

# ALBATROS

High performance module



## QUICK FACTS

- Thermal comfort according to EN ISO 7730
- Very high heating & cooling capacity
- With optional absorbers:  
Advanced sound absorption values (class B)
- 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/m <sup>2</sup> (8 K), EN 14240:2004	Up to 303 W/m <sup>2</sup> (15 K), EN 14037:2016
Acoustics	
α <sub>w</sub> : up to 0.85	

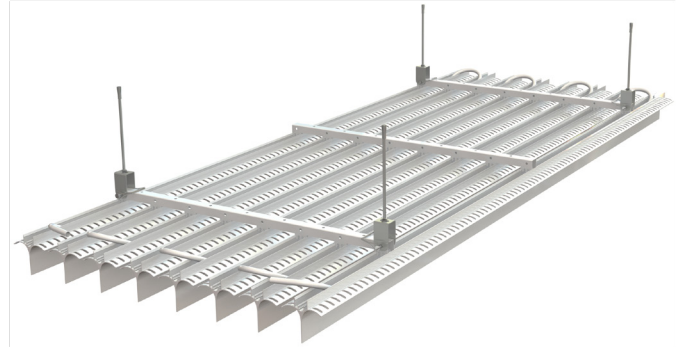
## Technical description

### 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.

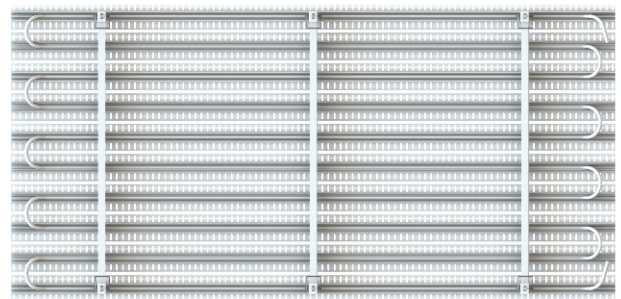
The high cooling capacity per unit area (mainly convective) and the large open ceiling cross-section are particular features. Sprinklers, smoke detectors, air diffusers, lighting fixtures, etc. can be installed between the fins. Combination with any air ducting system is also possible. The modular ceiling 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®

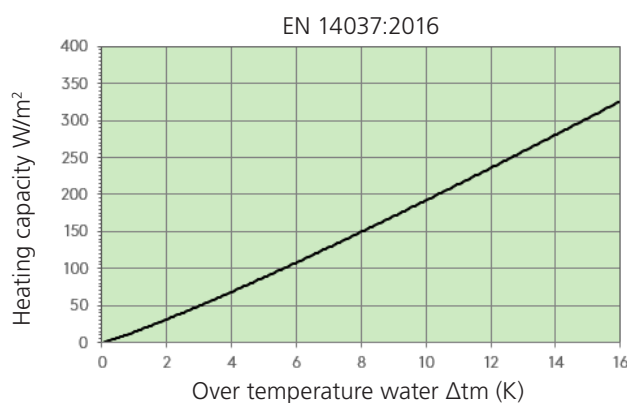
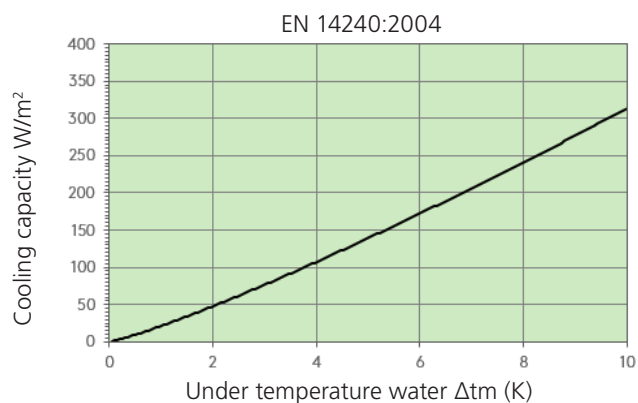
# Technical data

## Capacity

Initial data is presented below.

Pipe spacing	100 mm
Supply/extract air <small>(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.)</small>	without

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



Version	Cooling 8 K	Cooling 10 K	Heating 15 K
Aluminium fins 100 mm	Up to 241 $W/m^2$	Up to 313 $W/m^2$	Up to 303 $W/m^2$

### 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  $\Delta t$  (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 %

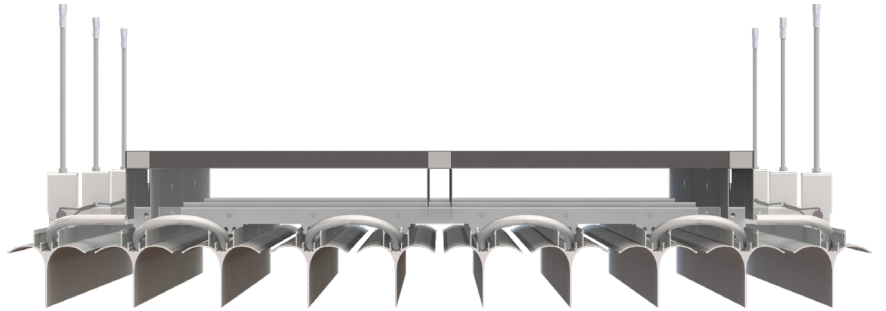
# ALBATROS

## Acoustics

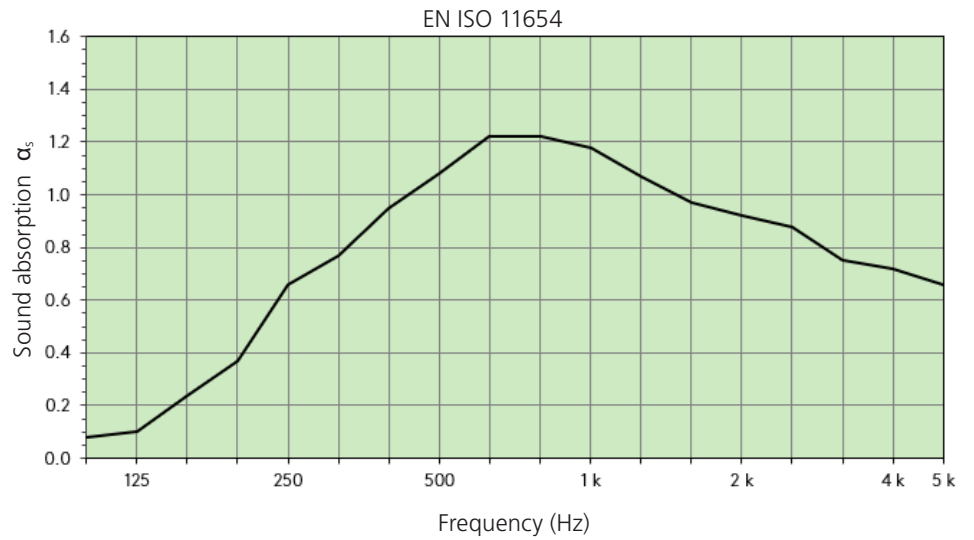
Baseline data, example:

In combination with silencer:

- Sound-absorbing element with acoustic mat (mineral wool)



- $\alpha_w$ : up to 0.85
- 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/m <sup>2</sup>

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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