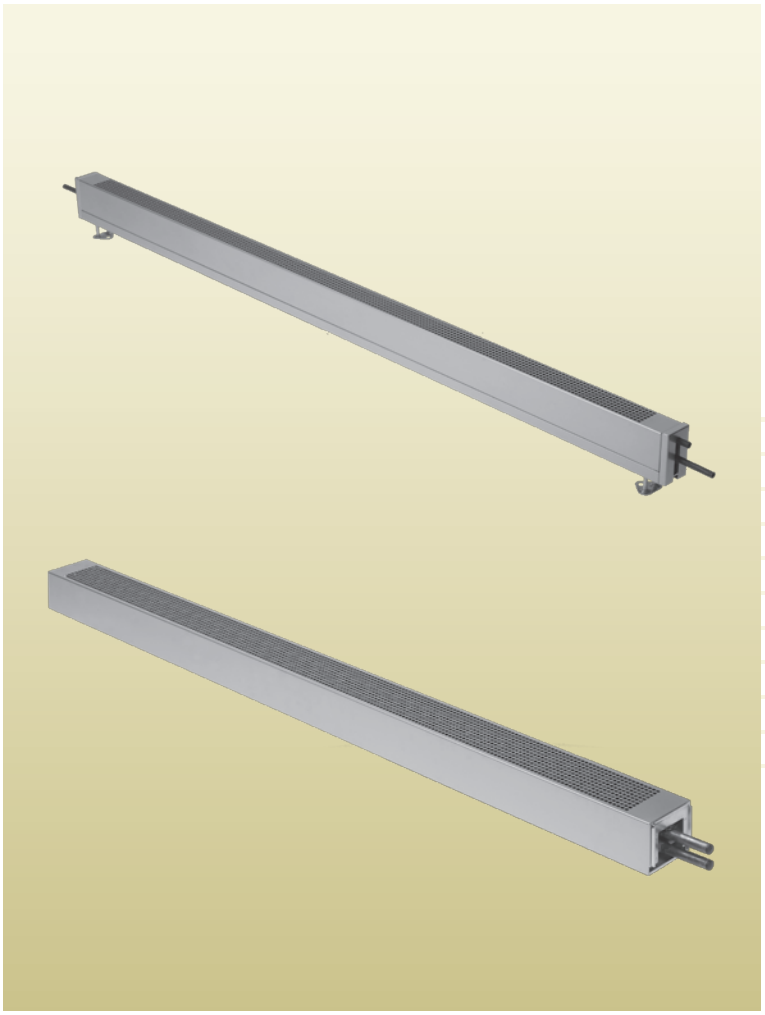
High-capacity convective systems for cooling and heating, for installation at inner facades and walls, Type LUVAS-S



Product information

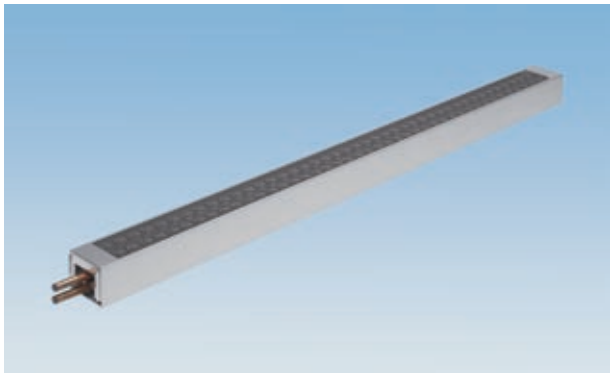
DS 4141 E 07.2008

KOMPONENTEN ®

Applied system solutions

LUVAS high-capacity convective systems

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 they help meet the heat requirements and counter discomfortable cold air drop along facades. They can be used in conjunction with other air-conditioning systems. LUVAS systems are available both as profile systems for installation at inner facades and walls, and as ceiling systems (“Product information DS 4144”).



LUVAS profile system, straight profile 105 mm x 100 mm

LUVAS profile system, straight profile 62 mm x 105 mm

LUVAS profile system as rail at floor level

LUVAS profile system as post

LUVAS profile system as rail at ceiling height

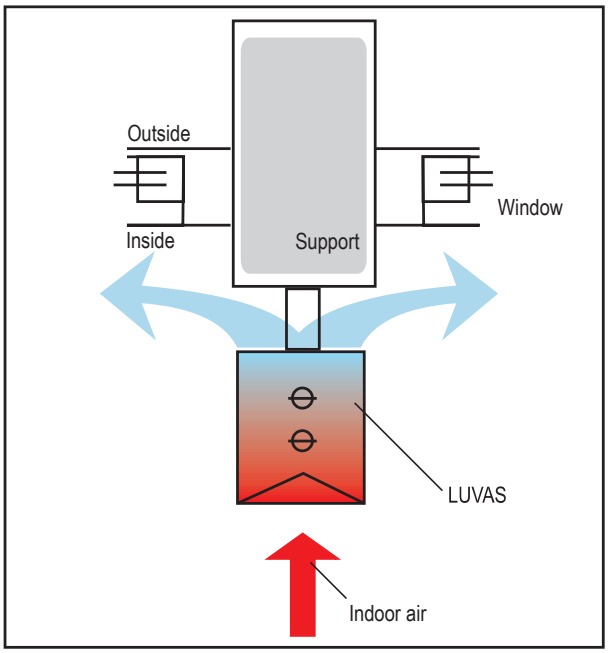
LUVAS high-capacity convective systems

LUVAS profile systems consist of cooling/heating elements that are available in several lengths and for versatile applications. They leave great room for creativity in installation scenarios in line with the design of the space concerned. As this system may include one or several profiles in combination, it affords a high degree of flexibility and can be used both in new and existing buildings. The profiles are usually installed as (vertical) posts or (horizontal) rails against existing facade structures or walls.

The LUVAS profile system is a compact assembly of long-life, small-sized air fans and water heat exchangers which can be used for cooling or heating in a very wide range of applications. In both modes of operation it generates even air streams with no significant air movement. The air can be discharged either towards the mounting plane (e.g. facade or wall) or into the room.

It is recommended that the lateral minimum centre distance between individual LUVAS profiles should be no lower than 1.3 m. Further, in the cooling mode, we recommend a minimum distance between LUVAS profiles and occupants as follows: ≥ 1 m (for air discharge towards the mounting plane) and ≥ 2.5 m (for air discharge into the room), to ensure that thermal comfort requirements are met in the occupied zone.

LUVAS profile systems are very compact. They are available in the following standard dimensions (width x depth): 62 mm x 105 mm and 105 mm x 100 mm. A profile system mainly consists of a two-part casing with plain walls and opposite perforated panels (with symmetric, square holes) for air intake and discharge respectively, which contains a series of fans and a heat exchanger.



Mode of operation of LUVAS profile system in the cooling mode, with air discharge towards the facade

LUVAS profile system 105 x 100 mm (detail view)

Specific profile fasteners facilitate the installation of the system. Blank and inspection profiles are available for concealing electrical and water connections and for accommodating building services; these profiles can be customized to fit well into the space concerned. The outer part of the casing and the blank and inspection profiles are easy to remove to allow the cleaning of the built-in parts.

Technical data

Nominal length of each profile: 1000 mm to 1800 mm
Active length of each profile: 880 mm to 1680 mm in 40 mm steps
Space requirement in depth/height: ≥ 145 mm
Power requirements:

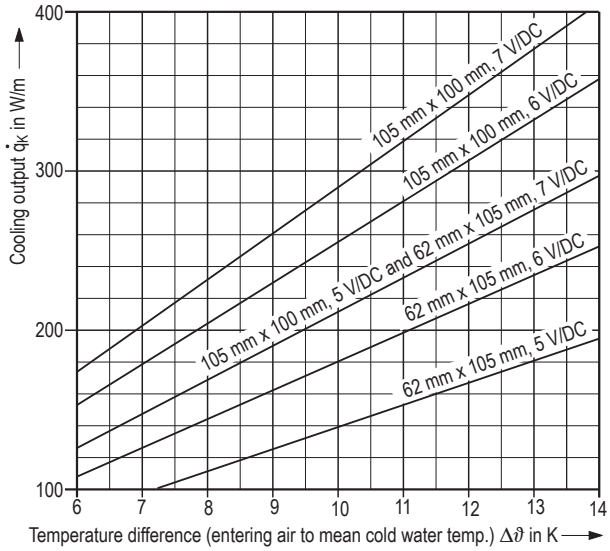
62 mm x 105 mm	105 mm x 100 mm
3.9 W/m at 5 V/DC 4.9 W/m at 6 V/DC 5.9 W/m at 7 V/DC	7.8 W/m at 5 V/DC 9.3 W/m at 6 V/DC 11.7 W/m at 7 V/DC

Features

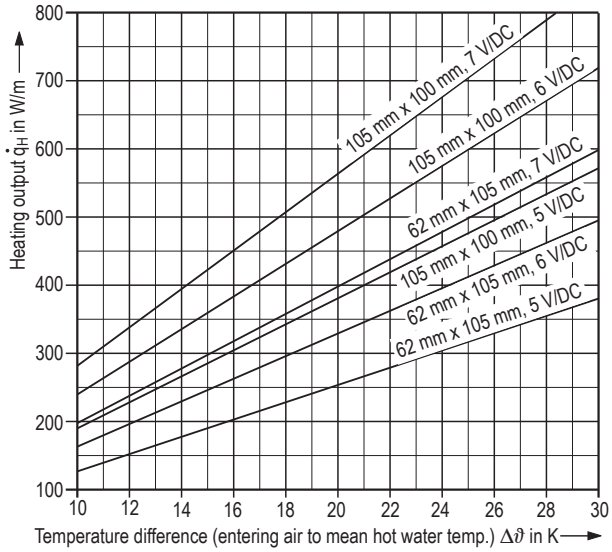
- High-capacity cooling and heating systems for installation at inner facades, walls or columns
- High performance density in the cooling and heating modes despite compact construction
- Controlled air flow with optimum dynamic response
- Low space requirement in depth/height, thus most suitable for retrofitting in existing buildings
- Easy access to built-in parts facilitates cleaning
- Ease of installation

DS 4141 E Bl. 3 07.2008

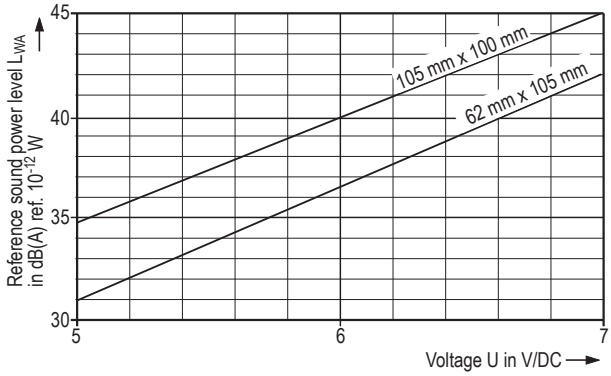
LUVAS high-capacity convective systems



Cooling output (of active length) for LUVAS profile systems in vertical mounting



Heating output (of active length) for LUVAS profile systems in vertical and/or horizontal mounting



Sound power level (for active length = 1680 mm)

Tender text (abridged)

… units

LUVAS high-capacity convective system designed as profile system [1] for cooling and heating, with high specific capacity despite compact construction, for installation at inner facades and walls (several positions possible), consisting of:

- a closed two-part casing with vertical walls and opposite perforated panels with symmetric, square holes,
- a built-in water-to-air heat exchanger with horizontal copper pipes and vertical aluminium fins,
- one row of fans (in LUVAS-S 62x105) or two rows of fans (in LUVAS-S 105x100) made up of long-life axial-flow fans, fitted at both ends with stabilizing profiles,
- profile fasteners with mounting holes for easy mounting.

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

Technical data

Cooling/Heating 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^{-12} W
Maximum operating pressure:	6 bars
Water quality:	suitable mains water
Dimensions / Design	
Nominal casing width x depth:	☐ 62 mm x 105 mm ☐ 105 mm x 100 mm
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-S – ___ x __

Subject to technical alteration.

[1] Accessories available on request

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