

AU12 Data Sheets



ecoforest
biomass - heat pump - solar



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Air Unit AU12

- **Aerothermal unit.**
- Compatible with ecoGEO B2/B4/C2/C4 models.
- **Control of the collection thermal power** by means of the modulation of the fan speed (25-100%) and of the modulation of the collection circulation pump (20-100%).
- **Completely hydraulic air source collection circuit** that allows to replace the geothermal collection by an aerothermal or a hybrid geothermal-aerothermal collection.
- **ecoGEO defrosting system:** defrosting without starting the compressor by means of an additional heat exchanger included in the ecoGEO B2/B4/C2/C4 heat pump models.
- **Selection of the energy source for the defrosting cycles.** The ecoGEO control allows to select the energy source for the defrosting processes depending on the installation features (DHW tank, heating tank, pool, ...).

Air unit
AU12



Compatible with the domestic ranges:
ecoGEO Basic and ecoGEO Compact



SPECIFICATIONS AU12		UNITS	AU12
APPLICATION	Place of installation	-	Outdoors
	Type of collection system ¹	-	Aerothermal / Hybrid
	Compatibility	-	ecoGEO B/C ²
	Number of AU12 units for aerothermal collection with ecoGEO B/C 1-9	-	1
	Number of AU12 units for aerothermal collection with ecoGEO B/C 3-12	-	1
	Number of AU12 units for aerothermal collection with ecoGEO B/C 5-22	-	1 / 2
	Hybrid collection configuration with ecoGEO B/C 1-9 / 3-12 / 5-22	-	1 unit AU12 + geothermal collection
DEFROSTING	Defrosting system	-	ecoGEO ²
	Defrosted water volume per defrosting cycle	l	6
OPERATION LIMITS	Maximum / Minimum outdoors temperature	°C	42 / -12
	Maximum / Minimum antifreeze temperature	°C	55 / -18
	Maximum pressure	bar	6
WORKING FLUID	Recommended working fluid ³	-	Water-propylene glycol mixture
	Freezing temperature ⁴	°C	-25
	Outdoor unit filling volume	l	19
SOUND LEVEL	Sound power level ⁵ (L _{WA}), fan speed 75%	dB(A)	69
	Sound pressure level ⁵ (L _{pA}) 10m, fan speed 75%	dB(A)	52
ELECTRICAL DATA	Power supply	-	1/N/PE
	Admissible voltage ⁶	V	200-277
	Frequency	Hz	50-60
	Maximum consumption	W	220
	Maximum current	A	1,1-0,8
	Correction of cosine Ø	-	0,96-1
HYDRAULIC CONNECTIONS	Working fluid inlet	-	G1-1/2" M
	Working fluid outlet	-	G1-1/2" M
	Drain diameter	mm	15
DIMENSIONS AND WEIGHT	Height x width x depth	mm	901x1000x651
	Fan diameter	mm	450
	Nozzle diameter	mm	540
	Empty weight (without assembly)	kg	115

1. Substitution/Combination of the geothermal collection by/ with one or more ecoGEO AU12 units. Consult the ecoGEO AU12 technical guide for further information.
2. Compressor turned off. Defrosting cycle by means of the thermal energy directly taken from the DHW tank, heating tank or pool. Compatible with the ecoGEO B2/B4/C2/C4 heat pump models.

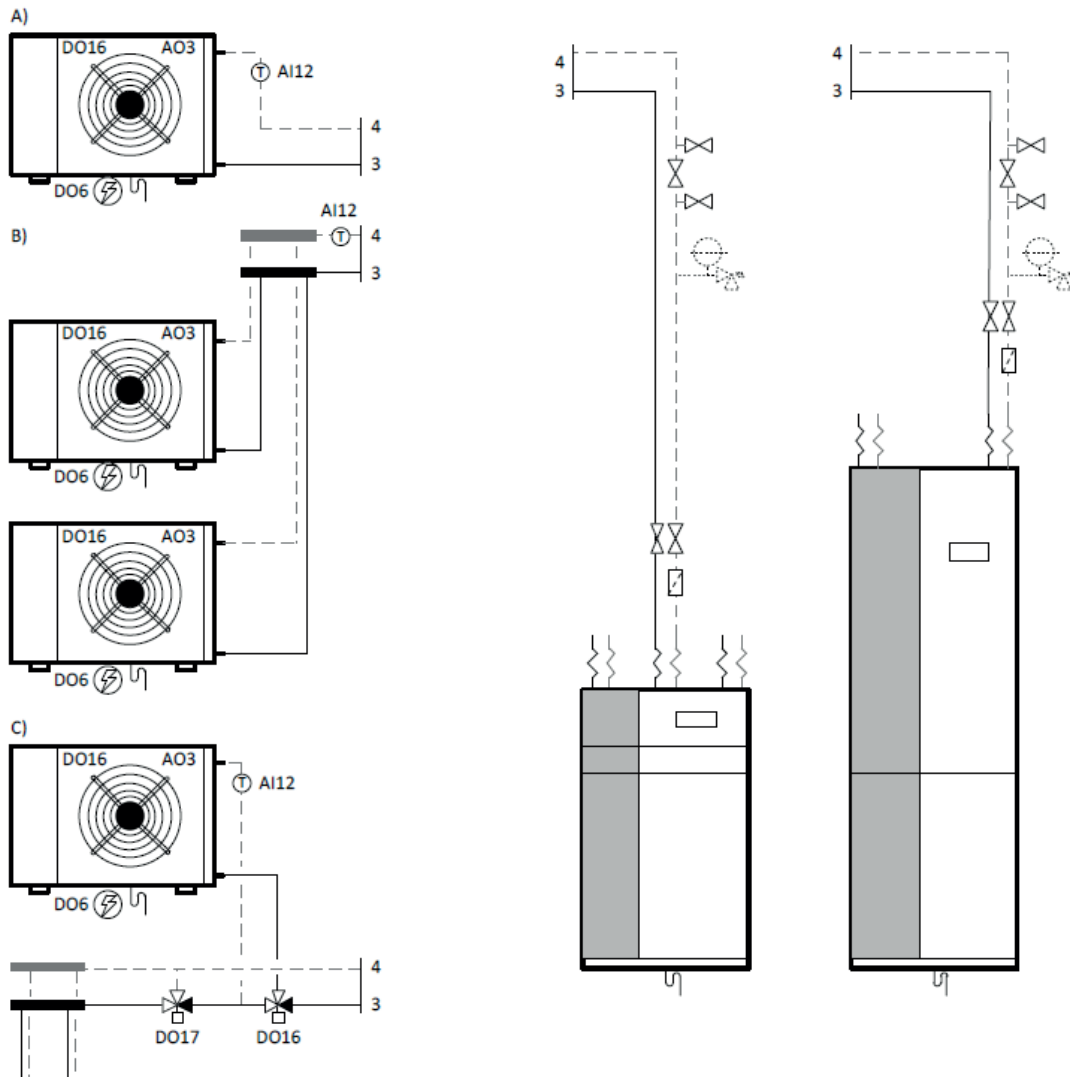
3. Consult local regulations before selecting the antifreeze for the working fluid mixture.
4. Adapt the freezing temperature to the type of installation and the location climatic conditions and configure the corresponding protections. Prepare the antifreeze-water mixture in the right proportions depending on the required freezing temperature.

5. Level calculated in compliance with UNE-EN-ISO 3746:2010.
6. Admissible voltage for the correct operation of the unit: ±10%.

■ AU12 & ecoGEO

The ecoGEO Basic and ecoGEO Compact heat pump ranges are able to use air as heat source, which allows to replace a ground source collection by one (A) or many AU12 air units (B).

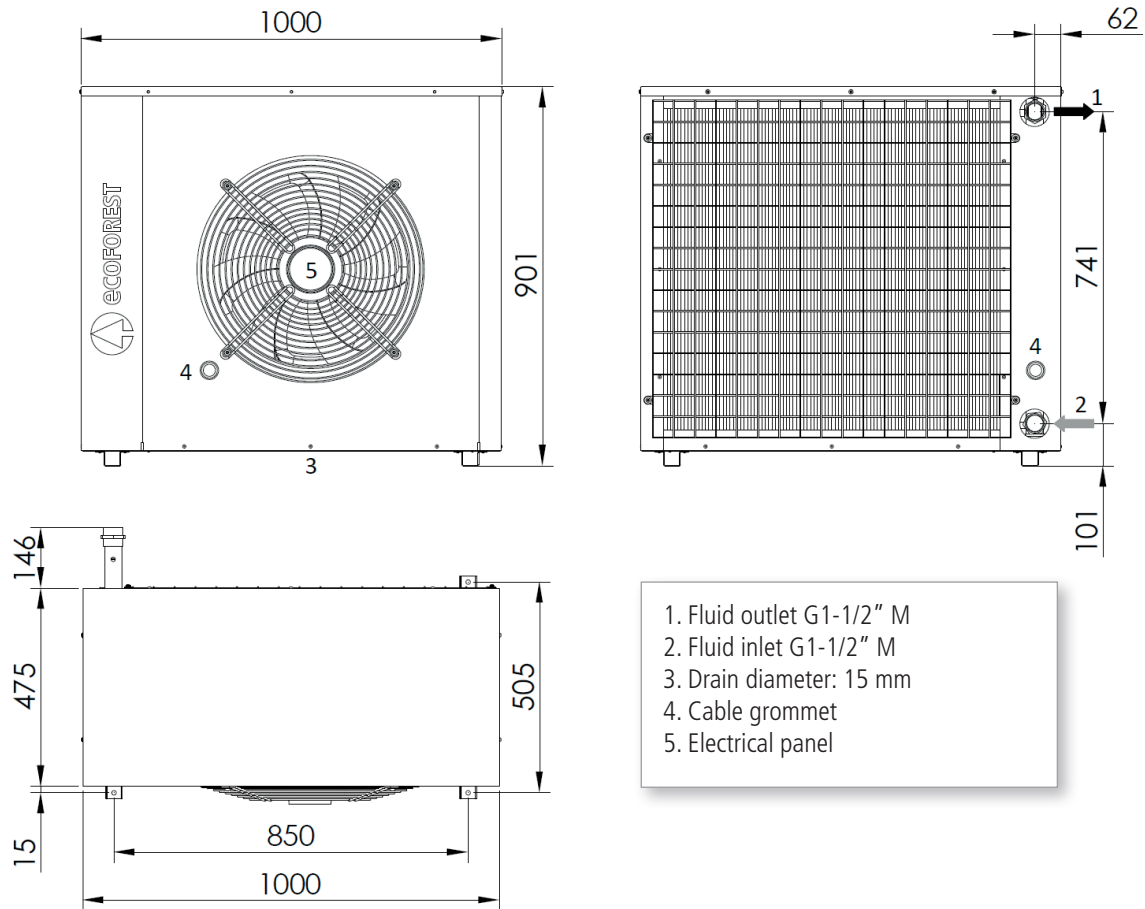
The ecoGEO heat pumps can also use both energy sources in order to obtain a geothermal-aerothermal hybrid collection system, by combining one or more AU12 air units with a geothermal collection (C).



A) Air source collection - 1 AU12 unit
 B) Air source collection - 2 AU12 units
 C) Hybrid collection

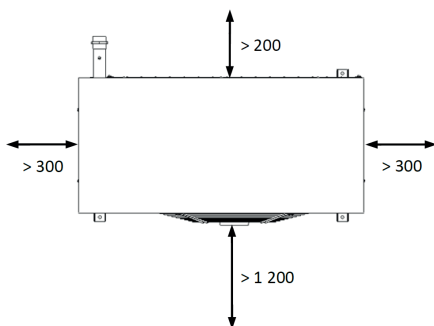
3) Collection inlet
 4) Collection outlet

■ DIMENSIONS AND CONNECTIONS



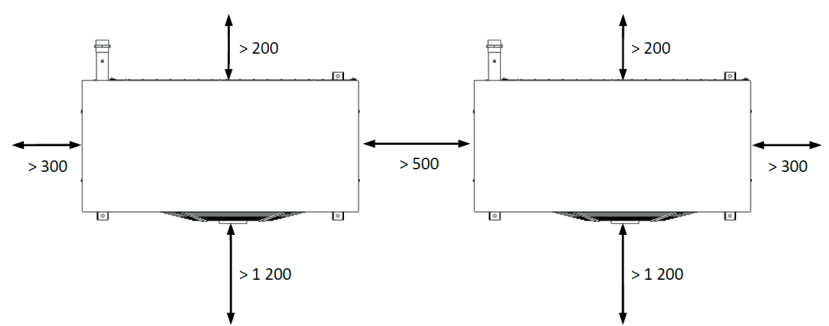
■ SERVICE AREAS

1 AU12 unit



Minimum recommended distances around the AU12 unit (mm).

2 or more AU12 units



Minimum recommended distances around cascade AU12 units (mm).



■ CONFIGURATION

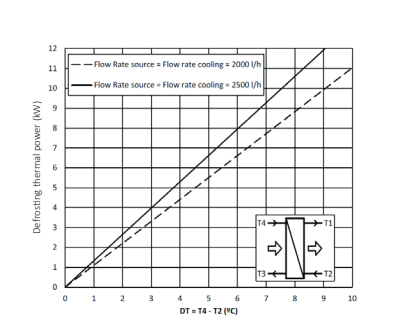
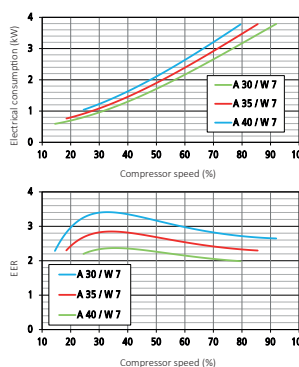
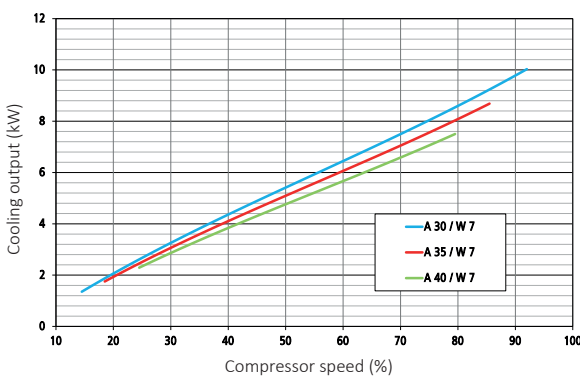
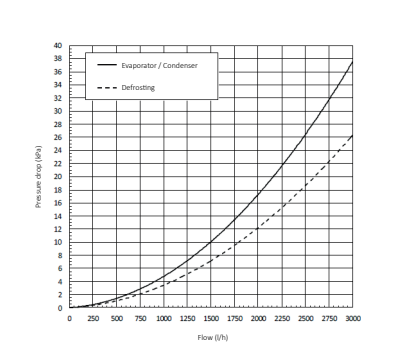
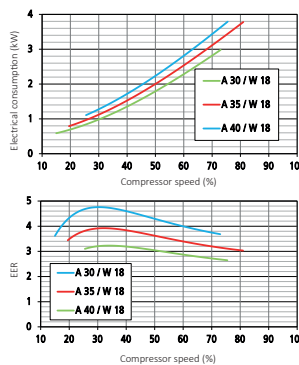
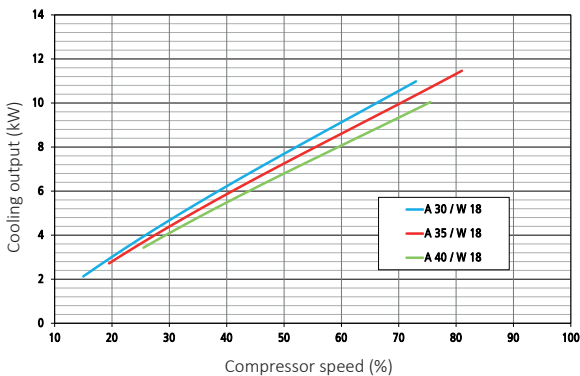
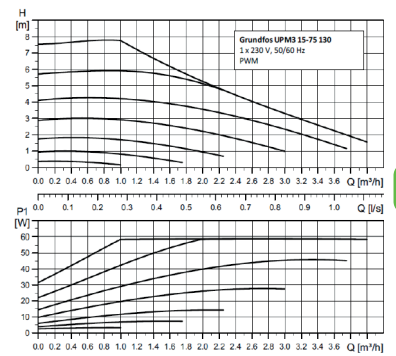
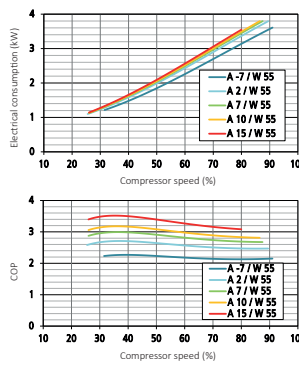
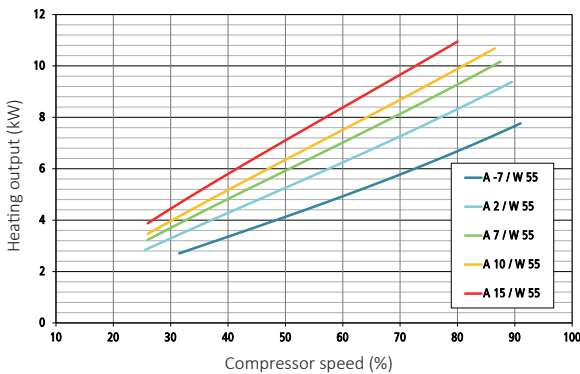
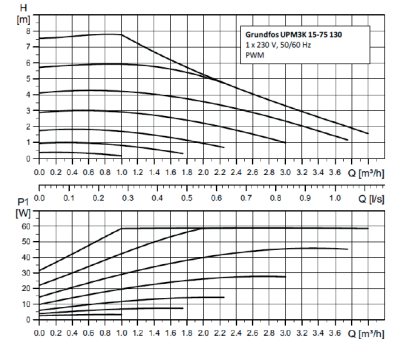
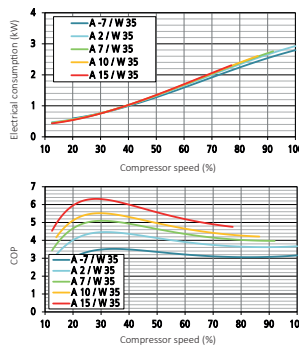
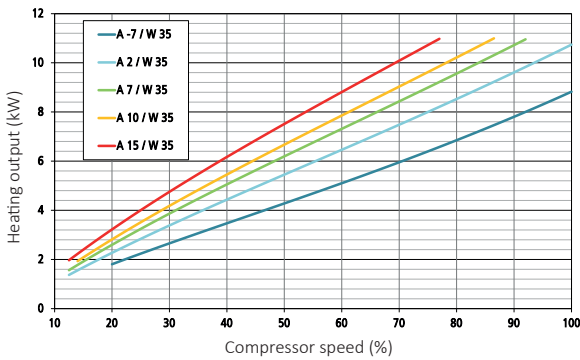
Heat pump

ecoGEO B2 1-9 kW / ecoGEO B4 1-9 kW

ecoGEO C2 1-9 kW / ecoGEO C4 1-9 kW

Air unit

1 AU12 unit





■ CONFIGURATION

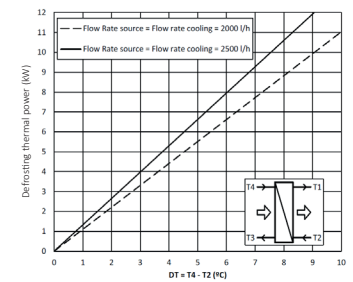
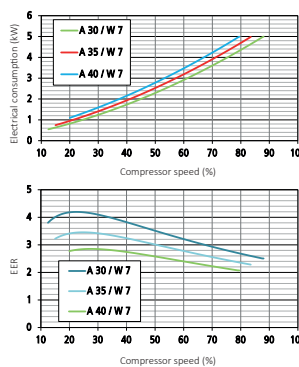
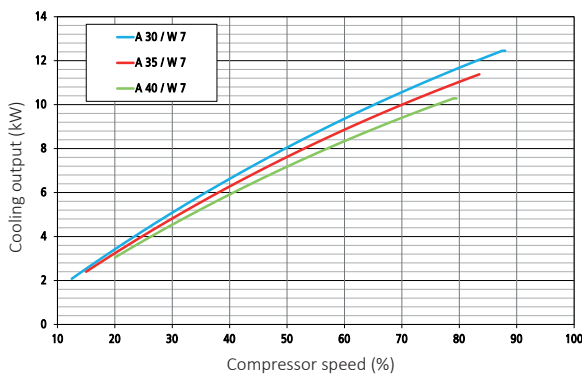
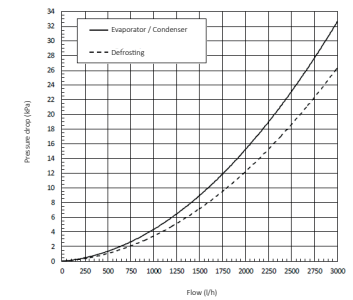
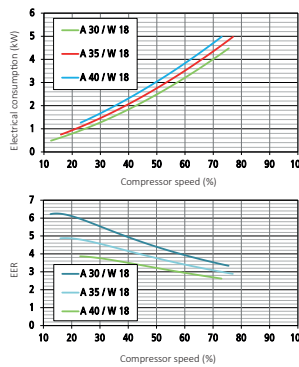
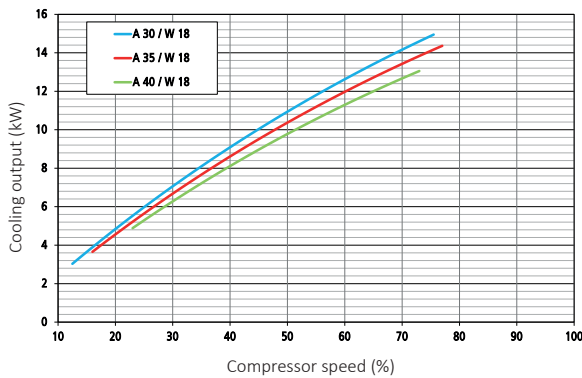
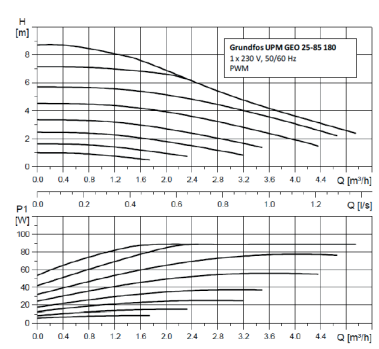
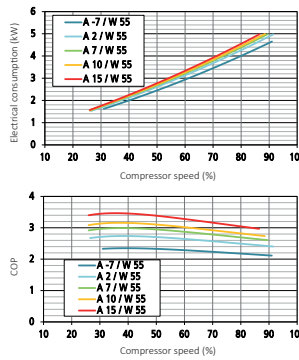
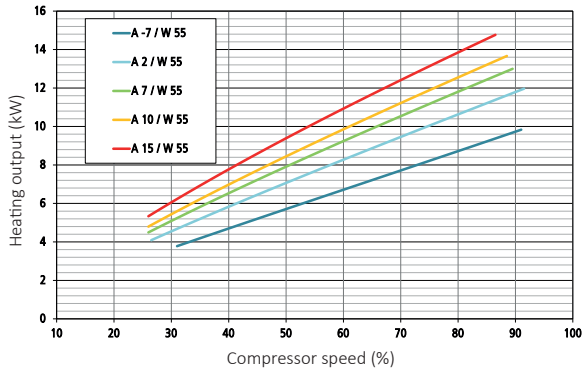
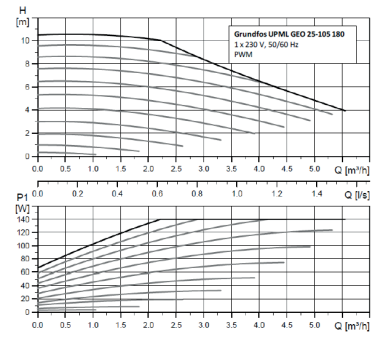
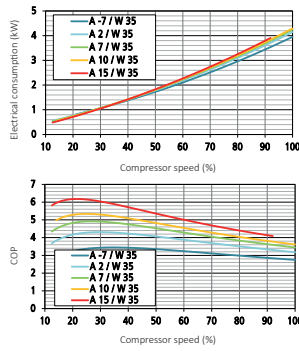
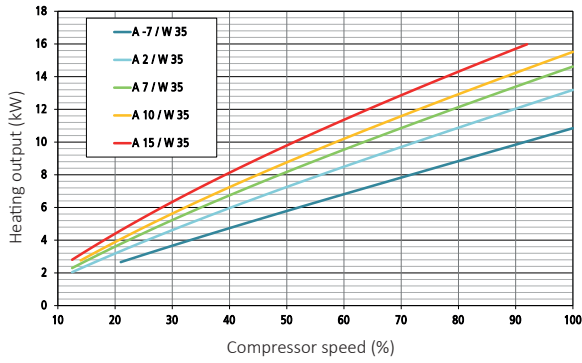
Heat pump

ecoGEO B2 3-12 kW / ecoGEO B4 3-12 kW

ecoGEO C2 3-12 kW / ecoGEO C4 3-12 kW

Air unit

1 AU12 unit





■ CONFIGURATION

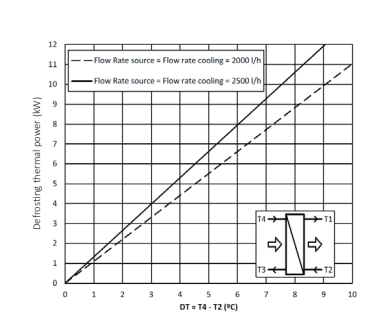
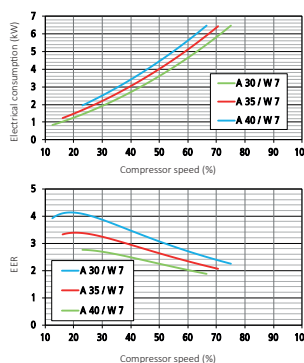
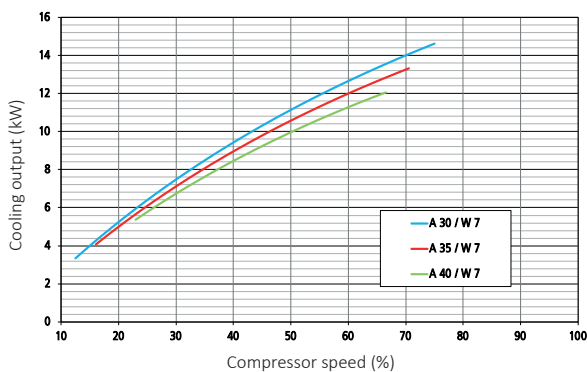
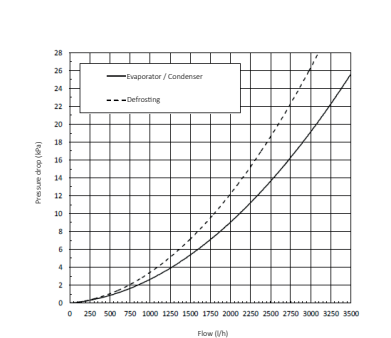
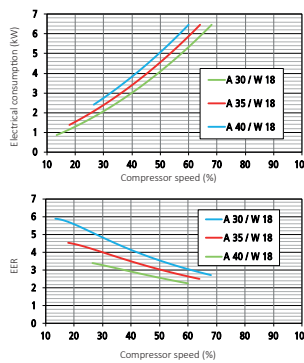
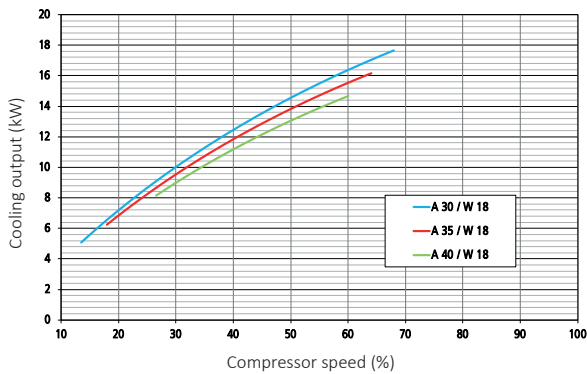
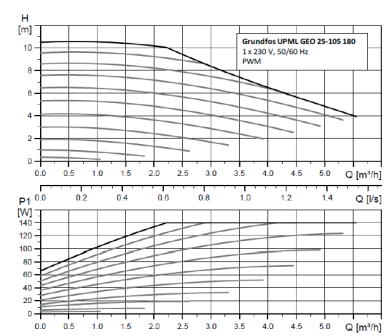
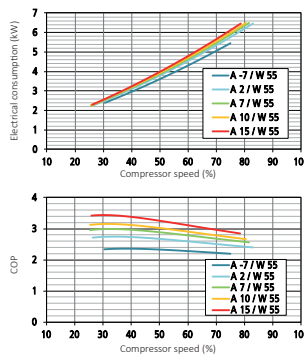
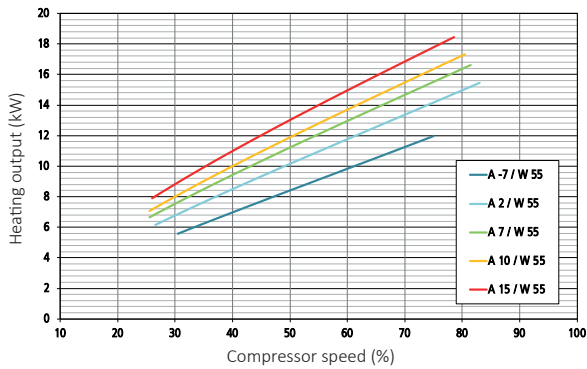
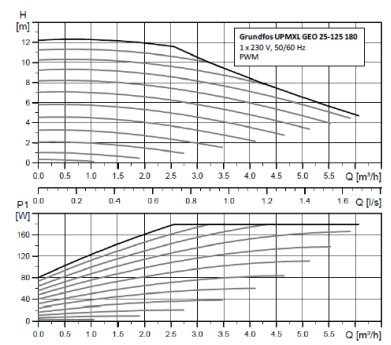
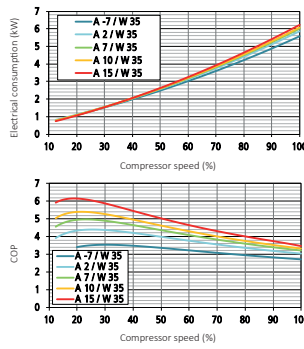
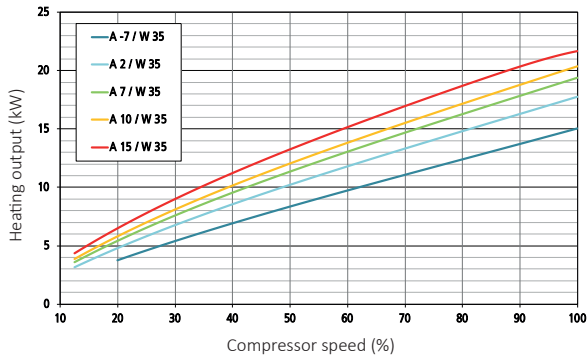
Heat pump

ecoGEO B2 5-22 kW / ecoGEO B4 5-22 kW

ecoGEO C2 5-22 kW / ecoGEO C4 5-22 kW

Air unit

1 AU12 unit



ecoGEO 5-22 & 2 AU12



■ CONFIGURATION

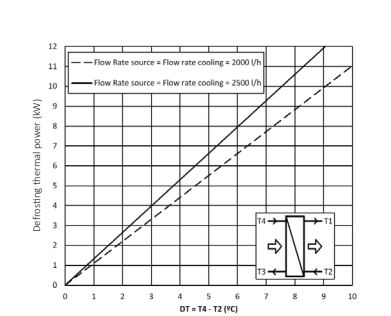
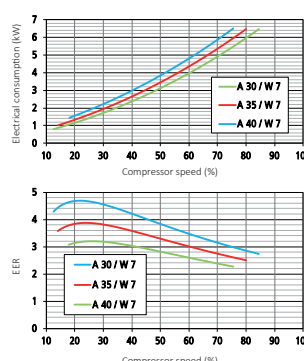
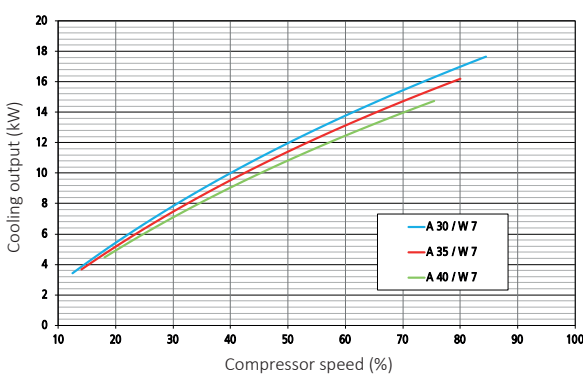
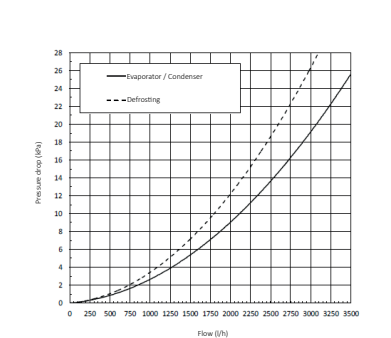
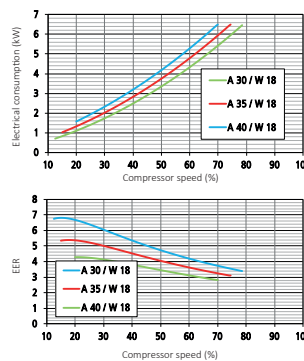
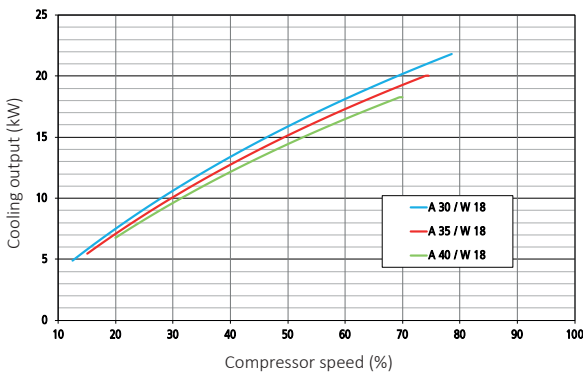
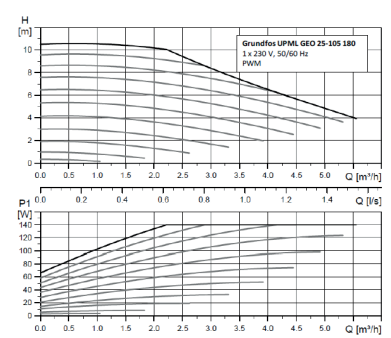
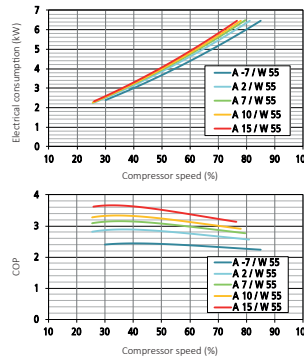
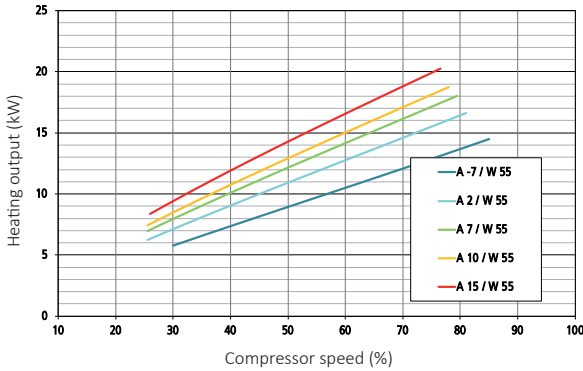
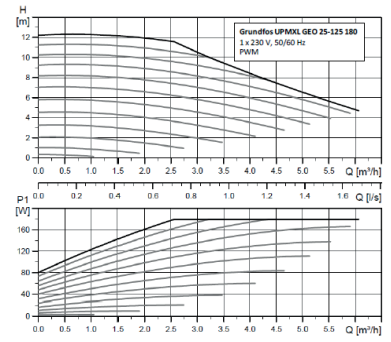
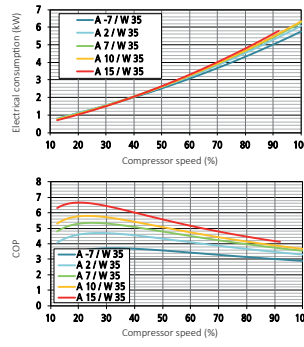
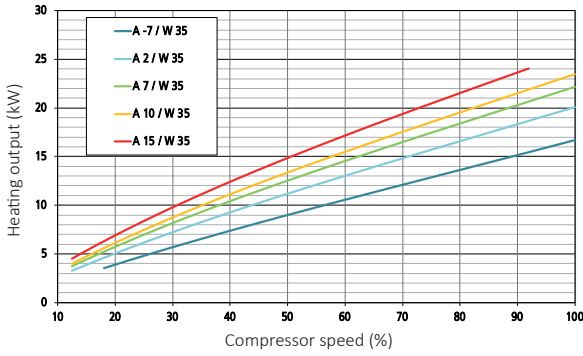
Heat pump

ecoGEO B2 5-22 kW / ecoGEO B4 5-22 kW

ecoGEO C2 5-22 kW / ecoGEO C4 5-22 kW

Air unit

2 AU12 units



■ SOUND LEVEL

Acoustic Power Level

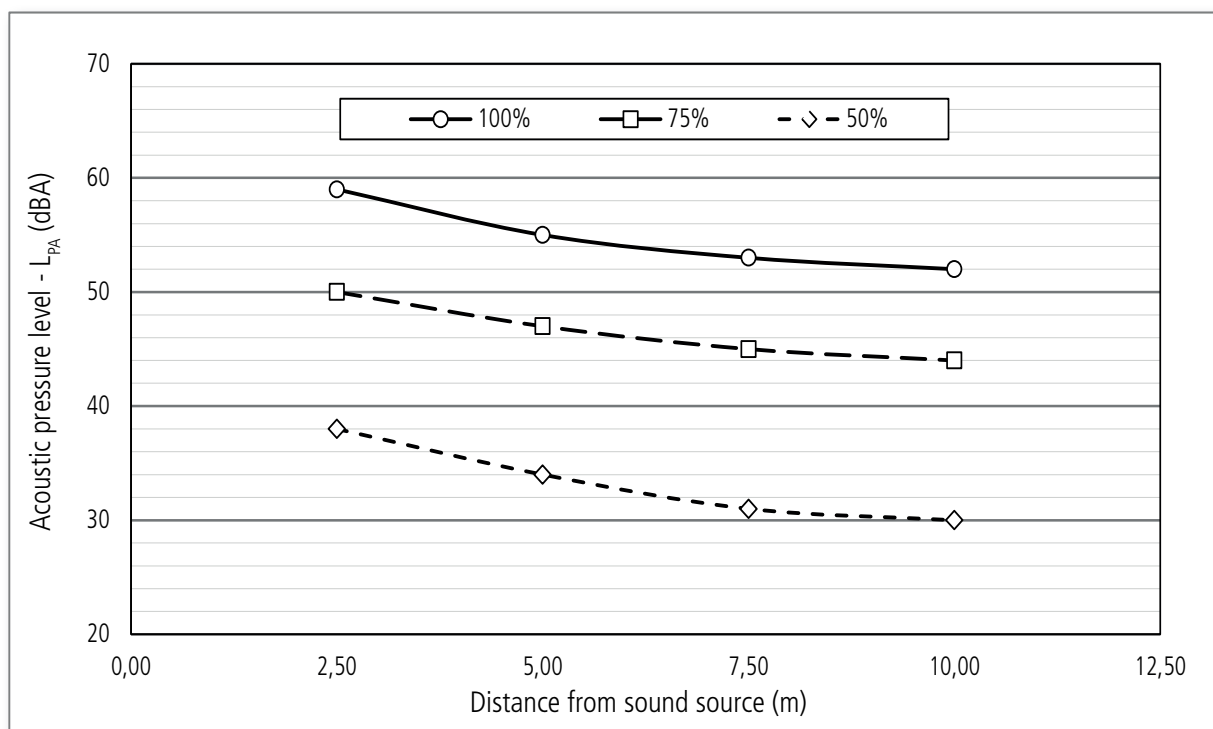
Operational mode (AU12 unit fan speed)	Acoustic power level - L_{WA}^* (dbA)
100%	77
75%	69
50%	56
25%	50

Acoustic Pressure Level

Acoustic pressure level depending on the distance from the sound source distance and the AU12* unit fan speed.

The ecoGEO heat pumps software allows to configure and modify the AU12 fan speed modulation range in order to adapt the performance to the noise level limitations of the installation.

The AU12 fan speed modulation range is preset between 25% and 75%.



*Calculation in compliance with UNE-EN-ISO 37 46:2011



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