

*Made in Germany*

**KVS<sup>®</sup>**

**KLIMATECHNIK**

▪ Dehumidification Heat Pumps

*Masterpiece* Line



# The Future Generation

## The new dehumidification heat pumps from KVS® Klimatechnik

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For decades KVS® dehumidification pumps have stood out as powerful and long-lasting products to air-condition swimming pools and spas. Since 2016, the tried-and-tested units, available in chest, duct or modular designs have been manufactured by KVS® Klimatechnik with optimised technology at the new production plant in Ditzingen near Stuttgart.

The new generation of dehumidification heat pumps incorporates the **expertise** and **experience** of staff who have worked at KVS® for many years. The accumulated know-how of the experienced team ensures the contemporary development of the units while maintaining the proven product features. These include, in particular, the extremely long and usually fault-free service life of the products as well as the high energy efficiency. Both factors stand for **economic efficiency** and **sustainability** in terms of resource conservation and energy saving.

Technical **innovations** are provided by the in-house development department, for example through the development of the **KVS®-Connect app**, with which swimming pool owners can control the operation of their system anywhere and at any time via a tablet or smartphone.



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KVS® Klimatechnik offers **reliability** by precisely testing all products before they are delivered to the customer, which ensures smooth on-site operations.

**Qualität „Made in Germany“** is incorporated throughout KVS®'s entire production process. Because not only are all dehumidification heat pumps manufactured by experienced specialists at our plant, we also relied on German manufacturers wherever possible when selecting our extensive machinery.

Our quality standards also applied in the careful selection of our partners. KVS® products are supplied exclusively to specialist companies which, after installing the units on site, are also available as service partners for reliable maintenance and customer support. This means that the manufacture, sale and maintenance of your dehumidification heat pumps are secured by KVS®.

# Air Disinfection System

## How to clean up to 99.9% of the ambient air

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Air disinfection now for indoor swimming pools, too! The UV-C disinfection can now be installed optionally in a dehumidification heat pump. Existing systems manufactured from 2019 onward can be retrofitted! UV-C disinfection purifies up to 99.9% of the ambient air. Moulds, bacteria, dust mites, germs and all kinds of microbes, even viruses, are reliably inactivated.

### HOW IT WORKS

The quiet unit fans draw in the indoor swimming pool air. Due to the optimal air guidance in the compact reaction chamber, the air to be treated passes as close as possible to the UV-C radiation and is sterilised after the dehumidification process. This achieves the highest-possible degree of air disinfection efficiency. High-priced filters are not necessary with this **UV-C air disinfection method**.

Without the use of chemicals, this disinfection method enables effective hygiene without residues. Bacteria cannot form resistances with the UV-C method. By-products, such as ozone or nitrogen oxides, are not produced with this air disinfection method. In addition, unpleasant odours can be eliminated to a certain extent. The disinfection unit is controlled via the KVS-CONTROL microprocessor controller, built into the unit. The illuminated, coloured touch panel on the dehumidification system indicates, in good time, that a lamp needs to be replaced.

### EFFECT OF UV DISINFECTION

The radiation energy is absorbed into the DNA/RNA nucleic acids of the microorganisms and inactivated by a photochemical process within fractions of a second. Microorganisms of all kinds and germs such as mould spores, yeasts, bacteria and viruses are inactivated at exactly 253.7 nm.

**UV-C** (100 – 280 nm) has an extremely strong germicidal effect and, in nature, is absorbed into the ozone layer before it reaches the Earth

### ADVANTAGES

- . Inactivates viruses and all single-cell germs
- . Noticeably reduces allergens
- . Is the most environmentally-friendly method of disinfection; no chemical required
- . No costly filter changes
- . No harmful nitrogen oxide residues are produced
- . Reduces unpleasant odours
- . Absorbent glasses prevent ozone formation and therefore do not irritate mucous membranes
- . Easy assembly and operation



# KVS®-Connect

## Stay connected with your swimming pool

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As a special customer service, KVS® Klimatechnik has developed a powerful and useful app with which each of the dehumidification heat pumps presented here can also be easily monitored and controlled remotely.

With the integration of **KVS®-Connect**, you can display the current values in the swimming pool hall at any time using a tablet or smartphone. The room temperature, the room humidity and the pool water temperature can be called up. Of course, all values can be adjusted according to the operator's individual wishes using **KVS®-Connect**. Depending on the unit type, the set fresh air percentage can be checked and changed in the same way. Remote control, remote maintenance and connection of the unit to a building management system (BMS) are possible on request.

**Four different operating modes** can be selected:

- Eco mode
- Swimming mode
- Holiday mode
- Party mode



Pending alarm and maintenance messages are displayed and archived. If necessary, an emergency programme is activated. **KVS®-Connect** offers swimming pool operators **convenience and additional safety**. This allows you to **keep an eye on your system at all times and everywhere**.



All-round networking with a central app - the **KVS®-Connect App**.

Now available for:



# TG SERIES

## Dehumidification heat pumps

in the form of chests  
with heat recovery

*Made in Germany*

These particularly energy-efficient, quiet units are designed for installation in the swimming pool hall.

The aesthetically designed housing made of anodised aluminium offers is attractive and discreet in the room. The round discharge grilles on the housing are infinitely adjustable in the air flow direction.

The dehumidification heat pump in the TG series is processor-controlled and easy to operate via a colour touch panel. An external controller is not required.

Optionally, the unit can be easily monitored and controlled with the KVS®-Connect app when no operator is present.



Technical Data		TG 15	TG 25	TG 35	TG 45	TG 55
Basin size	m <sup>2</sup>	15 – 20	20 – 35	30 – 45	40 – 55	50 – 65
Dehumidification capacity	kg/h	1,7 – 2,5	2,5 – 3,6	4 – 5,8	5 – 7,2	5,9 – 8,5
Air capacity (max.)	m <sup>3</sup> /h	420	500	850	1100	1150
Heat recovery to air	kW	1,7	2,4	3,9	4,9	5,8
Compressor power consumption	kW	0,59	0,72	1,13	1,51	1,83
Fan power consumption	W	45	50	73	91	100
Feed-in		AC 230 V 1 N	AC 230 V 1 N	AC 230 V 1 N	AC 230 V 1 N	AC 400 V 3 N
Total connected load	kW	0,7	0,8	1,3	1,6	1,9
Supply line min.		3 x 1,5 mm <sup>2</sup>	3 x 1,5 mm <sup>2</sup>	3 x 1,5 mm <sup>2</sup>	3 x 1,5 mm <sup>2</sup>	5 x 1,5 mm <sup>2</sup>
Back-up fuse (min. type C) slow-blow	A	1 x 10	1 x 10	1 x 16	1 x 16	3 x 10
PWW heating register (80°C / 60°C)	kW	2,8	4,2	6,9	8,4	8,9
Electric heating register	kW	1,5	1,5	3	3 / 4,5	3 / 4,5
Area of application	min. RH	°C / %	16 / 95	16 / 95	16 / 95	16 / 95
	max. RH	°C / %	35 / 50	35 / 50	35 / 50	35 / 50
Length x width x height	mm	980 x 285 x 665	1140 x 285 x 665	1400 x 303 x 750	1600 x 340 x 770	1600 x 340 x 770
Plus height-adjustable feet	mm	25 – 35	25 – 35	25 – 35	25 – 35	25 – 35

The technical data refer to: hall temperature 30°C / humidity 60 - 80% / pool water temperature 27 - 28°C

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### OPTIONS

- . KVS®-Connect: Control via smartphone or tablet
- . PWW heating register with valve
- . Electric heating register
- . Exhaust fan with control for negative pressure and fresh air percentage
- . Fresh air connection for wall installation with filter and weather protection grille
- . Exhaust air control for on-site fan
- . Whirlpool control
- . UV-C disinfection
- . Energy-efficient EC fans

### STANDARD SCOPE OF DELIVERY

- . Height-adjustable appliance feet

### EQUIPMENT FEATURES

- . Heat exchangers specially coated against corrosion
- . Quiet fans



Touch Panel

# TGW SERIES

## Dehumidification heat pumps

in the form of chests  
with heat recovery

*Made in Germany*

These units are designed to be hung on a suitable wall in the swimming hall. They impress with their high energy efficiency and pleasantly quiet operation.

The housing has an attractive design made of anodised aluminium and provides for an aesthetic and discreet look in the room. The round discharge grilles on the housing are infinitely adjustable in the air flow direction.

The processor-controlled dehumidification heat pump on the TGW series is easy to operate via a colour touch panel. An external controller is not required.

The unit can optionally be monitored and controlled with the KVS®-Connect app even if you are away.



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Technical Data		TGW 15	TGW 25	TGW 35
Basin size	m <sup>2</sup>	15 – 20	20 – 35	30 – 45
Dehumidification capacity	kg/h	1,7 – 2,5	2,5 – 3,6	4 – 5,8
Air capacity (max.)	m <sup>3</sup> /h	420	500	850
Heat recovery to air	kW	1,7	2,4	3,9
Compressor power consumption	kW	0,59	0,72	1,13
Fan power consumption	W	45	50	73
Feed-in		AC 230 V 1 N	AC 230 V 1 N	AC 230 V 1 N
Total connected load	kW	0,7	0,8	1,3
Supply line min.		3 x 1,5 mm <sup>2</sup>	3 x 1,5 mm <sup>2</sup>	3 x 1,5 mm <sup>2</sup>
Back-up fuse (min. type C) slow-blow	A	1 x 10	1 x 10	1 x 16
PWW heating register (80°C / 60°C)	kW	2,8	4,2	6,9
Electric heating register	kW	1,5	1,5	3
Area of application	min. RH	°C / % 16 / 95	16 / 95	16 / 95
	max. RH	°C / % 35 / 50	35 / 50	35 / 50
Length x width x height	mm	980 x 285 x 665	1140 x 285 x 665	1400 x 303 x 750

The technical data refer to: hall temperature 30°C / humidity 60 - 80% / pool water temperature 27 - 28°C



adjustable air outlets

### OPTIONS

- . KVS®-Connect: Control via smartphone or tablet
- . PWW heating register with valve
- . Electric heating register
- . Exhaust fan with control for negative pressure and fresh air percentage
- . Fresh air connection for wall installation with filter and weather protection grille
- . Exhaust air control for on-site fan
- . Whirlpool control
- . UV-C disinfection
- . Energy-efficient EC fans

### STANDARD SCOPE OF DELIVERY

- . Wall mount

### EQUIPMENT FEATURES

- . Heat exchangers specially coated against corrosion
- . Quiet fans

# HWG SERIES

## Dehumidification heat pumps

in a rear-wall design  
with heat recovery

*Made in Germany*

These energy-efficient and quiet units are suitable for installation in an adjoining room directly adjacent to the swimming hall. In the swimming hall itself, only the intake and outlet grille is visible. The connection ducts are optionally available.

The dehumidification heat pump in the HWG series is processor-controlled and easy to operate via a colour touch panel. An external controller is not required.

If you are away, the dehumidification heat pump can simply be operated via smartphone or tablet with the KVS®-Connect app.



Technical Data		HWG 25	HWG 35	HWG 45	HWG 55
Basin size	m <sup>2</sup>	20 – 35	30 – 45	40 – 55	50 – 65
Dehumidification capacity	kg/h	2,5 – 3,6	4 – 5,8	5 – 7,2	5,9 – 8,5
Air capacity (max.)	m <sup>3</sup> /h	500	850	1100	1150
Heat recovery to air	kW	2,4	3,9	4,9	5,8
Compressor power consumption	kW	0,72	1,13	1,51	1,83
Fan power consumption	W	50	73	91	100
Feed-in		AC 230 V 1 N	AC 230 V 1 N	AC 230 V 1 N	AC 400 V 3 N
Total connected load	kW	0,8	1,25	1,63	1,94
Supply line min.		3 x 1,5 mm <sup>2</sup>	3 x 1,5 mm <sup>2</sup>	3 x 1,5 mm <sup>2</sup>	5 x 1,5 mm <sup>2</sup>
Back-up fuse (min. type C) slow-blow	A	1 x 10	1 x 16	1 x 16	3 x 10
PWW heating register (80°C / 60°C)	kW	4,2	6,9	8,4	8,9
Electric heating register	kW	1,5	3	3 / 4,5	3 / 4,5
Area of application	min. RH	°C / %	16 / 95	16 / 95	16 / 95
	max. RH	°C / %	35 / 50	35 / 50	35 / 50
Length x width x height	mm	1140 x 285 x 665	1400 x 303 x 750	1600 x 340 x 770	1600 x 340 x 770
Plus height-adjustable feet	mm	25 – 35	25 – 35	25 – 35	25 – 35

The technical data refer to: hall temperature 30°C / humidity 60 - 80% / pool water temperature 27 - 28°C

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### OPTIONS

- . KVS®-Connect: Control via smartphone or tablet
- . PWW heating register with valve
- . Electric heating register
- . Exhaust fan with control for negative pressure and fresh air percentage
- . Fresh air connection for wall installation with filter and weather protection grille
- . Exhaust air control for on-site fan
- . Whirlpool control
- . Wall ducts
- . Canal extension piece
- . Ventilation grille
- . UV-C disinfection
- . Energy-efficient EC fans

### STANDARD SCOPE OF DELIVERY

- . Height-adjustable appliance feet

### EQUIPMENT FEATURES

- . Heat exchangers specially coated against corrosion
- . Quiet fans



Duct extension and wall ducts with ventilation grilles

# LEG-U SERIES

## Dehumidification heat pumps

in a duct design for recirculation operation with heat recovery

*Made in Germany*

The LEG-U series is installed in the equipment room or in the pool surround. The connection to the swimming hall is established via air ducts for supply and exhaust air. It is easy to replace old units with similar designs.

The housing is made of very sturdy natural anodised aluminium profile with black, glass-fibre reinforced plastic corners. The 2-layer cladding parts made of anodised aluminium have integrated sound and heat insulation and a circumferential aluminium surround profile with an inserted seal. The variably positionable air duct connections can be easily adapted to the local conditions and thus also make it easy to replace existing units. Any necessary adjustments can be made with minimal effort.

All unit types are also available in mirror-inverted versions.

A titanium pool water heat exchanger is also optionally available here, which returns the heat recovery from the air to the pool water.

The dehumidification heat pump is processor-controlled and easy to operate via a colour touch panel. With the KVS®-Connect app, the dehumidification heat pump on the LEG-U series can be easily monitored and controlled even when you are away.



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Technical Data		LEG 26 U	LEG 36 U	LEG 46 U	LEG 66 U	LEG 86 U	LEG 36 U 2800	LEG 46 U 2800	LEG 66 U 2800
Basin size	m <sup>2</sup>	20 – 35	30 – 45	40 – 55	50 – 70	70 – 100	30 – 45	40 – 55	50 – 70
Dehumidification capacity *	kg/h	2,5 – 3,6	4 – 5,8	5 – 7,2	6,3 – 9,0	8,4 – 12,0	4 – 5,8	5 – 7,2	6,3 – 9,0
Nominal air capacity (min. - max.)	m <sup>3</sup> /h	500 (400 – 600)	1000 (800 – 1200)	1200 (1000 – 1500)	1400 (1000 – 1600)	2500 (2200 – 2800)	2800 (2000 – 3000)	2800 (2000 – 3000)	2800 (2000 – 3000)
Max. percentage of fresh air	%	10 – 20	10 – 20	10 – 20	10 – 20	10 – 20	10 – 20	10 – 20	10 – 20
External pressure loss max.	Pa	110	200	200	200	200	200	200	200
Fan power consumption	W	45	138	165	194	382	426	426	426
Heat recovery to air	kW	2,4	3,9	4,9	6,1	7,9	6,0	8,2	9,4
Compressor power consumption	kW	0,72	1,13	1,51	1,83	2,22	1,13	1,51	1,83
Feed-in		AC 230 V 1 N	AC 230 V 1 N	AC 230 V 1 N	AC 400 V 3 N	AC 400 V 3 N	AC 230 V 1 N	AC 230 V 1 N	AC 400 V 3 N
Total connected load	kW	1,1	1,6	2,0	2,3	2,9	1,7	2,1	2,4
Supply line min.		3 x 1,5 mm <sup>2</sup>	3 x 1,5 mm <sup>2</sup>	3 x 1,5 mm <sup>2</sup>	5 x 1,5 mm <sup>2</sup>	5 x 2,5 mm <sup>2</sup>	3 x 1,5 mm <sup>2</sup>	3 x 1,5 mm <sup>2</sup>	5 x 1,5 mm <sup>2</sup>
Back-up fuse (min. type C) slow-blow	A	1 x 10	1 x 16	1 x 16	3 x 10	3 x 16	1 x 16	1 x 16	3 x 10
PWW heating register (80°C / 60°C)	kW	4,5	10,0	11,5	12,6	25,0	28,0	28,0	28,0
PWW NT heating register (50°C / 40°C)	kW	2,9	5,6	6,8	7,8	13,5	15,1	15,1	15,1
Electric heating register	kW	3	3 – 9	3 – 12	3 – 15	3 – 18	3 – 18	3 – 18	3 – 18
Area of application min. RH	°C / %	16 / 95	16 / 95	16 / 95	16 / 95	16 / 95	16 / 95	16 / 95	16 / 95
max. RH	°C / %	35 / 50	35 / 50	35 / 50	35 / 50	35 / 50	35 / 50	35 / 50	35 / 50
Length x width x height	mm	1100 x 540 x 540	1350 x 700 x 700	1350 x 700 x 700	1350 x 700 x 700	2140 x 790 x 790	2140 x 790 x 790	2140 x 790 x 790	2140 x 790 x 790
Largest transport unit	mm	1100 x 540 x 540	1350 x 700 x 700	1350 x 700 x 700	1350 x 700 x 700	1350 x 790 x 790	1350 x 790 x 790	1350 x 790 x 790	1350 x 790 x 790

The technical data refer to: hall temperature 30°C / humidity 60 - 80% / pool water temperature 27 - 28°C, \* circulating air 30°C / 60% RH

### OPTIONS

- . KVS®-Connect: Control via smartphone or tablet
- . PWW heating register with valve
- . PWW NT (low-temperature) heating register with valve
- . Electric heating register
- . Exhaust fan with control for negative pressure and fresh air percentage
- . Fresh air connection for wall installation with filter and weather protection grille
- . Exhaust air control for on-site fan
- . Heat recovery of pool water using a titanium heat exchanger
- . Whirlpool control
- . UV-C disinfection

### STANDARD SCOPE OF DELIVERY

- . Flexible connection pieces for duct connection
- . Insulation underlays

### EQUIPMENT FEATURES

- . Heat exchangers specially coated against corrosion
- . Quiet, energy-efficient EC fans

# LEG-AU-FO SERIES

## Dehumidification heat pumps

for outdoor exhaust air operation in a three-part modular design with heat recovery

*Made in Germany*

This series is installed in the equipment room or in the pool surround and connected to the swimming hall via air ducts. Outside and exhaust air ducts lead from the equipment room to the outside. It is easy to replace old units with similar designs. The variable air duct connections can be flexibly adapted and simplify the replacement of existing units. Adaptation work is thus possible with minimum effort.

All unit types are also available in mirror-inverted versions. A titanium pool water heat exchanger is also optionally available, which returns the heat recovered from the air to the pool water. The processor controller controls the operating state and the louvre flaps fully automatically. The eco, swimming, holiday and party operating modes are available. The setting is set via a coloured, easy-to-use touch panel. The housing is made of very sturdy natural anodised aluminium profile with black, glass-fibre reinforced plastic corners. The 2-layer cladding parts made of anodised aluminium have integrated sound and heat insulation and a circumferential aluminium surround profile with an inserted seal.

If you are away, the dehumidification heat pump can simply be monitored and controlled with the KVS®-Connect app.



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Technical Data		LEG 36-AuFo	LEG 46-AuFo	LEG 66-AuFo	LEG 86-AuFo	LEG 36-AuFo 2800	LEG 46-AuFo 2800	LEG 66-AuFo 2800	LEG 86-AuFo 3200
Basin size	m <sup>2</sup>	40 – 50	40 – 60	50 – 75	70 – 100	40 – 50	40 – 60	50 – 75	70 – 100
Nominal air capacity (min. - max.)	m <sup>3</sup> /h	1000 (800 – 1200)	1200 (1000 – 1500)	1400 (1000 – 1600)	2500 (2200 – 2800)	2800 (2000 – 3000)	2800 (2000 – 3000)	2800 (2000 – 3000)	3200 (2800 – 3500)
Max. percentage of fresh air	%	100	100	100	100	100	100	100	100
Dehumidification capacity *	kg/h	4 – 5,8	5 – 7,2	6,3 – 9,0	8,4 – 12,0	4 – 5,8	5 – 7,2	6,3 – 9,0	8,4 – 12,0
Dehumidification capacity a) b) c) **	kg/h	6,3 / 13,6 / 17,7	7,6 / 16,5 / 19,4	8,9 / 19,7 / 25,5	15,9 / 32,4 / 42,7	17,8 / 38 / 50	17,8 / 39 / 51	17,8 / 40 / 52	20,4 / 43 / 57
Supply/exhaust air external pressure loss max.	Pa	240	240	240	240	240	240	240	240
Average fan power consumption	W	154	193	222	430	460	460	460	594
Heat recovery to air (recirculation)	kW	3,9	4,9	6,1	7,9	3,9	4,9	6,1	7,9
Feed-in		AC 230 V 1 N	AC 230 V 1 N	AC 400 V 3 N	AC 400 V 3 N	AC 230 V 1 N	AC 230 V 1 N	AC 400 V 3 N	AC 400 V 3 N
Total connected load	kW	1,6	2,1	2,4	3,2	2,2	2,6	2,9	3,6
Supply line min.		3 x 1,5 mm <sup>2</sup>	3 x 1,5 mm <sup>2</sup>	5 x 1,5 mm <sup>2</sup>	5 x 2,5 mm <sup>2</sup>	3 x 1,5 mm <sup>2</sup>	3 x 1,5 mm <sup>2</sup>	5 x 1,5 mm <sup>2</sup>	5 x 2,5 mm <sup>2</sup>
Back-up fuse (min. type C) slow-blow	A	1 x 16	1 x 16	3 x 10	3 x 16	1 x 16	1 x 16	3 x 10	3 x 16
Compressor power consumption	kW	1,13	1,51	1,83	2,22	1,13	1,51	1,83	2,22
PWW heating register (80°C / 60°C)	kW	10,0	11,5	12,6	25,0	28,0	28,0	28,0	32,0
PWW NT heating register (50°C / 40°C)	kW	5,6	6,8	7,8	13,5	15,1	5,1	5,1	17,2
Area of application	min. RH max. RH	°C / % °C / %	16 / 95 35 / 50	16 / 95 35 / 50	16 / 95 35 / 50	16 / 95 35 / 50	16 / 95 35 / 50	16 / 95 35 / 50	16 / 95 35 / 50
Length x width x height	mm	2520 x 700 x 700	2520 x 700 x 700	2520 x 700 x 700	2980 x 790 x 790	2980 x 790 x 790	2980 x 790 x 790	2980 x 790 x 790	2980 x 790 x 790
Largest transport unit	mm	1120 x 700 x 700	1120 x 700 x 700	1120 x 700 x 700	1400 x 790 x 790	1400 x 790 x 790	1400 x 790 x 790	1400 x 790 x 790	1400 x 790 x 790

The technical data refer to: hall temperature 30°C / humidity 60 – 80% / pool water temperature 27 – 28°C, \* circulating air 30°C / 60% RH, \*\* Outside air a) according to VDI 2089 b) at +8°C c) at -5°C

### OPTIONS

- KVS®-Connect: Control via smartphone or tablet
- PWW NT (low-temperature) heating register with valve
- Electric heating register
- Heat recovery of pool water using a titanium heat exchanger
- UV-C disinfection

### STANDARD SCOPE OF DELIVERY

- PWW heating register with valve
- Supply air filter
- Flexible connection pieces for duct connection
- Insulation underlays

### EQUIPMENT FEATURES

- Heat exchangers specially coated against corrosion
- Quiet, energy-efficient EC fans
- Control dampers with actuators



# LEG-AU-FO-K SERIES

## Dehumidification heat pumps

for outdoor exhaust air operation in a one-piece compact design with heat recovery

*Made in Germany*

The housing is made of very sturdy natural anodised aluminium profile with black, glass-fibre reinforced plastic corners. The 2-layer cladding parts made of anodised aluminium have integrated sound and heat insulation and a circumferential aluminium surround profile with an inserted seal.

The units are designed for small space requirements or for small installation areas.

The LEG-AU-FO-K series is installed in the equipment room or in the pool surround and is connected to the swimming hall via air ducts for supply and exhaust air. Fresh air and exhaust air ducts lead from the equipment room to the outside. It is easy to replace old units with similar designs.

The optionally available titanium pool water heat exchanger returns the heat recovered from the air back to the pool water.

The control of the desired operating mode and the louvre dampers is fully automatic via the dehumidification system's processor controller.

With the KVS®-Connect app, the dehumidification heat pump on the LEG-AU-FO-K series can be controlled easily, even when you are away.



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Technical Data		LEG 36-AuFo-K	LEG 46-AuFo-K	LEG 66-AuFo-K	LEG 86-AuFo-K	LEG 36-AuFo-K 2800	LEG 46-AuFo-K 2800	LEG 66-AuFo-K 2800	LEG 86-AuFo-K 3200
Basin size	m <sup>2</sup>	40 – 50	40 – 60	50 – 75	70 – 100	40 – 50	40 – 60	50 – 75	70 – 100
Nominal air capacity (min. - max.)	m <sup>3</sup> /h	1000 (800 – 1200)	1200 (1000 – 1500)	1400 (1000 – 1600)	2500 (2200 – 2800)	2800 (2000 – 3000)	2800 (2000 – 3000)	2800 (2000 – 3000)	3200 (2800 – 3500)
Max. percentage of fresh air	%	100	100	100	100	100	100	100	100
Dehumidification capacity *	kg/h	4 – 5,8	5 – 7,2	6,3 – 9,0	8,4 – 12,0	4 – 5,8	5 – 7,2	6,3 – 9,0	8,4 – 12,0
Dehumidification capacity a) b) c) **	kg/h	6,3 / 13,6 / 17,7	7,6 / 16,5 / 19,4	8,9 / 19,7 / 25,5	15,9 / 32,4 / 42,7	17,8 / 38 / 50	17,8 / 39 / 51	17,8 / 40 / 52	20,4 / 43 / 57
Supply/exhaust air external pressure loss max.	Pa	240	240	240	240	240	240	240	240
Average fan power consumption	W	154	193	222	430	460	460	460	594
Heat recovery to air (recirculation)	kW	3,9	4,9	6,1	7,9	3,9	4,9	6,1	7,9
Feed-in		AC 230 V 1 N	AC 230 V 1 N	AC 400 V 3 N	AC 400 V 3 N	AC 230 V 1 N	AC 230 V 1 N	AC 400 V 3 N	AC 400 V 3 N
Total connected load	kW	1,6	2,1	2,4	3,2	2,2	2,6	2,9	3,6
Supply line min.		3 x 1,5 mm <sup>2</sup>	3 x 1,5 mm <sup>2</sup>	5 x 1,5 mm <sup>2</sup>	5 x 2,5 mm <sup>2</sup>	3 x 1,5 mm <sup>2</sup>	3 x 1,5 mm <sup>2</sup>	5 x 1,5 mm <sup>2</sup>	5 x 2,5 mm <sup>2</sup>
Back-up fuse (min. type C) slow-blow	A	1 x 16	1 x 16	3 x 10	3 x 16	1 x 16	1 x 16	3 x 10	3 x 16
Compressor power consumption	kW	1,13	1,51	1,83	2,22	1,13	1,51	1,83	2,22
PWW heating register (80°C / 60°C)	kW	10,0	11,5	12,6	25,0	28,0	28,0	28,0	32,0
PWW NT heating register (50°C / 40°C)	kW	5,6	6,8	7,8	13,5	15,1	15,1	15,1	17,2
Area of application min. RH	°C / %	16 / 95	16 / 95	16 / 95	16 / 95	16 / 95	16 / 95	16 / 95	16 / 95
max. RH	°C / %	35 / 50	35 / 50	35 / 50	35 / 50	35 / 50	35 / 50	35 / 50	35 / 50
Length x width x height	mm	1600 x 700 x 1350	1600 x 700 x 1350	1600 x 700 x 1350	1700 x 790 x 1530	1700 x 790 x 1530	1700 x 790 x 1530	1700 x 790 x 1530	1700 x 790 x 1530
Largest transport unit	mm	1600 x 700 x 1350	1600 x 700 x 1350	1600 x 700 x 1350	1700 x 790 x 1530	1700 x 790 x 1530	1700 x 790 x 1530	1700 x 790 x 1530	1700 x 790 x 1530

The technical data refer to: hall temperature 30°C / humidity 60 – 80% / pool water temperature 27 – 28°C, \* circulating air 30°C / 60% RH, \*\* Outside air a) according to VDI 2089 b) at +8°C c) at -5°C

### OPTIONS

- KVS®-Connect: Control via smartphone or tablet
- PWW NT (low-temperature) heating register with valve
- Electric heating register
- Heat recovery of pool water using a titanium heat exchanger
- UV-C disinfection
- Unit partitioning

### STANDARD SCOPE OF DELIVERY

- PWW heating register with valve
- Supply air filter
- Flexible connection pieces for duct connection
- Insulation underlays

### EQUIPMENT FEATURES

- Heat exchangers specially coated against corrosion
- Quiet, energy-efficient EC fans
- Control dampers with actuators

# LEG-AU-FO-R SERIES

## Dehumidification heat pumps

pumps in a modular design for outdoor exhaust air operation with two-stage heat recovery

*Made in Germany*

The housing is made of very sturdy natural anodised aluminium profile with black, glass-fibre reinforced plastic corners. The 2-layer cladding parts made of anodised aluminium have integrated sound and heat insulation and a circumferential aluminium surround profile with an inserted seal.

In recirculation mode, the built-in high-performance recuperator cools the indoor swimming pool air down to the dew point, thus reducing the power consumption of the compressor by approximately 30%.

Recovery of up to 85% can be achieved in fresh air/exhaust mode.

These units are installed in the equipment room or in the pool surround and connected to the swimming hall via air ducts. Fresh air and exhaust air ducts lead from the equipment room to the outside. All unit types are also available in mirror-inverted versions. It is easy to replace old units with similar designs.

A titanium pool water heat exchanger is available as an option. It ensures that the heat recovered from the air is returned to the pool water. The respective operating state and the louvre flaps are controlled fully automatically by the dehumidification system's processor controller. If you are away, the dehumidification heat pump can simply be monitored and controlled with the KVS®-Connect app.



Technical Data		LEG 36-AuFo-R	LEG 46-AuFo-R	LEG 66-AuFo-R	LEG 36-AuFo-R 3200	LEG 46-AuFo-R 3200	LEG 66-AuFo-R 3200	LEG 86-AuFo-R 3200
Basin size	m <sup>2</sup>	40 – 50	40 – 60	50 – 75	40 – 50	40 – 60	50 – 75	70 – 100
Nominal air capacity (min. - max.)	m <sup>3</sup> /h	1200 (800 – 1200)	1400 (1000 – 1500)	1600 (1000 – 1600)	3200 (2800 – 3500)	3200 (2800 – 3500)	3200 (2800 – 3500)	3200 (2800 – 3500)
Max. percentage of fresh air	%	100	100	100	100	100	100	100
Dehumidification capacity *	kg/h	4,3 – 6,1	5,3 – 7,5	6,6 – 9,4	4,3 – 6,1	5,3 – 7,5	6,6 – 9,4	10 – 14,0
Dehumidification capacity a) b) c) **		7,6 / 16,2 / 21,1	8,9 / 18,7 / 23,9	10,2 / 20,8 / 26,5	20,4 / 42 / 56	20,4 / 43 / 57	20,4 / 44 / 58	20,4 / 47 / 61
Supply/exhaust air external pressure loss max.	Pa	240	240	240	240	240	240	240
Average fan power consumption	W	180	230	279	700	700	700	700
Heat recovery to air (recirculation)	kW	3,6	4,7	6,0	3,6	4,7	6,0	8,6
Heat recovery coefficient ***	%	74	72	70	72	72	72	72
Feed-in		AC 400 V 3 N	AC 400 V 3 N	AC 400 V 3 N	AC 400 V 3 N	AC 400 V 3 N	AC 400 V 3 N	AC 400 V 3 N
Total connected load	kW	1,3	1,8	2,2	2,3	2,7	3,1	3,4
Supply line min.		5 x 1,5 mm <sup>2</sup>	5 x 1,5 mm <sup>2</sup>	5 x 1,5 mm <sup>2</sup>	5 x 1,5 mm <sup>2</sup>	5 x 1,5 mm <sup>2</sup>	5 x 2,5 mm <sup>2</sup>	5 x 2,5 mm <sup>2</sup>
Back-up fuse (min. type C) slow-blow	A	3 x 10	3 x 10	3 x 10	3 x 10	3 x 10	3 x 16	3 x 16
Compressor power consumption	kW	0,72	1,13	1,51	0,72	1,13	1,51	1,83
PWW heating register (80°C / 60°C)	kW	10,0	11,5	12,6	32,0	32,0	32,0	32,0
PWW NT heating register (50°C / 40°C)	kW	5,6	6,8	7,8	17,2	17,2	17,2	17,2
Area of application min. RH	°C / %	16 / 95	16 / 95	16 / 95	16 / 95	16 / 95	16 / 95	16 / 95
Area of application max. RH	°C / %	35 / 50	35 / 50	35 / 50	35 / 50	35 / 50	35 / 50	35 / 50
Length x width x height	mm	2500 x 700 x 1350	2500 x 700 x 1350	2500 x 700 x 1350	2820 x 790 x 1530	2820 x 790 x 1530	2820 x 790 x 1530	2820 x 790 x 1530
Largest transport unit	mm	1400 x 700 x 1350	1400 x 700 x 1350	1400 x 700 x 1350	1580 x 790 x 1530	1580 x 790 x 1530	1580 x 790 x 1530	1580 x 790 x 1530

The technical data refer to: hall temperature 30°C / humidity 60 - 80% / pool water temperature 27 - 28°C, \* circulating air 30°C / 60% RH, \*\* Outside air a) according to VDI 2089 b) at +8°C c) at -5°C

\*\*\* 8°C / 80% - 28°C / 60%

### OPTIONS

- KVS®-Connect: Control via smartphone or tablet
- PWW NT (low-temperature) heating register with valve
- Electric heating register
- Summer bypass for recuperator
- Heat recovery of pool water using a titanium heat exchanger
- UV-C disinfection

### STANDARD SCOPE OF DELIVERY

- PWW heating register with valve
- Supply air filter
- Flexible connection pieces for duct connection
- Insulation underlays

### EQUIPMENT FEATURES

- Recuperator according to efficiency class DIN EN 13053-2020/05
- Heat exchangers specially coated against corrosion
- Quiet, energy-efficient EC fans
- Control dampers with actuators

# LG-R SERIES

## Dehumidification units

with high performance recuperators  
with heat recovery

*Made in Germany*

The housing is made of very sturdy natural anodised aluminium profile with black, glass-fibre reinforced plastic corners. The 2-layer cladding parts made of anodised aluminium have integrated sound and heat insulation and a circumferential aluminium surround profile with an inserted seal.

These units are designed for energy-saving use for the ventilation and evacuation of ancillary rooms such as showers, changing rooms or fitness areas, i.e. for rooms with impact loads and without a constant build-up of humidity as in a swimming pool hall.

In the case of excess energy, for example from a CHP unit, as well as during pure summer operation, the LG ventilation units are of course also ideally suited for swimming pool hall dehumidification. They are installed in the equipment room and the rooms are ventilated and evacuated and supplied with fresh air via a duct system according to the respective requirements. It is easy to replace old units with similar designs.

The control of the respective operating state and the louvre flaps is carried out fully automatically by the processor controller. The ventilation unit is easy to operate via a colour touch panel.

With the KVS®-Connect app, the LG series unit can be easily monitored and controlled even when you are away.



Technical Data		LG-R 1200	LG-R 1800	LG-R 2500	LG-R 3000	LG-R 4500	LG-R 6000
Basin size	m <sup>2</sup>	30 – 40	40 – 50	50 – 65	70 – 80	90 – 100	120 – 140
Nominal air capacity (min. - max.)	m <sup>3</sup> /h	1200 (1000 – 1500)	1800 (1500 – 2000)	2500 (2000 – 2700)	3000 (2700 – 3200)	4500	6000
Max. percentage of fresh air	%	100	100	100	100	100	100
Dehumidification capacity according to VDI 2089	kg/h	7,6	11,4	15,9	19,1	28,6	38,2
Supply/exhaust air external pressure loss max.	Pa	240	240	280	280	350	350
Average fan power consumption	W	278	373	535	616	1000	1360
Heat recovery coefficient *	%	74	74	74	74	74	74
Feed-in		AC 230 V 1 N	AC 400 V 3 N	AC 400 V 3 N	AC 400 V 3 N	AC 400 V 3 N	AC 400 V 3 N
Total connected load	kW	0,7	0,9	1,2	1,3	2,1	2,8
Supply line min.		3 x 1,5 mm <sup>2</sup>	5 x 1,5 mm <sup>2</sup>	5 x 1,5 mm <sup>2</sup>	5 x 1,5 mm <sup>2</sup>	5 x 1,5 mm <sup>2</sup>	5 x 2,5 mm <sup>2</sup>
Back-up fuse (min. type C) slow-blow	A	1 x 10	3 x 10	3 x 10	3 x 10	3 x 16	3 x 16
PWW heating register (80°C / 60°C)	kW	11	16	21	25	35	45
PWW NT heating register (50°C / 40°C)	kW	7	10	12	15	21	27
Length x width x height	mm	2400 x 700 x 1350	2370 x 790 x 1530	2370 x 790 x 1530	2570 x 1080 x 1530	3160 x 1280 x 1980	3400 x 1280 x 1980
Largest transport unit	mm	1200 x 700 x 1350	1200 x 790 x 1530	1200 x 790 x 1530	1330 x 1080 x 1530	1700 x 1280 x 1980	1920 x 1280 x 1980

\* The technical data refer to: hall temperature 30°C / humidity 60 - 80% / pool water temperature 27 - 28°C, outside air 8°C / 80%



Unit casing made of anodised aluminium with internal insulation and circumferential seal

### OPTIONS

- . KVS®-Connect: Control via smartphone or tablet
- . PWW NT (low-temperature) heating register with valve
- . Electric heating register
- . Summer bypass for recuperator
- . UV-C disinfection

### STANDARD SCOPE OF DELIVERY

- . PWW heating register with valve
- . Supply air filter
- . Flexible connection pieces for duct connection
- . Insulation underlays

### EQUIPMENT FEATURES

- . Recuperator according to efficiency class DIN EN 13053-2020/05
- . Heat exchangers specially coated against corrosion
- . Quiet fans with EC motor, in accordance with the ErP Directive (Energy-related Products)
- . Control dampers with actuators

# LS Ventilation Rails

*Made in Germany*

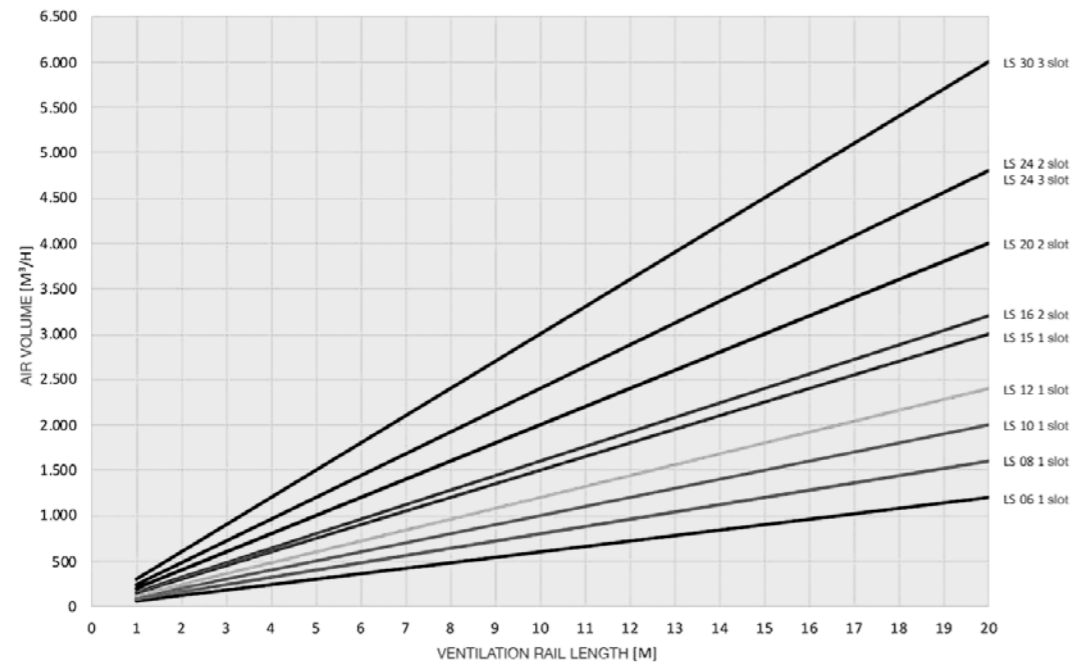
These particularly variable and versatile floor diffusers are designed for use in indoor swimming pools. The profiles are made of anodised aluminium A6/C0 and offer a shapely and inconspicuous appearance in the room. The aerodynamic shape of the rail distributes air optimally and evenly. An air distribution plate is not required. They are made according to your wishes and measurements. The standard height is 95 - 142 mm..



Symmetrical, 1 slot



Asymmetrical, 2 slots



# Ventilation rails for ceilings or railings

*Made in Germany*

Length 1,000 mm



Please ask about variants. We will be happy to advise you.

For your notes: \_\_\_\_\_

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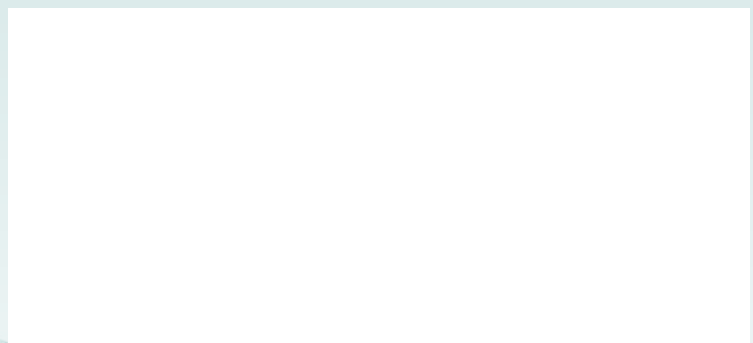
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Your KVS® specialist dealer



We reserve the right to make technical changes in the interest of progress. 12/2022