

A large, white, industrial-grade ventilation unit with two doors. Each door has a small "WOLF" logo near the top and a handle near the bottom. The unit is shown from a slightly low angle, emphasizing its height.

Highlight of the year 2022

The new CGL edu

► Page 102

WOLF Ventilation Systems

Price list

valid from 01 December 2021

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WOLF

Service team

We can help you with all your questions about heating and ventilation systems.
Give us a call or send us an email.

**Expert number
for the specialist
tradesman and wholesale**

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WOLF

Ventilation Systems Preisliste

Topwing unit heater

Unit heater

Warm air curtain

Celling fan

Smoke extract fan

Roof extract fan

Comfort ventilation units

The prices quoted are ex works Mainburg, excluding packaging and VAT. They are based on our terms and conditions of sale and delivery. We reserve the right to make changes.
The illustrations correspond approximately to the actual designs of the articles. This illustration is mainly for faster and better search and identification of the required product.

Ventilation

TOP WING Air heater

25 - 100 kW



TLH-EC
TLH

Page 02-03

25 - 100 kW



TLHK-EC
TLHK

Page 23-24

40 - 63 kW



TLHD-EC
TLHD-K-EC
TLHD
TLHD-K

Page 35-39

Air heater

25 - 100 kW



LH-EC
LH
LH-ATEX

Page 54-55, 60

25 - 40 kW



LH Mobil

Page 59

Warm air curtain unit
1.400 - 8.300 m³/h



TL-2

Page 82

Ceiling fan
1.500 m³/h



LD 15

Page 88

Smoke extract fan
3.300 - 57.200 m³/h



ER

Page 92

Roof extract fan
2.000 - 13.000 m³/h



DV-2

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Ventilation and air conditioning units

Compact units

Large area unit
600 m³/h



New
CGL
CGL edu

Page 102

Air Purifier
200 - 1.200 m³/h



New
AirPurifier
AirPurifier max

Page 114

New



CFL edu

Page 113

Slimline units
700 - 3.200 m³/h



CFL-WRG

Page 120

700 - 3.500 m³/h



CFL-EC-ZUL
CFL-EC-ABL

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Compact units

Plate heat exchanger
700 - 6.100 m³/h



CKL-A evo
CKL-iH evo
CKL-iV evo

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700 - 9.000 m³/h



CRL-A
CRL-iD
CRL-iH
CRL-iDH

Page 122-125

Heat wheel Exchanger

9.000 - 19.500 m³/h



CRL-A evo max
CRL-iH evo max

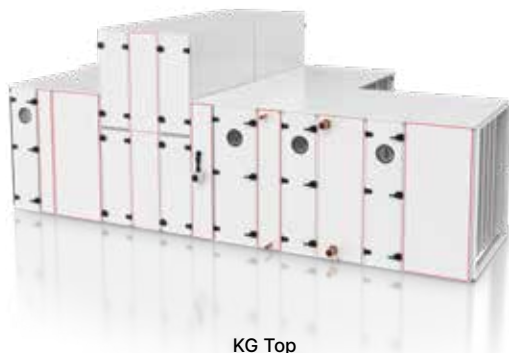
Swimming pool
2.000 - 3.000 m³/h



CKL-Pool

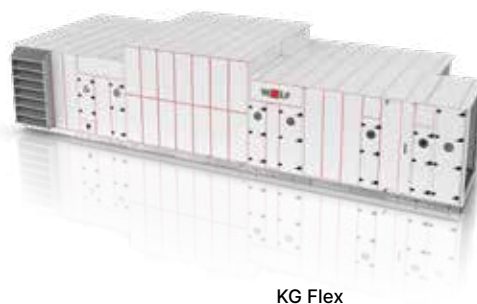
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Modular units
maximal 40.000 m³/h



KG Top

Individual units
maximal 35.000 m³/h



KG Flex

WOLF

Topwing unit heater

Topwing Unit heater TLH-EC / TLH		Page 02
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TopWing TLH-EC Unit heater with EC fan

RG | L50

- Unit heater with discharge louvre for wall or ceiling mounting; outdoor air, mixed air or recirculation air mode for heating or ventilation
- Casing: traffic white RAL 9016
- Discharge louvre: „WOLF silver“
- Full motor protection with integral temperature monitoring
- Energy saving EC fans (1 × 230 V)

EC-motor 230V / 50Hz Heat exchangers*: copper-aluminium LPHW		25	40	63	100
Type 1	Art. no. €	6523853 1570.00	6523857 2200.00	6523861 3010.00	6523912 3875.00
Type 2	Art. no. €	6523854 1700.00	6523858 2325.00	6523862 3100.00	6523913 4085.00
Type 3	Art. no. €	6523855 1770.00	6523859 2460.00	6523863 3320.00	6523914 4505.00
Type 4	Art. no. €	6523856 1865.00	6523860 2595.00	6523864 3575.00	6523915 4710.00

* Heat exchanger galvanised steel, steam by request.
RAL and special colours by request.



TopWing TLH Unit heater

RG | L50

- Unit heater with discharge louvre for wall or ceiling mounting; outdoor air, mixed air or recirculation air mode for heating or ventilation
- Casing: traffic white RAL 9016
- Discharge louvre: „WOLF silver“
- full motor protection through integral thermal contacts





Single phase AC motor 230V / 50Hz Heat exchangers*: copper-aluminium LPHW		25	40	63	
Type 1	Art. no. €	6500156 1375.00	6500164 1850.00	6523674 2365.00	
Type 2	Art. no. €	6500157 1485.00	6500165 1985.00	6523675 2460.00	
Type 3	Art. no. €	6500158 1575.00	6500166 2115.00	6523676 2675.00	
Type 4	Art. no. €	6500159 1685.00	6500167 2250.00	6523677 2940.00	
Three-phase motor 3 × 400V / 50Hz Heat exchangers*: copper-aluminium LPHW		25	40	63	100
Type 1	Art. no. €	6523634 1255.00	6523638 1670.00	6523642 2195.00	6523646 2880.00
Type 2	Art. no. €	6523635 1325.00	6523639 1850.00	6523643 2310.00	6523647 3075.00
Type 3	Art. no. €	6523636 1405.00	6523640 1960.00	6523644 2505.00	6523648 3500.00
Type 4	Art. no. €	6523637 1540.00	6523641 2115.00	6523645 2775.00	6523649 3765.00

* Heat exchanger galvanised steel, steam by request.
RAL and special colours by request.

WRS control systems

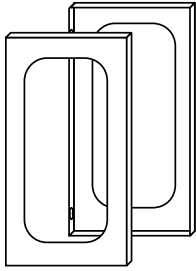
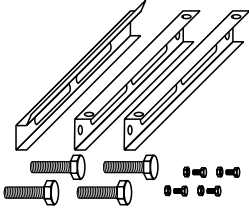
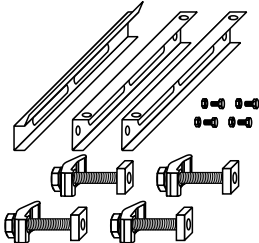
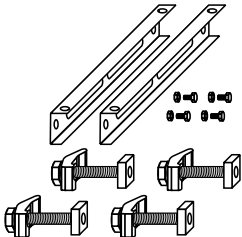
	Description	Art. no.	DG	€
	BML ventilation programming unit <ul style="list-style-type: none"> Room temperature-compensated temperature control Graphic display with backlight Simple menu navigation through plain text display Operation using rotary knob with push-function 4 function keys for frequently used functions (information, temperature, speed setting, fresh air proportion) Mounted optionally in the ventilation module or in the wall holder as remote control Only one ventilation operating module BML is needed to operate up to 7 zones Demand-optimised boiler water temperature demand via eBus eBus interface 	2744634	L50	491.00
	Wall mounting base Wall mounting base for using the BML programming unit as a remote control	2744275	H41	36.50
	LM1 ventilation module (incl. room temperature sensor) <ul style="list-style-type: none"> Ventilation module for controlling unit heaters with two-stage motor Simple configuration of the controller by selecting predefined system diagrams Demand-optimised room temperature control via the rotary speed of the unit heater Operation of the heating circuit pump Operation of the heat generator Demand-optimised boiler water temperature demand via eBus eBus interface with automatic energy management Ventilation operating module BML can be clipped on 	2744603	L50	487.00
	Note: Not in conjunction with EC motor.			
	LM2 ventilation module <ul style="list-style-type: none"> Ventilation module LM2 for controlling the room temperature by means of the rotation speed or the mixer control 2-stage motor control in connection with ventilation module LM1 or variable speed control via EC-motor Simple configuration of the controller by selecting predefined system diagrams Operation of the heat or cooling generator Demand-optimised boiler water temperature demand via eBus eBus interface with automatic energy management Ventilation operating module BML can be clipped on Mixed air flap control (in combination with 24 V~ electric servo-motor) Induction louver control 	2744604	L50	496.00

Control accessories

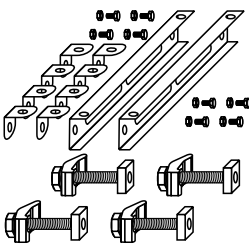
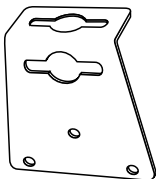
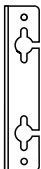
	Description	Art. no.	DG	€
	Outside, ceiling or room temperature sensor	2792021	H41	37.00
	Differential pressure switch For filter monitoring			
	Loose	2744030	L50	135.00
	Fitted	6523043	L50	255.00
	5-stage switch Electronic 5-stage speed controller, input 0 - 10 V			
	(2 A, 400 V)	2744840	L50	1170.00
	(4 A, 400 V)	2744841	L50	1165.00
	(6 A, 230 V)	2745066	L50	815.00
	Note: Not in conjunction with EC motor.			
	Temperature sensor (NTC 5k, Ø 6 mm) loose Can be used as a cylinder, boiler, central unit and supply air temperature sensor	8852829	H41	67.00
	Sensor holder For supply air sensor	2792029	L50	29.80

Connecting accessories


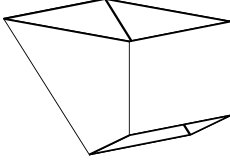

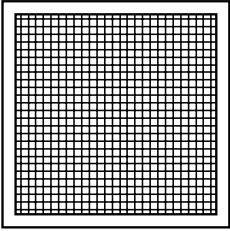
	Description	for product	Art. no.	DG	€
	Shut-off sets for heat exchanger for flow and return Consisting of: 1" threaded connection for connecting to flow and return with flat gasket, automatic air vent valve, drain and fill valve, ball valves with 1" female thread in flow and return, 3/4" male thread connection option (e. g. for the thermometer) in flow and return, suitable for heating water temperatures up to max. 110 °C and operating pressure up to max. 10 bar.				
	Straight-through version	TLH-EC 25 Type 2/3/4; TLH 25 Type 2/3/4; TLH-EC 40 Type 2/3/4; TLH 40 Type 2/3/4; TLH-EC/TLH 63 Type 1; TLH-EC/TLH 100 Type 1	2008030	L50	131.00
	Right angle version	TLH-EC 25 Type 2/3/4; TLH 25 Type 2/3/4; TLH-EC 40 Type 2/3/4; TLH 40 Type 2/3/4; TLH-EC/TLH 63 Type 1; TLH-EC/TLH 100 Type 1	2008040	L50	139.00
	Hydronic balancing valve DN20, 4 - 15 l/min DN20, 8 - 30 l/min DN25, 6 - 20 l/min DN 25, 10 - 40 l/min DN 32, 20 - 70 l/min DN 40, 30 - 120 l/min		2070931 2070932 2070933 2070934 2070935 2070936	L50 L50 L50 L50 L50 L50	274.00 274.00 286.00 286.00 352.00 465.00
	Flange set Consisting of 2 threaded flanges, 2 welded flanges and 2 flat gaskets, plus hexagonal bolts and hexagonal nuts				
	DN20, R 3/4"	TLH-EC/TLH 25,40 Type 1	2070201	L50	87.00
	DN25, R 1"	TLH-EC/TLH 25,40 Type 2/3/4; TLH-EC/TLH 63,100 Type 1	2070202	L50	92.00
	DN32, R 1 1/4"	TLH-EC/TLH 63 Type 2/3/4	2070203	L50	128.00
	DN40, R 1 1/2"	TLH-EC/TLH 63 Type 2/3/4	2070204	L50	141.00

	Description	for product	Art. no.	DG	€
	Fixing brackets For installation on the wall or ceiling, made from 2 mm folded sheet steel, powder-coated, colour: traffic white RAL 9016. Consisting of: - 2 brackets - Hexagon bolts for installing on appliance	unit size 25, 40	6500494	L50	75.00
		unit size 63, 100	6500497	L50	87.00
	Fixing kit for concrete lintel, vertical For fixing to a concrete beam by suspending from pre-mounted fixing rails. Consisting of: Mounting rail, 2 support rails, nuts and bolts (only in conjunction with fixing brackets) Zinc-plated sheet steel	unit size 25	6500781	L50	113.00
		unit size 40	6500782	L50	114.00
	Fixing kit for steel beam, vertical For fixing to a steel beam by suspending from pre-mounted fixing rails with clamping claws. Suitable for all steel beams with a flange width of 100 mm to 300 mm and a flange thickness of 6 mm to 21 mm. Consisting of: Mounting rail, 2 support rails, 4 clamping claws, nuts and bolts (only in conjunction with fixing brackets) Zinc-plated sheet steel	unit size 25	6500783	L50	221.00
		unit size 40	6500784	L50	213.00
	Fixing kit for steel beam, horizontal and inclined without inclination compensation For fixing to a horizontal or inclined steel beam with a flange width of 100 mm to 300 mm and a flange thickness of 6 mm to 21 mm. Consisting of: 2 support rails, 4 clamping claws, nuts and bolts (only in conjunction with fixing brackets) Zinc-plated sheet steel	unit size 25	6500785	L50	192.00
		unit size 40	6500786	L50	197.00
	Attention: Before using the fixing kits, check and factor in the static regulations of the on-site concrete pillars or steel beams. Installation only with standard units with an overall depth of 300 mm.				

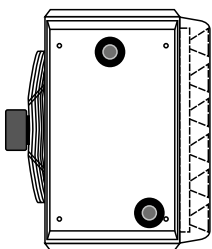
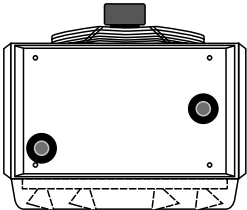
Device fastenings

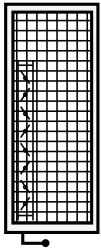
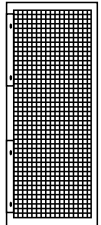
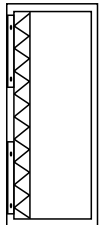
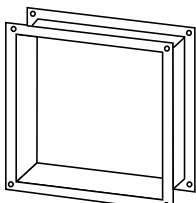
	Description	for product	Art. no.	DG	€
	Fixing kit for steel beam, inclined with inclination compensation For fixing to a steel beam with a flange width of 100 mm to 300 mm and a flange thickness of 6 mm to 21 mm. Consisting of: 2 support rails, 4 clamping claws, 4 self-aligning brackets, nuts and bolts (only in conjunction with fixing brackets) Zinc-plated sheet steel				
		unit size 25	6500787	L50	222.00
		unit size 40	6500788	L50	230.00
	Suspension tab for appliance mounting Powder-coated, colour: traffic white RAL 9016 Suitable for installation with threaded rods or perforated strip for configurations with horizontal air routing. 1 Set = 4 items		6500038	L50	46.00
	Mounting bracket for intake accessories, loose For installing the appliance on the wall or ceiling with fitted mixed air box, recirculation air box, outdoor air box or filter box. Powder-coated, colour: traffic white RAL 9016. 4 mounting brackets are required for fastening. These are included with the corresponding intake accessories. (Sealing against the wall/ceiling on site).				
	1 pce		6500325	L50	9.70
	4-pce set		6523054	L50	40.00

Blow out accessories




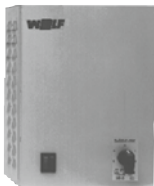

	Description	for product	Art. no.	DG	€
	Discharge cone For increasing the throw when the unit is installed at height. Powder-coated, colour: traffic white RAL 9016.				
		unit size 25	6500333	L50	149.00
		unit size 40	6500403	L50	177.00
		unit size 63	6500406	L50	190.00
		unit size 100	6500409	L50	277.00
	Discharge nozzle For a large throw, suitable as air curtain at doors. Discharge temperature for air curtain approx. 10 - 15 °C above room temperature. Powder-coated, colour: traffic white RAL 9016.				
		unit size 25	6500412	L50	174.00
		unit size 40	6500424	L50	207.00
		unit size 63	6500436	L50	264.00
		unit size 100	6500448	L50	341.00
	Four-way discharge With adjustable air guide fins, suitable for heating low rooms with steady air distribution to all four sides. Powder-coated, colour: traffic white RAL 9016. Fins in "WOLF silver", similar to RAL 9006.				
		unit size 25	6500460	L50	204.00
		unit size 40	6500465	L50	230.00
		unit size 63	6500467	L50	295.00
		unit size 100	6500469	L50	313.00
	Wide spread discharge For greater lateral spread of the warm air stream. Air jet cone up to approx. 120°; horizontal and vertical fins individually adjustable. Powder-coated, colour: "WOLF silver", similar to RAL 9006.				
		unit size 25	2565020	L50	160.00
		unit size 40	2565120	L50	197.00
		unit size 63	2565220	L50	284.00
		unit size 100	2565320	L50	369.00

Blow out accessories




	Description	for product	Art. no.	DG	€
	Induction louvre for wall mounted unit With secondary air cone in traffic white RAL 9016				
	Manual setting	unit size 25	6500477	L50	359.00
		unit size 40	6500489	L50	412.00
		unit size 63	6500506	L50	474.00
		unit size 100	6500517	L50	540.00
	With 230V~ electric servomotor fitted	unit size 25	6500479	L50	565.00
		unit size 40	6500491	L50	620.00
		unit size 63	6500508	L50	675.00
		unit size 100	6500519	L50	725.00
	With 24V~ electric servomotor fitted	unit size 25	6500618	L50	570.00
		unit size 40	6500619	L50	630.00
		unit size 63	6500620	L50	685.00
		unit size 100	6500621	L50	725.00
	Induction louvre for ceiling unit With secondary air cone in traffic white RAL 9016				
	Manual setting	unit size 25	6500478	L50	510.00
		unit size 40	6500490	L50	580.00
		unit size 63	6500507	L50	675.00
		unit size 100	6500518	L50	800.00
	With 230V~ electric servomotor fitted	unit size 25	6500480	L50	710.00
		unit size 40	6500492	L50	790.00
		unit size 63	6500509	L50	885.00
		unit size 100	6500520	L50	1015.00
	With 24V~ electric servomotor fitted	unit size 25	6500622	L50	720.00
		unit size 40	6500623	L50	800.00
		unit size 63	6500624	L50	890.00
		unit size 100	6500625	L50	1015.00

	Description	for product	Art. no.	DG	€
	Mixing box/thermally insulated mixing box Mixed air box in thermally insulated version to prevent the formation of condensate. For individual adjustment of the outdoor air flow rate. Outdoor air intake at the back, recirculation air intake at the side or, when mixed air box is rotated by 90°, from above/below. Variable manual adjustment between pure recirculation air mode via mixed air to pure outdoor air mode. Powder-coated, colour: traffic white RAL 9016. Mounting bracket as standard.				
	Without thermal insulation	unit size 25 - 100	on request		
	With thermal insulation	unit size 25 - 100	on request		
	Note: If used in outdoor air mode, unit heaters are covered by the scope of application of EU Regulation 1253/2014.				
	Recirculation air box with lateral intake For recirculation air intake through two grilles at the side or, when rotated by 90°, intake from top and bottom. Powder-coated, colour: traffic white RAL 9016. Mounting bracket as standard.	unit size 25	6500331	L50	283.00
		unit size 40	6500389	L50	342.00
		unit size 63	6500393	L50	378.00
		unit size 100	6500397	L50	515.00
	Filter box With filter element as dust trap in outdoor air and mixed air modes, filter category ISO Coarse 45 % (G4). Mounting bracket on request. Powder-coated, colour: traffic white RAL 9016.	unit size 25	6500549	L50	404.00
		unit size 40	6500554	L50	515.00
		unit size 63	6500559	L50	545.00
		unit size 100	6500564	L50	700.00
	Canvas sockets, 4-hole profile frame Note: In combination with LH-ATEX, an earth strap is required for equipotential bonding (part no. 2765450).	unit size 25	2525025	L50	59.00
		unit size 40	2525040	L50	96.00
		unit size 63	2525063	L50	135.00
		unit size 100	2525100	L50	149.00

Switching devices

	Description	for product	Art. no.	DG	€
	Variable speed controller For variable operation of one or more units with EC motor (0 - 10 V)	TLH-EC, TLHK-EC TLHD-EC, TLHD-K-EC LH-EC	2745100	L50	240.00
	1-stage switch D1-2 Full motor protection switch (8 A, 400 V) with lock preventing unintentional restart Note: In combination with LH-ATEX, installation only outside the potentially explosive area. Full motor protection provided by thermistor in connection with thermistor triggering unit for control panel installation.	LH, LH-ATEX, TLH, TLHD, TLHD-K	2745465	L50	180.00
	2-stage switch DS-2 Full motor protection switch (8 A, 400 V) with lock preventing unintentional restart Note: In combination with LH-ATEX, installation only outside the potentially explosive area. Full motor protection provided by thermistor in connection with thermistor triggering unit for control panel installation.	LH, LH-ATEX, TLH, TLHD, TLHD-K	2745467	L50	302.00
	3-stage switch D3-4T Full motor protection switch (4 A, 400 V) with lock preventing unintentional restart Note: In combination with LH-ATEX, installation only outside the potentially explosive area.	LH, LH-ATEX, TLH, TLHD, TLHD-K	2701065	L50	460.00
	5-stage switch D5... Full motor protection switch with lock preventing unintentional restart				
	D5-1-2 (1 A, 400 V)	LH, LH-ATEX, TLH, TLHD, TLHD-K	2748015	L50	510.00
	D5-3T (2 A, 400 V)	LH, LH-ATEX, TLH, TLHD, TLHD-K	2740010	L50	570.00
	D5-7T (4 A, 400 V)	LH, LH-ATEX, TLH, TLHD, TLHD-K	2740013	L50	730.00
	D5-12T (7 A, 400 V)	LH, LH-ATEX, TLH, TLHD, TLHD-K	2740014	L50	855.00
	D5-19T (12 A, 400 V)	LH, LH-ATEX, TLH, TLHD, TLHD-K	2740017	L54	1395.00
	Note: In combination with LH-ATEX, installation only outside the potentially explosive area.				

Switching devices

	Description	for product	Art. no.	DG	€
	3-stage switch E 3-7T-2 Full motor protection switch (7 A, 230 V) with lock preventing unintentional restart	LH, TLH	2748011	L50	419.00
	5-stage switch E5-7T-2 Full motor protection switch (7 A, 230 V) with lock preventing unintentional restart	LH, TLH	2748013	L50	565.00
	Omnipolar repair switch AR8 Loose	TLH-EC, TLH	2738379	L54	69.00




Servomotors

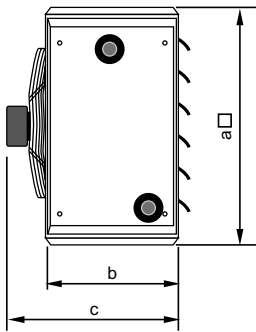
	Description	for product	Art. no.	DG	€
	A1 automatic relay For servomotor open/close (3.15 A, 230 V)	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	7965020	L50	108.00
	A1S automatic relay For servomotor, variable speed with built-in position indicator (0 to 100 %) (3.15 A, 230 V)	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	7940101	L50	241.00
	Position indicator For installation on the control panel front for variable speed servomotor activation in conjunction with automatic relay A1 For surface mounting for variable speed servomotor activation in conjunction with automatic relay A1	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2744360 2744389	L50 L50	96.00 139.00
	24 V variable speed servomotor for mixed air damper In conjunction with LM2 ventilation module	LH-EC, LH, TLH-EC, TLH	2269521	L50	378.00
	24 V servomotor for opening / closing the outdoor air damper	LH-EC, LH, TLH-EC, TLH	2269556	L50	271.00
	230 V / 50 Hz servomotor for opening / closing the damper	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2269523	L50	354.00
	Actuator, 230 V / 50 Hz, stepless for mixed air damper	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2269522	L50	366.00
	Button for servomotor (230 V / 50 Hz) For induction louvre	LH-EC, LH, TLH-EC, TLH, TLHK-EC, TLHK	2701063	L50	108.00

Thermostats / Terminal box

	Description	for product	Art. no.	DG	€
	Room thermostat	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2734000	L50	55.00
	Room thermostat with summer/winter switch	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2734700	L50	97.00
	Room thermostat clock with weekly programme	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2744079	L50	264.00
	Remote sensor for room thermostat clock	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2744051	L50	43.00
	Room thermostat, industrial version	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2735300	L50	108.00
	Frost protection thermostat attached	LH-EC/LH 25, 40, 63; TLH-EC/TLH 25, 40, 63; TLHK-EC/TLHK 25, 40, 63	2730050	L50	199.00
		LH-EC/LH 100, TLH-EC/TLH 100, TLHK-EC/TLHK 100	2730150	L50	207.00

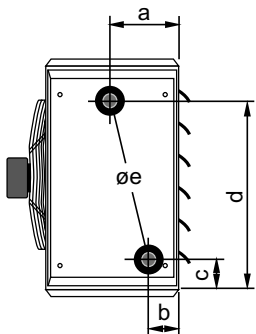
Thermostats / Terminal box

	Description	for product	Art. no.	DG	€
	Universal timer with 7-day program	LH-EC, TLH-EC, TLHD-EC, TLHD-K-EC, CFL-EC-ZUL, CFL-EC-ABL	2746081	L50	181.00
	Ground strap for potential equalisation	LH-EC, LH, LH-ATEX, TLH-EC, TLH, TLHK-EC, TLHK	2765450	L50	6.60
	Intermediate terminal box for parallel operation of up to 3 air heaters Note: In combination with LH-ATEX, mounting only outside the explosion risk area.	LH, LH-ATEX, TLH	7965043	L50	182.00



STANDARD UNIT DIMENSIONS

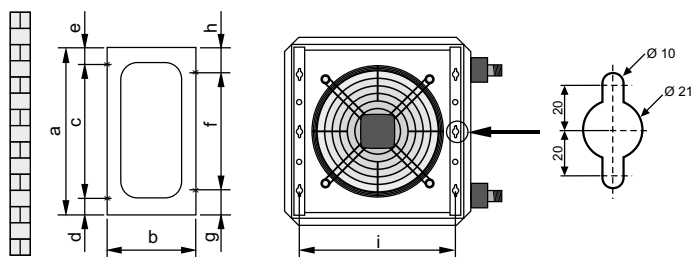
Type	Unit size	25	40	63	100
a	mm	540	670	840	1040
b	mm	300	300	300	340
c	mm	410	415	420	485



STANDARD UNIT CONNECTIONS

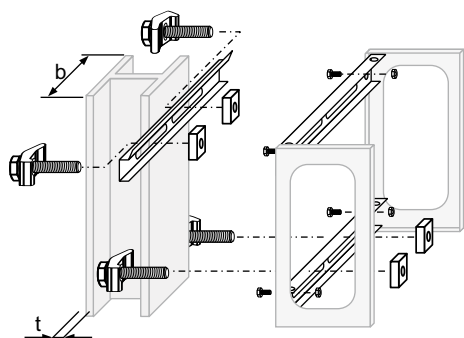
Type	Unit size	25-1	25	40-1	40	63-1	63	100-1	100
			-2/-3/-4		-2/-3/-4		-2/-3/-4		-2/-3/-4
a	mm	98	158	98	143	103	143	124	179
b	mm	68	68	68	83	63	83	84	89
c	mm	92	95	96	100	95	98	115	109
d	mm	445	445	574	570	746	742	926	932
Øe		¾"	1"	¾"	1"	1"	1¼"	1"	1½"

Accessories



FIXING BRACKETS

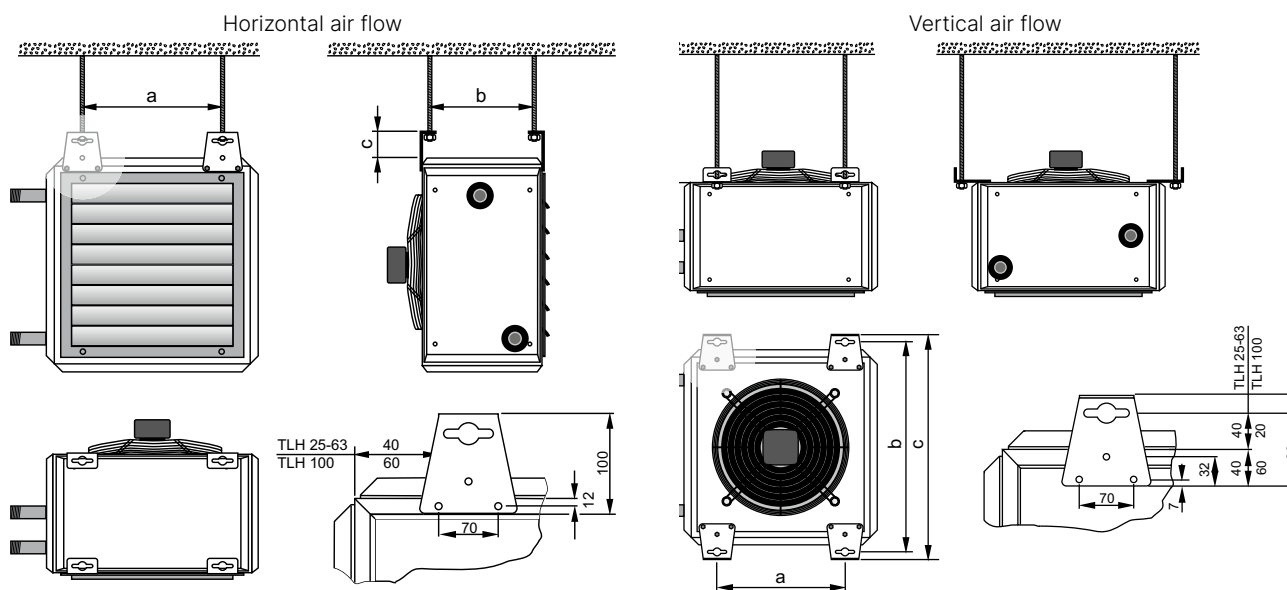
Type	Unit size	25	40	63	100
a	mm	480	480	784	784
b	mm	250	250	350	350
c	mm	380	2×170	170+340+170	170+340+170
d	mm	70	90	72	72
e	mm	30	50	32	32
f	mm	170	2×170	3×170	3×170
g	mm	155	70	137	137
h	mm	155	70	137	137
i	mm	434	564	734	894



FIXING KIT FOR STEEL BEAM, VERTICAL

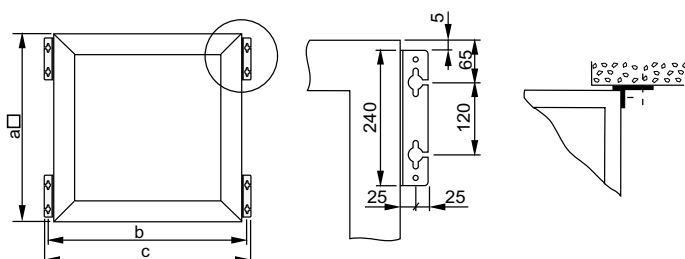
b	mm	100-300
t	mm	6-21

Accessories



SUSPENSION TAB FOR APPLIANCE MOUNTING

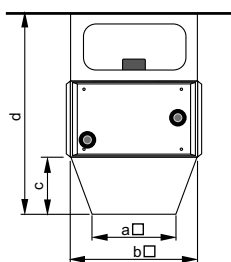
Type	Unit size	25	40	63	100
horizontal					
a	mm	350	480	650	810
b	mm	266	266	266	306
c	mm	60	60	60	60
vertical					
a	mm	270	440	610	780
b	mm	580	710	880	1040
c	mm	620	750	920	1080
d _{min}	mm	250	250	350	350



MOUNTING BRACKET FOR INTAKE ACCESSORIES, LOOSE

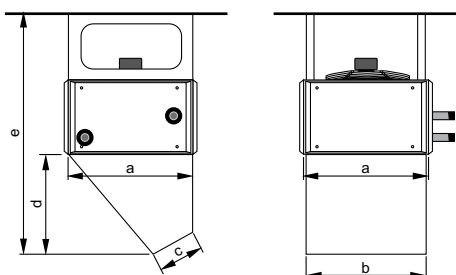
Type	Unit size	25	40	63	100
a	mm	500	630	800	1000
b	mm	550	680	850	1050
c	mm	600	730	900	1100

Accessories



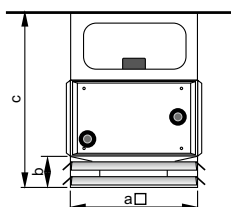
DISCHARGE CONE

Type	Unit size	25	40	63	100
a	mm	280	370	430	530
b	mm	460	590	760	920
c	mm	200	240	270	320
d	mm	750	790	920	1010



DISCHARGE NOZZLE

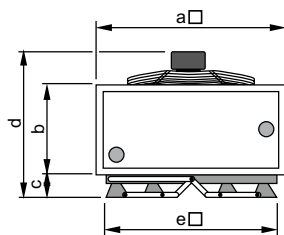
Type	Unit size	25	40	63	100
a	mm	460	590	760	920
b	mm	420	550	720	880
c	mm	190	250	260	320
d	mm	390	480	585	685
e	mm	940	1030	1235	1375



FOUR-WAY DISCHARGE

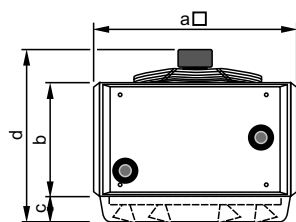
Type	Unit size	25	40	63	100
a	mm	500	630	800	1000
b	mm	155	155	155	155
c	mm	705	705	805	845

Accessories



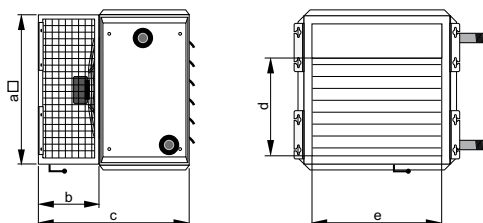
INDUCTION LOUVRE FOR WALL MOUNTED UNIT

Type	Unit size	25	40	63	100
a	mm	540	670	840	1040
b	mm	300	300	300	340
c	mm	120	120	120	120
d	mm	530	535	540	605



INDUCTION LOUVRE FOR CEILING UNIT

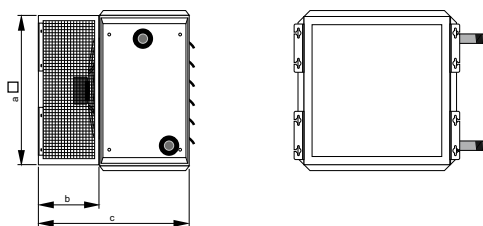
Type	Unit size	25	40	63	100
a	mm	540	670	840	1040
b	mm	300	300	300	340
c	mm	120	120	120	120
d	mm	530	535	540	605



MIXING BOX/THERMALLY INSULATED MIXING BOX

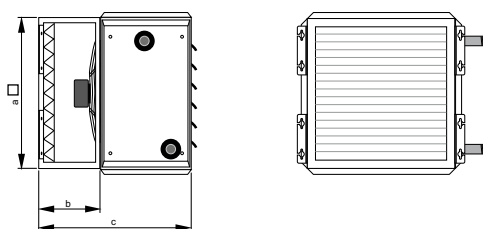
Type	Unit size	25	40	63	100
a	mm	500	630	800	1000
b	mm	500	500	500	540
c	mm	800	800	800	880
d	mm	245	360	530	690
e	mm	400	530	700	860

Accessories



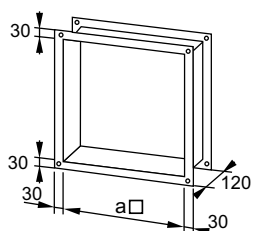
RECIRCULATION AIR BOX WITH LATERAL INTAKE

Type	Unit size	25	40	63	100
a	mm	500	630	800	1000
b	mm	300	500	500	540
c	mm	600	800	800	880



FILTER BOX

Type	Unit size	25	40	63	100
a	mm	500	630	800	1000
b	mm	300	300	300	340
c	mm	600	600	600	680



CANVAS SOCKETS, 4-HOLE PROFILE FRAME

Type	Unit size	25	40	63	100
a	mm	400	530	700	860



TopWing TLHK-EC

Unit heater for heating or cooling with EC fan

RG | L50

- Unit heater for heating or cooling in recirculation air mode or mixed air mode for wall mounting.
- Casing: traffic white RAL 9016
- Full motor protection with integral temperature monitoring
- Energy saving EC fans (1 × 230 V)
- Induction louvre with secondary air cone
- Free condensate drain

EC-motor 230V / 50Hz Heat exchanger: copper-aluminium LPHW / chw		25	40	63	100
Induction louvre with servomotor 230V / 50Hz For control via pushbutton	Art. no. €	6523866 2440.00	6523869 3135.00	6523872 3980.00	6523917 4475.00
Induction louvre with servomotor 24V can be controlled via LM2 ventilation control unit	Art. no. €	6523867 2440.00	6523870 3130.00	6523873 3975.00	6523918 4470.00
Manually adjustable induction louvre	Art. no. €	6523865 2260.00	6523868 2935.00	6523871 3780.00	6523916 4285.00

RAL and special colours by request.



TopWing TLHK

Unit heater for heating or cooling

RG | L50








- Unit heater for heating or cooling in recirculation air mode or mixed air mode for wall mounting.
- Casing: traffic white RAL 9016
- Full motor protection with built-in thermal contacts
- Induction louvre with secondary air cone
- Free condensate drain

Single phase AC motor 230V / 50Hz		25	40	63	
Heat exchanger: copper-aluminium LPHW / chw					
Induction louvre with servomotor 230V / 50Hz For control via pushbutton	Art. no. €	6523391 2230.00	6523395 2775.00	6523679 3330.00	
Induction louvre with servomotor 24V can be controlled via LM2 ventilation control unit	Art. no. €	6523393 2225.00	6523397 2775.00	6523680 3330.00	
Manually adjustable induction louvre	Art. no. €	6523375 2050.00	6523377 2575.00	6523678 3140.00	
Three-phase motor 3 × 400V / 50Hz		25	40	63	100
Heat exchanger: copper-aluminium LPHW / chw					
Induction louvre with servomotor 230V / 50Hz For control via pushbutton	Art. no. €	6523654 2100.00	6523655 2630.00	6523656 3200.00	6523657 3495.00
Induction louvre with servomotor 24V can be controlled via LM2 ventilation control unit	Art. no. €	6523658 2100.00	6523659 2625.00	6523660 3195.00	6523661 3475.00
Manually adjustable induction louvre	Art. no. €	6523650 1910.00	6523651 2430.00	6523652 3010.00	6523653 3310.00

RAL and special colours by request.

	Description	Art. no.	DG	€
	BML ventilation programming unit <ul style="list-style-type: none"> Room temperature-compensated temperature control Graphic display with backlight Simple menu navigation through plain text display Operation using rotary knob with push-function 4 function keys for frequently used functions (information, temperature, speed setting, fresh air proportion) Mounted optionally in the ventilation module or in the wall holder as remote control Only one ventilation operating module BML is needed to operate up to 7 zones Demand-optimised boiler water temperature demand via eBus eBus interface 	2744634	L50	491.00
	Wall mounting base Wall mounting base for using the BML programming unit as a remote control	2744275	H41	36.50
	LM1 ventilation module (incl. room temperature sensor) <ul style="list-style-type: none"> Ventilation module for controlling unit heaters with two-stage motor Simple configuration of the controller by selecting predefined system diagrams Demand-optimised room temperature control via the rotary speed of the unit heater Operation of the heating circuit pump Operation of the heat generator Demand-optimised boiler water temperature demand via eBus eBus interface with automatic energy management Ventilation operating module BML can be clipped on 	2744603	L50	487.00
	Note: Not in conjunction with EC motor.			
	LM2 ventilation module <ul style="list-style-type: none"> Ventilation module LM2 for controlling the room temperature by means of the rotation speed or the mixer control 2-stage motor control in connection with ventilation module LM1 or variable speed control via EC-motor Simple configuration of the controller by selecting predefined system diagrams Operation of the heat or cooling generator Demand-optimised boiler water temperature demand via eBus eBus interface with automatic energy management Ventilation operating module BML can be clipped on Mixed air flap control (in combination with 24 V~ electric servo-motor) Induction louver control 	2744604	L50	496.00

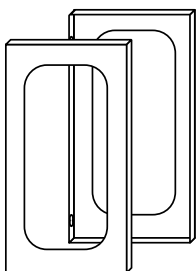
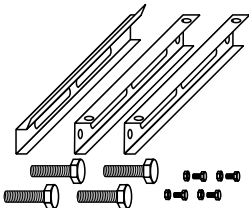
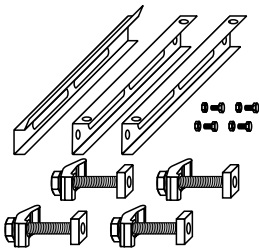
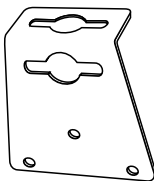

Control accessories

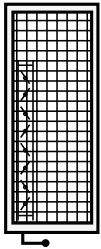
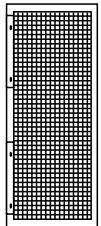
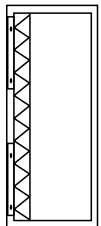
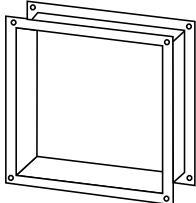
	Description		Art. no.	DG	€
	Outside, ceiling or room temperature sensor	LH-EC, LH, TLH-EC, TLH, TLHK-EC, TLHK, LHD, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2792021	H41	37.00
	Button for servomotor (230 V / 50 Hz) For induction louvre	LH-EC, LH, TLH-EC, TLH, TLHK-EC, TLHK	2701063	L50	108.00
	Frost protection thermostat attached	LH-EC/LH 25, 40, 63; TLH-EC/TLH 25, 40, 63; TLHK-EC/TLHK 25, 40, 63	2730050	L50	199.00
		LH-EC/LH 100, TLH-EC/TLH 100, TLHK-EC/TLHK 100	2730150	L50	207.00
	Differential pressure switch For filter monitoring				
	Loose	LH-EC, LH, TLH-EC, TLH, TLHK-EC, TLHK, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2744030	L50	135.00
	Fitted	LH-EC, LH, TLH-EC, TLH, TLHK-EC, TLHK, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	6523043	L50	255.00
	Ground strap for potential equalisation	LH-EC, LH, LH-ATEX, TLH-EC, TLH, TLHK-EC, TLHK	2765450	L50	6.60
	5-stage switch Electronic 5-stage speed controller, input 0 - 10 V				
	(2 A, 400 V)	LH, TLH, TLHK, TLHD, TLHD-K	2744840	L50	1170.00
	(4 A, 400 V)	LH, TLH, TLHK, TLHD, TLHD-K	2744841	L50	1165.00
	(6 A, 230 V)	LH, TLH, TLHK, TLHD, TLHD-K	2745066	L50	815.00
Note: Not in conjunction with EC motor.					
	Temperature sensor (NTC 5k, Ø 6 mm) loose Can be used as a cylinder, boiler, central unit and supply air temperature sensor		8852829	H41	67.00
	Sensor holder For supply air sensor	Supply air sensor (NTC 5K)	2792029	L50	29.80

Connecting accessories

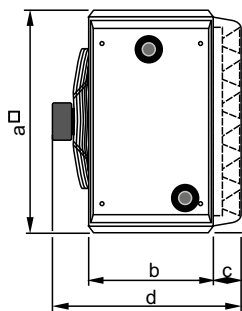
	Description	for product	Art. no.	DG	€
	Shut-off sets for heat exchanger for flow and return Consisting of: 1" threaded connection for connecting to flow and return with flat gasket, automatic air vent valve, drain and fill valve, ball valves with 1" female thread in flow and return, 3/4" male thread connection option (e. g. for the thermometer) in flow and return, suitable for heating water temperatures up to max. 110 °C and operating pressure up to max. 10 bar.				
	Straight-through version	TLHK-EC/TLHK 25, 40	2008030	L50	131.00
	Right angle version	TLHK-EC/TLHK 25, 40	2008040	L50	139.00
	Flange set Consisting of 2 threaded flanges, 2 welded flanges and 2 flat gaskets, plus hexagonal bolts and hexagonal nuts				
	DN25, R 1"	TLHK 25, 40	2070202	L50	92.00
	DN32, R 1 1/4"	TLHK 63	2070203	L50	128.00
	DN40, R 1 1/2"	TLHK 100	2070204	L50	141.00
	Hydronic balancing valve DN20, 4 - 15 l/min DN20, 8 - 30 l/min DN25, 6 - 20 l/min DN 25, 10 - 40 l/min DN 32, 20 - 70 l/min DN 40, 30 - 120 l/min				
			2070931	L50	274.00
			2070932	L50	274.00
			2070933	L50	286.00
			2070934	L50	286.00
			2070935	L50	352.00
			2070936	L50	465.00
	Condensate pump with potential-free, fully wired alarm output Consisting of: Condensate pump with floating alarm output, condensate tank with lid and wall retainer, PVC hose 10 mm (6 m long), non-return valve, condensate inlet adaptor	TLHK-EC, TLHK, CWL Excellent, CWL-2, CWL-F/T-Excellent, COB-2, TOB, TGB-2	2071268	H40	290.00
	Drain outlet R1 With trap and pipe collar Transparent plastic	TLHK-EC, TLHK, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2011005	L50	26.10

Device fastenings

	Description	for product	Art. no.	DG	€
	Fixing brackets For installation on the wall or ceiling, made from 2 mm folded sheet steel, powder-coated, colour: traffic white RAL 9016. Consisting of: - 2 brackets - Hexagon bolts for installing on appliance	unit size 25, 40	6500494	L50	75.00
		unit size 63, 100	6500497	L50	87.00
	Fixing kit for concrete lintel, vertical For fixing to a concrete beam by suspending from pre-mounted fixing rails. Consisting of: Mounting rail, 2 support rails, nuts and bolts (only in conjunction with fixing brackets) Zinc-plated sheet steel	unit size 25	6500781	L50	113.00
		unit size 40	6500782	L50	114.00
	Fixing kit for steel beam, vertical For fixing to a steel beam by suspending from pre-mounted fixing rails with clamping claws. Suitable for all steel beams with a flange width of 100 mm to 300 mm and a flange thickness of 6 mm to 21 mm. Consisting of: Mounting rail, 2 support rails, 4 clamping claws, nuts and bolts (only in conjunction with fixing brackets) Zinc-plated sheet steel	unit size 25	6500783	L50	221.00
		unit size 40	6500784	L50	213.00
	Suspension tab for appliance mounting Powder-coated, colour: traffic white RAL 9016 Suitable for installation with threaded rods or perforated strip for configurations with horizontal air routing. 1 Set = 4 items		6500038	L50	46.00
	Mounting bracket for intake accessories, loose For installing the appliance on the wall or ceiling with fitted mixed air box, recirculation air box, outdoor air box or filter box. Powder-coated, colour: traffic white RAL 9016. 4 mounting brackets are required for fastening. These are included with the corresponding intake accessories. (Sealing against the wall/ceiling on site).	1 pce 4-pce set	6500325 6523054	L50 L50	9.70 40.00

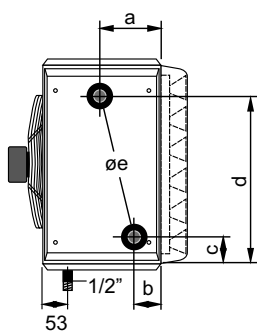
	Description	for product	Art. no.	DG	€
	Mixing box/thermally insulated mixing box Mixed air box in thermally insulated version to prevent the formation of condensate. For individual adjustment of the outdoor air flow rate. Outdoor air intake at the back, recirculation air intake at the side or, when mixed air box is rotated by 90°, from above/below. Variable manual adjustment between pure recirculation air mode via mixed air to pure outdoor air mode. Powder-coated, colour: traffic white RAL 9016. Mounting bracket as standard.				
	Without thermal insulation	unit size 25 unit size 40 unit size 63 unit size 100	on request on request on request on request		
	With thermal insulation	unit size 25 unit size 40 unit size 63 unit size 100	on request on request on request on request		
	Note: If used in outdoor air mode, unit heaters are covered by the scope of application of EU Regulation 1253/2014.				
	Recirculation air box with lateral intake For recirculation air intake through two grilles at the side or, when rotated by 90°, intake from top and bottom. Powder-coated, colour: traffic white RAL 9016. Mounting bracket as standard.	unit size 25	6500331	L50	283.00
		unit size 40	6500389	L50	342.00
		unit size 63	6500393	L50	378.00
		unit size 100	6500397	L50	515.00
	Filter box With filter element as dust trap in outdoor air and mixed air modes, filter category ISO Coarse 45 % (G4). Mounting bracket on request. Powder-coated, colour: traffic white RAL 9016.	unit size 25	6500549	L50	404.00
		unit size 40	6500554	L50	515.00
		unit size 63	6500559	L50	545.00
		unit size 100	6500564	L50	700.00
	Canvas sockets, 4-hole profile frame Note: In combination with LH-ATEX, an earth strap is required for equipotential bonding (part no. 2765450).	unit size 25	2525025	L50	59.00
		unit size 40	2525040	L50	96.00
		unit size 63	2525063	L50	135.00
		unit size 100	2525100	L50	149.00

Basic unit



STANDARD UNIT DIMENSIONS

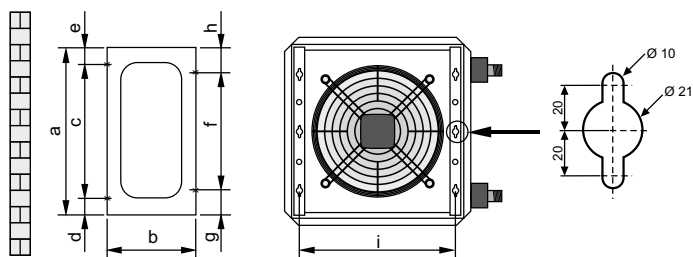
Type	Unit size	25	40	63	100
a	mm	540	670	840	1040
b	mm	300	300	300	340
c	mm	120	120	120	120
d	mm	530	535	540	605



STANDARD UNIT CONNECTIONS

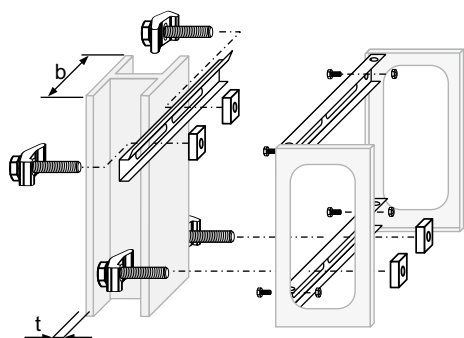
Type	Unit size	25	40	63	100
a	mm	158	143	143	179
b	mm	68	83	83	89
c	mm	94	99	99	109
d	mm	445	570	743	932
Øe		1"	1"	1¼"	1½"

Accessories



FIXING BRACKETS

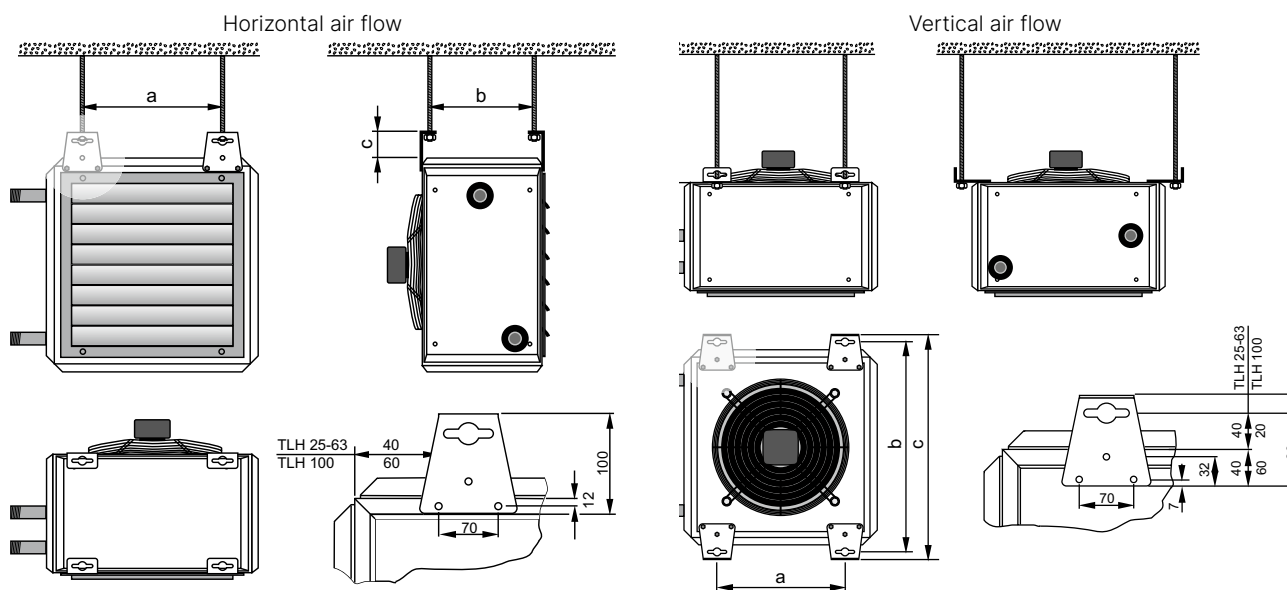
Type	Unit size	25	40	63	100
a	mm	480	480	784	784
b	mm	250	250	350	350
c	mm	380	2×170	170+340+170	170+340+170
d	mm	70	90	72	72
e	mm	30	50	32	32
f	mm	170	2×170	3×170	3×170
g	mm	155	70	137	137
h	mm	155	70	137	137
i	mm	434	564	734	894



FIXING KIT FOR STEEL BEAM, VERTICAL

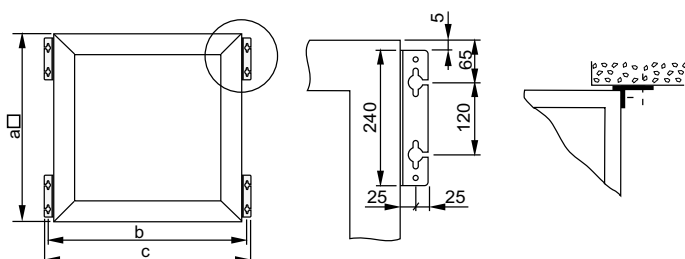
b	mm	100-300
t	mm	6-21

Accessories



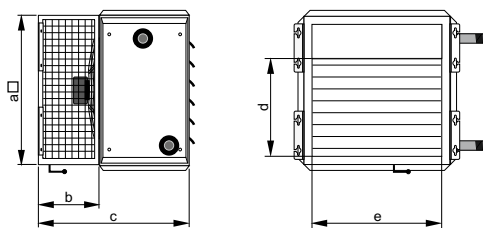
SUSPENSION TAB FOR APPLIANCE MOUNTING

Type	Unit size	25	40	63	100
horizontal					
a	mm	350	480	650	810
b	mm	266	266	266	306
c	mm	60	60	60	60
vertical					
a	mm	270	440	610	780
b	mm	580	710	880	1040
c	mm	620	750	920	1080
d _{min}	mm	250	250	350	350



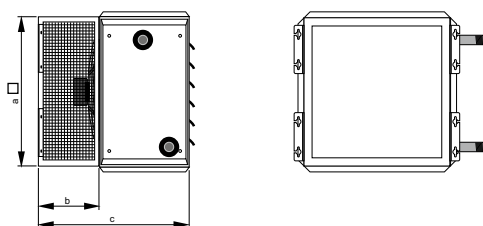
MOUNTING BRACKET FOR INTAKE ACCESSORIES, LOOSE

Type	Unit size	25	40	63	100
a	mm	500	630	800	1000
b	mm	550	680	850	1050
c	mm	600	730	900	1100



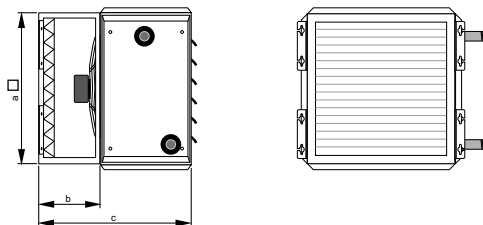
MIXING BOX/THERMALLY INSULATED MIXING BOX

Type	Unit size	25	40	63	100
a	mm	500	630	800	1000
b	mm	500	500	500	540
c	mm	800	800	800	880
d	mm	245	360	530	690
e	mm	400	530	700	860



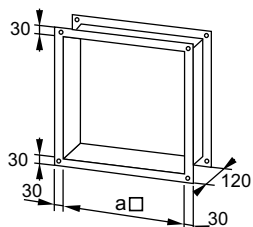
RECIRCULATION AIR BOX WITH LATERAL INTAKE

Type	Unit size	25	40	63	100
a	mm	500	630	800	1000
b	mm	300	500	500	540
c	mm	600	800	800	880



FILTER BOX

Type	Unit size	25	40	63	100
a	mm	500	630	800	1000
b	mm	300	300	300	340
c	mm	600	600	600	680



CANVAS SOCKETS, 4-HOLE PROFILE FRAME

Type	Unit size	25	40	63	100
a	mm	400	530	700	860

Notes



TopWing TLHD-EC Unit heater for heating with EC fan

RG | L50

- Unit heater for heating; mounting on the ceiling for recirculation air mode or on an intermediate ceiling for recirculation air or mixed air mode.
- Colour: traffic white RAL 9016
- Full motor protection with integral temperature monitoring
- Energy saving EC fans (1 × 230 V)
- Standard units for mixed air mode with additional thermal insulation to prevent the formation of condensate on the unit

Mixed air operation*		40	63
Heat exchanger: copper-aluminium LPHW			
Heating	Art.-no.	6523783	6523785
(230V)	€	2530.00	3525.00
Return air operation		40	63
Heat exchanger: copper-aluminium LPHW			
Heating	Art.-no.	6523782	6523784
(230V)	€	2450.00	3465.00

* Mixing temperature before the heat exchanger min. +5 °C..

TopWing TLHD-K-EC

Unit heater for heating or cooling with EC fan



RG | L50

- Unit heater for heating or cooling; mounting on the ceiling for recirculation air mode or on an intermediate ceiling for recirculation air or mixed air mode.
- Colour: traffic white RAL 9016
- Full motor protection with integral temperature monitoring
- Energy saving EC fans (1 × 230 V)
- Standard units for mixed air mode with integral condensate pump and additional thermal insulation to prevent the formation of condensate on the unit
- Standard units for recirculation air mode with integral condensate pump

Mixed air operation*		40	63
Heat exchanger: copper-aluminium LPHW / chw			
Heating / Cooling (230V)	Art.-no.	6523787	6523789
	€	3250.00	4240.00
Return air operation		40	63
Heat exchanger: copper-aluminium LPHW / chw			
Heating / Cooling (230V)	Art.-no.	6523786	6523788
	€	3205.00	4175.00

* Mixing temperature before the heat exchanger min. +5 °C.

TopWing TLHD Unit heater for heating



RG | L50

- Unit heater for heating; mounting on the ceiling for recirculation air mode or on an intermediate ceiling for recirculation air or mixed air mode.
- Colour: traffic white RAL 9016
- Full motor protection with built-in thermal contacts
- Standard units for mixed air mode with additional thermal insulation to prevent the formation of condensate on the unit

Mixed air operation*		40	63
Heat exchanger: copper-aluminium LPHW			
Heating	Art.-no.	6523076	6523084
(400V)	€	2250.00	2785.00
Return air operation		40	63
Heat exchanger: copper-aluminium LPHW			
Heating	Art.-no.	6523074	6523082
(400V)	€	2110.00	2655.00

* Mixing temperature before the heat exchanger min. +5 °C.

TopWing TLHD-K

Unit heater for heating or cooling



RG | L50





- Unit heater for heating or cooling; mounting on the ceiling for recirculation air mode or on an intermediate ceiling for recirculation air or mixed air mode.
- Colour: traffic white RAL 9016
- Full motor protection with built-in thermal contacts
- Standard units for mixed air mode with integral condensate pump and additional thermal insulation to prevent the formation of condensate on the unit
- Standard units for recirculation air mode with integral condensate pump

Mixed air operation*		40	63
Heat exchanger: copper-aluminium LPHW / chw			
Heating / Cooling (400V)	Art.-no.	6523080	6523088
	€	3170.00	3765.00
Return air operation		40	63
Heat exchanger: copper-aluminium LPHW / chw			
Heating / Cooling (400V)	Art.-no.	6523078	6523086
	€	3010.00	3620.00




* Mixing temperature before the heat exchanger min. +5 °C.

	Description	Art. no.	DG	€
	BML ventilation programming unit <ul style="list-style-type: none"> Room temperature-compensated temperature control Graphic display with backlight Simple menu navigation through plain text display Operation using rotary knob with push-function 4 function keys for frequently used functions (information, temperature, speed setting, fresh air proportion) Mounted optionally in the ventilation module or in the wall holder as remote control Only one ventilation operating module BML is needed to operate up to 7 zones Demand-optimised boiler water temperature demand via eBus eBus interface 	2744634	L50	491.00
	Wall mounting base Wall mounting base for using the BML programming unit as a remote control	2744275	H41	36.50
	LM1 ventilation module (incl. room temperature sensor) <ul style="list-style-type: none"> Ventilation module for controlling unit heaters with two-stage motor Simple configuration of the controller by selecting predefined system diagrams Demand-optimised room temperature control via the rotary speed of the unit heater Operation of the heating circuit pump Operation of the heat generator Demand-optimised boiler water temperature demand via eBus eBus interface with automatic energy management Ventilation operating module BML can be clipped on 	2744603	L50	487.00
	Note: Not in conjunction with EC motor.			
	LM2 ventilation module <ul style="list-style-type: none"> Ventilation module LM2 for controlling the room temperature by means of the rotation speed or the mixer control 2-stage motor control in connection with ventilation module LM1 or variable speed control via EC-motor Simple configuration of the controller by selecting predefined system diagrams Operation of the heat or cooling generator Demand-optimised boiler water temperature demand via eBus eBus interface with automatic energy management Ventilation operating module BML can be clipped on Mixed air flap control (in combination with 24 V~ electric servo-motor) Induction louver control 	2744604	L50	496.00

Control accessories

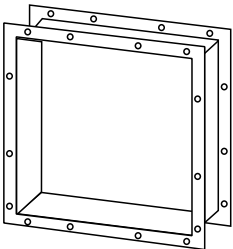
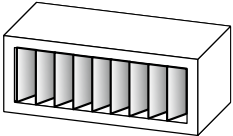
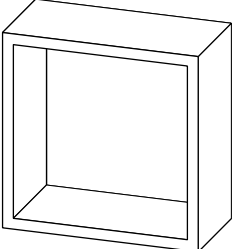
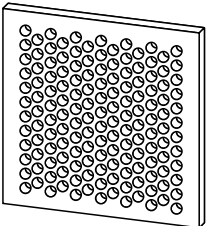
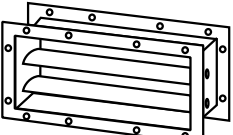
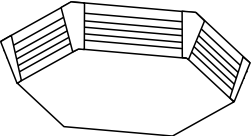
	Description	Art. no.	DG	€
	Outside, ceiling or room temperature sensor	2792021	H41	37.00
	Differential pressure switch For filter monitoring			
	Loose	2744030	L50	135.00
	Fitted	6523043	L50	255.00
	5-stage switch Electronic 5-stage speed controller, input 0 - 10 V			
	(2 A, 400 V)	2744840	L50	1170.00
	(4 A, 400 V)	2744841	L50	1165.00
	Note: Not in conjunction with EC motor.			
	Temperature sensor (NTC 5k, Ø 6 mm) loose Can be used as a cylinder, boiler, central unit and supply air temperature sensor	8852829	H41	67.00
	Sensor holder For supply air sensor	2792029	L50	29.80

Connecting accessories


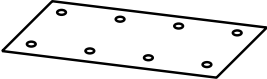
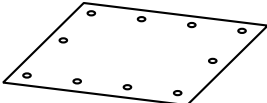
	Description	for product	Art. no.	DG	€
	Shut-off sets for heat exchanger for flow and return Consisting of: 1" threaded connection for connecting to flow and return with flat gasket, automatic air vent valve, drain and fill valve, ball valves with 1" female thread in flow and return, 3/4" male thread connection option (e. g. for the thermometer) in flow and return, suitable for heating water temperatures up to max. 110 °C and operating pressure up to max. 10 bar.				
	Straight-through version	TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2008030	L50	131.00
	Right angle version	TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2008040	L50	139.00
	Hydronic balancing valve DN20, 4 - 15 l/min DN20, 8 - 30 l/min DN25, 6 - 20 l/min DN 25, 10 - 40 l/min DN 32, 20 - 70 l/min DN 40, 30 - 120 l/min				
			2070931	L50	274.00
			2070932	L50	274.00
			2070933	L50	286.00
			2070934	L50	286.00
			2070935	L50	352.00
			2070936	L50	465.00
	Drain outlet R1 With trap and pipe collar Transparent plastic	TLHK-EC, TLHK, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2011005	L50	26.10

Accessories

	Description	for product	Art. no.	DG	€
	Top filter Category ISO Coarse 55 % (G4) (Not suitable for duct connection)	unit size 40	6523097	L50	87.00
		unit size 63	6523098	L50	95.00
	Suction ring For lining the intake air gap when installing directly on the ceiling or as a decorative cover in all installation examples Traffic white RAL 9016 Height 100 mm	unit size 40	6511553	L50	330.00
		unit size 63	6511554	L50	328.00
	Empty section 25mm twin wall casing, thermally insulated Zinc-plated sheet steel	unit size 40	6511577	L50	535.00
		unit size 63	6511578	L50	830.00
	Adaptor plate For connecting a round slider with empty section or attachment frame, thermally insulated Zinc-plated sheet steel	unit size 40	6511587	L50	181.00
		unit size 63	6511588	L50	245.00
	Slider To compensate for dimensional differences Min. height = 300 mm, max. height = 500 mm Zinc-plated sheet steel	unit size 40	2526040	L50	352.00
		unit size 63	2526063	L50	412.00
	Flexible connection For connection to TLHD Height 130 mm	unit size 40	6511535	L50	153.00
		unit size 63	6511537	L50	203.00
	Flexible connection, 4-hole profile frame For connection to duct	unit size 40	2524015	L50	70.00
		unit size 63	2524020	L50	82.00

	Description	for product	Art. no.	DG	€
	Canvas sockets, 4-hole profile frame Note: In combination with LH-ATEX, an earth strap is required for equipotential bonding (part no. 2765450).	unit size 40	2525040	L50	96.00
		unit size 63	2525063	L50	135.00
	Filter attachment box With filter category ISO Coarse 45 % (G4) Zinc-plated sheet steel Depth 100 mm	unit size 40	6105100	L50	353.00
		unit size 63	6105101	L50	408.00
	Thermally insulated attachment frame For installation in grid ceiling 620 × 620 for connecting a louvre damper or adaptor plate to the recirculation air intake grille Zinc-plated sheet steel Height and width 590 mm, depth 100 mm		6511595	L50	208.00
	Recirculation air intake plate Colour: traffic white RAL 9016 For installation in the attachment frame, suitable for Euro grid ceiling Height and width 620 mm, depth 100 mm		6523104	L50	141.00
	Jalousieklappe K2 für Kanal Stahlblech, verzinkt	unit size 40 unit size 63	2575268 2575269		190.00 257.00
	TD ceiling discharge Casing such as TLHD(-EC), without heat exchanger, without fan motor unit, as ceiling discharge. Traffic white RAL 9016	unit size 40 unit size 63	6511549 6511550	L50 L50	865.00 1140.00

Accessories

	Description	for product	Art. no.	DG	€
	Mounting bracket For installing the appliance on the wall or ceiling with fitted mixed air box, recirculation air box, outdoor air box or filter box. Zinc-plated sheet steel 4 mounting brackets are required for fastening. These are included with the corresponding intake accessories. (Sealing against the wall/ceiling on site).				
	1 pce		6511454	L50	9.40
	2-pce set		6523052	L50	19.10
	4-pce set		6523053	L50	38.00
	Universal casing panel, front As adaptor from empty section/fan section to on-site duct. The apertures have to be made individually on site. Zinc-plated sheet steel	unit size 40	on request		
		unit size 63	on request		
	Universal casing panel, square As adaptor from empty section TLHD(-ED) 63 to accessory louver damper/slider TLHD(-EC) 40. The apertures have to be made individually on site. Zinc-plated sheet steel Width and depth 760mm	unit size 63	on request		




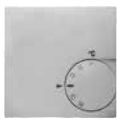



Switching devices

	Description	for product	Art. no.	DG	€
	Variable speed controller For variable operation of one or more units with EC motor (0 - 10 V)	TLH-EC, TLHK-EC TLHD-EC, TLHD-K-EC LH-EC	2745100	L50	240.00
	1-stage switch D1-2 Full motor protection switch (8 A, 400 V) with lock preventing unintentional restart Note: In combination with LH-ATEX, installation only outside the potentially explosive area. Full motor protection provided by thermistor in connection with thermistor triggering unit for control panel installation.	LH, LH-ATEX, TLH, TLHD, TLHD-K	2745465	L50	180.00
	2-stage switch DS-2 Full motor protection switch (8 A, 400 V) with lock preventing unintentional restart Note: In combination with LH-ATEX, installation only outside the potentially explosive area. Full motor protection provided by thermistor in connection with thermistor triggering unit for control panel installation.	LH, LH-ATEX, TLH, TLHD, TLHD-K	2745467	L50	302.00
	3-stage switch D3-4T Full motor protection switch (4 A, 400 V) with lock preventing unintentional restart Note: In combination with LH-ATEX, installation only outside the potentially explosive area.	LH, LH-ATEX, TLH, TLHD, TLHD-K	2701065	L50	460.00
	5-stage switch D5... Full motor protection switch with lock preventing unintentional restart D5-1-2 (1 A, 400 V) D5-3T (2 A, 400 V) D5-7T (4 A, 400 V) D5-12T (7 A, 400 V) D5-19T (12 A, 400 V) Note: In combination with LH-ATEX, installation only outside the potentially explosive area.	LH, LH-ATEX, TLH, TLHD, TLHD-K LH, LH-ATEX, TLH, TLHD, TLHD-K LH, LH-ATEX, TLH, TLHD, TLHD-K LH, LH-ATEX, TLH, TLHD, TLHD-K LH, LH-ATEX, TLH, TLHD, TLHD-K	2748015 2740010 2740013 2740014 2740017	L50 L50 L50 L50 L54	510.00 570.00 730.00 855.00 1395.00
	Universal timer with 7-day program	LH-EC, TLH-EC, TLHD-EC, TLHD-K-EC, CFL-EC-ZUL, CFL-EC-ABL	2746081	L50	181.00
	Omnipolar repair switch AR8, 1N/C+1N/O	TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2744649	L50	95.00

Servomotors

	Description	for product	Art. no.	DG	€
	A1 automatic relay For servomotor open/close (3.15 A, 230 V)	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	7965020	L50	108.00
	A1S automatic relay For servomotor, variable speed with built-in position indicator (0 to 100 %) (3.15 A, 230 V)	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	7940101	L50	241.00
	Actuator, 230 V / 50 Hz, stepless for mixed air damper	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2269522	L50	366.00
	230 V / 50 Hz servomotor for opening / closing the damper	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2269523	L50	354.00
	Position indicator For installation on the control panel front for variable speed servomotor activation in conjunction with automatic relay A1 For surface mounting for variable speed servomotor activation in conjunction with automatic relay A1	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2744360 2744389	L50 L50	96.00 139.00

Thermostates

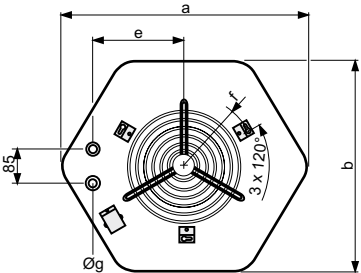
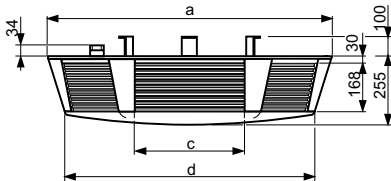
	Description	for product	Art. no.	DG	€
	Contact frost stat Setting range 0 °C to 60 °C (to be mounted on the return)	TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2730100	L50	106.00
	Frost stat SP-1 Incl. sensor well (to be mounted in the re- turn)	TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2797005	H41	59.00
	Frost stat, fitted	TLHD-EC/TLHD 40	6523478	L50	132.00
		TLHD-K-EC/TLHD-K 40	6523479	L50	131.00
		TLHD-EC/TLHD 63	6523480	L50	134.00
		TLHD-K-EC/TLHD-K 63	6523481	L50	130.00
	Room thermostat	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2734000	L50	55.00
	Room thermostat with summer/winter switch	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2734700	L50	97.00
	Room thermostat clock with weekly programme	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2744079	L50	264.00
	Remote sensor for room thermostat clock	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2744051	L50	43.00

Thermostates



Description	for product	Art. no.	DG	€
Room thermostat, industrial version	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2735300	L50	108.00

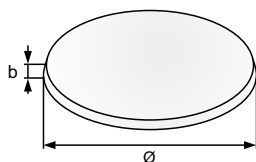
Basic unit



STANDARD UNIT DIMENSIONS

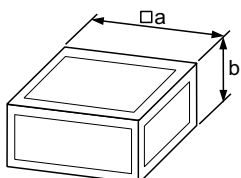
Type	Unit size	40	63
a	mm	960	1120
b	mm	860	1000
c	mm	326	405
d	mm	815	975
e	mm	288	358
f	mm	R 317	R 382
Øg		1"	1"

Accessories



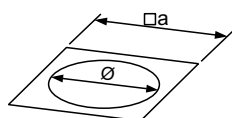
TOP FILTER

Type	Unit size	40	63
Ø	mm	520	650
b	mm	40	50



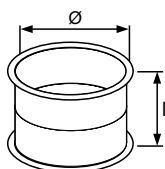
EMPTY SECTION

Type	Unit size	40	63
a	mm	630	800
b	mm	300	345



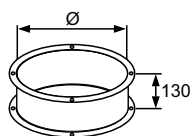
ADAPTOR PLATE

Type	Unit size	40	63
Ø	mm	453	569
a	mm	590	760



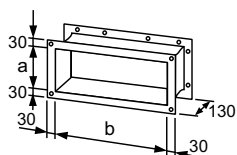
SLIDER

Type	Unit size	40	63
Ø	mm	453	569
l	mm	300-500	300-500



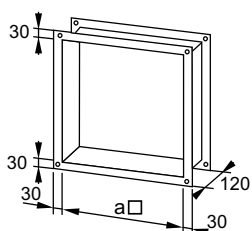
FLEXIBLE CONNECTION

Type	Unit size	40	63
Ø	mm	453	569



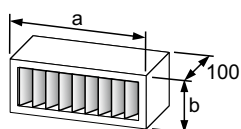
FLEXIBLE CONNECTION, 4-HOLE PROFILE FRAME

Type	Unit size	40	63
a	mm	200	245
b	mm	530	700



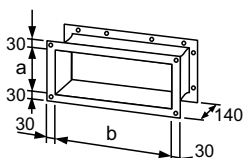
CANVAS SOCKETS, 4-HOLE PROFILE FRAME

Type	Unit size	25	40	63	100
a	mm	400	530	700	860



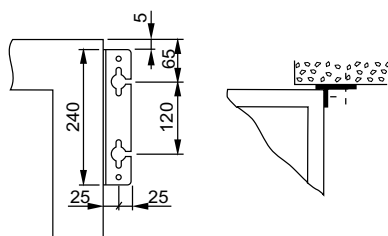
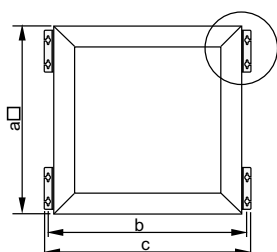
FILTER ATTACHMENT BOX

Type	Unit size	40	63
a	mm	630	800
b	mm	300	345



JALOUSIEKLAPPE K2

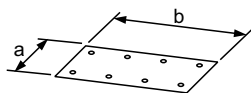
Typ	Baugröße	40	63
a	mm	200	245
b	mm	530	700



MOUNTING BRACKET

Type	Unit size	25	40	63	100
a	mm	500	630	800	1000
b	mm	550	680	850	1050
c	mm	600	730	900	1100

Accessories



UNIVERSAL CASING PANEL, FRONT

Type	Unit size		
a	mm	40	63
b	mm	260	305
		590	760

WOLF

Unit heater

Unit heater LH-EC / LH		Page 54
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LH-EC

Unit heater with EC fan

RG | L50

- Unit heater with discharge louvre for wall or ceiling mounting; outdoor air, mixed air or recirculation air mode for heating or ventilation.
- Casing: Zinc-plated sheet steel
- Discharge louvre: „WOLF silver“
- Full motor protection with integral temperature monitoring
- Energy saving EC fans (1 × 230 V)

EC-motor 230V / 50Hz Heat exchanger: Copper-aluminium		25	40	63	100
Type 1	Art. no.	6523823	6523833	6523843	6523902
	€	1310.00	1810.00	2480.00	3185.00
Type 2	Art. no.	6523824	6523834	6523844	6523903
	€	1380.00	1875.00	2555.00	3465.00
Type 3	Art. no.	6523825	6523835	6523845	6523904
	€	1445.00	2050.00	2810.00	3835.00
Type 4	Art. no.	6523826	6523836	6523846	6523905
	€	1550.00	2145.00	3005.00	3965.00
Type D *	Art. no.	6523827	6523837	6523847	6523906
	€	1460.00	2050.00	2720.00	3755.00
EC-motor 230V / 50Hz Heat exchanger: Galvanised steel		25	40	63	100
Type 1	Art. no.	6523828	6523838	6523848	6523907
	€	1560.00	2170.00	2930.00	3845.00
Type 2	Art. no.	6523829	6523839	6523849	6523908
	€	1640.00	2275.00	3375.00	4760.00
Type 3	Art. no.	6523830	6523840	6523850	6523909
	€	1835.00	2475.00	3580.00	5205.00
Type D * AF horizontal	Art. no.	6523831	6523841	6523851	6523910
	€	1735.00	2335.00	3300.00	4470.00
Type D * AF vertical	Art. no.	6523832	6523842	6523852	6523911
	€	1715.00	2335.00	3300.00	4470.00

* Note: With unit heater LH-EC in combination with electrical or steam coil, controller by request!



LH Unit heater

RG | L50

- Unit heater with discharge louver for wall or ceiling mounting; outdoor air, mixed air or recirculation air mode for heating or ventilation.
- Casing: Zinc-plated sheet steel
- Discharge louver: „WOLF silver”
- Single phase AC motor 230 V / 50 Hz
- Three-phase motor: 3 × 400 V / 50 Hz





Single phase AC motor 230V / 50Hz Heat exchanger: Copper-aluminium		25	40	63
Type 1	Art. no. 6523604 €	1110.00	1470.00	1835.00
Type 2	Art. no. 6523605 €	1175.00	1535.00	1925.00
Type 3	Art. no. 6523606 €	1265.00	1715.00	2170.00
Type 4	Art. no. 6523607 €	1360.00	1810.00	2370.00
Type D *	Art. no. 6523608 €	1265.00	1695.00	2065.00
Single phase AC motor 230V / 50Hz Heat exchanger: Galvanised steel		25	40	63
Type 1	Art. no. 6523609 €	1360.00	1815.00	2270.00
Type 2	Art. no. 6523610 €	1440.00	1910.00	2695.00
Type 3	Art. no. 6523611 €	1640.00	2130.00	2900.00
Type D * AF horizontal	Art. no. 6523612 €	1525.00	1985.00	2645.00
Type D * AF vertical	Art. no. 6523613 €	1510.00	1985.00	2645.00

Three-phase motor 3 × 400V / 50Hz Heat exchanger: copper-aluminium		25	40	63	100
Type 1	Art. no. €	6523554 945.00	6523564 1315.00	6523574 1670.00	6523584 2200.00
Type 2	Art. no. €	6523555 1030.00	6523565 1385.00	6523575 1760.00	6523585 2470.00
Type 3	Art. no. €	6523556 1110.00	6523566 1565.00	6523576 2010.00	6523586 2845.00
Type 4	Art. no. €	6523557 1185.00	6523567 1670.00	6523577 2200.00	6523587 2990.00
Type D *	Art. no. €	6523558 1110.00	6523568 1530.00	6523578 1890.00	6523588 2740.00
Three-phase motor 3 × 400V / 50Hz Heat exchanger: Galvanised steel		25	40	63	100
Type 1	Art. no. €	6523559 1210.00	6523569 1665.00	6523579 2110.00	6523589 2815.00
Type 2	Art. no. €	6523560 1285.00	6523570 1755.00	6523580 2535.00	6523590 3735.00
Type 3	Art. no. €	6523561 1480.00	6523571 1980.00	6523581 2765.00	6523591 4170.00
Type D * AF horizontal	Art. no. €	6523562 1390.00	6523572 1840.00	6523582 2490.00	6523592 3475.00
Type D * AF vertical	Art. no. €	6523563 1370.00	6523573 1840.00	6523583 2490.00	6523593 3475.00
Three-phase motor 3 × 400V / 50Hz Heat exchanger: Electrical (incl. safety limiter) *		25			
2 × 3kW = AF horizontal 6kW	Art. no. €	6523594 1950.00			
3 × 3kW = AF horizontal 9kW	Art. no. €	6523596 2130.00			
4 × 3kW = AF horizontal 12kW	Art. no. €	6523598 2455.00			
2 × 3kW = AF vertical 6kW	Art. no. €	6523595 1950.00			
3 × 3kW = AF vertical 9kW	Art. no. €	6523597 2135.00			
4 × 3kW = AF vertical 12kW	Art. no. €	6523599 2455.00			
Three-phase motor 3 × 400V / 50Hz Heat exchanger: without heat exchangers		25	40	63	100
	Art. no. €	6523600 725.00	6523601 940.00	6523602 1140.00	6523603 1570.00

* **Note:** With unit heater LH in combination with electrical or steam coil, controller by request!

	Description	Art. no.	DG	€
	BML ventilation programming unit <ul style="list-style-type: none"> Room temperature-compensated temperature control Graphic display with backlight Simple menu navigation through plain text display Operation using rotary knob with push-function 4 function keys for frequently used functions (information, temperature, speed setting, fresh air proportion) Mounted optionally in the ventilation module or in the wall holder as remote control Only one ventilation operating module BML is needed to operate up to 7 zones Demand-optimised boiler water temperature demand via eBus eBus interface 	2744634	L50	491.00
	Wall mounting base Wall mounting base for using the BML programming unit as a remote control	2744275	H41	36.50
	LM1 ventilation module (incl. room temperature sensor) <ul style="list-style-type: none"> Ventilation module for controlling unit heaters with two-stage motor Simple configuration of the controller by selecting predefined system diagrams Demand-optimised room temperature control via the rotary speed of the unit heater Operation of the heating circuit pump Operation of the heat generator Demand-optimised boiler water temperature demand via eBus eBus interface with automatic energy management Ventilation operating module BML can be clipped on 	2744603	L50	487.00
	Note: Not in conjunction with EC motor.			
	LM2 ventilation module <ul style="list-style-type: none"> Ventilation module LM2 for controlling the room temperature by means of the rotation speed or the mixer control 2-stage motor control in connection with ventilation module LM1 or variable speed control via EC-motor Simple configuration of the controller by selecting predefined system diagrams Operation of the heat or cooling generator Demand-optimised boiler water temperature demand via eBus eBus interface with automatic energy management Ventilation operating module BML can be clipped on Mixed air flap control (in combination with 24 V~ electric servo-motor) Induction louver control 	2744604	L50	496.00

Control accessories

	Description	Art. no.	DG	€
	Outside, ceiling or room temperature sensor	2792021	H41	37.00
	Differential pressure switch For filter monitoring			
	Loose	2744030	L50	135.00
	Fitted	6523043	L50	255.00
	5-stage switch Electronic 5-stage speed controller, input 0 - 10 V			
	(2 A, 400 V)	2744840	L50	1170.00
	(4 A, 400 V)	2744841	L50	1165.00
	(6 A, 230 V)	2745066	L50	815.00
	Note: Not in conjunction with EC motor.			
	Temperature sensor (NTC 5k, Ø 6 mm) loose Can be used as a cylinder, boiler, central unit and supply air temperature sensor	8852829	H41	67.00
	Sensor holder For supply air sensor	2792029	L50	29.80

LH Mobil Unit heater for site heating



RG | L50

- LH Mobil unit heater for building heating in winter, drying of buildings and screeds
- Fitted handles for an easy transport on site
- Anti-vibration feet protecting the unit
- Mounting brackets for fitting to the floor
- Separated connections for current and water
- Stage switch fitted and wired
- Completely wired incl. plug
- Industrial thermostat either fitted and wired ex works or with connection possibility for industrial thermostat on site

Single phase AC motor 230V / 50Hz			
Heat exchanger: Copper-aluminium		25	40
Industrial thermostat fitted and wired	Art. no.	6524092	6524096
	€	1950.00	2380.00
Industrial thermostat on site	Art. no.	6524093	6524097
	€	1850.00	2275.00
Three-phase motor 3 × 400V / 50Hz			
Heat exchanger: Copper-aluminium		25	40
Industrial thermostat fitted and wired	Art. no.	6524094	6524098
	€	1805.00	2235.00
Industrial thermostat on site	Art. no.	6524095	6524099
	€	1695.00	2130.00



LH-ATEX

Unit heater in explosion-proof design





RG | L50

- Unit heater in explosion-proof design for Zone 2 explosion risk areas (II 3G Ex h IIB T4 Gc X).
- Unit heater with discharge louvre for wall or ceiling mounting.
- Outdoor air, mixed air or recirculation air mode for heating or ventilation.
- Casing: Zinc-plated sheet steel
- Discharge louvre: „WOLF silver“
- Three-phase motor: 3 × 400 V / 50 Hz, 2-stage Δ/Y
- Full motor protection with built-in thermistors



Three-phase motor 3 × 400V / 50Hz Heat exchanger: Copper-aluminium		25	40	63	100
Type 1	Art. no. €	6523013 1240.00	6523020 1580.00	6523027 1965.00	6523034 2495.00
Type 2	Art. no. €	6523014 1310.00	6523021 1660.00	6523028 2070.00	6523035 2785.00
Type 3	Art. no. €	6523015 1390.00	6523022 1835.00	6523029 2310.00	6523036 3145.00
Type 4	Art. no. €	6523016 1475.00	6523023 1940.00	6523030 2490.00	6523037 3280.00
Three-phase motor 3 × 400V / 50Hz Heat exchanger: Galvanised steel		25	40	63	100
Type 1	Art. no. €	6523017 1705.00	6523024 2245.00	6523031 2835.00	6523038 3805.00
Type 2	Art. no. €	6523018 1775.00	6523025 2340.00	6523032 3270.00	6523039 4745.00
Type 3	Art. no. €	6523019 1980.00	6523026 2545.00	6523033 3490.00	6523040 5190.00

RAL and special colours by request.

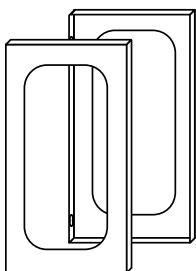
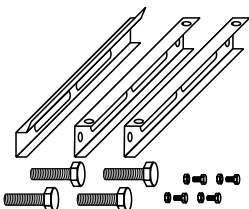
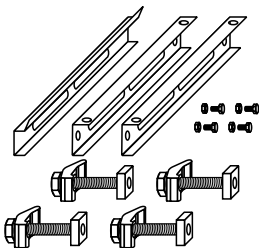
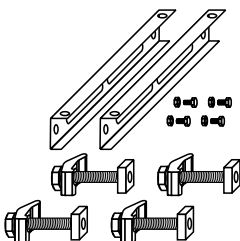
LH-ATEX Control systems

	Description	Art. no.	DG	€
	Explosion-proof ATEX terminal box Fitted and wired	6523042	L50	470.00
	Thermistor triggering unit Suitable for installation in control panel on site Note: The thermistor triggering unit may only be installed outside the potentially explosive area.	2210060	L50	214.00
	A1Ü control unit Without explosion-proof switch (only suitable for 1 unit) Note: Only possible in conjunction with LH 40,63,100-ATEX. Installation only outside potentially explosive area.	7965030	L50	213.00
	Explosion-proof switch For A1 Ü controller, operating voltage 690V, max. current 16A (4A), IP rating IP 66	2739000	L50	254.00

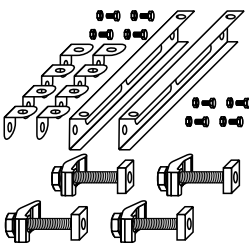

Connecting accessories

	Description	for product	Art. no.	DG	€
	Shut-off sets for heat exchanger for flow and return Consisting of: 1" threaded connection for connecting to flow and return with flat gasket, automatic air vent valve, drain and fill valve, ball valves with 1" female thread in flow and return, 3/4" male thread connection option (e. g. for the thermometer) in flow and return, suitable for heating water temperatures up to max. 110 °C and operating pressure up to max. 10 bar.				
	Straight-through version	LH-EC/LH 25, LH25-ATEX Type 2/3/4; LH-EC/LH 40, LH40-ATEX Type 2/3/4; LH-EC/LH 63, LH63-ATEX Type 1; LH-EC/LH 100, LH100-ATEX Type 1	2008030	L50	131.00
	Right angle version	LH-EC/LH 25, LH25-ATEX Type 2/3/4; LH-EC/LH 40, LH40-ATEX Type 2/3/4; LH-EC/LH 63, LH63-ATEX Type 1; LH-EC/LH 100 LH100-ATEX Type 1	2008040	L50	139.00
	Hydronic balancing valve DN20, 4 - 15 l/min DN20, 8 - 30 l/min DN25, 6 - 20 l/min DN 25, 10 - 40 l/min DN 32, 20 - 70 l/min DN 40, 30 - 120 l/min				
			2070931	L50	274.00
			2070932	L50	274.00
			2070933	L50	286.00
			2070934	L50	286.00
			2070935	L50	352.00
			2070936	L50	465.00
	Flange set Consisting of 2 threaded flanges, 2 welded flanges and 2 flat gaskets, plus hexagonal bolts and hexagonal nuts				
	DN20, R 3/4"	LH-EC/LH 25, 40 Type 1; LH 25,40-ATEX Type 1	2070201	L50	87.00
	DN25, R 1"	LH-EC/LH 25,40 Type 2/3/4; LH 25/40-ATEX Type 2/3/4; LH-EC/LH 63,100 Type 1; LH 63/100-ATEX Type 1	2070202	L50	92.00
	DN32, R 1 1/4"	LH-EC/LH 63, Type 2/3/4; LH 63-ATEX Type 2/3/4	2070203	L50	128.00
	DN40, R 1 1/2"	LH-EC/LH 63, Type 2/3/4; LH 63-ATEX Type 2/3/4	2070204	L50	141.00


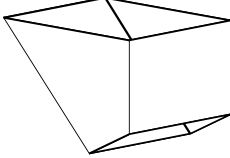

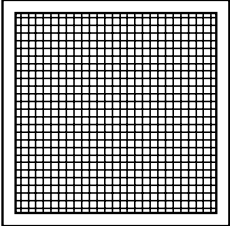
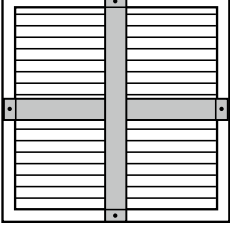
Device fastenings

	Description	for product	Art. no.	DG	€
	Fixing brackets For installation on the wall or ceiling, made from 2 mm folded sheet steel, zinc-plated Consisting of: - 2 brackets - Hexagon bolts for installing on appliance	unit size 25, 40	6500638	L50	75.00
		unit size 63, 100	6500639	L50	87.00
	Fixing kit for concrete lintel, vertical For fixing to a concrete beam by suspending from pre-mounted fixing rails. Consisting of: Mounting rail, 2 support rails, nuts and bolts (only in conjunction with fixing brackets) Zinc-plated sheet steel	unit size 25	6500781	L50	113.00
		unit size 40	6500782	L50	114.00
	Fixing kit for steel beam, vertical For fixing to a steel beam by suspending from pre-mounted fixing rails with clamping claws. Suitable for all steel beams with a flange width of 100 mm to 300 mm and a flange thickness of 6 mm to 21 mm. Consisting of: Mounting rail, 2 support rails, 4 clamping claws, nuts and bolts (only in conjunction with fixing brackets) Zinc-plated sheet steel	unit size 25	6500783	L50	221.00
		unit size 40	6500784	L50	213.00
	Fixing kit for steel beam, horizontal and inclined without inclination compensation For fixing to a horizontal or inclined steel beam with a flange width of 100 mm to 300 mm and a flange thickness of 6 mm to 21 mm. Consisting of: 2 support rails, 4 clamping claws, nuts and bolts (only in conjunction with fixing brackets) Zinc-plated sheet steel	unit size 25	6500785	L50	192.00
		unit size 40	6500786	L50	197.00
	Attention: Before using the fixing kits, check and factor in the static regulations of the on-site concrete pillars or steel beams. Installation only with standard units with an overall depth of 300 mm.				

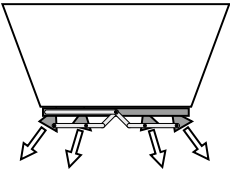
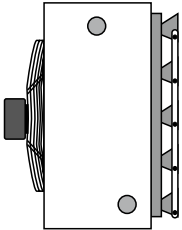
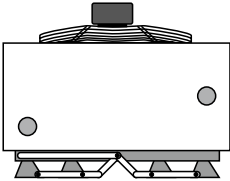
Device fastenings

	Description	for product	Art. no.	DG	€
	Fixing kit for steel beam, inclined with inclination compensation For fixing to a steel beam with a flange width of 100 mm to 300 mm and a flange thickness of 6 mm to 21 mm. Consisting of: 2 support rails, 4 clamping claws, 4 self-aligning brackets, nuts and bolts (only in conjunction with fixing brackets) Zinc-plated sheet steel				
		unit size 25	6500787	L50	222.00
		unit size 40	6500788	L50	230.00
	Mounting bracket For installing the appliance on the wall or ceiling with fitted mixed air box, recirculation air box, outdoor air box or filter box. Zinc-plated sheet steel 4 mounting brackets are required for fastening. These are included with the corresponding intake accessories. (Sealing against the wall/ceiling on site).				
		1 pce	6511454	L50	9.40
		2-pce set	6523052	L50	19.10
		4-pce set	6523053	L50	38.00

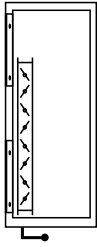
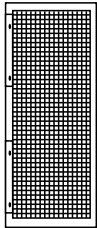
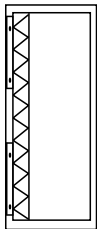
Discharge accessories

	Description	for product	Art. no.	DG	€
	Discharge cone For increasing the throw when the unit is installed at height. Zinc-plated sheet steel				
		unit size 25	6513541	L50	105.00
		unit size 40	6513542	L50	125.00
		unit size 63	6513543	L50	130.00
		unit size 100	6513544	L50	190.00
	Discharge nozzle For a large throw, suitable as air curtain at doors. Discharge temperature for air curtain approx. 10 - 15 °C above room temperature. Zinc-plated sheet steel				
		unit size 25	6513051	L50	139.00
		unit size 40	6513052	L50	159.00
		unit size 63	6513053	L50	200.00
		unit size 100	6513054	L50	254.00
	Four-way discharge With adjustable air guide fins, suitable for heating low rooms with steady air distribution to all four sides. Zinc-plated sheet steel. Fins in "WOLF silver", similar to RAL 9006.				
		unit size 25	6513061	L50	184.00
		unit size 40	6513062	L50	214.00
		unit size 63	6513063	L50	256.00
		unit size 100	6513064	L50	274.00
	Wide spread discharge For greater lateral spread of the warm air stream. Air jet cone up to approx. 120°; horizontal and vertical fins individually adjustable. Powder-coated, colour: "WOLF silver", similar to RAL 9006.				
		unit size 25	2565020	L50	160.00
		unit size 40	2565120	L50	197.00
		unit size 63	2565220	L50	284.00
		unit size 100	2565320	L50	369.00
	Discharge cross (loose) Improvement of the air circulation and temperature distribution thorough mixing of the warm air stream with the indoor air. The reduced temperature of the warm air stream increases the throw. Reduces the air temperature in the ceiling area, thus reducing ventilation and transmission heat losses; energy saving up to 15 %.				
		unit size 25	6513821	L50	135.00
		unit size 40	6513822	L50	143.00
		unit size 63	6513823	L50	159.00
		unit size 100	6513824	L50	171.00

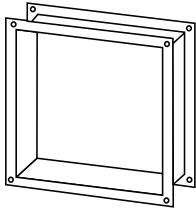
Discharge accessories

	Description	for product	Art. no.	DG	€
	Adaptor cone for induction louvre For increasing the throw in halls with high ceilings, in which the maximum installed height of the ceiling units with induction louvre alone is not sufficient. Zinc-plated sheet steel. Required size of the induction louvre:				
	For LH63 adaptor cone: LH25 induction louvre	unit size 63	6500934	L50	155.00
	For LH100 adaptor cone: LH40 induction louvre	unit size 100	6500937	L50	21500
	Induction louvre for wall mounted unit Manual setting	LH-EC/LH 25,	6500473	L50	273.00
		LH 25-ATEX			
		LH-EC/LH 40,	6500485	L50	317.00
		LH 40-ATEX			
		LH-EC/LH 63,	6500502	L50	370.00
		LH 63-ATEX			
		LH-EC/LH 100,	6500513	L50	418.00
		LH 100-ATEX			
	With 230 V / 50 Hz electric servomotor fitted	LH-EC/LH 25	6500475	L50	505.00
		LH-EC/LH 40	6500487	L50	550.00
		LH-EC/LH 60	6500504	L50	595.00
		LH-EC/LH 100	6500515	L50	650.00
	Manual setting	LH-EC/LH 25,	6500474	L50	388.00
		LH 25-ATEX			
		LH-EC/LH 40,	6500486	L50	459.00
		LH 40-ATEX			
		LH-EC/LH 63,	6500503	L50	525.00
		LH 63-ATEX			
		LH-EC/LH 100,	6500514	L50	605.00
		LH 100-ATEX			
	With 230 V / 50 Hz electric servomotor fitted	LH-EC/LH 25	6500476	L50	630.00
		LH-EC/LH 40	6500488	L50	685.00
		LH-EC/LH 63	6500505	L50	745.00
		LH-EC/LH 100	6500516	L50	845.00
	With 24 V ~ electric servomotor fitted	LH-EC/LH 25	6500961	L50	625.00
		LH-EC/LH 40	6500962	L50	680.00
		LH-EC/LH 63	6500963	L50	740.00
		LH-EC/LH 100	6500964	L50	840.00






Intake accessories

	Description	for product	Art. no.	DG	€
	Mixing box For individual adjustment of the outdoor air flow rate. Outdoor air intake at the back, recirculation air intake at the side or, when mixed air box is rotated by 90°, from above Variable manual adjustment between pure recirculation air mode via mixed air to pure outdoor air mode. Zinc-plated sheet steel. Mounting bracket as standard. Alternatively: Servomotor 230 V variable speed (part no. 2269522) or in conjunction with LM2 ventilation module Servomotor 24 V variable speed (part no. 2269521)				
		LH-EC/LH 25	on request		
		LH-EC/LH 40	on request		
		LH-EC/LH 63	on request		
		LH-EC/LH 100	on request		
	Note: If used in outdoor air mode, unit heaters are covered by the scope of application of EU Regulation 1253/2014.				
	ATEX mixing box Zinc-plated sheet steel Louvre dampers with bronze bearing	LH-ATEX	on request		
	Recirculation air box with lateral intake For recirculation air intake through two grilles at the side or, when rotated by 90°, intake from top and bottom. Mounting bracket as standard. Zinc-plated sheet steel.				
		unit size 25	6513251	L50	208.00
		unit size 40	6513252	L50	256.00
		unit size 63	6513253	L50	294.00
		unit size 100	6513254	L50	351.00
	Filter box With filter element as dust trap in outdoor air and mixed air modes, filter category ISO Coarse 45 % (G4). Mounting brackets on request. Zinc-plated sheet steel				
		unit size 25	6513091	L50	315.00
		unit size 40	6513092	L50	440.00
		unit size 63	6513093	L50	485.00
		unit size 100	6513094	L50	590.00




Intake accessories

	Description	for product	Art. no.	DG	€
	Canvas sockets, 4-hole profile frame Note: In combination with LH-ATEX, an earth strap is required for equipotential bonding (part no. 2765450).	unit size 25	2525025	L50	59.00
		unit size 40	2525040	L50	96.00
		unit size 63	2525063	L50	135.00
		unit size 100	2525100	L50	149.00

Switching devices

	Description	for product	Art. no.	DG	€
	Variable speed controller For variable operation of one or more units with EC motor (0 - 10 V)	TLH-EC, TLHK-EC TLHD-EC, TLHD-K-EC LH-EC	2745100	L50	240.00
	1-stage switch D1-2 Full motor protection switch (8 A, 400 V) with lock preventing unintentional restart Note: In combination with LH-ATEX, installation only outside the potentially explosive area. Full motor protection provided by thermistor in connection with thermistor triggering unit for control panel installation.	LH, LH-ATEX, TLH, TLHD, TLHD-K	2745465	L50	180.00
	2-stage switch DS-2 Full motor protection switch (8 A, 400 V) with lock preventing unintentional restart Note: In combination with LH-ATEX, installation only outside the potentially explosive area. Full motor protection provided by thermistor in connection with thermistor triggering unit for control panel installation.	LH, LH-ATEX, TLH, TLHD, TLHD-K	2745467	L50	302.00
	3-stage switch E 3-7T-2 Full motor protection switch (7 A, 230 V) with lock preventing unintentional restart	LH, TLH	2701064	L50	323.00
	3-stage switch D3-4T Full motor protection switch (4 A, 400 V) with lock preventing unintentional restart Note: In combination with LH-ATEX, installation only outside the potentially explosive area.	LH, LH-ATEX, TLH, TLHD, TLHD-K	2701065	L50	460.00

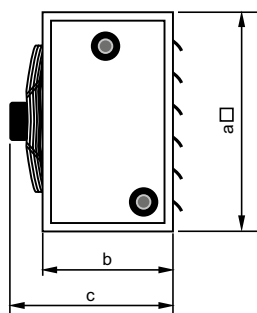
Switching devices

	Description	for product	Art. no.	DG	€
	5-stage switch D5... Full motor protection switch with lock preventing unintentional restart				
	D5-1-2 (1 A, 400 V)	LH, LH-ATEX, TLH, TLHD, TLHD-K	2748015	L50	510.00
	D5-3T (2 A, 400 V)	LH, LH-ATEX, TLH, TLHD, TLHD-K	2740010	L50	570.00
	D5-7T (4 A, 400 V)	LH, LH-ATEX, TLH, TLHD, TLHD-K	2740013	L50	730.00
	D5-12T (7 A, 400 V)	LH, LH-ATEX, TLH, TLHD, TLHD-K	2740014	L50	855.00
	D5-19T (12 A, 400 V)	LH, LH-ATEX, TLH, TLHD, TLHD-K	2740017	L54	1395.00
	Note: In combination with LH-ATEX, installation only outside the potentially explosive area.				
	5-stage switch E5-7T-2 Full motor protection switch (7 A, 230 V) with lock preventing unintentional restart	LH, TLH	2740011	L50	430.00
	Multi-pole repair switch AR8 Fitted and wired	LH-EC, LH	7965015	L50	255.00

	Description	for product	Art. no.	DG	€
	A1 automatic relay For servomotor open/close (3.15 A, 230 V)	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	7965020	L50	108.00
	A1S automatic relay For servomotor, variable speed with built-in position indicator (0 to 100 %) (3.15 A, 230 V)	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	7940101	L50	241.00
	24 V variable speed servomotor for mixed air damper In conjunction with LM2 ventilation module	LH-EC, LH, TLH-EC, TLH	2269521	L50	378.00
	24 V servomotor for opening / closing the outdoor air damper	LH-EC, LH, TLH-EC, TLH	2269556	L50	271.00
	230 V / 50 Hz servomotor for opening / closing the damper	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2269523	L50	354.00
	Actuator, 230 V / 50 Hz, stepless for mixed air damper	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2269522	L50	366.00
	Position indicator For installation on the control panel front for variable speed servomotor activation in conjunction with automatic relay A1 For surface mounting for variable speed servomotor activation in conjunction with automatic relay A1	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2744360 2744389	L50 L50	96.00 139.00
	Button for servomotor (230 V / 50 Hz) For induction louvre	LH-EC, LH, TLH-EC, TLH, TLHK-EC, TLHK	2701063	L50	108.00

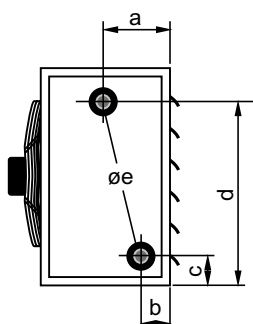
Thermostats / Terminal box

	Description	for product	Art. no.	DG	€
	Room thermostat	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2734000	L50	55.00
	Room thermostat with summer/winter switch	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2734700	L50	97.00
	Room thermostat clock with weekly programme	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2744079	L50	264.00
	Remote sensor for room thermostat clock	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2744051	L50	43.00
	Room thermostat, industrial version	LH-EC, LH, TLH-EC, TLH, TLHD-EC, TLHD-K-EC, TLHD, TLHD-K	2735300	L50	108.00
	Frost protection thermostat attached	LH-EC/LH 25, 40, 63; TLH-EC/TLH 25, 40, 63; TLHK-EC/TLHK 25, 40, 63	2730050	L50	199.00
		LH-EC/LH 100, TLH-EC/TLH 100, TLHK-EC/TLHK 100	2730150	L50	207.00
	Universal timer with 7-day program	LH-EC, TLH-EC, TLHD-EC, TLHD-K-EC, CFL-EC-ZUL, CFL-EC-ABL	2746081	L50	181.00
	Ground strap for potential equalisation	LH-EC, LH, LH-ATEX, TLH-EC, TLH, TLHK-EC, TLHK	2765450	L50	6.60
	Intermediate terminal box for parallel operation of up to 3 air heaters Note: In combination with LH-ATEX, mounting only outside the explosion risk area.	LH, LH-ATEX, TLH	7965043	L50	182.00



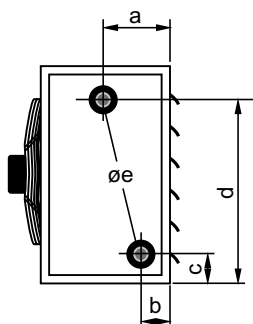
STANDARD UNIT DIMENSIONS

Type	Unit size	25	40	63	100
a	mm	500	630	800	1000
b	mm	300	300	300	340
c	mm	410	415	420	485



CONNECTIONS LH 25 - 100, Type 1 - 4, COPPER/ALUMINIUM

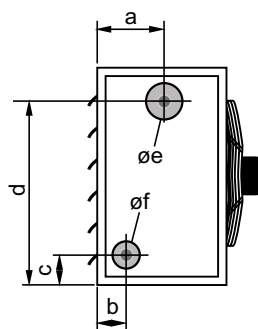
Type	Unit size	25-1	25-2/-3/-4	40-1	40-2/-3/-4	63-1	63-2/-3/-4	100-1	100-2/-3/-4
a	mm	98	158	98	143	103	143	124	179
b	mm	68	68	68	83	63	83	84	89
c	mm	72	75	76	80	75	78	95	89
d	mm	425	425	554	550	726	722	906	912
Øe		¾"	1"	¾"	1"	1"	1¼"	1"	1½"



CONNECTIONS LH 25 - 100, Type 1 - 3, GALVANISED STEEL

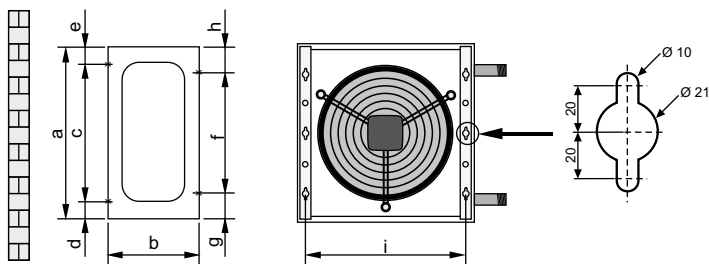
Type	Unit size	25-1	25-2/-3	40-1	40-2/-3	63-1	63-2/-3	100-1	100-2/-3
a	mm	100	158	100	158	98	153	118	168
b	mm	66	68	66	68	68	73	88	98
c	mm	86	86	91	91	86	86	86	86
d	mm	409	405	534	530	705	695	885	865
Øe		¾"	1"	¾"	1"	1"	1¼"	1"	1½"

Devices



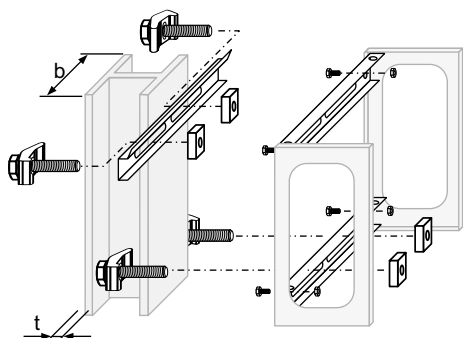
CONNECTIONS LH 25 - 100, Type STEAM, COPPER/ALUMINIUM

Type	Unit size	25	40	63	100
a	mm	160	158	152	165
b	mm	90	99	84	100
c	mm	91	60	63	85
d	mm	421	591	725	894
Øe	mm	DN40	DN40	DN50	DN50
Øf	mm	DN20	DN20	DN25	DN32



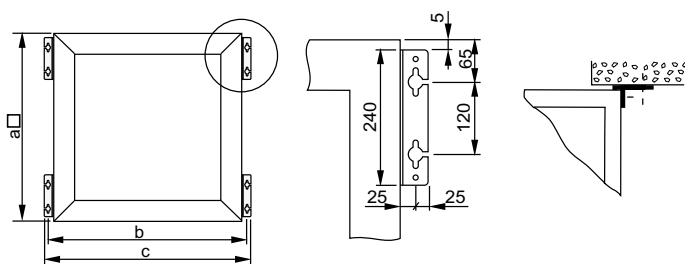
FIXING BRACKETS

Type	Unit size	25	40	63	100
a	mm	480	480	784	784
b	mm	250	250	350	350
c	mm	380	2×170	170+340+170	170+340+170
d	mm	70	90	72	72
e	mm	30	50	32	32
f	mm	170	2×170	3×170	3×170
g	mm	155	70	137	137
h	mm	155	70	137	137
i	mm	434	564	734	894



FIXING KIT FOR STEEL BEAM, VERTICAL

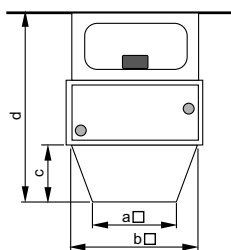
b	mm	100-300
t	mm	6-21



MOUNTING BRACKET

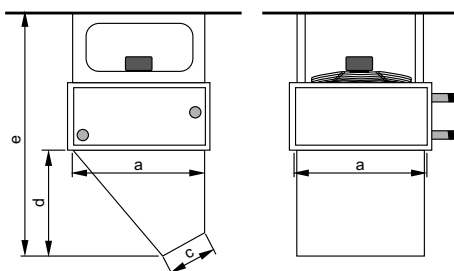
Type	Unit size	25	40	63	100
a	mm	500	630	800	1000
b	mm	550	680	850	1050
c	mm	600	730	900	1100

Accessories



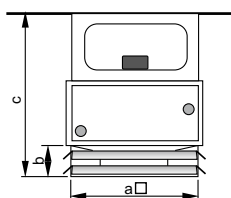
DISCHARGE CONE

Type	Unit size	25	40	63	100
a	mm	280	370	430	530
b	mm	460	590	760	920
c	mm	200	240	270	320
d	mm	750	790	920	1010



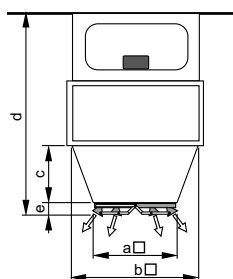
DISCHARGE NOZZLE

Type	Unit size	25	40	63	100
a	mm	460	590	760	920
b	mm	420	550	720	880
c	mm	190	250	260	320
d	mm	390	480	585	685
e	mm	940	1030	1235	1375



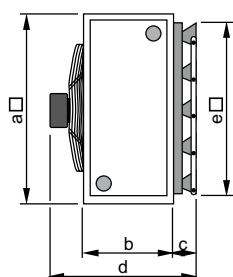
FOUR-WAY DISCHARGE

Type	Unit size	25	40	63	100
a	mm	500	630	800	1000
b	mm	155	155	155	155
c	mm	705	705	805	845



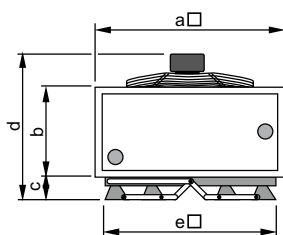
ADAPTOR CONE FOR INDUCTION LOUVRE

Type	Unit size	63	100
a	mm	460	590
b	mm	760	920
c	mm	270	320
d	mm	1040	1130
e	mm	120	120



INDUCTION LOUVRE FOR WALL MOUNTED UNIT

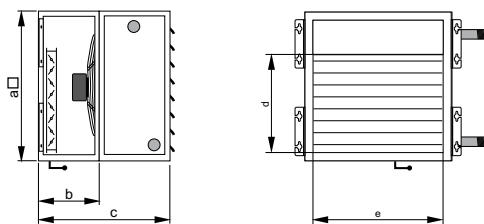
Type	Unit size	25	40	63	100
a	mm	500	630	800	1000
b	mm	300	300	300	340
c	mm	120	120	120	120
d	mm	530	535	540	605
e	mm	460	590	760	920



INDUCTION LOUVRE FOR CEILING UNIT

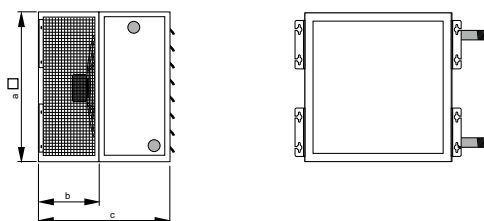
Type	Unit size	25	40	63	100
a	mm	500	630	800	1000
b	mm	300	300	300	340
c	mm	120	120	120	120
d	mm	530	535	540	605
e	mm	460	590	760	920

Accessories



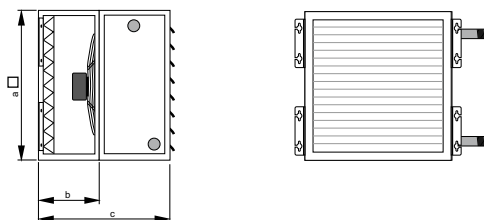
MIXING BOX

Type	Unit size	25	40	63	100
a	mm	500	630	800	1000
b	mm	500	500	500	540
c	mm	800	800	800	880
d	mm	400	360	530	690
e	mm	400	530	700	860



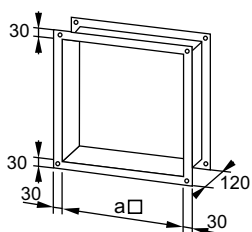
RECIRCULATION AIR BOX WITH LATERAL INTAKE

Type	Unit size	25	40	63	100
a	mm	500	630	800	1000
b	mm	300	500	500	540
c	mm	600	800	800	880



FILTER BOX

Type	Unit size	25	40	63	100
a	mm	500	630	800	1000
b	mm	300	300	300	340
c	mm	600	600	600	680



CANVAS SOCKETS, 4-HOLE PROFILE FRAME

Type	Unit size	25	40	63	100
a	mm	400	530	700	860

Notes

WOLF

Warm air curtain unit

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TL-2

Warm air curtain




RG | L52

- Warm air curtain device with renewable intake filter
- LPHW heat exchanger, copper/aluminium
- Fans 230V / 50Hz
- Casing: traffic white RAL 9016
- Standard units without controller*

Type	Width	1000	1500	2000	2500	3000
TL-2 A10	Art. no.	2138003	2138004	2138005	2138006	2138007
	€	2880.00	4030.00	4625.00	6185.00	7930.00
TL-2 A20	Art. no.	2138008	2138009	2138010	2138011	2138012
	€	3350.00	4120.00	5315.00	6650.00	8615.00
TL-2 A30	Art. no.	2138013	2138014	2138015	2138016	2138017
	€	3765.00	4700.00	6485.00	7325.00	9660.00
TL-2 A40	Art. no.	2138018	2138019	2138020	2138021	2138022
	€	6525.00	7995.00	9915.00	11905.00	16115.00

* A control unit type WTSC 5 is absolutely necessary to operate the air curtain units.

Control systems

	Description	for product	Art. no.	DG	€
	Control system WTSC 5 Hardwired programming unit (remote control), control PBC (master) and optional PCB (slave) for 5-stage or variable control of warm air curtain units <ul style="list-style-type: none"> • 5-stage electronic air volume control with key switches for setting the operating parameters • Extendable up to 9 units and controllable in parallel • LEDs to display operational states • Hand/automatic function: room thermostat and/or door contact with adjustable run-on-time • Summer/winter function: control of magnetic valve or pump • Potential-free release, operating and malfunction message to BMS 	TL-2 A10-30	2139635	L52	775.00
	Control system type WTSC 3-E For warm air curtain units with electric heating coil	TL-2 A10-30	on request		

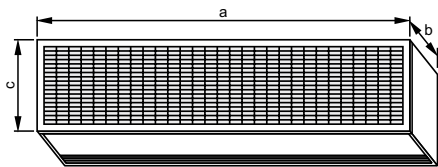
Control accessories

	Description	for product	Art. no.	DG	€
	Frost protection thermostat WTF	TL-2 A10-40	2100355	L52	272.00
	WTR 2 thermostatic control valve, loose				
	Straight-through valve DN 20 / Kvs 5.0	TL-2 A10-40	2100361	L52	214.00
	Right angle valve DN 20 / Kvs 7.0	TL-2 A10-40	2100363	L52	215.00
	WTR 3 thermostatic mixing valve, loose				
	Right angle valve DN 20 / Kvs 4.5	TL-2 A10-40	2100371	L52	481.00
	Right angle valve DN 25 / Kvs 6.5	TL-2 A10-40	on request		
	Right angle valve DN 32 / Kvs 9.5	TL-2 A10-40	on request		
	WTAV thermostatic shut-off valve, loose				
	In conjunction with speed/air flow rate controller				
	Straight-through valve DN 20 / Kvs 1.1	TL-2 A10-40	2100380	L52	282.00
	Right angle valve DN 20 / Kvs 1.1	TL-2 A10-40	2100381	L52	282.00

Accessories

	Description	for product	Art. no.	DG	€
	Steam heat exchanger	TL-2	on request		
	Electric heat exchanger	TL-2	on request		
	WDH 4 ceiling mounting kit	TL-2 A10/1000, TL-2 A10/1500, TL-2 A10/2000, TL-2 A20/1000, TL-2 A20/1500, TL-2 A20/2000, TL-2 A30/1000, TL-2 A30/1500, TL-2 A30/2000, TL-2 A40/1000, TL-2 A40/1500, TL-2 A40/2000	2100358	L52	94.00
	WDH 6 ceiling mounting kit	TL-2 A10/2500, TL-2 A10/3000, TL-2 A20/2500, TL-2 A20/3000, TL-2 A30/2500, TL-2 A30/3000, TL-2 A40/2500, TL-2 A40/3000	2100359	L52	137.00

Devices



DIMENSIONS

TL-2	A10-30/	1000	1500	2000	2500	3000
a	mm	1000	1500	2000	2500	3000
b	mm	555	555	555	555	555
c	mm	260	260	260	260	260
TL-2	A40/	1000	1500	2000	2500	3000
a	mm	1000	1500	2000	2500	3000
b	mm	610	610	610	610	610
c	mm	290	290	290	290	290

WOLF

Celling fan

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LD 15 Ceiling fan





RG | L50

- Ceiling fan for high air circulation rate and low power consumption.
- Energy saving through warm air recirculation in winter mode; cooling in summer mode; long service life and high operational reliability.
- Low noise operation.

Ceiling fan, overall height 690mm	Art. no.	2240050
Impeller diameter 142cm	€	228.00
Protection class IP20		
shorter or longer suspension rods		
overall height 440mm	Art. no.	on request
Protection class IP54	€	on request
With protection grille		
Air throw up to 20m room height		

Actuation also possible via ventilation module LM1 and LM2.

Control systems

	Description	Art. no.	DG	€
	Warm air return controller 230 V / 50 Hz, max. switching current 8 A (4 A motor power) 1 changeover contact, relay contact	2701060	L50	470.00
	Variable speed controller 230V / 50Hz for max. five ceiling fans Max. switching current 1.5 A Max. switching current 3.0 A	2744439 2701062	L50 L50	240.00 253.00

Notes

WOLF

Smoke extraction fan

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ER Smoke extract fan


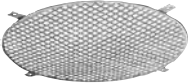
RG | L53

- Smoke extract fan
- RDM 56: 400 °C / 120 min.
- RDM 57: 600 °C / 120 min.





Air flow rate m³/h			56	57
2531-4D-10	2200	Art. no. €	2136849 2170.00	2136826 2370.00
2528-2W-11	3300	Art. no. €	2136848 2125.00	2136825 2310.00
3535-4D-10	3370	Art. no. €	2136850 2310.00	2136827 2505.00
3540-4D-10	4700	Art. no. €	2136851 2365.00	2136828 2535.00
3545-4W-13	5750	Art. no. €	2136852 2465.00	2136829 2695.00
4556-6W-13	7300	Art. no. €	2136857 3275.00	2136834 3555.00
4550-4W-16	9450	Art. no. €	2136854 3010.00	2136831 3265.00
4556-4W-17	11400	Art. no. €	2136856 3495.00	2136833 3775.00
5663-6W-16	11900	Art. no. €	2136859 4355.00	2136836 4640.00
5663-HD-19	11900/5900	Art. no. €	2136860 4995.00	2136837 5260.00
3545-HD-10	3700/1900	Art. no. €	2136853 2745.00	2136830 2940.00
4550-HD-14	6200/3000	Art. no. €	2136855 3440.00	2136832 3650.00
4556-HD-16	7300/3750	Art. no. €	2136858 3775.00	2136835 4050.00

Air flow rate m³/h			56	57
5671-6W-21	14500	Art. no. €	2136861 4915.00	2136838 5170.00
7180-8D-21	18800	Art. no. €	2136864 6675.00	2136841 7040.00
7180-6W-24	25000	Art. no. €	2136863 6655.00	2136840 7020.00
7190-6W-28	33500	Art. no. €	2136866 8300.00	2136843 8755.00
9090-4W-31	51900	Art. no. €	2136868 12420.00	2136845 13655.00
5671-HD-24	14500/7400	Art. no. €	2136862 5890.00	2136839 6150.00
7180-HD-28	25000/12000	Art. no. €	2136865 7735.00	2136842 8090.00
7190-HD-26	33500/15800	Art. no. €	2136867 10895.00	2136844 10835.00

Accessories

	Description	for product	Art. no.	DG	€
	ZBS flat roof upstand 600 °C External material aluminium; internal casing made from coated sheet steel	RDM 56/57 - 25 .. - ..	2136806	L53	530.00
		RDM 56/57 - 35 .. - ..	2136807	L53	590.00
		RDM 56/57 - 45 .. - ..	2136808	L53	685.00
		RDM 56/57 - 56 .. - ..	2136809	L53	745.00
		RDM 56/57 - 71 .. - ..	2136810	L53	1085.00
		RDM 56/57 - 90 .. - ..	2136811	L53	1925.00
	ZBS flat roof upstand 400 °C Zinc-plated sheet steel (only in combination with duct connection and RDM 56, otherwise ZBS flat roof upstand 600 °C)	RDM 56 - 25 .. - ..	2136537	L53	300.00
		RDM 56 - 35 .. - ..	2136538	L53	323.00
		RDM 56 - 45 .. - ..	2136539	L53	383.00
		RDM 56 - 56 .. - ..	2136540	L53	490.00
		RDM 56 - 71 .. - ..	2136541	L53	615.00
		RDM 56 - 90 .. - ..	2136817	L53	1620.00
	ZKE intake connector (flexible connection piece)	RDM 56/57 - 25 .. - ..	2136818	L53	273.00
		RDM 56/57 - 35 .. - ..	2136819	L53	378.00
		RDM 56/57 - 45 .. - ..	2136820	L53	443.00
		RDM 56/57 - 56 .. - ..	2136821	L53	565.00
		RDM 56/57 - 71 .. - ..	2136822	L53	765.00
		RDM 56/57 - 90 .. - ..	2136823	L53	1850.00
	ZKF intake flange / mating flange Zinc-plated sheet steel	RDM 56/57 - 25 .. - ..	2136698	L53	29.90
		RDM 56/57 - 35 .. - ..	2136699	L53	33.50
		RDM 56/57 - 45 .. - ..	2136700	L53	52.00
		RDM 56/57 - 56 .. - ..	2136701	L53	61.00
		RDM 56/57 - 71 .. - ..	2136702	L53	85.00
		RDM 56/57 - 90 .. - ..	2136824	L53	183.00
	ZSG contact protection grille	RDM 56/57 - 25 .. - ..	2136682	L53	52.00
		RDM 56/57 - 35 .. - ..	2136683	L53	61.00
		RDM 56/57 - 45 .. - ..	2136684	L53	76.00
		RDM 56/57 - 56 .. - ..	2136685	L53	97.00
		RDM 56/57 - 71 .. - ..	2136686	L53	112.00
		RDM 56/57 - 90 .. - ..	2136687	L53	173.00
	ZDS upstand silencer Coated sheet steel	RDM 56/57 - 25 .. - ..	2136721	L53	1085.00
		RDM 56/57 - 35 .. - ..	2136722	L53	1315.00
		RDM 56/57 - 35 .. - ..	2136723	L53	1705.00
		RDM 56/57 - 56 .. - ..	2136724	L53	2260.00
		RDM 56/57 - 71 .. - ..	2136725	L53	3650.00

Accessories

	Description	for product	Art. no.	DG	€
	ESH 21 inspection switch	RDM 56/57 2528-2W-11	2136668	L53	60.00
		RDM 56/57 2531-4D-10			
		RDM 56/57 3535-4D-10			
		RDM 56/57 3540-4D-10			
		RDM 56/57 3545-4W-13			
		RDM 56/57 4550-4W-16			
		RDM 56/57 4556-4W-17			
		RDM 56/57 4556-6W-13			
		RDM 56/57 5663-6W-16			
		RDM 56/57 5671-6W-21			
		RDM 56/57 7180-8D-21			
		RDM 56/57 3545-HD-10	2136678	L53	111.00
		RDM 56/57 4550-HD-14			
		RDM 56/57 4556-HD-16			
		RDM 56/57 5663-HD-19			
		RDM 56/57 5671-HD-24			
		RDM 56/57 7180-HD-28			
		RDM 56/57 7180-6W-24			
		RDM 56/57 7190-6W-28	2136715	L53	161.00
		RDM 56/57 7190-HD-26			
	ARM-1 automatic smoke detector		2138101	L53	432.00
	AMM-2 automatic multi sensor smoke detector		2138102	L53	481.00
	DKM-2K-OR manual pushbutton detector		2138100	L53	171.00

Accessories



AES - exhaust air and smoke extraction controls

As per VMDA 24177 for ventilating rooms and smoke extraction in the event of a fire Reduction safety through TÜV assessments, robust plastic casing

- For one or two-stage fan motors up to 45 kW
- Ventilation valve controls
- Motor protection shutdown during smoke extraction
- Push button and smoke detector connection
- Fire services switch connection

Description	for product	Art. no.	DG	€
	RDM 56/57 2528-2W-11	2138800	L54	3495.00
	RDM 56/57 2531-4D-10			
	RDM 56/57 3535-4D-10			
	RDM 56/57 3540-4D-10			
	RDM 56/57 3545-4W-13			
	RDM 56/57 4550-4W-16			
	RDM 56/57 4556-4W-17			
	RDM 56/57 4556-6W-13			
	RDM 56/57 5663-6W-16			
	RDM 56/57 5671-6W-21			
	RDM 56/57 7180-8D-21			
	RDM 56/57 3545-HD-10	2138801	L54	4275.00
	RDM 56/57 4550-HD-14			
	RDM 56/57 4556-HD-16			
	RDM 56/57 5663-HD-19			
	RDM 56/57 5671-HD-24			
	RDM 56/57 7180-6W-24	2138802	L54	4535.00
	RDM 56/57 7180-MD-28			
	RDM 56/57 7180-MD-28	2138803	L54	4940.00
	RDM 56/57 7190-6W-28	2138804	L54	5265.00
	RDM 56/57 7190-HD-26	2138805	L54	5540.00
	RDM 56/57 9090-4W-31	2138806	L54	7285.00

WOLF

Roof extract fan

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DV-2 Roof extract fan

RG | L54


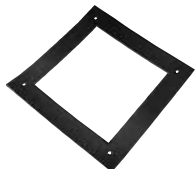


- Roof extract fans with fitted repair switch, for extracting stale air from rooms.
- With energy saving EC fans, variable speed control.
- Casing made from 100 % recyclable plastic, colour: light grey (RAL 7035)

Air flow rate m³/h			230V	400V
225	2000	Art. no. €	2138620 2410.00	2138621 2705.00
250	3300	Art. no. €	2138622 2685.00	2138623 2925.00
315	4500	Art. no. €	2138624 2825.00	
315	5000	Art. no. €		2138625 3065.00
400	5200	Art. no. €		2138626 3610.00
450	7000	Art. no. €		2138627 3955.00
500	13000	Art. no. €		2138628 6050.00

Accessories

	Description	for product	Art. no.	DG	€	
	Flat roof upstand For flat roof installation plastic, RAL 7035, with insulation Height: 200 mm					
		DV-2-225	2138630	L54	413.00	
		DV-2-250/DV-2-315	2138631	L54	430.00	
		DV-2-400	2138632	L54	580.00	
		DV-2-450	2138633	L54	640.00	
		DV-2-500	2138634	L54	760.00	
	For flat roof installation plastic, RAL 7035 Integration of a silencer possible					
		Height 500 mm	DV-2-225	2138635	L54	471.00
		Height 500 mm	DV-2-250/DV-2-315	2138636	L54	595.00
		Height 500 mm	DV-2-400	2138637	L54	740.00
		Height 700 mm	DV-2-450	2138638	L54	995.00
		Height 700 mm	DV-2-500	2138639	L54	1220.00
	Automatic cover flap for flat roof upstand Galvanised sheet steel with plastic blades					
		DV-2-225	2138640	L54	219.00	
		DV-2-250/DV-2-315	2138641	L54	265.00	
		DV-2-400	2138642	L54	346.00	
		DV-2-450	2138643	L54	371.00	
		DV-2-500	2138644	L54	510.00	
	Automatic cover flap for tall flat roof upstand Galvanised sheet steel with plastic blades					
		DV-2-225	2138645	L54	219.00	
		DV-2-250/DV-2-315	2138646	L54	265.00	
		DV-2-400	2138647	L54	346.00	
		DV-2-450	2138648	L54	371.00	
		DV-2-500	2138649	L54	510.00	
	Intake silencer Zinc-plated sheet steel for installation on intake side of roof extract fan Combination possible with flat roof upstand and tall flat roof upstand					
		DV-2-225	2138650	L54	430.00	
		DV-2-250/DV-2-315	2138651	L54	535.00	
		DV-2-400	2138652	L54	720.00	
		DV-2-450	2138653	L54	795.00	
		DV-2-500	2138654	L54	1090.00	

Accessories

	Description	for product	Art. no.	DG	€
	Duct connecting plate Zinc-plated sheet steel for connection of a round duct				
	Ø 200	DV-2-225	2138655	L54	116.00
	Ø 250	DV-2-225	2138656	L54	116.00
	Ø 250	DV-2-250/DV-2-315	2138657	L54	126.00
	Ø 315	DV-2-250/DV-2-315	2138658	L54	126.00
	Ø 355	DV-2-400	2138659	L54	155.00
	Ø 400	DV-2-400	2138660	L54	155.00
	Ø 400	DV-2-450	2138661	L54	180.00
	Ø 450	DV-2-450	2138662	L54	184.00
	Ø 560	DV-2-500	2138663	L54	219.00
	Sealing plate Made from weather-resistant, closed-cell plastic for sealing the roof extract fan base, silencer and flat roof upstand				
		DV-2-225	2138664	L54	30.10
		DV-2-250/DV-2-315	2138665	L54	40.00
		DV-2-400	2138666	L54	45.00
		DV-2-450	2138667	L54	49.00
		DV-2-500	2138668	L54	75.00
	Connection piece Zinc-plated sheet steel to provide an airtight connection to the si- lencer/cover flap				
		DV-2-225	2138669	L54	139.00
		DV-2-250/DV-2-315	2138670	L54	180.00
		DV-2-400	2138671	L54	188.00
		DV-2-450	2138672	L54	207.00
		DV-2-500	2138673	L54	265.00
	Variable speed controller For variable operation of one or more units with EC motor (0 - 10 V)	DV-2	2745937	L54	127.00

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New



CGL Compact large area ventilation unit



RG |

TYP		CGL			CGL edu		
Air volume	m³/h	450	600	max. 800	600	780	max. 1000
ext. available duct pressure	Pa	850	850	690	320	220	70
Sound pressure level* without air outlet module(with free discharge and free intake)	dB(A)	35	40	45	35	40	44
Power consumption of a fan at 50 Pa external pressure	W	75	110	170	95	150	250
Supply air filter according to ISO 16890					ePM1 55%		
Exhaust air filter according to ISO 16890					ePM10 60%		
Electrical connection values							
Max. power and current consumption per fan	W/A		525 / 2,3			280 / 1,25	
Max. power and current consumption per heating coil	W/A		1.000 / 4,35			1.000 / 4,35	
Max. total power and current consumption	W/A		3.150 / 13,6			2.650 / 11,5	
Dimensions							
Height (incl. feet and collar)	mm				2137		
Width	mm				1017		
Depth	mm				508		
Weight of basic unit	kg				250		
*determined by TÜV Süd Industrie Service GmbH at a distance of 1 m according to DIN EN ISO 11203							
Supply air left	Art.-no.	6800147			6809355		
	€	on request			on request		
Supply air right	Art.-no.	6802057			6809356		
	€	on request			on request		
Supply air left with Enthalpy heat exchanger	Art.-no.				6809359		
	€				on request		
Supply air right with Enthalpy heat exchanger	Art.-no.				6809360		
	€				on request		

Note: Only possible in connection with BML ventilation control module for CGL.

- Quiet, safe and energy-efficient - decentralised floor-standing ventilation unit for uncomplicated retrofitting and for use in new in new buildings.
- Ideal for educational institutions as well as conference and office rooms.
- Demand-led control (temperature, CO2) with integrated electronic electronic control system wired as standard.
- High efficiency, high performance radial fans with single sided intake for supply and extract air, variable speed control via latest EC motor technology with low energy consumption
- Additionally available inputs/outputs:
 - Input for external on/off
 - Fire alarm input
 - Operating message via potential-free contact
 - Fault signal via potential-free contact
- BML operating module can be mounted either in the unit or externally can be mounted externally. Up to 7 CGL / CGL edu





can be controlled via one BML. controllable.

- Single inlet, sound-optimised, high-performance centrifugal fans for supply and extract air, infinitely variable via the latest latest EC motor technology with low energy consumption
- Compact, inherently stable and height-adjustable housing made of powder-coated sheet steel (RAL 9016)
- Highly efficient cross-counterflow heat exchanger made of aluminium for heat recovery.:
- Easily replaceable compact filter panel:
Supply air filter ISO ePM1 55 % (F7) - Fine dust and pollen filter
Exhaust air filter ISO ePM10 60 % (M5) - Fine dust filter




Advantage CGL edu:

- Ready to plug in (Schuko plug), plus safe operation on conventional electrical installation possible
- On request: Enthalpy heat exchanger with humidity recovery, combines maximum comfort and energy efficiency with simultaneous avoidance of











WRS control systems / Control accessories

	Description	Art. no.	DG	€
	BML ventilation programming unit for CGL <ul style="list-style-type: none"> Only one BML ventilation control module for CGL is needed to actuate up to 7 CGL devices Mounted optionally in the CGL device or in the wall holder as a remote control 	6800152	L55	on request
	Wall mounting base Wall mounting base for using the BML programming unit as a remote control	2744275	H41	36.50
	CO2 sensor Required for CO ₂ -controlled operation Fully wired, as control variable for the CO ₂ -dependent control	6800124	L55	on request
<div>New</div> 	CO2 room sensor with LED display Placement in the room, suitable for wall mounting, visualisation of CO ₂ load via coloured LED display, enables CO ₂ -guided and demand-based speed control	6809362	L55	on request

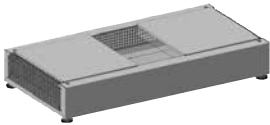
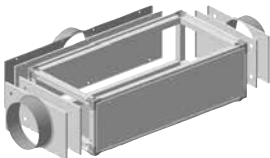


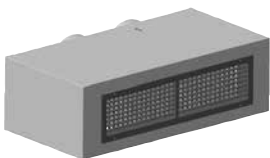
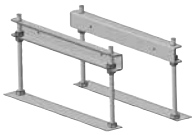
Accessories

	Description	Art. no.	DG	€
	Condensate pump Required if no free condensate drain is possible Consisting of: Fully wired condensate pump, float switch, alarm generator and bracket, up to 30 l/h and PVC hose 8 mm (5 m long)	6800122	L55	on request
	Condensate container Suitable for use in rooms with little condensate such as classrooms, capacity 2.2 l, ready to plug in including float switch and alarm transmitter, mounting in the unit, easy to empty.	6809369	L55	on request
	Electric preheating coil Recommended for optimised appliance operation Fully wired electric heating coil with high limit safety cut-out and bracket to protect the outdoor air filter against moisture penetration or as frost protection for the heat recovery system Output 1000 W	6807205	L55	on request
	Electric reheating coil For increasing the supply air temperature at low outdoor temperatures, can be optionally integrated in the unit, electrically pluggable and of infinitely variable design Output 1,000 W	6807206	L55	on request
	Tubular end damper DN 250, motorised (230 V; open/close) Servomotor for connection on site	2576453	L55	on request
	Pipe silencer, DN 250 Length: 500 mm Flexible circular silencer with 50 mm circumferential insulation (attenuation 4 dB(A) / 250 Hz)	2577985		on request
	Pipe silencer, DN 250 Length: 1000 mm Flexible circular silencer with 50 mm circumferential attenuation (attenuation 8 dB(A) / 250 Hz).	2577983		on request
	Weather protection grille, DN 250 Closure of the façade lead-through to the outside, suitable for fresh air and exhaust air, material aluminium	2577973		on request




Accessories

	Description	Art. no.	DG	€
New 	Reduction, DN 250/200 Transition from unit connection DN 250 to ISO pipe system DN 200, or from ISO pipe DN 200 to weather protection grille DN 250	2577974		on request
New 	Pipe shut-off damper, DN 200 Shut-off damper with servomotor (230 V; open/closed) for on-site connection	2577971		on request
New 	ISO pipe, DN 200 length: 2000 mm Insulated pipe made of vapour diffusion-proof foam material with excellent noise damping properties	2577975		on request
New 	ISO pipe bend 90°, DN 200 Insulated 90° pipe bend made of vapour diffusion-tight foam material with excellent noise damping properties	2577976		on request
New 	ISO pipe bend 45°, DN 200 Insulated 45° pipe bend made of vapour diffusion-proof foam material with excellent noise damping properties	2577977		on request
New 	Clamping ring for ISO pipe system, DN 200 Connection of two modules of the ISO pipe system	2577979		on request
New 	Fixing clamp for ISO pipe system, DN 200 Required for ceiling and wall mounting of the ISO pipe system	2577980		on request
New 	Pipe silencer, DN 200 Length: 500 mm Flexible circular silencer with 50 mm circumferential insulation (attenuation 4.5 dB(A) / 250 Hz)	2577984		on request
New 	Pipe silencer, DN 200 Length: 1000 mm Flexible circular silencer with 50 mm circumferential insulation (attenuation 9 dB(A) / 250 Hz)	2577982		on request
New 	Weather protection grille, DN 200 Closure of the façade duct to the outside, suitable for fresh air and exhaust air	2577972		on request

Intake / discharge accessories

	Description	for product	Art. no.	DG	€
	Intake silencer To attenuate the intake noise by up to 5 dB with height-adjustable feet. Reduction of the total sound level 1 m in front of the CGL by up to 3 dB. Intake: left and right-hand side or back		6800994	L55	on request
	Universal intake section With height-adjustable feet. Intake: Left/right-hand side, back Ø 250 mm Left/right-hand side 205 × 408 mm Back 205 × 915 mm		6800995	L55	on request
	Air outlet module with vertical air connections incl. shut-off dampers (open/closed) Air outlet module with ventilation grille for direct mounting on the unit, sound-insulating cladding, supply air via horizontally and vertically adjustable ventilation grille, integrated fresh air and exhaust air connections (DN 250), integrated shut-off dampers Increase of the unit sound pressure level by approx. 1 dB(A)				
		Supply air left	6801000	L55	on request
		Supply air right	6802067	L55	on request
	Air outlet module with vertical air connections Air outlet module with ventilation grille for direct mounting on the unit, sound-insulating cladding, supply air via horizontally and vertically adjustable ventilation grille, integrated fresh air and exhaust air connections (DN 250), integrated shut-off dampers Increase of the unit sound pressure level by approx. 1 dB(A)				
		Supply air left	6800996	L55	on request
		Supply air right	6802068	L55	on request
	Air outlet module with horizontal air connections Air outlet module with ventilation grille for direct mounting on the unit, sound-insulating cladding, supply air via horizontally and vertically adjustable ventilation grille, integrated fresh air and exhaust air connections (DN 250), integrated shut-off dampers Increase of the unit sound pressure level by approx. 1 dB(A)				
		Supply air left	6800997	L55	on request
		Supply air right	6802069	L55	on request
	Lifting gear For retrofitting the intake silencer		6800952	L55	on request

Intake / discharge accessories

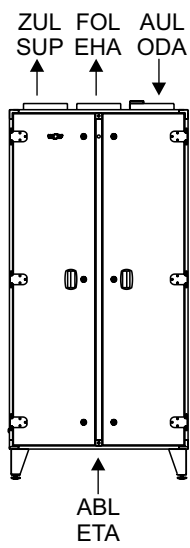
	Description	for product	Art. no.	DG	€
 New	Air outlet module with vertical air connections incl. shut-off dampers (open/closed) for direct mounting on the unit, sound-insulating cladding, supply air is provided via individually adjustable jet nozzles to increase the room air flow, integrated fresh air and exhaust air connections (DN 250), integrated shut-off dampers Increase of the unit sound pressure level by approx. 1 dB(A)	Supply air left	6809472	L55	on request
		Supply air right	6809475	L55	on request
 New	Ausblasmodul mit vertikalen Luftanschlüssen for direct mounting on the unit, sound-insulating cladding, supply air is provided via individually adjustable jet nozzles to increase the room air flow, integrated fresh air and exhaust air connections (DN 250), integrated shut-off dampers Increase of the unit sound pressure level by approx. 1 dB(A)	Supply air left	6809473	L55	on request
		Supply air right	6809476	L55	on request
 New	Ausblasmodul mit horizontalen Luftanschlüssen for direct mounting on the unit, sound-insulating cladding, supply air is provided via individually adjustable jet nozzles to increase the room air flow, integrated fresh air and exhaust air connections (DN 250), integrated shut-off dampers Increase of the unit sound pressure level by approx. 1 dB(A)	Supply air left	6809474	L55	on request
		Supply air right	6809477	L55	on request

Commissioning

	Description	Art. no.	DG	€
	Commissioning of 1 basic device Appointment necessary (at least 8 working days before actual commissioning)	99799	99	on request
	Net price			
	Commissioning of further accessories Heating or cooling or multiple units	on request		

Technical data

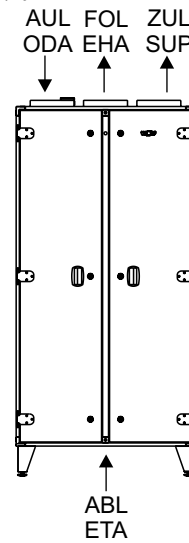
Connection side Supply air richtung left



Compact large area ventilation unit CGL & CGL edu

Typ	CGL	
Breite	mm	1017
Tiefe	mm	508
Höhe	mm	2137

Anschlussseite Supply Connection side right



New



CFL (edu) Comfort flat ventilation unit











RG |





TYP	CFL edu	675			1000		
Air volume	m³/h	300	500	max. 675	850	1100	max. 1150
Sound pressure level*	dB (A)		35 (600 m³/h)		35	40	44
Supply airfilter nach ISO 16890					ePM1 55%		
Exhaust air filter according to ISO 16890					ePM10 70%		
Electrical connection values							
Max. power and current consumption per fan	W/A		175 / 1,4			170 / 1,4	
Max. power and current consumption of heating coil	W/A		2.000 / 8,7			2.000 / 8,7	
Max. total power and current consumption	W/A		2.500 / 12,0			2.500 / 12,0	
Dimensions							
Height	mm		540			600	
Width	mm		1708			2303	
Depth	mm		1170			1300	
Air duct connection			DN280			DN315	
Weight of basic unit	kg		210			275	
*determined by TÜV Süd Industrie Service GmbH at a distance of 1 m according to DIN EN ISO 11203							
	Art.-no.	2139948			2139949		
	€	on request			on request		

- Quiet, safe and energy-efficient - decentralised and compact ceiling ventilation unit
- Optimised for the high sound requirements in educational institutions as well as conference and office rooms
- Highly efficient heat recovery incl. continuously controllable bypass bypass as protection against icing up
- Designed for quick retrofitting and suitable for visible installation
- Easy to change compact filter panel:
Supply air filter ISO ePM1 55% (F7) - Fine dust and pollen filter
Exhaust air filter ISO ePM10 70% (M5) - Fine dust filter
- Fully integrated, completely wired WOLF control unit (WRS-K)
- External terminal box with repair switch for individual positioning and easy electrical connection
- CO2 guided control as standard, Supply air temperature control preselectable
- BMS connection as standard via Modbus RTU or optionally BACNet/IP (AMEV profile AS-A)

Accessories

	Description	Art.-no.	RG	€
New 	Pipe shut-off damper, DN 280, motor-operated (230 V, open/closed) with servomotor for on-site connection	2577990		on request
New 	Duct silencer, DN 280 Length: 500 mm Flexible circular silencer with 50 mm circumferential insulation (attenuation 3.5 dB(A) / 250 Hz)	2578036		on request
New 	Duct silencer, DN 280 Length: 1,000 mm Flexible circular silencer with 50 mm circumferential insulation (attenuation 7 dB(A) / 250 Hz)	2578034		on request
New 	Weather protection grille, DN 280 Closure of the façade duct to the outside, suitable for fresh air and exhaust air	2578038		on request
New 	Pipe shut-off damper, DN 315, motor-operated (230 V, open/closed) with servomotor for on-site connection	2577991		on request
New 	Pipe silencer, DN 315 Length: 500 mm Flexible circular silencer with 50 mm circumferential insulation (attenuation 3 dB(A) / 250 Hz)	2578037		on request
New 	Pipe silencer, DN 315 Length: 1,000 mm Flexible circular silencer with 50 mm circumferential insulation (attenuation 6 dB(A) / 250 Hz)	2578035		on request
New 	Weather protection grille, DN 315 Closure of the façade duct to the outside, suitable for fresh air and exhaust air	2578039		on request
	Commissioning for 1 basic unit Appointment necessary (at least 8 working days before the actual commissioning) Commissioning for each additional unit at the same location (max. 3 units per day)	99196 99287	99	on request

Accessories

	Description	Art.-no.	RG	€
	Wolf Link Pro - LAN/WLAN interface module external consisting of: <ul style="list-style-type: none"> • WOLF LINK PRO interface module, installation/operating eBus cable, power supply unit, network cable • LAN and WLAN interface module for wall mounting or mobile use • Connection of the WOLF AHU to the Wolf Smartset Portal / App • mobile use for parameterisation of the heating system • Power supply via mains adapter or USB 	2746366	H40	505,00
	BacNet-Pro incl. patch cable BMS connection via BACNet/IP interface (AMEV profile AS-A)	6220143	H40	on request
	Outdoor, ceiling or room temperature sensor	2792021	H41	37,00
	BMK Touch incl. wall mount Multifunctional and high-quality operating element with 4.3" colour touch display, intuitive menu navigation, fixed installation with surface frame as wall mounting or pluggable for configuration and parameterisation of several CFL edu units Dimension: 152 × 87 mm	6660708		on request
	BMK-F Remote control for wall mounting, LCD display with 6 function keys for system on/off, speed setting, fresh air percentage setting, activation of shock ventilation, activation of usage time extension, adjustment of temperature setpoint Dimension: 135 × 86 30 mm	2744751		on request



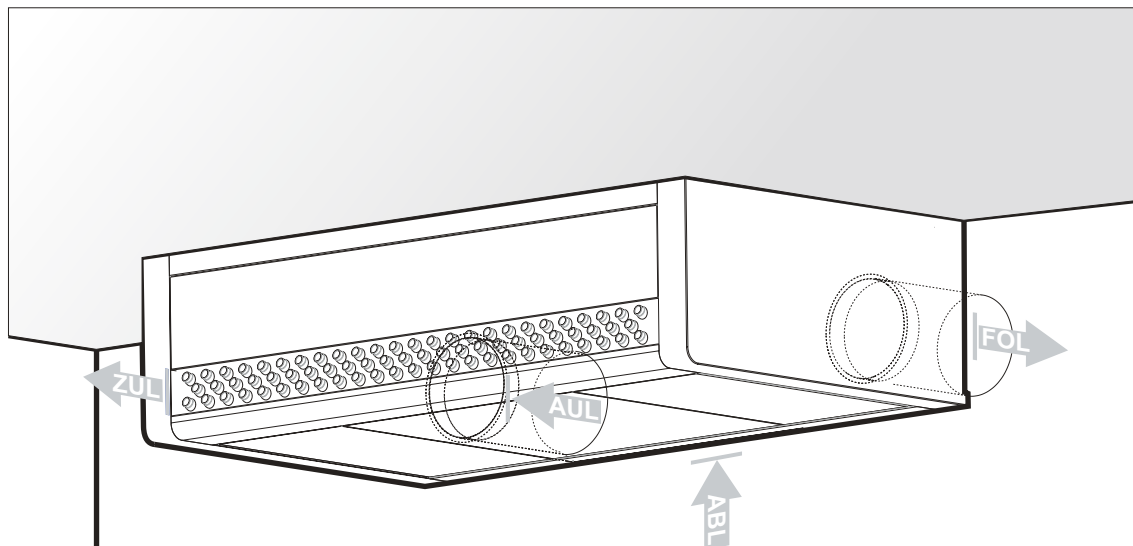
Technical data

AUL → Outside air

FOL → Extracted air

ABL → Exhaust air

ZUL → Supply air



New



AirPurifier



RG | L58

TYP		AirPurifier			AirPurifier max		
Air volume	m³/h	750	1050	max. 1200	800	1100	max. 1250
Sound pressure level	dB(A)	35	40	42	35	40	42
Electrical power consumption	W	108	206	275	115	219	275
1st filter stage according to ISO 16890			ePM1 65 % C			ePM1 60 %	
2nd filter stage according to ISO 16890			HEPA-filter H14			HEPA-filter H14	
Electrical connection	V~ / Hz	230	50	60	230	50	60
max. power consumption	kW		0,28			0,28	
max. current consumption	A		1,25			1,25	
Dimensions							
Height (incl. feet and collar)	mm				2354		
Width	mm				712		
Depth	mm				508		
Weight of basic unit	kg				218		
*determined by TÜV Süd Industrie Service GmbH at a distance of 1 m according to DIN EN ISO 11203							
Supply air left	Art.-no.	6809002			6809439		
	€	3130.00			3025.00		

* according to DIN EN ISO 11203

- Plug&Play: 230 V socket connection, practical power connection cable with 300 m length, no structural measures necessary, one-time and simple adjustment to room size
- Safe: Tilt-proof due to prepared wall fastening
- User-friendly: Simple operation with only 3 operating modes (normal, auto and boost mode)
- Combinable: When using several units, significantly larger rooms are also possible
- Odor neutralization thanks to pre-stage with activated carbon combi-filter.
- VDI 6022 compliant: state of the art with regard to hygiene requirements for room air conditioning systems and units
- Filter change indicator for each filter incl. test function.
- Double filter stage with activated carbon filter ISO ePM1 65% or Pollen/fine dust filter ISO ePM1 60% n. ISO 16890 as pre-filter and high-performance filter HEPA H14 according to DIN 1822 as a second filter stage for filtering > 99.995 % of particles such as bioaerosols
- Air outlet at a height of 230 cm protects people from unpleasant drafts and ensures optimal distribution of filtered air in the room.
- Super-quiet operation - sound pressure level* of 34 dB(A) (in standard operation) in typical classrooms
- Pause boost function for increased air circulation.
- Presence detection with run-on time to avoid unnecessary operation at night or on weekends.

Accessories

	Description	for product	Art. no.	DG	€
	Sticker-Set different designs				
	Grammar, secondary and middle school		4801743	L58	9.90
	nursery school		4801744	L58	9.90
	Primary school		4801745	L58	9.90
	Gastronomy		4801746	L58	9.90
New	Prefilter ePM1 65 % (F7 Carbon) incl. disposal bag	AirPurifier	6809108	L58	193.00
	Pre-filter ePM1 60% (F7 standard) incl. disposal bag	AirPurifier max	6809441	L58	143.58
	Maintenance set with additional equipment consisting of: 1x pre-filter ePM1 65% (F7 Carbon) and 1x HEPA filter H14 HEPA filter, protective suit, mask, safety goggles, gloves and 2 x disposal bags	AirPurifier	6809109	L58	444.00
New	Maintenance set with additional equipment consisting of: 1x pre-filter ePM1 60% (F7 standard) and 1x HEPA filter H14 HEPA filter, protective suit, mask, safety goggles, gloves and 2 x disposal bags	AirPurifier max	6809442	L58	375.00
	Maintenance set without additional equipment consisting of: 1x pre-filter ePM1 65% (F7 Carbon) and 1x HEPA filter H14 HEPA filter and 2 x disposal bags	AirPurifier	6809110	L58	423.00
New	Maintenance set without additional equipment consisting of: 1x pre-filter ePM1 60% (F7 standard) and 1x HEPA filter H14 HEPA filter and 2 x disposal bags	AirPurifier max	6809443	L58	355.00

Accessories

	Description	for product	Art. no.	DG	€
	Commissioning AirPurifier (incl. installation, assembly and disposal of packaging)		99750	99	250.00
	Instruction service for an AirPurifier /-max Prerequisite: Unit has been brought in, installed and is in operation. Scope of services: Checking the settings, instruction, Protocol Note: If so many units are to be serviced at one location that further journeys are necessary, then an object-related offer can be made. can be prepared.		99257	99	211.00
	Maintenance package 1 AirPurifier Scope of services: Function-maintaining cleaning, function test, filter change of the pre-filter, protocol, incl. pre-filter Activated carbon ePM1 65 % 1 AirPurifier For each additional unit at the same location Note: If so many units are to be serviced at one location that further journeys are necessary, then an object-related offer can be made. can be prepared.		99258 99259	99 99	440.00 260.00
	Maintenance package 2 Airpurifier Scope of services: Function-maintaining cleaning, function test pre-filter and HEPA HEPA filter, protocol, incl. pre-filter activated carbon ePM1 65 % and HEPA filter H14 1 AirPurifier For each additional unit at the same location Note: If so many units are to be serviced at one location that further journeys are necessary, then an object-related offer can be made. can be prepared.		99442 99443	99 99	640.00 483.00
New	Maintenance package 1 AirPurifier max Scope of services: Function-maintaining cleaning, function test, filter change of the pre-filter, protocol, incl. pre-filter ePM1 60% 1 AirPurifier For each additional unit at the same location Note: If so many units are to be serviced at one location that further journeys are necessary, then an object-related offer can be made. can be prepared.		99197 99198	99 99	380.00 190.00
New	Maintenance package 2 Airpurifier max Scope of services: Function-maintaining cleaning, function test, filter change pre-filter and HEPA HEPA filter, protocol. Price incl. pre-filter ePM1 60% and HEPA HEPA filters 1 AirPurifier For each additional unit at the same location Disposal; optional per filter to be disposed of Note: If so many units are to be serviced at one location that further journeys are necessary, then an object-related offer can be made. can be prepared.		99199 99285 99286	99 99	540.00 390.00 5.00
For enquiries about further services, please contact our service department at service@wolf.eu .					

FLAT VENTILATION UNITS WITH HEAT RECOVERY



700 - 3.200 m³/h

CFL-WRG

Flat unit
with plate heat exchanger
Control included
Numerous expansion options



700 - 3.500 m³/h

CFL-EC-ZUL
CFL-EC-ABL

Supply air and exhaust air unit
in flat design
Optionally with control
Numerous expansion options

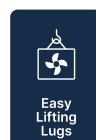


COMPACT VENTILATION UNITS WITH PLATE HEAT EXCHANGER



700 - 6.100 m³/h

CKL-A evo,
CKL-iH evo,
CKL-iV evo



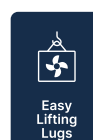
Outdoor unit and indoor unit
in different versions
Control included
New evo unit series with extensive further developments
Numerous expansion options, e.g. Clima-Split system, heating and cooling coil, silencer, etc.

COMPACT VENTILATION UNITS WITH ROTARY HEAT EXCHANGER



700 - 9.000 m³/h

CRL-A, CRL-iD
CRL-iH, CRL-IDH

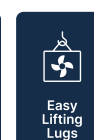


Outdoor unit and indoor unit
in different versions
Control included
Numerous expansion options, e.g. Clima-Split system, heating and cooling coil, silencer, etc.
Patented labyrinth seal with 98 % tightness



9.000 - 19.500 m³/h

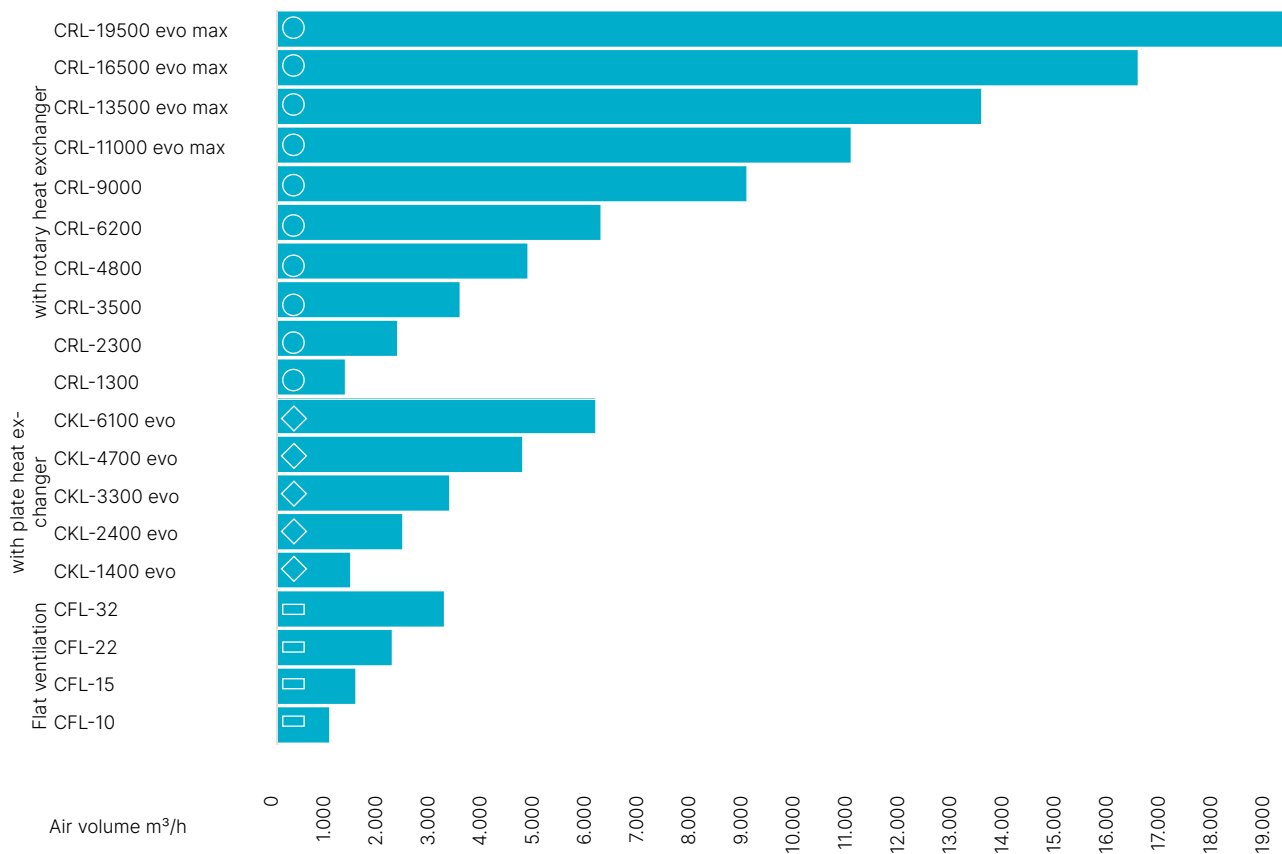
CRL-A evo max
CRL-iH evo max



Outdoor unit and indoor unit
in horizontal versions
Control included
Numerous expansion options, e.g. Clima-Split system, heating and cooling coil, silencer, etc.
Patented labyrinth seal with 98 % tightness

WOLF

Compact units Description



Air volume m³/h

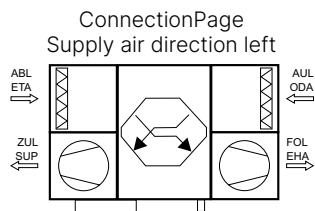


BIM

BIM
Ready

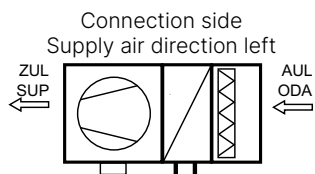


CFL Unit versions



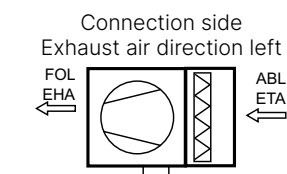
CFL-WRG combined supply and extract air unit

Type	CFL	10-WRG	15-WRG	22-WRG	32-WRG
Lenght	mm	1322	1322	1525	1932
Depth	mm	1017	1423	1830	1932
Hight	mm	367	367	411	495



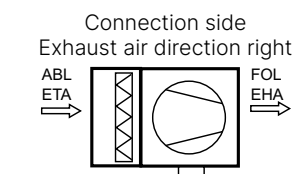
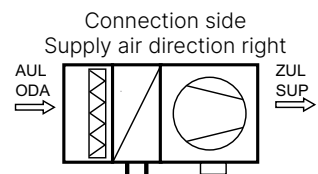
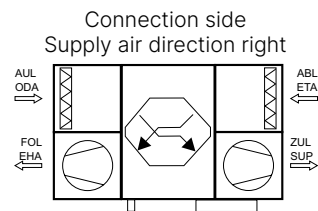
CFL-EC-ZUL supply air unit

Type	CFL	10-EC-ZUL	15-EC-ZUL	22-EC-ZUL	32-EC-ZUL
Lenght	mm	712	712	813	813
Depth	mm	508	712	915	966
Hight	mm	367	367	411	495

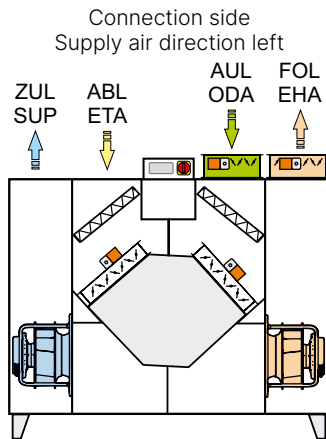


CFL-EC-ABL extract air unit / cfl-ec-zul supply air unit, short

Type	CFL	10-EC	15-EC	22-EC	32-EC
Lenght	mm	508	508	610	610
Depth	mm	508	712	915	966
Hight	mm	367	367	411	495

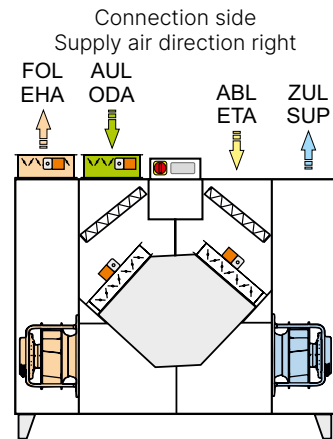


CKL evo Unit versions

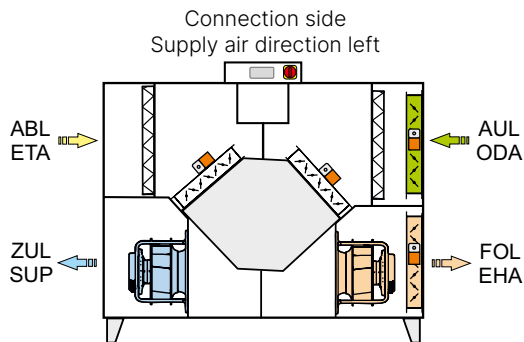


CKL-IVEVO combined supply and extract air unit

Typ	CKL-iV evo	1400	2400
Lenght	mm	1525	2033
Depth	mm	750	750
Hight	mm	1315	1720

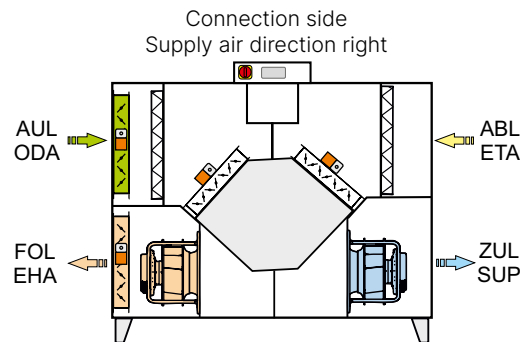


3300	4700	6100
2033	2237	2237
1360	1360	1665
1720	1749	1749

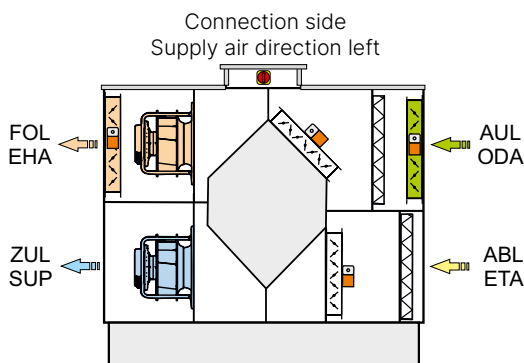


CKL-IHEVO combined supply and extract air unit

Typ	CKL-iH evo	1400	2400
Lenght	mm	1525	2033
Depth	mm	750	750
Hight	mm	1309	1716

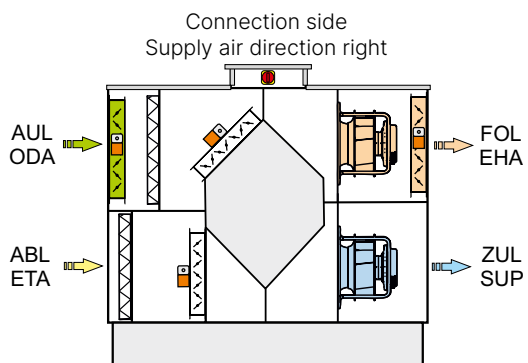


3300	4700	6100
2033	2337	2337
950	1360	1665
1716	1716	1716



CKL-A EVO combined supply and extract air unit

Typ	CKL-A evo	1400	2400
Length	mm	1905	2573
Depth	mm	815	815
Height	mm	1455	1860

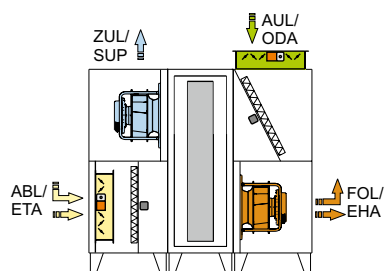


3300	4700	6100
2573	2780	2780
1017	1425	1730
1860	1860	1860

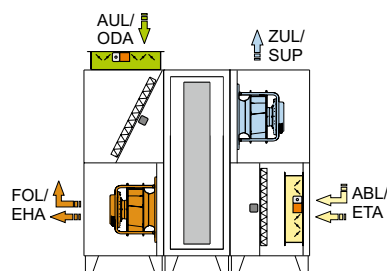
CRL-iD Unit versions

Access side in supply air direction, left

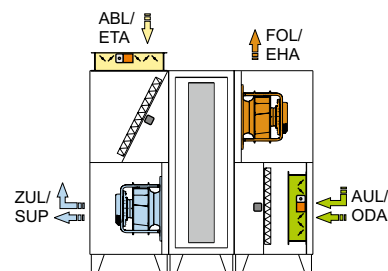
Access side in supply air direction, right



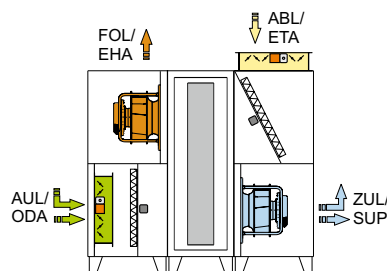
-L1



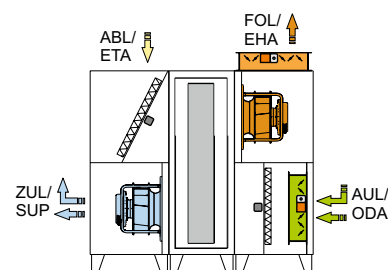
-R1



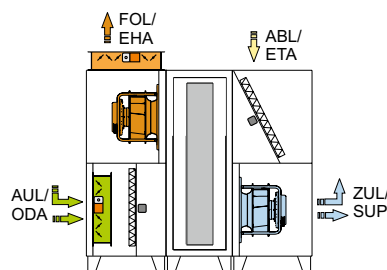
-L2



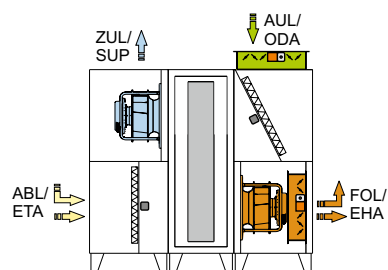
-R2



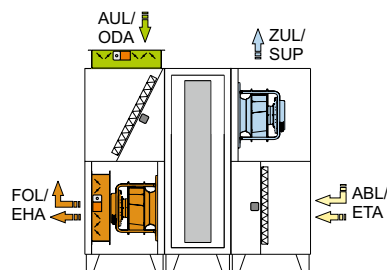
-L3*



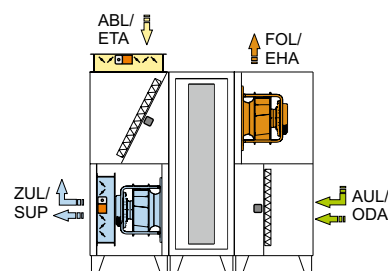
-R3*



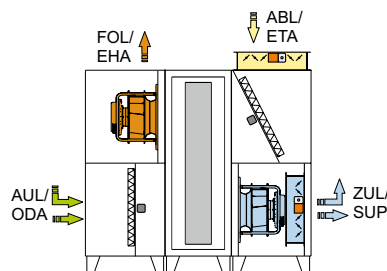
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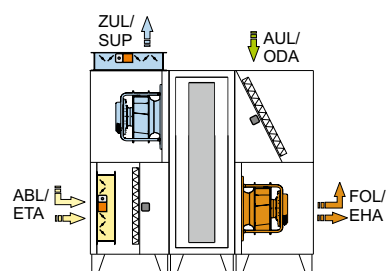
-R4*



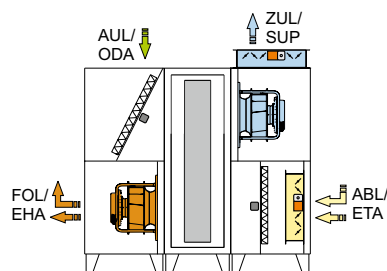
-L5



-R5



-L6



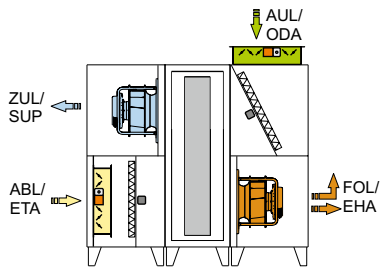
-R6

* These options are available for CRL-1300/-2500/-3500 with damper for quick heating.

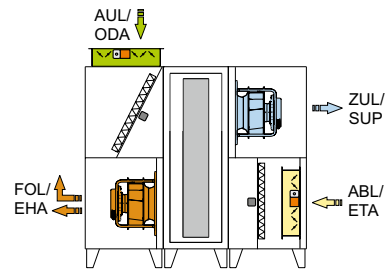
CRL-iDH Unit versions

Access side in supply air direction, left

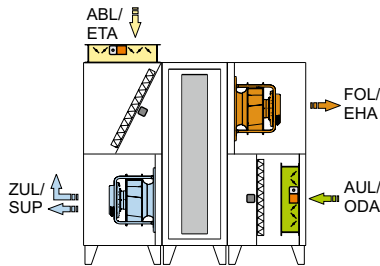
Access side in supply air direction, right



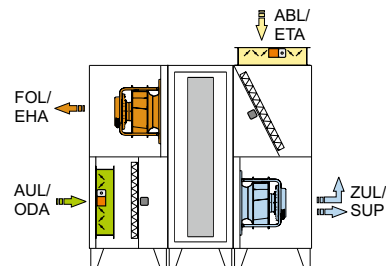
-L1



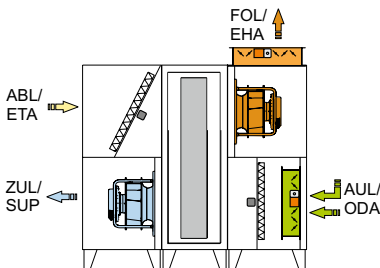
-R1



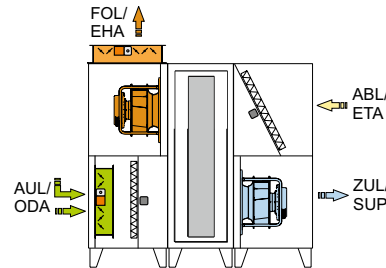
-L2



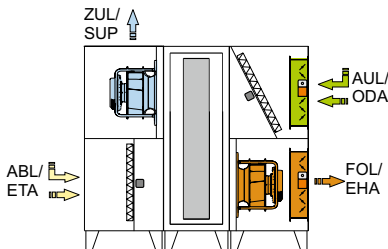
-R2



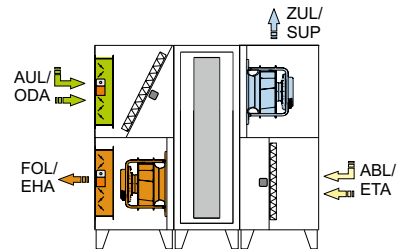
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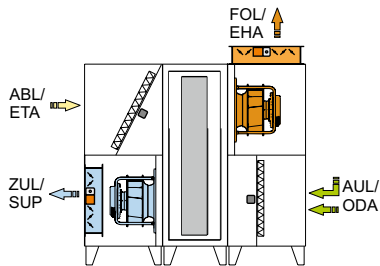
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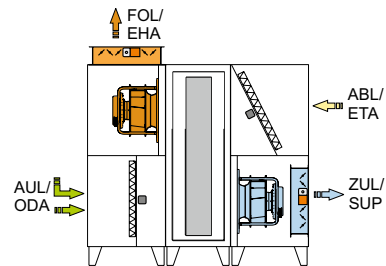
-L4*



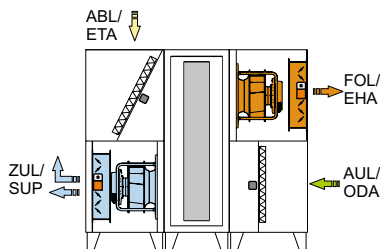
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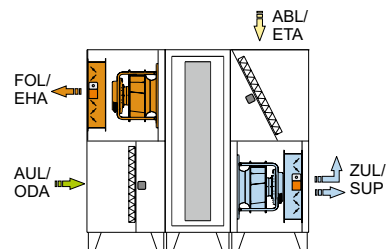
-L5



-R5



-L6



-R6

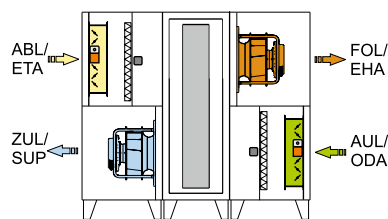
Other versions available; see the WOLF sizing program.

* These options are available for CRL-1300/-2500/-3500 with damper for quick heating.

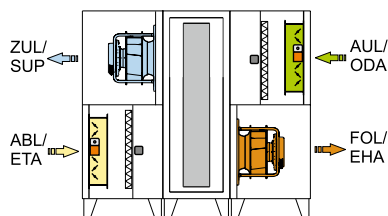
CRL-iH Unit versions

Access side in supply air direction, left

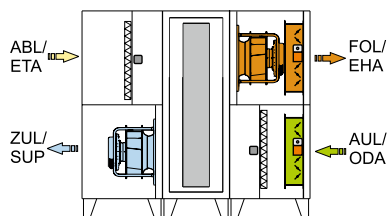
Access side in supply air direction, right



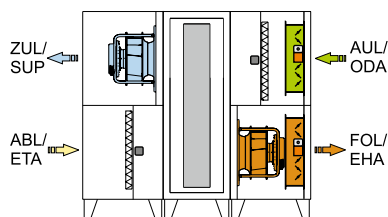
-L1



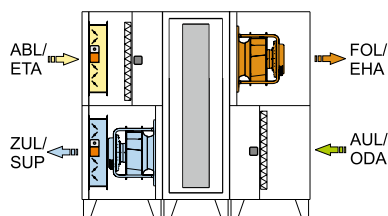
-L2



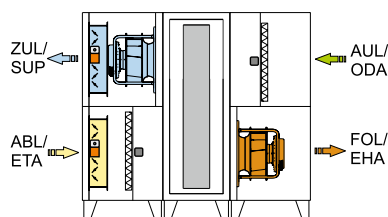
-L3^{1) 2)}



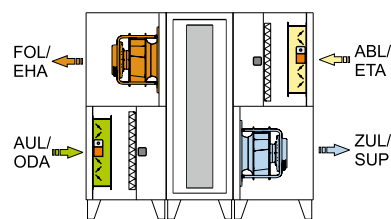
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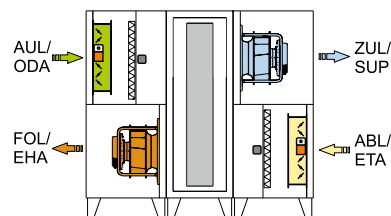
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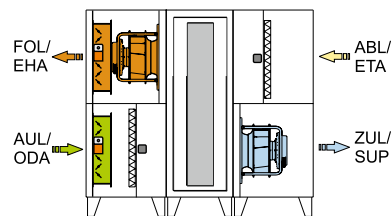
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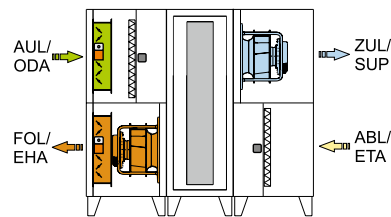
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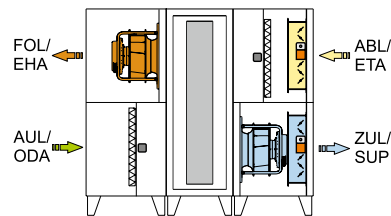
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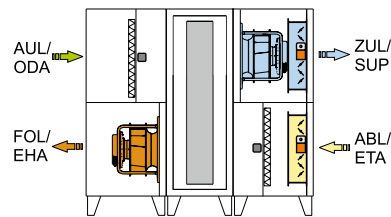
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-R4^{1) 2)}



-R5



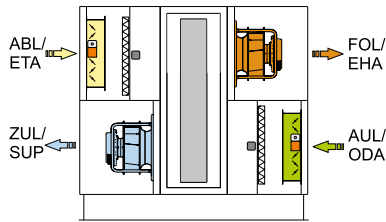
-R6

¹⁾ These options are available for CRL-1300/-2500/-3500 with damper for quick heating.

²⁾ These options are exclusively available for unit types CRL-A evo max. Optionally with amper for quick heating.

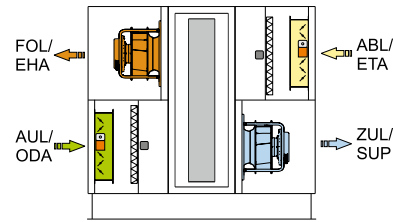
CRL-A Unit versions

Access side in supply air direction, left

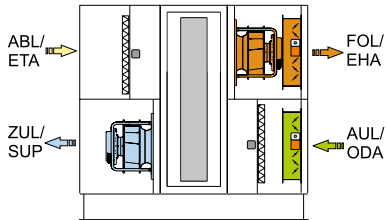


-L1

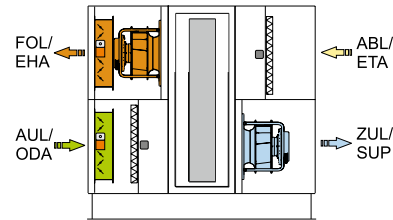
Access side in supply air direction, right



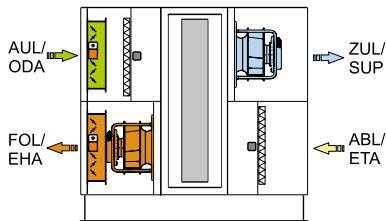
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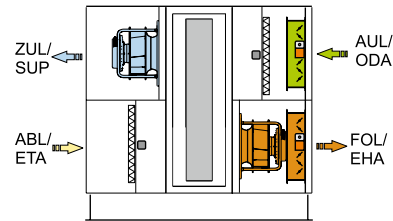
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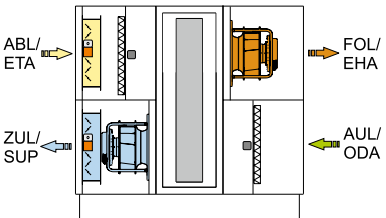
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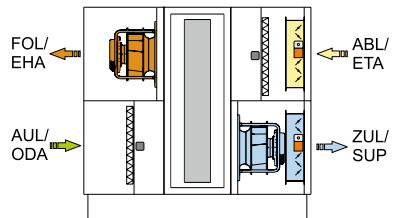
-R4³⁾



-L4³⁾



-L5



-R5

¹⁾ These options are available for CRL-1300/-2500/-3500 with damper for quick heating.

²⁾ Options available for unit types CRL-A evo max. Optionally with amper for quick heating.

³⁾ These options are exclusively available for unit types CRL-A evo max. Optionally with amper for quick heating.

CKL-Pool



CKL-Pool

For aeration and deaeration as well as thermal conditioning of small closed swimming pool halls

Description

Combined supply and extract air unit with plate heat exchanger made of corrosion-resistant polypropylene and integrated heat pump as standard.

Integrated control cabinet, unit piped and wired ready for connection

Accessories as standard:

2 × 1¼" siphon, 10 x elastomer strips for unit installation, control valve and drive for PWW coil

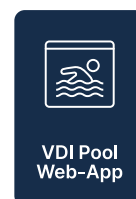


Designing complete units with the VDI Pool Web App

Simple input of all necessary parameters.

High planning reliability due to comprehensive support with corresponding documents.

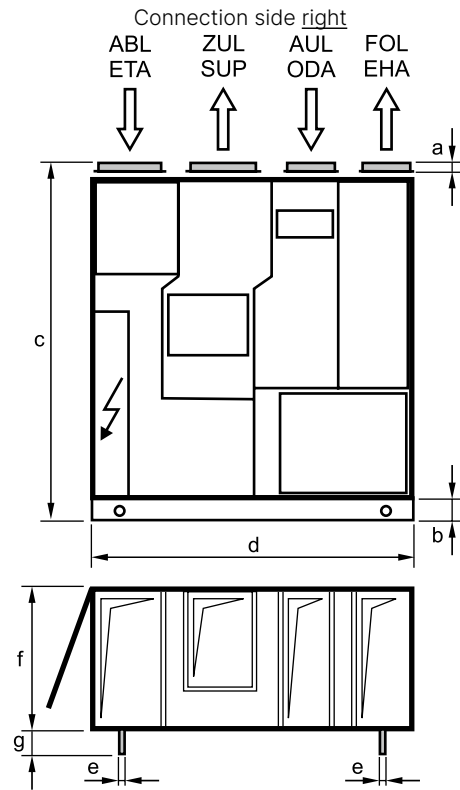
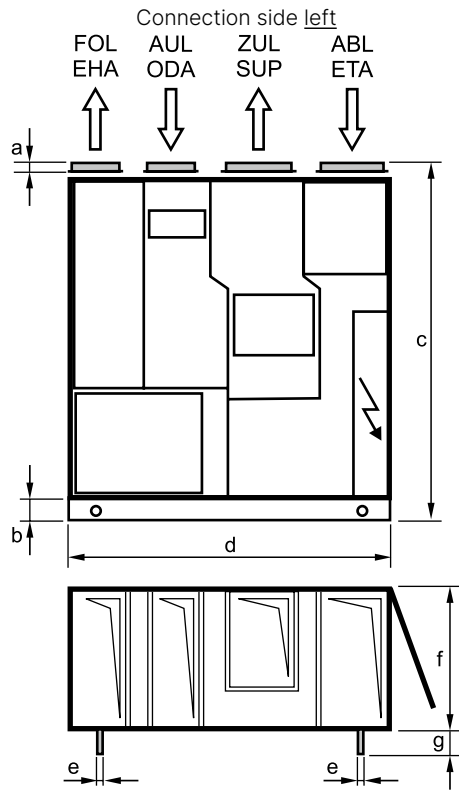
Calculation according to VDI guidelines (VDI 2089)



<https://wolf.ahuapps.eu/>



CKL-Pool Unit versions



COMFORT swimming pool unit CKL-Pool

Type	CKL-Pool	20 GC	30 GC
a	mm	30	30
b	mm	100	100
c	mm	1840	2040
d	mm	1755	2155
e	G"	1¼"	1¼"
f	mm	805	855
g	mm	80	80

INTERNATIONAL CONDITIONS OF SALE FOR CUSTOMERS NOT RESIDENT IN GERMANY (STATUS 01/11)

I. Application of the International Conditions of Sale

1. These International Conditions of Sale apply to all customers of Wolf GmbH - hereinafter referred to as Wolf - whose relevant place of business is not in Germany. For customers whose place of business is in Germany, the General Conditions of Sale of Wolf apply, which will be forwarded on request. In each case, the relevant place of business is the one which concludes the contract in its own name.
2. These International Conditions of Sale apply to the present and all subsequent contracts whose preponderant object is the supply of goods to the customer. Additional obligations assumed by Wolf do not affect the application of these International Conditions of Sale.
3. Conflicting or differing terms of business of the customer do not bind Wolf, even if Wolf does not explicitly object or even if Wolf renders performance or accepts the customer's performance without reservation irrespective of conflicting or differing terms of business of the customer. The provisions of this paragraph equally apply insofar as the terms of business of the customer, irrespective of the contents of these International Conditions of Sale, deviate from legal provisions.

II. Formation of the Contract of Sale

1. The customer is under an obligation to give written notice to Wolf prior to the formation of a contract if the goods ordered are to be fit not only for normal use or will be used in circumstances which are unusual or which present a particular risk to health, safety or the environment, or which require more demanding use.
2. Orders of the customer are to be put in writing. If the customer's order deviates from the proposal or the tender submitted by Wolf, the customer will emphasize the differences as such.
3. All orders, in particular also those received by employees of Wolf, will only have effect if followed by a written acknowledgement of the order by Wolf. The delivery in fact of the goods ordered, any other conduct of Wolf or silence does not allow the customer to assume the formation of the contract of sale. Wolf can dispatch such written acknowledgement of the order up to and including 14 calendar days after the customer's order has been received by Wolf. Until this time, the customer's order is irrevocable.
4. The written acknowledgement of the order has been received in time, if it is received by the customer within 14 calendar days after its date of printing. The customer will inform Wolf without delay, if the written acknowledgement of the order is received delayed.
5. The written acknowledgement of the order by Wolf determines the entire contents of the contract and effects a conclusion of the contract even if - except for the purchase price and the quantity to be delivered - the written acknowledgement deviates in any other way, especially with respect to the exclusive application of these International Conditions of Sale, from the declarations of the customer. Particular wishes of the customer, namely warranties or guarantees with respect to the goods or the performance of the contract therefore require express written confirmation in every case. Regardless of the nature and extent of the deviations, the contract will only fail to come into existence if the customer objects to the deviations in writing and the objection is received by Wolf within a short time, at the latest seven calendar days after receipt of the written acknowledgement of the order by the customer.
6. Wolf's employees, commercial agents or other sales intermediaries are not authorized to dispense with the requirement for written acknowledgement of the order or to make promises which differ from its content or guarantees. Changes to the concluded contract likewise require written confirmation by Wolf.

III. Obligations of Wolf

1. Subject to an exemption according to section VII.-1. b) Wolf must deliver the goods specified in the written acknowledgement of the order. Wolf is not obliged to perform obligations not stated in the written acknowledgement of the order or in these International Conditions of Sale, in particular Wolf is under no obligation to deliver accessories not listed explicitly, to install additional safety devices, to carry out assemblies, to render planning-services or to advise the customer.
2. Third parties not involved in the conclusion of the contract, in particular the customer's clients, are not entitled to request delivery to be made to them. The customer's responsibility to take delivery continues to exist even if he assigns claims to third parties.
3. Wolf undertakes to deliver goods of average kind and quality taking account of the tolerances customary in trade as in kind, quantity, quality and packaging. If the goods cannot be delivered in the condition as offered at the time of the formation of the contract because technical improvements to goods of series production were made, Wolf is entitled to deliver the goods with the technical improvements. Wolf is entitled to make part deliveries.
4. If further specification is required in relation to the goods to be delivered, Wolf will carry this out having regard to its own and the identifiable and legitimate interests of the customer. A request to the customer to specify the goods, or to participate in the specification, is not required. Wolf does not undertake to inform the customer of the specification it has made or to give the customer the option of a differing specification.
5. Wolf undertakes to place the goods at disposal for collection by the customer at the agreed time of delivery at the place of delivery indicated in the written acknowledgement of the order or by way of precaution at its premises in Mainburg/Germany. Previous separation or marking of the goods or notification to the customer of the goods being placed at disposal is not required. However, Wolf is entitled to initiate the shipment of the goods at the customer's risk and expense in order to obtain the document in proof of tax-free-delivery.
6. Agreed delivery time periods or delivery dates are subject to the customer's procuring any required documents, releases, permits, approvals, licences or any other authorizations or consents in sufficient time, opening letters of credit and making down-payments as agreed and performing all other obligations incumbent upon him properly and in good time. Moreover, agreed delivery time-periods begin on the date of the written acknowledgement of the order by Wolf. Wolf is entitled to deliver earlier than at the agreed

delivery time.

7. Without prejudice to its continuing legal rights, Wolf is entitled to fulfil its obligations after the delivery time agreed upon, if it informs the customer of exceeding the delivery time limit and of the time period for late performance. The customer can object to late performance within a reasonable time period, if the late performance is unreasonable. An objection is only effective, if it is received by Wolf before commencing late performance. Wolf will reimburse necessary additional expenditure, proven and incurred by the customer as a result of exceeding the delivery time to the extent that Wolf is liable for this under the provisions laid down in section VII.
8. Risk as to price and performance even of goods not being clearly identifiable to the contract and without being necessary a notice given by Wolf, passes to the customer at the latest as soon as loading of the goods has begun or as soon as the customer does not take delivery in accordance with the contract or title of the goods has passed to the customer. The loading of the goods is part of the customer's obligations. The agreement of INCOTERMS in Group F or Group C or of clauses such as „delivery free.....“ or such like merely involves a variation of the provisions as to transportation costs; besides, the provisions laid down in these International Conditions of Sale including those referring to the passing of risk continue to apply.
9. Wolf is not obliged to obtain any licences, authorizations, certificates, formalities or other documents necessary for the export, transit or import. However, Wolf renders at the customer's request, risk and expense every assistance in obtaining the documents that the customer has required in writing.
10. Including where INCOTERMS in Group F are agreed, Wolf is in particular not obliged to arrange for shipment of the goods, to insure the goods, to procure certificates or documents not expressly agreed, to procure customs clearance, to bear levies, duties and charges accruing outside Mainburg/Germany, to comply with weight and measuring systems, packaging, labelling or marking requirements applicable outside Mainburg/Germany, to inform the customer of the delivery or to take back packaging material from the customer. Irrespective of any legal provision, the customer shall at its own cost take care of renewed utilization, material recycling or otherwise prescribed waste-disposal. The foregoing provision applies irrespective of whether the packaging material is invoiced separately or not to the customer.
11. Without prejudice to its continuing legal rights, Wolf is entitled to suspend the performance of its obligations so long as, in the opinion of Wolf, there are grounds for concern that the customer will wholly or partly fail to fulfil its obligations in accordance with the contract. In particular, the right to suspend arises if the customer insufficiently performs its obligations to enable payment to Wolf or a third party or pays late. Wolf is not required to continue with performance of its obligations, if an assurance given by the customer to avoid the suspension does not provide adequate security or could be challenged pursuant to an applicable law.
12. Except as provided in section III.-7., Wolf is only obliged to inform the customer of delay or non-performance as soon as these are certain.

IV. Price, Payment and Acceptance of the Goods

1. Irrespective of continuing obligations of the customer to guarantee or to enable payment, the customer undertakes to pay the agreed price in the currency specified in the written acknowledgement of the order transferring it without deduction and free of expenses and costs to the financial institution designated by Wolf. To the extent that a price has not been agreed, the contract has nevertheless been validly concluded; in such a case the price which is at the agreed time of delivery Wolf's usual price will apply. Wolf's employees, commercial agents or other sales intermediaries are not authorized to accept payments.
2. The payment to be made by the customer is in any event due for payment at the time specified in the written acknowledgement of the order. The due time for payment arises without any further pre-condition and, in particular, does not depend on whether the customer has already taken delivery of the goods and/or the documents and/or has had an opportunity to examine the goods. The periods granted for payment will cease to apply and outstanding accounts will be due for immediate payment, if insolvency proceedings relating to the assets of the customer are applied for, if the customer without providing a justifiable reason does not meet fundamental obligations due towards Wolf or towards third parties or if the customer has provided not accurate information regarding his credit standing.
3. The customer warrants that all legal requirements for delivery free of German value added tax will be fulfilled. To the extent that Wolf does not receive the document in proof of tax-free-export-delivery or Wolf is called upon to pay value added tax as a result of the terms of delivery or of circumstances allocable to the customer, the customer will indemnify Wolf in all and every respect without prejudice to any continuing claim by Wolf. The indemnity is granted by the customer waiving any further requirements or other defences, in particular waiving the defence of limitation or prescription and also includes the reimbursement of the expenses incurred by Wolf.
4. Regardless of currency and regardless of the jurisdiction of any court, Wolf is entitled at its own discretion to set off incoming payments against claims existing against the customer by virtue of its own or assigned rights at the time of payment.
5. Any rights of the customer to set-off against claims of Wolf are excluded, except where the corresponding claim of the customer is in the same currency, is founded in the customer's own right and has either been finally judicially determined or is undisputed or acknowledged by Wolf in writing.
6. Any rights of the customer to suspend payment and to raise defences are excluded, except where despite written warning Wolf has committed a fundamental breach of its obligations arising out of the same contractual relationship, and has not offered any adequate assurance.
7. The customer undertakes to take delivery of the goods at the delivery time without taking any additional period of time and at the place of delivery indicated in the written acknowledgement of the order or by way of precaution at the premises of Wolf in Mainburg/Germany. The customer is only entitled to refuse to take delivery if it exercises - in accordance with the rules in section VI.-1. - its rights to avoid the contract.

INTERNATIONAL CONDITIONS OF SALE FOR CUSTOMERS NOT RESIDENT IN GERMANY (STATUS 01/11)

V. Delivery of non-conforming Goods or Goods with Defective Title

- Delivery does not conform with the contract if, taking into account the terms in section III., at the time the risk passes the packaging, quantity, quality or the description of the goods is significantly different to the specifications laid down in the written acknowledgement of the order, or in the absence of agreed specifications, the goods are not fit for the purpose which is usual in Mainburg/Germany. Irrespective of the legal requirements applicable in Mainburg/Germany, the delivery conforms with the contract, to the extent that the legal requirements applicable at the place of business of the customer do not impede the usual use of the goods. Second-hand goods are delivered without any liability for their conformity.
- To the extent that the written acknowledgement of the order does not contain an explicit statement to the contrary, Wolf is in particular not liable for the goods being fit for the purpose to which the customer intends to put them or for possessing the qualities of a sample or a model or for their compliance with the legal requirements existing outside of Mainburg/Germany, for instance in the customer's country. Wolf also shall not be liable for any non-conformity with the contract occurring after the time the risk has passed. To the extent that the customer, either himself or through third parties, initiates the removal of non-conformities without the prior consent of Wolf, Wolf will be released from its liability.
- The customer must examine the goods as required by law and in so doing check every single delivery in every respect for any discoverable or typical lack of conformity with the contract.
- The goods delivered have a deficiency in title if they are not free from enforceable rights or claims of third parties at the time risk passes. Without prejudice to further legal requirements, third parties rights or claims founded on industrial or other intellectual property constitute a deficiency in title only to the extent that the rights are registered and made public in Germany. Irrespective of the legal requirements applicable in Germany, the goods are not with defective title, to the extent that the legal requirements applicable at the place of business of the customer do not impede the usual use of the goods.
- The customer shall give notice as required by law to Wolf of any lack of conformity with the contract or of any deficiency in title, and in any event directly and in writing. Wolf's employees, commercial agents or other sales intermediaries are not authorised to accept notices or to make any statements concerning lack of conformity with the contract or of title and its consequences.
- Following due notice according to section V.-5., the customer can rely on the remedies provided for by these International Conditions of Sale. The customer has no other rights or claims whatsoever. The customer's claims for a deficiency in title will be time-barred according to the same rules as the claims for delivery of non-conforming goods. In the event of notice not having been properly given, the customer may only rely on remedies if Wolf has fraudulently concealed the lack of conformity with the contract or the deficiency in title. Statements by Wolf as to the lack of conformity with the contract or as to the deficiency in title are for the purpose of explaining the factual position only, but do not entail any waiver by Wolf of the requirement of proper notice.
- In accordance with the terms of the UN Sales Convention, the customer is entitled to demand delivery of substitute goods or repair or to reduce the purchase price. Further claims for performance are not available to the customer. Irrespective of the customer's remedies, Wolf is always entitled in accordance with the provision in section III.-7. to repair goods which do not conform with the contract or to supply substitute goods.

VI. Termination of contract

- Without prejudice to compliance with the respective applicable legal requirements, the customer is only entitled to declare the contract avoided after he has threatened Wolf with avoidance of the contract in writing and an additional period of time of reasonable length for performance fixed in writing has expired to no avail. If the customer claims delivery of substitute goods, repair or other performance, he is bound for a reasonable period of time to the chosen remedy, without being able to exercise the right of declaring the contract avoided. In any event, the customer must give notice of avoidance of the contract within a reasonable time in writing and to Wolf directly.
- Without prejudice to its continuing legal rights, Wolf is entitled to avoid the contract in whole or in part without compensation if the customer objects the application of these International Conditions of Sale, if the written acknowledgement of the order is received by the customer more than 14 calendar days after its date of printing, if insolvency proceedings relating to the assets of the customer are applied for or commenced, if the customer without providing a justifiable reason does not meet fundamental obligations due towards Wolf or towards third parties, if the customer has provided not accurate information regarding his credit standing, if Wolf through no fault of its own does not receive supplies properly or on time, or if for other reasons Wolf can not be expected to fulfil its obligations by means which taking into consideration its own interests and that of the customer as far as ascertainable and legitimate at the time of formation of the contract, are unreasonable in particular in relation to the agreed counterperformance.

VII. Damages

- Apart from liability for damage to natural persons, Wolf is only obliged to pay damages pursuant to this contract or extra contractually if the following provisions in a) to f) are fulfilled:
 - The customer is required in the first instance to rely on other remedies and can only claim damages in the event of a continuing deficiency. The customer cannot claim damages as an alternative to other remedies.
 - Wolf is not liable for the conduct of suppliers or subcontractors or for damages to which the customer has contributed. Wolf is also not liable for impediments which occur, as a consequence of natural or political events, acts of state, industrial disputes, sabotage, accidents, biological, physical or chemical processes or similar circumstances and which cannot be controlled by Wolf with reasonable means. Besides, Wolf is only liable if it negligently breaches fundamental or deliberately or in circumstances amounting to gross negligence breaches other obligations owed to the Customer.

- In the event of liability Wolf will compensate within the limits of lit. d) the proven loss of the customer to the extent that it was unavoidable for the customer and foreseeable to Wolf, at the time of the formation of the contract with respect to the occurrence of the loss and its amount. The customer must advise Wolf in writing before formation of the contract of particular risks, atypical possibilities for damages and unusual amounts of loss. Moreover, the customer is required to mitigate his loss as soon as a breach of contract is or ought to be known.
 - Wolf is not liable for loss of profit, non-pecuniary losses or other indirect damages. Besides, the amount of damages for late delivery is limited to 0,5 % for each full week of delay, up to a maximum of 5 %, and for other breaches of obligations is limited up to 200 % of the respective delivery value. However, this subparagraph does not apply in case of gross negligence by the executive bodies or the management.
 - For the limitation of time, the general regulations of the German Civil Code are valid.
- To the extent that the claim is not time-barred earlier, a six-month preclusive limitation of time for bringing an action for damages applies, starting with the rejection of the claim for damages.
- The foregoing provisions relating to Wolf's liability also apply to the personal liability of Wolf's employees, servants, members of staff, representatives and those employed by Wolf in the performance of its obligations.
- Irrespective of continuing legal or contractual claims of Wolf and subject to the customer providing proof that damages have not occurred at all or clearly do not reach this extent, the customer is obliged towards Wolf to pay liquidated damages as follows without Wolf having to provide proof of the amount:
 - In the event of delay in payment the customer will pay the costs of judicial and extra-judicial means and proceedings, usual and accruing within the country and abroad, as well as interest at the rate applicable in Mainburg/Germany for unsecured short-term loans in the agreed currency.
 - In the case of the customer not taking delivery on the due date or not at all, Wolf is entitled to claim damages in the amount of 15 % of the respective delivery value.

VIII. Other Provisions

- Title of the goods which have been delivered remains with Wolf until settlement of all claims by Wolf existing against the customer. The allocation of risk as to price and performance in section III.-8. is not affected by the reservation of title.
- Without prejudice to Wolf's continuing claims, the customer will indemnify Wolf without limit against all claims of third parties which are brought against Wolf on the grounds of product liability or similar provisions, to the extent that the liability is based on circumstances which - such as, for example, the presentation of the product - were caused after risk passed, by the customer or other third parties without express written consent of Wolf. In particular, the indemnification also includes compensation for expenses incurred by Wolf and is granted by the customer waiving further conditions or other objections, in particular without requiring compliance with control and recall obligations, and waiving any defence of limitation.
- In relation to pictures, drawings, calculations and other documents as well as computer-software, Wolf reserves all proprietary rights, copyrights, other industrial property rights as well as know-how rights.
- All communications, declarations, notices etc. are to be drawn up exclusively in the German or English language. Communications by means of fax or e-mail fulfil the requirement of being in writing.

IX. General Basis of Contracts

- The place of performance and payment for all obligations arising from the legal relationship between Wolf and the customer is Mainburg/Germany. In particular, this provision also applies if Wolf assumes the costs of money remittance, renders performance for the customer somewhere else or payment is to be made in exchange for documents or goods or in the case of restitution of performances already rendered. The agreement of INCOTERMS in Group F or Group C or agreements as to how costs are to be borne do not entail any change of the above rule as to place of performance. Wolf is entitled to require payment also at the place of business of the customer.
- The United Nations Convention of 11 April 1980 on Contracts for the International Sale of Goods (UN Sales Convention / CISG) in the English version as well as the usage in force in Mainburg/Germany govern the legal relationship with the customer. The UN Sales Convention applies, above and beyond its own area of application, and regardless of reservations adopted by other states, to all contracts to which these International Conditions of Sale are to be applied according to the provisions of section I. Where standard terms of business are used, the INCOTERMS® 2010 of the International Chamber of Commerce apply taking into account the provisions stipulated in these International Conditions of Sale.
- The formation of contract, including agreements as to jurisdiction and the inclusion of these International Conditions of Sale, and the rights and obligations of the parties, also including precontractual and collateral obligations, as well as the interpretation are exclusively governed by the UN Sales Convention together with these International Conditions of Sale. Outside the application of the UN Sales Convention, the contractual and non-contractual legal relationship between the parties is governed by the non-uniform German law, namely by the BGB/HGB (German Civil and Commercial Code).
- All contractual and extra-contractual disputes arising out of or in connection with contracts to which these International Conditions of Sale apply, shall be finally settled by arbitration according to the Rules of the German Institution for Arbitration (DIS) without recourse to the ordinary courts of law. The tribunal shall consist of three arbitrators. The place of the arbitration shall be Munich, the languages to be used in the arbitral proceedings shall be German and English. In individual cases, however, Wolf is entitled also to bring an action before the national Courts at the customer's place of business, or other national Courts having jurisdiction according to domestic or foreign law.
- If provisions of these International Conditions of Sale should be or become partly or wholly void, the remaining arrangements will besides continue to apply. The parties are bound to replace the void arrangement by a legally valid arrangement, which comes as close as possible to the commercial meaning and purpose of the void arrangement.