ALBATROS

High performance module

QUICK FACTS

- Thermal comfort according to EN ISO 7730
- Very high heating & cooling capacity
- With optional absorbers:
  Superior sound absorption values (class A)
- Powerful and energy efficient
- Exceptional design / performance concept
- Easy installation
- Anodised profiles available
- Can be combined with ARCHISONIC®
- Integration of various components
  - Different lighting designs
  - Sprinklers
  - Smoke detectors
  - Supply / extract air elements

Output (water)	
Cooling	Heating
Up to 241 W/m² (8 K), EN 14240:2004	Up to 303 W/m² (15 K), EN 14037:2016

Acoustics
αw: up to 0,90 (L)

BARCOL-AIR by Swegon

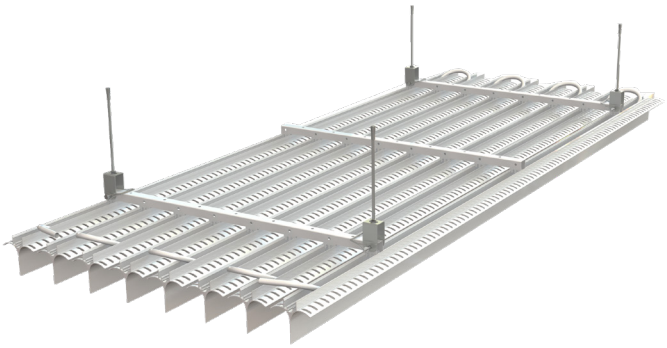
Technical description

General

The ALBATROS high performance module is a radiant ceiling system for rooms with a high cooling demand. It achieves a very high thermal performance with its slotted aluminium fins in the shape of a wing.

Through optional combination with the sound absorber structure, the ALBATROS also demonstrates advanced acoustic effectiveness.

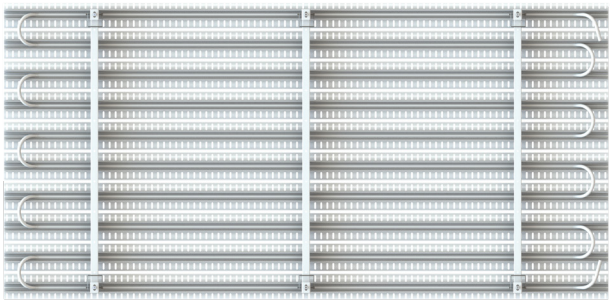
Another special feature is the high surface-related, predominantly convective cooling capacity. Combination with any air ducting system is also possible. The modular ceiling system is suitable for covering the heating demand as well.



Activation

Water system: The ALBATROS high performance module is a passive system that absorbs room heat through the ceiling surface and transfers it to water in activation registers or, when heating is required, emit heat.

Modules are activated by means of copper tube coils (outside diameter 12 mm) that are press-fitted into the fins.



Functions

The ALBATROS high performance module is multi-functional. In addition to their thermal function – cooling and heating – they can be fitted with additional features, such as acoustic elements, smoke detectors and lighting.

Combination

- ALBATROS high performance module + ARCHISONIC®

Technical data

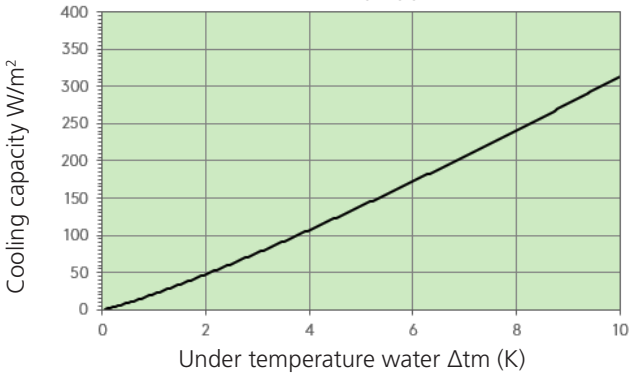
Capacity

Initial data is presented below.

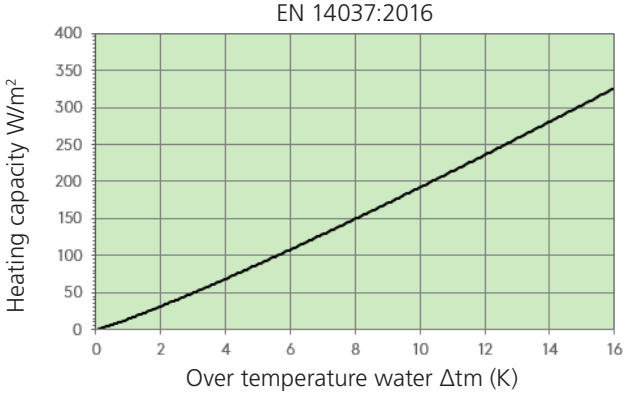
Pipe spacing	100 mm
Supply/extract air (Combination options with ventilation system on request. With supply air, the rating increases by +5 % in office spaces and by up to +30 % in industrial environments.)	without

(Capacity information without project-specific performance-influencing factors.)

EN 14240:2004



EN 14037:2016



Version	Cooling 8 K	Cooling 10 K	Heating 15 K
Aluminium fins 100 mm	Up to 241 W/m²	Up to 313 W/m²	Up to 303 W/m²

Notice

- SN EN 14240: The cooling capacity is related to the active area according to SN EN 14240:2004. The active area is calculated according to SN EN 14240 from the number of heat-conducting rails x length of heat conducting rail x distance between heat conducting rails.
- SN EN 14037: The heating capacity is related to the active area according to SN EN 14037:2016. The active area is calculated according to SN EN 14037 from the length of the ceiling panel x the width of the ceiling panel.

Recommendations for operation

Water

- Temperature
  - Cooling: 16 – 18 °C
  - Heating: 28 – 37 °C
- Temperature distance Δt (flow - return)
  - Cooling: 2 – 3 K
  - Heating: 3 – 5 K
- Pressure drop: 20 – 25 kPa
- Water flow rate: 90 – 200 l/h
- Max. operating pressure: 9 bar
- Water quality according to: SWKI BT 102-01, BTGA 3.003, VDI 2035

Environment

- Ambient temperatures: +5 – 50 °C
- Humidity: up to 90 %

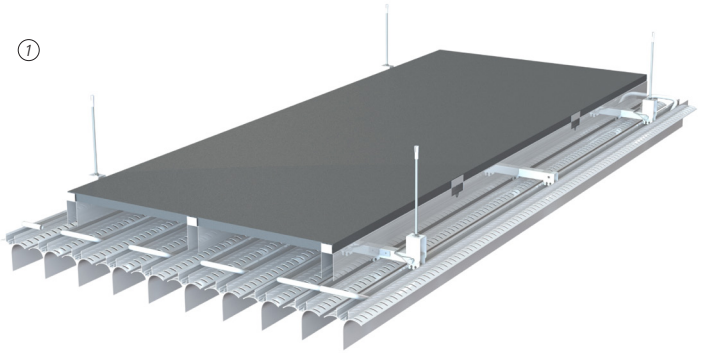
Acoustics

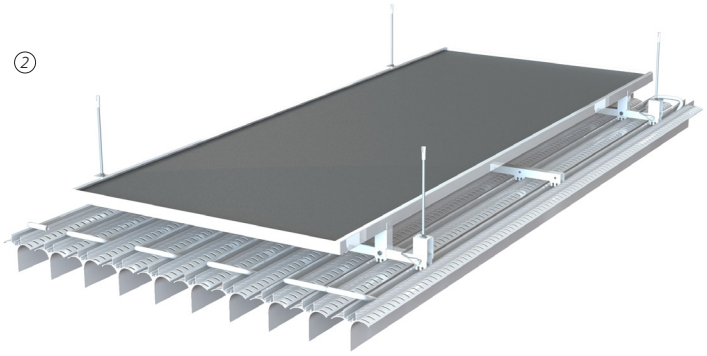
Baseline data, example:

In combination with sound absorber:

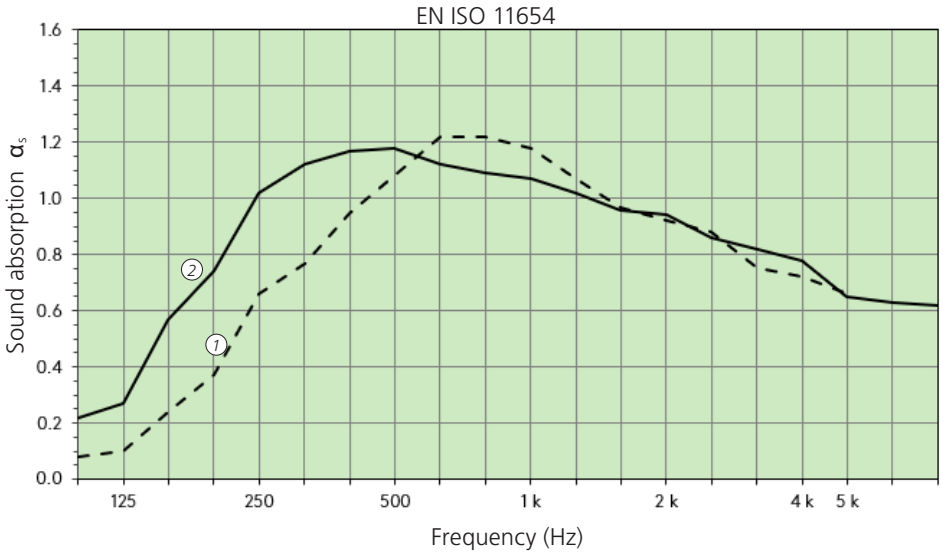
① Sound absorber structure with acoustic mat (mineral wool)

② Sound absorber structure with ceiling panel and mineral wool





– αw: up to 0.90 (L)
– Sound absorption class B



Fire safety

- Building material class A2-s1, d0, EN 13501-1 (without silencer)

System

Ceiling system

- High performance module with fins

Installation systems

- Installation height: min. 220 mm
  - Threaded rods

Materials, weight and dimensions

Materials and weight

Material	Weight (incl. activation, water)
Aluminium fins	approx. 16 kg/m²

Building material class: A2-s1, d0, EN 13501-1 (depending on acoustic elements).

Surface

Versions

- Powder coating
- Anodised

Colors

- Standard RAL 9010
- Other RAL / NCS colors on request
- Common anodised colours

Dimensions

Length	Height	Width	Pipe rows	Pipe spacing	Profile rail width
600 – 2500 mm	150 mm	290 – 990 mm	3 – 10	100 mm	90 mm

Special dimensions on request

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