DIRECT DRIVE MOTOR

CAAE

Extremely robust high pressure single inlet centrifugal fans with sheet steel casing and impeller

Designed for clean or dusty air

*The images are provided only for illustrative purposes, the product may vary depending on its size, specifications and position.

Fan:
- Sheet steel casing.
- Backward curved impeller made of very robust sheet steel, specially designed for clean and dusty air.
- Directly coupled motor.
- With inspection and cleaning hatch from size 560 and up.
- All casings continuously welded.

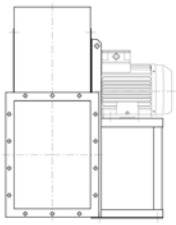
Motor:
- Motors with IE3 efficiency for powers equal to or greater than 0.75kW, except single-phase, 2-speed and 8-pole.
- Class F motors with ball bearings, IP55 protection.
- Three-phase 230/400 V 50 Hz (up to 4 kW) and 400/690 V 50 Hz (powers greater than 4 kW).
- Maximum temperature of air to be carried: -25 ºC +90 ºC.

Finishing:
- Anti-corrosive finish in polyester resin, polymerised at 190 ºC, after degreasing with phosphate-free nanotechnology treatment.

On request:
- Special windings for different voltages.
- Fan prepared to transport air up to +150 ºC.
- Special executions for temperatures + 300 ºC.
- Stainless steel fan.
- ATEX certified Category 2.
- System 8 elastic coupling.

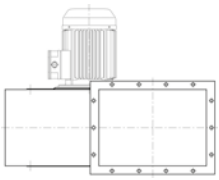
Direct drive motor construction method

SYSTEM 4



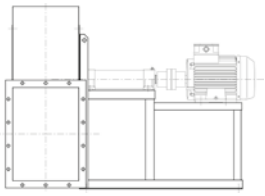
Direct drive, impeller mounted on the motor shaft, mounted on the pedestal.

SYSTEM 5



Direct drive, impeller mounted on the motor shaft, flange motor mounted on the fan casing.

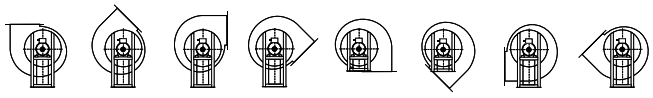
SYSTEM 8



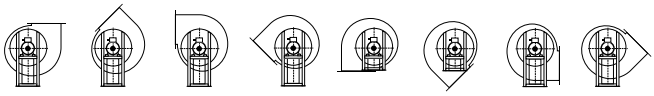
Elastic coupling drive, impeller mounted on the support shaft, mounted on the motor via an elastic coupling. Everything mounted together on a fan pedestal.

Orientations

RD 0	RD45	RD90	RD135	RD180	RD225	RD270	RD315



LG 0	LG45	LG90	LG135	LG180	LG225	LG270	LG315



BELT-DRIVEN MOTOR

CAAE-X

Belt driven high pressure fans fitted with electric motors and a standardised set of pulleys, belts and protectors in accordance with standard ISO 13857

Designed for clean or dusty air

*The images are provided only for illustrative purposes, the product may vary depending on its size, specifications and position.

Fan:
- Sheet steel casing.
- Backward curved impeller made of very robust sheet steel, specially designed for clean and dusty air.
- Engine mounted on general bench.
- With inspection and cleaning hatch from size 560 and up.
- All casings continuously welded.

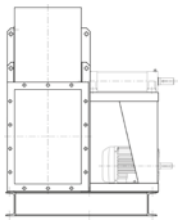
Motor:
- IE3 efficiency motors.
- Class F motors with ball bearings, IP55 protection.
- Three-phase 230/400 V 50 Hz (up to 4 kW) and 400/690 V 50 Hz (powers greater than 4 kW).
- Maximum temperature of air to be carried: -25 ºC +90 ºC.

Finishing:
- Anti-corrosive finish in polyester resin, polymerised at 190 ºC, after degreasing with phosphate-free nanotechnology treatment.

On request:
- Special windings for different voltages.
- Fan prepared to transport air up to +300 ºC.
- Stainless steel fan.
- ATEX certified Category 2.
- System 8 elastic coupling.

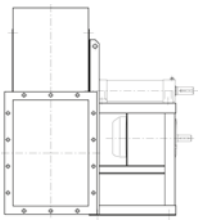
Belt-driven motor construction method

SYSTEM 12



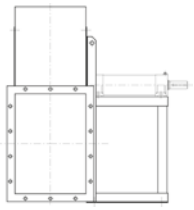
Transmission drive, identical to SYSTEM 1, with the motor and fan mounted on the common bench. Motor positions “W” or “Z” and exceptionally “X” or “Y”.

SYSTEM 9



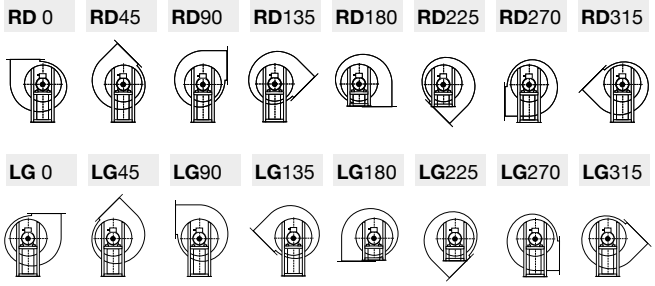
Transmission drive, identical to SYSTEM 1, with the motor mounted on the side of the pedestal, in position “W” or “Z”.

SYSTEM 1



Transmission drive, impeller mounted on the support shaft. Support mounted on the pedestal.

Orientations



LARGE SERIES

QUICK SELECT SYSTEM 4

Outlet characteristics

						V m³/s											
Model	**Frame**	**kW ass**	**kW inst.**	**r.p.m.**	**dB**	**0.033**	**0.05**	**0.067**	**0.083**	**0.092**	**0.1**	**0.12**	**0.13**	**0.15**	**0.17**	**0.18**	**0.2**	**0.23**
						Pt kgf/m²=mmH₂O												
CAAE 400/B	71 A/2	0.35	0.37	2800	69	240	240	240										
CAAE 400/B	71 B/2	0.5	0.55	2810	69				230	230	225							
CAAE 400/A	71 B/2	0.5	0.55	2810	71	320	320	320										
CAAE 400/A	80 A/2	0.65	0.75	2820	72				320	315	310							
CAAE 500/B	80 A/2	0.67	0.75	2820	72	390	410	410	410	410	410							
CAAE 500/B	80 B/2	0.9	1.1	2820	74							410	400	395				
CAAE 500/A	80 B/2	1	1.1	2820	74	475	495	500	500	500	500							
CAAE 500/A	90 S/2	1.3	1.5	2840	76							495	490	485				
CAAE 630/B	90 S/2	1.4	1.5	2840	75	590	615	630	640	645	650	650						
CAAE 630/B	90 L/2	2	2.2	2840	77								635	625	610	530	575	540
CAAE 630/A	90 L/2	2.1	2.2	2840	78	750	780	800	820	820	830	835	830					
CAAE 630/A	100 L/2	2.8	3	2850	80									830	820	800	790	750
CAAE 710/B	100 L/2	2.9	3	2850	80	845	880	900	920	920	930	940	950	950				
CAAE 710/B	112 M/2	3.7	4	2860	81										940	930	920	890
CAAE 710/A	112 M/2	3.8	4	2860	83	970	1000	1030	1050	1060	1070	1080	1080	1090	1090			
CAAE 710/A	132 SA/2	5.3	5.5	2900	85											1080	1070	1030
CAAE 800/A	132 SA/2	5.4	5.5	2900	84	1160	1200	1230	1260	1265	1280	1290	1300	1315	1325	1325		
CAAE 800/A	132 SB/2	6.7	7.5	2900	85												1320	1310
CAAE 900/A	160 MA/2	8.8	11	2910	86							1440	1450	1470	1480	1480	1480	1470

						V m³/s				
Model	**Frame**	**kW ass**	**kW inst.**	**r.p.m.**	**dB**	**0.27**	**0.3**	**0.33**	**0.37**	**0.42**
						Pt kgf/m²=mmH₂O				
CAAE 630/A	100 L/2	2.8	3	2850	80	710				
CAAE 710/B	112 M/2	3.7	4	2860	81	850	800			
CAAE 710/A	132 SA/2	5.3	5.5	2900	85	1000	940	900		
CAAE 800/A	132 SB/2	6.7	7.5	2900	85	1280				
CAAE 800/A	160 MA/2	8.5	11	2910	86		1240	1200	1140	
CAAE 900/A	160 MA/2	10	11	2910	87		1460	1420	1400	1350

Flow margin ±5%
Noise level margin + 3... 5 dB

Inlet characteristics

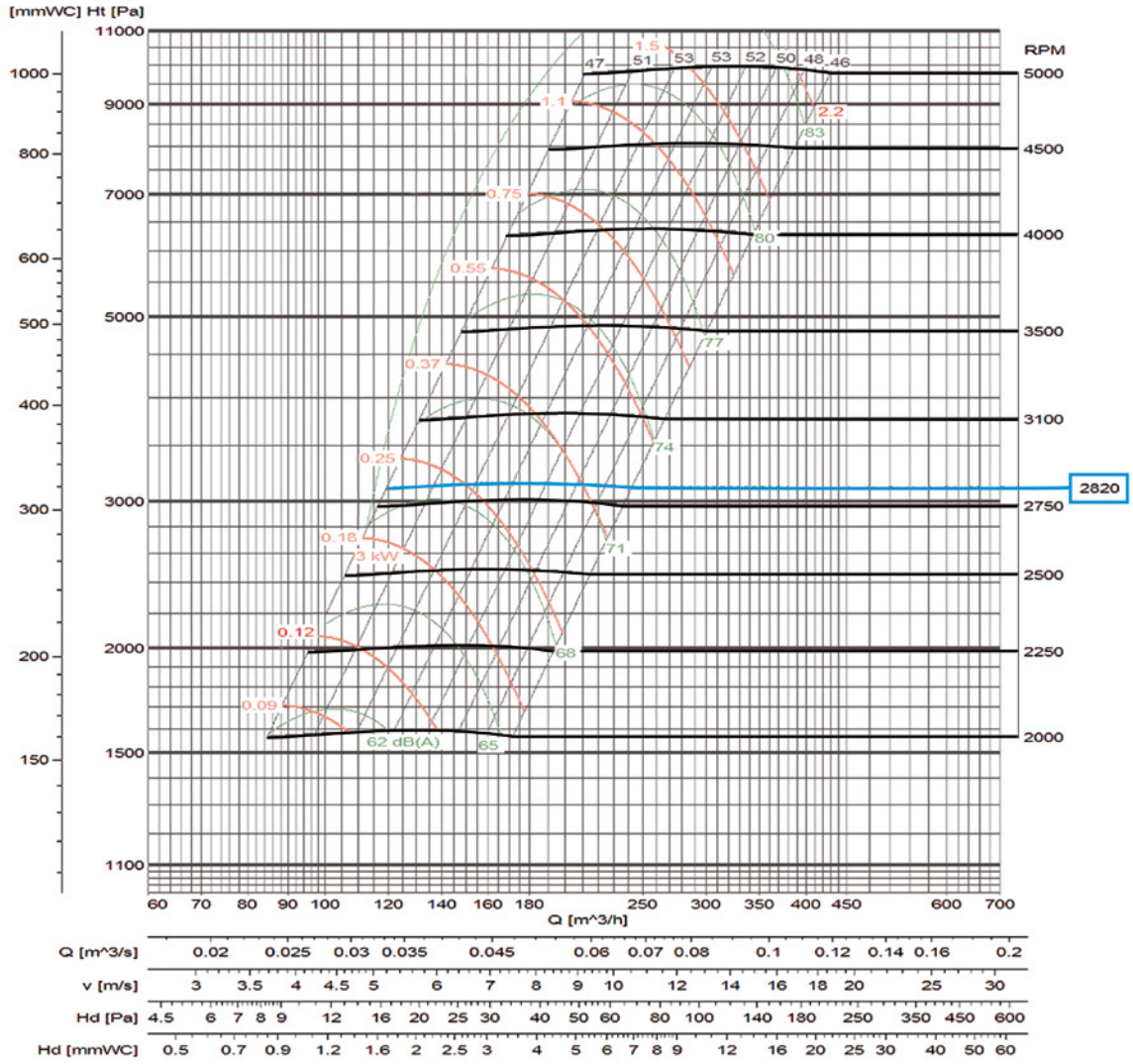
						V m³/s											
Model	**Frame**	**kW ass**	**kW inst.**	**r.p.m.**	**dB**	**0.033**	**0.05**	**0.067**	**0.083**	**0.092**	**0.1**	**0.12**	**0.13**	**0.15**	**0.17**	**0.18**	**0.2**	**0.23**
						Pt kgf/m²=mmH$_2$O												
CAAE 400/B	71 A/2	0.35	0.37	2800	71	236	235	235										
CAAE 400/B	71 B/2	0.5	0.55	2810	72				225	225	205							
CAAE 400/A	71 B/2	0.5	0.55	2810	73	310	310	310										
CAAE 400/A	80 A/2	0.65	0.75	2820	74				310	305	290	280						
CAAE 500/B	80 A/2	0.67	0.75	2820	75	380	400	390	385	385	385							
CAAE 500/B	80 B/2	0.9	1.1	2820	79							375	360					
CAAE 500/A	80 B/2	1	1.1	2820	77	465	485	490	490	490	485							
CAAE 500/A	90 S/2	1.3	1.5	2840	72							475	450	440				
CAAE 630/B	90 S/2	1.4	1.5	2840	80	575	600	615	625	630	635	625						
CAAE 630/B	90 L/2	2	2.2	2840	82								605	595	580	560	545	510
CAAE 630/A	90 L/2	2.1	2.2	2840	83	700	725	745	765	765	775	770	765					
CAAE 630/A	100 L/2	2.8	3	2850	87									745	735	710	700	660
CAAE 710/B	100 L/2	2.9	3	2850	85	765	800	815	835	835	840	850	845	835				
CAAE 710/B	112 M/2	3.7	4	2860	86										815	800	770	730
CAAE 710/A	112 M/2	3.8	4	2860	87	840	870	900	920	930	935	935	930	930	930			
CAAE 710/A	132 SA/2	5.3	5.5	2900	89											900	880	830
CAAE 800/A	132 SA/2	5.4	5.5	2900	88	1025	1065	1095	1125	1130	1135	1145	1150	1155	1150	1145		
CAAE 800/A	132 SB/2	6.7	7.5	2900	88												1120	1110
CAAE 900/A	160 MA/2	8.8	11	2910	89							1240	1250	1270	1280	1290	1290	1280

						V m³/s				
Model	**Frame**	**kW ass**	**kW inst.**	**r.p.m.**	**dB**	**0.27**	**0.3**	**0.33**	**0.37**	**0.42**
						Pt kgf/m²=mmH$_2$O				
CAAE 630/A	100 L/2	2.8	3	2850	87	620				
CAAE 710/B	112 M/2	3.7	4	2860	86	680	620			
CAAE 710/A	132 SA/2	5.3	5.5	2900	89	800	740	700		
CAAE 800/A	132 SB/2	6.7	7.5	2900	88	1080				
CAAE 800/A	160 MA/2	8.5	11	2910	90		1040	1000	950	
CAAE 900/A	160 MA/2	10	11	2910	90		1250	1210	1200	1130

Flow margin ±5%
Noise level margin + 3... 5 dB

Characteristic curves

CAAE 400

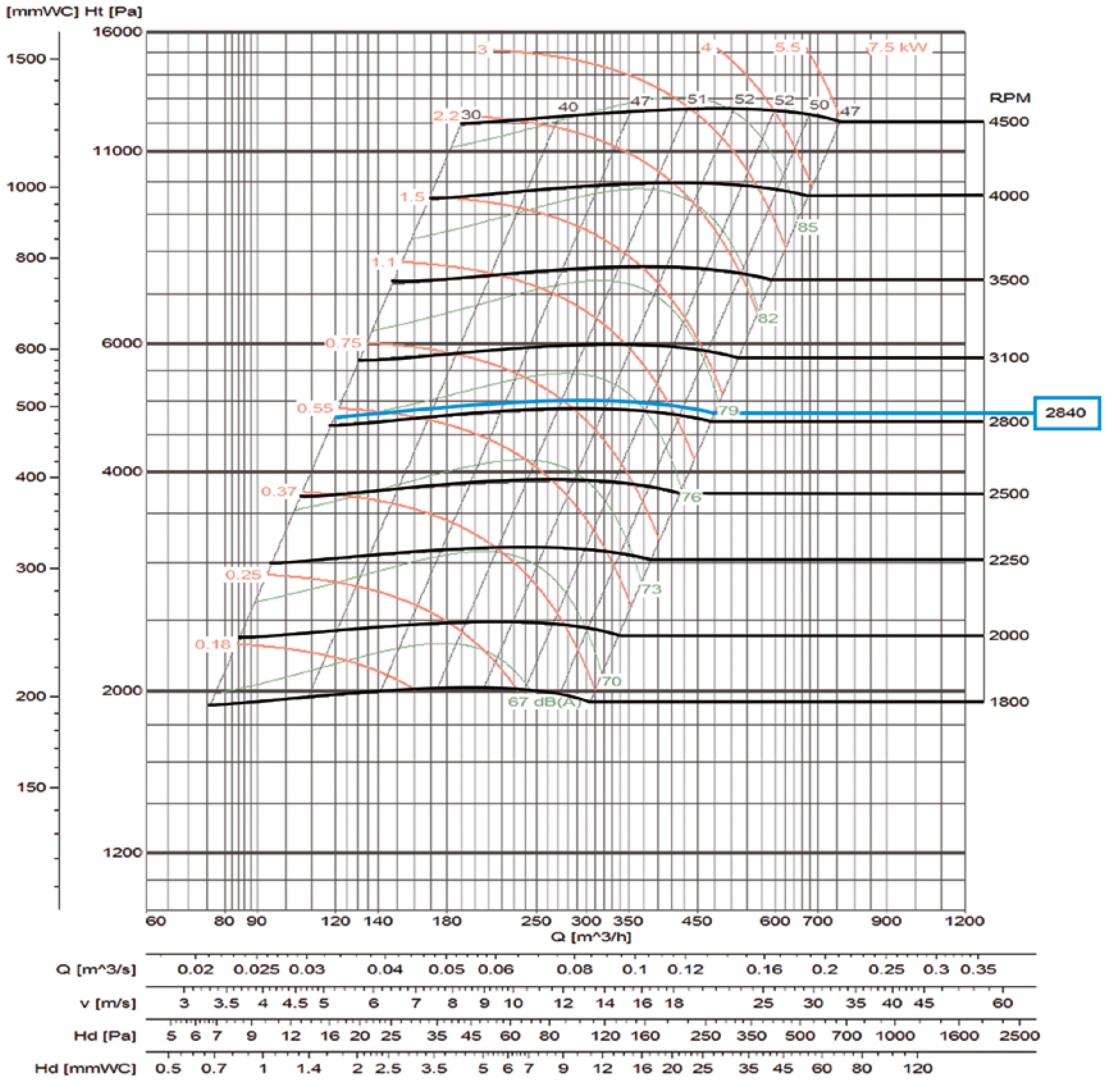


Flow margin ±5%
Noise level margin + 3... 5 dB
Margin of kW absorbed ±3%

Outlet characteristics.

Rpm — Characteristics for: system 4 and 5 in direct drive motor with 2/4/6/8 poles depending on the model.

CAAE 500



Flow margin ±5%
Noise level margin + 3... 5 dB
Margin of kW absorbed ±3%

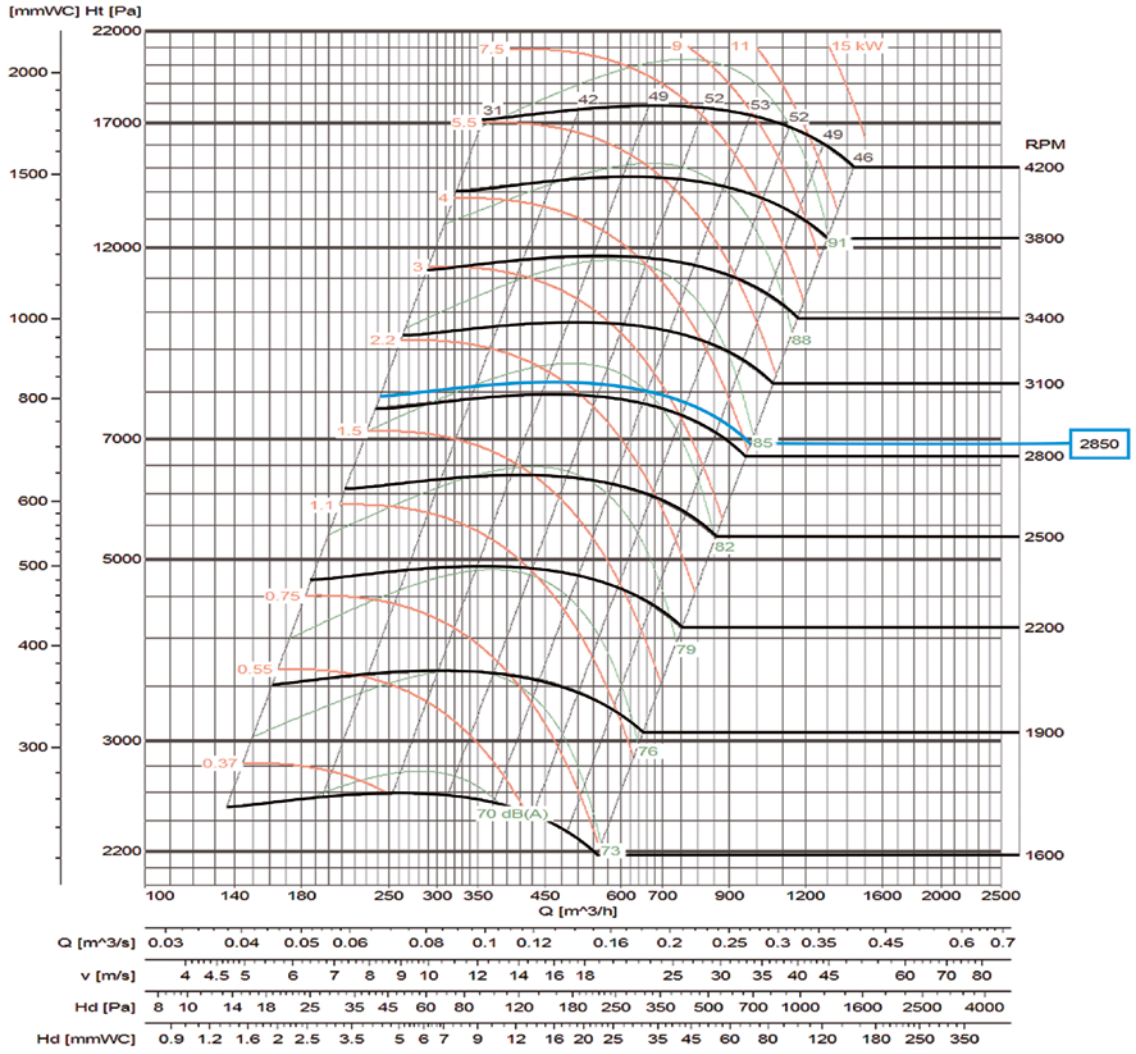
Outlet characteristics.

Rpm

Characteristics for: system 4 and 5 in direct drive motor with 2/4/6/8 poles depending on the model.

Characteristic curves

CAAE 630

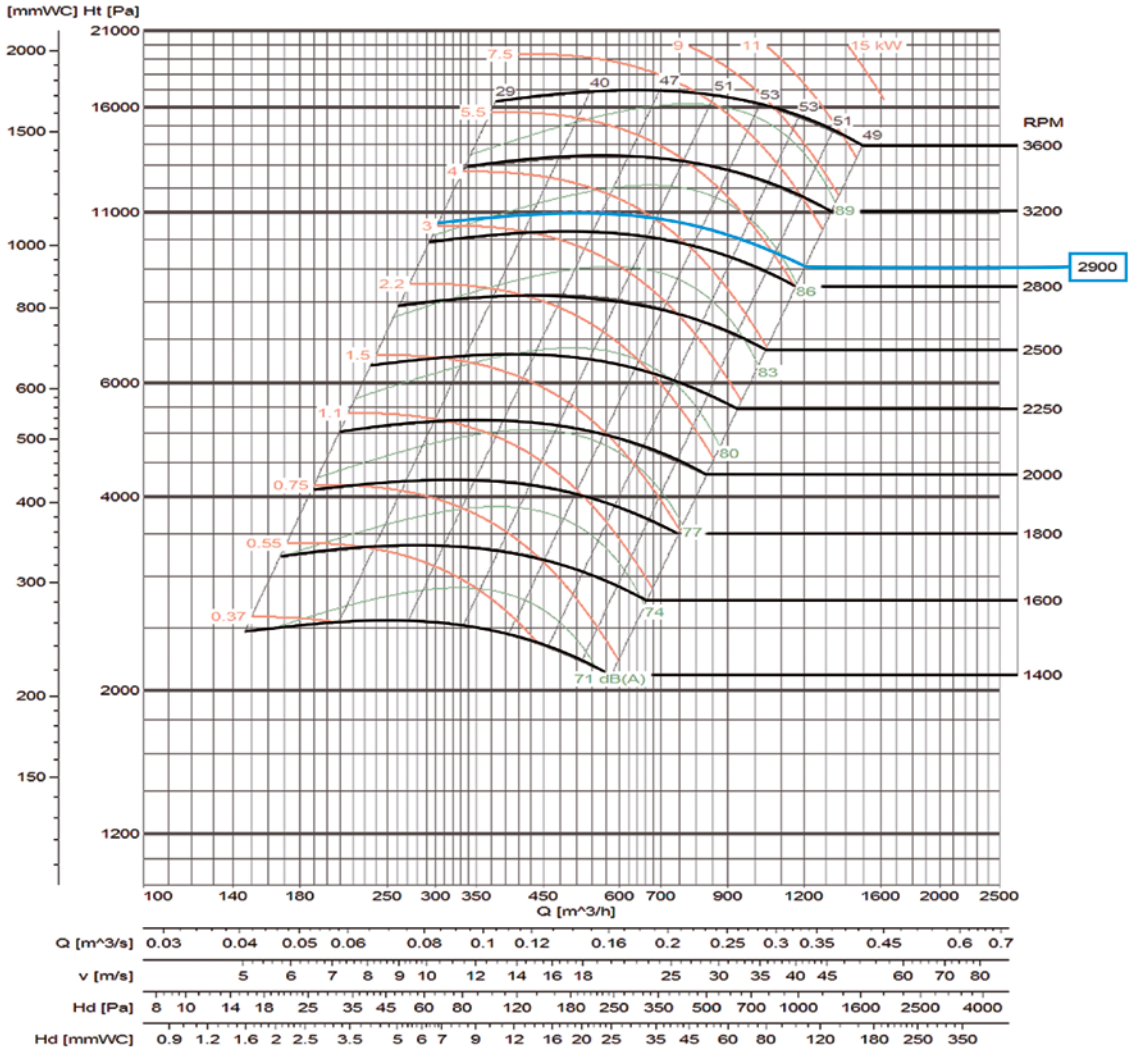


Flow margin ±5%
Noise level margin + 3... 5 dB
Margin of kW absorbed ±3%

Outlet characteristics.

Rpm — Characteristics for: system 4 and 5 in direct drive motor with 2/4/6/8 poles depending on the model.

CAAE 710



Flow margin ±5%
Noise level margin + 3... 5 dB
Margin of kW absorbed ±3%

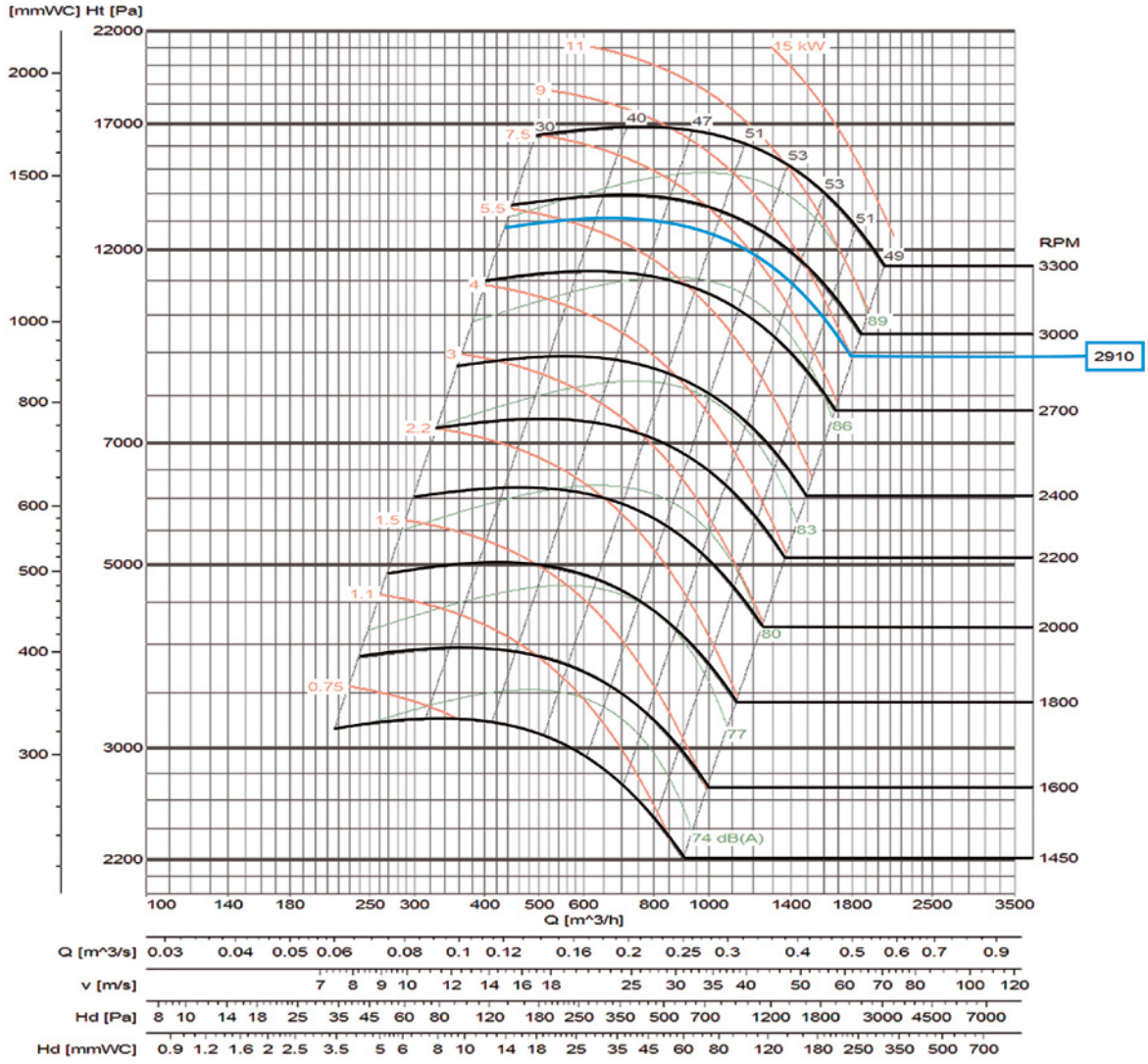
Outlet characteristics.

Rpm

Characteristics for: system 4 and 5 in direct drive motor with 2/4/6/8 poles depending on the model.

Characteristic curves

CAAE 800

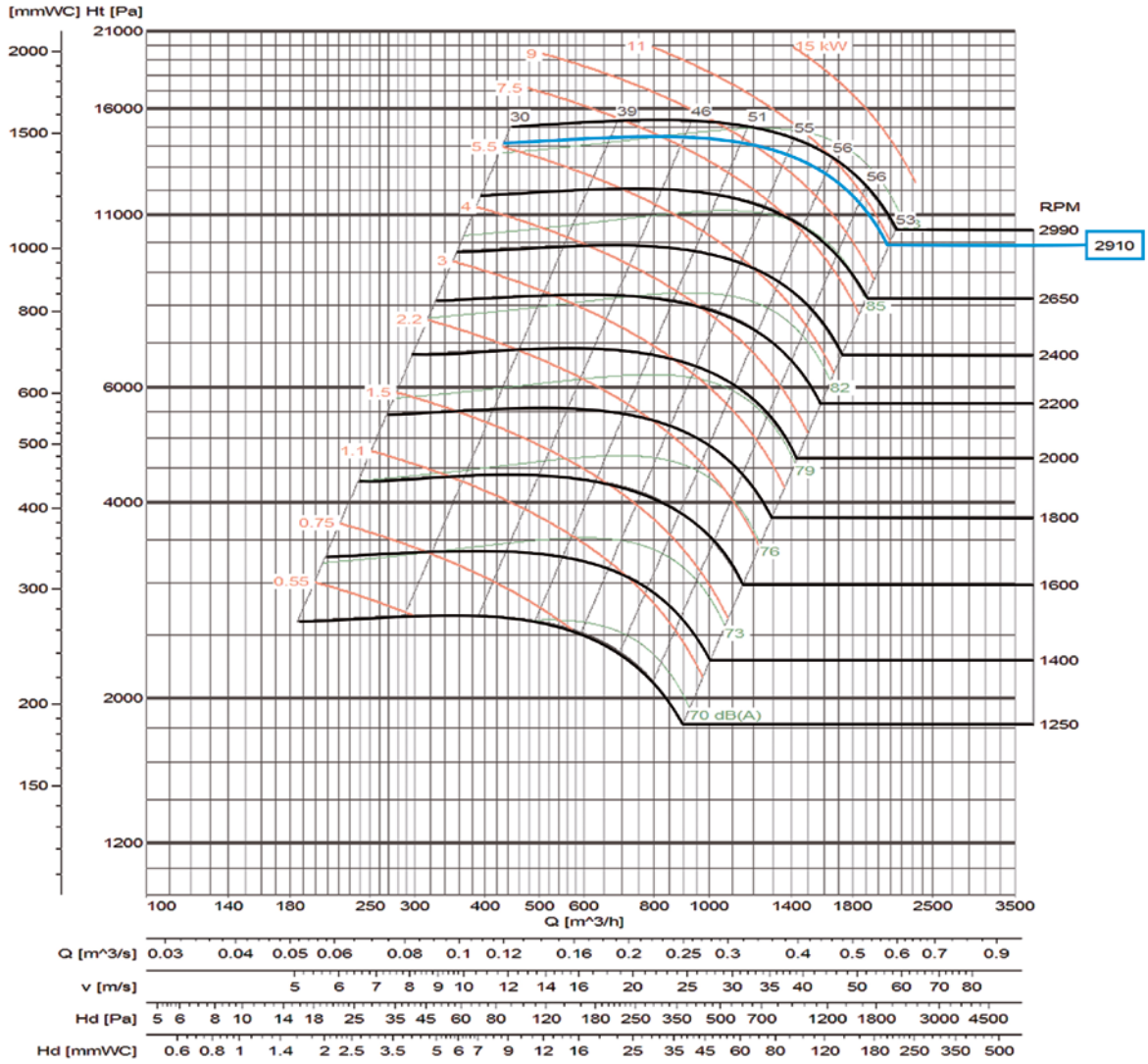


Flow margin ±5%
Noise level margin + 3... 5 dB
Margin of kW absorbed ±3%

Outlet characteristics.

Rpm — Characteristics for: system 4 and 5 in direct drive motor with 2/4/6/8 poles depending on the model.

CAAE 900



Flow margin ±5%
Noise level margin + 3... 5 dB
Margin of kW absorbed ±3%

Outlet characteristics.

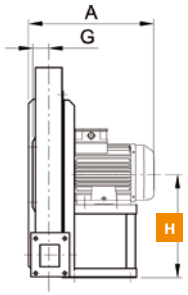
Rpm

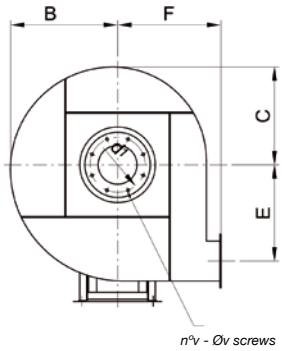
Characteristics for: system 4 and 5 in direct drive motor with 2/4/6/8 poles depending on the model.

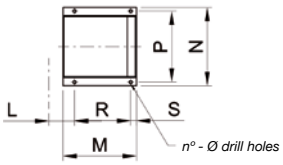
SYSTEM 4

Dimensions mm

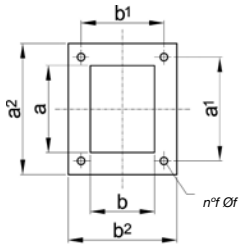
CAAE 400...900



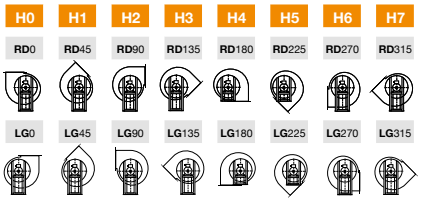




OUTLET NOZZLE



ORIENTATIONS



H *The measurement of height H (distance between the ground and the axis) varies depending on the orientations

MOD.	FRAME	A*	B	C	E	F	G	H0-1-2-3	H4-5	H6-7	L	M*	N	P	R*
CAAE 400/B	71 A/2	320	260	250	220	250	42	300	250	300	87	190	244	220	115
CAAE 400/B	71 B/2	320	260	250	220	250	42	300	250	300	87	190	244	220	115
CAAE 400/A	71 B/2	320	260	250	220	250	42	300	250	300	87	190	244	220	115
CAAE 400/A	80 A/2	345	260	250	220	250	42	300	250	300	87	190	244	220	115
CAAE 500/B	80 A/2	345	320	310	280	300	42	355	300	355	87	190	244	220	115
CAAE 500/B	80 B/2	345	320	310	280	300	42	355	300	355	87	190	244	220	115
CAAE 500/A	80 B/2	345	320	310	280	300	42	355	300	355	87	190	244	220	115
CAAE 500/A	90 S/2	360	320	310	280	300	42	355	300	355	87	215	269	245	140
CAAE 630/B	90 S/2	370	375	365	330	355	50	425	355	425	92	215	269	245	140
CAAE 630/B	90 L/2	395	375	365	330	355	50	425	355	425	92	215	269	245	140
CAAE 630/A	90 L/2	395	375	365	330	355	50	425	355	425	92	215	269	245	140
CAAE 630/A	100 LA/2	425	375	365	330	355	50	425	355	425	92	260	312	280	185
CAAE 710/B	100 LA/2	425	425	410	380	400	50	475	400	475	92	260	312	280	185
CAAE 710/B	112 M/2	425	425	410	380	400	50	475	400	475	92	260	312	280	185
CAAE 710/A	112 M/2	425	425	410	380	400	50	475	400	475	92	260	312	280	185
CAAE 710/A	132 SA/2	515	425	410	380	400	50	475	400	475	92	320	342	310	245
CAAE 800/A	132 SA/2	515	475	460	430	450	50	530	450	530	92	320	342	310	245
CAAE 800/A	132 SB/2	515	475	460	430	450	50	530	450	530	92	320	342	310	245
CAAE 800/A	132 MB/2	540	475	460	430	450	50	530	450	530	92	320	342	310	245
CAAE 900/A	160 MA/2	550	570	545	530	525	55	630	525	630	98	320	342	310	245
CAAE 900/A	160 MA/2	595	570	545	530	525	55	630	525	630	98	425	440	400	345

							OUTLET NOZZLE									
MOD.	S	n°	Φ	d¹	n°v	Φv	a	b	a¹	b¹	a²	b²	n°f	Φf	kg	WD²
CAAE 400/B	25	4	10	182	8	M6	94	68	112	90	150	128	4	10	28	0.3
CAAE 400/B	25	4	10	182	8	M6	94	68	112	90	150	128	4	10	30	0.3
CAAE 400/A	25	4	10	182	8	M6	94	68	112	90	150	128	4	10	31	0.4
CAAE 400/A	25	4	10	182	8	M6	94	68	112	90	150	128	4	10	35	0.4
CAAE 500/B	25	4	10	182	8	M6	94	68	112	90	150	128	4	10	40	0.8
CAAE 500/B	25	4	10	182	8	M6	94	68	112	90	150	128	4	10	41	0.8
CAAE 500/A	25	4	10	182	8	M6	94	68	112	90	150	128	4	10	42	1.2
CAAE 500/A	25	4	10	182	8	M6	94	68	112	90	150	128	4	10	50	1.2
CAAE 630/B	25	4	10	200	8	M6	105	77	125	100	165	137	4	10	60	2
CAAE 630/B	25	4	10	200	8	M6	105	77	125	100	165	137	4	10	62	2
CAAE 630/A	25	4	10	200	8	M6	105	77	125	100	165	137	4	10	65	3.2
CAAE 630/A	25	4	12	200	8	M6	105	77	125	100	165	137	4	10	80	3.2
CAAE 710/B	25	4	12	200	8	M6	105	77	125	100	165	137	4	10	95	4.7
CAAE 710/B	25	4	12	200	8	M6	105	77	125	100	165	137	4	10	100	4.7
CAAE 710/A	25	4	12	200	8	M6	105	77	125	100	165	137	4	10	105	6
CAAE 710/A	25	4	12	200	8	M6	105	77	125	100	165	137	4	10	125	6
CAAE 800/A	25	4	12	200	8	M6	105	77	125	100	165	137	4	10	145	9.5
CAAE 800/A	25	4	12	200	8	M6	105	77	125	100	165	137	4	10	150	9.5
CAAE 800/A	25	4	12	200	8	M6	105	77	125	100	165	137	4	10	160	9.5
CAAE 900/A	25	4	12	219	8	M6	117	87	140	112	177	147	4	10	190	15
CAAE 900/A	30	4	14	219	8	M6	117	87	140	112	177	147	4	10	220	15

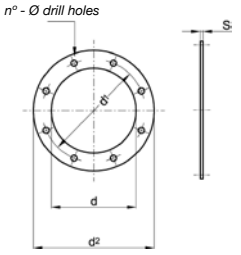
*For "HIGH TEMP." constructions, elevations "A-M-R" + 50 mm.
(kg) Weight of fan with motor.
WD^2 = Moment of inertia of the impeller, expressed in Kg x m^2

To obtain the dimensions of systems 1, 9 and 12 consult with our technical team.

LARGE SERIES

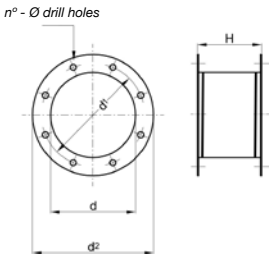
Accessories

Inlet counter flange



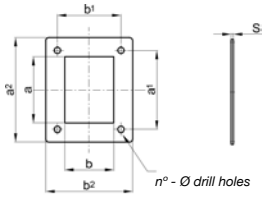
MOD.	d	d¹	d²	n°	Φ	s	kg
CAAE 400	145	182	215	8	9	4	0.6
CAAE 500	145	182	215	8	9	4	0.6
CAAE 630	165	200	235	8	9	4	0.65
CAAE 710	165	200	235	8	9	4	0.65
CAAE 800	165	200	235	8	9	4	0.65
CAAE 900	185	219	255	8	9	4	0.75

Inlet anti-vibration seal



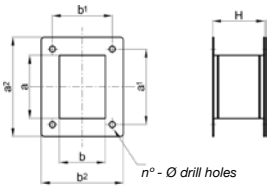
MOD.	d	d¹	d²	n°	Φ	H	kg
CAAE 400	145	182	215	8	9	200	1.5
CAAE 500	145	182	215	8	9	200	1.5
CAAE 630	165	200	235	8	9	200	1.6
CAAE 710	165	200	235	8	9	200	1.6
CAAE 800	165	200	235	8	9	200	1.6
CAAE 900	185	219	255	8	9	200	1.7

Impulsion counter-flange



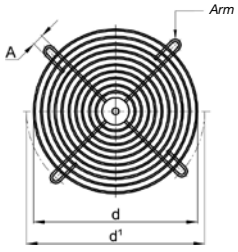
MOD.	a	b	a¹	b¹	a²	b²	n⁰	Φ	s	kg
CAAE 400	94	68	112	90	150	128	4	10	4	0.4
CAAE 500	94	68	112	90	150	128	4	10	4	0.4
CAAE 630	105	77	125	100	165	137	4	10	4	0.45
CAAE 710	105	77	125	100	165	137	4	10	4	0.45
CAAE 800	105	77	125	100	165	137	4	10	4	0.45
CAAE 900	117	87	140	112	177	147	4	10	4	0.5

Impulsion anti-vibration seal



MOD.	a	b	a¹	b¹	a²	b²	n⁰	Φ	H	kg
CAAE 400	94	68	112	90	150	128	4	10	200	1
CAAE 500	94	68	112	90	150	128	4	10	200	1
CAAE 630	105	77	125	100	165	137	4	10	200	1.1
CAAE 710	105	77	125	100	165	137	4	10	200	1.1
CAAE 800	105	77	125	100	165	137	4	10	200	1.1
CAAE 900	117	87	140	112	177	147	4	10	200	1.2

Inlet protection mesh

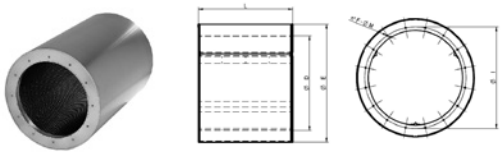


MOD.	d	d¹	A	n°	kg
CAAE 400	145	182	9	4	0.13
CAAE 500	145	182	9	4	0.13
CAAE 630	165	200	9	4	0.15
CAAE 710	165	200	9	4	0.15
CAAE 800	165	200	9	4	0.15
CAAE 900	185	219	9	4	0.18

Circular silencers

Silencers are used to lower the noise level at air conditioning or ventilation installation manufactured using galvanised steel.

- Upon request: other constructions using different materials.

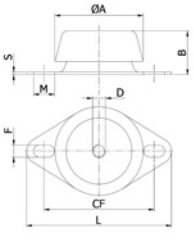


øD	øE	L	øl	F	øM
315	515	ØD,1.5ØD, 2ØD	355	8	M8
355	555	ØD,1.5ØD, 2ØD	395	8	M8
400	600	ØD,1.5ØD, 2ØD	450	8	M8
450	650	ØD,1.5ØD, 2ØD	500	8	M8
500	700	ØD,1.5ØD, 2ØD	560	12	M8
560	760	ØD,1.5ØD, 2ØD	620	12	M8
630	830	ØD,1.5ØD, 2ØD	690	12	M8
710	910	ØD,1.5ØD, 2ØD	770	16	M8
800	1000	ØD,1.5ØD, 2ØD	860	16	M8

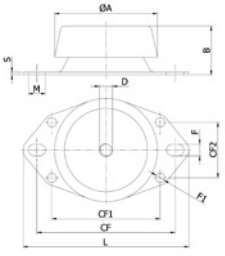
øD	øE	L	øl	F	øM
900	1100	ØD,1.5ØD, 2ØD	970	16	M10
1000	1200	ØD,1.5ØD, 2ØD	1070	16	M10
1120	1320	ØD,1.5ØD, 2ØD	1190	20	M10
1250	1450	ØD,1.5ØD, 2ØD	1320	20	M10
1400	1600	ØD,1.5ØD, 2ØD	1470	20	M10
1500	1700	ØD,1.5ØD, 2ØD	1570	20	M10
1600	1800	ØD,1.5ØD, 2ØD	1680	24	M14
1700	1900	ØD,1.5ØD, 2ØD	1780	24	M14
1800	2000	ØD,1.5ØD, 2ØD	1880	24	M14

Shock absorbers

TYPE 1



TYPE 2



MOD.	SHOCK-ABSORBERS MODEL	TYPE	øA	B	D	CF	CF1	CF2	F	øF1	L	M	S
CAAE 400	CF 623110	1	67	33...34	10	76.5	-	-	9	-	90.5	16	2
CAAE 500	CF 623110	1	67	33...34	10	76.5	-	-	9	-	90.5	16	2
CAAE 630	CF 623110	1	67	33...34	10	76.5	-	-	9	-	90.5	16	2
CAAE 710	CF 623110	1	67	33...34	10	76.5	-	-	9	-	90.5	16	2
CAAE 800	CF 924512	2	92	44...45	12	120	98	50	10.5	8.5	130	15.5	2.5
CAAE 900	CF 924512	2	92	44...45	12	120	98	50	10.5	8.5	130	15.5	2.5