

**High-capacity convective systems for cooling LUVAS-D,**  
for mounting below or flush with the ceiling

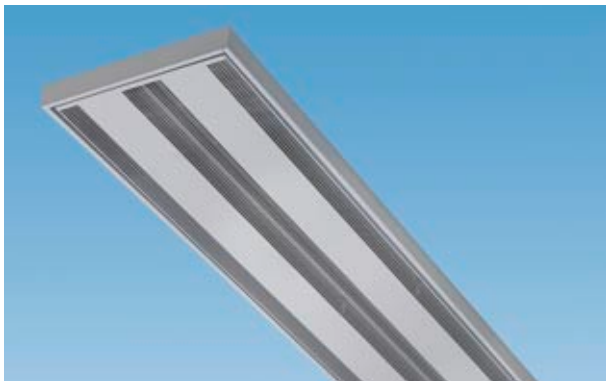
LUVAS high-capacity convective systems are modern solutions for cost-effective cooling and heating of spaces. Combining very high performance density and aesthetic design, they are an unobtrusive means of enhancing thermal comfort. In summer they provide refreshment, in winter the LUVAS profile systems for installation at inner facades and walls help meet the heat requirements and counter uncomfortable cold air drop along facades. They can be used in conjunction with other air-conditioning systems. LUVAS systems are available either as ceiling systems or as profile systems for installation at inner facades and walls ("Product information DS 4141").



*LUVAS ceiling system, surface mounted*



*LUVAS ceiling system, 380 mm x 70 mm*



*LUVAS ceiling system, 500 mm x 70 mm*



*LUVAS ceiling system, flush mounted*

LUVAS ceiling systems supplement the line of high-capacity convective systems with elements to be flush or surface mounted. With their aesthetic design and compact construction they fit well inside or below closed suspended ceilings. They can be used both in new and existing buildings.

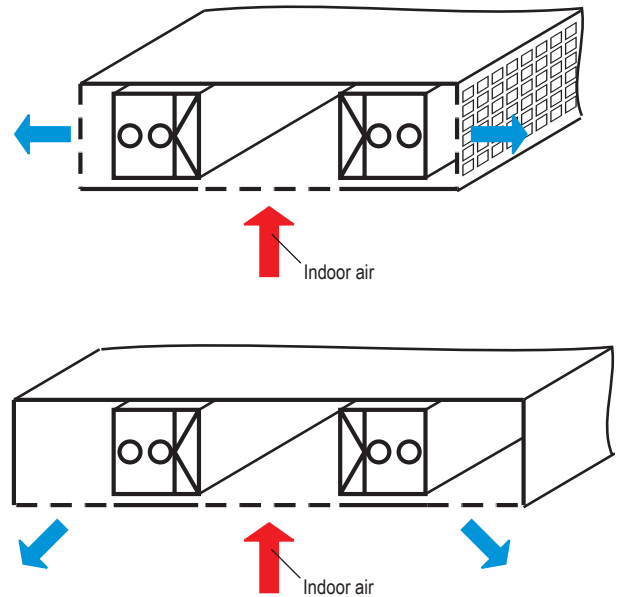
Owing to their very high performance density LUVAS ceiling systems contribute to improving thermal comfort levels. They mainly serve to remove higher heat loads in commercial buildings.

LUVAS ceiling systems are very popular as they incorporate long-life, small-sized air fans and water heat exchangers into compact casings. As their height is very low, they are most suitable for mounting flush with or below suspended ceilings. Owing to their functional design they generate even air streams with no significant air movement. The indoor air is drawn in through the central segment, cooled by the heat exchangers and returned to the room. LUVAS ceiling systems can be easily integrated into standard suspended ceilings since their length can be varied. The air discharge direction depends on the mounting option: if surface mounted, the air is discharged horizontally; if flush mounted, the air is discharged at a downward incline.

To ensure thermal comfort in the occupied zone, we recommend minimum centre distances  $\geq 3.5$  m between individual LUVAS ceiling elements, with standard floor-to-ceiling heights. Should this not be possible, consultation with the KRANTZ KOMPONENTEN specialists will be necessary.

LUVAS ceiling systems are available in the following standard dimensions (width x height):  
380 mm x 70 mm and 500 mm x 70 mm <sup>1)</sup>.

A ceiling element mainly consists of a multipart casing including a screen with air intake openings in its central segment and air discharge openings on both sides (all openings are symmetric, square holes) as well as a series of fans and heat exchangers. The screens and other casing parts can be easily detached, which facilitates both the system mounting and cleaning of the built-in parts. The casing lengths can be customized to conceal electrical and water connections and match specific requirements.



*Mode of operation of LUVAS ceiling systems*  
top: surface mounted  
bottom: flush mounted

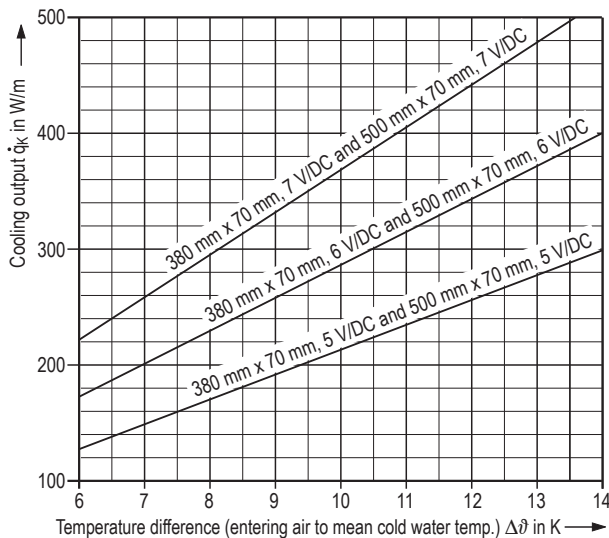
## Technical data

Nominal length of each element:	1500 mm to 2100 mm
The casing length can be customized up to 2500 mm	
Active length of each element:	1280 mm to 1880 mm
	in 40 mm steps
Element height:	70 mm
Power requirements:	7.8 W/m at 5 V/DC
	9.3 W/m at 6 V/DC
	11.7 W/m at 7 V/DC

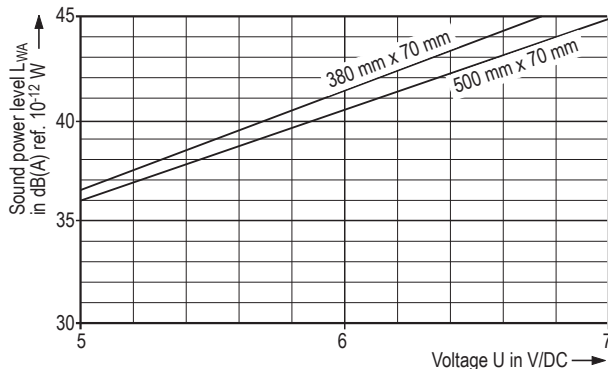
## Features

- High-capacity cooling systems for mounting below or flush with the ceiling
- High performance density despite low height
- Controlled air flow with optimum dynamic response
- Low height, thus most suitable for retrofitting in existing buildings
- Easy access to built-in parts facilitates cleaning
- Ease of mounting

<sup>1)</sup> LUVAS ceiling systems are available on request in 200 mm x 70 mm and 300 mm x 70 mm, yet with one-sided air discharge only



Cooling output (of active length)



Sound power level (for active length = 1680 mm)

## Tender text (abridged)

... units

☐ LUVAS high-capacity convective system for cooling, for mounting below the ceiling <sup>1)</sup>, with high specific capacity despite compact construction, designed for mounting below sturdy ceilings,

☐ LUVAS high-capacity convective system for cooling, for mounting flush with the ceiling <sup>1)</sup>, with high specific capacity despite compact construction,

consisting of:

- a closed multipart casing with vertical walls and under-side screen, with symmetric, square holes 7 mm x 7 mm on the underside for air intake as well as
  - at the lateral walls for air discharge – if mounted **below** the ceiling,
  - on the underside for air discharge – if mounted **flush with** the ceiling,
- built-in water-to-air heat exchangers with horizontal copper pipes and vertical aluminium fins,
- rows of fans made up of long-life axial-flow fans arranged for diametrical discharge, fitted at both ends with stabilizing profiles,
- mounting holes in the upper side of the casing to facilitate the mounting.

All visible parts are powder-coated or wet-painted.

## Technical data

Cooling output of each element: ..... W  
 Voltage at fan row: ..... V/DC  
 Air intake temperature: ..... °C  
 Entering water temperature: ..... °C  
 Leaving water temperature: ..... °C  
 Sound power level of each element: ... dB(A) ref. 10<sup>-12</sup> W  
 Maximum operating pressure: 6 bars  
 Water quality: suitable mains water

## Dimensions / Design

Nominal casing width x height:

☐ 380 mm x 70 mm for mounting below the ceiling

☐ 500 mm x 70 mm for mounting flush with the ceiling

Overall casing length: ..... mm  
 of which finned = active length: ..... mm

Water connections: pipe ends suitable for soldering or pressing

Electrical connection: prepared for coupling to a transformer, KRANTZ KOMponentEN system

Colour: ☐ to RAL .....  
☐ stainless steel, brushed

Make: KRANTZ KOMponentEN

Type: LUVAS-D – \_\_\_ x \_\_\_

Subject to technical alteration.

<sup>1)</sup> Accessories available on request