Air-to-water heat pump
Capacity: 40-84 kW

elco heating solutions

AEROTOP® EVO P

Air-to-water heat pump for commercial and large-scale applications.



PERFORMANCE & EFFICIENCY

Full-inverter technology adapts performance to demand, achieving energy efficiency class up to A+++[1] and a SCOP of up to 4.7[2].

HIGH FLOW TEMPERATURES

Flow temperatures up to 75°C[3] with natural refrigerant R290[4]. Suitable for new build and renovation, including existing high-temperature radiator systems[5].

FLEXIBILITY & SCALABILITY

The compact V-shaped design requires only 16.5 cm[6] between adjacent units, making efficient use of available installation space. For larger-capacity projects, up to 16 units can be cascaded to deliver a combined 1,350 kW[7].

INTEGRATED SAFETY CONCEPT

Selected models contain less than 5 kg of R290 per refrigerant circuit[8], simplifying outdoor installation planning.

[1] Seasonal space heating energy efficiency class A+++ for AEROTOP® EVO P 40, 47, 70 and 84 at W35, and A++ for all models at W55 (scale A+++ to D), average climate; Regulation (EU) No 811/2013.

[2] AEROTOP® EVO P 70 at W35, average climate; EN 14825:2022.

[3] All AEROTOP® EVO P models; EN 14511 at A-5, compressor partialisation.

[4] Refrigerant R290; GWP_{100} = 0.02 (IPCC AR6; Regulation (EU) 2024/573).

[5] Subject to project-specific assessment of heat demand, system design and operating temperatures.

[6] Per clearance, airflow and service requirements in the installation manual.

[7] 16 × AEROTOP® EVO P 84; EN 14511 (A7/W35).

[8] AEROTOP® EVO P 40, 47, 50, 56, 61: R290 charge < 5 kg per refrigerant circuit; DIN EN 378-1:2021-06.

AEROTOP® EVO P

Designed for commercial performance.

The AEROTOP® EVO P is a full-inverter air-to-water heat pump designed for commercial heating, cooling and domestic hot water. It delivers flow temperatures of up to 75°C[1]. The AEROTOP® EVO P is designed for operation at outdoor air temperatures down to -20 °C.

This provides flexible performance across a wide range of applications.

[1] All AEROTOP® EVO P models; EN 14511 at A-5, compressor partialisation.
[2] All AEROTOP® EVO P models; EN 14511 at A-20/W55, compressor partialisation.



AEROTOP® EVO P

Designed with diverse needs in mind.









PERFORMANCE & EFFICIENCY

Performance tailored to demand.
The AEROTOP® EVO P independently modulates the compressor, fan and hydraulic pump to adapt output to changing building heat demand. The result is seasonal efficiency that reflects the whole heating season, not just a single peak value: a SCOP of up to 4.70.[1]

The modulating compressor adjusts its output to the system demand, helping to reduce start-stop cycles[2] and maintain stable flow temperatures. Depending on system design, sizing, controls and operating conditions, compressor modulation can limit unnecessary start-stop cycles, support stable flow-temperature control and contribute to managing electrical peak loads.

At low-temperature operation (W35), the AEROTOP® EVO P reaches the top energy efficiency class, A+++.[3]

[1] AEROTOP® EVO P 70 at W35, average climate; EN 14825:2022.

[2] Depending on system design, sizing, controls and operating conditions, compressor modulation can help limit unnecessary start-stop cycles.

[3] Seasonal space heating energy efficiency class A+++ for AEROTOP® EVO P 40, 47, 70 and 84 at W35, and A++ for all models at W55 (scale A+++ to D), average climate; Regulation (EU) No 811/2013.

HIGH FLOW TEMPERATURES

Up to 75°C[4] with R290[5]. Well-suited for renovation and New build.[6]
The AEROTOP® EVO P delivers flow temperatures of up to 75°C.[4] Its operating range extends down to -20 °C[7] outdoor air temperature, allowing it to be considered for projects with existing high-temperature radiator systems.

Depending on the building's heat demand and system configuration, the unit may be integrated into existing heating infrastructure when replacing a gas or oil boiler.

The high flow temperature enables domestic hot water production at temperatures of up to 75°C[4]. The integrated thermal disinfection function supports hygiene requirements in applications where elevated water temperatures are needed.[8]

[4] All AEROTOP® EVO P models; EN 14511 at A-5, compressor partialisation.

[5] Refrigerant R290; GWP_{100} = 0.02 (IPCC AR6; Regulation (EU) 2024/573).

[6] Suitable for selected renovation and new-build projects, subject to the building's heat demand, emitter design, hydraulic configuration and required operating temperatures

[7] All AEROTOP® EVO P models; EN 14511 at A-20/W55, compressor partialisation.

[8] subject to the domestic-hot-water system design, control settings and applicable hygiene requirements.

FLEXIBILITY & SCALABILITY

Capacity that grows with your project.
With seven models ranging from 40 to 84 kW, the AEROTOP® EVO P offers flexible capacity options for a wide range of commercial applications.

For larger projects, multiple units can be combined in cascade. A configuration comprising 16 AEROTOP® EVO P 84 units can provide a combined heating capacity of up to 1,350 kW.[9] Here, a single master controller can coordinate up to 16 units and distribute the heating load across the cascade.

Its V-shaped design supports space-saving cascade installation, with a minimum clearance of only 16.5 cm between adjacent units.[10]

An integrated inverter pump and Victaulic connections support hydraulic connection and on-site commissioning.

Whether specified as a stand-alone unit, a cascade or as part of a hybrid system alongside an existing gas or oil boiler, the AEROTOP® EVO P can be configured for a variety of commercial heating projects.[11]

[9] 16 × AEROTOP® EVO P 84; EN 14511 (A7/W35).

[10] Subject to the clearance, airflow and service requirements in the installation manual.

[11] Hybrid integration is subject to project-specific heat demand, hydraulics, controls, operating conditions and local requirements.

INTEGRATED SAFETY CONCEPT

Layered protective measures embedded in the system.
The AEROTOP® EVO P combines physical separation, sensor-based monitoring and controlled ventilation within an integrated safety architecture.

The refrigerant circuit is housed in a dedicated compartment, physically separated from the electrical cabinet.
An ATEX-certified[12] extraction fan and R290 gas-leak sensors are located in the refrigerant compartment. A second sensor in the electrical cabinet provides monitoring on both sides of the physical separation[13]. The integrated degasser helps remove air and gases from the hydraulic circuit, with performance depending on the operating conditions.[14]

Five models - AEROTOP® EVO P 40, 47, 50, 56 and 61 - have a refrigerant charge below 5 kg.[15] Depending on local regulations and installation conditions, this may reduce additional signage and approval requirements.[16]

[12] TRIAL AAE-7112H-UL extraction fan with GEC7112H motor (ATEX: II 2 G Ex nA IIC T3 Gc), Directive 2014/34/EU; EU-type examination certificate ECM 22 ATEX-B QW51.

[13] Safety architecture includes gas-leak detection in the refrigerant compartment and additional monitoring in the electrical cabinet; see current technical documentation for component specification and applicable model scope.

[14] Based on laboratory testing. Measured gas-removal performance ranged from 67.6% to 98.0% under the tested conditions, with refrigerant leakage rates of 0.1-9 g/s, water flow rates of 3,960-22,680 l/h and system pressures of 1-4 bar.

[15] AEROTOP® EVO P 40, 47, 50, 56, 61: R290 charge < 5 kg per refrigerant circuit; DIN EN 378-1:2021-06.

[16] Refrigerant charge must be considered in the site-specific risk assessment and installation planning. Signage, approvals and other requirements depend on site conditions and applicable regulations.

AEROTOP® EVO P

Built around your project.

Combining integrated safety functions with intelligent performance management, the AEROTOP® EVO P supports flexible system design and controlled operation across a wide range of commercial heating, cooling and domestic hot water applications.





SAFETY DESIGN

1. **Separated service compartments**
   Electrical cabinet and refrigerant circuit are physically separated, each independently accessible.
2. **ATEX-certified extraction fan**[1]
3. **Gas-leak detection sensors**
4. **Non-return valve**
5. **Water filter**
6. **Degasser**
   reaches 67.6% to 98.0 % efficiency[2]

ACOUSTIC FLEXIBILITY

Three configurable acoustic modes
Standard, Silent (-2 to -4 dB(A)) and Super-Silent mode (-6 to -10 dB(A)) – settable on-site per unit, without hardware modification.[3]

7. **Anti-vibration dampers**
   Fitted between the unit base and the floor slab, the dampers provide mechanical separation between the two. Selection and installation depend on the supporting structure and site conditions.

ROBUST DESIGN

8. **Metal housing**
   Powder-coated metal chassis designed to resist UV exposure and corrosion in demanding outdoor conditions.
9. **V-shape copper/aluminium coil**
   V-shaped copper/aluminium coil with a hydrophilic fin coating [4] for meltwater drainage after each defrost cycle.
10. **Heated condensate tray**
    The integrated heated condensate tray is designed to limit ice build-up and help protect adjacent components within the operating range.

PERFORMANCE

11. **Modulating inverter technology**
    The modulating inverter continuously adjusts compressor output in response to system demand within the unit's specified modulation range. Depending on system demand, system design and operating conditions, this can support part-load operation and help manage start-stop cycling.

Integrated energy meter
Performance monitoring with power output, power input, current COP/EER and cumulative energy (MWh) displayed on HMI and available via Modbus.

[1] TRIAL AAE-7112H-UL extraction fan with GEC7112H motor (ATEX: II 2 G Ex nA IIC T3 Gc), Directive 2014/34/EU; EU-type examination certificate ECM 22 ATEX-B QW51.

[2] Based on laboratory testing. Measured gas-removal performance ranged from 67.6% to 98.0% under the tested conditions, with refrigerant leakage rates of 0.1-9 g/s, water flow rates of 3,960-22,680 l/h and system pressures of 1-4 bar.

[3] Acoustic modes are software-selectable on site, per unit, with no hardware change. Values are the reduction in A-weighted sound power level (LwA) versus Standard mode, measured to EN ISO 9614-2 and declared per EN 12102-1, for all EVO P sizes 40–84 at rated conditions (heating: air 7/6 °C, water 30/35 °C; cooling: air 35 °C, water 12/7 °C; free field, 1 m). Because they limit compressor and fan speed, Silent and Super-Silent mode also reduce the maximum available heating and cooling output – by up to approx. 13% and approx. 27% respectively at rated conditions. See the technical and installation manual for full mode-by-mode performance data and sizing guidance.

[4] Hydrophilic fin coating (Italcoat IDROF.706M / finish VAE706M PA) on the aluminium fin surface; water contact angle < 10°, measured with demineralised water 20 s after drop deposition (Italcoat Technical Specification C89010001, product code 5281-000012-1). The low contact angle makes meltwater spread into a thin film and run off the fins instead of beading, so water clears from the coil after defrost.

ELCO HEATING SOLUTIONS.

Your expert. Your partner.





TESTED SYSTEMS BY ELCO

Tested as individual components. Evaluated as a complete system.

At our in-house system laboratory in Germany, the AEROTOP® EVO P is evaluated both at component level and as part of a complete heating and domestic hot-water system.

Our specialist teams use controlled simulations and practical test scenarios to assess system interaction under defined operating conditions, including different usage profiles and simulated weather conditions.

The findings support the ongoing development and refinement of the AEROTOP® EVO P - helping its components work together as a coordinated system across the operating conditions specified in the technical documentation.

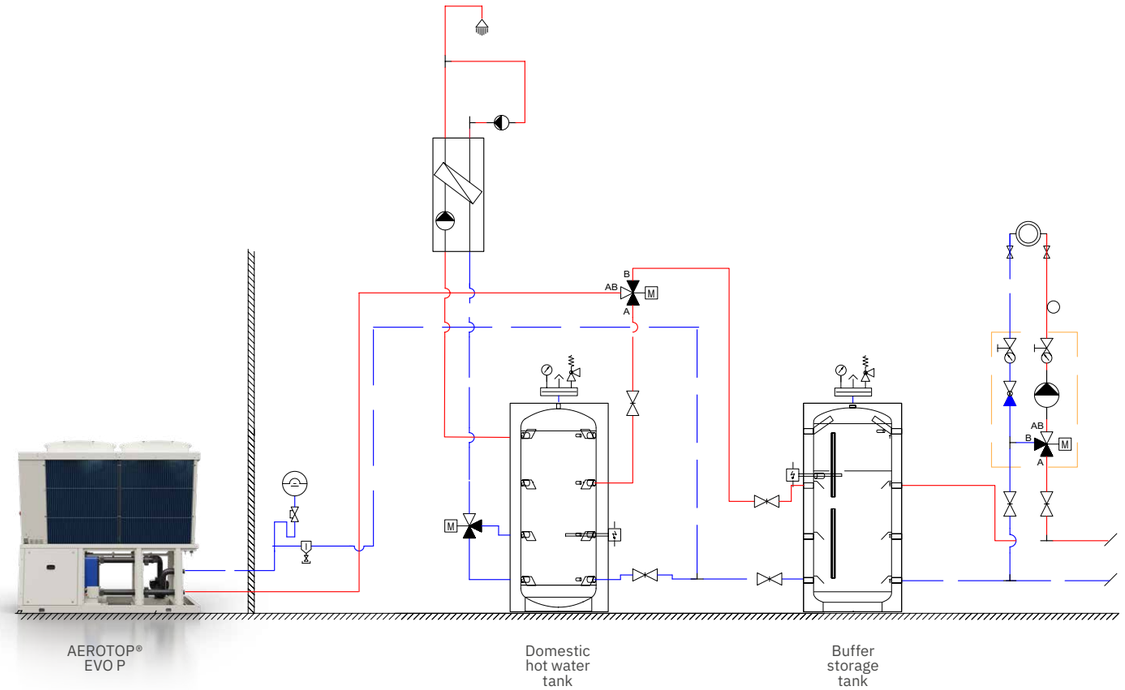
CUSTOMIZED SOLUTION SUPPORT.

Tailored to your project.

Every project brings its own technical and operational requirements.

ELCO's Customised Solutions team works with you to develop a project-specific system concept based on your building, application and operating needs.

The AEROTOP® EVO P offers flexible configuration options to enable integration into the wider heating and cooling system. From initial planning and system design through to implementation, ELCO provides specialist support at each stage of the project.



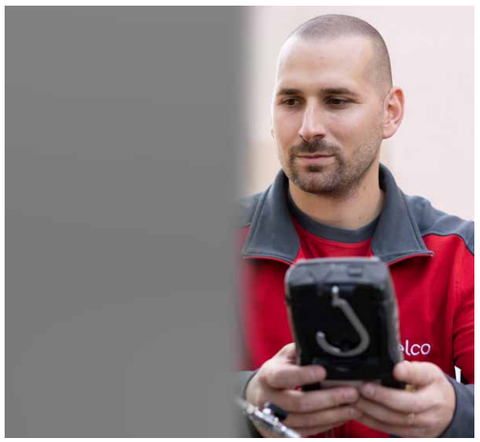
FIRST CLASS SERVICE.

TRUSTED PARTNER.

At ELCO we believe in providing the highest levels of safety, convenience, efficiency, and reliability – for the entire life of the heating system.

Heating systems should function economically while maintaining low emissions for their lifetime, and that's why at ELCO we offer an unsurpassed selection of flexible service and maintenance packages through our UK wide network of trusted service partners.

From commissioning and regular visual inspection to yearly services for optimum reliability, not only will they ensure main parts are available and delivered promptly, they also give customers the reassurance that the products they purchase are more than adequately supported.



AEROTOP® EVO P
Technical highlights.



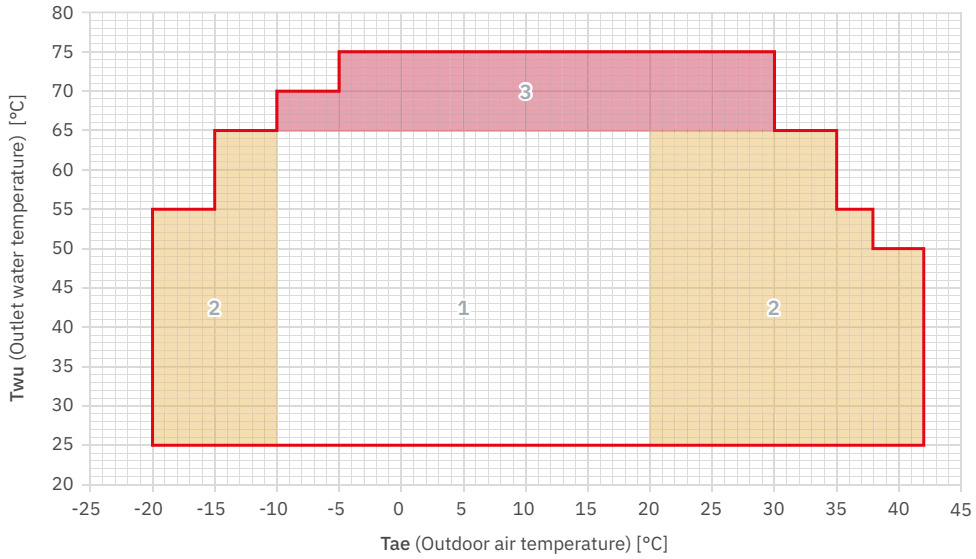
AEROTOP® EVO P Outdoor Unit		Standard / Regulation	40	47	50	56	61	70	84
Energy efficiency class for space heating at 35°C[1]	-	EU 811/2013	A+++	A+++	A++	A++	A++	A+++	A+++
Energy efficiency class for space heating at 55°C[1]	-	EU 811/2013	A++	A++	A++	A++	A++	A++	A++
Seasonal space heating efficiency (ETA_s) (35 °C) / SCOP	%/-	EN 14825	177/4.51	175/4.45	171/4.36	169/4.29	166/4.22	185/4.70	179/4.54
Seasonal space heating efficiency (ETA_s) (55 °C) / SCOP	%/-	EN 14825	139/3.54	137/3.51	137/3.51	136/3.47	133/3.41	142/3.63	141/3.60
A7/W35 nominal heating capacity / COP	kW/-	EN 14511	40.1/3.92	46.8/3.71	50.4/3.81	55.8/3.78	61.0/3.73	70.2/3.91	84.4/3.74
A7/W45 nominal heating capacity / COP	kW/-	EN 14511	39.9/3.11	45.2/3.08	55.1/3.19	61.5/3.13	68.5/2.92	78.6/3.14	85.9/3.01
A7/W55 nominal heating capacity / COP	kW/-	EN 14511	37.0/2.71	42.9/2.57	47.4/2.67	51.2/2.60	55.7/2.55	65.9/2.74	76.6/2.56
A35/W18 nominal cooling capacity / EER	kW/-	EN 14511	42.6/4.28	46.8/3.99	55.6/3.66	59.7/3.63	64.7/3.41	79.9/4.23	86.1/3.90
A35/W7 nominal cooling capacity / EER	kW/-	EN 14511	34.9/2.84	38.5/2.81	49.9/2.58	54.0/2.46	58.2/2.35	67.8/2.86	72.7/2.64
Seasonal cooling efficiency (SEER) (W7)	-	EN 14825	5.36	5.20	4.73	4.58	4.36	5.47	5.30
Maximum flow temperature [2]	°C	EN 14511	75	75	75	75	75	75	75
Minimum outdoor temperature (heating)	°C	-	-20	-20	-20	-20	-20	-20	-20
Sound Power LwA ErP	dB(A)	EN 12102	68	68	69	69	69	69	69
Sound Power LwA - Standard Mode	dB(A)	EN ISO 9614-2	75	75	77	77	78	78	79
Sound Pressure - Standard Mode (1 m)	dB(A)	EN ISO 9614-2	57	57	59	59	60	59	60
Refrigerant quantity | type: R290; GWP_{100} = 0.02	kg	EU 2024/573	4.9	4.9	4.5	4.5	4.5	10	10
Number of compressors	Nr	-	1	1	1	1	1	2	2
Full load current (F.L.A.)	A	-	34.9	34.9	53.3	53.3	53.3	65.8	65.8
Full load power input (F.L.I.)	kW	-	22.0	22.0	34.0	34.0	34.0	41.8	41.8
Water content (internal exchanger)	l	-	6.2	6.2	8.4	8.4	8.4	10.7	10.7
Unit weight (operation / shipping)	kg	-	714/694	714/694	760/740	760/740	760/740	1021/1001	1021/1001
Unit dimensions (WxHxD)	mm	-	2384×2240×1094	2384×2240×1094	2384×2240×1094	2384×2240×1094	2384×2240×1094	3402×2240×1094	3402×2240×1094
Power supply	V	-	400/3~/50 + N	400/3~/50 + N	400/3~/50 + N	400/3~/50 + N	400/3~/50 + N	400/3~/50 + N	400/3~/50 + N

[1] Energy efficiency class space heating (Range A+++ to D)

[2] Design limit value; actual achievable conditions depend on outdoor temperature and system design

AEROTOP® EVO P
Unit envelopes.

Heating

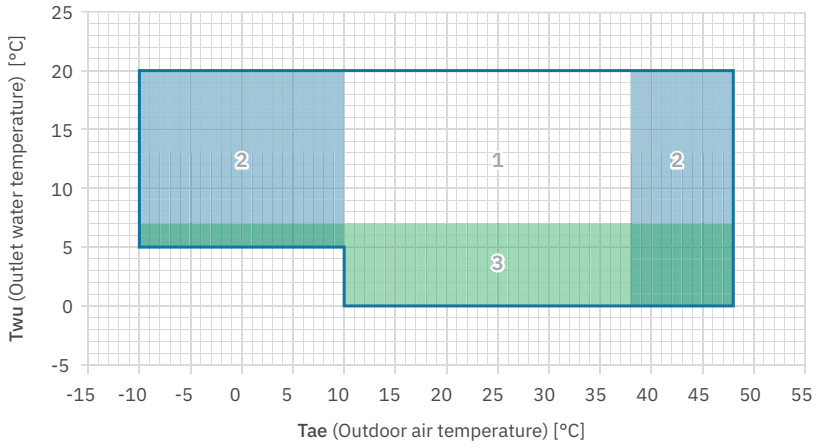


1 Normal operating range.

2 Unit operating range with automatic staging of the compressor capacity.

3 Unit operating range with automatic staging of the compressor capacity, sudden changes in water temperature are not permitted.

Cooling



1 Normal operating range.

2 Unit operating range with automatic staging of the compressor capacity.

3 Unit operating range with low water temperature, where the use of ethylene or propylene glycol is mandatory.

Stand: ELCO_AEROTOP EVO P_12pp (B2B)_ENGLISH (UK)_09-2026_V1 | Subject to modifications.
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