

ecoGEO+ B/C 3-12

- Modulating thermal power control within a wide range (12,5-100%) and modulating flow rate control of both brine and production circuits (20-100%).
- Inverter technology and scroll compressor.
- Compact design including brine and production circulation pumps, brine and production expansion vessels (8l and 12l respectively), brine and production safety valves and DHW three-way valve.
- High Temperature Recovery system (HTR) for DHW production up to 70 °C without electrical support and simultaneous production of DHW and heating/cooling.
- Integrated management of up to 4 different emission temperatures, 2 buffer tanks (heating and cooling), 1 DHW tank, 1 pool and hourly control of DHW recirculation.
- Integrated management of aerothermal collection modulating units, in case of air source or hybrid configurations.
- Integrated management of external On/Off or modulating auxiliary systems, such as electrical heaters, On/Off boilers or modulating boilers.
- Integrated management of cascade systems up to 3 units.
- Integrated management of simultaneous cooling/heating systems according to scheme.
- Integrated free cooling in models 2 and 4.
- Integrated active cooling in models 3 and 4.
- Single-phase and Three-phase versions available.
- Integrated photovoltaic hybridisation.
- Integrated energy meters to measure the electrical consumption, the heating/cooling thermal power, the COP and the monthly and annual SPF.

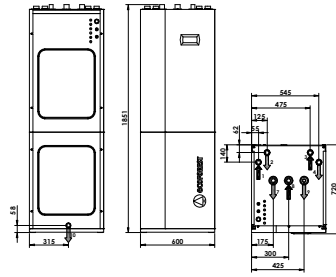
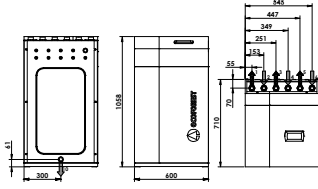
| SPECIFICATIONS ecoGEO+ B/C 3-12 | | UNITS | B1/C1 | B2/C2 | B3/C3 | B4/C4 |
|---|--|---|---|---------------------|---------------|---------------|
| APPLICATION | Place of installation | - | Indoors | | | |
| | Type of brine system ¹ | - | Ground source / Air source / Hybrid source | | | |
| | DHW, Heating and Pool | - | ✓ | ✓ | ✓ | ✓ |
| | High Temperature Recovery (HTR) system option | - | ✓ | ✓ | ✓ by default | ✓ by default |
| | Integrated Active cooling | - | - | - | ✓ | ✓ |
| | Integrated Passive cooling | - | - | ✓ | - | ✓ |
| PERFORMANCE | Modulation range of the compressor | % | 12,5 to 100 | | | |
| | Heating power output ² , B0W35 | kW | 2,1 to 16,0 | | | |
| | COP ² , B0W35 | - | 4,6 | | | |
| | Active cooling power output ² , B35W7 | kW | - | 2,1 to 15,0 | | |
| | EER ² , B35W7 | - | - | 5,2 | | |
| | Max. DHW temperature without / with support ⁵ | °C | 63 / 70 | | | |
| | Noise power emission level ⁶ | db | 34 to 45 | | | |
| | Energy label / η _s / SCOP W35 average climate control | - | A+++ / 194% / 4,95 | | | |
| | Energy label / η _s / SCOP W55 average climate control | - | A++ / 141% / 3,63 | | | |
| | OPERATION LIMITS | Distribution / Set heating outlet temperature range | °C | 10 to 60 / 20 to 60 | | |
| Distribution / Set cooling outlet temperature range | | °C | 5 to 35 / 7 to 25 | | | |
| Brine inlet temperature range in heating applications | | °C | -25 to 35 | | | |
| Brine inlet temperature range in cooling applications | | °C | 10 to 60 | | | |
| Minimum / Maximum refrigerant circuit pressure | | bar | 2 / 45 | | | |
| Production / Pre-load circuit pressure | | bar | 0,5 to 3,0 / 1,5 | | | |
| Brine / Pre-load circuit pressure | | bar | 0,5 to 3,0 / 0,7 | | | |
| Volume / Max. DHW storage tank pressure (ecoGEO+ C) | | l / bar | 165 / 8 | | | |
| WORKING FLUIDS | R410A Refrigerant load without HTR / with HTR | kg | 0,9 / 1,0 | | 1,0 | |
| | Compressor oil type / load | kg | POE / 0,74 | | | |
| CONTROL ELECTRICAL DATA | 1/N/PE 230 V / 50-60 Hz ⁸ | - | ✓ | | | |
| | Maximum recommended external protection ⁹ | - | C16A | | | |
| | Transformer primary circuit fuse | A | 0,5 | | | |
| | Transformer secondary circuit fuse | A | 2,5 | | | |
| ELECTRICAL DATA: SINGLE-PHASE | 1/N/PE 230 V / 50-60 Hz ⁸ | - | ✓ | | | |
| | Maximum recommended external protection ⁹ | - | C32A | | | |
| | Maximum consumption ² , B0W35 | kW / A | 4,2 / 18,6 | | | |
| | Maximum consumption ² , B0W55 | kW / A | 5,0 / 21,7 | | | |
| | Minimum / Maximum starting current ⁷ | A | 2,0 / 8,0 | | | |
| | Correction of cosine Ø | - | 0,96 / 1 | | | |
| ELECTRICAL DATA: THREE-PHASE | 3/N/PE 400 V / 50-60Hz ⁸ | - | ✓ | | | |
| | Maximum recommended external protection ⁹ | - | C16A | | | |
| | Maximum consumption ² , B0W35 | kW / A | 4,2 / 6,2 | | | |
| | Maximum consumption ² , B0W55 | kW / A | 5,0 / 7,2 | | | |
| | Minimum / Maximum starting current ⁷ | A | 0,7 / 2,6 | | | |
| | Correction of cosine Ø | - | 0,96 / 1 | | | |
| DIMENSIONS/WEIGHT | Height x width x depth | mm | ecoGEO+ B: 1060x600x710 · ecoGEO+ C: 1845x600x720 | | | |
| | Empty weight (without assembly) | kg | B 185 · C 246 | B 193 · C 254 | B 185 · C 246 | B 193 · C 254 |

- 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.
- In compliance with EN 14511, this includes the consumption of the circulation pumps and the compressor driver.
- Considering brine and production flow rates in compliance with EN 14511.
- Considering a heat slope from 20°C to 50°C in absence of consumption.
- Considering support provided by the emergency electrical heater or the HTR system. Maximum DHW temperature with the HTR system can be limited by the compressor discharge temperature.
- In compliance with EN 12102.
- Starting current depends on the working conditions of the hydraulic circuits.
- The admissible voltage range for proper operation of the heat pump is ±10%.
- Maximum consumption can vary significantly according to working conditions, or if the compressor's operation range is restricted. Consult the technical service manual for more detailed information.
- Certification in process.

Dimensions and hydraulic connections

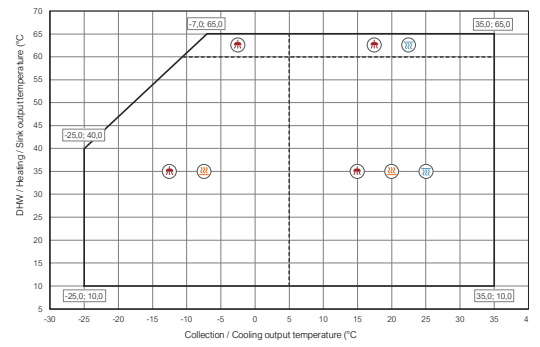
ecoGEO+ B

ecoGEO+ C

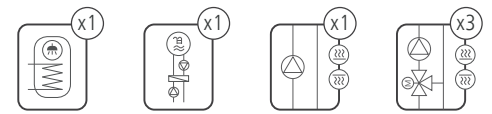


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|--------------------------------------|-------------------------------------|
| 1. Heating/Cooling Outlet - 1 1/4" M | 6. DHW System Inlet - 1 1/4" M |
| 2. Heating/Cooling Inlet - 1 1/4" M | 7. CW Inlet - 1" F |
| 3. Brine Outlet - 1 1/4" M | 8. DHW Outlet - 1" F |
| 4. Brine Inlet - 1 1/4" M | 9. DHW Recirculation Inlet - 3/4" F |
| 5. DHW system Outlet - 1" M | 10. Drain - 16 mm |

Operational chart

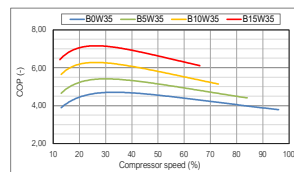
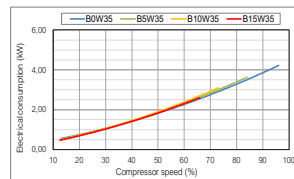
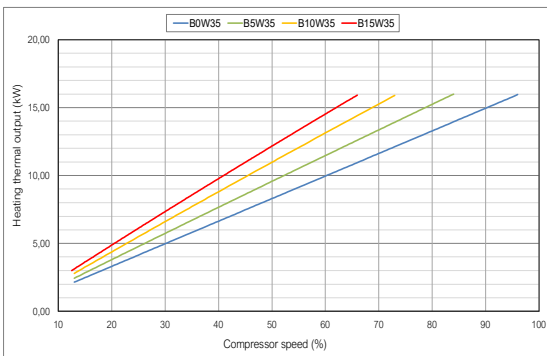


Installation management



Performance curves

Thermal performance



Hydraulic performance

