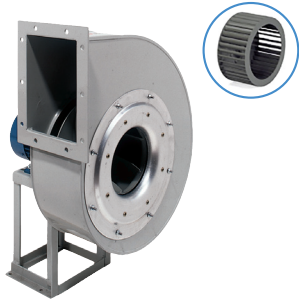


VCAP

Single inlet centrifugal fan,
forward curved blades with direct drive, clean air



Product

VCAP

Construction

Welded steel sheet

Versions

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

FAN

Single inlet centrifugal fan, forward curved blades with direct drive, suitable for the extraction of clean air, vapours, and where large air volumes are moved at low pressures.

Operating range at high flow rates, low pressures.

Forward curved blade impellers in welded galvanized steel sheet.

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

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

FEATURES

Robust construction entirely in thick welded steel sheet, coated with epoxy powder paint 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

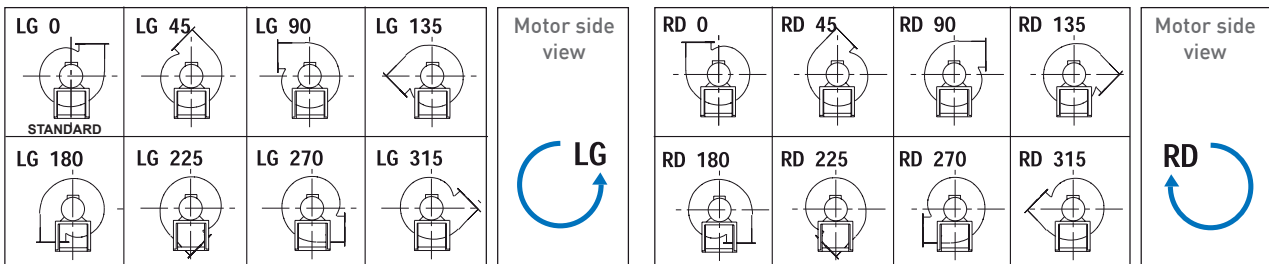


TECHNICAL FEATURES - OPERATING RANGE

Operating range	Flow rate (m ³ /h)	From 540 to 19,000
	Pressure (Pa)	From 270 to 2,000
Min. impeller diameter	mm	200
Max. impeller diameter	mm	500
Motor	Volt (±10%/Hz)	230/50 M - 230-400/50 T - 400-690/50 T
	Poles	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

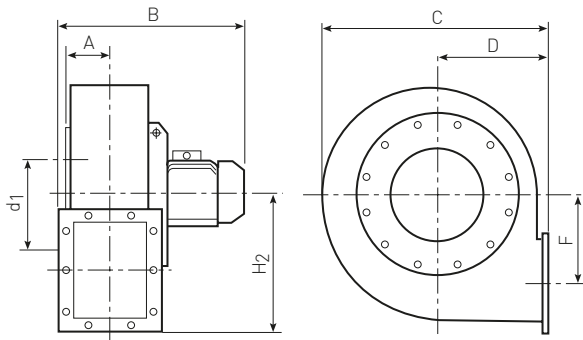
H2 = RD 270 - RD 315

VCAP

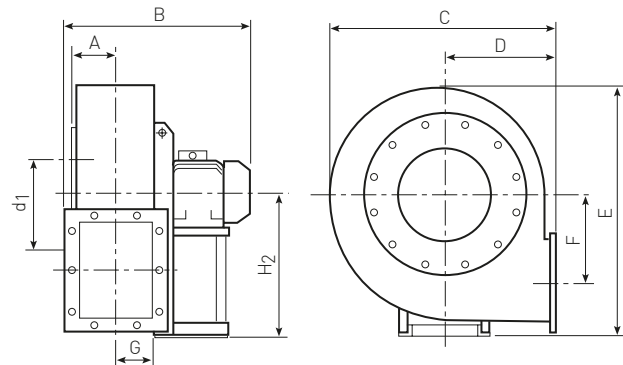
Single inlet centrifugal fan,
forward curved blades with direct drive, clean air

DIMENSIONS

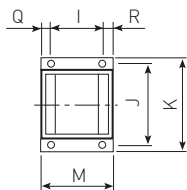
Model	Motor	KG F	PD ² KG F m ²	Motor-driven fan								Suction flange						
				A	B	C	D	E	F	G	H	H ₁	H ₂	d	d ₁	d ₂	N.	Ø
200/2	80 B-2	30	0,11	77	413	368	165	440	120	76	265	165	265	205	241	275	8	8
200/2	90 L-2	37	0,11	77	453	368	165	440	120	76	265	165	265	205	241	275	8	8
250/2	100 LA-2	28	0,14	85	386	410	180	465	135	86	300	180	300	228	265	298	8	8
220/4	63 B-4	30	0,14	85	411	410	180	465	135	86	300	180	300	228	265	298	8	8
220/4	71 B-4	49	0,19	94	560	411	195	526	149	96	315	195	315	255	292	325	8	10
250/4	80 A-4	37	0,19	94	450	411	195	526	149	96	315	195	315	255	292	325	8	10
280/4	80 B-4	44	0,265	105	475	477	200	610	172	105	375	200	375	285	332	365	8	10
280/4	90 S-4	46	0,265	105	515	477	200	610	172	105	375	200	375	285	332	365	8	10
310/4	90 L-4	60	0,41	117	539	527	225	658	196	117	400	225	400	320	366	400	8	10
310/4	100 L-4	62	0,41	117	609	527	225	658	196	117	400	225	400	320	366	400	8	10
350/4	100 L-4	50	0,41	117	499	527	225	658	196	117	400	225	400	320	366	400	8	10
350/4	112 M-4	53	0,41	117	499	527	225	658	196	117	400	225	400	320	366	400	8	10
400/4	112 M-4	78	0,71	130	636	600	255	740	216	131	450	255	450	360	405	440	8	10
400/4	132 M-4	87	0,71	130	636	600	255	740	216	131	450	255	450	360	405	440	8	10
450/4	132 A-4	70	0,71	130	566	600	255	740	216	131	450	255	450	360	405	440	8	10
450/4	160 L-4	72	0,71	130	566	600	255	740	216	131	450	255	450	360	405	440	8	10
310/6	80 A-6	98	1,41	147	668	655	285	815	245	147	500	285	500	405	448	485	8	10
310/6	80 B-6	119	1,41	147	730	655	285	815	245	147	500	285	500	405	448	485	8	10
350/6	90 S-6	99	1,41	147	668	655	285	815	245	147	500	285	500	405	448	485	8	10
350/6	90 L-6	129	2,92	163	764	735	320	915	275	165	560	320	560	455	497	535	8	10
400/6	112 M-6	168	2,92	163	900	735	320	915	275	165	560	320	560	455	497	535	8	10
450/6	132 M-6	130	2,92	163	764	735	320	915	275	165	560	320	560	455	497	535	8	10
500/6	160 M-6	187	4,80	183	939	832	360	1000	303	185	600	360	600	505	551	585	8	10



Version without base, on request only (motor version B5)



Standard version with base (motor version B3)

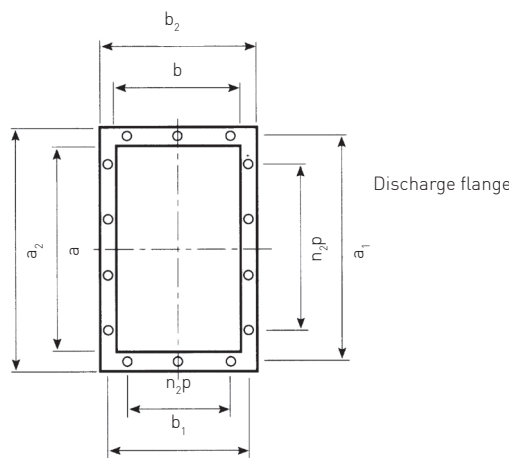
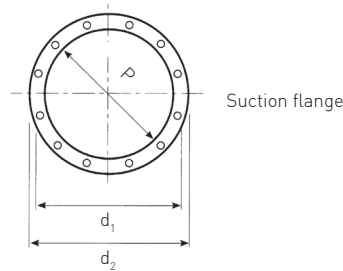


Mounting holes for electric motor support base

Motor side view



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	M	Q	R	Ø
207	148	241	182	277	218	1x112	1x112	8	12	121	203	225	180	45	14	10
207	148	241	182	277	218	1x112	1x112	8	12	133	234	260	205	55	17	10
231	166	265	200	301	236	1x112	1x112	8	12	86	184	206	145	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	197	289	324	250	30	23	12
258	185	292	219	328	255	1x112	2x112	10	12	121	203	225	180	45	14	10
288	205	332	249	368	285	1x125	2x125	10	12	121	203	225	180	45	14	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	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	121	203	225	180	45	14	10
322	229	366	273	402	309	1x125	2x125	10	12	121	203	225	180	45	14	10
361	256	405	300	441	336	1x125	2x125	10	12	197	289	324	250	30	23	12
361	256	405	300	441	336	1x125	2x125	10	12	197	289	324	250	30	23	12
361	256	405	300	441	336	1x125	2x125	10	12	133	234	260	205	55	17	10
361	256	405	300	441	336	1x125	2x125	10	12	133	234	260	205	55	17	10
404	288	448	332	484	368	2x125	3x125	14	12	197	289	324	250	30	23	12
404	288	448	332	484	368	2x125	3x125	14	12	237	337	372	300	40	23	12
404	288	448	332	484	368	2x125	3x125	14	12	197	289	324	250	30	23	12
453	322	497	366	533	402	2x125	3x125	14	12	237	337	372	300	40	23	12
453	322	497	366	533	402	2x125	3x125	14	12	337	395	440	415	50	28	14
453	322	497	366	533	402	2x125	3x125	14	12	237	337	372	300	40	23	12
507	361	551	405	587	441	2x125	3x125	14	12	337	395	440	415	50	28	14



VCAP

Single inlet centrifugal fan,
forward curved blades with direct drive, clean air

QUICK SELECTION TABLE

Model	Motor	Power Installed kW	RPM	dB(A)	Total pressure PT = Pa Flow rate v = m ³ /h												
					540	612	684	756	828	930	1080	1190	1330	1500	1700	1900	
200/2	80 B-2	1.10	2840	78	-	-	-	1140	1140	1140	1150	1160	1190	1210	1240	-	
200/2	90 L-2	2.20	2860	79	-	-	-	1150	1150	1150	1160	1170	1200	1220	1250	1270	
250/2	100 LA-2	3.00	2900	87	-	-	-	-	-	-	-	-	-	1770	1770	1770	
220/4	63 B-4	0.18	1320	63	-	300	300	310	320	330	340	-	-	-	-	-	
220/4	71 B-4	0.37	1360	63	-	320	320	330	340	350	360	370	370	360	350	320	
250/4	80 A-4	0.55	1380	66	-	-	-	410	410	410	420	430	440	450	460	460	
280/4	80 B-4	0.75	1380	70	-	-	-	-	-	-	510	510	510	520	530	550	
280/4	90 S-4	1.10	1390	70	-	-	-	-	-	-	520	520	520	530	540	560	
310/4	90 L-4	1.50	1390	74	-	-	-	-	-	-	-	-	-	700	700	700	
310/4	100 L-4	2.20	1410	74	-	-	-	-	-	-	-	-	-	710	710	710	
350/4	100 L-4	3.00	1420	77	-	-	-	-	-	-	-	-	-	-	-	-	
350/4	112 M-4	4.00	1420	78	-	-	-	-	-	-	-	-	-	-	-	-	
400/4	112 M-4	5.50	1430	82	-	-	-	-	-	-	-	-	-	-	-	-	
400/4	132 M-4	7.50	1450	82	-	-	-	-	-	-	-	-	-	-	-	-	
450/4	132 A-4	9.00	1460	83	-	-	-	-	-	-	-	-	-	-	-	-	
450/4	160 L-4	15.00	1460	85	-	-	-	-	-	-	-	-	-	-	-	-	
310/6	80 B-6	0.37	930	63	-	-	-	-	-	290	290	300	300	310	320	330	
310/6	80 B-6	0.55	930	64	-	-	-	-	-	290	290	300	300	310	320	330	
350/6	90 S-6	0.75	935	66	-	-	-	-	-	-	-	-	370	370	370	380	
350/6	90 L-6	1.10	935	68	-	-	-	-	-	-	-	-	370	370	370	380	
400/6	112 M-6	2.20	950	71	-	-	-	-	-	-	-	-	-	-	-	490	
450/6	132 M-6	4.00	965	74	-	-	-	-	-	-	-	-	-	-	-	-	
500/6	160 M-6	7.50	965	80	-	-	-	-	-	-	-	-	-	-	-	-	

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.



Ventilation

Comfort and performance
at maximum efficiency
energy

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	19000
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1270	1250	1180	1090	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1780	1810	1900	1950	1960	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
450	430	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
570	590	600	680	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
580	590	600	580	550	510	-	-	-	-	-	-	-	-	-	-	-	-	-	-
710	720	750	770	790	790	780	-	-	-	-	-	-	-	-	-	-	-	-	-
720	730	760	780	790	790	780	770	720	640	-	-	-	-	-	-	-	-	-	-
900	900	900	910	920	950	960	1010	1030	1020	-	-	-	-	-	-	-	-	-	-
910	910	910	920	930	960	970	1020	1030	1020	970	950	870	-	-	-	-	-	-	-
-	-	-	-	1150	1150	1160	1170	1220	1240	1260	1280	1310	1300	-	-	-	-	-	-
-	-	-	-	1170	1170	1180	1190	1240	1260	1280	1300	1310	1300	-	1150	-	-	-	-
-	-	-	-	-	-	1460	1460	1460	1480	1510	1550	1570	1600	-	1630	-	-	-	-
-	-	-	-	-	-	1460	1460	1460	1480	1510	1550	1570	1600	-	1630	1600	1560	1410	1210
330	330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
330	330	330	320	300	270	-	-	-	-	-	-	-	-	-	-	-	-	-	-
380	390	400	410	420	420	400	-	-	-	-	-	-	-	-	-	-	-	-	-
380	390	400	410	420	420	400	390	360	-	-	-	-	-	-	-	-	-	-	-
490	490	500	510	520	530	540	560	570	550	520	490	440	-	-	-	-	-	-	-
-	-	640	640	640	650	670	690	710	720	730	730	720	690	640	580	-	-	-	-
-	-	-	-	-	790	790	790	800	810	830	850	870	890	900	880	840	780	690	-

VCAP

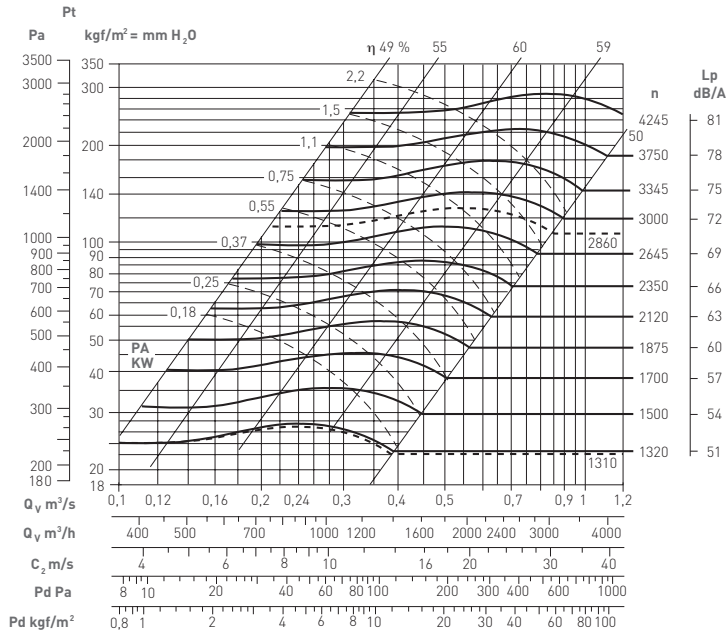
Single inlet centrifugal fan,
forward curved blades with direct drive, clean air

CHARACTERISTIC CURVES

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

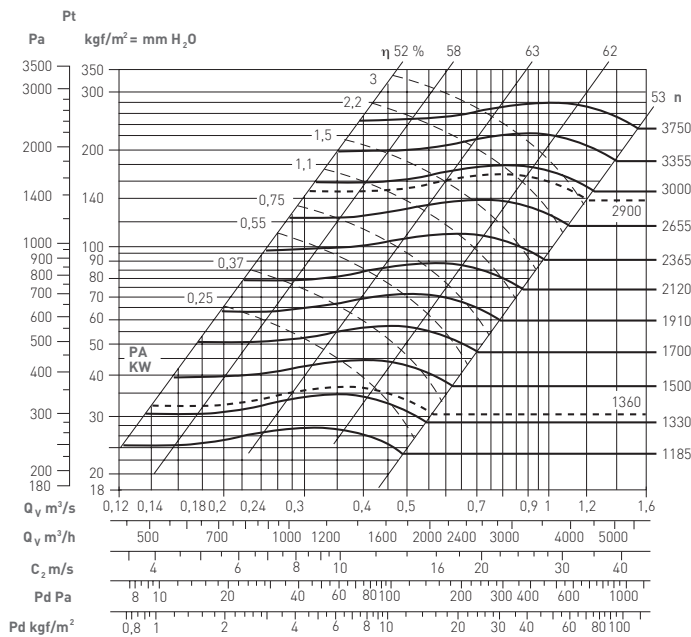
Pe= Static pressure expressed in mmH₂O, e Pa

VCAP 200



Fan weight 23 Kgf
 PD² e GD² = 0,11 Kgf²m
 Maximum rotation speed
 < 100 °C = 3950
 100 ÷ 200 °C = 3500
 200 ÷ 300 °C = 3100
 Tolerance on noise level + 3 dB
 Tolerance on absorbed power ± 3%

VCAP 220



Fan weight 27 Kgf
 PD² e GD² = 0,14 Kgf²m
 Maximum rotation speed
 < 100 °C = 3500
 100 ÷ 200 °C = 3120
 200 ÷ 300 °C = 2800
 Tolerance on noise level + 3 dB
 Tolerance on absorbed power ± 3%

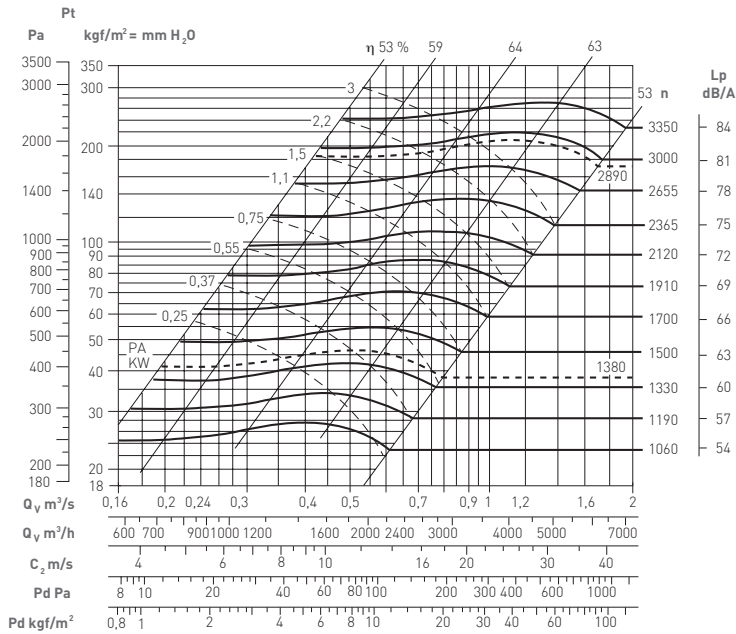


Ventilation

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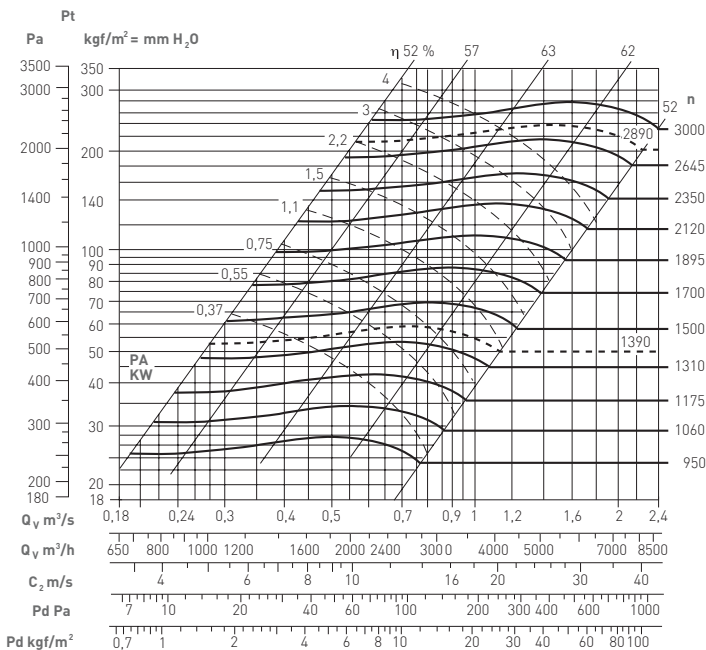
Q= Flow rate expressed in m³/h, m³/s and cfm
Pe= Static pressure expressed in mmH₂O, e Pa

VCAP 250



Fan weight 31 Kgf
 PD² e GD² = 0,19 Kgf²m
 Maximum rotation speed
 <100 °C = 3100
 100 ÷ 200 °C = 2800
 200 ÷ 300 °C = 2500
 Tolerance on noise level + 3 dB
 Tolerance on absorbed power ± 3%

VCAP 280



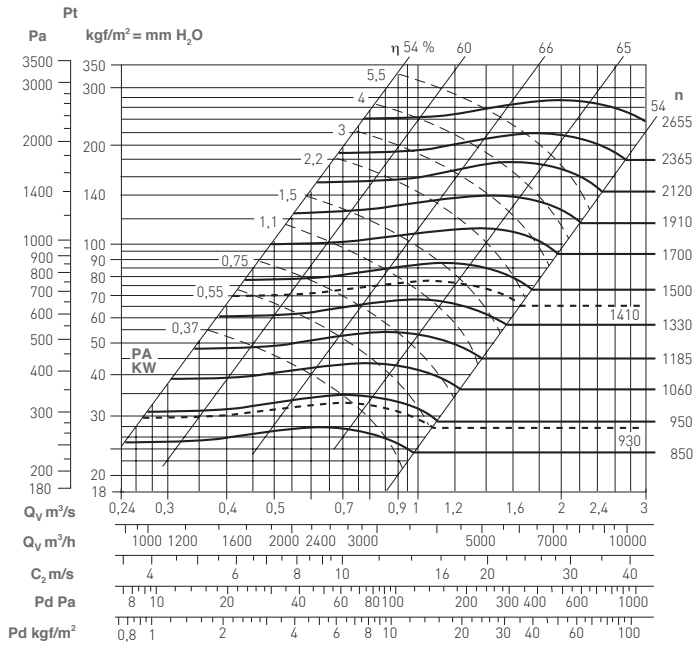
Fan weight 41 Kgf
 PD² e GD² = 0,265 Kgf²m
 Maximum rotation speed
 <100 °C = 2800
 100 ÷ 200 °C = 2500
 200 ÷ 300 °C = 2200
 Tolerance on noise level + 3 dB
 Tolerance on absorbed power ± 3%

VCAP

Single inlet centrifugal fan,
forward curved blades with direct drive, clean air

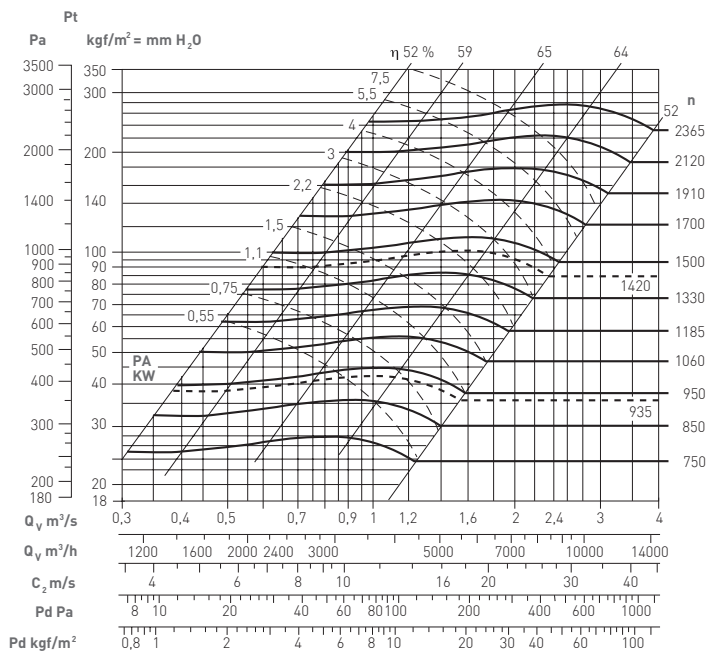
Q= Flow rate expressed in m³/h, m³/s and cfm
Pe= Static pressure expressed in mmH₂O, e Pa

VCAP 310



Fan weight 47 Kgf
PD² e GD² = 0,41 Kgf²m
Maximum rotation speed
<100 °C = 2500
100 ÷ 200 °C = 2230
200 ÷ 300 °C = 2000
Tolerance on noise level + 3 dB
Tolerance on absorbed power ± 3%

VCAP 350



Fan weight 73 Kgf
PD² e GD² = 0,71 Kgf²m
Maximum rotation speed
<100 °C = 2230
100 ÷ 200 °C = 2000
200 ÷ 300 °C = 1800
Tolerance on noise level + 3 dB
Tolerance on absorbed power ± 3%



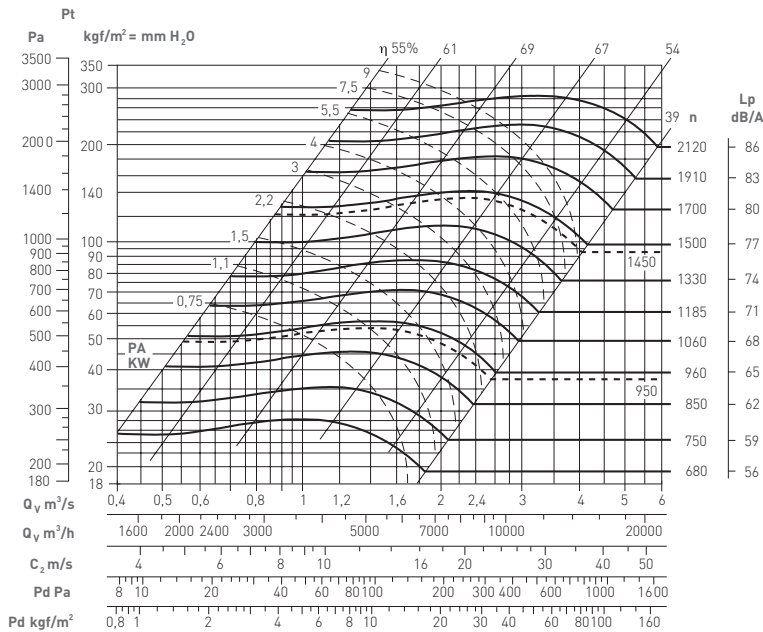
Ventilation

Comfort and performance
at maximum efficiency
energy

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

Pe= Static pressure expressed in mmH₂O, e Pa

VCAP 400



Fan weight 88 Kgf

PD² e GD² = 1,41 Kgf²m

Maximum rotation speed

<100 °C = 2800

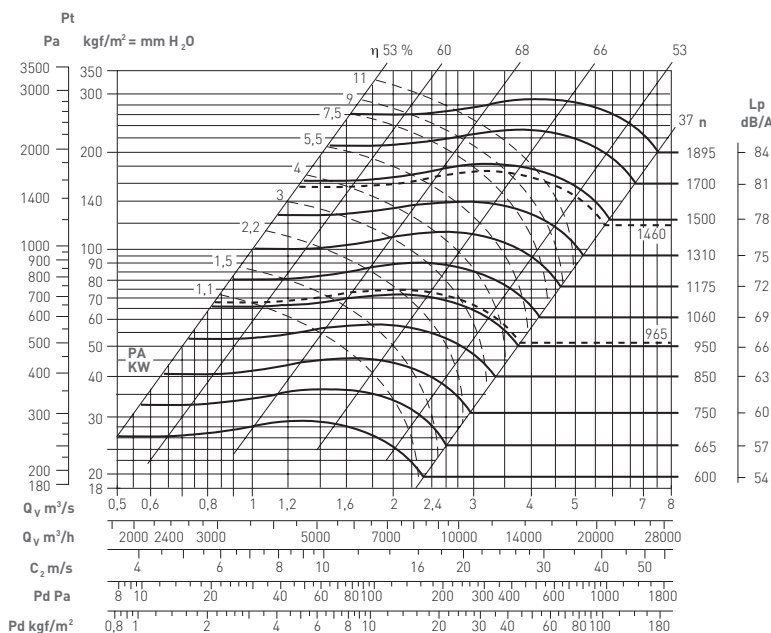
100 ÷ 200 °C = 1800

200 ÷ 300 °C = 1600

Tolerance on noise level + 3 dB

Tolerance on absorbed power ± 3%

VCAP 450



Fan weight 103 Kgf

PD² e GD² = 2,92 Kgf²m

Maximum rotation speed

<100 °C = 1810

100 ÷ 200 °C = 1600

200 ÷ 300 °C = 1400

Tolerance on noise level + 3 dB

Tolerance on absorbed power ± 3%

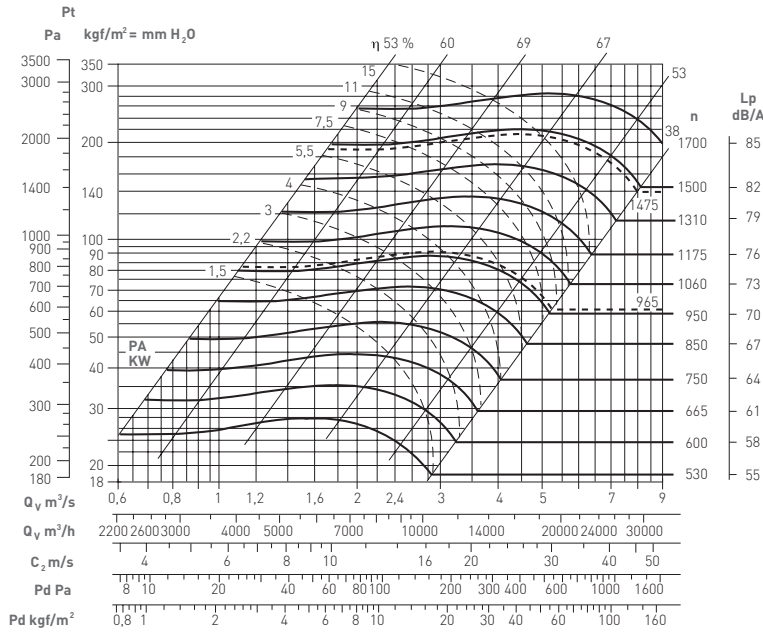
VCAP

Single inlet centrifugal fan,
forward curved blades with direct drive, clean air

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

Pe= Static pressure expressed in mmH₂O, e Pa

VCAP 500



Fan weight 143 Kgf
 PD² e GD² = 4,8 Kgf²m
 Maximum rotation speed
 < 100 °C = 1600
 100 ÷ 200 °C = 1400
 200 ÷ 300 °C = 1240
 Tolerance on noise level + 3 dB
 Tolerance on absorbed power ± 3%

ACCESSORIES



Torque counter flanges



Nozzle anti-spark



Anti-vibration joint for centrifugal fan unit



Protection grille for centrifugal fan unit on suction side



Damper for regulation manual



Safety switch ON/OFF



Soft starter for three-phase motor



Silencers



Square-to-round adapter for centrifugal fan unit discharge

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



AVAILABLE MODELS

Model	Motor	Installed Power kW	RPM
200/2	80 B-2	1,10	2840
200/2	90 L-2	2,20	2860
250/2	100 LA-2	3,0	2900
220/4	63 B-4	0,18	1320
220/4	71 B-4	0,37	1360
250/4	80 A-4	0,55	1380
280/4	80 B-4	0,75	1380
280/4	90 S-4	1,10	1390
310/4	90 L-4	1,50	1390
310/4	100 L-4	2,20	1410
350/4	100 L-4	3,00	1420
350/4	112 M-4	4,00	1420
400/4	112 M-4	5,50	1430
400/4	132 M-4	7,50	1450
450/4	132 A-4	7,50	1460
450/4	160 L-4	15,00	1460
310/6	80 B-6	0,37	930
310/6	80 B-6	0,55	930
350/6	90 S-6	0,75	935
350/6	90 L-6	1,10	935
400/6	112 M-6	2,20	950
450/6	132 M-6	3,00	965
500/6	160 M-6	5,50	965

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