

## Fan

# LEF/MEF 250 – 630 and LEX/MEX ATEX versions

GEOVENT centrifugal fan LEF and MEF with closed backward curving B-wheel and directly driven flange motor. The fan is used for extraction within the industry or for comfort ventilation. The fan has a high efficiency up till 87% and is suitable for PID/constant pressure regulation. The fan is made of 100% galvanized steel for optimum corrosion resistance and therefore, it is suitable for outdoor installation on the roof or on the wall. There is a complete program of accessories, and the fan can be delivered with a number of options, such as flex connection, mountings, rain cover, motor protection, pressure monitor and sound box.

As standard we supply supporting angels with vibration absorbers, inlet nozzle with net and clamp for mounting the outlet flange.

The fan is also supplied in ATEX version according to the 2014/34/EU directive. Then the type is called LEX/MEX, and it is supplied as standard with EExE motor. Other variants are available. Read more below.

The fan can, on inquiry, be supplied in an acid proof steel version (ANSI 316L) or with built-in frequency inverter, two-speed motor, with 6- or 8- poled motors, motors with special voltage or higher efficiency, special high temperature version a.s.o.

Air volume up to:	24.100 m <sup>3</sup> /h
Pressure up to:	4.500 Pa

Technical data / Other data / Features

**Motor:** Directly driven by a B5- Flange motor. Sealing class IP 55. Other motors are available.

**Voltage:** 3x400V or 1x230V / 50 Hz

**House:** Made of hot-galvanized plate. All screws and bolts are electrolytic galvanized. Inclusive supporting



LEF/MEF fan

angels with vibration absorbers, inlet nozzle with net and clamp for mounting the outlet flange.  
Testet iht. ISO 5801.

### Dust amounts and corn size

The dust amount from the extracted air may not exceed 12 g/m<sup>3</sup>. The size of the dust particles may not exceed 6 mm<sup>3</sup>. The dust/fumes may not be sticky.

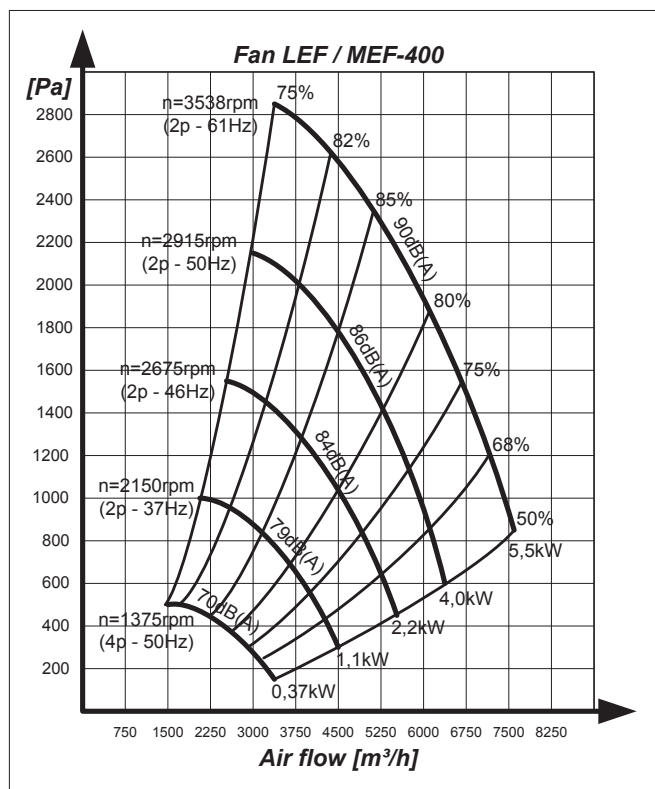
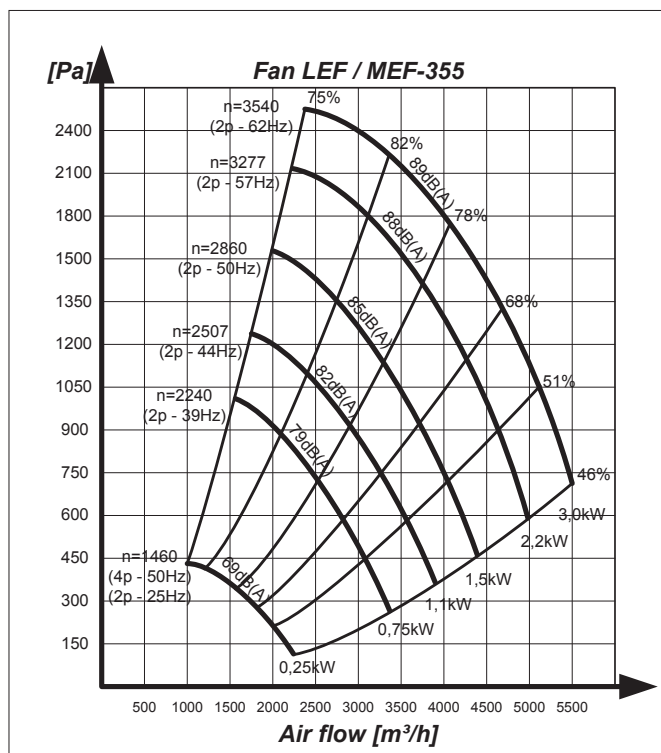
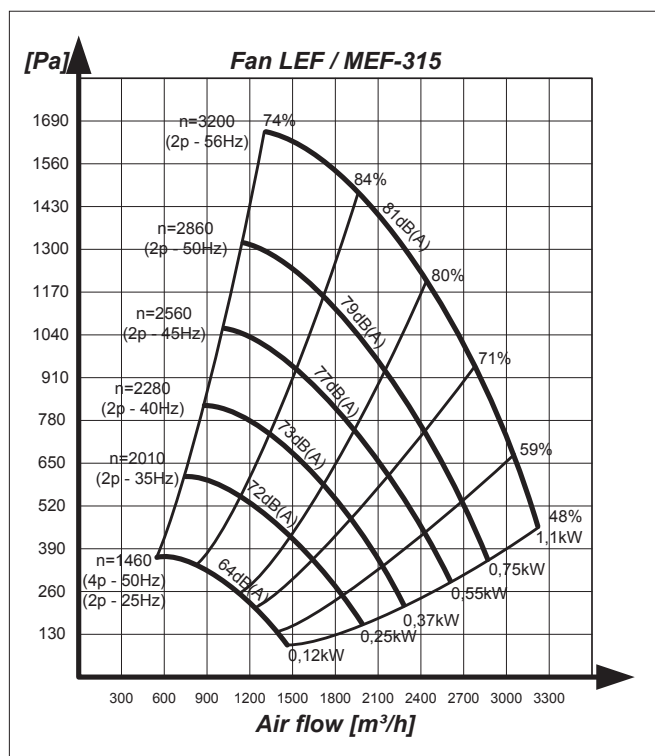
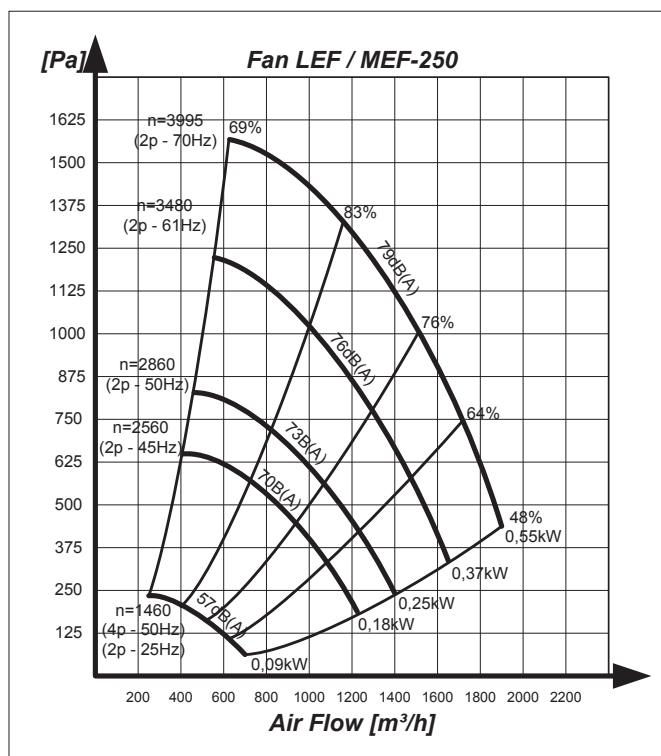
In such case we recommend a filter unit to be installed upstream of the fan.

### Temperature area

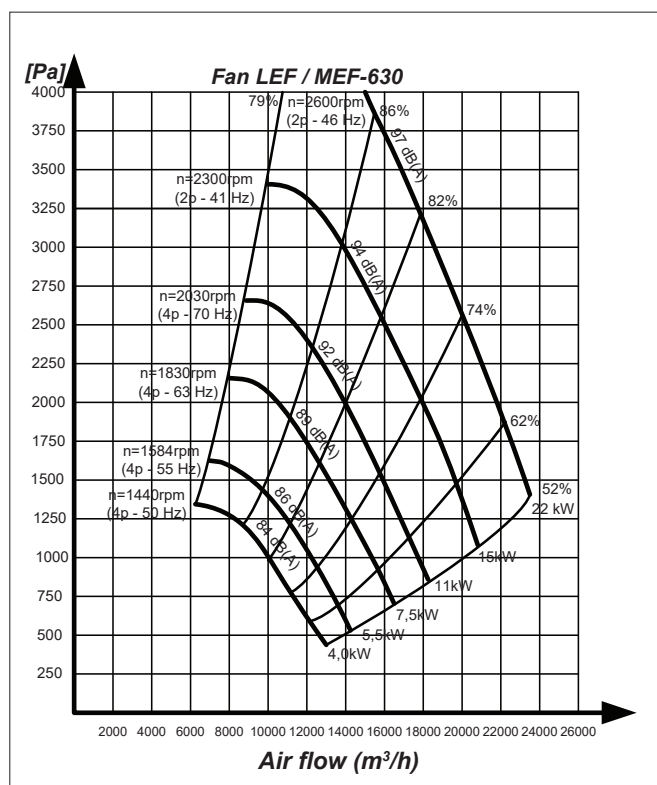
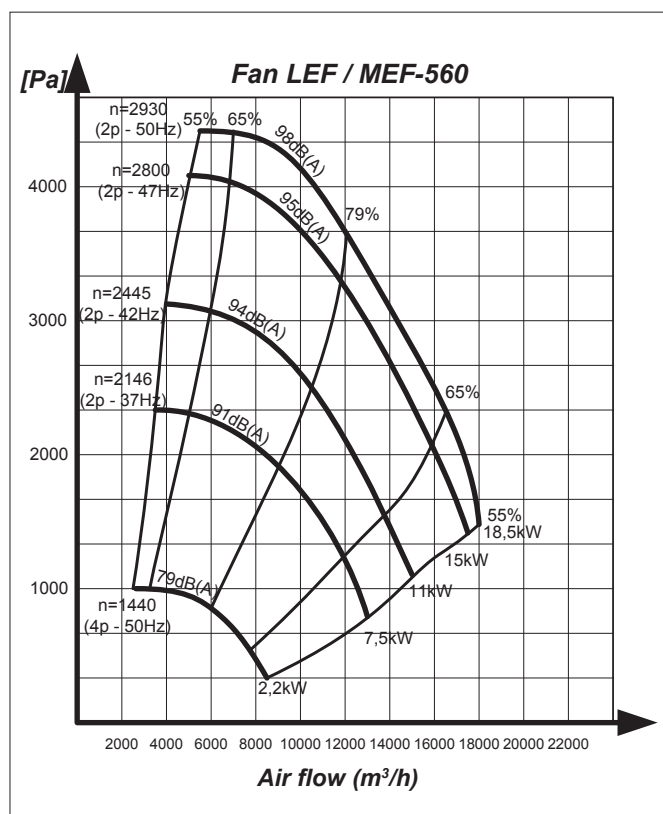
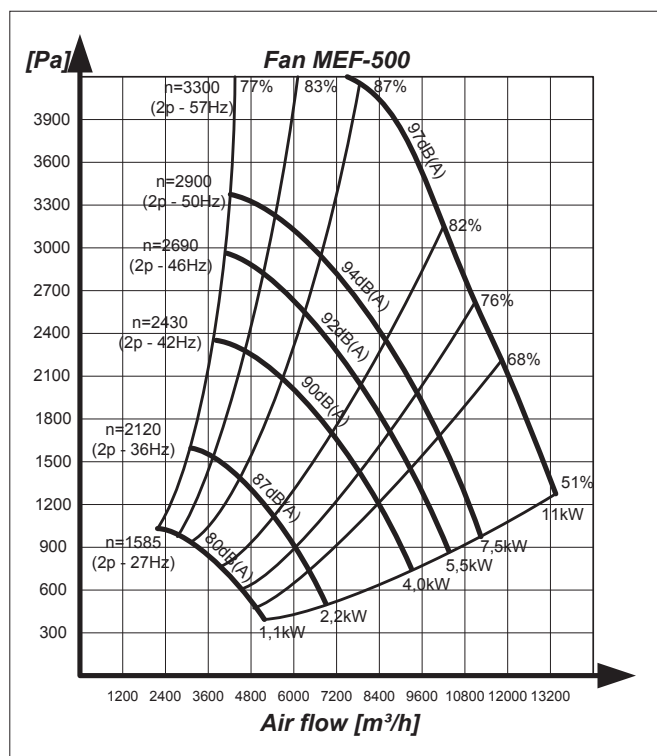
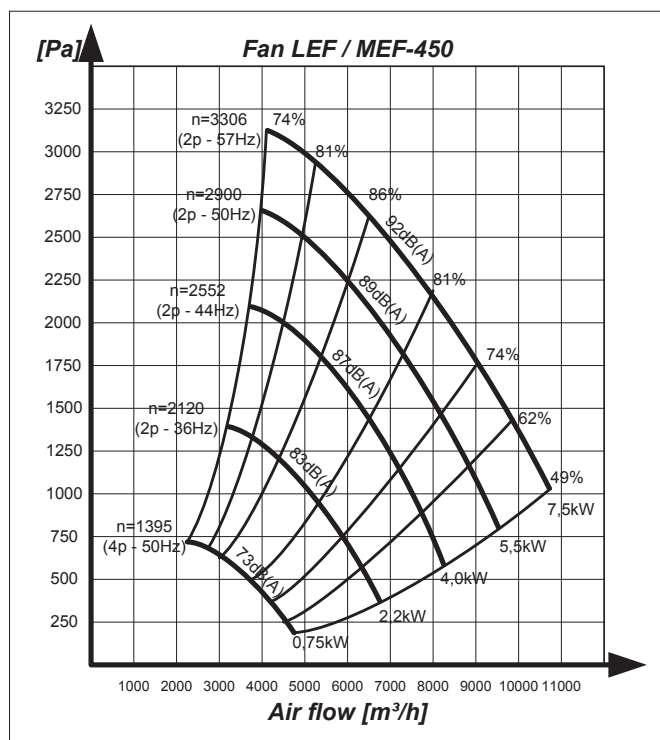
Surrounding temperature:	Max.40°C
Temperature extracted air:	Max.80°C



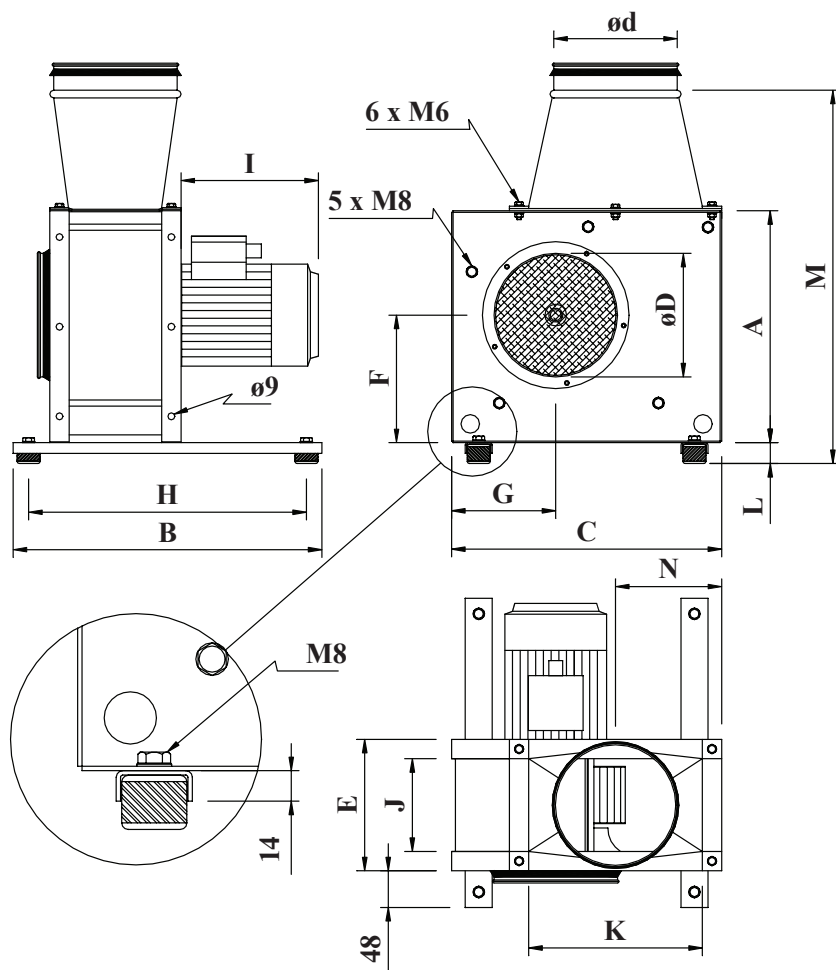
## Pressure drop curves - LEF/MEF



## Pressure drop curves - LEF/MEF



## Dimensions



Electrical motors ranging from 0,25 to 4kw are as standard delivered with B5 mounting flange. From 5.5kw and up are delivered with B35 flange/base and support.



Dimension table, Fans LEF/MEF (LEX/MEX)

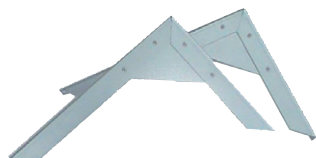
Type	A	B	C	ØD	Ød	E	F	G	H	I	J	K	M	N	Weight
LEF/MEF 250	410	500	500	250	***	215	230	210	460	**	170	320	637	185	38kg*
LEF/MEF 315	510	550	600	315	***	260	290	240	460	**	210	400	720	225	43kg*
LEF/MEF 355	570	655	680	400	***	284	329	272	460	**	234	450	797	250	48kg*
LEF/MEF 400	648	800	756	400	***	308	367	304	760	**	260	500	965	275	56kg*
LEF/MEF 450	715	800	850	500	***	340	408	340	760	**	290	560	1045	305	71kg*
LEF/MEF 500	758	800	871	500	***	345	421	362	760	**	295	510	1065	263	81kg*
LEF/MEF 560	907	800	1070	630	***	425	523	440	760	**	375	709	1340	380	125kg*
LEF/MEF 630	989	800	1175	630	***	446	563	467	760	**	400	800	1340	425	135kg*

\*\*\* - depends on motor choice. NB: By LEX/MEX versions the motor will typically have a larger physical measure than standard versions, and therefore it will also have a higher net weight.

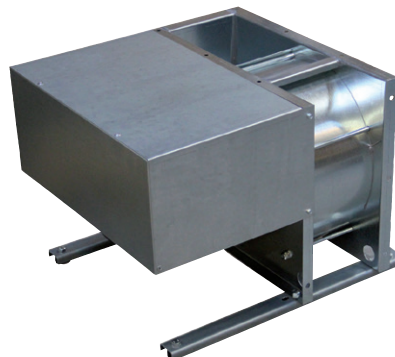
## Accessories



Soundproof box for reduction of the sound level.  
The fan is enclosed in a closed wind- and waterproof galvanized box.  
The sound is typically subdued to 8-15 dB(A)



Wall bracket, hot-galvanized, is supplied in two sizes,  
For mounting the fan on wall  
Must be used with supporting angels



Galvanized rain cover for the fan.  
Protects the motor from water intrusion



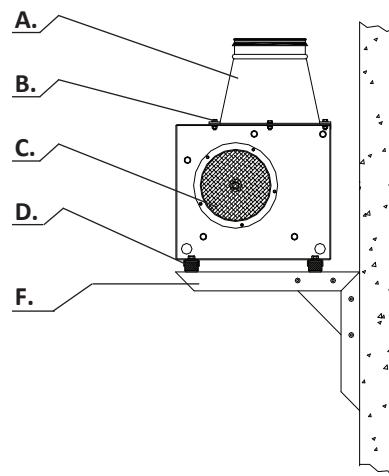
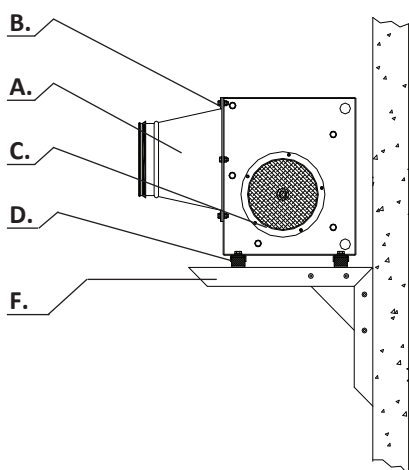
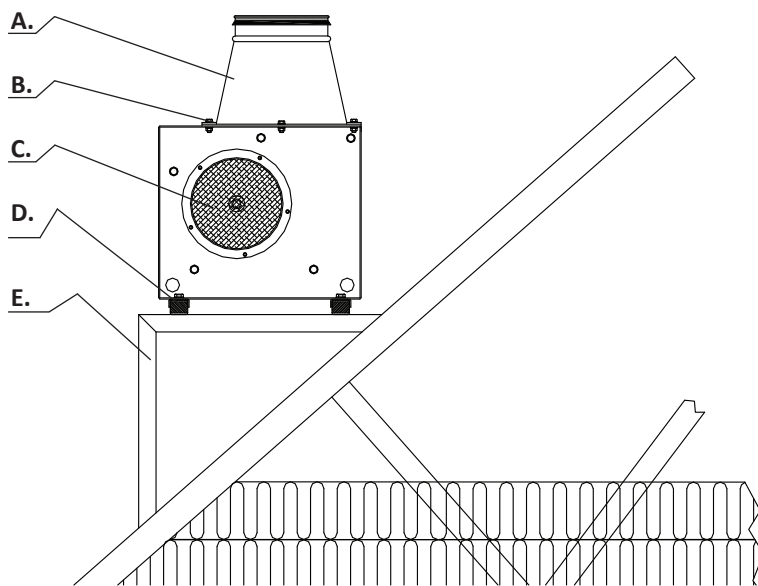
Outlet flange, hot-galvanized, is supplied in several  
Different sizes. Is used as transition from the fan's square yield to a round channel.

## Sound data - measured 1 meter from the outlet

Type	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	Lp. dB(A)	Lp. 1m
LEF 250, measure v. 500 m³/h, 1380 rpm	42,1	65,8	50,8	48,2	51,5	50,3	47,9	33,7	57,2	66,3
LEF 315, measure v. 1200 m³/h, 1380 rpm	42,5	74,5	58,0	54,7	55,5	53,1	44,7	41,7	62,8	74,8
LEF 355, measure v. 2000 m³/h, 1380 rpm	55,4	81,3	65,9	61,8	63,0	61,0	56,3	50,2	69,6	81,6

Type	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	Lp. dB(A)	Lp. 1m
MEF 250, measure v. 1500 m³/h, 2730 rpm	64,3	87,3	74,3	69,5	69,9	74,3	65,1	63,1	77,5	87,9
MEF 315, measure v. 2800 m³/h, 2750 rpm	64,8	91,6	75,9	71,5	71,1	68,5	60,5	59,8	79,5	91,8
MEF 355, measure v. 4000 m³/h, 2850 rpm	68,1	95,7	81,8	77,5	78,0	76,2	68,4	66,0	84,7	96,1
MEF 400, measure v. 3500 m³/h, 2850 rpm	75,6	92,9	85,3	77,5	78,9	76,1	68,3	62,2	84,4	94,0
MEF 450, measure v. 7000 m³/h, 2550 rpm	73,5	99,9	82,9	79,9	79,9	77,4	69,1	67,5	87,8	100,1
MEF 500, measure v. 8000 m³/h, 2669 rpm	77,4	101,4	86,3	83,8	86,9	85,7	83,5	69,3	92,7	101,9
MEF 560, measure v. 10.000 m³/h, 2260 rpm	77,7	101,2	85,9	81,2	83,6	81,1	72,8	67,9	90,1	101,5





- A. Outlet flange, transition from the fan's square yield to a round channel. The outlet flange, which is a sleeve, has an EPDM rubber packing in sealing class C. By using vibration dampers a flexible connection between the outlet flange and the yield can be inserted.
- B. Clamp, galvanized, is used for attachment of the outlet flange with the aid of 6 pcs. M6 screws. After mounting you must use joint filler.
- C. Inlet in sleeve, galvanized, is provided with net to protect the fans impeller and EPDM rubber packing in sealing class c. By using vibration dampers a flexible connection between the inlet and the piping can be inserted.
- D. Supporting angels, galvanized, is supplied with or without vibration dampers depending on the application. The vibration dampers are adjusted to each Fan.
- E. Roof bracket GB 15-45°, galvanized, is supplied with angel brackets on 500x1.000mm, so it is possible to saw off until you have the right pitch. The roof bracket is supplied with 4 pcs. Of mounting sheets with holes for the most common roofing tiles.
- F. Wall bracket, galvanized, is supplied as a complete set with screws for mounting the fan.

## LEF/MEF 250 - 355

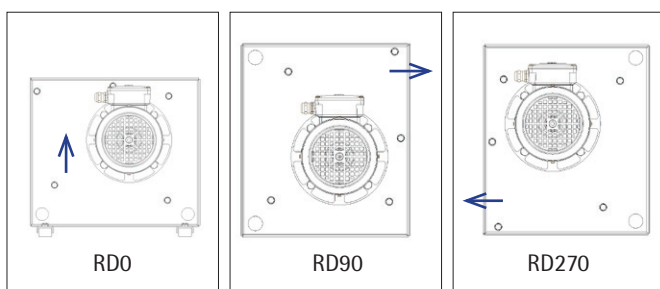
Art. no.	Model	[kW]	[A]
33-701	LEF-250-3	0,25	1,8
33-702	MEF-250-3*	0,37	4,9
33-705	MEF-250-1*	0,37	7,2
33-706	GLEF-250-3	0,25	9,8
33-708	GMEF-250-3*	0,37	13,8

34-651	LEF-315-3*	0,25	0,8
34-652	MEF-315-3*	0,55	1,4
34-653	MEF-315-3	0,75	1,9
34-654	MEF-315-3*	1,1	2,4
34-655	LEF-315-1*	0,25	2,05
34-656	MEF-315-1	0,75	4,9

34-701	LEF-355-3	0,25	0,8
34-702	MEF-355-3*	0,75	1,9
34-703	MEF-355-3*	1,1	2,4
34-704	MEF-355-3	1,5	3,15
34-705	MEF-355-3*	2,2	4,4
34-706	MEF-355-3*	3	5,75
34-707	MEF-355-1	1,5	8,75
34-708	LEF-355-1	0,25	2,05

\* = Demands the use of an external frequency inverter.

## Exhaust air



↑ Exhaust air seen from the motor side

## LEF/MEF 400 - 630

Art. no.	Model	[kW]	[A]
35-201	LEF-400-3	0,37	1,05
35-202	LEF-400-1	0,37	3,83
35-203	MEF-400-3*	2,2	4,4
35-206	MEF-400-3	4	7,2
35-206A	MEF-400-3*	5,5	9,8

35-701	LEF-450-3	0,75	1,8
35-702	LEF-450-1	0,75	4,9
35-705	MEF-450-3*	4	7,2
35-706	MEF-450-3	5,5	9,8
35-708	MEF-450-3*	7,5	13,8

36-500	MEF-500-3	7,5	13,8
36-501	MEF-500-3*	11	19,5
36-502	MEF-500-3*	5,5	9,8
36-503	MEF-500-3	4	7,2
36-504	LEF-500-3	1,1	2,5

35-801	LEF-560-3	2,2	4,6
35-802	MEF-560-3*	7,5	13,8
35-803	MEF-560-3*	11	19,5
35-803A	MEF-560-3	15	26
35-804	MEF-560-3	18,5	34,3
35-805	MEF-560-3	22	40

35-750	MEF-630-3*	22	38,1
35-750A	MEF-630-3*	15	26,4
35-751	LEF-630-3	4	7,9
35-752	LEF-630-3*	7,5	14,2
35-753	LEF-630-3*	11	21,2
35-755	LEF-630-3*	5,5	10,8

\* = Demands the use of an external frequency inverter.

## ATEX fan LEX/MEX

Our series of ATEX fans with backward curving impellers are as standard scope of application is zone 1, zone 2 and zone 22.

The construction is based on standard LEF/MEF, but has beside the ATEX motor, also protection against static electricity and sparks in the inlet.

For ATEX applications, where acid proof execution is needed, this is available. All plate parts, screws and bolts a.s.o. are supplied in Acid proof ANSI 316L and are subsequently stained. The wheel is either supplied in a special lacquered edition or in ANSI 316L.

NB: All volume current curves are as standard only 50 hz, in LEX/MEX ATEX versions.



## LEX/MEX 250 - 630

Art. no.	Model	[kW]	[volt]	[A]
37-510	LEX 250-3	0,55	3x400	1,30
37-520	MEX 250-3	0,37	3x400	1,08
37-530	LEX 315-3	0,55	3x400	1,30
37-540	MEX 315-3	0,75	3x400	1,80
37-550	LEX 355-3	0,55	3x400	1,30
37-560	MEX 355-3	1,85	3x400	4,00
37-570	LEX 400-3	0,37	3x400	1,08
37-580	MEX 400-3	4,10	3x400	8,10
37-590	LEX 450-3	0,75	3x400	1,90
37-591	MEX 450-3	5,50	3x400	10,40
37-592	MEX 500-3	7,50	3x400	13,70
37-595	LEX-560-3	3,6	3X400	8,1
37-596	MEX-560-3	18,5	3X400	33,00
37-593	LEX 630-3	4,00	3x400	8,1