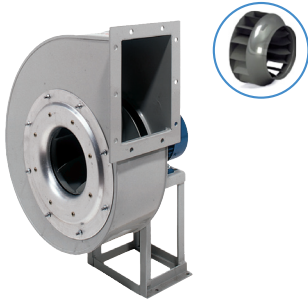


VCRS

Single inlet centrifugal fan,
backward curved blades with direct drive, dirty air



Product

VCRS

Construction

Scroll housing: carbon steel painted RAL 7032 and/or RAL 5015.

Impeller: painted steel

Versions

Bearing cooling fan (VE): TMAX= 100 °C.

ATEX version

FAN

Single-inlet centrifugal fan, backward curved blades, suitable for extraction of dusty air, sawdust, shavings, granular materials in low concentrations excluding filamentous materials.

Operating range at high flow rates, medium/high pressures.

Backward curved blade impeller in welded galvanized steel sheet.

Statically and dynamically balanced according to ISO standards, keeps to minimum levels noise and vibrations.

Orientations: VCRS series fans allow 16 orientation positions (8 clockwise RD and 8 counterclockwise LG) defined looking at the fan from the motor side.

FEATURES

Scroll housing in carbon steel painted RAL 7032 and/or RAL 5015, impeller in painted steel with static and dynamic balancing.

Robust construction entirely in thick welded steel sheet, then painted with

epoxy powders in grey RAL 7032 and/or blue RAL 5015.

Intake air conditions T=15°C, p=760 mm Hg.

Mounting intended on support base. Possibility to request an additional pedestal fixed to the suction inlet to increase the machine's rigidity.

MOTOR

Three-phase asynchronous with squirrel cage rotor, class IE3, in 230/400 V execution (for power ratings up to 4 kW), 400/690 V (for power ratings above 4 kW), B3 frame, IP55 protection, according to UNELMEC standards. Installed with 2, 4 or 6 poles depending on the required pressure, or with dual polarity for two-speed versions.

The power ratings shown in the performance tables have been sized taking into account the machine efficiency and an additional safety margin to compensate for any system anomalies.

Minimum fluid temperature: -25 °C.

Maximum fluid temperature: +60 °C in standard version.

APPLICATIONS



HOSPITALS



CANTEENS



INDUSTRIES



PUBLIC SERVICES



RESTAURANTS



ATEX

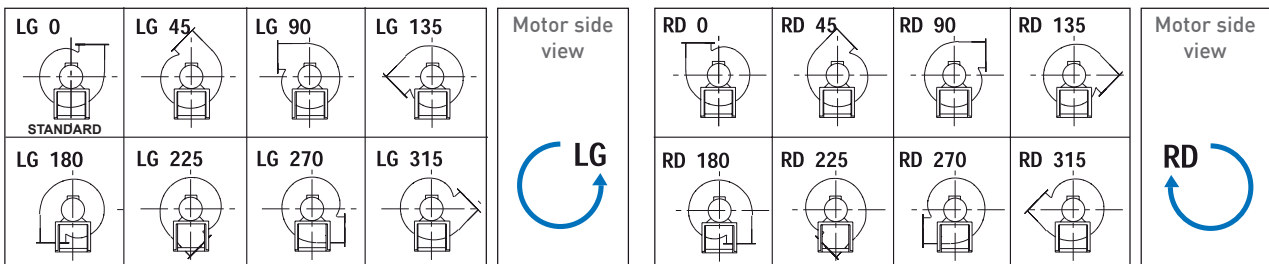


TECHNICAL FEATURES - OPERATING RANGE

Operating range	Flow rate (m ³ /h)	From 470 to 17,000
	Pressure (Pa)	From 410 to 5,610
Min. impeller diameter	mm	200
Max. impeller diameter	mm	630
Motor	Volt (±10%)	230-400 T / 400-690 T
	Poles	2-4-6
	IP	55
Fluid temp min. limit	°C	-25
Fluid max. temp limit	°C	+60

ORIENTATIONS

STANDARD orientation LG 0



Dimensions

H = LG 0 - LG 45 - LG 90 - LG 135

H1 = LG 180 - LG 225

H2 = LG 270 - LG 315

Dimensions

H = RD 0 - RD 45 - RD 90 - RD 135

H1 = RD 180 - RD 225

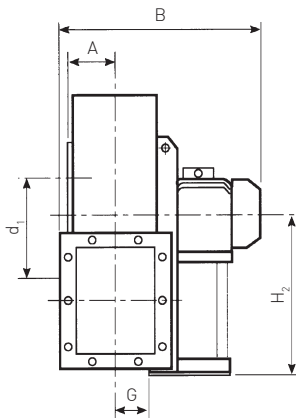
H2 = RD 270 - RD 315

VCRS

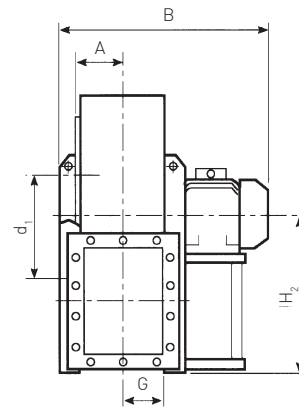
Single inlet centrifugal fan,
backward curved blades with direct drive, dirty air

DIMENSIONS

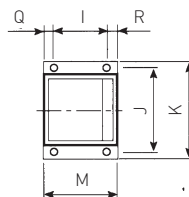
Model	Motor	KG F	PD ² KG F m ²	Motor-driven fan										Suction flange				
				A	B	C	D	E	F	G	H	H ₁	H ₂	d	d ₁	d ₂	N.	Ø
250/2	63 B-2	25	0,09	86	380	441	195	526	175	76	315	195	315	185	219	255	8	8
250/2	71 A-2	26	0,10	86	400	441	195	526	175	76	315	195	315	185	219	255	8	8
280/2	71 B-2	30	0,15	95	420	477	200	610	202	86	375	200	375	205	241	275	8	8
280/2	80 A-2	32	0,16	95	440	477	200	610	202	86	375	200	375	205	241	275	8	8
310/2	80 B-2	41	0,19	105	460	527	225	658	229	96	400	225	400	228	265	298	8	8
310/2	90 S-2	44	0,21	105	480	527	225	658	229	96	400	225	400	228	265	298	8	8
350/2	90 S-2	66	0,43	115	500	600	255	740	253	107	450	255	450	255	292	325	8	10
350/2	90 L-2	69	0,50	115	530	600	255	740	253	107	450	255	450	255	292	325	8	10
400/2	100 LA-2	107	0,70	127	590	655	285	815	286	118	500	285	500	285	332	365	8	10
400/2	112 M-2	110	0,80	127	630	655	285	815	286	118	500	285	500	285	332	365	8	10
450/2	132 SA-2	150	1,2	141	670	735	320	915	321	131	560	320	560	320	366	400	8	10
450/2	132 SB-2	158	1,4	141	670	735	320	915	321	131	560	320	560	320	366	400	8	10
500/2	160 M-2	235	2,3	157	830	832	360	1000	355	148	600	360	600	360	405	440	8	10
500/2	160 M-2	247	2,6	157	830	832	360	1000	355	148	600	360	600	360	405	440	8	10
560/2	160 L-2	132	2,1	157	580	832	360	1000	355	148	600	360	600	360	405	440	8	10
560/2	180 M-2	135	2,2	157	615	832	360	1000	355	148	600	360	600	360	405	440	8	10
500/4	90 S-4	286	3,4	177	880	940	400	1126	390	165	670	400	670	405	448	485	12	10
500/4	90 L-4	316	3,8	177	935	940	400	1126	390	165	670	400	670	405	448	485	12	10
560/4	100 L-4	140	3,2	177	705	940	400	1126	390	165	670	400	670	405	448	485	12	10
560/4	100 L-4	144	3,3	177	705	940	400	1126	390	165	670	400	670	405	448	485	12	10
630/4	112 M-4	178	5,6	195	775	1052	450	1260	439	185	750	450	750	455	497	535	12	10
630/4	132 S-4	191	6,3	195	815	1052	450	1260	439	185	750	450	750	455	497	535	12	10



Version from size 250 to size 500 with electric motor in B3.



Version from size 560 to size 630 with electric motor in B3.



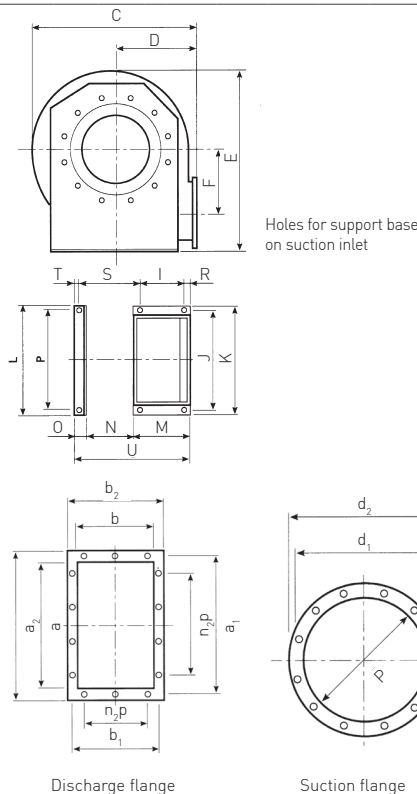
Holes for electric motor support base



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Discharge flange										Electric Motor Base													
a	b	a ₁	b ₁	a ₂	b ₂	n ₁ xp	n ₂ xp	No.	Ø	I	J	K	L	M	N	O	P	Q	R	S	T	U	Ø
207	148	241	182	277	218	1x112	1x112	8	12	86	184	206	-	145	-	-	-	45	14	-	-	-	10
207	148	241	182	277	218	1x112	1x112	8	12	121	203	225	-	180	-	-	-	45	14	-	-	-	10
231	166	265	200	301	236	1x112	1x112	8	12	121	203	225	-	180	-	-	-	45	14	-	-	-	10
231	166	265	200	301	236	1x112	1x112	8	12	121	203	225	-	180	-	-	-	45	14	-	-	-	10
258	185	292	219	328	255	1x112	2x112	10	12	121	203	225	-	180	-	-	-	45	14	-	-	-	10
258	185	292	219	328	255	1x112	2x112	10	12	133	234	260	-	205	-	-	-	55	17	-	-	-	10
288	205	332	249	368	285	1x125	2x125	10	12	133	234	260	-	205	-	-	-	55	17	-	-	-	10
288	205	332	249	368	285	1x125	2x125	10	12	133	234	260	-	205	-	-	-	55	17	-	-	-	10
322	229	366	273	402	309	1x125	2x125	10	12	197	289	324	-	250	-	-	-	30	23	-	-	-	12
322	229	366	273	402	309	1x125	2x125	10	12	197	289	324	-	250	-	-	-	30	23	-	-	-	12
361	256	405	300	441	336	1x125	2x125	10	12	237	337	372	-	300	-	-	-	40	23	-	-	-	12
361	256	405	300	441	336	2x125	3x125	10	12	237	337	372	-	300	-	-	-	40	23	-	-	-	12
404	288	448	332	484	368	2x125	3x125	10	12	337	395	440	-	-	-	-	-	50	28	-	-	-	14
404	288	448	332	484	368	2x125	3x125	10	12	337	395	440	-	415	-	-	-	50	28	-	-	-	14
404	288	448	332	484	368	2x125	3x125	14	12	133	234	260	-	205	-	-	-	55	17	-	-	-	10
404	288	448	332	484	368	2x125	3x125	14	12	133	234	260	-	205	-	-	-	55	17	-	-	-	10
453	322	497	366	533	402	2x125	3x125	14	12	337	395	440	692	415	322	53	-	-	28	410	23	-	14
453	322	497	366	533	402	2x125	3x125	14	12	357	434	488	692	460	322	53	632	-	33	430	23	835	17
453	322	497	366	533	402	2x125	3x125	14	12	197	289	324	692	250	322	53	632	-	23	390	23	625	12
453	322	497	366	533	402	2x125	3x125	14	12	197	289	324	692	250	322	53	632	-	23	390	23	625	12
507	361	551	405	587	441	2x125	3x125	14	12	197	289	324	762	250	361	53	702	-	23	430	23	664	12
507	361	551	405	587	411	2x125	3x125	14	12	237	337	372	762	300	361	-	702	-	23	440	23	714	12



VCRS

Single inlet centrifugal fan,
backward curved blades with direct drive, dirty air

QUICK SELECTION TABLE

Model	Motor	Power Installed kW	RPM	dB(A)	Total pressure PT = Pa Flow rate v = m ³ /h												
					470	540	615	680	750	830	930	1080	1190	1330	1500	1700	1900
250/2	63 B-2	0.25	2780	65	880	880	880	840	800	760	680	630	530	410	-	-	-
250/2	71 A-2	0.37	2780	67	1020	1010	1000	980	950	880	820	750	660	550	-	-	-
280/2	71 B-2	0.55	2780	69	-	-	-	1130	1130	1110	1090	1030	960	870	800	690	530
280/2	80 A-2	0.75	2830	70	-	-	-	1300	1290	1280	1260	1210	1130	1060	950	830	690
310/2	80 B-2	1.10	2830	72	-	-	-	-	-	-	1440	1430	1410	1390	1290	1210	1100
310/2	90 S-2	1.50	2840	73	-	-	-	-	-	-	1650	1640	1630	1600	1540	1420	1330
350/2	90 S-2	1.50	2840	76	-	-	-	-	-	-	-	-	-	1840	1830	1800	1760
350/2	90 L-2	2.20	2850	78	-	-	-	-	-	-	-	-	-	2100	2100	2080	2040
400/2	100 LA-2	3.00	2900	80	-	-	-	-	-	-	-	-	-	-	-	-	2470
400/2	112 M-2	4.00	2900	81	-	-	-	-	-	-	-	-	-	-	-	-	2770
450/2	132 SA-2	5.50	2900	84	-	-	-	-	-	-	-	-	-	-	-	-	-
450/2	132 SB-2	7.50	2900	85	-	-	-	-	-	-	-	-	-	-	-	-	-
500/2	160 M-2	11.00	2930	89	-	-	-	-	-	-	-	-	-	-	-	-	-
500/2	160 M-2	15.00	2930	89	-	-	-	-	-	-	-	-	-	-	-	-	-
560/2	160 L-2	18.50	2940	91	-	-	-	-	-	-	-	-	-	-	-	-	-
560/2	180 M-2	22.00	1420	92	-	-	-	-	-	-	-	-	-	-	-	-	-
500/4	90 S-4	1.10	1430	68	-	-	-	-	-	-	-	-	-	-	-	-	890
500/4	90 L-4	1.50	1425	69	-	-	-	-	-	-	-	-	-	-	-	-	1020
560/4	100 L-4	2.20	1440	71	-	-	-	-	-	-	-	-	-	-	-	-	-
560/4	100 L-4	3.00	1450	72	-	-	-	-	-	-	-	-	-	-	-	-	-
630/4	112 M-4	4.00	1440	75	-	-	-	-	-	-	-	-	-	-	-	-	-
630/4	132 S-4	5.50	1440	78	-	-	-	-	-	-	-	-	-	-	-	-	-

Performance data was measured with suitable instruments in our laboratories.

Air performance at 15 °C temperature with a pressure of 760 mmH₂O.

The indicated flow rate and pressure performances refer to the installation of the fan unit with ducted discharge.

The reported noise is expressed as sound pressure, measured at a distance of 1.5 m in free field.

The power values indicated refer to the actual installed power of the fan unit.

Refer to the performance curves for the correct model selection.



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Total pressure PT = Pa																			
Flow rate v = m ³ /h																			
2150	2400	2700	3050	3450	3850	4250	4750	5400	6150	6850	7650	8500	9500	10800	12000	13500	15300	17000	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1000	850	680	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1210	1060	880	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1630	1550	1420	1280	1070	850	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1980	1820	1710	1550	1340	1130	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2400	2380	2380	-	-	-	-	1410	1120	740	-	-	-	-	-	-	-	-	-	-
2750	2730	2690	2560	2400	2290	2050	1780	1480	1010	-	-	-	-	-	-	-	-	-	-
-	-	3050	3020	2990	2930	2740	2550	2340	2120	1800	1420	970	-	-	-	-	-	-	-
-	-	3500	3480	3440	3380	3260	3010	2820	2570	2230	1860	1270	-	-	-	-	-	-	-
-	-	.	.	.	3920	3880	3840	3770	3520	3280	3600	3280	2830	2360	1800	-	-	-	-
-	-	-	-	-	4480	4420	4400	4320	4160	3820	3600	3280	2360	1800	-	-	-	-	-
-	-	-	-	-	-	-	-	4890	4850	4790	4700	4400	4100	3760	3410	2860	2250	1510	-
-	-	-	-	-	-	-	-	5610	5610	5490	5400	5210	4820	4530	4120	3570	2970	2210	-
880	860	830	800	750	680	630	530	420	-	-	-	-	-	-	-	-	-	-	-
1010	1000	970	940	860	820	750	660	540	-	-	-	-	-	-	-	-	-	-	-
-	-	1140	1130	1120	1070	1010	940	880	800	690	530	-	-	-	-	-	-	-	-
-	-	1300	1290	1270	1250	1200	1120	1040	940	830	700	-	-	-	-	-	-	-	-
-	-	-	-	-	1480	1460	1410	1380	1350	1290	1230	1120	980	780	570	-	-	-	-
-	-	-	-	-	1700	1660	1630	1600	1560	1510	1420	1310	1150	990	750	-	-	-	-

VCRS

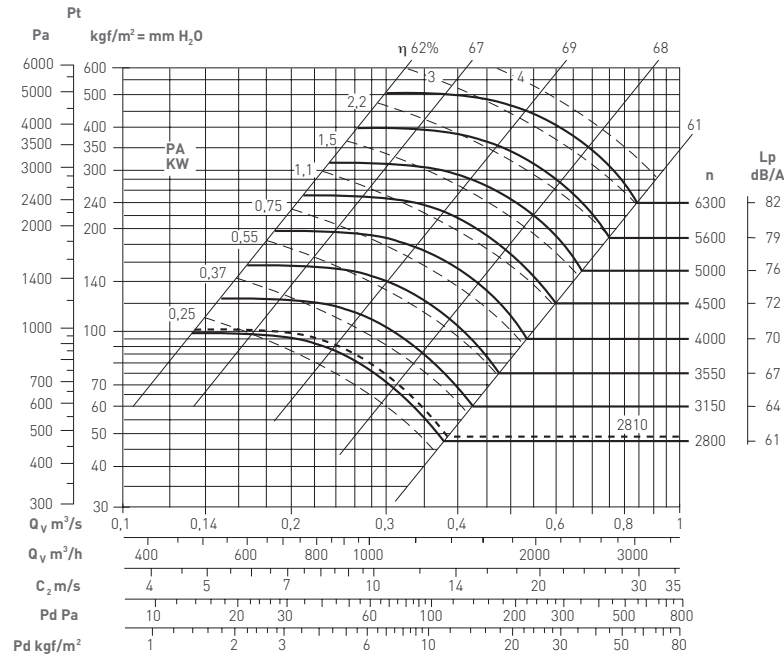
Single inlet centrifugal fan,
backward curved blades with direct drive, dirty air

CHARACTERISTIC CURVES

Q= Flow rate expressed in m³/h, m³/s and cfm

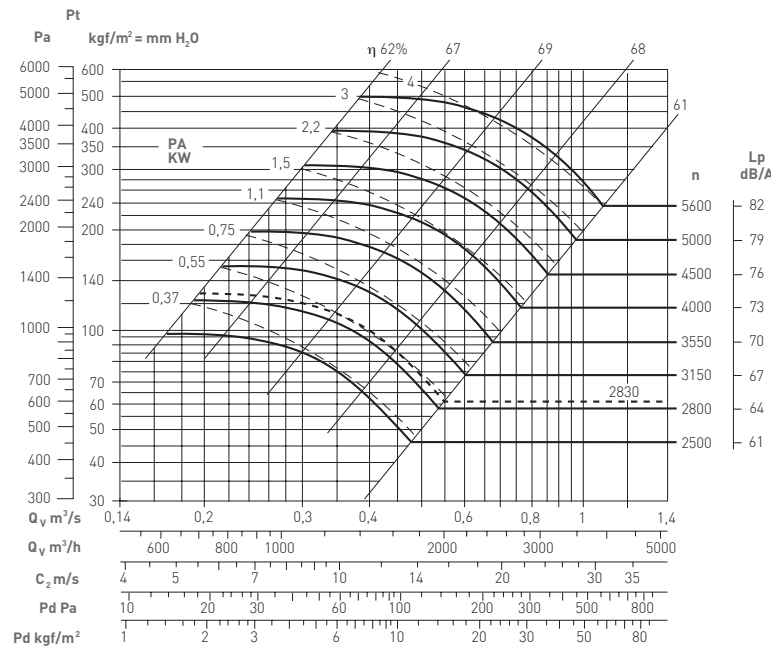
Pe= Static pressure expressed in mmH₂O, e Pa

VCRS 250



Fan weight 25 Kgf
 PD² e GD² = 0,10 Kgf²m
 Maximum rotation speed
 <100 °C = 5600
 100 ÷ 200 °C = 5000
 200 ÷ 300 °C = 4500
 Tolerance on noise level + 3 dB
 Tolerance on absorbed power ± 3%

VCRS 280



Fan weight 36 Kgf
 PD² e GD² = 0,16 Kgf²m
 Maximum rotation speed
 <100 °C = 5000
 100 ÷ 200 °C = 4500
 200 ÷ 300 °C = 4000
 Tolerance on noise level + 3 dB
 Tolerance on absorbed power ± 3%

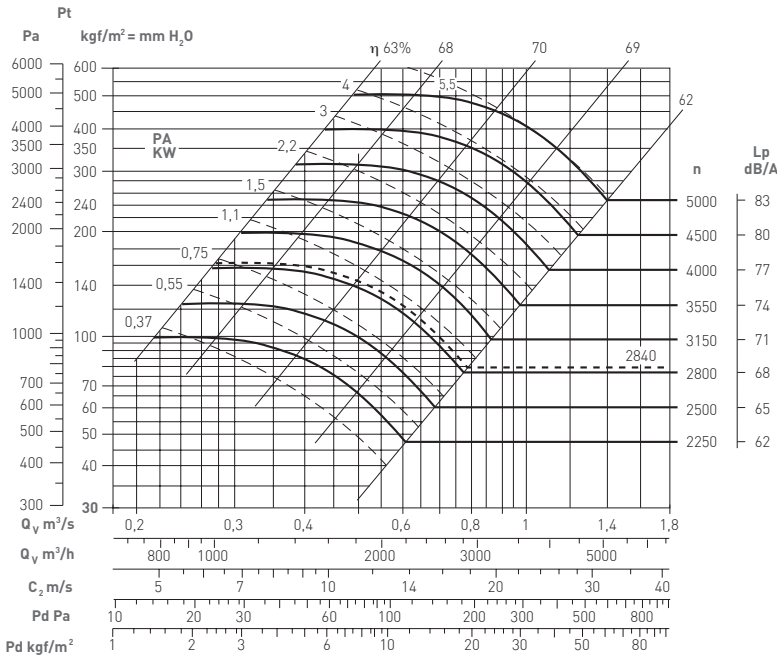


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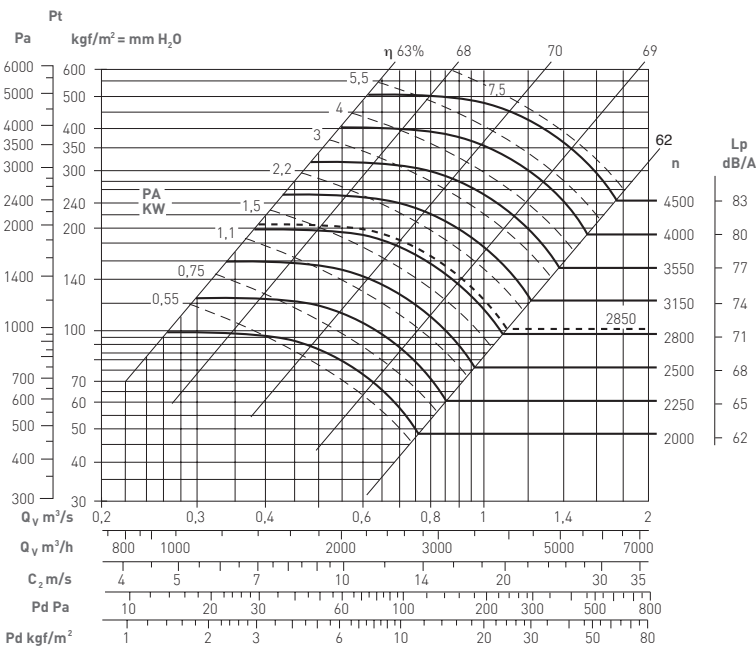
Q= Flow rate expressed in m³/h, m³/s and cfm
Pe= Static pressure expressed in mmH₂O, e Pa

VCRS 310



Fan weight 43 Kgf
 PD² e GD² = 0,21 Kgf²m
 Maximum rotation speed
 <100 °C = 4500
 100 ÷ 200 °C = 4000
 200 ÷ 300 °C = 3550
 Tolerance on noise level + 3 dB
 Tolerance on absorbed power ± 3%

VCRS 350



Fan weight 72 Kgf
 PD² e GD² = 0,5 Kgf²m
 Maximum rotation speed
 <100 °C = 4000
 100 ÷ 200 °C = 3550
 200 ÷ 300 °C = 3150
 Tolerance on noise level + 3 dB
 Tolerance on absorbed power ± 3%

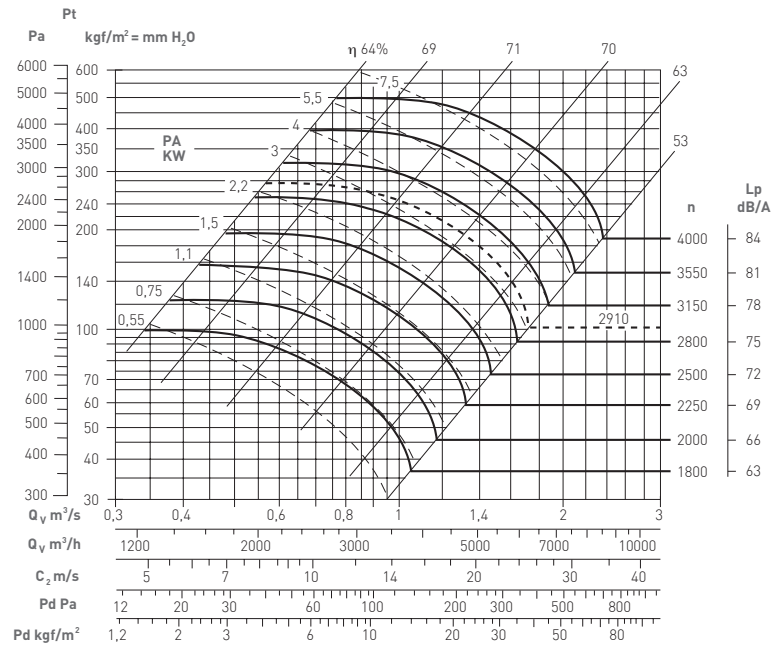
VCRS

Single inlet centrifugal fan,
backward curved blades with direct drive, dirty air

Q= Flow rate expressed in m³/h, m³/s and cfm

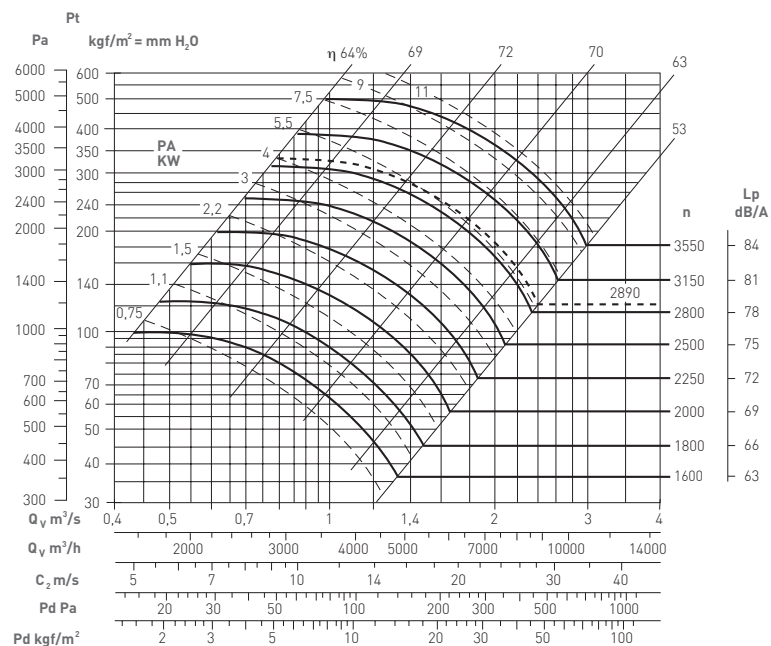
Pe= Static pressure expressed in mmH₂O, e Pa

VCRS 400



Fan weight 85 Kgf
 PD² e GD² = 0,8 Kgf²m
 Maximum rotation speed
 <100 °C = 3550
 100 ÷ 200 °C = 3150
 200 ÷ 300 °C = 2800
 Tolerance on noise level + 3 dB
 Tolerance on absorbed power ± 3%

VCRS 450



Fan weight 102 Kgf
 PD² e GD² = 1,4 Kgf²m
 Maximum rotation speed
 <100 °C = 3150
 100 ÷ 200 °C = 2800
 200 ÷ 300 °C = 2500
 Tolerance on noise level + 3 dB
 Tolerance on absorbed power ± 3%



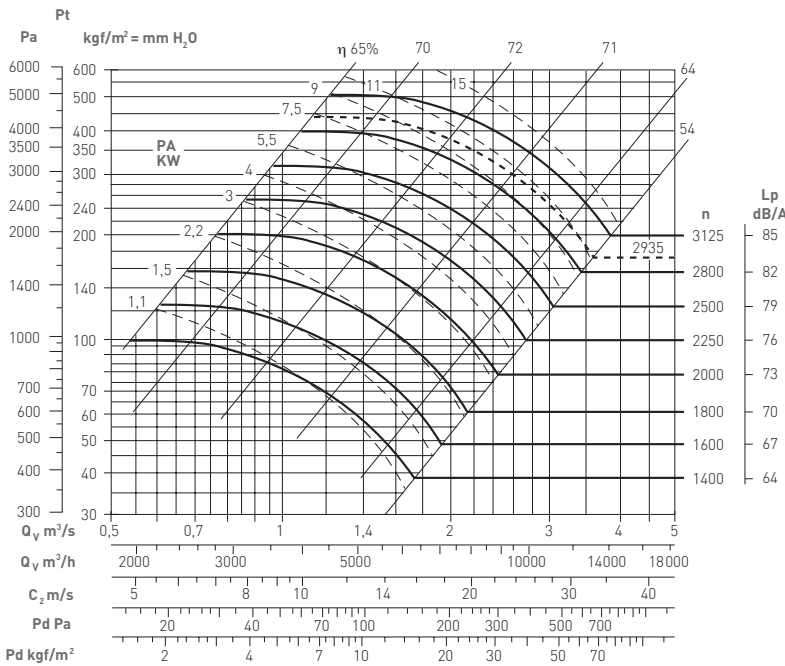
Ventilation

Comfort and performance
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Q= Flow rate expressed in m³/h, m³/s and cfm

Pe= Static pressure expressed in mmH₂O, e Pa

VCRS 500



Fan weight 145 Kgf

PD² e GD² = 2,6 Kgf²m

Maximum rotation speed

<100 °C = 2800

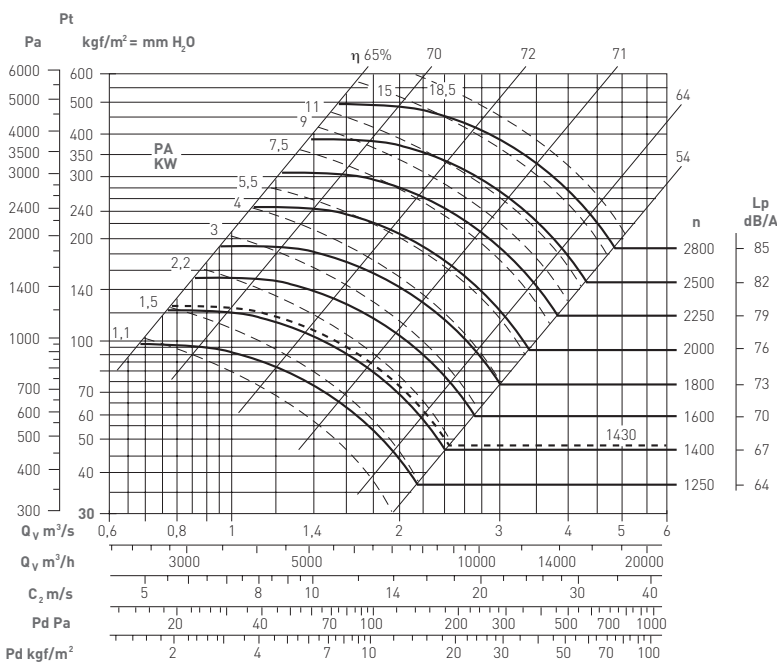
100 ÷ 200 °C = 2500

200 ÷ 300 °C = 2550

Tolerance on noise level + 3 dB

Tolerance on absorbed power ± 3%

VCRS 560



Fan weight 172 Kgf

PD² e GD² = 3,8 Kgf²m

Maximum rotation speed

<100 °C = 2500

100 ÷ 200 °C = 2550

200 ÷ 300 °C = 2000

Tolerance on noise level + 3 dB

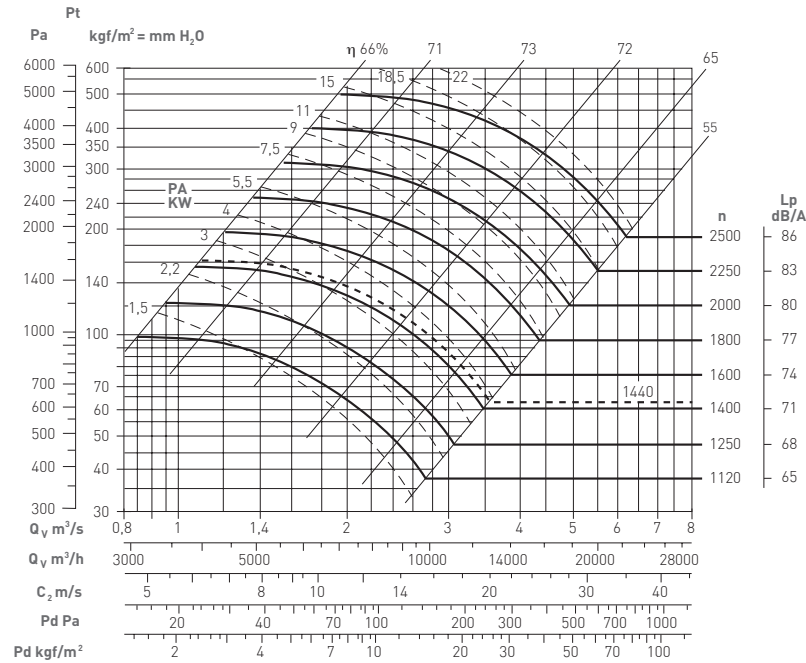
Tolerance on absorbed power ± 3%

VCRS

Single inlet centrifugal fan,
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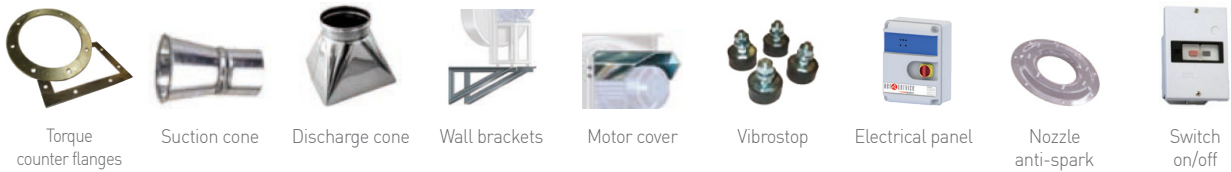
Q= Flow rate expressed in m³/h, m³/s and cfm
Pe= Static pressure expressed in mmH₂O, e Pa

VCRS 630



Fan weight 210 Kgf
PD² e GD² = 6,7 Kgf²m
Maximum rotation speed
< 100 °C = 2550
100 ÷ 200 °C = 2000
200 ÷ 300 °C = 1800
Tolerance on noise level + 3 dB
Tolerance on absorbed power ± 3%

ACCESSORIES



All images are only indicative of the product type and may differ from the actual article.



AVAILABLE MODELS

Model	Motor	Installed Power kW	RPM
250/2	63 B-2	0,25	2780
250/2	71 A-2	0,37	2780
280/2	71 B-2	0,55	2780
280/2	80 A-2	0,75	2830
310/2	80 B-2	1,10	2830
310/2	90 S-2	1,50	2840
350/2	90 S-2	1,50	2840
350/2	90 L-2	2,2	2850
400/2	100 LA-2	3,00	2900
400/2	112 M-2	4,00	2900
450/2	132 SA-2	5,50	2900
450/2	132 SB-2	7,50	2900
500/2	160 M-2	11,00	2930
500/2	160 M-2	15,00	2930
560/2	160 L-2	18,50	2940
560/2	180 M-2	22,00	1420
500/4	90 S-4	1,10	1430
500/4	90 L-4	1,50	1425
560/4	100 L-4	2,20	1440
560/4	100 L-4	3,00	1450
630/4	112 M-4	4,00	1440
630/4	132 S-4	5,50	1440

* For RD and LG 180 and 225 orientations, contact the sales office