LEO KM

In medium and large size buildings ventilation is often required. By joining air unit heater with mixing chamber you can easily supply fresh air to the object.

VENTILATION

LEO KMFB

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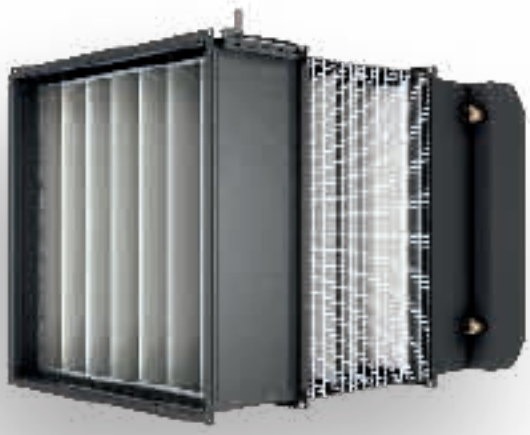


Heating capacity	9-51 kW
Air flow	540–3200 m³/h
Weight	45,9–52,1 kg
Color	gray
Casing Sheet	steel + plastic + aluminium

THE SIMPLEST VENTILATION SYSTEM FOR LARGE SIZE BUILDINGS

Air heater combined with mixing chamber to create a heating and ventilating device.
It is the simplest way to install mechanical ventilation using as little energy as possible without additional systems.

CONTROL SYSTEM

Two types of complete control systems to protect the heat exchanger against freezing.
KTS - stepless, KTB - ON/OFF control the dampers.

CONSTRUCTION

Modular construction of sections make possibilities for various ways of montage. Mixing chamber is equipped with filter EU3 class (optional EU4 class). Filter section can be mounted behind adapter – both external and recirculating air will be filtered; or behind damper section – then only external air will be filtered.

EASY MOUNTAGE

Leo KM mixing chamber is delivered in parts (sections), using only few screws it is ready to operate. There are three air inlets in the mixing chamber: two for recirculating air and one for external air.

SELECTION

For further information about the mixing chamber please contact with the local dealer.

LEO KMFB

LEO KMFS

Heating capacity	5-15 kW
Air flow	230-1150 m^3/h
Weight	32–33,2 kg
Color	grey
Casing	ABS antistatic

THE SIMPLEST VENTILATION OF SMALL AND MEDIUM SIZED AREAS

LEO KM FS delivers fresh air to the room while heating it. It is the simplest mechanical ventilation for small and medium size areas. Its compact dimensions and modern design make it suitable for presentable areas.

DESIGN

The device consists of an air heater with a permanently built-in mixing chamber.
It is equipped with EU2 filters mounted on the air inlets.
Altogether is enclosed in ABS casing covering both hydraulic and electrical connections.

INNOVATIVE DAMPERS

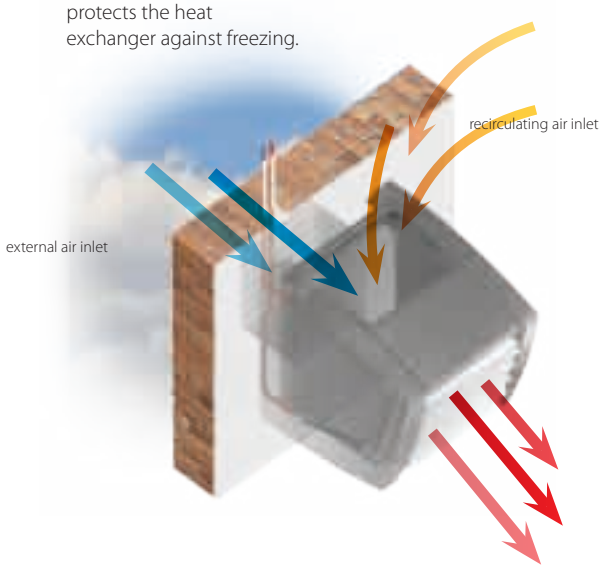
Innovative design of damper ratio adjustment. Adjustable half-round damper delivers either fresh air, recirculating air or mixed at the same time.

CONTROL SYSTEM

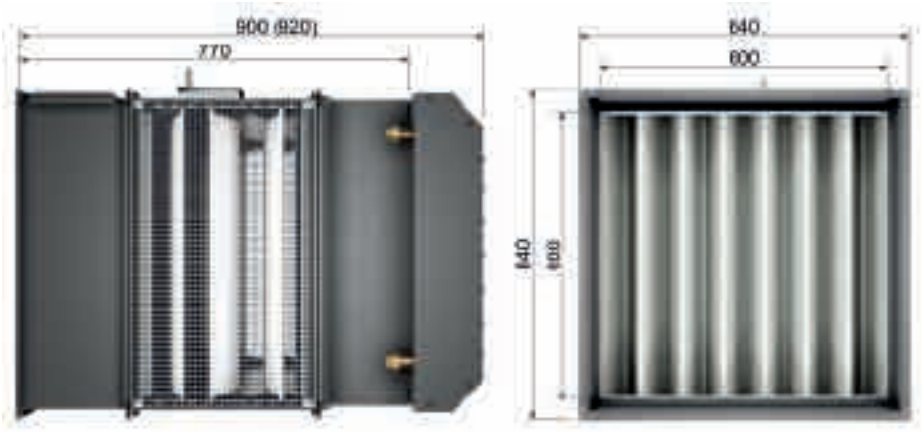
Complete supply control and protection system. Stepless damper position is regulated by a 0-10V actuator. Frost protection thermostat protects the heat exchanger against freezing.

SELECTION

For further information about LEO KM FS please contact with the local dealer.

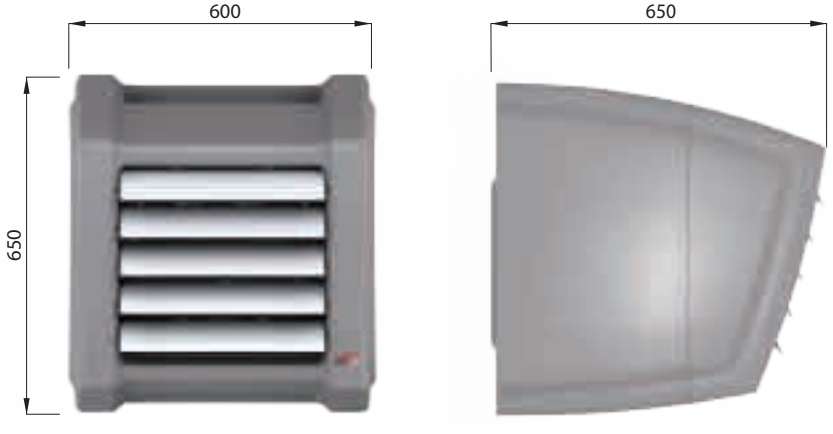


LEO KMFB



Connecting stub 3/4"

LEO KMFS



Connecting stub 1/2"

Weight [kg]	KMFS 15 + EU2	KMFB 25 + EU3	KMFB 45 + EU3	KMFB 65 + EU3
Unit	32,0	45,9	47,1	49,4
Unit filled with water	33,2	46,9	49,1	52,1
Air stream range [m]	**KMFS 15 + EU2**	**KMFB 25 + EU3**	**KMFB 45 + EU3**	**KMFB 65 + EU3**
L*	8	18	16,5	15,5

* range of isothermal horizontal stream, limit speed 0,5 m/s

	LEO KMFS + EU2				LEO KMFB 25 + EU3				LEO KMFB 45 + EU3				LEO KMFB 65 + EU3			
	V = 1150 m³/h**				V = 3200 m³/h**				V = 3000 m³/h**				V = 2800 m³/h**			
Tp1	PT	Qw	Δpw	Tp2	PT	Qw	Δpw	Tp2	PT	Qw	Δpw	Tp2	PT	Qw	Δpw	Tp2
°C	kW	l/h	kPa	°C	kW	l/h	kPa	°C	kW	l/h	kPa	°C	kW	l/h	kPa	°C
Tw1/Tw2 = 90/70°C																
-25	21,6	952	6,9	22	30,0	1322	15,9	-1,5*	54,5	2405	23,1	21,0	71,2	3142	35,8	39,0
-22	20,8	917	6,5	24	28,9	1276	14,8	1,0*	52,5	2319	21,6	23,0	68,6	3029	33,5	40,0
-20	20,3	894	6,2	25	28,2	1245	14,2	3,0*	51,3	2262	20,6	24,0	67,0	2955	32,0	41,0
-15	19,0	838	5,5	28	26,5	1169	12,6	7,0	48,1	2121	18,4	27,0	62,8	2771	28,4	44,0
-10	17,7	783	4,8	31	24,8	1095	11,2	11,0	44,9	1983	16,2	30,0	58,7	2592	25,1	46,0
-5	16,5	729	4,2	34	23,2	1021	9,9	15,0	41,9	1848	14,3	33,0	54,8	2417	22,1	48,0
0	15,3	676	3,7	37	21,5	949	8,6	19,0	38,9	1716	12,4	36,0	50,9	2246	19,3	50,0
5	14,1	624	3,2	40	19,9	877	7,5	22,5	35,9	1586	10,8	39,0	47,1	2079	16,8	52,0
10	13,0	572	2,7	42	18,3	807	6,4	26,0	33,0	1458	9,2	41,5	43,4	1915	14,4	54,0
15	11,8	522	2,3	45	16,7	737	5,4	30,0	30,2	1333	7,8	44,0	39,8	1755	12,3	56,0
20	10,7	472	1,9	48	15,1	668	4,5	34,0	27,4	1209	6,6	47,0	36,2	1597	10,4	58,0
Tw1/Tw2 = 80/60°C																
-25	19,2	843	5,7	17	26,6	1171	13,0	-4,0*	48,6	2137	19,1	16,0	63,8	2805	29,8	32,0
-22	18,4	810	5,3	19	25,6	1125	12,1	-2,0*	46,7	2053	17,8	18,0	61,3	2695	27,7	33,5
-20	17,9	787	5,0	20	24,9	1095	11,5	0,0*	45,5	1997	16,9	19,0	59,7	2622	26,4	35,0
-15	16,7	732	4,4	23	23,2	1021	10,1	4,0*	42,3	1860	14,8	22,0	55,6	2443	23,2	37,0
-10	15,4	678	3,8	26	21,6	948	8,8	8,0	39,3	1725	12,9	25,0	51,6	2269	20,2	39,0
-5	14,2	625	3,3	29	19,9	875	7,6	12,0	36,3	1593	11,1	28,0	47,8	2098	17,5	41,0
0	13,1	573	2,8	31	18,3	804	6,5	16,0	33,3	1464	9,6	31,0	44,0	1931	15,1	43,0
5	11,9	522	2,4	34	16,7	734	5,5	20,0	30,4	1336	8,1	33,5	40,2	1768	12,8	45,0
10	10,7	472	2,0	37	15,1	665	4,6	23,5	27,6	1211	6,8	36,0	36,6	1607	10,8	47,0
15	9,6	423	1,6	39	13,6	596	3,8	27,0	24,8	1088	5,6	39,0	33,0	1450	9,0	49,0
20	8,5	374	1,3	42	12,0	528	3,0	31,0	22,0	967	4,5	42,0	29,5	1296	7,3	51,0
Tw1/Tw2 = 70/50°C																
-25	16,8	735	4,6	12	23,3	1019	10,4	-7,0*	42,7	1870	15,4	11,0	56,4	2470	24,3	26,0
-22	16,0	702	4,2	14	22,3	975	9,6	-4,0*	40,9	1788	14,2	13,0	54,0	2362	22,4	27,0
-20	15,5	680	4,0	15	21,6	945	9,0	-3,0*	39,6	1734	13,4	14,0	52,4	2292	21,2	28,0
-15	14,3	626	3,4	18	19,9	872	7,8	1,0*	36,6	1600	11,6	17,0	48,4	2117	18,4	30,0
-10	13,1	573	2,9	20	18,3	800	6,7	5,0*	33,6	1468	9,9	20,0	44,5	1947	15,8	32,0
-5	11,9	522	2,5	23	16,7	730	5,6	9,0	30,6	1339	8,4	23,0	40,7	1780	13,4	34,0
0	10,8	471	2,0	26	15,1	659	4,7	13,0	27,7	1212	7,0	25,5	37,0	1617	11,3	36,5
5	9,6	420	1,7	29	13,5	590	3,8	17,0	24,9	1087	5,8	28,0	33,3	1457	9,3	38,5
10	8,5	371	1,3	31	11,9	522	3,1	21,0	22,1	965	4,6	31,0	29,7	1300	7,6	40,0
15	7,3	321	1,0	34	10,4	454	2,4	24,5	19,3	844	3,7	34,0	26,2	1146	6,1	42,0
20	6,2	272	0,8	36	8,8	387	1,8	28,0	16,6	725	2,8	36,0	22,7	994	4,7	44,0

* not recommended

** air volume while 100% opening of fresh air damper

V – air flow
PT – heating capacity
Tp1 – inlet air temperature
Tp2 – outlet air temperature

Tw1 – inlet water temperature
Tw2 – outlet water temperature
Qw – heating water stream
Δpw – water pressure drop

	KMFS S	KMFS M	KMFB 25/45/65
Power supply	230 V/50 Hz	230 V/50 Hz	230 V/50 Hz
Max. power consumption	92 W	57,5 W	280 W
Max. current consumption	0,4 A	0,25 A	1,2 A
IP/Insulation class	54/F	54/F	54/F
Acoustic pressure level	45 dB(A)	45 dB(A)	51 dB(A)

Acoustic pressure level measured in the room of average sound absorption, capacity 1500m³, at distance of 5m from the unit

	KMFS	KMFB 25/45/65
Max. water temperature	95°C	130°C
Max. water pressure	1,6 MPa	

Technical data concerning supplying with other water parameters are available upon request at Sales office.