35 average clim. with control	-	A++ / 167% / 4,25	
	Energy label / ηs / SCOP W55 average clim. with control	-	-	
OPERATION LIMITS	Distribution / Set heating outlet temperature range	°C	10 - 70 / 20 - 70	
	Distribution / Set cooling outlet temperature range	°C	-	5 - 35 / 7 - 30
	Outdoor temperature range	°C	-15 - 50	
	Minimum / Maximum refrigerant circuit pressure	bar	1,0 / 32,0	
	Production circuit pressure range	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, A7W35) ΔT 3°C / ΔT 5°C	m^3/h	2,5 / 1,5	
	Secondary circ. flow rate (Pmax, A7W35) ΔT 5°C / ΔT 7°C	m^3/h	1,8 / 1,3	
	Min. water volume for defrosting (35°C, ΔT 5°C)	l	150,0	
	Nominal air flow rate	m^3/h	3309	
CONTROL ELECTRICAL DATA	(8) 1/N/PE 230 V / 50-60 Hz	-	▪	
	(9) 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	(8) 1/N/PE 230 V / 50-60 Hz	-	▪	
	(9) Recommended external protection	-	C25A	
	(2) Maximum consumption A7W35	kW / A	3,0 / 13,1	
	(2) Maximum consumption A7W55	kW / A	3,9 / 16,9	
	(7) Minimum / Maximum starting current	A	2,0 / 8,0	
	Correction of cos Ø	-	0,96 / 1	
HEAT PUMP ELECTRICAL DATA: THREE-PHASE VERSION	(8) 3/PE 400 V / 50-60 Hz	-	▪	
	(9) Recommended external protection	-	C16A	
	(2) Maximum consumption A7W35	kW / A	3,0 / 4,3	
	(2) Maximum consumption A7W55	kW / A	3,9 / 5,6	
	(7) Minimum / Maximum starting current	A	0,7 / 2,6	
	Correction of cos Ø	-	0,96 / 1	
DIMENSIONS & WEIGHT	Height x width x depth	mm	ecoGEO+ B: 1051x609x716 / ecoGEO+ C: 1943x609x724 & AU12: 900x1800x600	
	Empty weight (without packaging)	kg	ecoGEO+ B: 205 / ecoGEO+ C: 270 & AU12: 175	

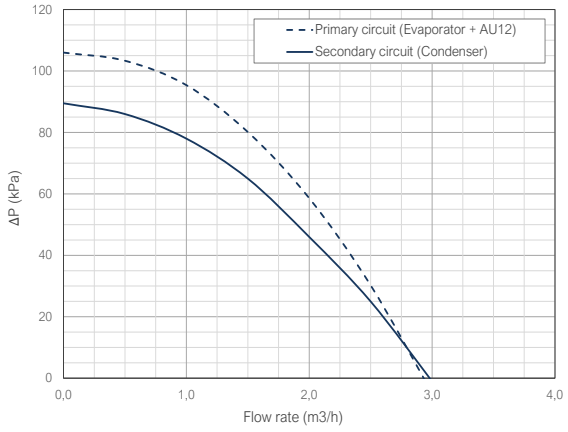
1. Air-to-water by means of a brine-to water heat pump combined with a hydraulic outdoor air unit.
2. In compliance with EN 14511, including circulation pumps, fan and compressor driver consumptions.
3. Production flow rate according to EN 14511.
4. Considering a heat slope from 20 to 50 °C in absence of consumption.
5. Considering support provided by an emergency electrical heater or HTR. Max. DHW temp. with HTR can be limited by the compressor discharge temp.
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 information.
10. Certification in process.

Dimensions and hydraulic connections

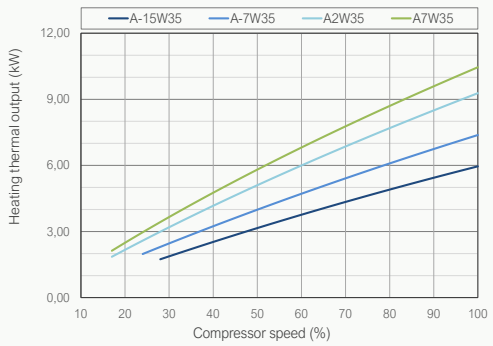


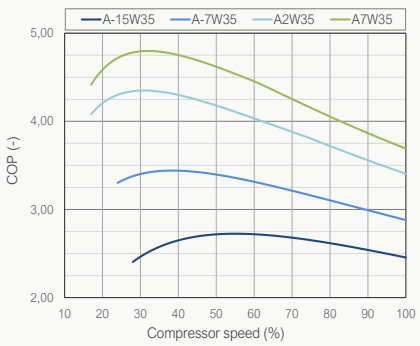
1. Heating/Cooling outlet 1 ¼" M
2. Heating/Cooling inlet 1 ¼" M
3. Brine outlet 1 ¼" M
4. Brine inlet 1 1/4" M
5. DHW system outlet 1 ¼" M
6. DHW system inlet 1 ¼" M
7. CW inlet 1" F
8. DHW outlet 1" F
9. DHW recirc. inlet ¾" F
10. Drain 16mm
11. AU source inlet 1 ½" M
12. AU source outlet 1 ½" M
13. AU drain 16mm

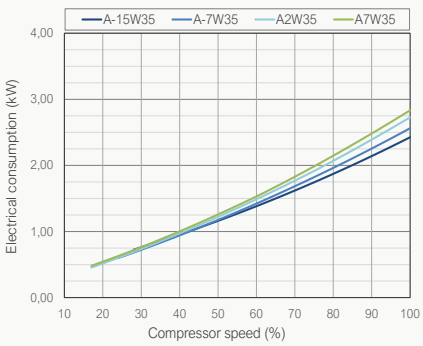
Available pressure drop



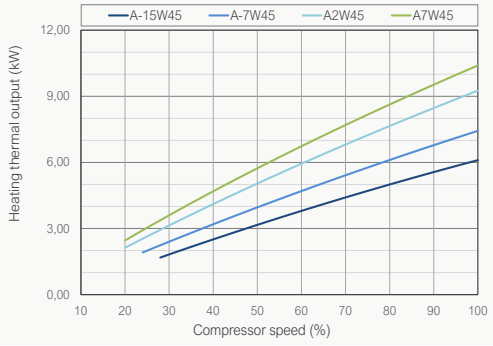
Heating W35

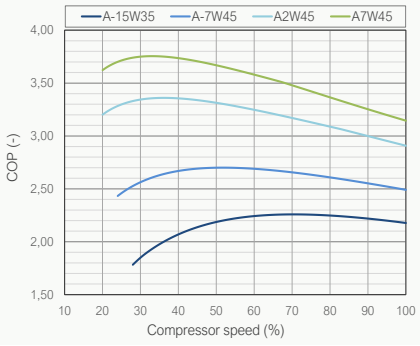


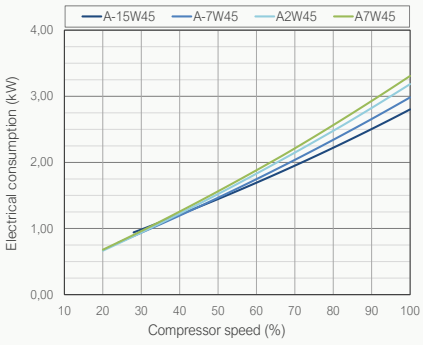




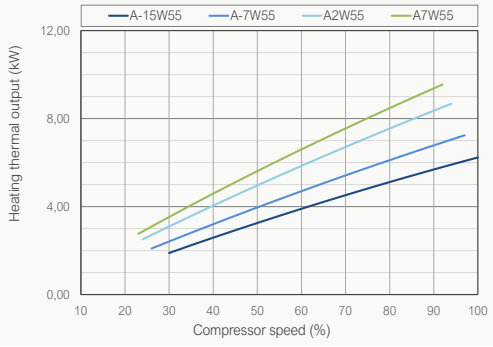
Heating W45

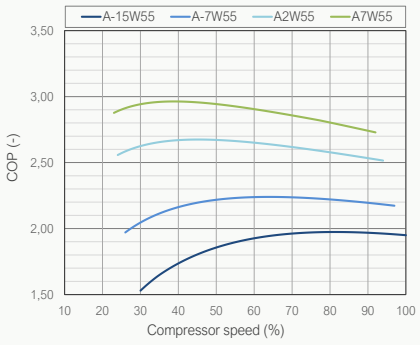


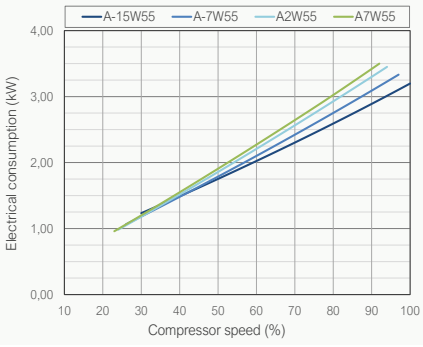




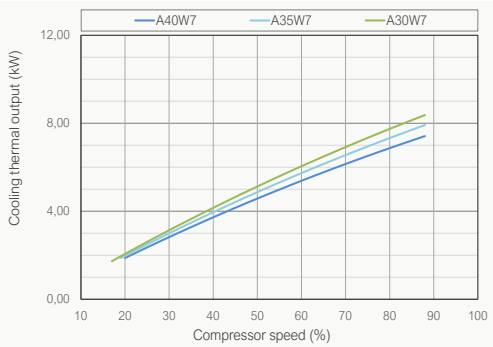
Heating W55

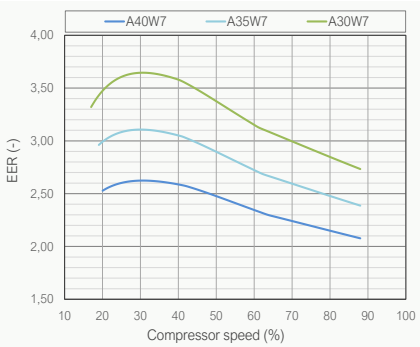


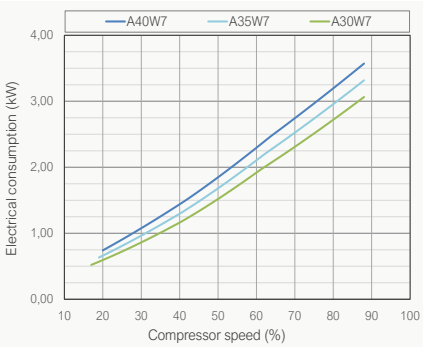




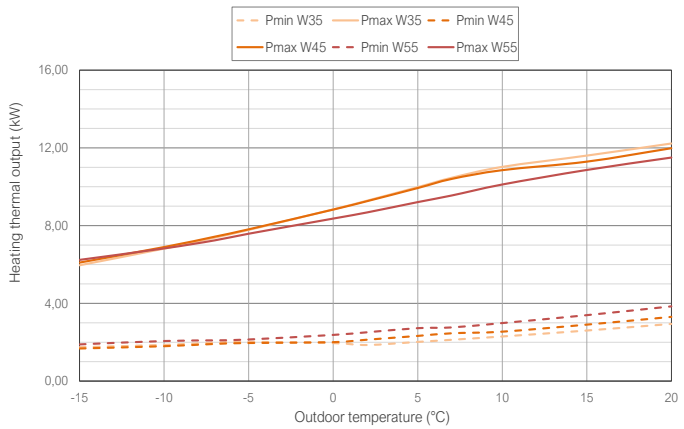
Cooling W7

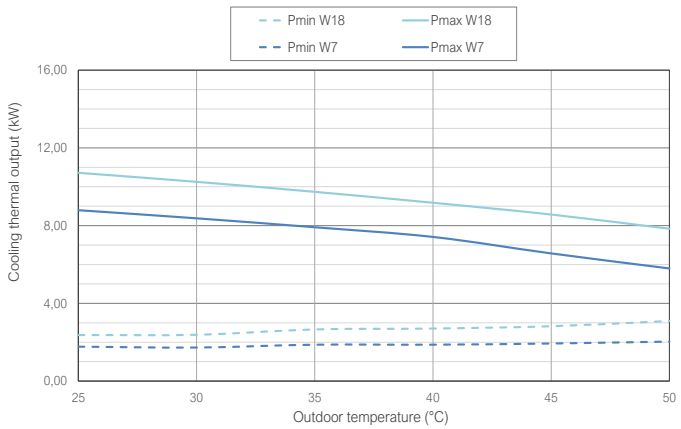






Thermal power - Outdoor temperature





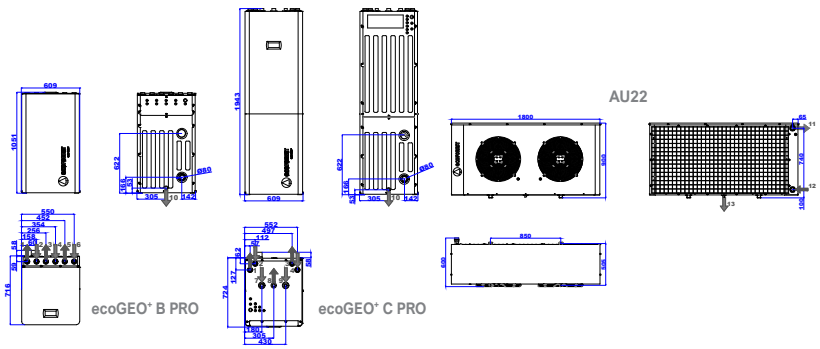
ecoGEO+ B/C 4-16 PRO & AU22

Brine to water heat pumps with Inverter technology, natural R290 refrigerant and air source collection

SPECIFICATIONS ecoGEO+ Basic / Compact PRO & AU			ecoGEO+ 4-16 PRO & AU22	
			B2 / C2	B4 / C4
APPLICATION	Place of installation	-	ecoGEO+ : indoor / AU : outdoor	
	(1) Collection system	-	Air source	
	DHW, Heating and Pool heating	-	▪	
	Integrated active cooling	-	-	▪
PERFORMANCE	Compressor modulation range	%	17 - 100	
	(2) Heating power output / COP A7W35	kW / -	3,1 - 16,7 / 5,0	
	(2) Heating power output / COP A7W55	kW / -	4,0 - 15,0 / 3,3	
	(2) Cooling power output / EER A35W7	kW / -	-	2,3 - 10,3 / 2,8
	(5) Max. DHW outlet temperature without / with support	°C	70 / 80	
	(6) Indoor / Outdoor noise power level (LWA)	dB (A)	42 / 55	
	Energy label / ηs / SCOP W35 average clim. with control	-	A+++ / 189% / 4,80	
	Energy label / ηs / SCOP W55 average clim. with control	-	-	
OPERATION LIMITS	Distribution / Set heating outlet temperature range	°C	10 - 70 / 20 - 70	
	Distribution / Set cooling outlet temperature range	°C	-	5 - 35 / 7 - 30
	Outdoor temperature range	°C	-15 - 50	
	Minimum / Maximum refrigerant circuit pressure	bar	1,0 / 32,0	
	Production circuit pressure range	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, A7W35) ΔT 3°C / ΔT 5°C	m^3/h	4,1 / 2,4	
	Secondary circ. flow rate (Pmax, A7W35) ΔT 5°C / ΔT 7°C	m^3/h	2,9 / 2,1	
	Min. water volume for defrosting (35°C, ΔT 5°C)	l	200,0	
	Nominal air flow rate	m^3/h	6618	
CONTROL ELECTRICAL DATA	(8) 1/N/PE 230 V / 50-60 Hz	-	▪	
	(9) 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	(8) 1/N/PE 230 V / 50-60 Hz	-	▪	
	(9) Recommended external protection	-	C32A	
	(2) Maximum consumption A7W35	kW / A	4,7 / 20,6	
	(2) Maximum consumption A7W55	kW / A	6,1 / 26,4	
	(7) Minimum / Maximum starting current	A	2,6 / 12,5	
	Correction of cos Ø	-	0,96 / 1	
HEAT PUMP ELECTRICAL DATA: THREE-PHASE VERSION	(8) 3/PE 400 V / 50-60 Hz	-	▪	
	(9) Recommended external protection	-	C16A	
	(2) Maximum consumption A7W35	kW / A	4,7 / 6,8	
	(2) Maximum consumption A7W55	kW / A	6,1 / 8,8	
	(7) Minimum / Maximum starting current	A	0,9 / 4,2	
	Correction of cos Ø	-	0,96 / 1	
DIMENSIONS & WEIGHT	Height x width x depth	mm	ecoGEO+ B: 1051x609x716 / ecoGEO+ C: 1943x609x724 & AU22: 900x1800x600	
	Empty weight (without packaging)	kg	ecoGEO+ B: 205 / ecoGEO+ C: 270 & AU22: 175	

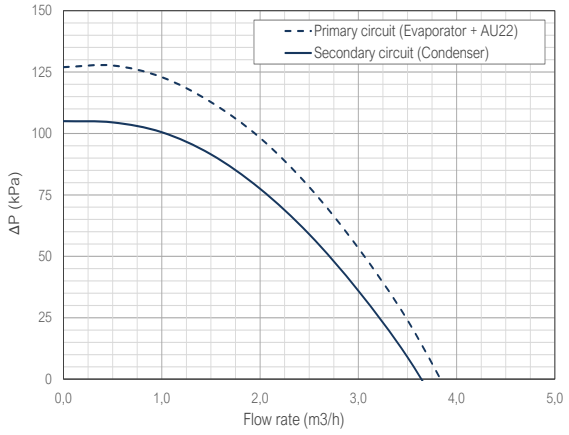
1. Air-to-water by means of a brine-to water heat pump combined with a hydraulic outdoor air unit.
2. In compliance with EN 14511, including circulation pumps, fan and compressor driver consumptions.
3. Production flow rate according to EN 14511.
4. Considering a heat slope from 20 to 50 °C in absence of consumption.
5. Considering support provided by an emergency electrical heater or HTR. Max. DHW temp. with HTR can be limited by the compressor discharge temp.
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 information.
10. Certification in process.

Dimensions and hydraulic connections

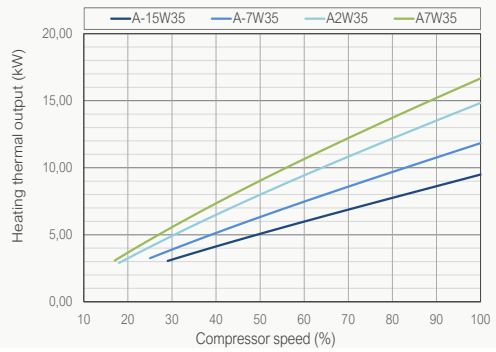


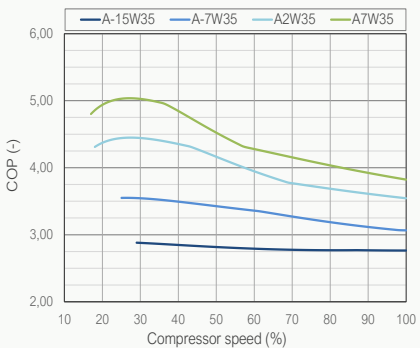
1. Heating/Cooling outlet 1 ¼" M
2. Heating/Cooling inlet 1 ¼" M
3. Brine outlet 1 ¼" M
4. Brine inlet 1 1/4" M
5. DHW system outlet 1 ¼" M
6. DHW system inlet 1 ¼" M
7. CW inlet 1" F
8. DHW outlet 1" F
9. DHW recirc. inlet ¾" F
10. Drain 16mm
11. AU source inlet 1 ½" M
12. AU source outlet 1 ½" M
13. AU drain 16mm

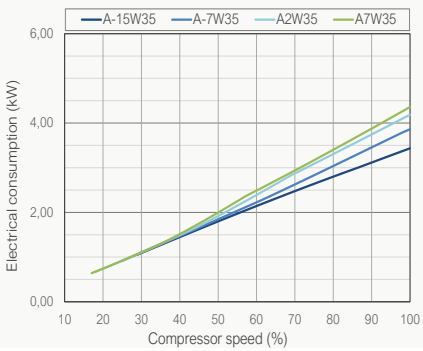
Available pressure drop



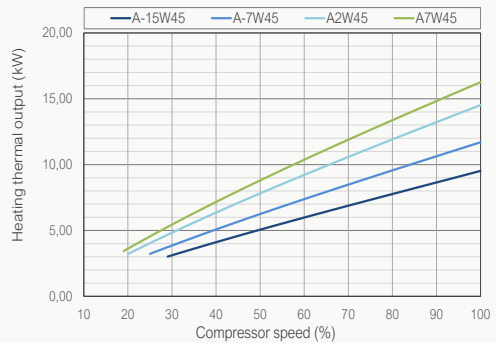
Heating **W35**

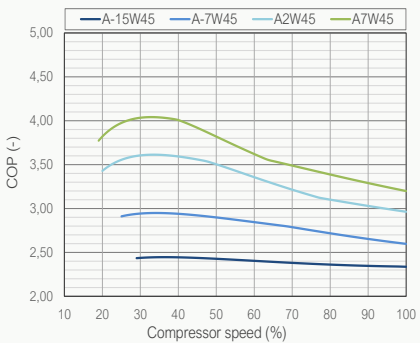


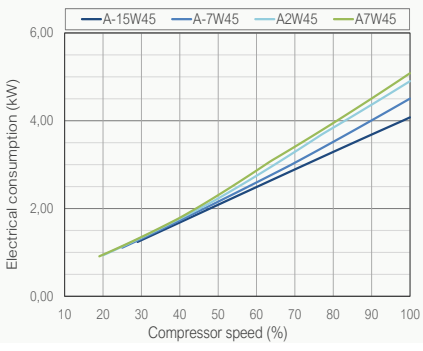




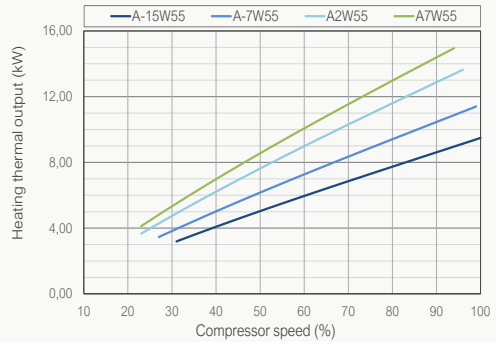
Heating **W45**

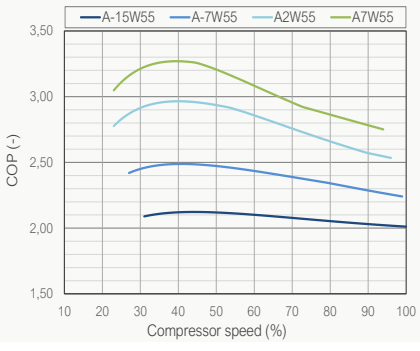


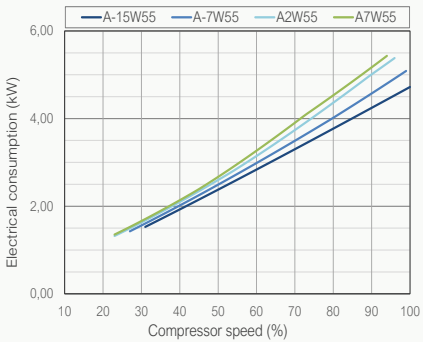




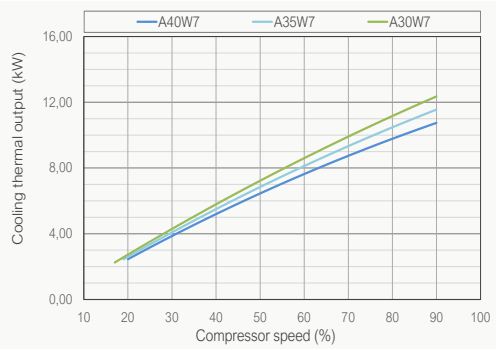
Heating **W55**

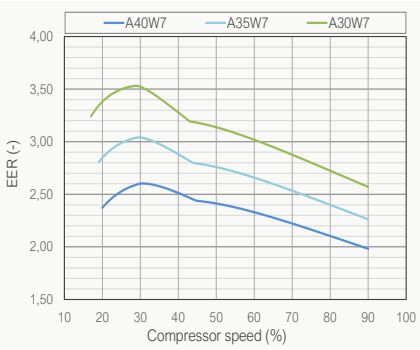


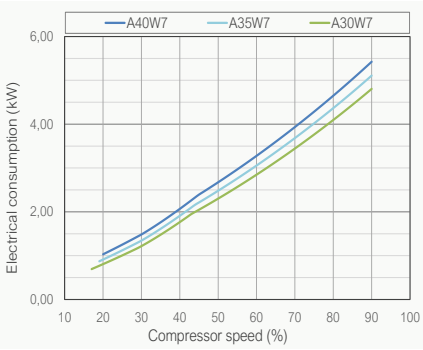




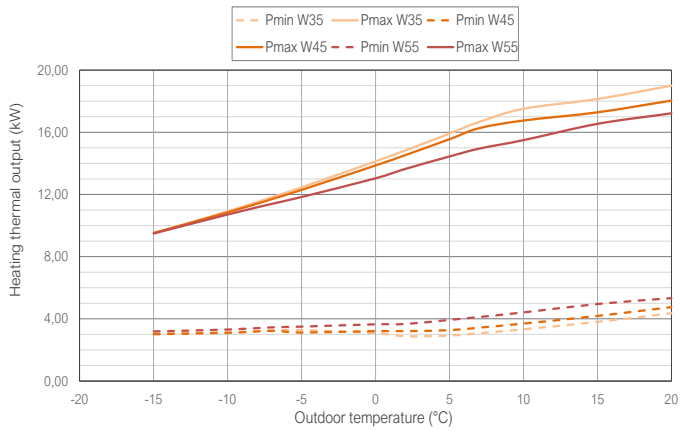
Cooling **W7**

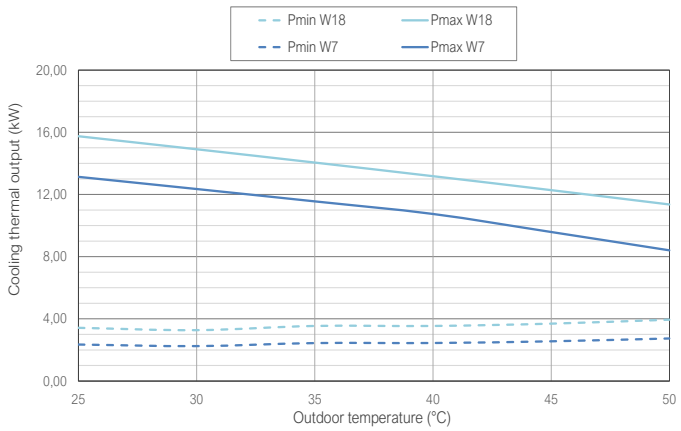






Thermal power - Outdoor temperature





ecoGEO+ B/C & AU

R410A

Models

ecoGEO+ 1-9 & AU12

ecoGEO+ 3-12 & AU12

ecoGEO+ 5-22 & AU22

Single-phase 230 Vac

Three-phase 400 Vac

Brine to water heat pump with air as heat source

Outdoor unit

AU

Indoor unit

ecoGEO+ B2/B4

ecoGEO+ C2/C4

Services

65ºC DHW

60ºC Heating

5ºC Cooling

55ºC Pool

Compatible production systems

Heat./Cool. floor

Fancoils

Radiators

Management of shunt groups

Performance

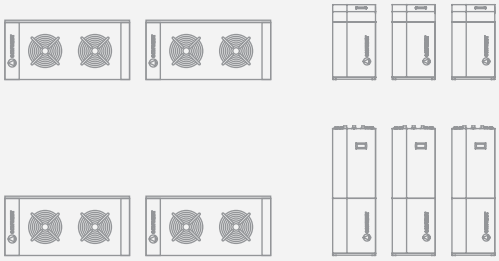
ecoGEO+ defrost

Min. acoustic level

Adaptability

Lifespan

Cascade

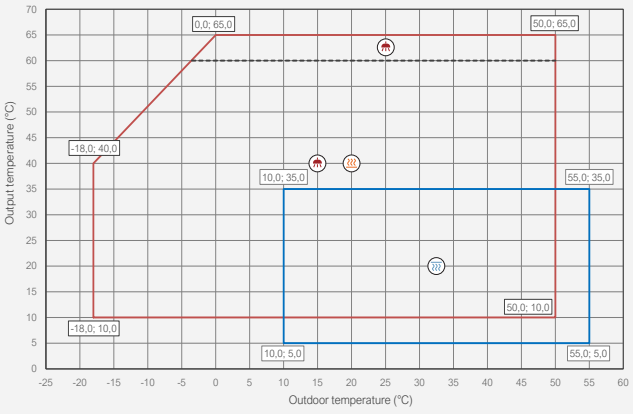


Characteristics

- Modulating thermal output control across a wide range (17%–100%), fan speed control (20%–100%), and modulating flow control in both source and production circuits (20%–100%).
- R410A refrigerant.
- 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 valve for DHW.
- High Temperature Recovery (HTR) system for domestic hot water (DHW) production up to 70 °C without auxiliary support, and simultaneous production of DHW and heating/cooling.
- Integrated control of up to three different flow temperatures, two buffer tanks (heating and cooling), one DHW tank, one swimming pool, and time scheduling of DHW recirculation.
- Integrated management of modulating air source units in air source or hybrid air-ground source systems.
- Integrated control of external auxiliary backup systems on/off or modulating (electric heaters, boilers, etc.).
- Cascade management of up to three heat pumps.
- Exclusive defrost management.
- Active cooling via cycle inversion integrated in B4/C4 models.
- 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.

Operational chart

ecoGEO+ B/C 1-9 & AU12 I ecoGEO+ B/C 3-12 & AU12 I ecoGEO+ B/C 5-22 & AU22



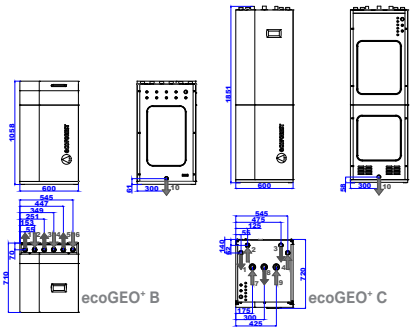
ecoGEO+ B/C 1-9 & AU12

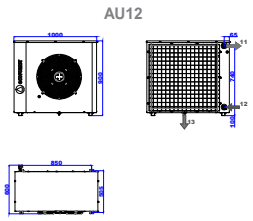
Brine to water heat pumps with Inverter technology, R410A refrigerant and air source collection

SPECIFICATIONS ecoGEO+ Basic / Compact & AU			ecoGEO+ 1-9 & AU12	
			B2 / C2	B4 / C4
APPLICATION	Place of installation	-	ecoGEO+ : indoor / AU : outdoor	
	(1) Collection system	-	Air source	
	DHW, Heating and Pool heating	-	▪	
	Integrated active cooling	-	-	▪
PERFORMANCE	Compressor modulation range	%	12,5 - 100	
	(2) Heating power output / COP A7W35	kW / -	1,7 - 11 / 5,0	
	(2) Heating power output / COP A7W55	kW / -	3,3 - 10,4 / 3,0	
	(2) Cooling power output / EER A35W7	kW / -	-	1,5 - 9,8 / 3,6
	(5) Max. DHW outlet temperature without / with support	°C	63 / 70	
	(6) Indoor / Outdoor noise power level (LWA)	dB (A)	54 / 55	
	Energy label / ηs / SCOP W35 average clim. with control	-	A+++ / 194% / 4,91	
	Energy label / ηs / SCOP W55 average clim. with control	-	A++ / 144% / 3,68	
OPERATION LIMITS	Distribution / Set heating outlet temperature range	°C	10 - 60 / 20 - 60	
	Distribution / Set cooling outlet temperature range	°C	-	5 - 35 / 7 - 30
	Outdoor temperature range	°C	-10 - 50	
	Minimum / Maximum refrigerant circuit pressure	bar	2,0 / 45,0	
	Production circuit pressure range	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	R410A refrigerant load (GWP: 2088)	kg	0,80 / 0,85 (HTR)	1,00
	Compressor oil type / load	kg	POE / 0,74	
	Primary circ. flow rate (Pmax, A7W35) ΔT 3°C / ΔT 5°C	m^3/h	2,7 / 1,6	
	Secondary circ. flow rate (Pmax, A7W35) ΔT 5°C / ΔT 7°C	m^3/h	1,9 / 1,3	
	Min. water volume for defrosting (35°C, ΔT 5°C)	l	150,0	
	Nominal air flow rate	m^3/h	3309	
CONTROL ELECTRICAL DATA	(8) 1/N/PE 230 V / 50-60 Hz	-	▪	
	(9) 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	(8) 1/N/PE 230 V / 50-60 Hz	-	▪	
	(9) Recommended external protection	-	C25A	
	(2) Maximum consumption A7W35	kW / A	2,7 / 11,8	
	(2) Maximum consumption A7W55	kW / A	3,8 / 16,5	
	(7) Minimum / Maximum starting current	A	1,5 / 5,8	
	Correction of cos Ø	-	0,96 / 1	
HEAT PUMP ELECTRICAL DATA: THREE-PHASE VERSION	(8) 3/PE 400 V / 50-60 Hz	-	▪	
	(9) Recommended external protection	-	C10A	
	(2) Maximum consumption A7W35	kW / A	2,7 / 4,0	
	(2) Maximum consumption A7W55	kW / A	3,8 / 5,5	
	(7) Minimum / Maximum starting current	A	0,5 / 1,9	
	Correction of cos Ø	-	0,96 / 1	
DIMENSIONS & WEIGHT	Height x width x depth	mm	ecoGEO+ B: 1058x600x710 / ecoGEO+ C: 1845x600x720 & AU12: 900x1000x600	
	Empty weight (without packaging)	kg	ecoGEO+ B: 192 / ecoGEO+ C: 253 & AU12: 92	

1. Air-to-water by means of a brine-to water heat pump combined with a hydraulic outdoor air unit.
2. In compliance with EN 14511, including circulation pumps, fan and compressor driver consumptions.
3. Production flow rate according to EN 14511.
4. Considering a heat slope from 20 to 50 °C in absence of consumption.
5. Considering support provided by an emergency electrical heater or HTR. Max. DHW temp. with HTR can be limited by the compressor discharge temp.
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 information.
10. Certification in process.

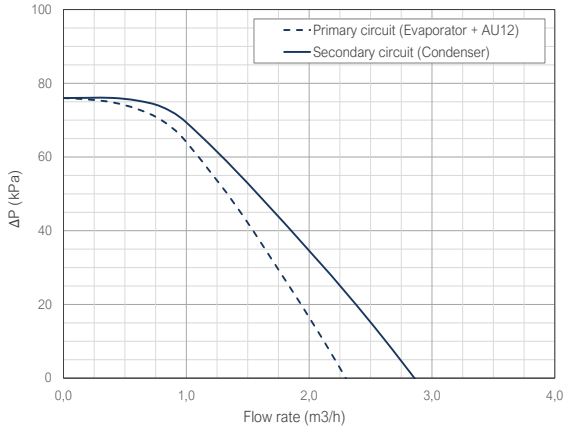
Dimensions and hydraulic connections



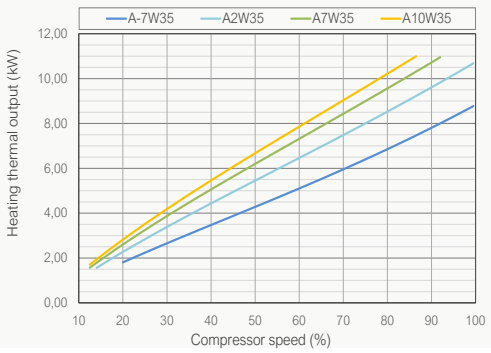


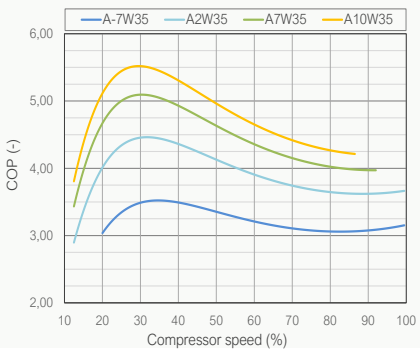
1. Heating/Cooling outlet 1 ¼" M
2. Heating/Cooling inlet 1 ¼" M
3. Brine outlet 1 ¼" M
4. Brine inlet 1 1/4" M
5. DHW system outlet 1 ¼" M
6. DHW system inlet 1 ¼" M
7. CW inlet 1" F
8. DHW outlet 1" F
9. DHW recirc. inlet ¾" F
10. Drain 16mm
11. AU source inlet 1 ½" M
12. AU source outlet 1 ½" M
13. AU drain 16mm

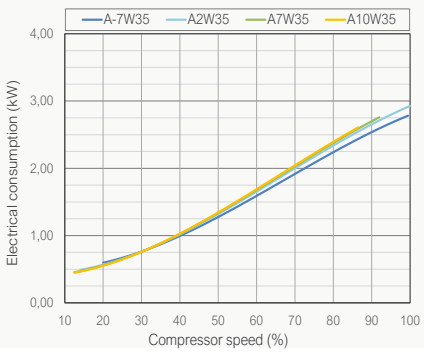
Available pressure drop



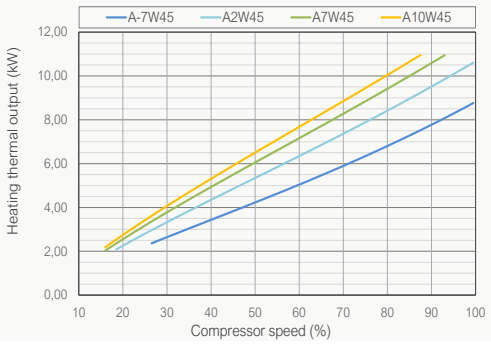
Heating W35

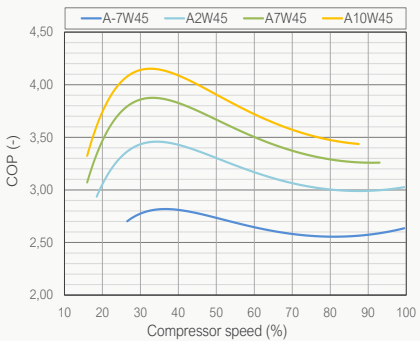


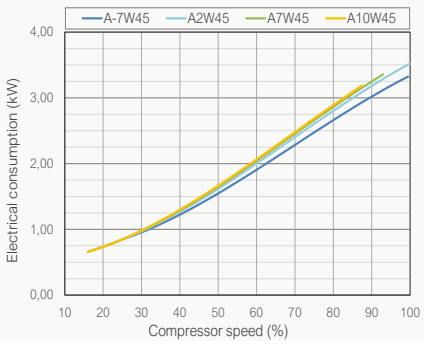




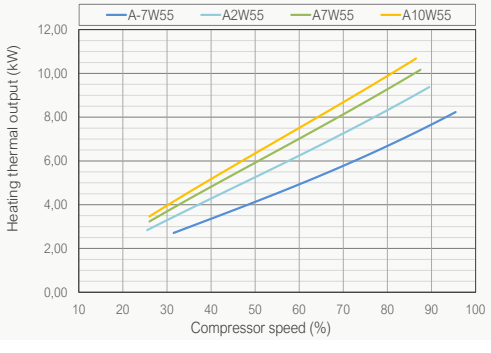
Heating W45

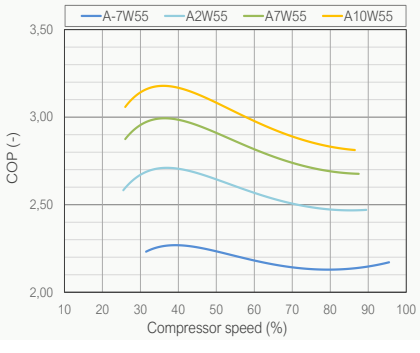


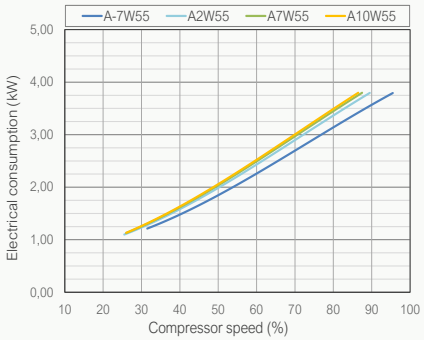




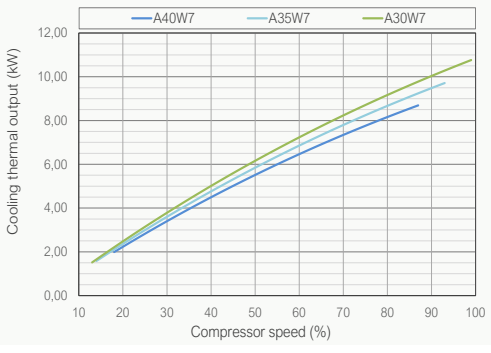
Heating W55

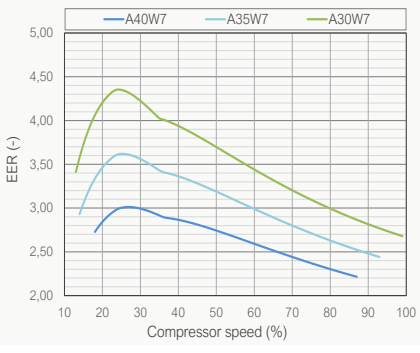


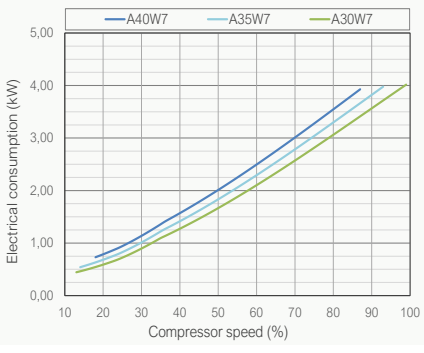




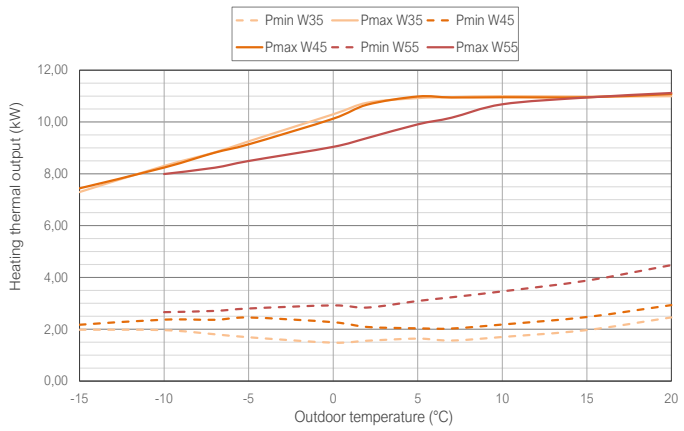
Cooling W7

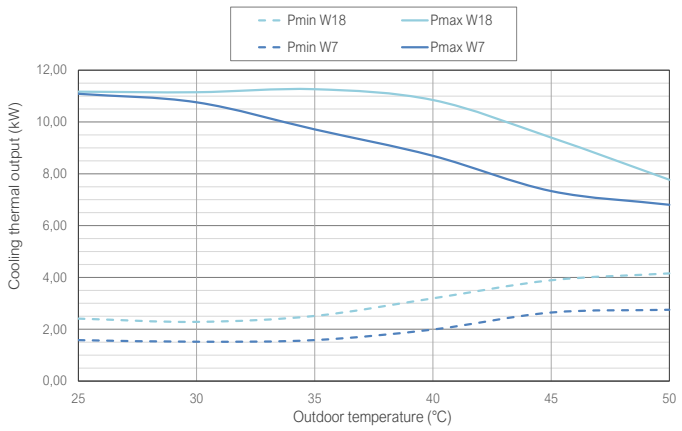






Thermal power - Outdoor temperature





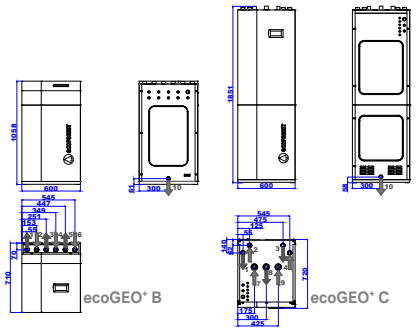
ecoGEO+ B/C 3-12 & AU12

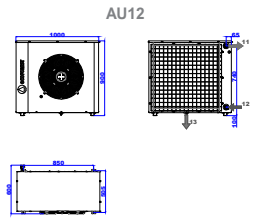
Brine to water heat pumps with Inverter technology, R410A refrigerant and air source collection

SPECIFICATIONS ecoGEO+ Basic / Compact & AU			ecoGEO+ 3-12 & AU12	
			B2 / C2	B4 / C4
APPLICATION	Place of installation	-	ecoGEO+ : indoor / AU : outdoor	
	(1) Collection system	-	Air source	
	DHW, Heating and Pool heating	-	▪	
	Integrated active cooling	-	-	▪
PERFORMANCE	Compressor modulation range	%	12,5 - 100	
	(2) Heating power output / COP A7W35	kW / -	2,5 - 15,3 / 5,0	
	(2) Heating power output / COP A7W55	kW / -	4,4 - 13,6 / 3,1	
	(2) Cooling power output / EER A35W7	kW / -	-	2,4 - 11,7 / 3,4
	(5) Max. DHW outlet temperature without / with support	°C	63 / 70	
	(6) Indoor / Outdoor noise power level (LWA)	dB (A)	54 / 55	
	Energy label / ηs / SCOP W35 average clim. with control	-	A+++ / 194% / 4,92	
	Energy label / ηs / SCOP W55 average clim. with control	-	A++ / 149% / 3,79	
OPERATION LIMITS	Distribution / Set heating outlet temperature range	°C	10 - 60 / 20 - 60	
	Distribution / Set cooling outlet temperature range	°C	-	5 - 35 / 7 - 30
	Outdoor temperature range	°C	-10 - 50	
	Minimum / Maximum refrigerant circuit pressure	bar	2,0 / 45,0	
	Production circuit pressure range	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	R410A refrigerant load (GWP: 2088)	kg	0,90 / 1,00 (HTR)	1,00
	Compressor oil type / load	kg	POE / 0,74	
	Primary circ. flow rate (Pmax, A7W35) ΔT 3°C / ΔT 5°C	m^3/h	3,4 / 2,1	
	Secondary circ. flow rate (Pmax, A7W35) ΔT 5°C / ΔT 7°C	m^3/h	2,5 / 1,8	
	Min. water volume for defrosting (35°C, ΔT 5°C)	l	150,0	
	Nominal air flow rate	m^3/h	3309	
CONTROL ELECTRICAL DATA	(8) 1/N/PE 230 V / 50-60 Hz	-	▪	
	(9) 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	(8) 1/N/PE 230 V / 50-60 Hz	-	▪	
	(9) Recommended external protection	-	C32A	
	(2) Maximum consumption A7W35	kW / A	4,2 / 18,6	
	(2) Maximum consumption A7W55	kW / A	5,0 / 21,7	
	(7) Minimum / Maximum starting current	A	2,0 / 8,0	
	Correction of cos Ø	-	0,96 / 1	
HEAT PUMP ELECTRICAL DATA: THREE-PHASE VERSION	(8) 3/PE 400 V / 50-60 Hz	-	▪	
	(9) Recommended external protection	-	C16A	
	(2) Maximum consumption A7W35	kW / A	4,2 / 6,2	
	(2) Maximum consumption A7W55	kW / A	5,0 / 7,2	
	(7) Minimum / Maximum starting current	A	0,7 / 2,6	
	Correction of cos Ø	-	0,96 / 1	
DIMENSIONS & WEIGHT	Height x width x depth	mm	ecoGEO+ B: 1058x600x710 / ecoGEO+ C: 1845x600x720 & AU12: 900x1000x600	
	Empty weight (without packaging)	kg	ecoGEO+ B: 193 / ecoGEO+ C: 254 & AU12: 92	

1. Air-to-water by means of a brine-to water heat pump combined with a hydraulic outdoor air unit.
2. In compliance with EN 14511, including circulation pumps, fan and compressor driver consumptions.
3. Production flow rate according to EN 14511.
4. Considering a heat slope from 20 to 50 °C in absence of consumption.
5. Considering support provided by an emergency electrical heater or HTR. Max. DHW temp. with HTR can be limited by the compressor discharge temp.
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 information.
10. Certification in process.

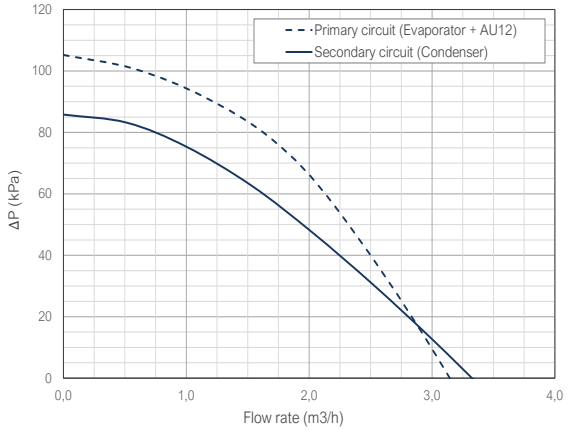
Dimensions and hydraulic connections



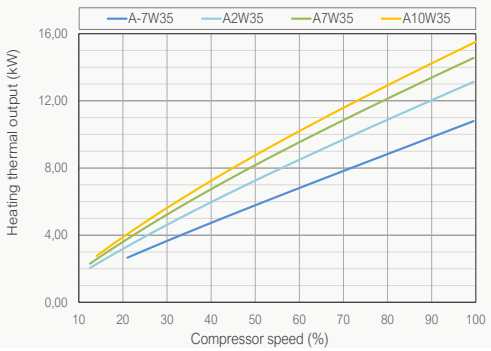


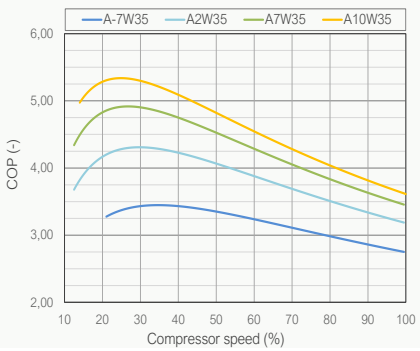
1. Heating/Cooling outlet 1 ¼" M
2. Heating/Cooling inlet 1 ¼" M
3. Brine outlet 1 ¼" M
4. Brine inlet 1 1/4" M
5. DHW system outlet 1 ¼" M
6. DHW system inlet 1 ¼" M
7. CW inlet 1" F
8. DHW outlet 1" F
9. DHW recirc. inlet ¾" F
10. Drain 16mm
11. AU source inlet 1 ½" M
12. AU source outlet 1 ½" M
13. AU drain 16mm

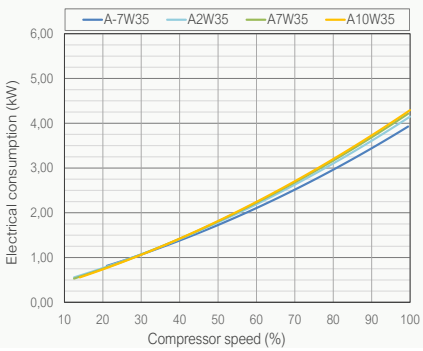
Available pressure drop



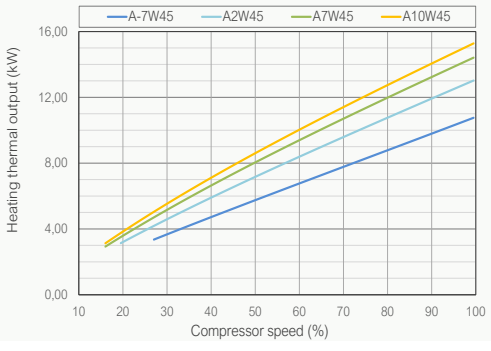
Heating W35

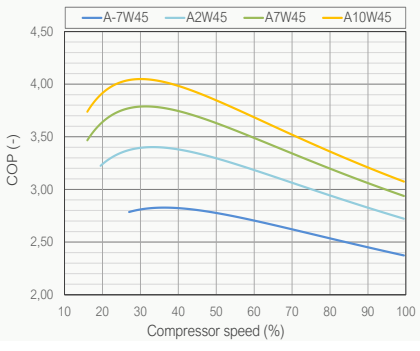


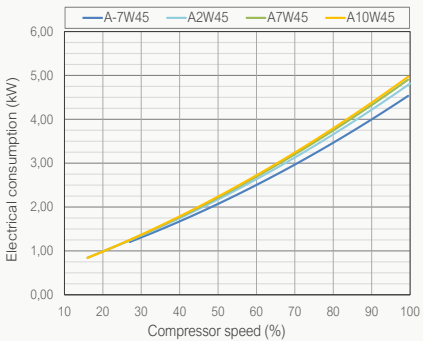




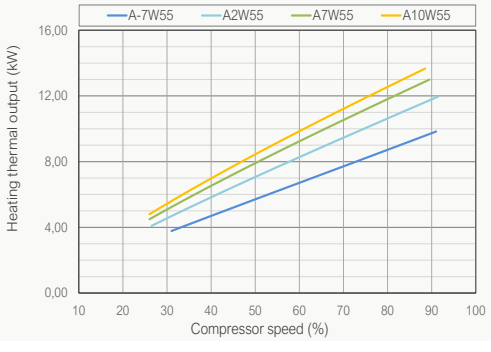
Heating W45

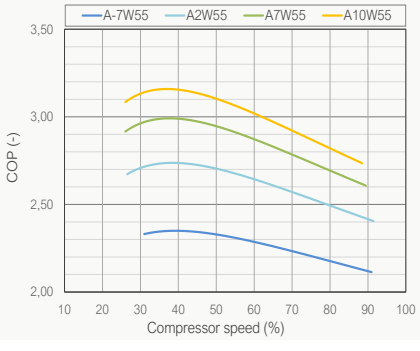


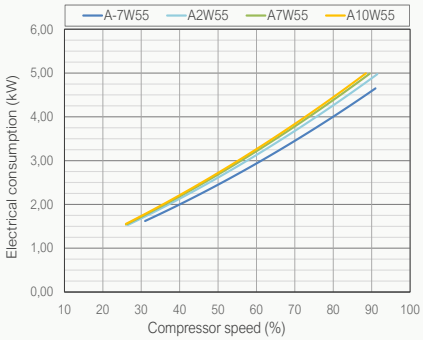




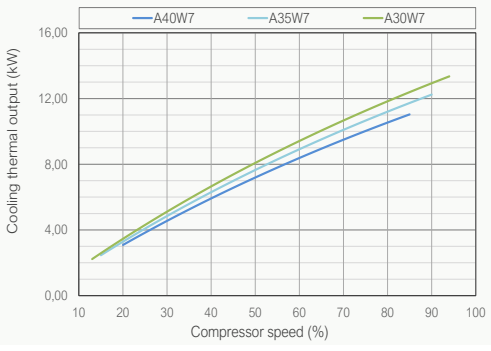
Heating W55

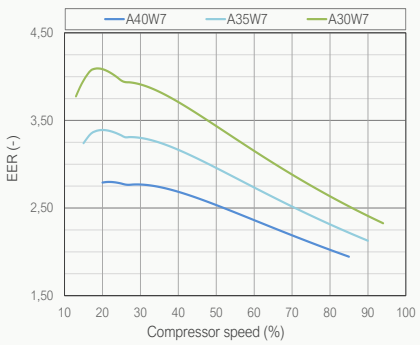


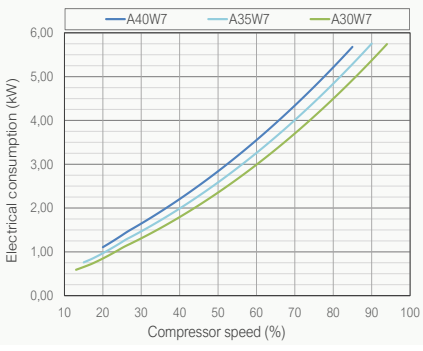




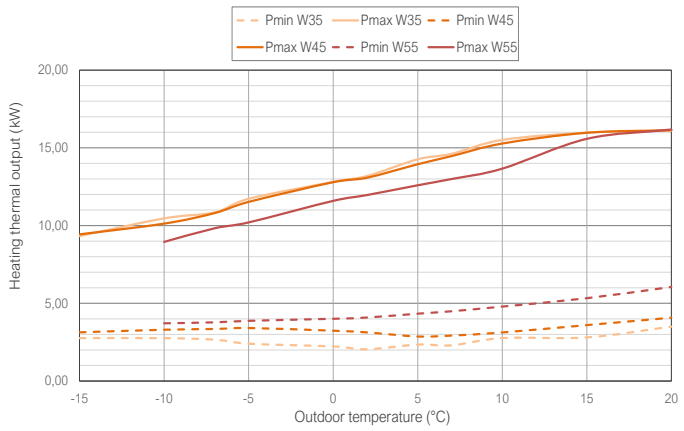
Cooling W7

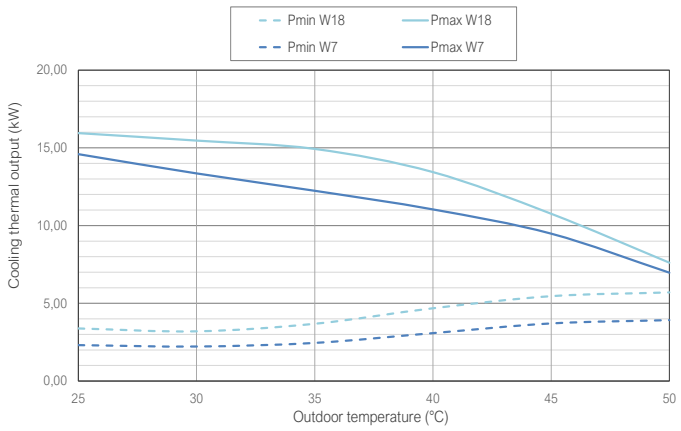






Thermal power - Outdoor temperature





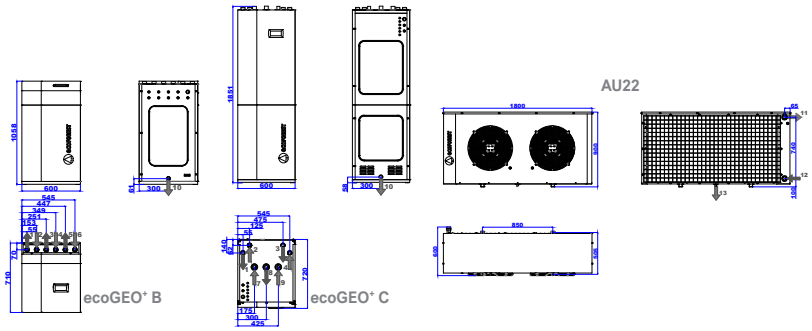
ecoGEO+ B/C 5-22 & AU22

Brine to water heat pumps with Inverter technology, R410A refrigerant and air source collection

SPECIFICATIONS ecoGEO+ Basic / Compact & AU			ecoGEO+ 5-22 & AU22	
			B2 / C2	B4 / C4
APPLICATION	Place of installation	-	ecoGEO+ : indoor / AU : outdoor	
	(1) Collection system	-	Air source	
	DHW, Heating and Pool heating	-	▪	
	Integrated active cooling	-	-	▪
PERFORMANCE	Compressor modulation range	%	15 - 100	
	(2) Heating power output / COP A7W35	kW / -	4,6 - 21,3 / 5,1	
	(2) Heating power output / COP A7W55	kW / -	5,6 - 16,7 / 3,1	
	(2) Cooling power output / EER A35W7	kW / -	-	5,1 - 15,2 / 3,7
	(5) Max. DHW outlet temperature without / with support	°C	63 / 70	
	(6) Indoor / Outdoor noise power level (LWA)	dB (A)	42 / 55	
	Energy label / ηs / SCOP W35 average clim. with control	-	A+++ / 195% / 4,95	
	Energy label / ηs / SCOP W55 average clim. with control	-	A++ / 149% / 3,80	
OPERATION LIMITS	Distribution / Set heating outlet temperature range	°C	10 - 60 / 20 - 60	
	Distribution / Set cooling outlet temperature range	°C	-	5 - 35 / 7 - 30
	Outdoor temperature range	°C	-10 - 50	
	Minimum / Maximum refrigerant circuit pressure	bar	2,0 / 45,0	
	Production circuit pressure range	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	R410A refrigerant load (GWP: 2088)	kg	1,40	1,50
	Compressor oil type / load	kg	POE / 1,18	
	Primary circ. flow rate (Pmax, A7W35) ΔT 3°C / ΔT 5°C	m^3/h	5,3 / 3,2	
	Secondary circ. flow rate (Pmax, A7W35) ΔT 5°C / ΔT 7°C	m^3/h	3,8 / 2,7	
	Min. water volume for defrosting (35°C, ΔT 5°C)	l	200,0	
	Nominal air flow rate	m^3/h	6618	
CONTROL ELECTRICAL DATA	(8) 1/N/PE 230 V / 50-60 Hz	-	▪	
	(9) 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	(8) 1/N/PE 230 V / 50-60 Hz	-	▪	
	(9) Recommended external protection	-	C32A	
	(2) Maximum consumption A7W35	kW / A	5,5 / 23,9	
	(2) Maximum consumption A7W55	kW / A	5,5 / 23,9	
	(7) Minimum / Maximum starting current	A	2,6 / 12,5	
	Correction of cos Ø	-	0,96 / 1	
HEAT PUMP ELECTRICAL DATA: THREE-PHASE VERSION	(8) 3/PE 400 V / 50-60 Hz	-	▪	
	(9) Recommended external protection	-	C16A	
	(2) Maximum consumption A7W35	kW / A	6,0 / 8,7	
	(2) Maximum consumption A7W55	kW / A	6,0 / 8,7	
	(7) Minimum / Maximum starting current	A	0,9 / 4,2	
	Correction of cos Ø	-	0,96 / 1	
DIMENSIONS & WEIGHT	Height x width x depth	mm	ecoGEO+ B: 1058x600x710 / ecoGEO+ C: 1845x600x720 & AU22: 900x1800x600	
	Empty weight (without packaging)	kg	ecoGEO+ B: 193 / ecoGEO+ C: 255 & AU22: 175	

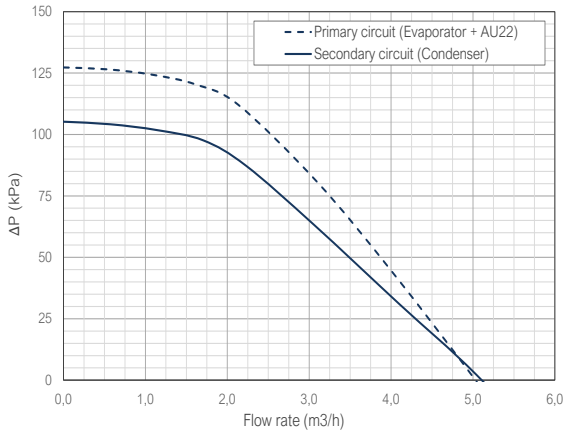
1. Air-to-water by means of a brine-to water heat pump combined with a hydraulic outdoor air unit.
2. In compliance with EN 14511, including circulation pumps, fan and compressor driver consumptions.
3. Production flow rate according to EN 14511.
4. Considering a heat slope from 20 to 50 °C in absence of consumption.
5. Considering support provided by an emergency electrical heater or HTR. Max. DHW temp. with HTR can be limited by the compressor discharge temp.
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 information.
10. Certification in process.

Dimensions and hydraulic connections

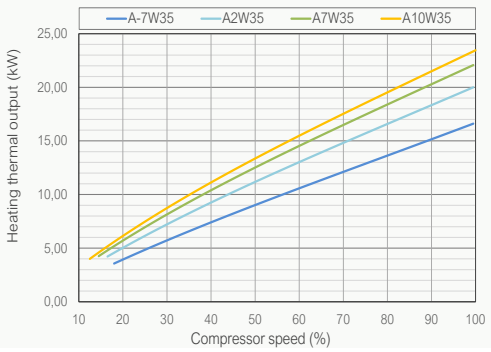


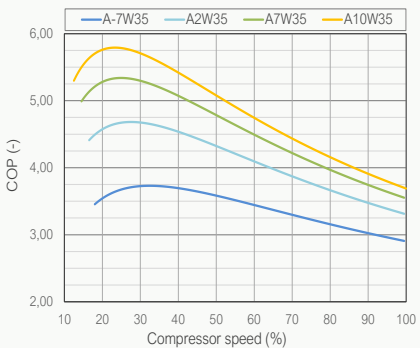
1. Heating/Cooling outlet 1 ¼" M
2. Heating/Cooling inlet 1 ¼" M
3. Brine outlet 1 ¼" M
4. Brine inlet 1 1/4" M
5. DHW system outlet 1 ¼" M
6. DHW system inlet 1 ¼" M
7. CW inlet 1" H
8. DHW outlet 1" H
9. DHW recirc. inlet ¾" H
10. Drain 16mm
11. AU source inlet 1 ½" M
12. AU source outlet 1 ½" M
13. AU drain 16mm

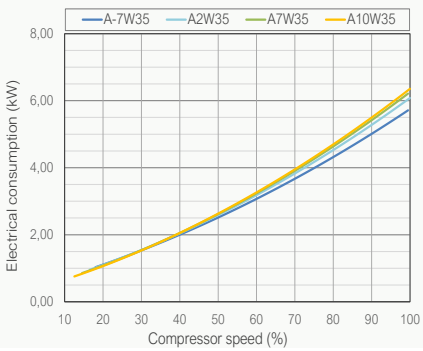
Available pressure drop



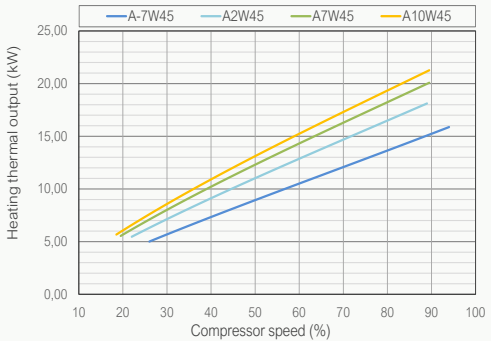
Heating W35

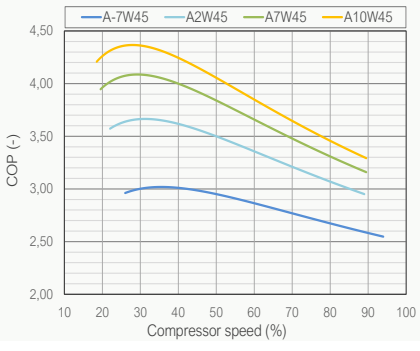


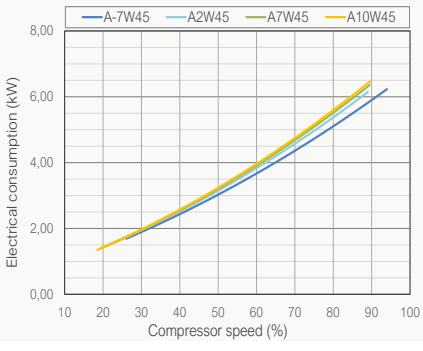




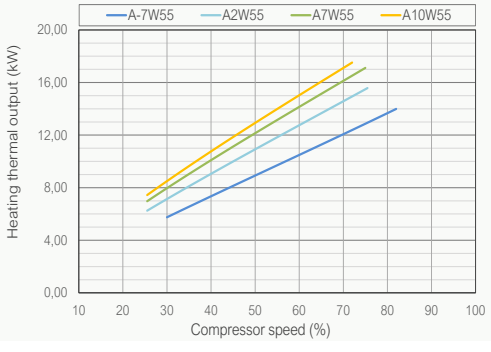
Heating W45

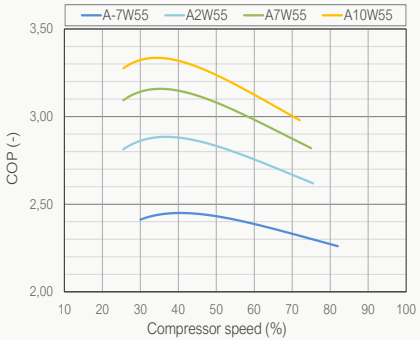


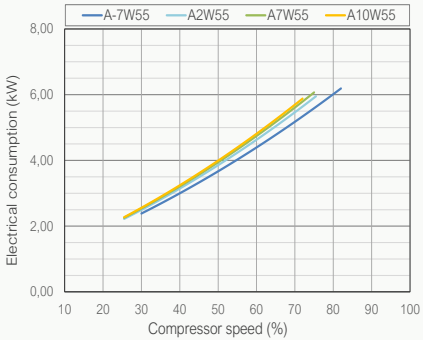




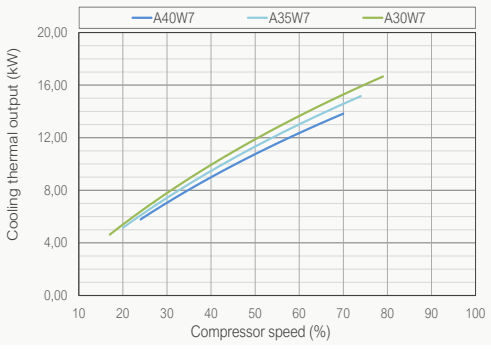
Heating W55

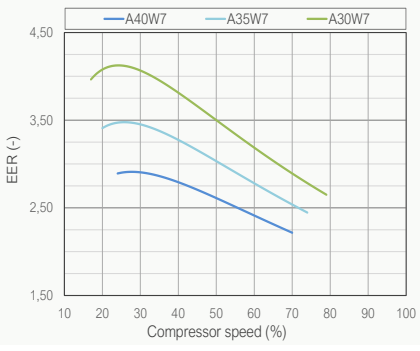


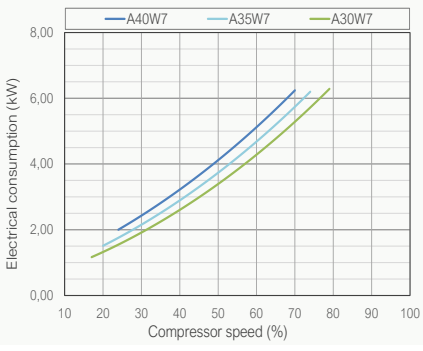




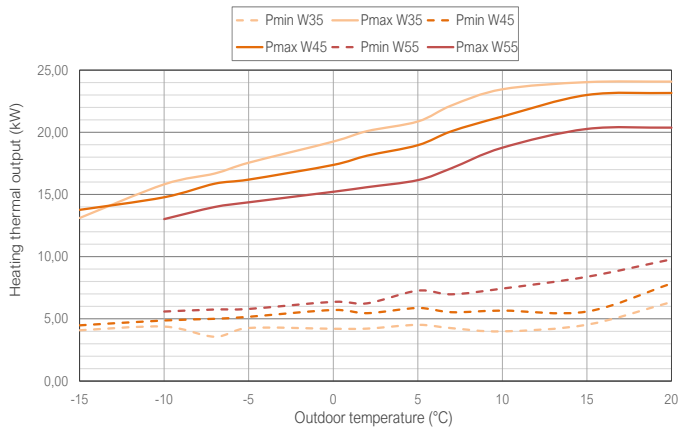
Cooling W7

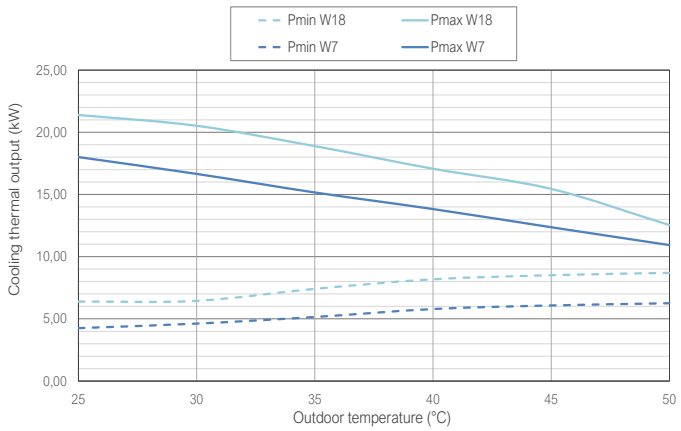






Thermal power - Outdoor temperature





Ground source

Ecoforest's brine to water systems have always stood out for their technological differentiation and unique efficiency.

These units, which cover applications ranging from residential to commercial, feature Inverter modulation and optional reversible refrigeration circuit for cooling production as standard across all ranges.
Options for multi-source collection systems, integrated passive cooling, integrated HTR recovery system, and many other features ensure the highest performance for each installation.

The availability of these units with different refrigerants allows for selecting the most suitable equipment for each application and project. In addition to the existing ranges with R410A and R290, a new range with R454B has been added.

ecoGEO+

Brine to water heat pumps

R290 R410A R454B

ecoGEO+

High efficiency ground source for residential and commercial applications

ecoGEO+ Lite/B/C PRO

R290

ecoGEO+ Lite/
B/C 1-6 PRO

R290

ecoGEO+ B/C
2-10 PRO

R290

ecoGEO+ B/C
4-16 PRO

ecoGEO+ B/C

R410A

ecoGEO+ B/C
1-9

R410A

ecoGEO+ B/C
3-12

R410A

ecoGEO+ B/C
5-22

ecoGEO+ HP

R410A

ecoGEO+ HP
12-45

R410A

ecoGEO+ HP
15-60

R410A

ecoGEO+ HP
20-85

ecoGEO+ HP R454B

R454B

ecoGEO+ HP
170 R454B

New building

Retrofit

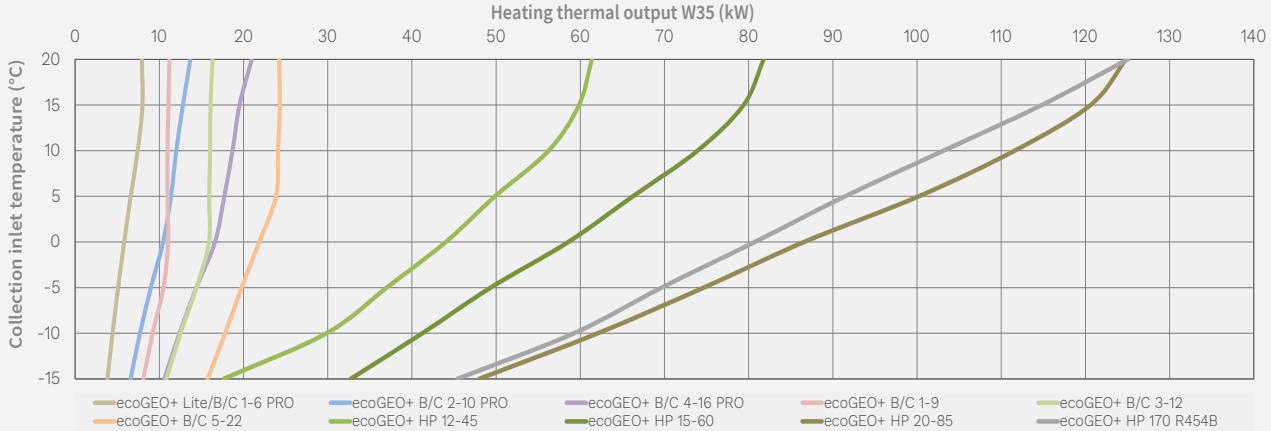
Single house

Multiple dwelling

Single-phase - 230 Vac

Three-phase - 400 Vac

Equipment selection



ecoGEO+ Lite PRO

R290

Models

ecoGEO+ 1-6 PRO — 3 Phase 230 Vac

Options

ecoGEO+ Lite1	ecoGEO+ Lite3
DHW *	DHW *
Heating	Heating
	Pasive cooling
	Active cooling

* *External DHW tank*

Services

- DHW (70°C)
- Heating (70°C)
- Cooling (5°C)

Compatible production systems

- Heat./Cool. floor
- Fancoils
- Radiators

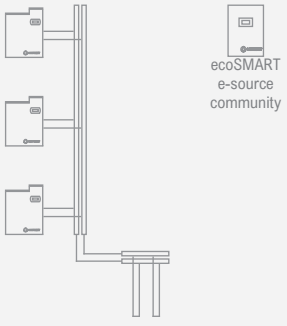
Management of shunt groups

- x1
- x2

Performance

- Plug & Play
- Min. acoustic level
- Compact solution
- Lifespan

Applications with common collection

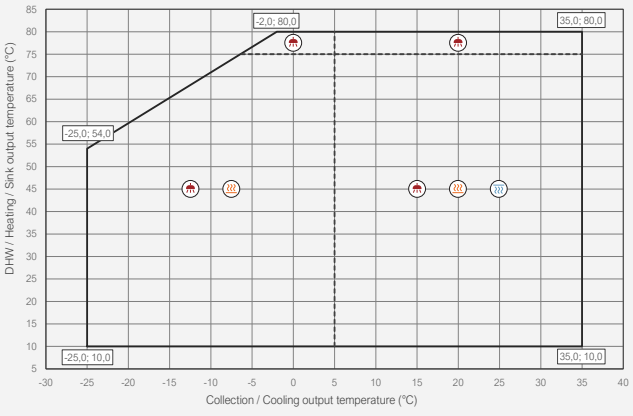


Characteristics

- 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, 12L expansion vessel for production, source and production safety valves, and a 3-way valve for DHW.
- Integrated control of up to two different flow temperatures and one DHW tank.
- Integrated management of on/off external backup resistance for DHW service.
- Active cooling via cycle inversion integrated in Lite3 models.
- Models available in single-phase version.
- Integrated photovoltaic hybridisation.
- Integrated energy meters for monitoring electrical consumption, thermal output (heating/cooling), and instantaneous as well as seasonal efficiency monthly and annual.
- Refrigerant detection and evacuation system not required in ecoGEO⁺ Lite 1-6 PRO models.

Operational chart

ecoGEO⁺ Lite 1-6 PRO



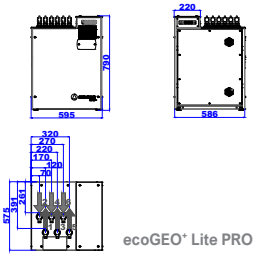
ecoGEO+ Lite 1-6 PRO

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

SPECIFICATIONS ecoGEO+ Lite PRO			ecoGEO+ 1-6	
			Lite1	Lite3
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
	(5) Max. DHW outlet temperature without / with support	°C	75 / 80	
	(6) Noise power level (LWA)	dB (A)	44	
	Energy label / ηs / SCOP W35 average clim. with control	-	A+++ / 184% / 4,71	
	Energy label / ηs / 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	-25 - 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	-	
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	(8) 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	(8) 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	790x595x575	
	Empty weight (without packaging)	kg	107	

1. Air-to-water by means of a brine-to water heat pump combined with a hydraulic outdoor air unit.
2. In compliance with EN 14511, including circulation pumps, fan and compressor driver consumptions.
3. Production flow rate according to EN 14511.
4. Considering a heat slope from 20 to 50 °C in absence of consumption.
5. Considering support provided by an emergency electrical heater or HTR. Max. DHW temp. with HTR can be limited by the compressor discharge temp.
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 information.
10. Certification in process.

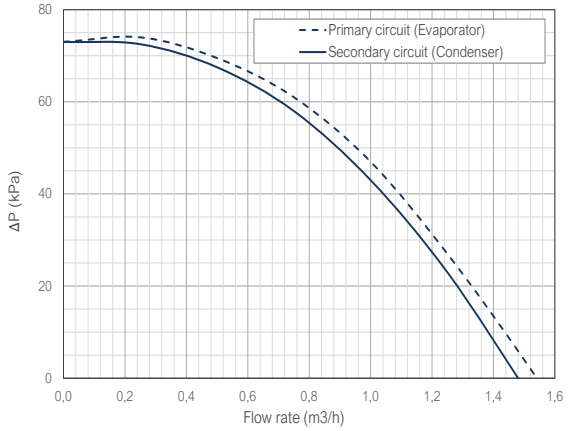
Dimensions and hydraulic connections



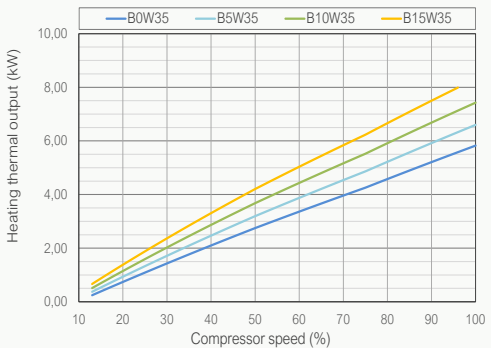
ecoGEO+ Lite PRO

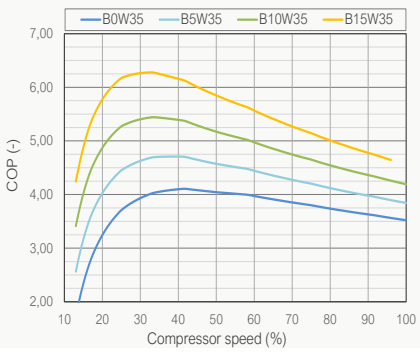
1. Heating/Cooling outlet **1" M**
2. Heating/Cooling inlet **1" M**
3. Brine outlet **1" M**
4. Brine inlet **1" M**
5. DHW system outlet **1" M**
6. DHW system inlet **1" M**
7. Drain **¾" M**

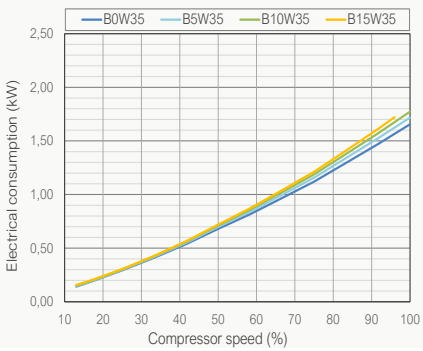
Available pressure drop



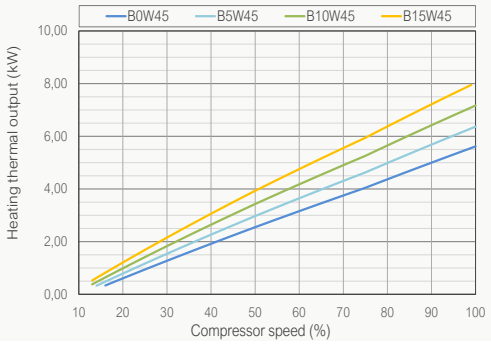
Heating W35

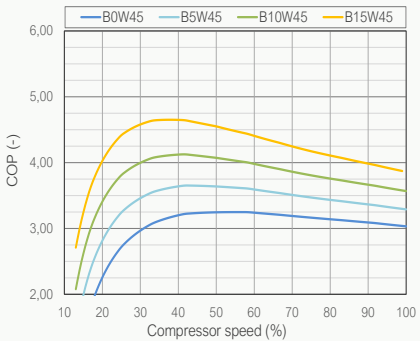


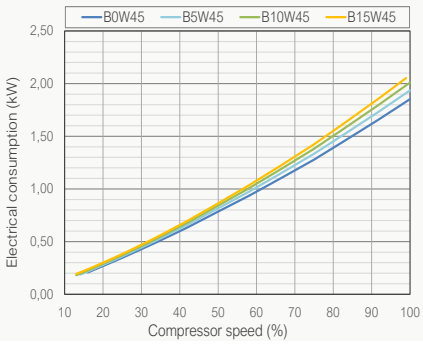




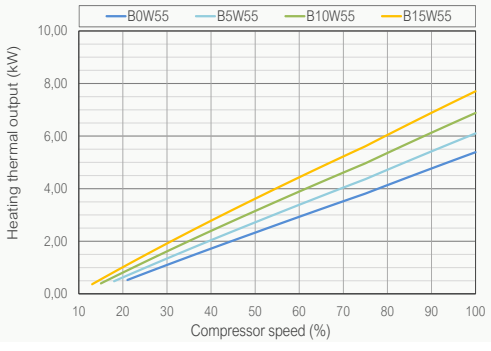
Heating W45

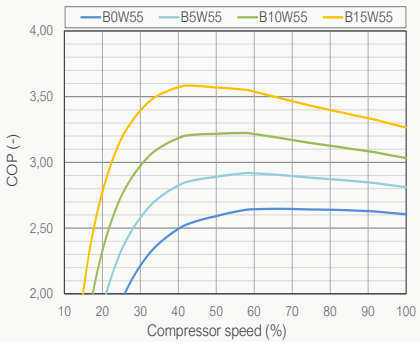


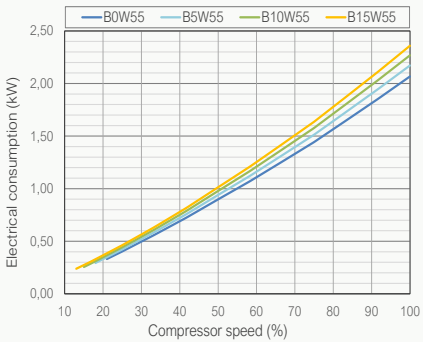




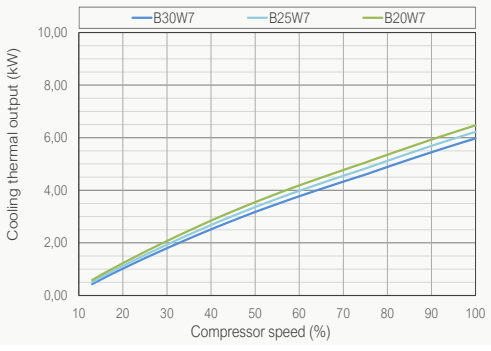
Heating W55

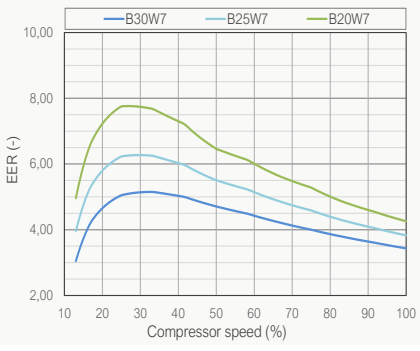


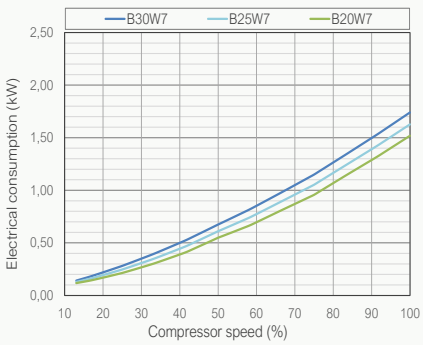




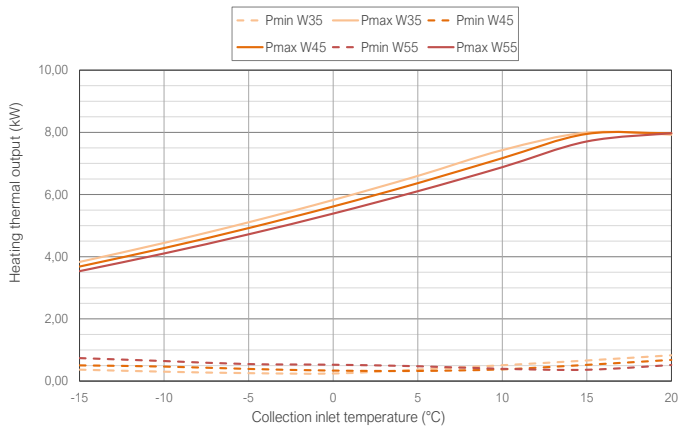
Cooling W7

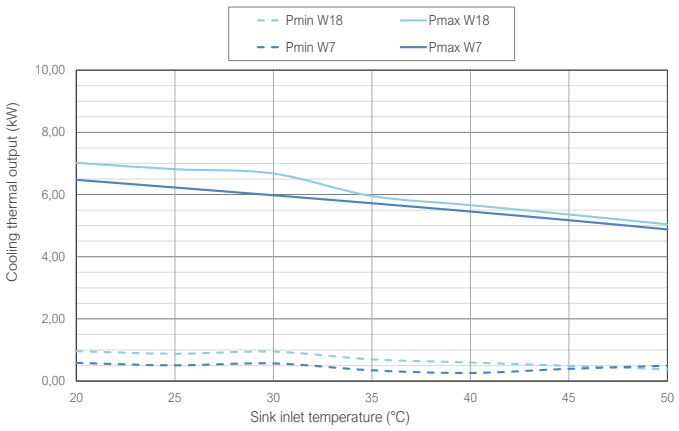






Thermal power - Brine system temperature





ecoGEO+ B/C PRO

Models

	Single-phase 230 Vac	Three-phase 400 Vac
ecoGEO+ 1-6 PRO		
ecoGEO+ 2-10 PRO		
ecoGEO+ 4-16 PRO		

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 (70°C)
- Heating (70°C)
- Cooling (5°C)
- Pool (55°C)

Compatible production systems

- Heat./Cool. floor
- Fancoils
- Radiators

Management of shunt groups

- x1
- x1
- x1
- x2/3

Performance

- Plug & Play
- Min. acoustic level
- HTR Technology
- Lifespan

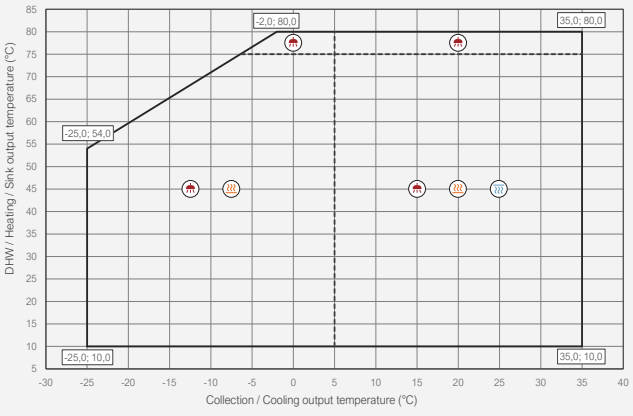
Cascade

Characteristics

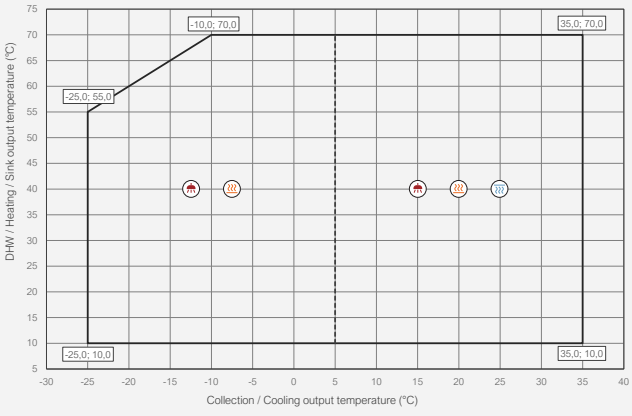
- Modulating thermal output control across a wide range (17%–100%) and modulating flow control in both source and production circuits (20%–100%).
- Natural refrigerant R290: GWP 3.
- Inverter technology.
- Compact design including source and production circulators, 8L and 12L expansion vessels for source 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 I ecoGEO⁺ B/C 4-16 PRO



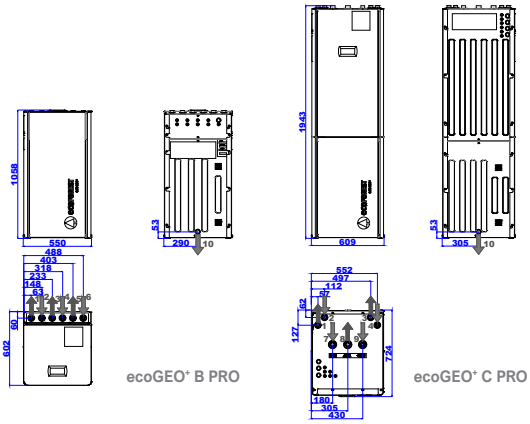
ecoGEO+ B/C 1-6 PRO

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	
	(5) Max. DHW outlet temperature without / with support	°C	75 / 80			
	(6) Noise power level (LWA)	dB (A)	44			
	Energy label / ηs / SCOP W35 average clim. with control	-	A+++ / 184% / 4,71			
	Energy label / ηs / 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	-25 - 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	(8) 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	(8) 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	B: 133 / C: 194

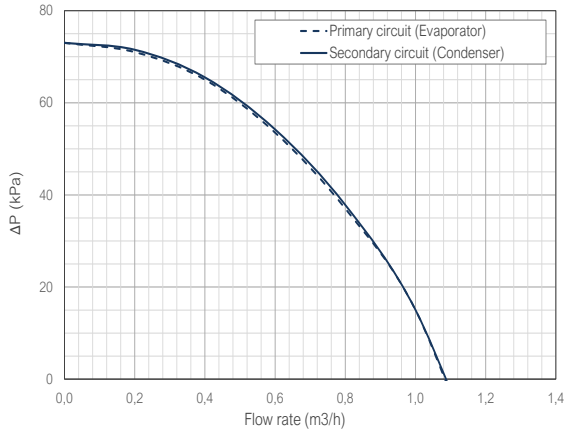
1. Air-to-water by means of a brine-to water heat pump combined with a hydraulic outdoor air unit.
2. In compliance with EN 14511, including circulation pumps, fan and compressor driver consumptions.
3. Production flow rate according to EN 14511.
4. Considering a heat slope from 20 to 50 °C in absence of consumption.
5. Considering support provided by an emergency electrical heater or HTR. Max. DHW temp. with HTR can be limited by the compressor discharge temp.
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 information.
10. Certification in process.

Dimensions and hydraulic connections

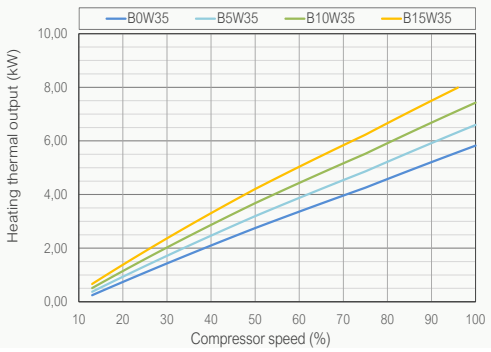


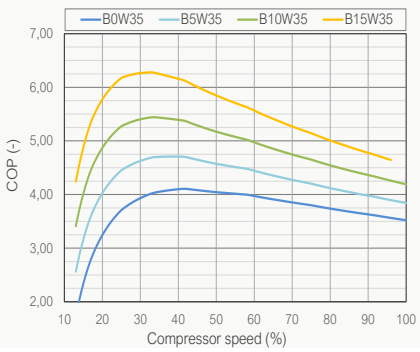
1. Heating/Cooling outlet **1" M**
2. Heating/Cooling inlet **1" M**
3. Brine outlet **1" M**
4. Brine inlet **1" M**
5. DHW system outlet **1" M**
6. DHW system inlet **1" M**
7. CW inlet **1" F**
8. DHW outlet **1" F**
9. DHW recirculation inlet **¾" F**
10. Drain **16mm**

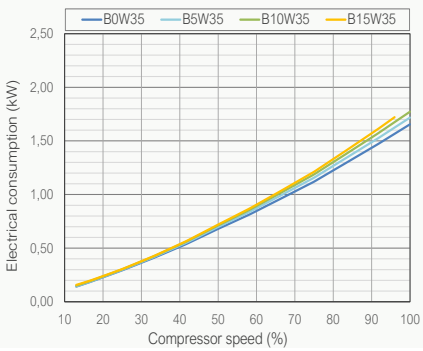
Available pressure drop



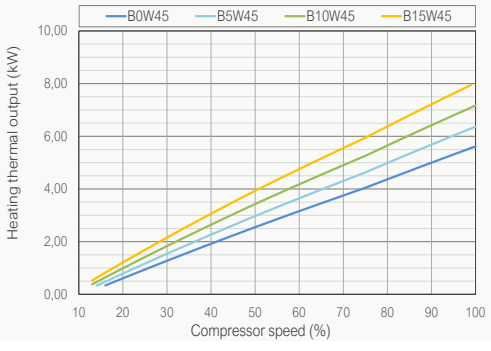
Heating W35

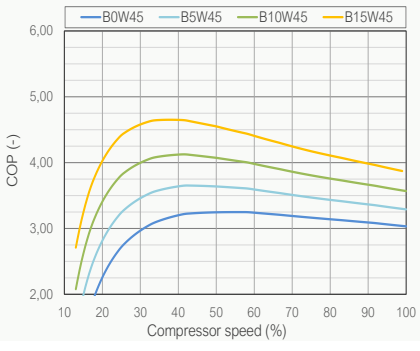


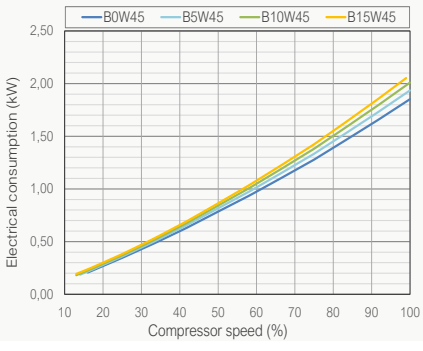




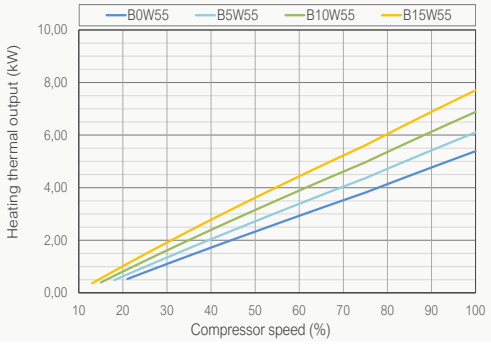
Heating W45

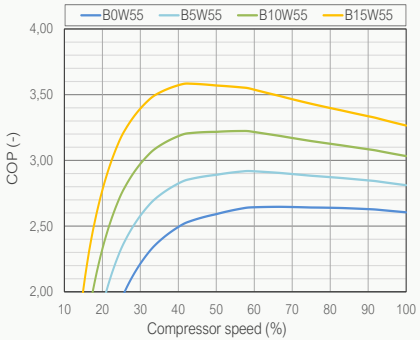


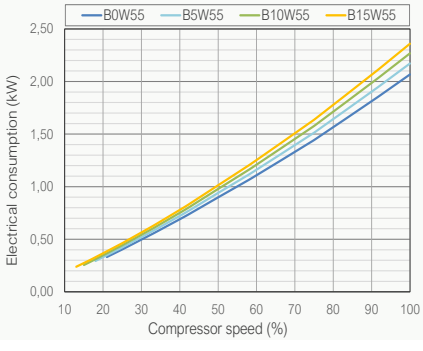




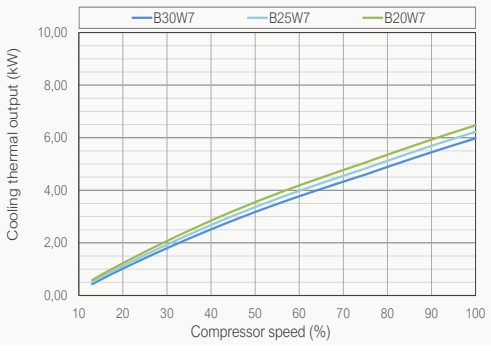
Heating W55

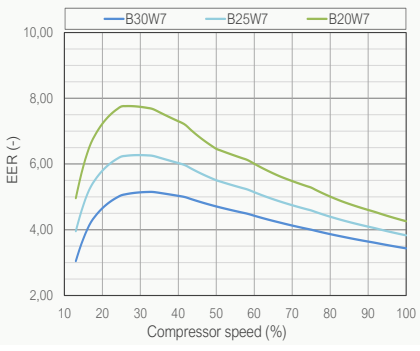


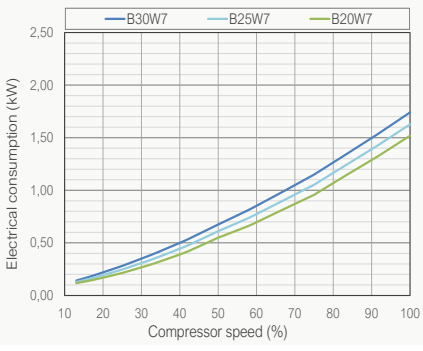




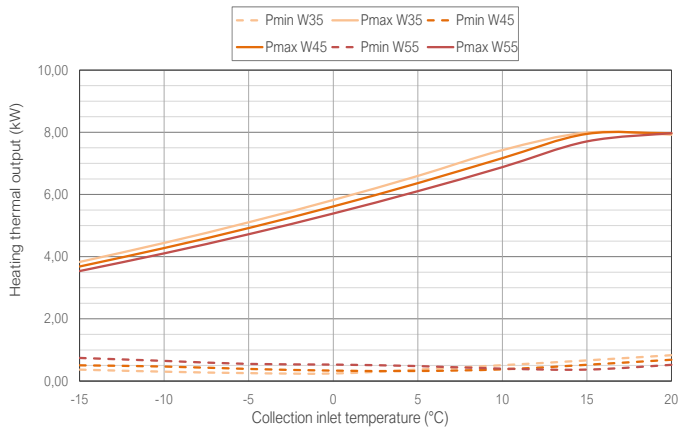
Cooling W7

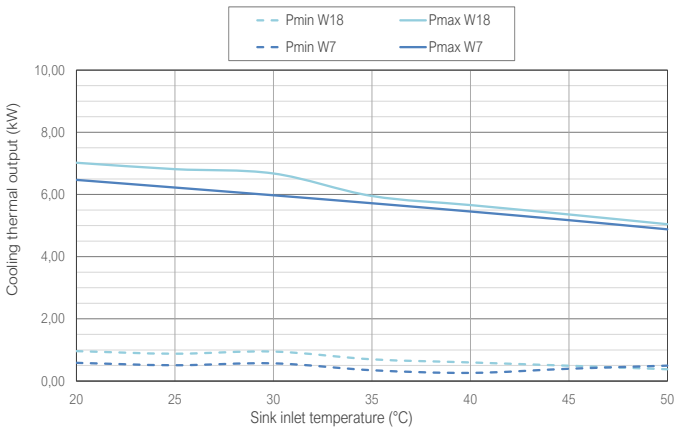






Thermal power - Brine system temperature





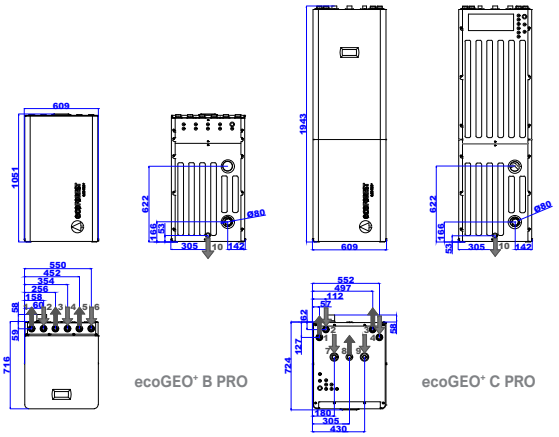
ecoGEO+ B/C 2-10 PRO

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	
	(5) Max. DHW outlet temperature without / with support	°C	70 / 80			
	(6) Noise power level (LWA)	dB (A)	42			
	Energy label / ηs / SCOP W35 average clim. with control	-	A+++ / 187% / 4,78			
	Energy label / ηs / 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	-25 - 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	m^3/h	2,4 / 1,5			
	Secondary circ. flow rate (Pmax, B0W35) ΔT 5°C / ΔT 7°C	m^3/h	1,8 / 1,3			
CONTROL ELECTRICAL DATA	(8) 1/N/PE 230 V / 50-60 Hz	-	▪			
	(9) 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	(8) 1/N/PE 230 V / 50-60 Hz	-	▪			
	(9) 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 Ø	-	0,96 / 1			
HEAT PUMP ELECTRICAL DATA: THREE-PHASE VERSION	(8) 3/PE 400 V / 50-60 Hz	-	▪			
	(9) 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 Ø	-	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

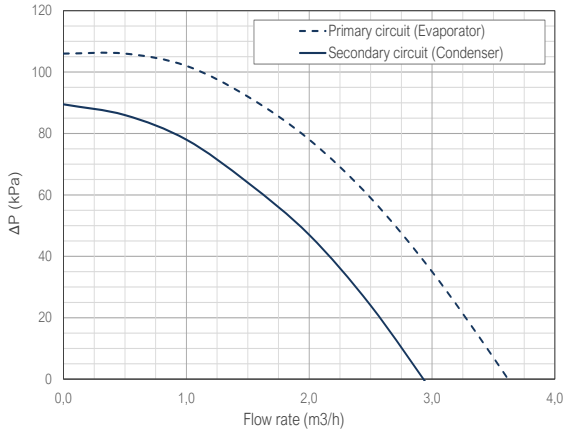
1. Air-to-water by means of a brine-to water heat pump combined with a hydraulic outdoor air unit.
2. In compliance with EN 14511, including circulation pumps, fan and compressor driver consumptions.
3. Production flow rate according to EN 14511.
4. Considering a heat slope from 20 to 50 °C in absence of consumption.
5. Considering support provided by an emergency electrical heater or HTR. Max. DHW temp. with HTR can be limited by the compressor discharge temp.
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 information.
10. Certification in process.

Dimensions and hydraulic connections

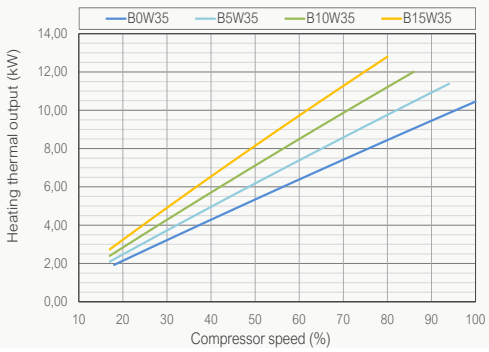


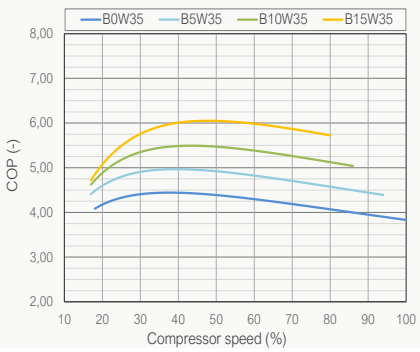
1. Heating/Cooling outlet **1 ¼" M**
2. Heating/Cooling inlet **1 ¼" M**
3. Brine outlet **1 ¼" M**
4. Brine inlet **1 ¼" M**
5. DHW system outlet **1 ¼" M**
6. DHW system inlet **1 ¼" M**
7. CW inlet **1" F**
8. DHW outlet **1" F**
9. DHW recirculation inlet **¾" F**
10. Drain **16mm**

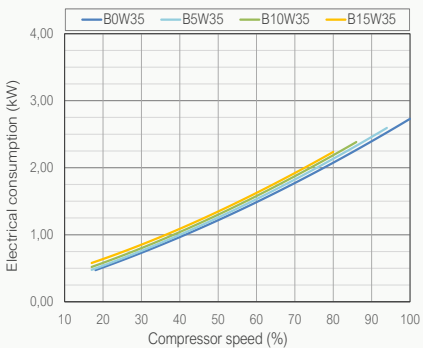
Available pressure drop



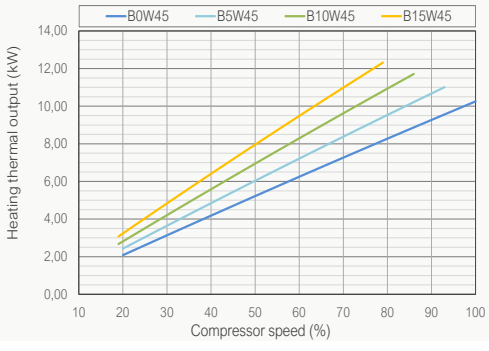
Heating **W35**

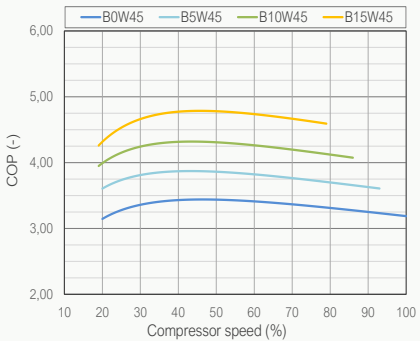


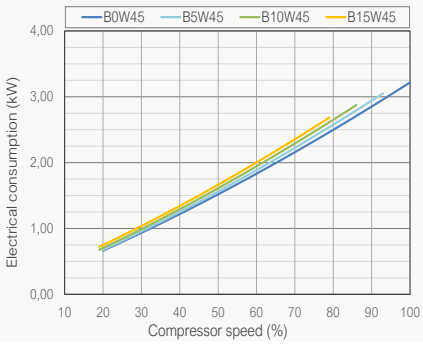




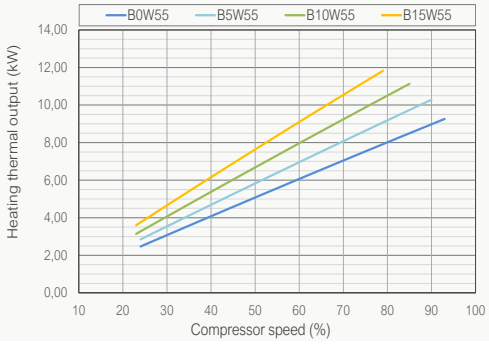
Heating **W45**

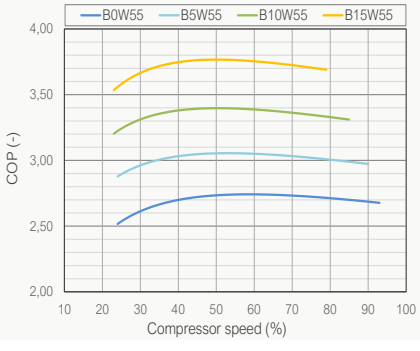


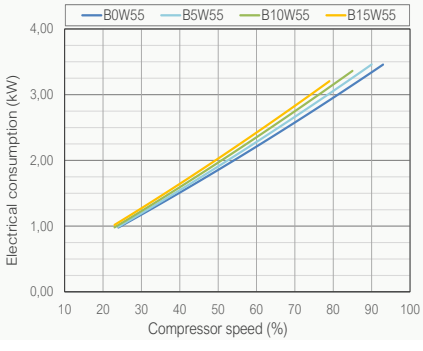




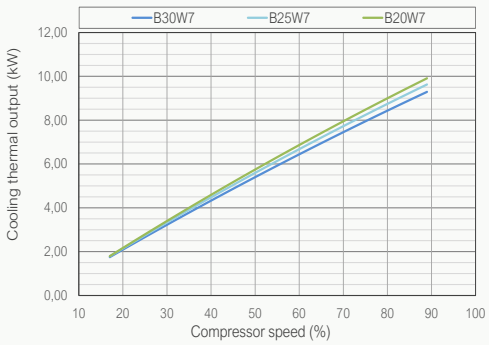
Heating **W55**

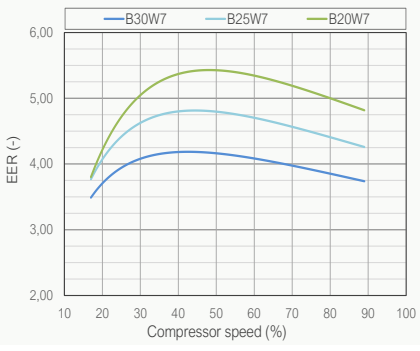


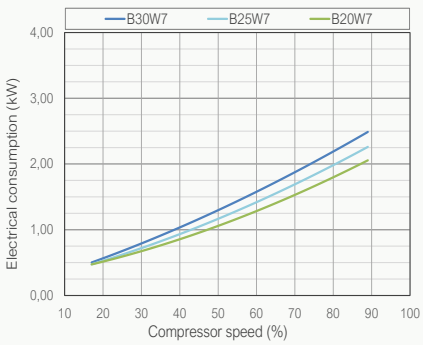




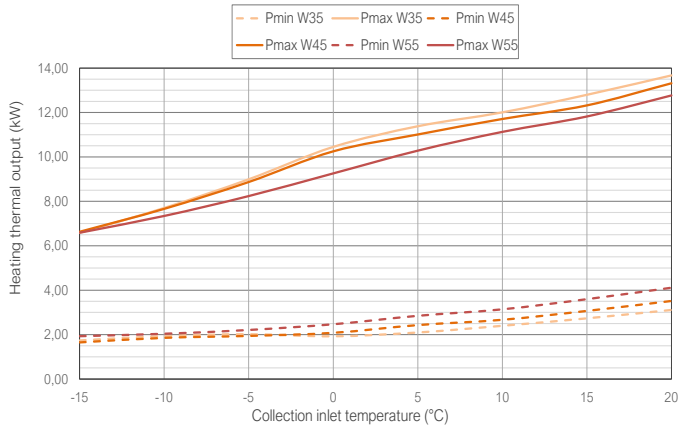
Cooling **W7**

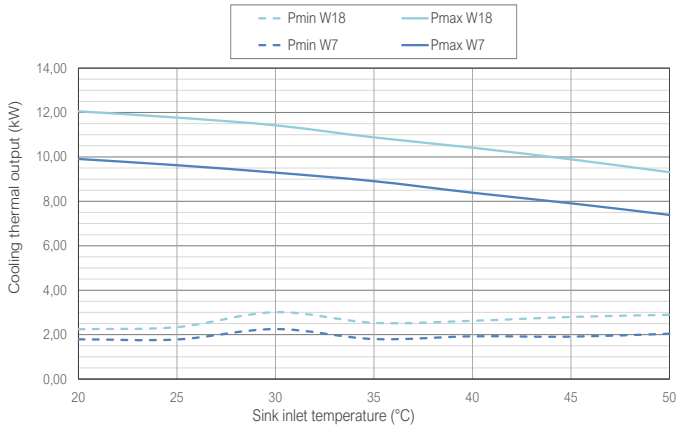






Thermal power - Brine system temperature





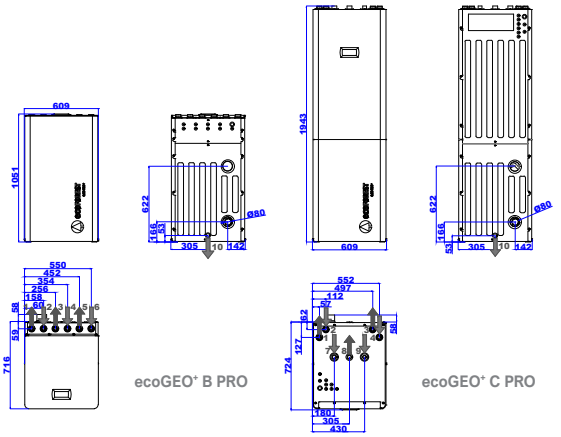
ecoGEO+ B/C 4-16 PRO

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

SPECIFICATIONS ecoGEO+ Basic / Compact PRO			ecoGEO+ 4-16 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 / -	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	
	(5) Max. DHW outlet temperature without / with support	°C	70 / 80			
	(6) Noise power level (LWA)	dB (A)	42			
	Energy label / ηs / SCOP W35 average clim. with control	-	A+++ / 190% / 4,89			
	Energy label / ηs / 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	-25 - 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	m^3/h	3,9 / 2,3			
	Secondary circ. flow rate (Pmax, B0W35) ΔT 5°C / ΔT 7°C	m^3/h	2,9 / 2,0			
CONTROL ELECTRICAL DATA	(8) 1/N/PE 230 V / 50-60 Hz	-	▪			
	(9) 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	(8) 1/N/PE 230 V / 50-60 Hz	-	▪			
	(9) 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			
	Correction of cos Ø	-	0,96 / 1			
HEAT PUMP ELECTRICAL DATA: THREE-PHASE VERSION	(8) 3/PE 400 V / 50-60 Hz	-	▪			
	(9) Recommended external protection	-	C16A			
	(2) Maximum consumption B0W35	kW / A	4,4 / 6,4			
	(2) Maximum consumption B0W55	kW / A	5,5 / 7,9			
	(7) Minimum / Maximum starting current	A	0,9 / 4,2			
	Correction of cos Ø	-	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

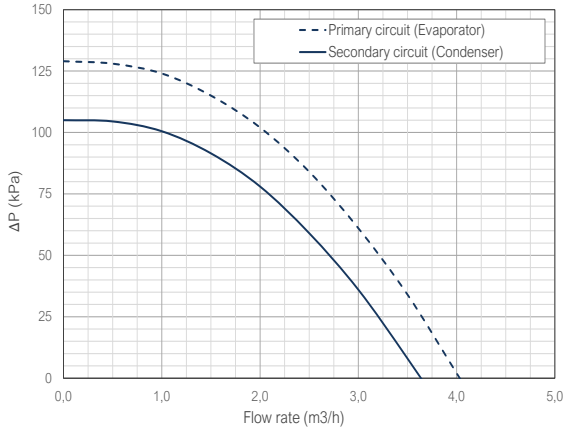
1. Air-to-water by means of a brine-to water heat pump combined with a hydraulic outdoor air unit.
2. In compliance with EN 14511, including circulation pumps, fan and compressor driver consumptions.
3. Production flow rate according to EN 14511.
4. Considering a heat slope from 20 to 50 °C in absence of consumption.
5. Considering support provided by an emergency electrical heater or HTR. Max. DHW temp. with HTR can be limited by the compressor discharge temp.
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 information.
10. Certification in process.

Dimensions and hydraulic connections

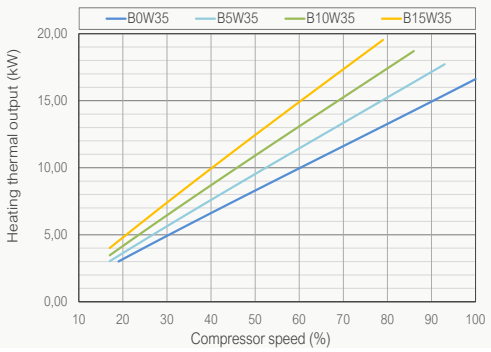


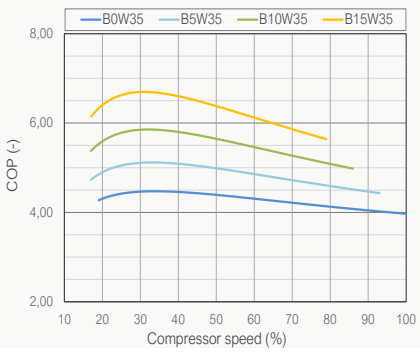
1. Heating/Cooling outlet **1 ¼" M**
2. Heating/Cooling inlet **1 ¼" M**
3. Brine outlet **1 ¼" M**
4. Brine inlet **1 ¼" M**
5. DHW system outlet **1 ¼" M**
6. DHW system inlet **1 ¼" M**
7. CW inlet **1" F**
8. DHW outlet **1" F**
9. DHW recirculation inlet **¾" F**
10. Drain **16mm**

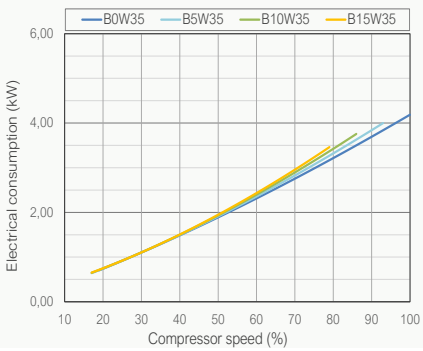
Available pressure drop



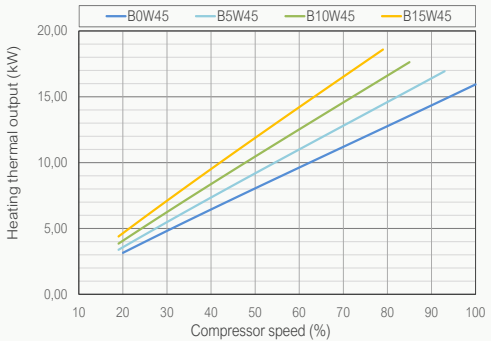
Heating W35

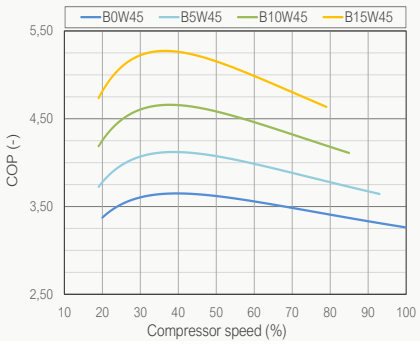


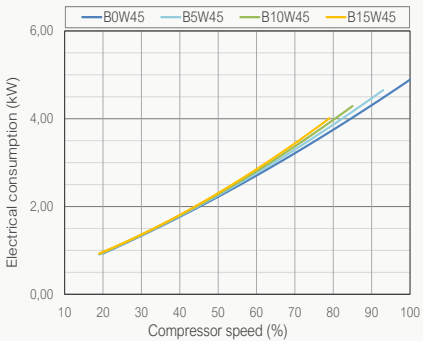




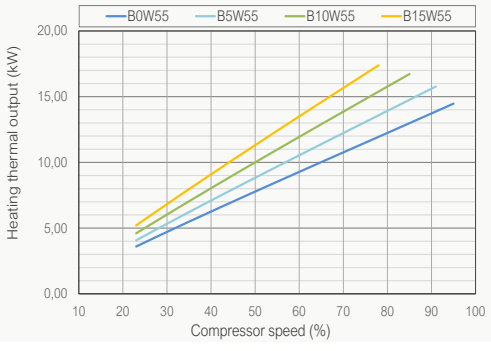
Heating W45

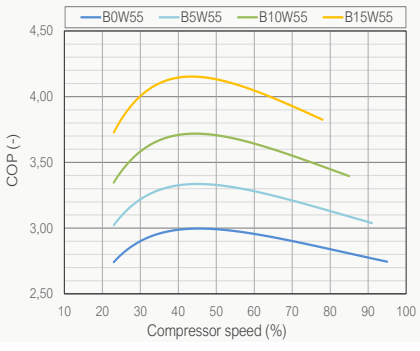


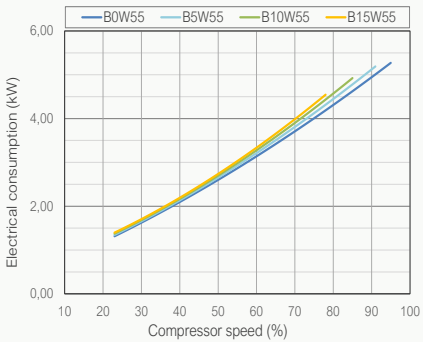




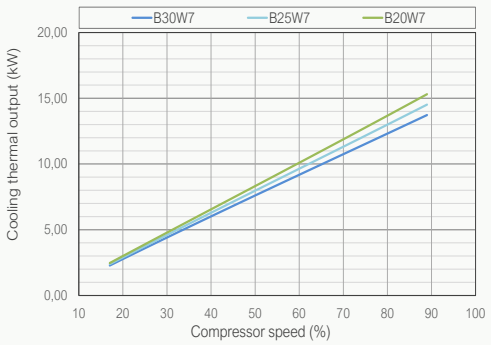
Heating W55

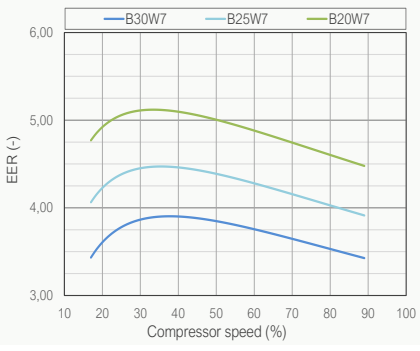


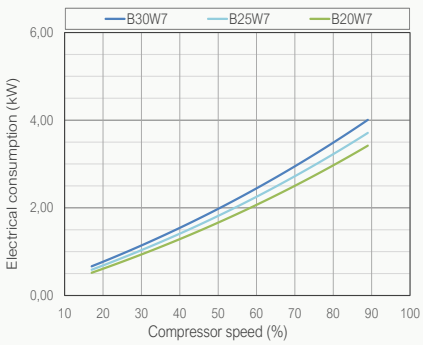




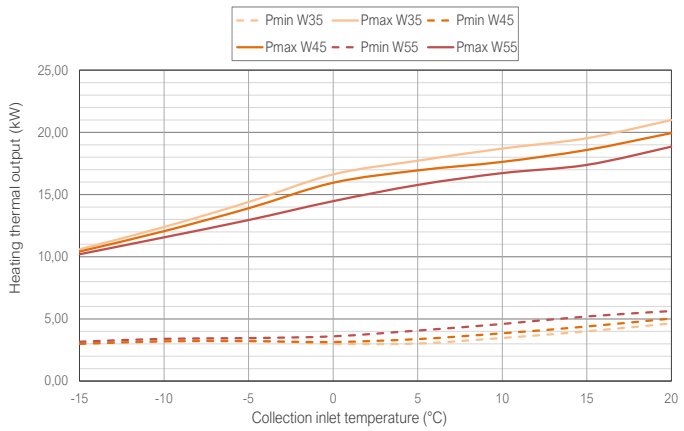
Cooling W7

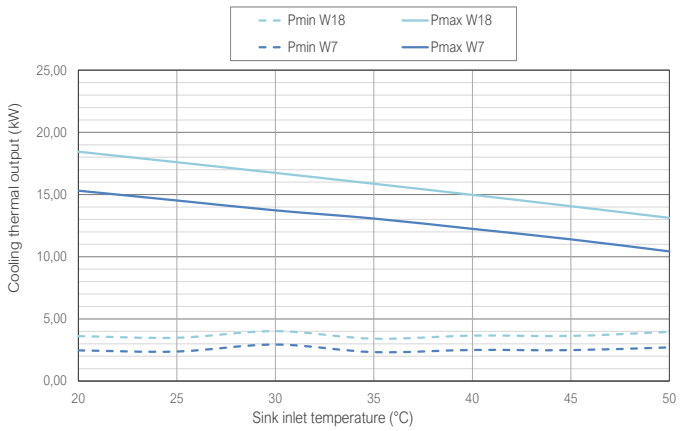






Thermal power - Brine system temperature





ecoGEO+ B/C

R410A

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
	Pasive cooling	Active cooling	Pasive cooling
			Active cooling

** External DHW tank in B models*

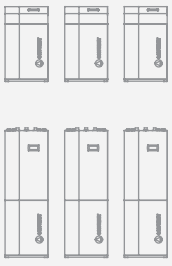
Services

Compatible production systems

Management of shunt groups

Performance

Cascade

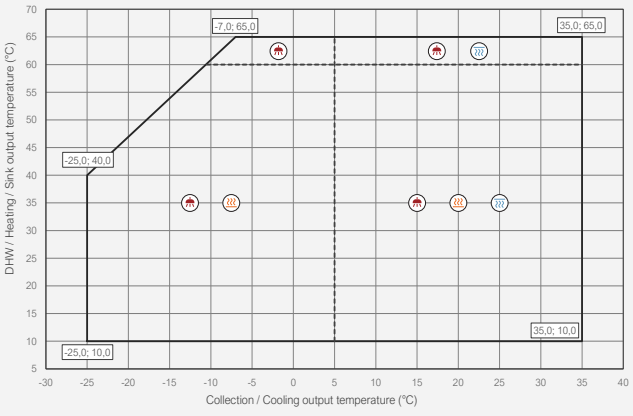


Characteristics

- Modulating thermal output control across a wide range (17%–100%) and modulating flow control in both source and production circuits (20%–100%).
- R410A refrigerant.
- Inverter technology.
- Compact design including source and production circulators, 8L and 12L expansion vessels for source and production respectively, safety valves for source and production circuits, 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.
- 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 of up to three heat pumps.
- Integrated management of simultaneous heating/cooling production and emission systems, depending on 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.

Operational chart

ecoGEO+ B/C 1-9 I ecoGEO+ B/C 3-12 I ecoGEO+ B/C 5-22



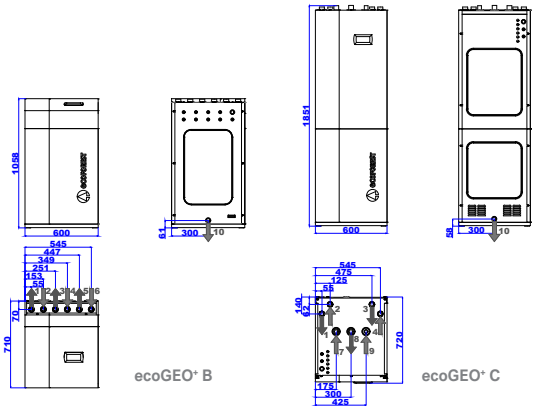
ecoGEO+ B/C 1-9

Brine to water heat pumps with Inverter technology and R410A refrigerant

SPECIFICATIONS ecoGEO+ Basic / Compact			ecoGEO+ 1-9			
			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 / -	1,3 - 11,0 / 4,5			
	(2) Heating power output / COP B0W55	kW / -	2,9 - 10,2 / 2,7			
	(2) Cooling power output / EER B30W7	kW / -	-	-	1,4 - 11,0 / 5,2	
	(5) Max. DHW outlet temperature without / with support	°C	63 / 70			
	(6) Noise power level (LWA)	dB (A)	54			
	Energy label / ηs / SCOP W35 average clim. with control	-	A+++ / 190% / 4,84			
	Energy label / ηs / SCOP W55 average clim. with control	-	A++ / 144% / 3,71			
OPERATION LIMITS	Distribution / Set heating outlet temperature range	°C	10 - 60 / 20 - 60			
	Distribution / Set cooling outlet temperature range	°C	-	5 - 35 / 7 - 30		
	Collection temperature range in heating / cooling mode	°C	-25 - 35 / 10 - 60			
	Minimum / Maximum refrigerant circuit pressure	bar	2,0 / 45,0			
	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	R410A refrigerant load (GWP: 2088)	kg	0,80 / 0,85 (HTR)		1,00	
	Compressor oil type / load	kg	POE / 0,74			
	Primary circ. flow rate (Pmax, B0W35) ΔT 3°C / ΔT 5°C	m^3/h	2,6 / 1,6			
	Secondary circ. flow rate (Pmax, B0W35) ΔT 5°C / ΔT 7°C	m^3/h	1,9 / 1,4			
CONTROL ELECTRICAL DATA	(8) 1/N/PE 230 V / 50-60 Hz	-	▪			
	(9) 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	(8) 1/N/PE 230 V / 50-60 Hz	-	▪			
	(9) Recommended external protection	-	C25A			
	(2) Maximum consumption B0W35	kW / A	2,7 / 11,8			
	(2) Maximum consumption B0W55	kW / A	3,8 / 16,5			
	(7) Minimum / Maximum starting current	A	1,5 / 5,8			
	Correction of cos Ø	-	0,96 / 1			
HEAT PUMP ELECTRICAL DATA: THREE-PHASE VERSION	(8) 3/PE 400 V / 50-60 Hz	-	▪			
	(9) Recommended external protection	-	C10A			
	(2) Maximum consumption B0W35	kW / A	2,7 / 4,0			
	(2) Maximum consumption B0W55	kW / A	3,8 / 5,5			
	(7) Minimum / Maximum starting current	A	0,5 / 1,9			
	Correction of cos Ø	-	0,96 / 1			
DIMENSIONS & WEIGHT	Height x width x depth	mm	ecoGEO+ B: 1058x600x710 / ecoGEO+ C: 1845x600x720			
	Empty weight (without packaging)	kg	B: 184 / C: 245	B: 192 / C: 253	B: 184 / C: 245	B: 192 / C: 253

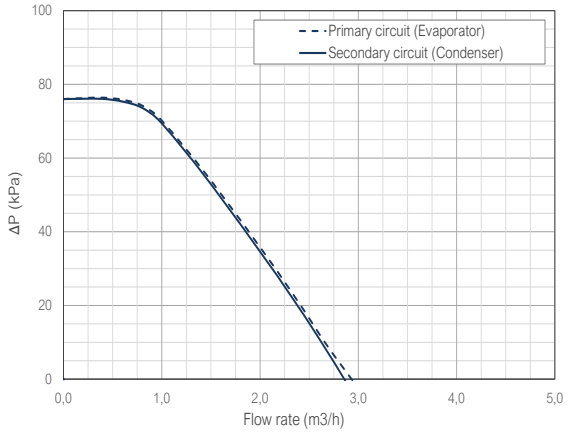
1. Air-to-water by means of a brine-to water heat pump combined with a hydraulic outdoor air unit.
2. In compliance with EN 14511, including circulation pumps, fan and compressor driver consumptions.
3. Production flow rate according to EN 14511.
4. Considering a heat slope from 20 to 50 °C in absence of consumption.
5. Considering support provided by an emergency electrical heater or HTR. Max. DHW temp. with HTR can be limited by the compressor discharge temp.
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 information.
10. Certification in process.

Dimensions and hydraulic connections

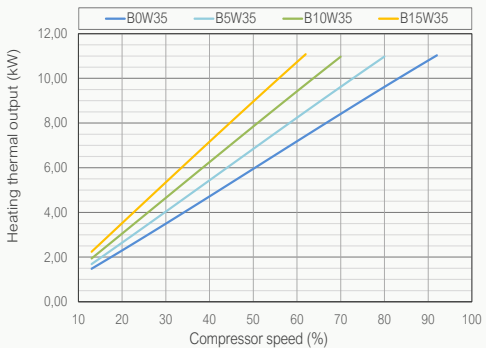


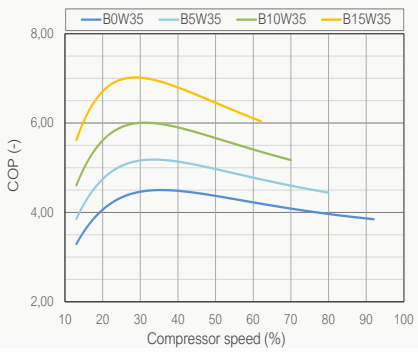
1. Heating/Cooling outlet **1 ¼" M**
2. Heating/Cooling inlet **1 ¼" M**
3. Brine outlet **1 ¼" M**
4. Brine inlet **1 ¼" M**
5. DHW system outlet **1 ¼" M**
6. DHW system inlet **1 ¼" M**
7. CW inlet **1" F**
8. DHW outlet **1" F**
9. DHW recirculation inlet **¾" F**
10. Drain **16mm**

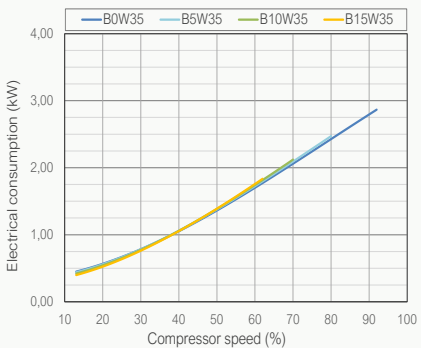
Available pressure drop



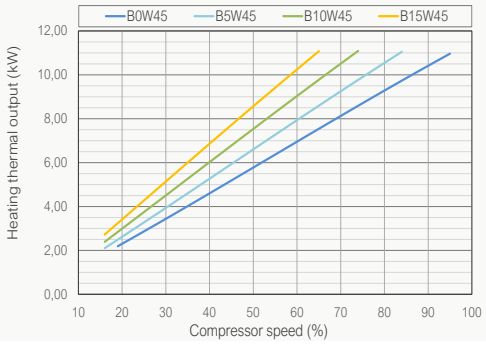
Heating W35

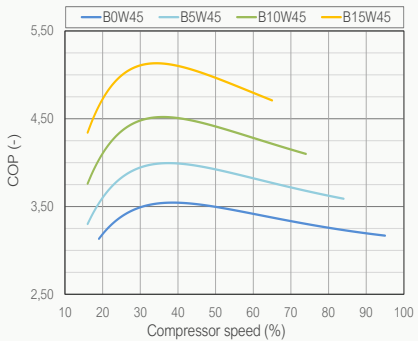


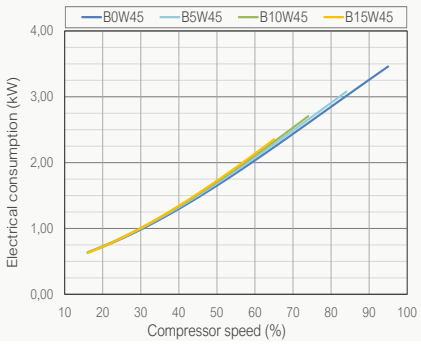




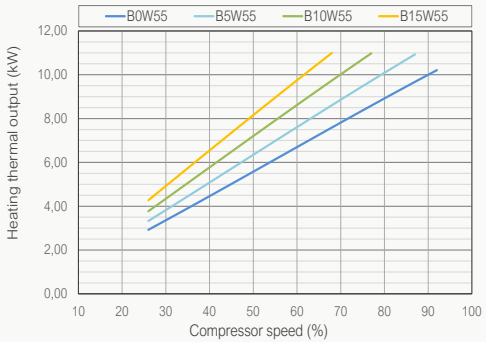
Heating W45

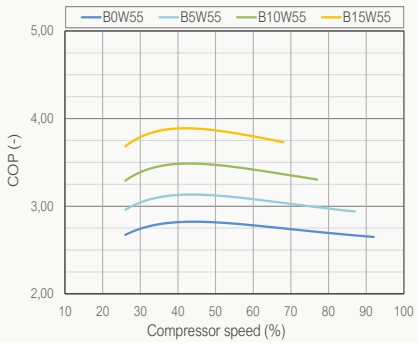


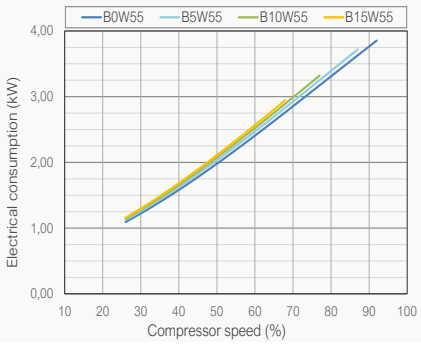




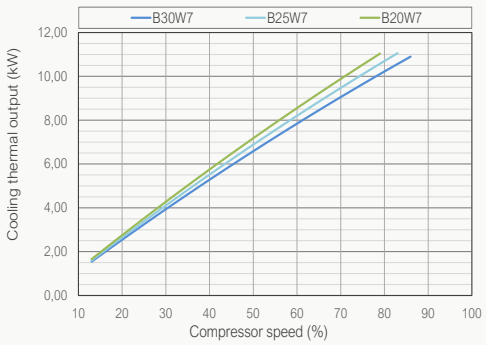
Heating W55

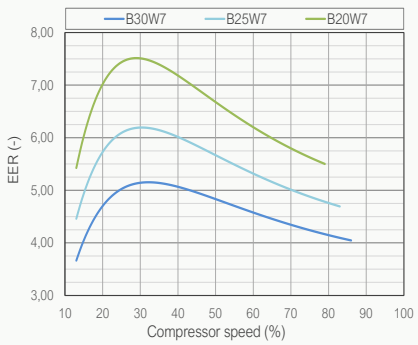


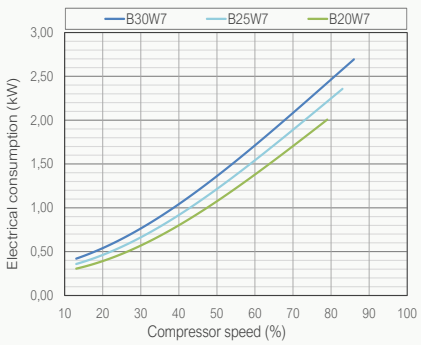




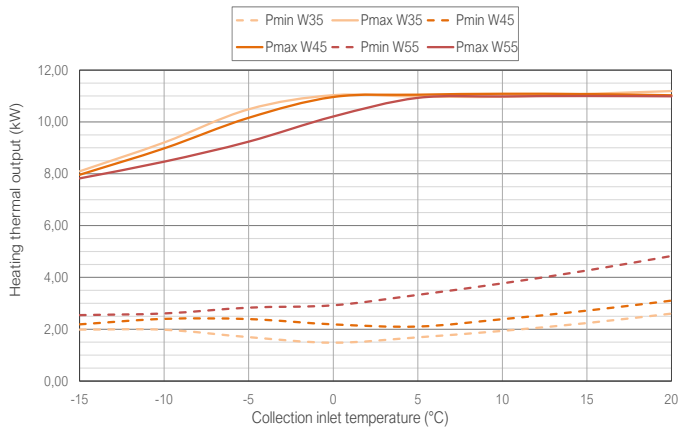
Cooling W7

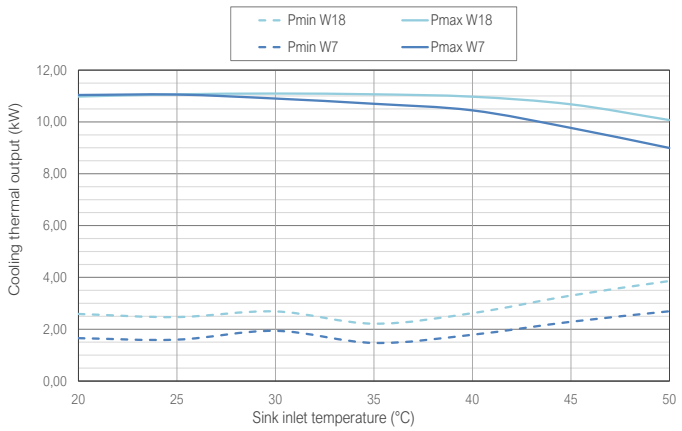






Thermal power - Brine system temperature





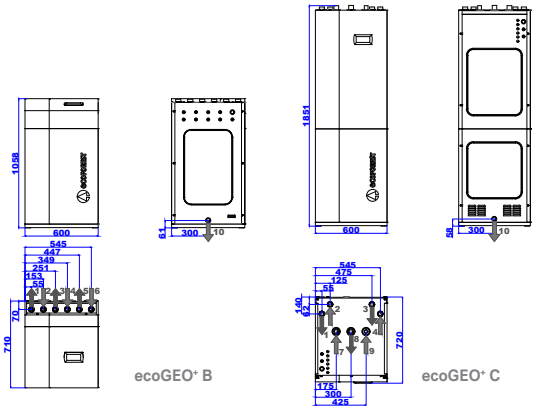
ecoGEO+ B/C 3-12

Brine to water heat pumps with Inverter technology and R410A refrigerant

SPECIFICATIONS ecoGEO+ Basic / Compact			ecoGEO+ 3-12			
			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 / -	2,1 - 16,0 / 4,6			
	(2) Heating power output / COP B0W55	kW / -	4,2 - 13,8 / 2,9			
	(2) Cooling power output / EER B30W7	kW / -	-	-	2,1 - 15,0 / 5,2	
	(5) Max. DHW outlet temperature without / with support	°C	63 / 70			
	(6) Noise power level (LWA)	dB (A)	54			
	Energy label / ηs / SCOP W35 average clim. with control	-	A+++ / 194% / 4,95			
	Energy label / ηs / SCOP W55 average clim. with control	-	A++ / 142% / 3,65			
OPERATION LIMITS	Distribution / Set heating outlet temperature range	°C	10 - 60 / 20 - 60			
	Distribution / Set cooling outlet temperature range	°C	-	5 - 35 / 7 - 30		
	Collection temperature range in heating / cooling mode	°C	-25 - 35 / 10 - 60			
	Minimum / Maximum refrigerant circuit pressure	bar	2,0 / 45,0			
	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	R410A refrigerant load (GWP: 2088)	kg	0,90 / 1,00 (HTR)		1,00	
	Compressor oil type / load	kg	POE / 0,74			
	Primary circ. flow rate (Pmax, B0W35) ΔT 3°C / ΔT 5°C	m³/h	3,8 / 2,3			
	Secondary circ. flow rate (Pmax, B0W35) ΔT 5°C / ΔT 7°C	m³/h	2,7 / 2,0			
CONTROL ELECTRICAL DATA	(8) 1/N/PE 230 V / 50-60 Hz	-	▪			
	(9) 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	(8) 1/N/PE 230 V / 50-60 Hz	-	▪			
	(9) Recommended external protection	-	C32A			
	(2) Maximum consumption B0W35	kW / A	4,2 / 18,6			
	(2) Maximum consumption B0W55	kW / A	5,0 / 21,7			
	(7) Minimum / Maximum starting current	A	2,0 / 8,0			
	Correction of cos Ø	-	0,96 / 1			
HEAT PUMP ELECTRICAL DATA: THREE-PHASE VERSION	(8) 3/PE 400 V / 50-60 Hz	-	▪			
	(9) Recommended external protection	-	C16A			
	(2) Maximum consumption B0W35	kW / A	4,2 / 6,2			
	(2) Maximum consumption B0W55	kW / A	5,0 / 7,2			
	(7) Minimum / Maximum starting current	A	0,7 / 2,6			
	Correction of cos Ø	-	0,96 / 1			
DIMENSIONS & WEIGHT	Height x width x depth	mm	ecoGEO+ B: 1058x600x710 / ecoGEO+ C: 1845x600x720			
	Empty weight (without packaging)	kg	B: 185 / C: 246	B: 193 / C: 254	B: 185 / C: 246	B: 193 / C: 254

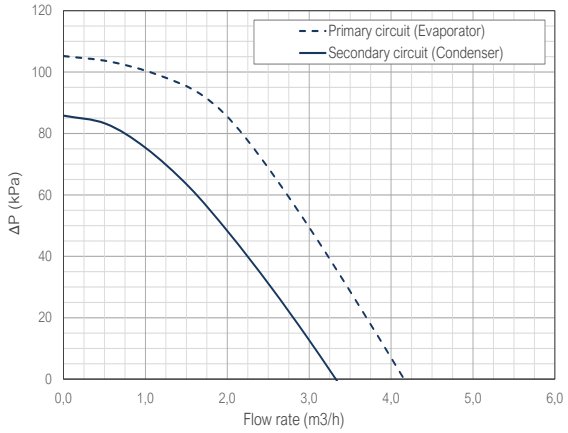
1. Air-to-water by means of a brine-to water heat pump combined with a hydraulic outdoor air unit.
2. In compliance with EN 14511, including circulation pumps, fan and compressor driver consumptions.
3. Production flow rate according to EN 14511.
4. Considering a heat slope from 20 to 50 °C in absence of consumption.
5. Considering support provided by an emergency electrical heater or HTR. Max. DHW temp. with HTR can be limited by the compressor discharge temp.
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 information.
10. Certification in process.

Dimensions and hydraulic connections

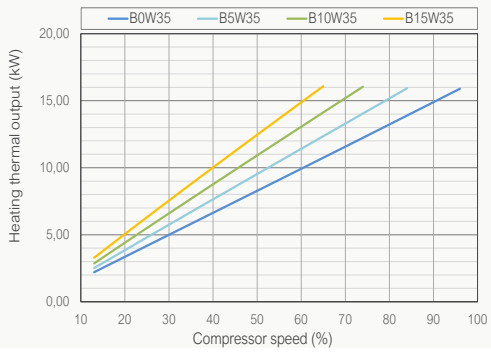


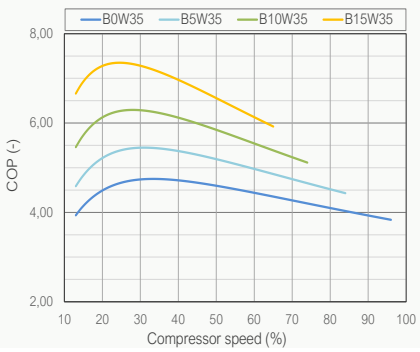
1. Heating/Cooling outlet **1 ¼" M**
2. Heating/Cooling inlet **1 ¼" M**
3. Brine outlet **1 ¼" M**
4. Brine inlet **1 ¼" M**
5. DHW system outlet **1 ¼" M**
6. DHW system inlet **1 ¼" M**
7. CW inlet **1" F**
8. DHW outlet **1" F**
9. DHW recirculation inlet **¾" F**
10. Drain **16mm**

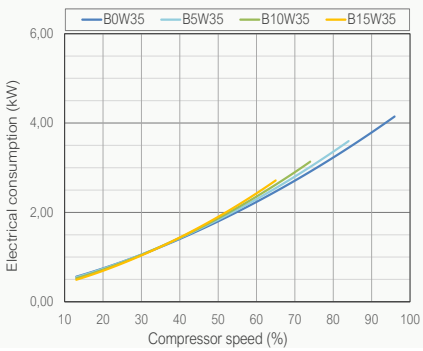
Available pressure drop



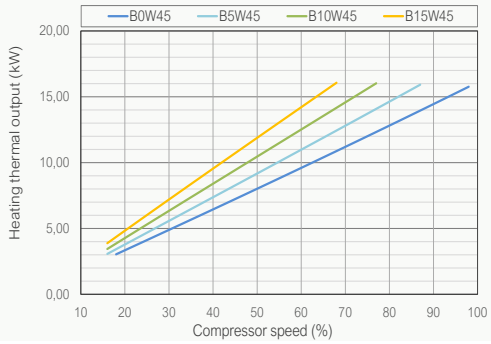
Heating **W35**

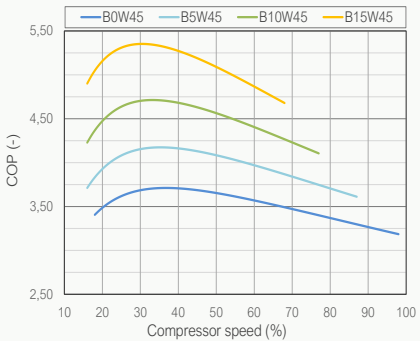


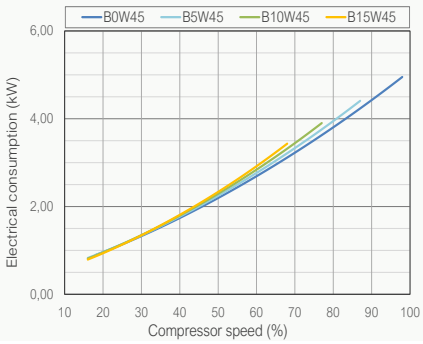




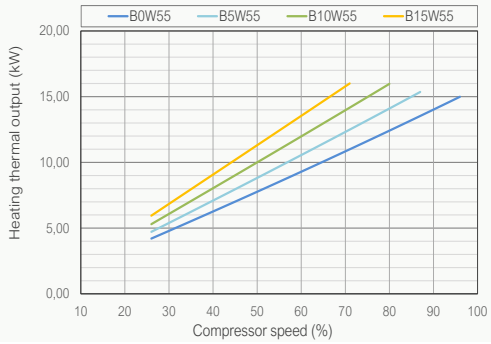
Heating **W45**

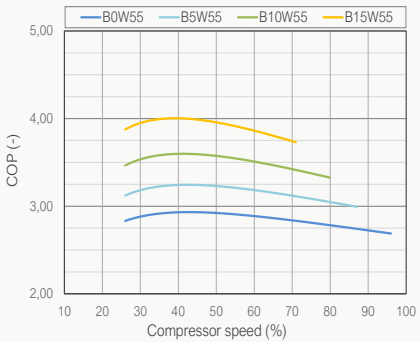


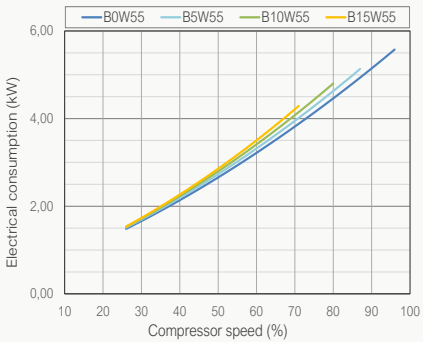




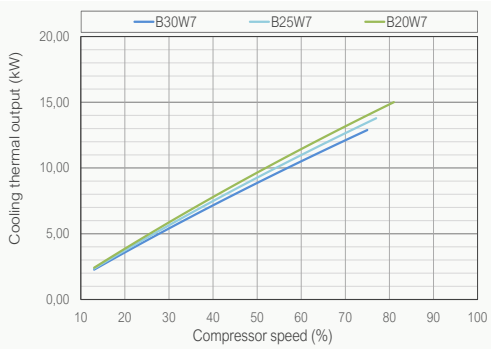
Heating **W55**

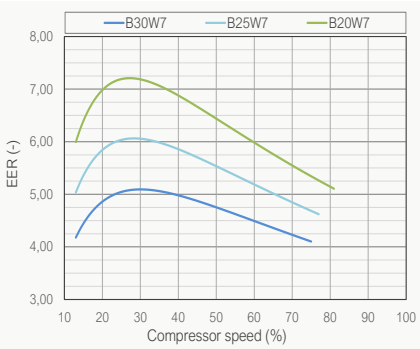


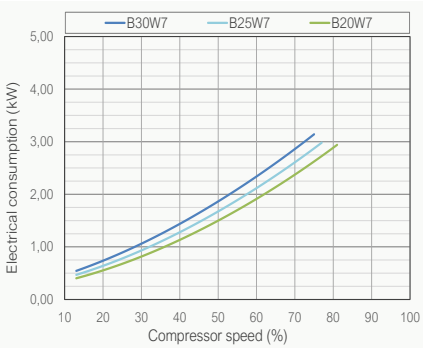




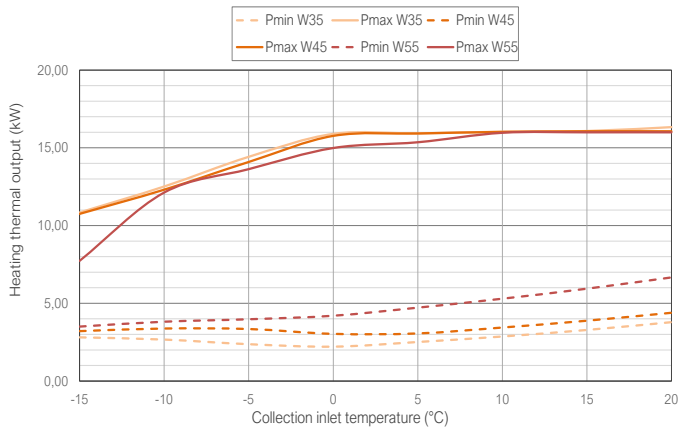
Cooling **W7**

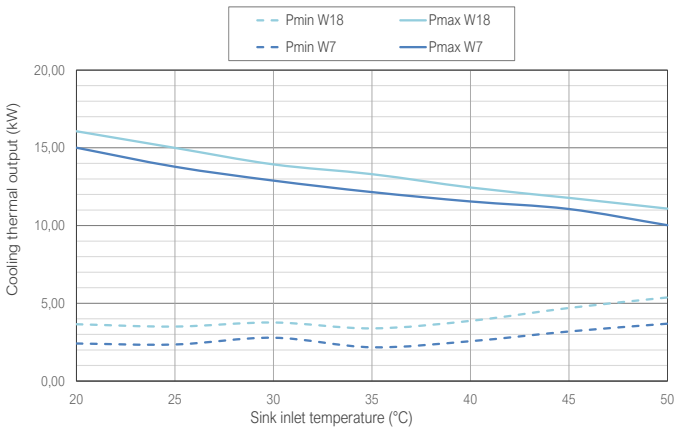






Thermal power - Brine system temperature





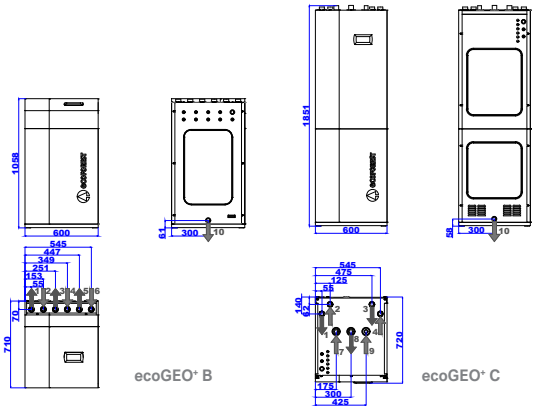
ecoGEO+ B/C 5-22

Brine to water heat pumps with Inverter technology and R410A refrigerant

SPECIFICATIONS ecoGEO+ Basic / Compact			ecoGEO+ 5-22			
			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 / -	4,6 - 22,8 / 4,9			
	(2) Heating power output / COP B0W55	kW / -	6,5 - 16,4 / 2,9			
	(2) Cooling power output / EER B30W7	kW / -	-	-	4,2 - 22,0 / 5,3	
	(5) Max. DHW outlet temperature without / with support	°C	63 / 70			
	(6) Noise power level (LWA)	dB (A)	42			
	Energy label / ηs / SCOP W35 average clim. with control	-	A+++ / 185% / 4,71			
	Energy label / ηs / SCOP W55 average clim. with control	-	A++ / 146% / 3,77			
OPERATION LIMITS	Distribution / Set heating outlet temperature range	°C	10 - 60 / 20 - 60			
	Distribution / Set cooling outlet temperature range	°C	-	5 - 35 / 7 - 30		
	Collection temperature range in heating / cooling mode	°C	-25 - 35 / 10 - 60			
	Minimum / Maximum refrigerant circuit pressure	bar	2,0 / 45,0			
	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	R410A refrigerant load (GWP: 2088)	kg	1,40		1,50	
	Compressor oil type / load	kg	POE / 1,18			
	Primary circ. flow rate (Pmax, B0W35) ΔT 3°C / ΔT 5°C	m³/h	5,1 / 3,1			
	Secondary circ. flow rate (Pmax, B0W35) ΔT 5°C / ΔT 7°C	m³/h	3,8 / 2,7			
CONTROL ELECTRICAL DATA	(8) 1/N/PE 230 V / 50-60 Hz	-	▪			
	(9) 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	(8) 1/N/PE 230 V / 50-60 Hz	-	▪			
	(9) Recommended external protection	-	C32A			
	(2) Maximum consumption B0W35	kW / A	5,5 / 23,9			
	(2) Maximum consumption B0W55	kW / A	5,5 / 23,9			
	(7) Minimum / Maximum starting current	A	2,6 / 12,5			
	Correction of cos Ø	-	0,96 / 1			
HEAT PUMP ELECTRICAL DATA: THREE-PHASE VERSION	(8) 3/PE 400 V / 50-60 Hz	-	▪			
	(9) Recommended external protection	-	C16A			
	(2) Maximum consumption B0W35	kW / A	6,0 / 8,7			
	(2) Maximum consumption B0W55	kW / A	6,0 / 8,7			
	(7) Minimum / Maximum starting current	A	0,9 / 4,2			
	Correction of cos Ø	-	0,96 / 1			
DIMENSIONS & WEIGHT	Height x width x depth	mm	ecoGEO+ B: 1058x600x710 / ecoGEO+ C: 1845x600x720			
	Empty weight (without packaging)	kg	B: 185 / C: 247	B: 193 / C: 255	B: 185 / C: 247	B: 193 / C: 255

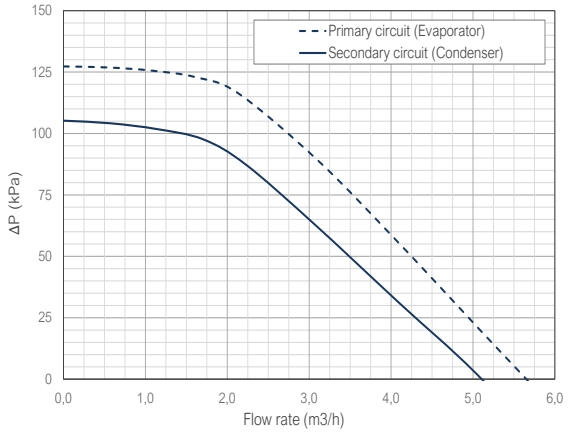
1. Air-to-water by means of a brine-to water heat pump combined with a hydraulic outdoor air unit.
2. In compliance with EN 14511, including circulation pumps, fan and compressor driver consumptions.
3. Production flow rate according to EN 14511.
4. Considering a heat slope from 20 to 50 °C in absence of consumption.
5. Considering support provided by an emergency electrical heater or HTR. Max. DHW temp. with HTR can be limited by the compressor discharge temp.
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 information.
10. Certification in process.

Dimensions and hydraulic connections

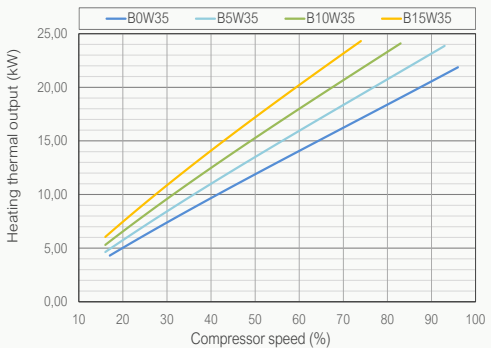


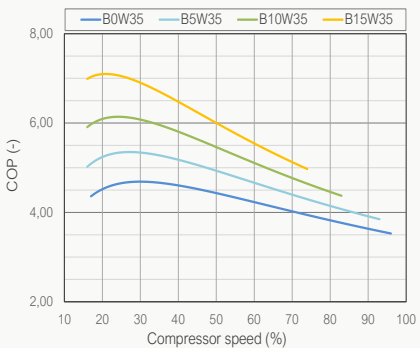
1. Heating/Cooling outlet **1 ¼" M**
2. Heating/Cooling inlet **1 ¼" M**
3. Brine outlet **1 ¼" M**
4. Brine inlet **1 ¼" M**
5. DHW system outlet **1 ¼" M**
6. DHW system inlet **1 ¼" M**
7. CW inlet **1" F**
8. DHW outlet **1" F**
9. DHW recirculation inlet **¾" F**
10. Drain **16mm**

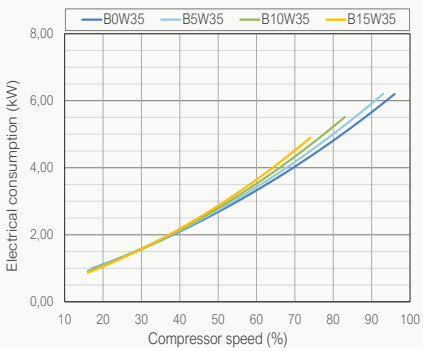
Available pressure drop



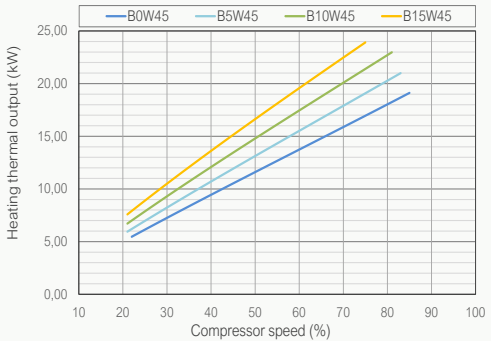
Heating W35

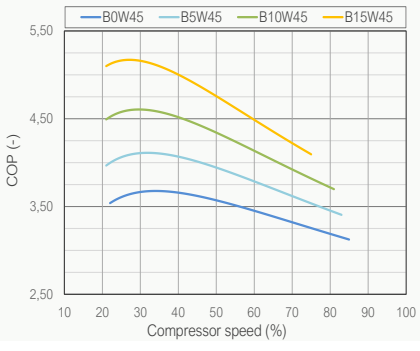


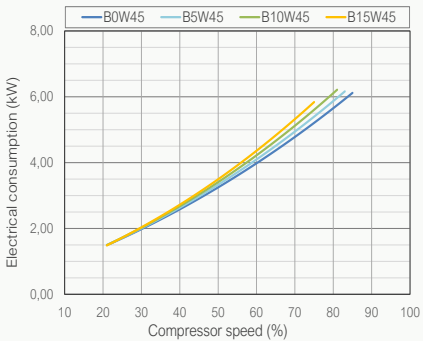




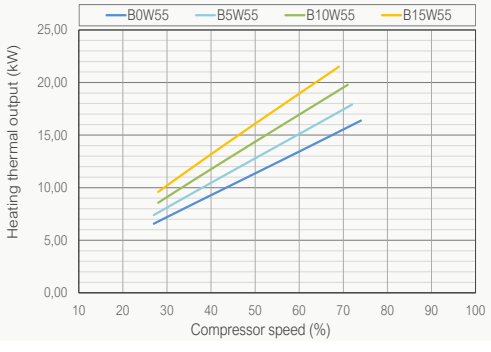
Heating W45

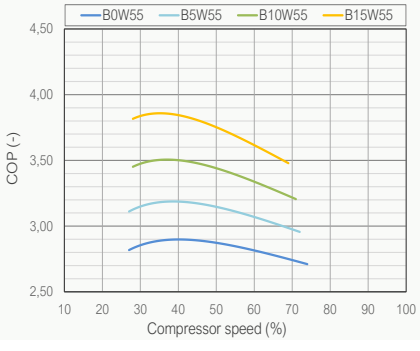


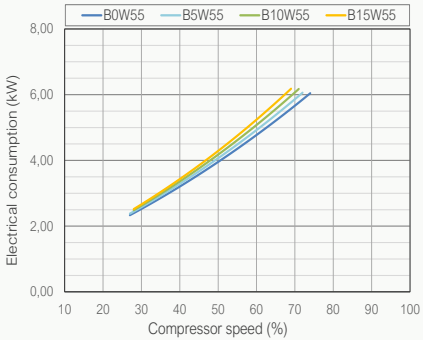




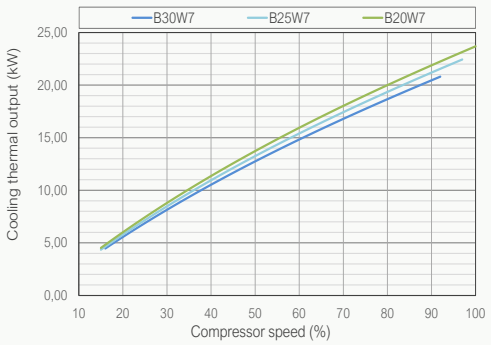
Heating W55

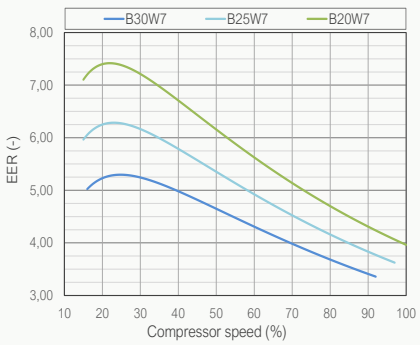


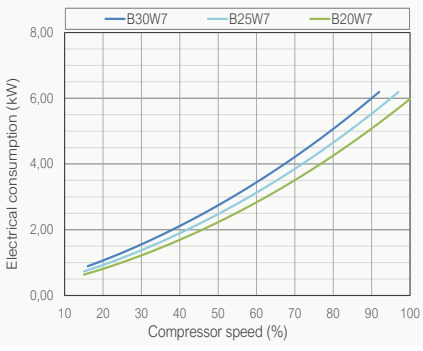




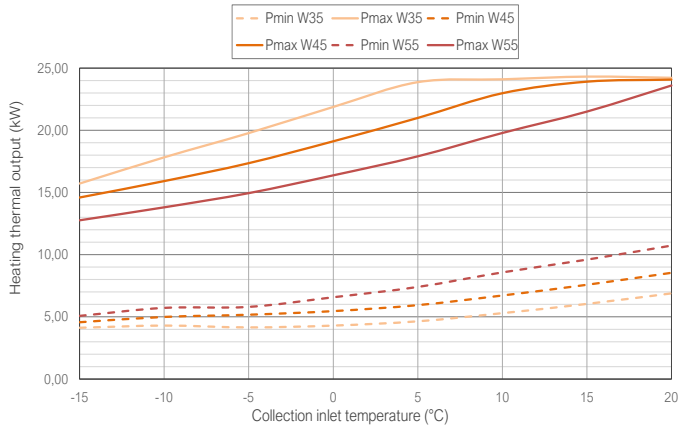
Cooling W7

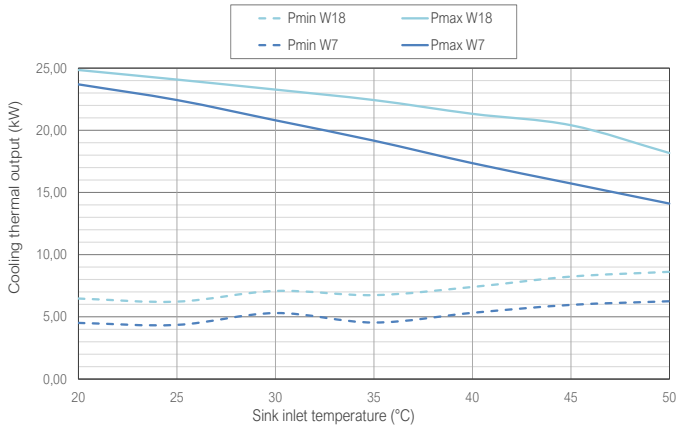






Thermal power - Brine system temperature





ecoGEO+ HP

R410A

Models

- ecoGEO+ 12-45
- ecoGEO+ 15-60
- ecoGEO+ 20-85

Three-phase 400 Vac

Options

ecoGEO+ HP1	ecoGEO+ HP3
DHW *	DHW *
Heating	Heating
Pasive cooling **	Pool
Pool	Pasive cooling **
	Active cooling

** DHW production with an external tank*
*** External passive cooling management*

Services

- DHW 65°C
- Heating 60°C
- Cooling 5°C
- Pool 55°C

Compatible production systems

- Heat./Cool. floor
- Fancoils
- Radiators

Management of shunt groups

- x1
- x1
- x1
- x4

Performance

- Simultaneous production
- Hybrid source
- HTR Technology
- Lifespan

Cascade

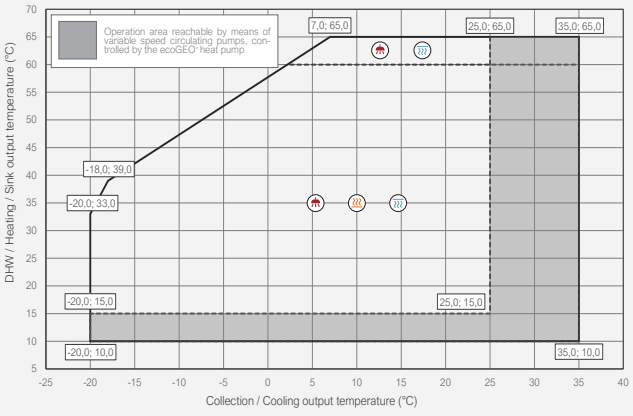
ecoSMART Supervisor

Characteristics

- Modulating thermal output control across a wide range (25%–100%) and modulating flow control in both source and production circuits (20%–100%).
- R410A refrigerant.
- Inverter technology.
- Single scroll compressor unit.
- High Temperature Recovery (HTR) system for DHW production up to 80 °C without auxiliary support and simultaneous production of DHW and heating/cooling.
- Integrated management of up to five 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 control of up to six heat pumps via ecoSMART Supervisor.
- Multi-source ground loop management via ecoSMART e-source.
- Integrated management of simultaneous heating/cooling production and emission systems, depending on the system layout.
- External passive cooling management.
- Active cooling via cycle inversion integrated in HP3 models.
- Available in three-phase version.
- Integrated photovoltaic hybridisation.
- Integrated energy meters for monitoring electrical consumption, thermal output (heating/cooling), and instantaneous as well as seasonal efficiency monthly and annual.

Operational chart

ecoGEO+ HP 12-45 I ecoGEO+ HP 15-60 I ecoGEO+ HP 20-85



ecoGEO+ HP 12-45

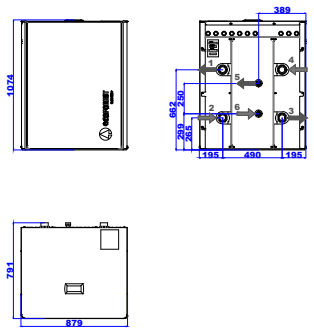
Brine to water heat pumps with Inverter technology and R410A refrigerant

SPECIFICATIONS ecoGEO+ HP			ecoGEO+ 12-45	
			HP1	HP3
APPLICATION	Place of installation	-	Indoor	
	Collection system	-	Ground source / Open loop	
	DHW, Heating and Pool heating	-	▪	▪
	External passive cooling control	-	▪	▪
	Integrated active cooling	-	-	▪
PERFORMANCE	Compressor modulation range	%	25 - 100	
	(2) Heating power output / COP B0W35	kW / -	12,0 - 44,0 / 4,4	
	(2) Heating power output / COP B0W55	kW / -	14,1 - 38,0 / 2,5	
	(2) Cooling power output / EER B30W7	kW / -	-	11,3 - 37,9 / 4,4
	(5) Max. DHW outlet temperature without / with support	°C	65 / 80	
	(6) Noise power level (LWA)	dB (A)	58	
	Energy label / ηs / SCOP W35 average clim. with control	-	A+++ / 191% / 4,88	
	Energy label / ηs / SCOP W55 average clim. with control	-	A++ / 144% / 3,71	
OPERATION LIMITS	Distribution / Set heating outlet temperature range	°C	10 - 60 / 20 - 60	
	Distribution / Set cooling outlet temperature range	°C	-	5 - 30 / 7 - 30
	Collection temperature range in heating / cooling mode	°C	-20 - 35 / 10 - 60	
	Minimum / Maximum refrigerant circuit pressure	bar	2,0 / 45,0	
	Collection / Production circuit pressure range	bar	0,7 - 10,0 / 0,7 - 10,0	
WORKING FLUIDS	R410A refrigerant load (GWP: 2088)	kg	4,40	
	Compressor oil type / load	kg	POE 160SZ / 3,3 - 3,8	
	Primary circ. flow rate (Pmax, B0W35) ΔT 3°C / ΔT 5°C	m^3/h	10,1 / 6,0	
	Secondary circ. flow rate (Pmax, B0W35) ΔT 5°C / ΔT 7°C	m^3/h	7,6 / 5,4	
CONTROL ELECTRICAL DATA	(8) 1/N/PE 230 V / 50-60 Hz	-	▪	
	(9) Recommended external protection	-	C1A	
	Transformer primary circuit fuse	A	0,63	
	Transformer secondary circuit fuse	A	4,0	
HEAT PUMP ELECTRICAL DATA: THREE-PHASE VERSION	(8) 3/PE 400 V / 50-60 Hz	-	▪	
	(9) Recommended external protection	-	C40A	
	(2) Maximum consumption B0W35	kW / A	10,9 / 17,7	
	(2) Maximum consumption B0W55	kW / A	15,5 / 24,6	
	(2) Maximum consumption	kW / A	18,1 / 28,6	
	(7) Minimum / Maximum starting current	A	5,6 / 9,0	
	Correction of cos Ø	-	0,96 / 1	
DIMENSIONS & WEIGHT	Height x width x depth	mm	1074x879x791	
	Empty weight (without packaging)	kg	295	307

1. Air-to-water by means of a brine-to water heat pump combined with a hydraulic outdoor air unit.
2. In compliance with EN 14511, including circulation pumps, fan and compressor driver consumptions.
3. Production flow rate according to EN 14511.
4. Considering a heat slope from 20 to 50 °C in absence of consumption.
5. Considering support provided by an emergency electrical heater or HTR. Max. DHW temp. with HTR can be limited by the compressor discharge temp.
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 information.
10. Certification in process.

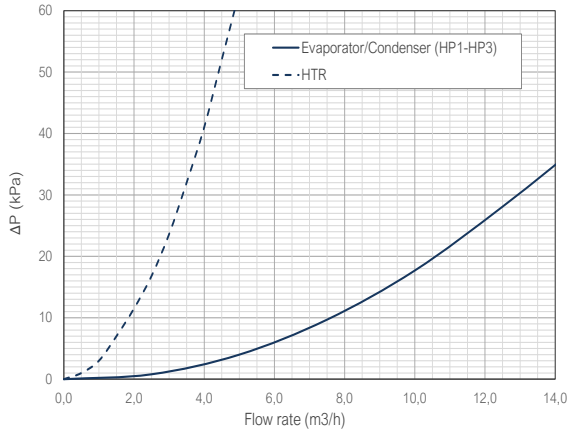
Dimensions and hydraulic connections

ecoGEO+ HP

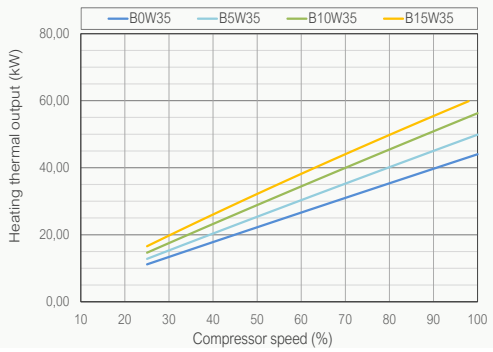


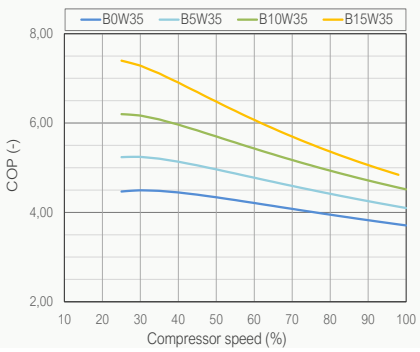
1. Secondary outlet **2" M**
2. Secondary inlet **2" M**
3. Primary outlet **2" M**
4. Primary inlet **2" M**
5. HTR outlet **1 ¼" M**
6. HTR inlet **1 ¼" M**

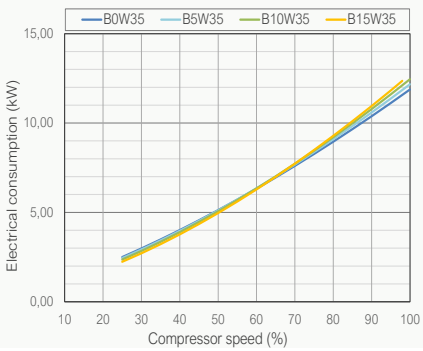
Pressure drop



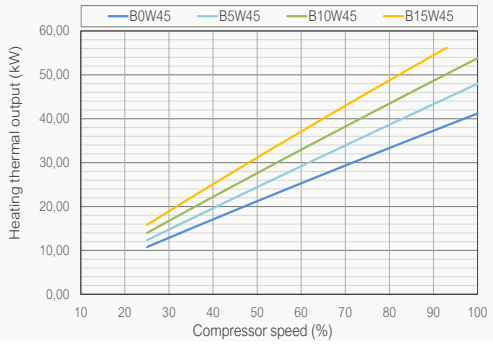
Heating **W35**

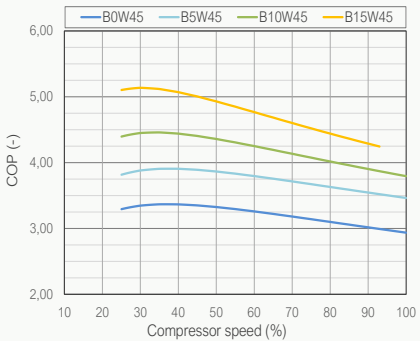


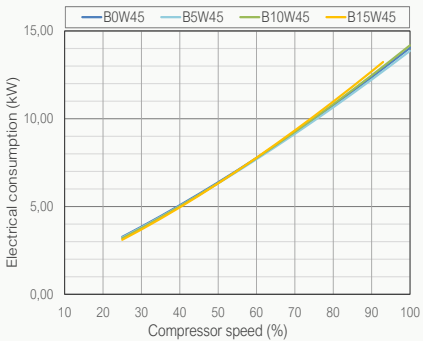




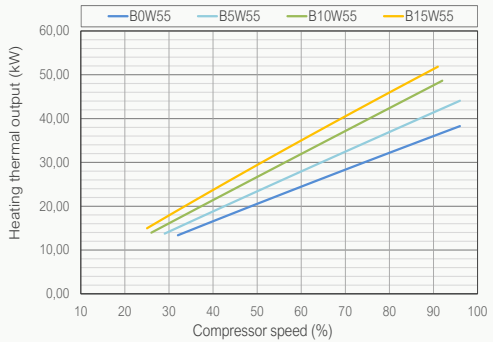
Heating **W45**

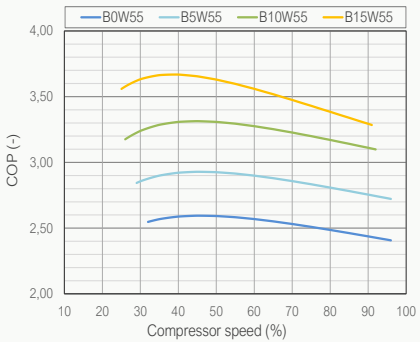


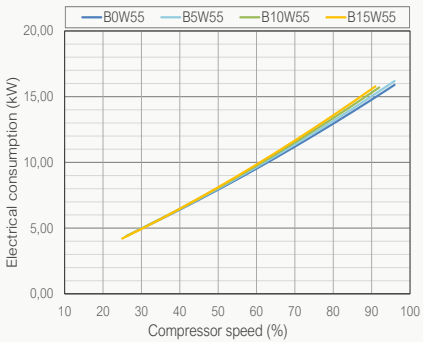




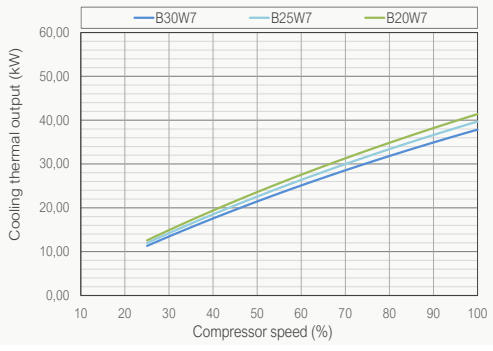
Heating **W55**

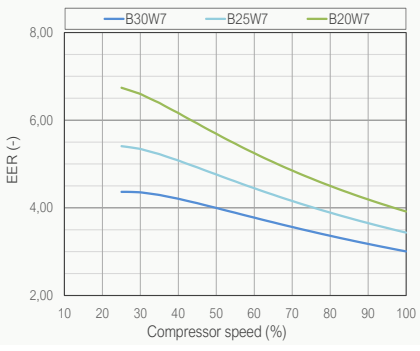


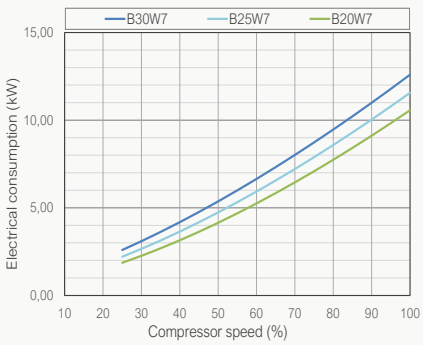




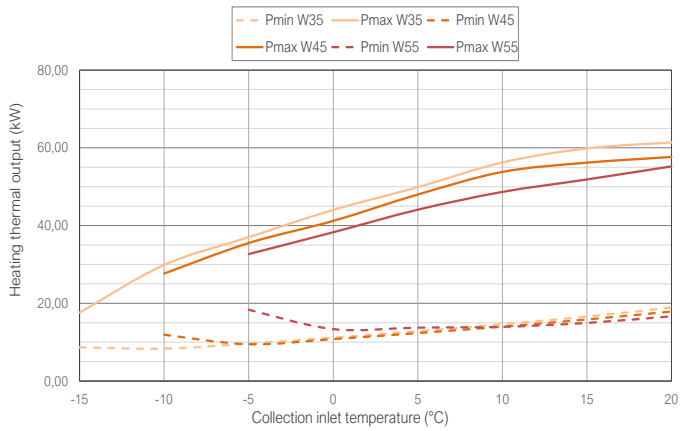
Cooling **W7**

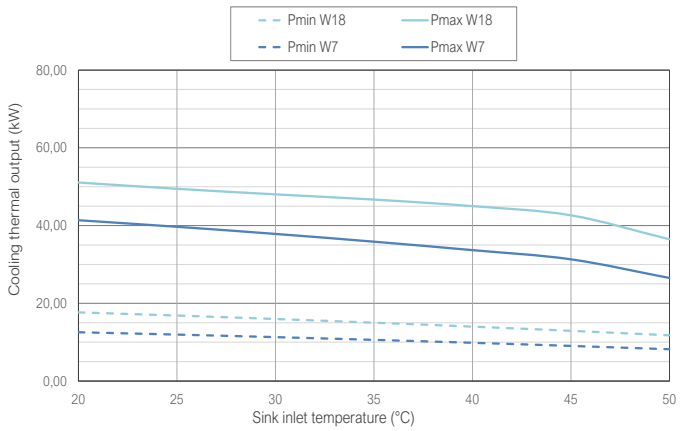






Thermal power - Brine system temperature





ecoGEO+ HP 15-60

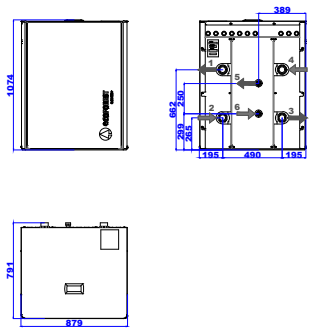
Brine to water heat pumps with Inverter technology and R410A refrigerant

SPECIFICATIONS ecoGEO+ HP			ecoGEO+ 15-60	
			HP1	HP3
APPLICATION	Place of installation	-	Indoor	
	Collection system	-	Ground source / Open loop	
	DHW, Heating and Pool heating	-	▪	▪
	External passive cooling control	-	▪	▪
	Integrated active cooling	-	-	▪
PERFORMANCE	Compressor modulation range	%	25 - 100	
	(2) Heating power output / COP B0W35	kW / -	14,9 - 57,5 / 4,5	
	(2) Heating power output / COP B0W55	kW / -	16,2 - 52,0 / 2,5	
	(2) Cooling power output / EER B30W7	kW / -	-	16,6 - 55,0 / 4,0
	(5) Max. DHW outlet temperature without / with support	°C	65 / 80	
	(6) Noise power level (LWA)	dB (A)	62	
	Energy label / ηs / SCOP W35 average clim. with control	-	A+++ / 200% / 5,12	
	Energy label / ηs / SCOP W55 average clim. with control	-	A++ / 148% / 3,82	
OPERATION LIMITS	Distribution / Set heating outlet temperature range	°C	10 - 60 / 20 - 60	
	Distribution / Set cooling outlet temperature range	°C	-	5 - 30 / 7 - 30
	Collection temperature range in heating / cooling mode	°C	-20 - 35 / 10 - 60	
	Minimum / Maximum refrigerant circuit pressure	bar	2,0 / 45,0	
	Collection / Production circuit pressure range	bar	0,7 - 10,0 / 0,7 - 10,0	
WORKING FLUIDS	R410A refrigerant load (GWP: 2088)	kg	6,00	
	Compressor oil type / load	kg	POE 160SZ / 3,0	
	Primary circ. flow rate (Pmax, B0W35) ΔT 3°C / ΔT 5°C	m^3/h	13,7 / 8,2	
	Secondary circ. flow rate (Pmax, B0W35) ΔT 5°C / ΔT 7°C	m^3/h	10,1 / 7,2	
CONTROL ELECTRICAL DATA	(8) 1/N/PE 230 V / 50-60 Hz	-	▪	
	(9) Recommended external protection	-	C1A	
	Transformer primary circuit fuse	A	0,63	
	Transformer secondary circuit fuse	A	4,0	
HEAT PUMP ELECTRICAL DATA: THREE-PHASE VERSION	(8) 3/PE 400 V / 50-60 Hz	-	▪	
	(9) Recommended external protection	-	C50A	
	(2) Maximum consumption B0W35	kW / A	14,3 / 23,8	
	(2) Maximum consumption B0W55	kW / A	20,4 / 32,3	
	(2) Maximum consumption	kW / A	23,7 / 37,0	
	(7) Minimum / Maximum starting current	A	7,5 / 11,8	
	Correction of cos Ø	-	0,96 / 1	
DIMENSIONS & WEIGHT	Height x width x depth	mm	1074x879x791	
	Empty weight (without packaging)	kg	322	336

1. Air-to-water by means of a brine-to water heat pump combined with a hydraulic outdoor air unit.
2. In compliance with EN 14511, including circulation pumps, fan and compressor driver consumptions.
3. Production flow rate according to EN 14511.
4. Considering a heat slope from 20 to 50 °C in absence of consumption.
5. Considering support provided by an emergency electrical heater or HTR. Max. DHW temp. with HTR can be limited by the compressor discharge temp.
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 information.
10. Certification in process.

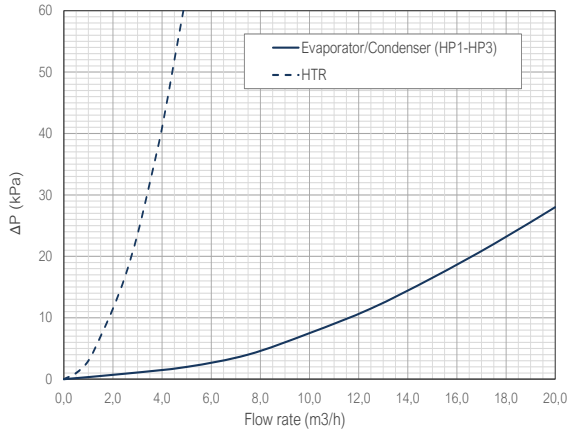
Dimensions and hydraulic connections

ecoGEO+ HP

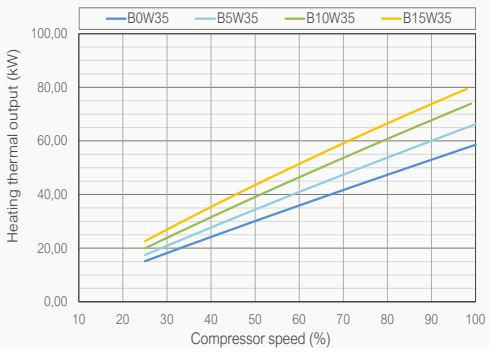


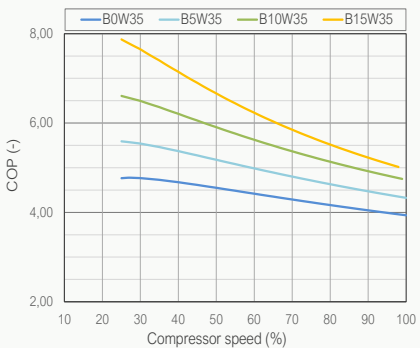
1. Secondary outlet **2" M**
2. Secondary inlet **2" M**
3. Primary outlet **2" M**
4. Primary inlet **2" M**
5. HTR outlet **1 ¼" M**
6. HTR inlet **1 ¼" M**

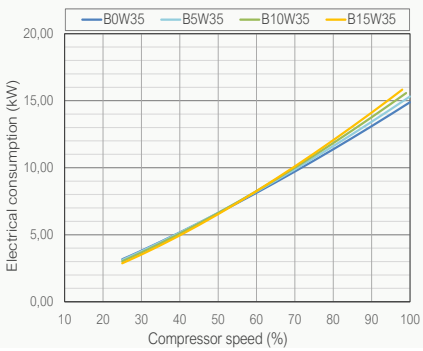
Pressure drop



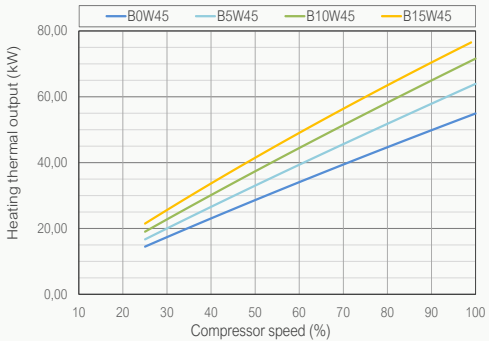
Heating W35

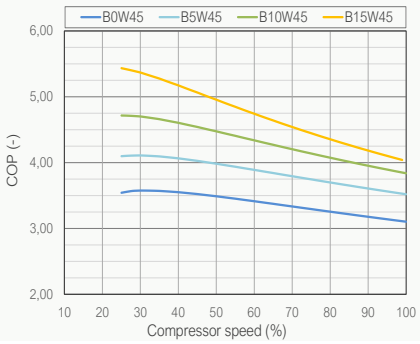


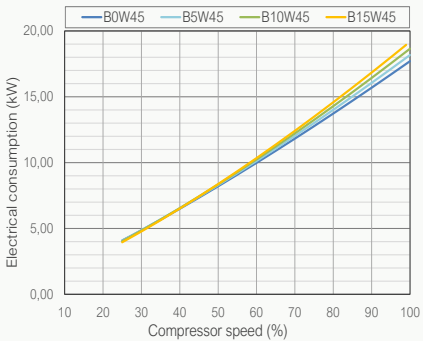




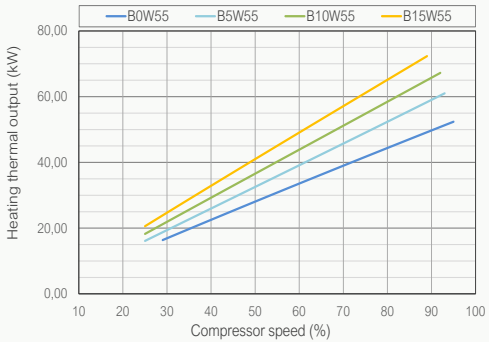
Heating W45

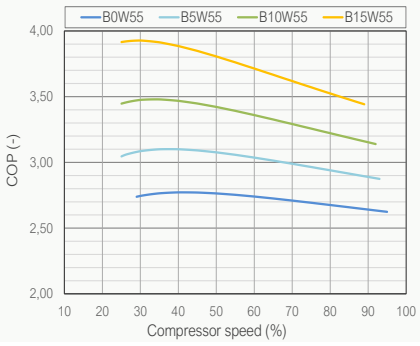


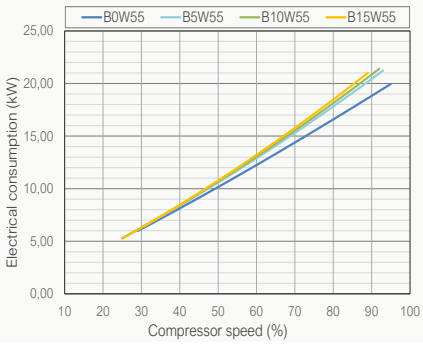




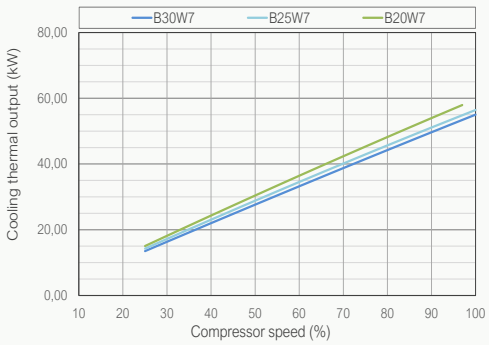
Heating W55

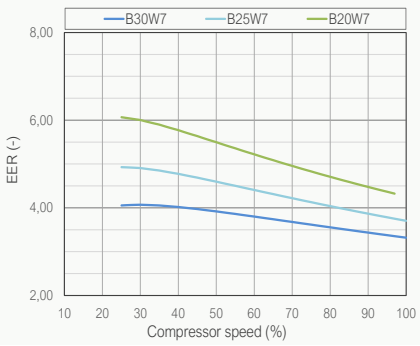


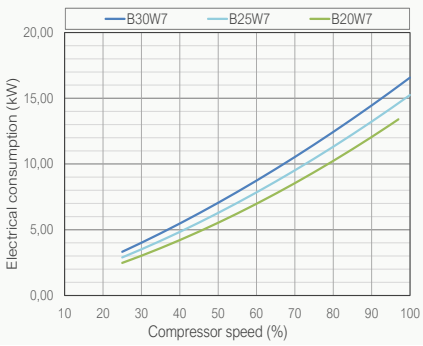




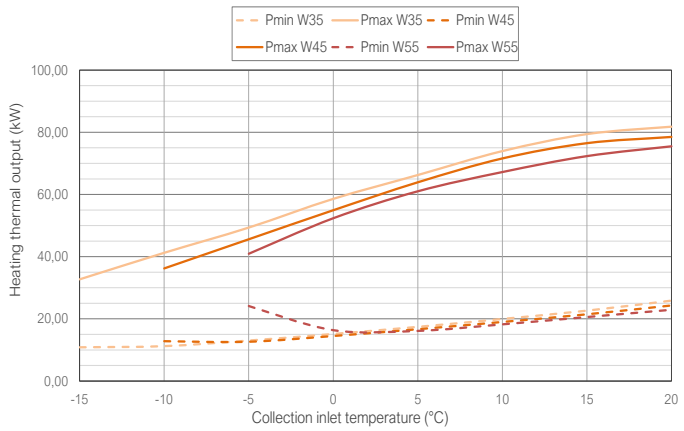
Cooling W7

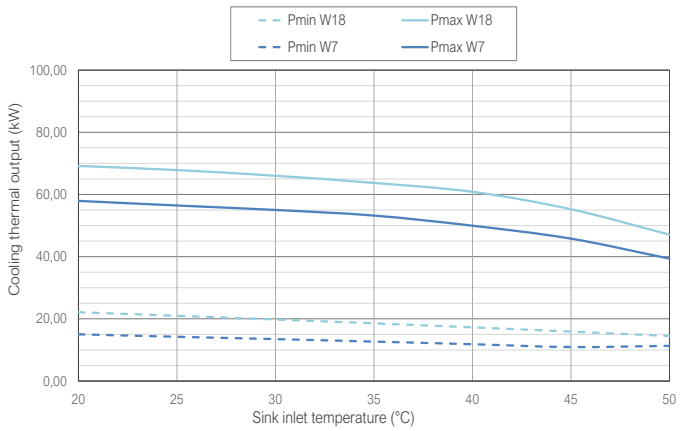






Thermal power - Brine system temperature





ecoGEO+ HP 20-85

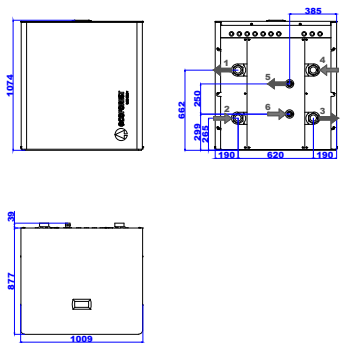
Brine to water heat pumps with Inverter technology and R410A refrigerant

SPECIFICATIONS ecoGEO+ HP			ecoGEO+ 20-85	
			HP1	HP3
APPLICATION	Place of installation	-	Indoor	
	Collection system	-	Ground source / Open loop	
	DHW, Heating and Pool heating	-	▪	▪
	External passive cooling control	-	▪	▪
	Integrated active cooling	-	-	▪
PERFORMANCE	Compressor modulation range	%	25 - 100	
	(2) Heating power output / COP B0W35	kW / -	21,5 - 86,5 / 4,6	
	(2) Heating power output / COP B0W55	kW / -	28,8 - 81,7 / 2,7	
	(2) Cooling power output / EER B30W7	kW / -	-	21,4 - 73,7 / 4,5
	(5) Max. DHW outlet temperature without / with support	°C	65 / 80	
	(6) Noise power level (LWA)	dB (A)	65	
	Energy label / ηs / SCOP W35 average clim. with control	-	A+++ / 197% / 5,05	
	Energy label / ηs / SCOP W55 average clim. with control	-	A++ / 146% / 3,75	
OPERATION LIMITS	Distribution / Set heating outlet temperature range	°C	10 - 60 / 20 - 60	
	Distribution / Set cooling outlet temperature range	°C	-	5 - 30 / 7 - 30
	Collection temperature range in heating / cooling mode	°C	-20 - 35 / 10 - 60	
	Minimum / Maximum refrigerant circuit pressure	bar	2,0 / 45,0	
	Collection / Production circuit pressure range	bar	0,7 - 10,0 / 0,7 - 10,0	
WORKING FLUIDS	R410A refrigerant load (GWP: 2088)	kg	10,00	
	Compressor oil type / load	kg	POE 160SZ / 6,7 - 7,7	
	Primary circ. flow rate (Pmax, B0W35) ΔT 3°C / ΔT 5°C	m^3/h	20,3 / 12,2	
	Secondary circ. flow rate (Pmax, B0W35) ΔT 5°C / ΔT 7°C	m^3/h	14,9 / 10,7	
CONTROL ELECTRICAL DATA	(8) 1/N/PE 230 V / 50-60 Hz	-	▪	
	(9) Recommended external protection	-	C1A	
	Transformer primary circuit fuse	A	0,63	
	Transformer secondary circuit fuse	A	4,0	
HEAT PUMP ELECTRICAL DATA: THREE-PHASE VERSION	(8) 3/PE 400 V / 50-60 Hz	-	▪	
	(9) Recommended external protection	-	C63A	
	(2) Maximum consumption B0W35	kW / A	20,3 / 31,8	
	(2) Maximum consumption B0W55	kW / A	29,6 / 45,1	
	(2) Maximum consumption	kW / A	33,7 / 52,9	
	(7) Minimum / Maximum starting current	A	10,8 / 16,7	
	Correction of cos Ø	-	0,96 / 1	
DIMENSIONS & WEIGHT	Height x width x depth	mm	1074x1009x916	
	Empty weight (without packaging)	kg	450	465

1. Air-to-water by means of a brine-to water heat pump combined with a hydraulic outdoor air unit.
2. In compliance with EN 14511, including circulation pumps, fan and compressor driver consumptions.
3. Production flow rate according to EN 14511.
4. Considering a heat slope from 20 to 50 °C in absence of consumption.
5. Considering support provided by an emergency electrical heater or HTR. Max. DHW temp. with HTR can be limited by the compressor discharge temp.
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 information.
10. Certification in process.

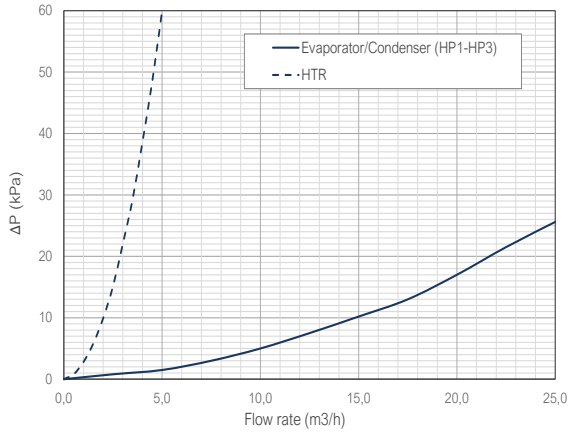
Dimensions and hydraulic connections

ecoGEO+ HP

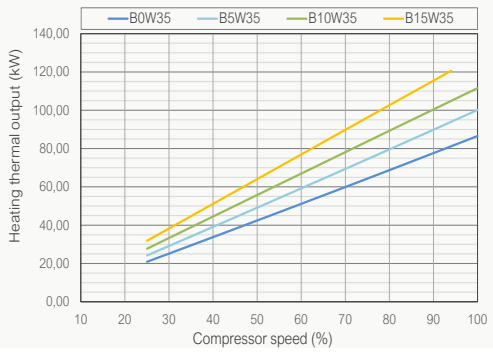


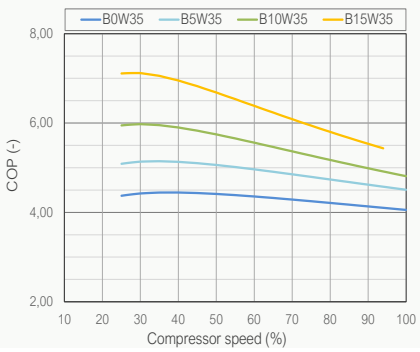
1. Secondary outlet **2 ½" M**
2. Secondary inlet **2 ½" M**
3. Primary outlet **2 ½" M**
4. Primary inlet **2 ½" M**
5. HTR outlet **1 ¼" M**
6. HTR inlet **1 ¼" M**

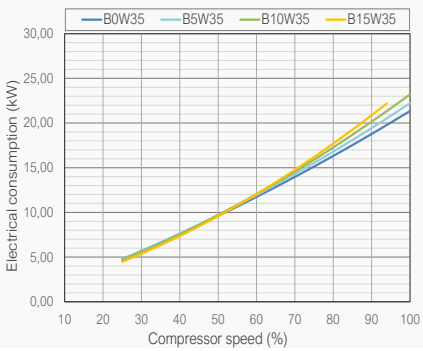
Pressure drop



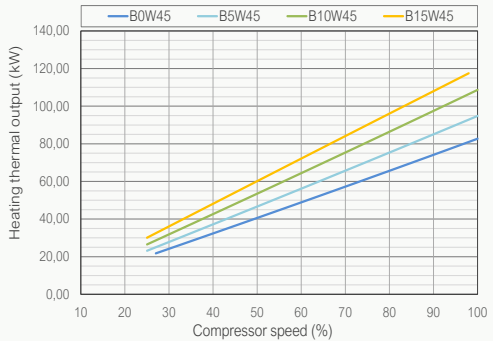
Heating W35

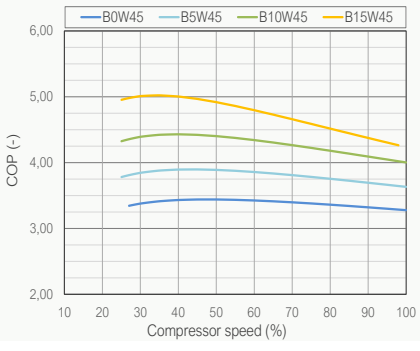


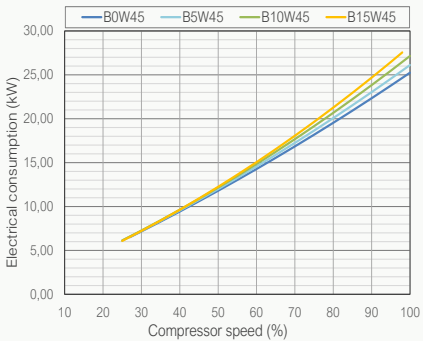




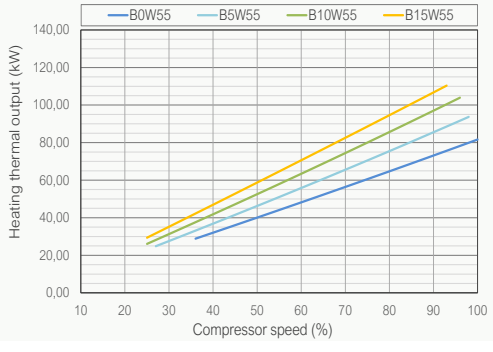
Heating W45

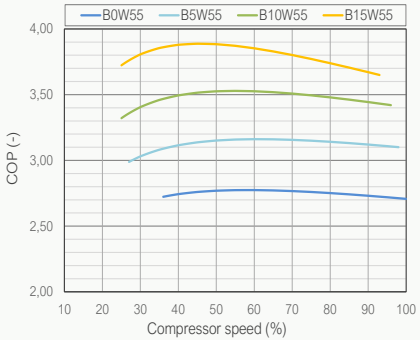


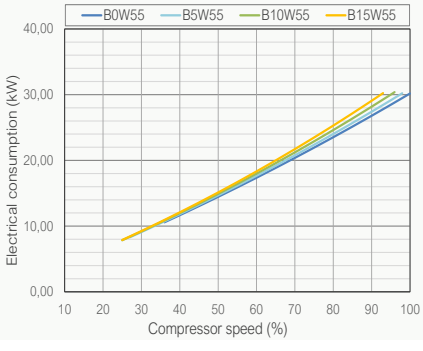




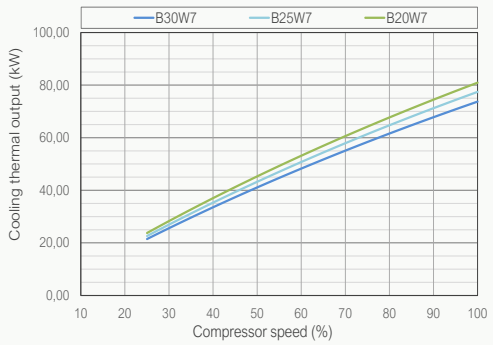
Heating W55

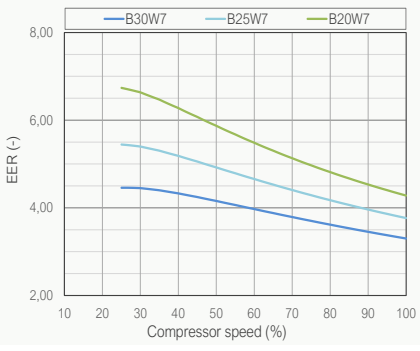


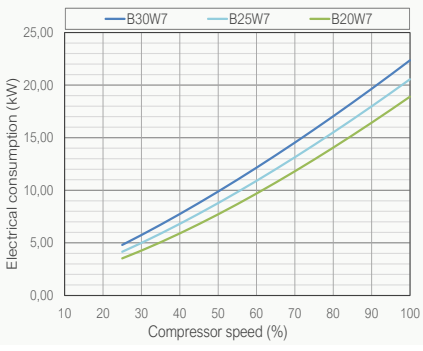




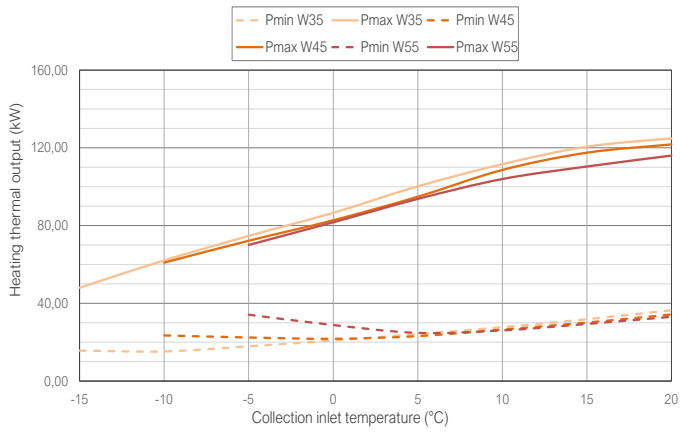
Cooling W7

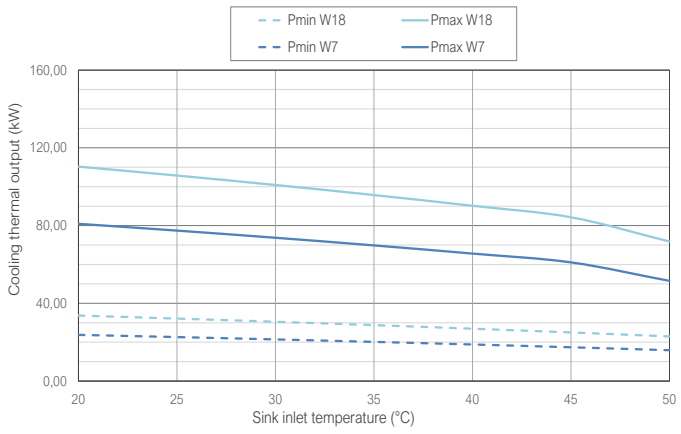






Thermal power - Brine system temperature





ecoGEO+ HP R454B

R454B

Models

ecoGEO+ 170 R454B

T-Phase 400 Vac

Options

ecoGEO+ HP1	ecoGEO+ HP3
DHW *	DHW *
Heating	Heating
Pasive cooling **	Pool
Pool	Pasive cooling **
	Active cooling

** DHW production with an external tank*
*** External passive cooling management*

Services

- DHW 65°C
- Heating 60°C
- Cooling 5°C
- Pool 55°C

Compatible production systems

- Heat./Cool. floor
- Fancoils
- Radiators

Management of shunt groups

- x1
- x1
- x1
- x4

Performance

- Simultaneous production
- Hybrid source
- HTR Technology
- Lifespan

Cascada

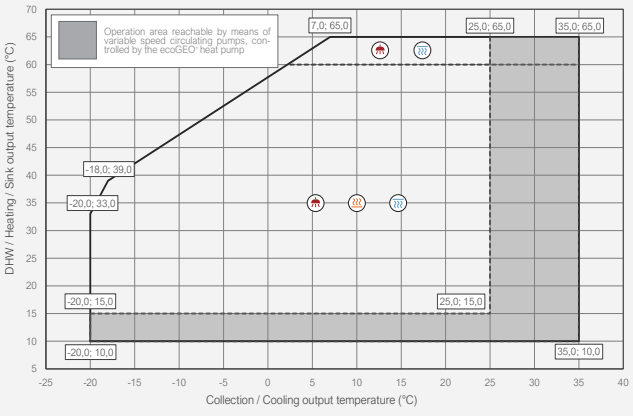
ecoSMART Supervisor

Characteristics

- Modulating thermal output control across a wide range (25%–100%) and modulating flow control in both source and production circuits (20%–100%).
- R454B refrigerant (GWP 466).
- Inverter technology.
- Single scroll compressor unit.
- High Temperature Recovery (HTR) system for DHW production up to 80 °C without auxiliary support and simultaneous production of DHW and heating/cooling.
- Integrated management of up to five 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 control of up to six heat pumps via ecoSMART Supervisor.
- Multi-source ground loop management via ecoSMART e-source.
- Integrated management of simultaneous heating/cooling production and emission systems, depending on the system layout.
- External passive cooling management.
- Active cooling via cycle inversion integrated in HP3 models.
- Available in three-phase version.
- Integrated photovoltaic hybridisation.
- Integrated energy meters for monitoring electrical consumption, thermal output (heating/cooling), and instantaneous as well as seasonal efficiency—monthly and annual.

Operational chart

ecoGEO⁺ HP 170 R454B



ecoGEO+ HP 170 R454B

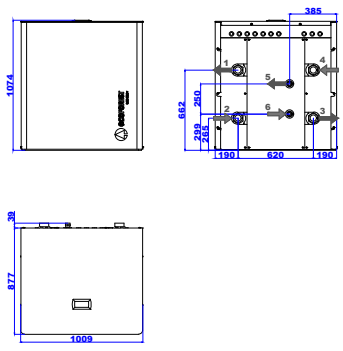
Brine to water heat pumps with Inverter technology and R454B refrigerant

SPECIFICATIONS ecoGEO+ HP R454B			ecoGEO+ 170 R454B	
			HP1	HP3
APPLICATION	Place of installation	-	Indoor	
	Collection system	-	Ground source / Open loop	
	DHW, Heating and Pool heating	-	▪	▪
	External passive cooling control	-	▪	▪
	Integrated active cooling	-	-	▪
PERFORMANCE	Compressor modulation range	%	25 - 100	
	(2) Heating power output / COP B0W35	kW / -	21,1 - 80,0 / 4,6	
	(2) Heating power output / COP B0W55	kW / -	27,7 - 76,8 / 2,9	
	(2) Cooling power output / EER B30W7	kW / -	-	21,4 - 73,7 / 4,5
	(5) Max. DHW outlet temperature without / with support	°C	65 / 80	
	(6) Noise power level (LWA)	dB (A)	72	
	Energy label / ηs / SCOP W35 average clim. with control	-	A+++ / 204% / 5,21	
	Energy label / ηs / SCOP W55 average clim. with control	-	A+++ / 155% / 3,98	
OPERATION LIMITS	Distribution / Set heating outlet temperature range	°C	10 - 60 / 20 - 60	
	Distribution / Set cooling outlet temperature range	°C	-	5 - 30 / 7 - 30
	Collection temperature range in heating / cooling mode	°C	-20 - 35 / 10 - 60	
	Minimum / Maximum refrigerant circuit pressure	bar	2,0 / 45,0	
	Collection / Production circuit pressure range	bar	0,7 - 10,0 / 0,7 - 10,0	
WORKING FLUIDS	R454B refrigerant load (GWP: 466)	kg	8,20	
	Compressor oil type / load	kg	POE 160SZ / 6,7 - 7,7	
	Primary circ. flow rate (Pmax, B0W35) ΔT 3°C / ΔT 5°C	m^3/h	18,7 / 11,2	
	Secondary circ. flow rate (Pmax, B0W35) ΔT 5°C / ΔT 7°C	m^3/h	13,9 / 9,9	
CONTROL ELECTRICAL DATA	(8) 1/N/PE 230 V / 50-60 Hz	-	▪	
	(9) Recommended external protection	-	C1A	
	Transformer primary circuit fuse	A	0,63	
	Transformer secondary circuit fuse	A	4,0	
HEAT PUMP ELECTRICAL DATA: THREE-PHASE VERSION	(8) 3/PE 400 V / 50-60 Hz	-	▪	
	(9) Recommended external protection	-	C63A	
	(2) Maximum consumption B0W35	kW / A	20,3 / 31,8	
	(2) Maximum consumption B0W55	kW / A	29,6 / 45,1	
	(2) Maximum consumption	kW / A	33,7 / 52,9	
	(7) Minimum / Maximum starting current	A	10,8 / 16,7	
	Correction of cos Ø	-	0,96 / 1	
DIMENSIONS & WEIGHT	Height x width x depth	mm	1074x1009x916	
	Empty weight (without packaging)	kg	450	465

1. Air-to-water by means of a brine-to water heat pump combined with a hydraulic outdoor air unit.
2. In compliance with EN 14511, including circulation pumps, fan and compressor driver consumptions.
3. Production flow rate according to EN 14511.
4. Considering a heat slope from 20 to 50 °C in absence of consumption.
5. Considering support provided by an emergency electrical heater or HTR. Max. DHW temp. with HTR can be limited by the compressor discharge temp.
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 information.
10. Certification in process.

Dimensions and hydraulic connections

ecoGEO+ HP R454B



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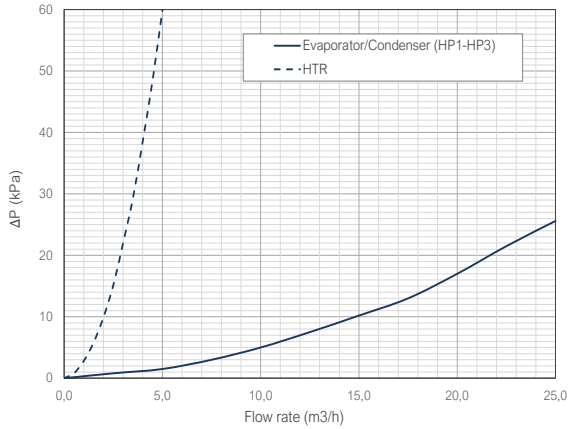
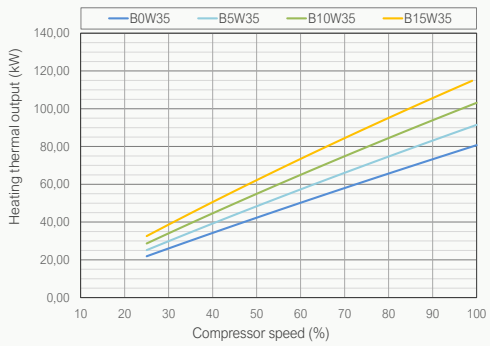
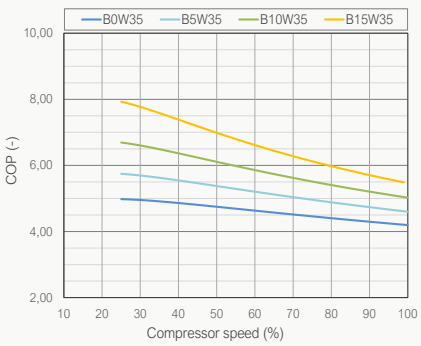
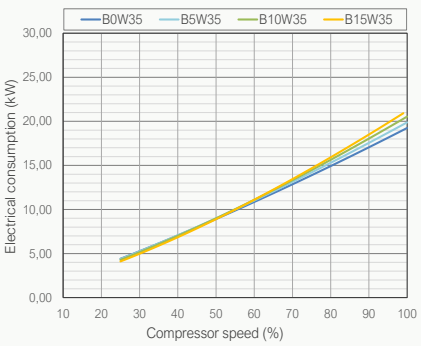
Pressure drop



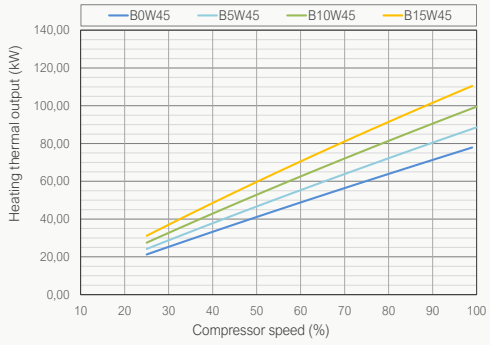
Heating **W35**

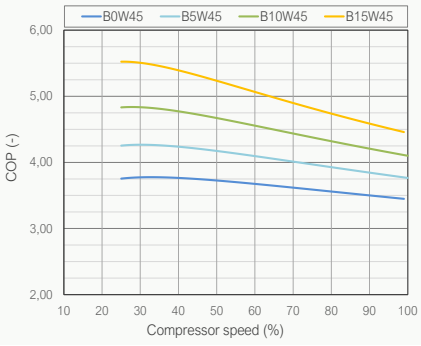


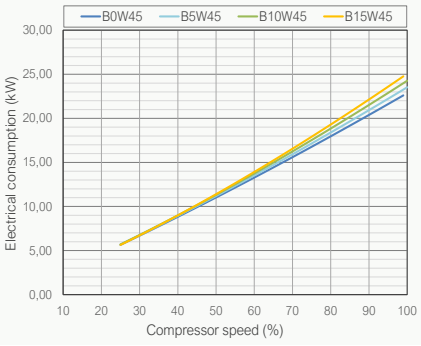




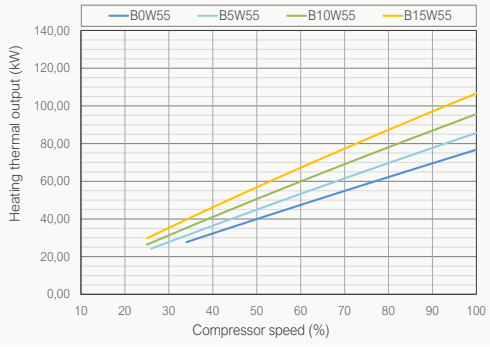
Heating **W45**

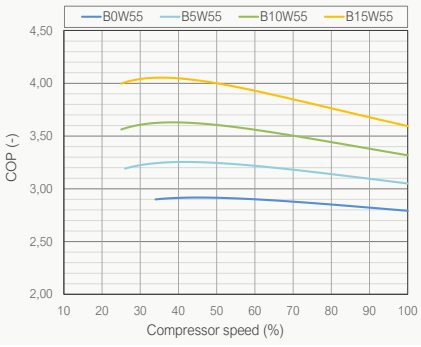


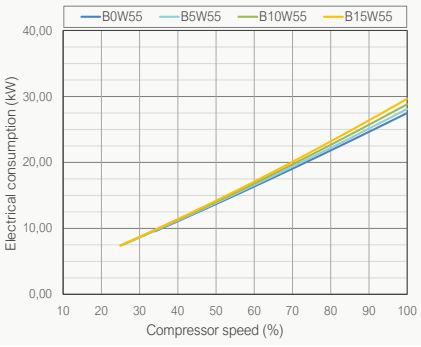




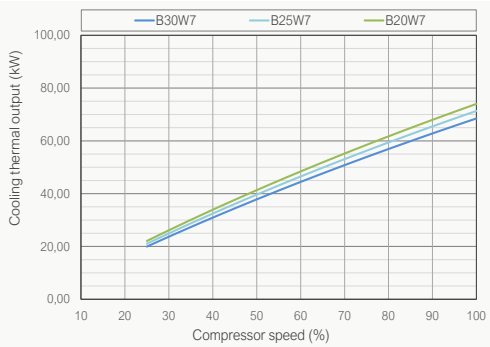
Heating **W55**

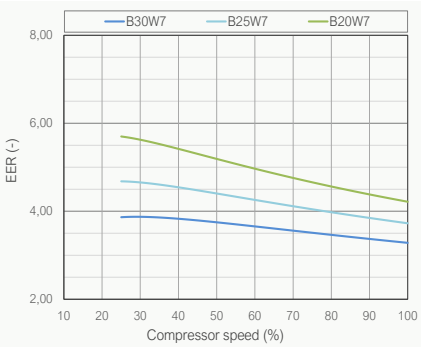


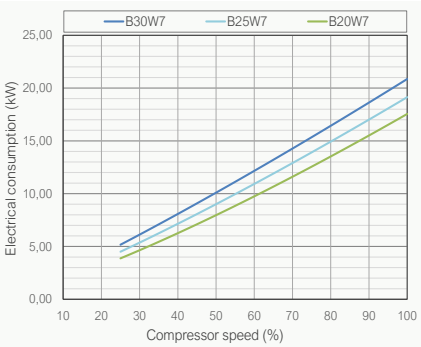




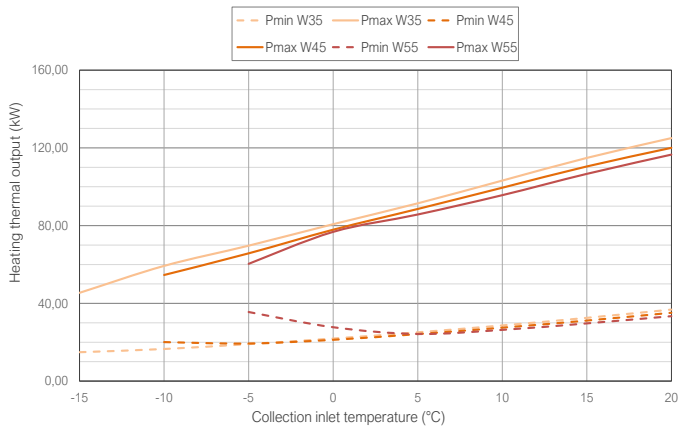
Cooling **W7**

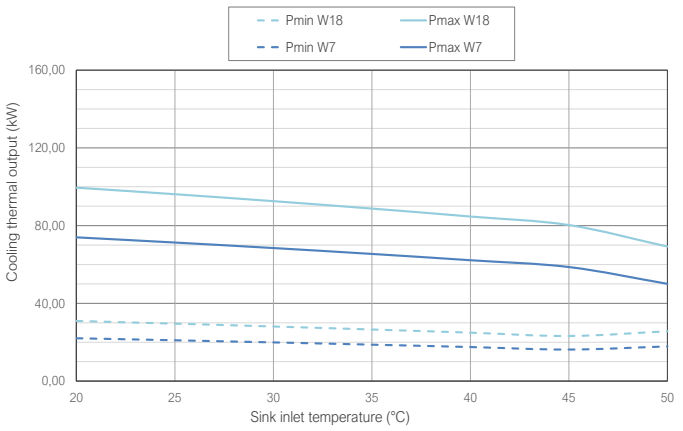






Thermal power - Brine system temperature





Notes

Notes

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