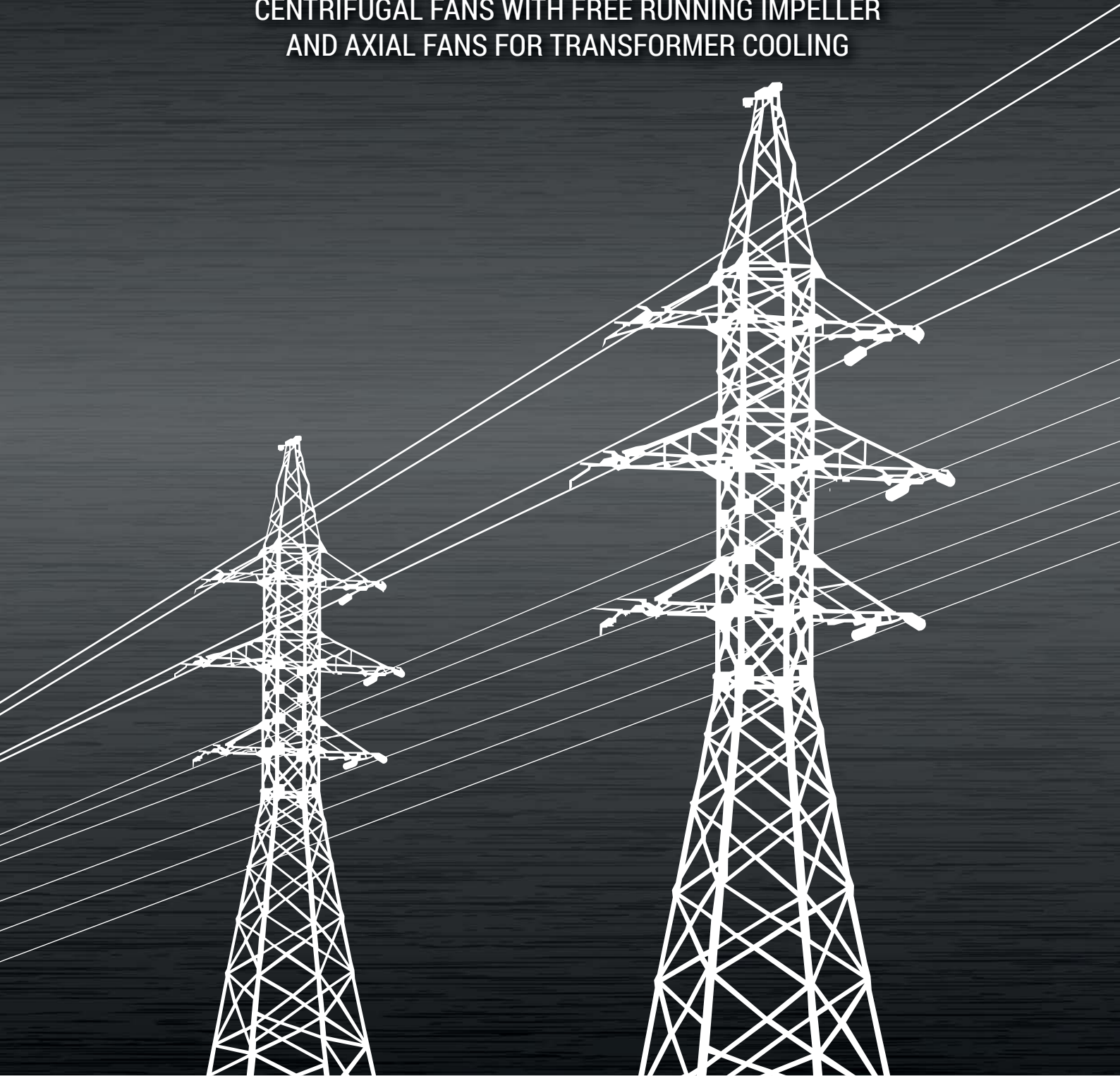


CENTRIFUGAL FANS WITH FREE RUNNING IMPELLER
AND AXIAL FANS FOR TRANSFORMER COOLING



www.rosenberg-gmbh.com

[®] **ECO FIT**
rosenberg **ETRI**
THE AIR MOVEMENT GROUP



The Rosenberg Group

Air conditioning and ventilation technology
is our world



Air is our element – **moving it intelligently and efficiently** is our passion.

Since 1981 we have been developing and producing adjustable external rotor motors, fans and air handling units.

Established

1981

Employees

350 in Germany
Approx. 1,400 worldwide

Production sites

Germany, Hungary, Czech Republic,
Italy, France, China, Slovakia

**Development centres
(certified laboratory)**

Germany, France,
Hungary and China

**Subsidiaries
and Partners**

ROX Klimatechnik GmbH,
ECOFIT, ETRI, Airtècnics



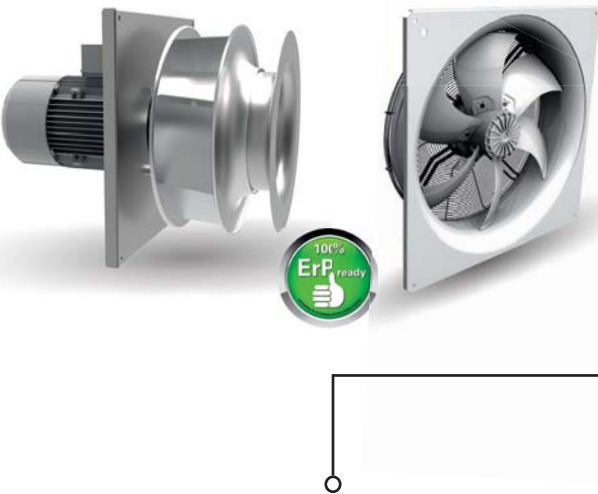


Transformer

Heat is generated in the winding of dry transformers and must be dissipated via the surface of the coil. Fans are ideally suited for this purpose. Rosenberg fans help to remove the dissipated heat and simultaneously use the ambient air to cool down the transformer.

An efficiently cooled transformer has the following advantages:

- Higher peak loads can be achieved
- Improved efficiency of the transformer
- Increased power of the transformer
- Longer life due to the more even distribution of temperature of the transformer winding

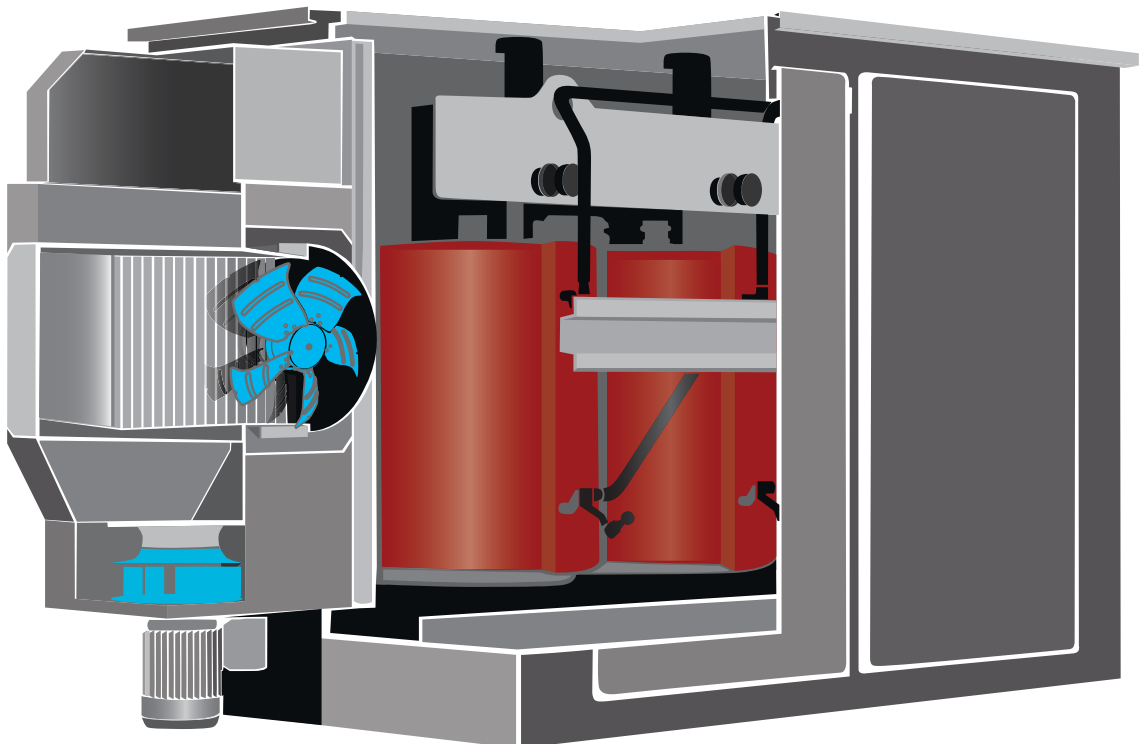


Centrifugal fans with free running impeller

- Available in sizes 250-630 (Impeller diameter in mm)
- Reputable / well-known suppliers of standard IEC motors
- Aluminium impeller with diffuser to improve the efficiency
- Most suitable for cooling transformers in systems with increased pressure losses.

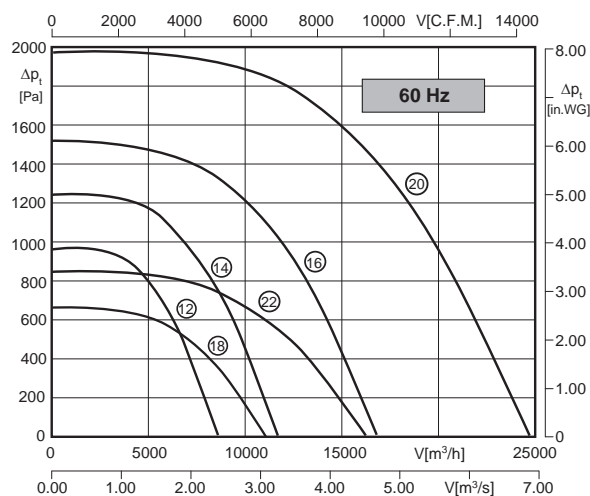
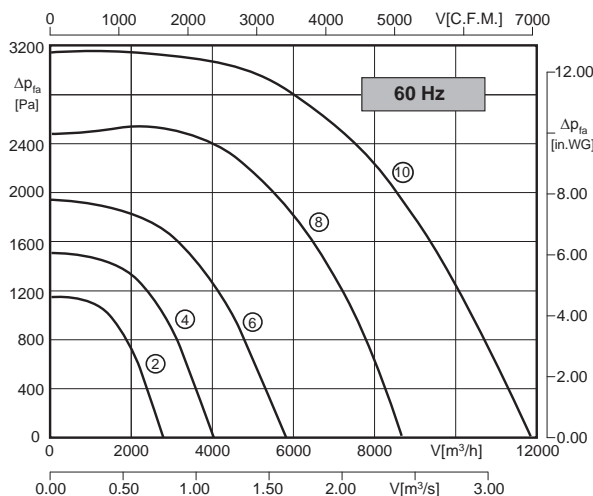
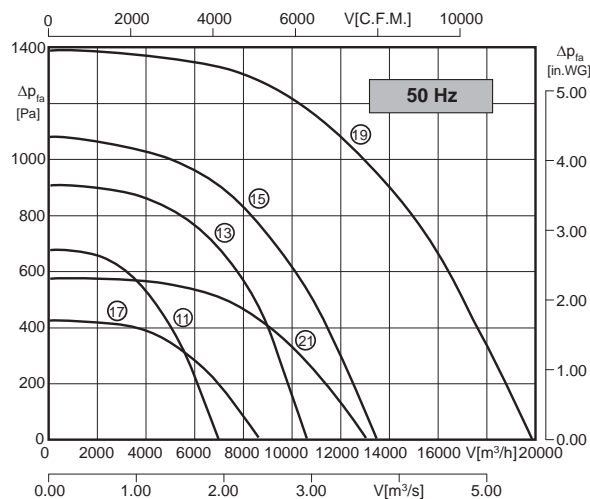
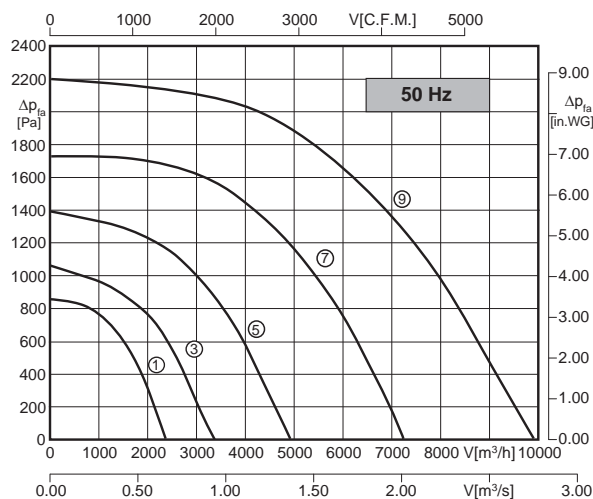
Axial fans

- Available in sizes 450-1000 (Blade diameter in mm)
- The fans are driven by industry leading Rosenberg AC external rotor motors of our own design and manufacture
- Efficient, sickle-shaped blades made of aluminum with very low noise characteristics
- Designed for transformer cooling



Centrifugal fans with free running impeller

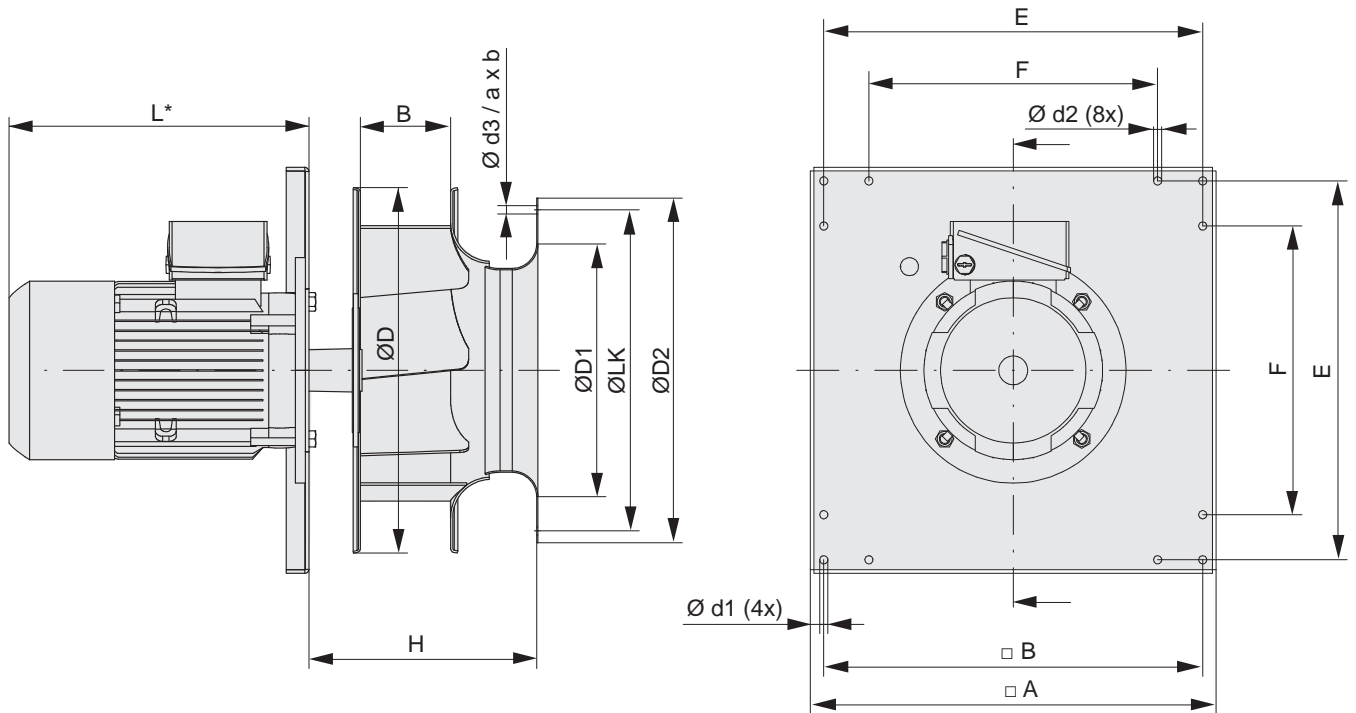
Type: DKNR



DKNR

Nr.	Size	Fan type	U [V]	f [Hz]	P [kW]	n [min ⁻¹]	I _N [A]	L _{wA} [dB(A)]
1	250	DKNR 250-2KB.071.B08	400	50	0.75	2805	1.67	76
2	250	DKNR 250-2KB.071.B08	460	60	1.27	3430	2.30	81
3	280	DKNR 280-2KB.080.B08	400	50	1.10	2835	2.40	83
4	280	DKNR 280-2KB.080.B09	460	60	1.75	3480	3.10	87
5	315	DKNR 315-2KB.090.B09	400	50	1.50	2885	3.15	87
6	315	DKNR 315-2KB.090.B09	460	60	2.54	3485	4.35	92
7	355	DKNR 355-2KB.100.B10	400	50	3.00	2905	6.10	90
8	355	DKNR 355-2KB.100.B11	460	60	4.55	3540	7.60	94
9	400	DKNR 400-2KB.112.B11	400	50	4.00	2945	7.90	90
10	400	DKNR 400-2KB.112.B13	460	60	6.30	3550	10.20	94
11	450	DKNR 450-4KB.125.B09	400	50	1.50	1435	3.30	76
12	450	DKNR 450-4KB.125.B10	460	60	2.54	1755	4.45	81
13	500	DKNR 500-4KB.140.B10	400	50	3.00	1455	6.20	85
14	500	DKNR 500-4KB.140.B11	460	60	4.55	1760	8.00	89
15	560	DKNR 560-4KB.160.B11	400	50	4.00	1460	8.20	87
16	560	DKNR 560-4KB.160.B13	460	60	6.30	1765	10.90	91
17	560	DKNR 560-6KB.160.B09	400	50	1.10	935	2.90	77
18	560	DKNR 560-6KB.160.B10	460	60	1.75	1170	3.45	82
19	630	DKNR 630-4KB.180.B13	400	50	5.50	1465	11.30	83
20	630	DKNR 630-4KB.180.B13	460	60	8.60	1765	14.50	92
21	630	DKNR 630-6KB.180.B10	400	50	1.50	970	3.70	79
22	630	DKNR 630-6KB.180.B11	460	60	2.54	1165	4.90	83

Notice: Measurement according to ISO 13347-3. The free-outlet sound power level L_{wA18} is depicted.



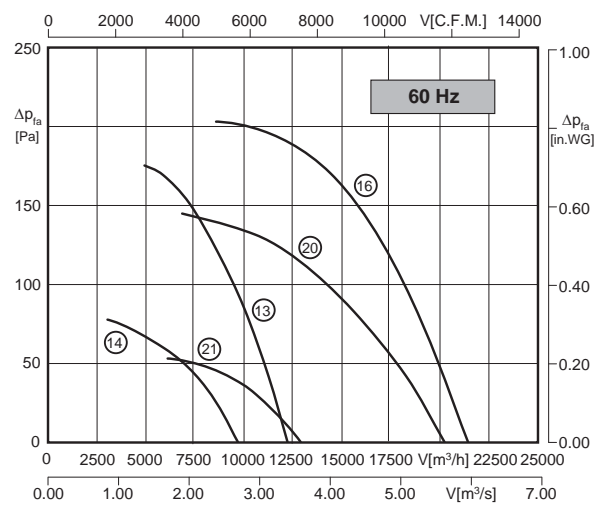
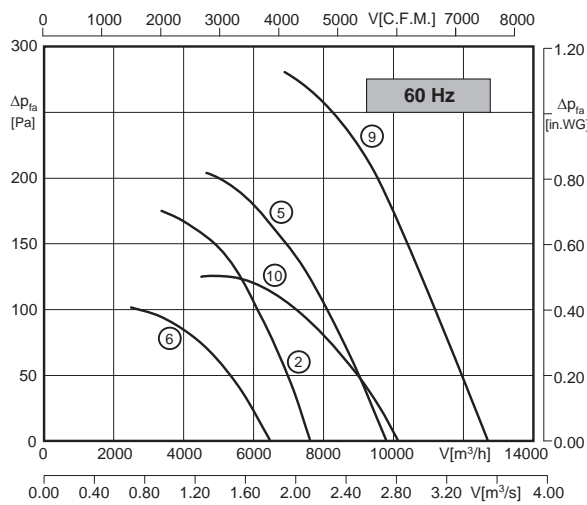
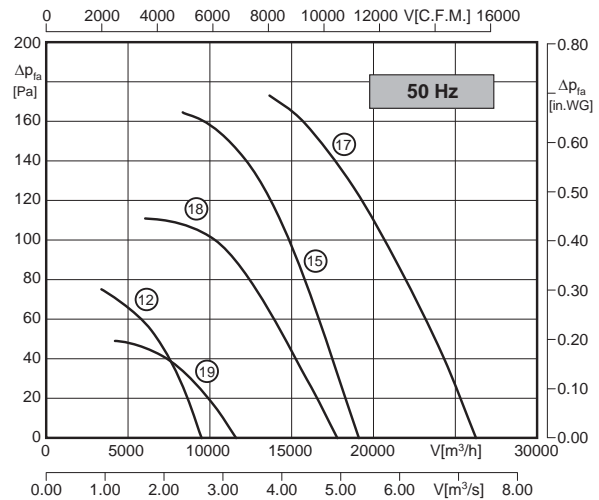
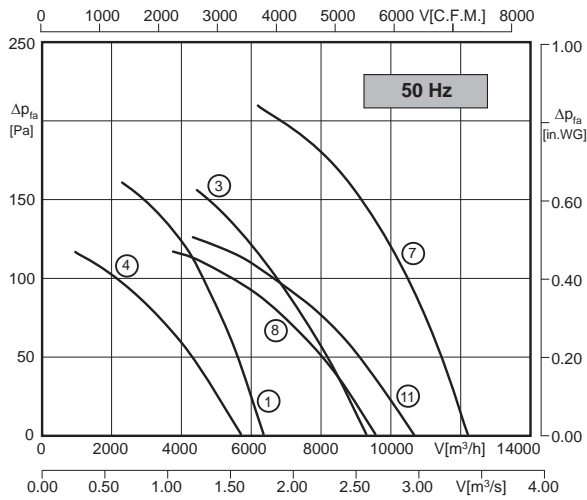
* can diversify according to manufacturer / efficiency class

Type	D	B	H	L*	D1	D2	LK	d2 / a x b°	A	B	d1	E	F	d2
250	283	71	159	260	197	280	259	9 / 6 x 60°	400	370	9	-	-	-
250	283	71	159	260	197	280	259	9 / 6 x 60°	400	370	9	-	-	-
280	318	80	203	260	220	307	286	9 / 6 x 60°	400	370	9	-	-	-
280	318	80	203	305	220	307	286	9 / 6 x 60°	400	370	9	-	-	-
315	360	90	224	305	248	348	320	9 / 6 x 60°	450	420	9	-	-	-
315	360	90	224	305	248	348	320	9 / 6 x 60°	450	420	9	-	-	-
355	405	100	252	341	280	382	356	11 / 6 x 60°	450	420	9	-	-	-
355	405	100	252	335	280	382	356	11 / 6 x 60°	450	420	9	-	-	-
400	455	112	275	335	313	422	395	11 / 8 x 45°	510	460	12	-	-	-
400	455	112	275	391	313	422	395	11 / 8 x 45°	510	460	12	-	-	-
450	510	125	282	305	352	464	438	11 / 8 x 45°	615	-	-	565	365	12
450	510	125	282	341	352	464	438	11 / 8 x 45°	615	-	-	565	365	12
500	570	140	310	341	396	519	490	11 / 8 x 45°	615	-	-	565	365	12
500	570	140	310	335	396	519	490	11 / 8 x 45°	615	-	-	565	365	12
560	635	160	354	335	444	564	541	11 / 8 x 45°	700	-	-	650	365	12
560	635	160	354	391	444	564	541	11 / 8 x 45°	700	-	-	650	365	12
560	635	160	343	305	444	564	541	11 / 8 x 45°	700	-	-	650	365	12
560	635	160	354	341	444	564	541	11 / 8 x 45°	700	-	-	650	365	12
630	716	180	389	391	505	640	610	13 / 8 x 45°	800	-	-	750	465	12
630	716	180	389	391	505	640	610	13 / 8 x 45°	800	-	-	750	465	12
630	716	180	389	341	505	640	610	13 / 8 x 45°	800	-	-	750	465	12
630	716	180	389	335	505	640	610	13 / 8 x 45°	800	-	-	750	465	12

All dimensions in mm / individual adjustment possible (grounding screws, coating, etc)

Axial fans

Type: AKSD / AKFD



No.	Size	Fan Type	U [V]	f [Hz]	P [kW]	n [min ⁻¹]	I _N [A]	L _{wA} [dB(A)]	t _r [°C]
1	450	AKSD 450-4K.5FA	400	50	0.43	1360	1.07	75	-30..+60
2	450	AKSD 450-4N.5FA	460	60	0.83	1510	1.38	80	-30..+50
3	500	AKFD 500-4N.5HA	400	50	0.80	1350	1.63	74	-30..+60
4	500	AKSD 500-6K.5DF	400	50	0.23	915	0.55	70	-30..+70
5	500	AKFD 500-4K.5HA	460	60	0.98	1465	1.79	75	-30..+60
6	500	AKSD 500-6N.5FA	460	60	0.41	1065	0.69	72	-30..+70
7	560	AKFD 560-4K.6FA	400	50	1.19	1365	2.29	81	-30..+75
8	560	AKSD 560-6N.5HA	400	50	0.56	905	1.23	71	-30..+65
9	560	AKFD 560-4G.6FA	460	60	1.56	1610	2.46	85	-30..+45
10	560	AKSD 560-6K.5HA	460	60	0.78	1075	1.37	73	-30..+50
11	630	AKSD 630-6K.5HA	400	50	0.62	885	1.22	76	-30..+60
12	630	AKSD 630-8N.5HA	400	50	0.33	635	0.90	69	-30..+70
13	630	AKSD 630-6K.5KA	460	60	0.97	1055	1.67	79	-30..+50
14	630	AKSD 630-8N.5HA	460	60	0.47	730	0.99	71	-30..+55
15	710	AKFD 710-6N.6LA	400	50	1.40	915	3.35	79	-30..+65
16	710	AKFD 710-6N.6LA	460	60	2.25	1065	3.90	83	-30..+50
17	800	AKFD 800-6N.6LA	400	50	1.93	870	3.90	78	-30..+55
18	800	AKFD 800-8K.6LA	400	50	0.90	675	2.40	73	-30..+55
19	800	AKFD 800-12K.6FA	400	50	0.33	450	1.00	59	-30..+65
20	800	AKFD 800-8K.6LA	460	60	1.35	785	2.60	76	-30..+50
21	800	AKFD 800-12K.6FA	460	60	0.48	520	1.10	61	-30..+60

Notice: Measurement according to ISO 13347-3. The free-outlet sound power level L_{wAIS} is depicted.

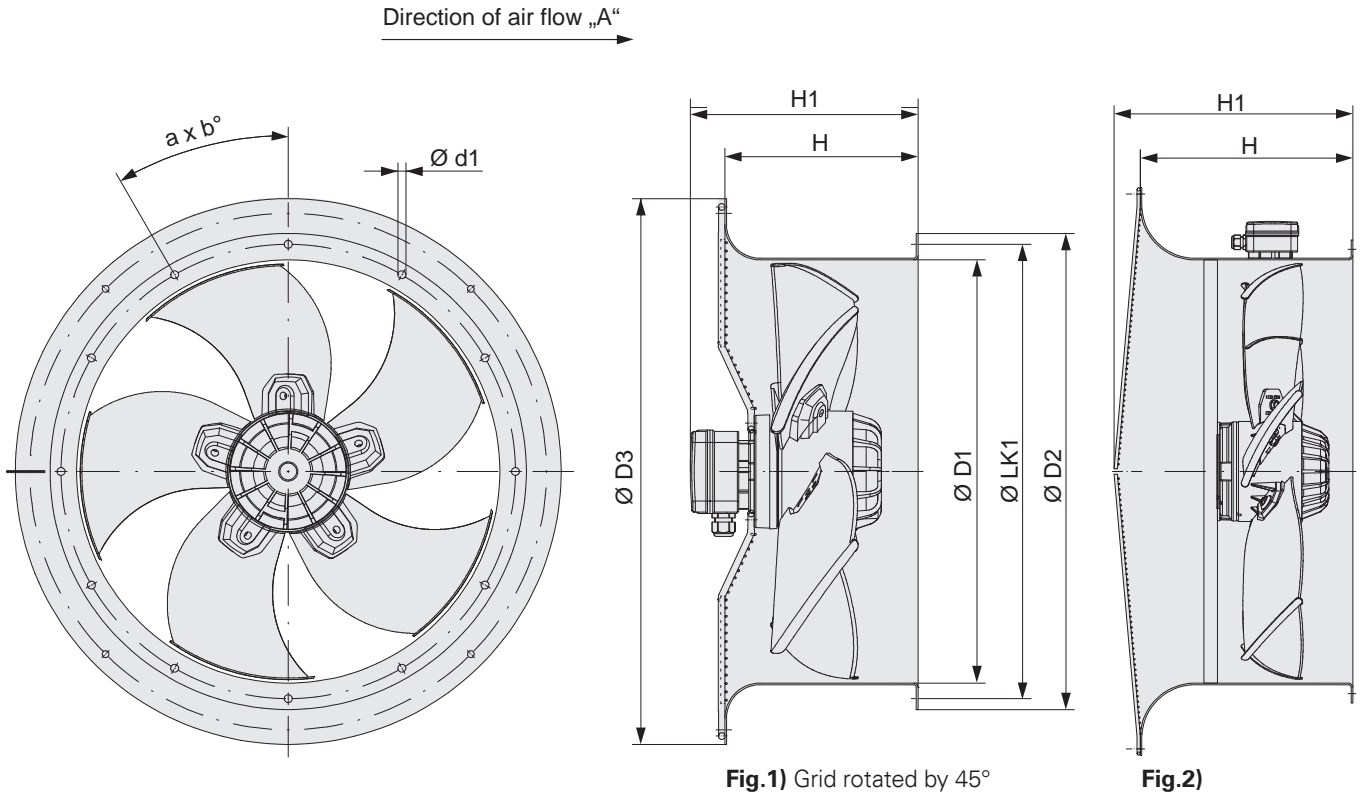


Fig.1) Grid rotated by 45°

Fig.2)

Typ	D1	D2	D3	H	H1	LK1	d1 / a x b°	Fig.
450	452	515	595	190	260	487	9.5 / 12 x 30°	1
450	452	515	595	190	260	487	9.5 / 12 x 30°	1
500	504	567	650	230	275	541	9.5 / 12 x 30°	1
500	504	567	650	230	275	541	9.5 / 12 x 30°	1
500	504	567	650	230	275	541	9.5 / 12 x 30°	1
500	504	567	650	230	275	541	9.5 / 12 x 30°	1
560	560	635	700	250	320	605	12 / 16 x 22,5°	1
560	560	635	700	250	320	605	12 / 16 x 22,5°	1
560	560	635	700	250	320	605	12 / 16 x 22,5°	1
560	560	635	700	250	320	605	12 / 16 x 22,5°	1
630	635	709	800	250	320	674	12 / 16 x 22,5°	1
630	635	709	800	250	320	674	12 / 16 x 22,5°	1
630	635	709	800	250	320	674	12 / 16 x 22,5°	1
630	635	709	800	250	320	674	12 / 16 x 22,5°	1
710	711	785	872	310	320	751	12 / 16 x 22,5°	1
710	711	785	872	310	320	751	12 / 16 x 22,5°	1
800	797	872	1070	400	450	837	12 / 24 x 15°	2
800	797	872	1070	400	450	837	12 / 24 x 15°	2
800	797	872	1070	400	450	837	12 / 24 x 15°	2
800	797	872	1070	400	450	837	12 / 24 x 15°	2

Railroad technology

Rosenberg is one of the world's in railway technology. Rosenberg OEM Products are not only installed to air-condition driver's cabins and passenger compartments but also to cool switchboards, drive inverters and many other components.



Renewable Energies

Modified Rosenberg OEM Products offer an optimal solution for a great number of applications in wind power plants. Our Products ensure the steady cooling for generators, switchboards, transformers, converters and many other components.



Compressor cooling

Knowledge and experience - Rosenberg has been active in the compressor cooling sector for many years. Due to the close cooperation with well-known manufacturers, numerous fans have already been adapted to the needs of the industry.





Data Centers

Protecting data centers from overheating and humidity is one of the main tasks of fans within this application. Rosenberg OEM products with AC or EC drive guarantee a smooth and failsafe operation of the computer systems in an efficient manner.



Marine

Cruise Ships have a wide range of ventilation needs. Rosenberg OEM Products offer solutions for exhaust ventilation of elevators, restrooms, laundries or battery compartments as well as solutions for the use in HVAC applications dedicated to yachts and cruise ships cabins.



Packaging Industry

In highly complex packaging processes, it is essential to prevent a failure of the entire system. Therefore Rosenberg OEM products are used for cooling to ensure a trouble-free operation of various machines in industrial packaging processes.

Since its foundation in 1981 by Karl Rosenberg the Rosenberg Ventilatoren GmbH has emerged through its development and production of adjustable external rotor motors, fans, air handling units and control technology as an important center for Europe for the ventilation and air conditioning industry in Europe.

Customer-oriented and high-quality production is our top priority. The continuous information flow and a good cooperation between customers and our employees is very important to us to ensure quality and product innovation. Modern perfor-

mance testing, computer-controlled production machines and self-directed work groups are also included as well as the integration of measures for higher quality and environment protection.

At the headquarters in Künzelsau, Rosenberg employ 240 members of staff, with over 1.400 employees worldwide. Further Rosenberg production plants are located in Glaubitz (Germany), Waldmünchen (Germany), Hungary, Czech Republic, Italy, France, Slovakia, Turkey, Mexico and in China.



Weiterführende Informationen finden Sie auch unter /
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Product information:
CENTRIFUGAL FANS WITH FREE RUNNING IMPELLER



E-Series "REVOLUTION"

With the help of CFD (Computational Fluid Dynamics) the new developed, high performance centrifugal impeller without spiral housing, the E-Series "REVOLUTION", complements the existing range of Rosenberg free-running impellers by introducing a line specifically designed for volume flow.

The impellers are manufactured using a black, UV-stabilised, long glass-fibre reinforced polypropylene.

Material Benefits:

- Superior chemical resistance
- Corrosion resistant polypropylene
- Will not absorb liquid
- Lower dirt adhesion
- UL listed
- Low noise volume achieved through improved acoustic inherent damping
- No release of toxic combustion gas



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