



CENTRIFUGAL SINGLE INLET FANS

CMB / CMT Series



CMT series 1



CMT series 2 and 3



Impeller dynamically balanced



Forward curved centrifugal impellers **dynamically balanced**, according to ISO 1940 standard, providing vibration free operation

Range of centrifugal single inlet fans suitable for **continuous extraction of airstreams temperature up to 80°C** (Series 1) or **150°C** (Series 2 and 3).

All casings are manufactured from electro-welded **sheet steel protected against corrosion by grey epoxy-polyester paint coating.**

All models incorporate forward curved centrifugal impellers manufactured from galvanised sheet steel. Available, depending upon the model, with single or three phase motors in 2, 4 or 6 poles.

Motors

All motors are IP55, Class F (1) with ball bearings greased for life.

Electrical supply:

Single phase 230V- 50Hz.

Three phase 230/400V-50Hz up to 3kW.

Three phase 400V-50Hz, for higher power motors.

(See characteristics chart).

Series 1 are equipped with B14 flange mounted motor.

Series 2 & 3 are equipped with B3 foot mounted motor.

(1) Series 1: Some motors are IP44, Class B (See characteristics chart).

Additional Information

The scroll can be orientated in 8 different positions as per the table below.

Standard supplied position: LG 270.

On request, explosion proof versions in accordance to ATEX Directive for three phase models:

- **Increased safety** Ⓜ IICG EExIIIT3.

Except Serie 1, 4 pole motors, 120 to 180 models.

- **Flame proof**

Ⓜ IICG EExdIIBT5 or Ⓜ EExdIICT4.

Ⓜ II3D Ex tD 125°C or 135°C.

Except Serie 1, 4 pole motors, 120 to 180 models.

Working temperatures up to 40°C

For single phase models, please contact with S&P.

On request

Fan supplied in RD positions.

Fan fitted with 2-speed motor.

Stainless steel versions.

INOX-304 or 316 versions.

APPLICATIONS



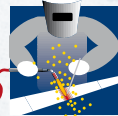
Commercial or industrial drying installations



Iron and steel industries Foundries



Cooling of motors, compressors or other electrical machines



Welding installations



Car industry/ Furnace ventilation



CONTINUOUS operation Series 1

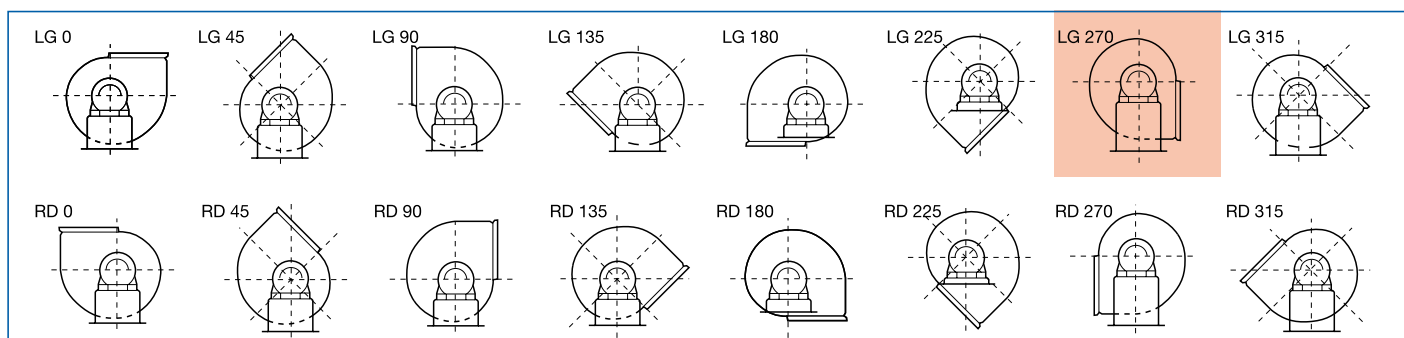


CONTINUOUS operation Series 2 and 3



VERSIONS

P O S I T I O N S



LG 270 standard supplied position. Special versions of RD configuration can be supplied under request.

■ Technical characteristics

Before installation check that the product electrical characteristics listed on the data plate label (Voltage, power, frequency etc) match those of the intended electrical supply.

Series 1	Speed (r.p.m.)	Protection	Motor Ins. Class	Motor power (kW)	Maximum absorbed current (A)		Maximum air volume (m ³ /h)	Sound power level (dB(A))	Weight (Kg)	Speed controller (*)
					at 230 V	at 400 V				
SINGLE PHASE 2 POLE										
CMB/2-120/50 - 0,09	2800	IP44	B	0,09	0,70	–	495	62	4,0	–
CMB/2-140/50 - 0,25	2800	IP55	F	0,25	2,00	–	870	66	8,5	–
CMB/2-160/60 - 0,37	2800	IP55	F	0,37	2,80	–	1120	69	9,5	–
CMB/2-180/75 - 0,75	2800	IP55	F	0,75	4,90	–	1800	71	14,7	–
CMB/2-200/60 - 0,37	2800	IP55	F	0,37	2,80	–	935	69	9,5	–
CMB/2-200/80 - 1,1	2800	IP55	F	1,1	7,30	–	2270	74	17,3	–
SINGLE PHASE 4 POLE										
CMB/4-120/50 - 0,01	1400	IP44	B	0,01	0,21	–	270	55	3,7	REB-1N
CMB/4-140/50 - 0,06	1400	IP44	B	0,06	0,35	–	450	59	7,0	REB-1N
CMB/4-160/60 - 0,07	1400	IP44	B	0,07	0,60	–	665	62	7,0	REB-1N
CMB/4-180/75 - 0,18	1400	IP55	F	0,18	1,45	–	1030	64	10,0	–
CMB/4-200/60 - 0,07	1400	IP44	B	0,07	0,60	–	555	62	7,0	–
CMB/4-200/80 - 0,25	1400	IP55	F	0,25	2,50	–	1560	67	13,0	–
THREE PHASE 2 POLE										
CMT/2-120/50 - 0,09	2800	IP44	B	0,09	0,54	0,32	495	62	4,0	RMT-1,5
CMT/2-140/50 - 0,25	2800	IP55	F	0,25	1,00	0,60	870	66	8,5	VFTM TRI 0,37
CMT/2-160/60 - 0,37	2800	IP55	F	0,37	1,80	1,05	1120	69	9,5	VFTM TRI 0,37
CMT/2-180/75 - 0,75	2800	IP55	F	0,75	3,30	1,90	1800	71	14,7	VFTM TRI 0,75
CMT/2-200/60 - 0,37	2800	IP55	F	0,37	1,80	1,05	935	69	9,5	VFTM TRI 0,37
CMT/2-200/80 - 1,1	2800	IP55	F	1,1	4,67	2,70	2270	74	17,3	VFTM TRI 1,1
THREE PHASE 4 POLE										
CMT/4-120/50 - 0,01	1400	IP44	B	0,01	0,20	0,12	270	55	3,7	RMT-1,5
CMT/4-140/50 - 0,06	1400	IP44	B	0,06	0,32	0,18	450	59	7,0	RMT-1,5
CMT/4-160/60 - 0,07	1400	IP44	B	0,07	0,58	0,33	665	62	7,0	RMT-1,5
CMT/4-180/75 - 0,18	1400	IP55	F	0,18	0,90	0,52	1030	64	10,0	VFTM TRI 0,37
CMT/4-200/60 - 0,07	1400	IP44	B	0,07	0,58	0,33	555	62	7,0	VFTM TRI 0,37
CMT/4-200/80 - 0,25	1400	IP55	F	0,25	1,26	0,73	1560	67	13,0	VFTM TRI 0,37

* Three phase speed controllers (RMT) are suitable for 400V.



■ Technical characteristics

Before installation check that the product electrical characteristics listed on the data plate label (Voltage, power, frequency etc) match those of the intended electrical supply.

Series 2	Speed (r.p.m.)	Protection	Motor Ins. Class	Motor power (kW)	Maximum absorbed current (A)		Maximum air volume (m ³ /h)	Sound power level (dB(A))	Weight (Kg)	Antivibration mount type (KSE)	Speed controller (*)
					at 230 V	at 400 V					
THREE PHASE 2 POLE											
CMT/2-225/ 90 - 1,1	2780	IP55	F	1,1	4,70	2,70	2080	66	23,0	45	VFTM TRI 1,1
CMT/2-225/ 90 - 1,5	2800	IP55	F	1,5	5,96	3,45	2170	71	27,5	45	VFTM TRI 1,5
CMT/2-225/ 90 - 2,2	2820	IP55	F	2,2	8,50	4,90	3040	76	29,7	45	VFTM TRI 2,2
CMT/2-250/100 - 2,2	2820	IP55	F	2,2	8,50	4,90	2080	73	34,5	45	VFTM TRI 2,2
CMT/2-250/100 - 3	2820	IP55	F	3	10,90	6,30	3685	79	36,5	45	VFTM TRI 3
CMT/2-280/115 - 3	2820	IP55	F	3	10,90	6,30	2600	77	43,0	45	VFTM TRI 3
CMT/2-280/115 - 4	2870	IP55	F	4	-	8,40	3210	81	47,0	45	VFTM TRI 4

SINGLE PHASE 4 POLE											
CMB/4-225/90 - 0,55	1390	IP55	F	0,55	4,39	-	2600	71	22	45	-
CMB/4-250/100 - 1,1	1390	IP55	F	1,1	7,09	-	3790	72	32	45	-

THREE PHASE 4 POLE											
CMT/4-225/ 90 - 0,55	1360	IP55	F	0,55	2,20	1,27	2600	71	22,0	45	VFTM TRI 0,55
CMT/4-250/100 - 1,1	1390	IP55	F	1,1	4,80	2,80	3790	72	32,0	45	VFTM TRI 1,1
CMT/4-280/115 - 2,2	1400	IP55	F	2,2	9,10	5,30	5200	75	43,0	45	VFTM TRI 2,2
CMT/4-315/130 - 2,2	1400	IP55	F	2,2	9,10	5,30	5660	72	48,0	45	VFTM TRI 2,2
CMT/4-315/130 - 3	1400	IP55	F	3	12,60	7,30	6800	75	51,5	45	VFTM TRI 4
CMT/4-315/130 - 4	1420	IP55	F	4	-	9,30	7100	78	57,5	70	VFTM TRI 4

THREE PHASE 6 POLE											
CMT/6-315/130 - 1,1	930	IP55	F	1,1	6,6	3,8	5400	69	44	45	VFTM TRI 1,5

* Three phase speed controllers (RMT) are suitable for 400V.

Series 3	Speed (r.p.m.)	Protection	Motor Ins. Class	Motor power (kW)	Maximum absorbed current (A)		Maximum air volume (m ³ /h)	Sound power level (dB(A))	Weight (Kg)	Antivibration mount type (KSE)	Speed controller (*)
					at 230 V	at 400 V					
THREE PHASE 4 POLE											
CMT/4-355/145 - 3	1400	IP55	F	3	12,65	7,30	6325	75	52,0	45	VFTM TRI 4
CMT/4-355/145 - 4	1420	IP55	F	4	-	9,30	7740	78	58,0	70	VFTM TRI 4
CMT/4-355/145 - 5,5	1445	IP55	F	5,5	-	12,00	9450	81	68,7	70	VFTM TRI 5,5
CMT/4-400/165 - 4	1420	IP55	F	4	-	9,30	7200	77	70,0	70	VFTM TRI 4
CMT/4-400/165 - 5,5	1445	IP55	F	5,5	-	12,00	8300	80	80,0	70	VFTM TRI 5,5
CMT/4-400/165 - 7,5	1445	IP55	F	7,5	-	15,50	10460	83	99,0	70	VFTM TRI 7,5
CMT/4-450/185 - 5,5	1445	IP55	F	5,5	-	12,00	7560	83	92,0	70	VFTM TRI 5,5
CMT/4-450/185 - 7,5	1445	IP55	F	7,5	-	15,50	9900	86	111,0	70	VFTM TRI 7,5
CMT/4-500/205 - 7,5	1445	IP55	F	7,5	-	15,50	8410	83	112,0	70	VFTM TRI 7,5
CMT/4-500/205 - 9,2	1450	IP55	F	9,2	-	21,50	10300	85	120,0	70	VFTM TRI 11
CMT/4-500/205 - 11	1450	IP55	F	11	-	22,50	11250	87	132,0	70	VFTM TRI 11
CMT/4-500/205 - 15	1460	IP55	F	15	-	31,00	15930	89	147,0	70	VFTM TRI 15

THREE PHASE 6 POLE											
CMT/6-355/145 - 1,5	945	IP55	F	1,5	7,5	4,3	6700	72	53	45	VFTM TRI 2,2
CMT/6-400/165 - 2,2	920	IP55	F	2,2	10,74	6,20	7590	73	60,5	70	VFTM TRI 3
CMT/6-450/185 - 2,2	920	IP55	F	2,2	10,74	6,20	7110	76	88,0	70	VFTM TRI 3

ATTENTION: The ratings of sound levels are pressure values measured in dB(A) at 1,5 m at 2/3 Qmax.

* Three phase speed controllers (RMT) are suitable for 400V.



■ Acoustic characteristics

Sound power level spectrum in dB(A) at the corresponding frequency band in Hz.

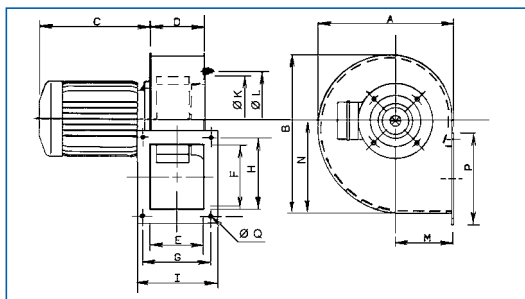
Description	SOUND POWER SPECTRUM								TOTAL	
	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	Power	Pressure
2 POLE										
CMT/2-120/50 - 0,09	42	53	64	68	70	73	69	67	77	63
CMT/2-140/50 - 0,25	46	57	68	71	73	77	73	71	81	66
CMT/2-160/60 - 0,37	48	60	71	74	76	80	75	73	84	69
CMT/2-180/75 - 0,75	51	62	73	76	78	82	78	76	86	71
CMT/2-200/60 - 0,37	49	60	71	74	76	80	76	74	84	69
CMT/2-200/80 - 1,1	53	65	76	79	81	85	80	79	89	74
CMT/2-225/90 - 1,1	46	57	68	71	73	77	73	71	81	66
CMT/2-225/90 - 1,5	51	62	73	76	78	82	78	76	86	71
CMT/2-225/90 - 2,2	56	67	78	81	83	87	83	81	91	76
CMT/2-250/100 - 2,2	53	64	75	78	80	84	80	78	88	73
CMT/2-250/100 - 3	58	69	80	84	86	89	85	83	93	79
CMT/2-280/115 - 3	56	67	78	82	84	87	83	81	91	77
CMT/2-280/115 - 4	61	72	83	86	88	92	88	86	96	81
4 POLE										
CMT/4-120/50 - 0,01	39	52	58	59	64	65	61	58	70	55
CMT/4-140/50 - 0,06	43	56	62	63	68	69	65	62	74	59
CMT/4-160/60 - 0,07	46	59	65	66	71	72	68	65	77	62
CMT/4-180/75 - 0,18	48	61	67	68	73	74	70	67	79	64
CMT/4-200/60 - 0,07	46	59	65	66	71	72	68	65	76,6	62
CMT/4-200/80 - 0,25	51	64	70	71	76	77	73	70	82	67
CMT/4-225/90 - 0,55	55	67	74	75	80	81	77	73	85	71
CMT/4-250/100 - 1,1	56	69	75	76	81	82	78	75	87	72
CMT/4-280/115 - 2,2	59	72	78	79	84	85	81	78	90	75
CMT/4-315/130 - 2,2	56	69	75	76	81	82	78	75	87	72
CMT/4-315/130 - 3	59	72	78	79	84	85	81	78	90	75
CMT/4-315/130 - 4	62	75	81	82	87	88	84	81	93	78
CMT/4-355/145 - 3	59	72	78	79	84	85	81	78	90	75
CMT/4-355/145 - 4	62	75	81	82	87	88	84	81	93	78
CMT/4-355/145 - 5,5	65	78	84	85	90	91	87	84	94	81
CMT/4-400/165 - 4	61	74	80	81	86	87	83	80	93	77
CMT/4-400/165 - 5,5	64	77	83	84	89	90	86	83	95	80
CMT/4-400/165 - 7,5	67	80	86	87	92	93	89	86	98	83
CMT/4-450/185 - 5,5	67	80	86	87	92	93	89	86	98	83
CMT/4-450/185 - 7,5	70	83	89	90	95	96	92	89	101	86
CMT/4-500/205 - 7,5	67	80	86	87	92	93	89	86	98	83
CMT/4-500/205 - 9,2	69	82	88	89	94	95	91	88	100	85
CMT/4-500/205 - 11	71	84	90	91	96	97	93	90	102	87
CMT/4-500/205 - 15	73	86	92	93	98	99	95	92	104	89
6 POLE										
CMT/6-315/130 - 1,1	54	67	70	78	78	79	74	70	84	70
CMT/6-355/145 - 1,5	56	69	72	80	80	81	76	72	86	72
CMT/6-400/165 - 2,2	58	70	73	81	81	82	78	74	87	73
CMT/6-450/185 - 2,2	60	73	76	84	84	85	80	76	90	76

CMB / CMT

Centrifugal direct drive fans

■ Dimensions (mm)

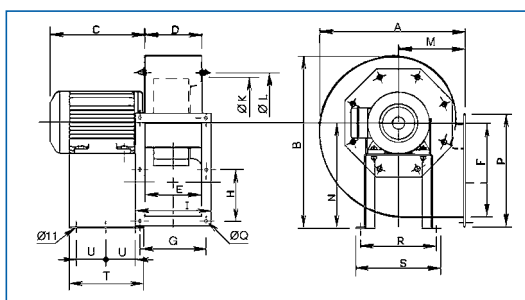
Series 1



Model	A	B	C1		D	E	F	G	H	I	K	L	M	N	P	Q
			2*	4*												
120/50	180	203	153	153	74,5	72	85	92	105	106	113	132	81	116	118	5,5
140/50	222	249	177	153	82,5	80	105	105	128	123	144	152	100	147	147	7
160/60	254	293	207	153	102,5	100	120	128	148	153	166	180	109	171	172	7
180/75	302	347	232	177	117,5	115	140	145	170	168	187,5	210	128	203	192	9
200/60	300	347	207	153	107,5	105	100	135	128	158	209	230	128	203	152	9
200/80	321	375	232	207	132,5	130	160	160	188	183	209	230	138	222	212	9

* Number of poles

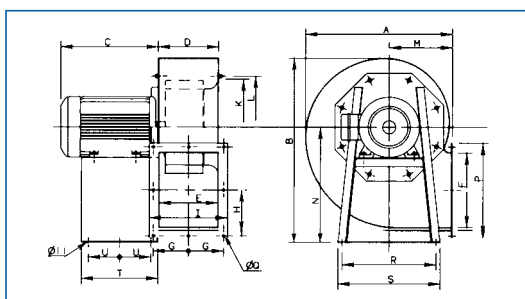
Series 2



Model	A	B	C1		D	E	F	G	H	I	K	L	M	N	P	Q	R	S	T	U
			2*	4*																
225/90	386	452	248	235	144	140	216	180	128	203	234	256	181	280	279	10	220	250	200	50
250/100	425	501	300	248	169	165	250	205	145	228	261	282	197	310	313	10	228	260	225	74
280/115	471	553	320	300	184	184	300	220	170	243	293	320	216	340	363	10	245	275	240	95
315/130	524	628	-	320	206	200	320	240	180	263	326	354	238	390	383	11	322	352	230	140

* Number of poles

Series 3

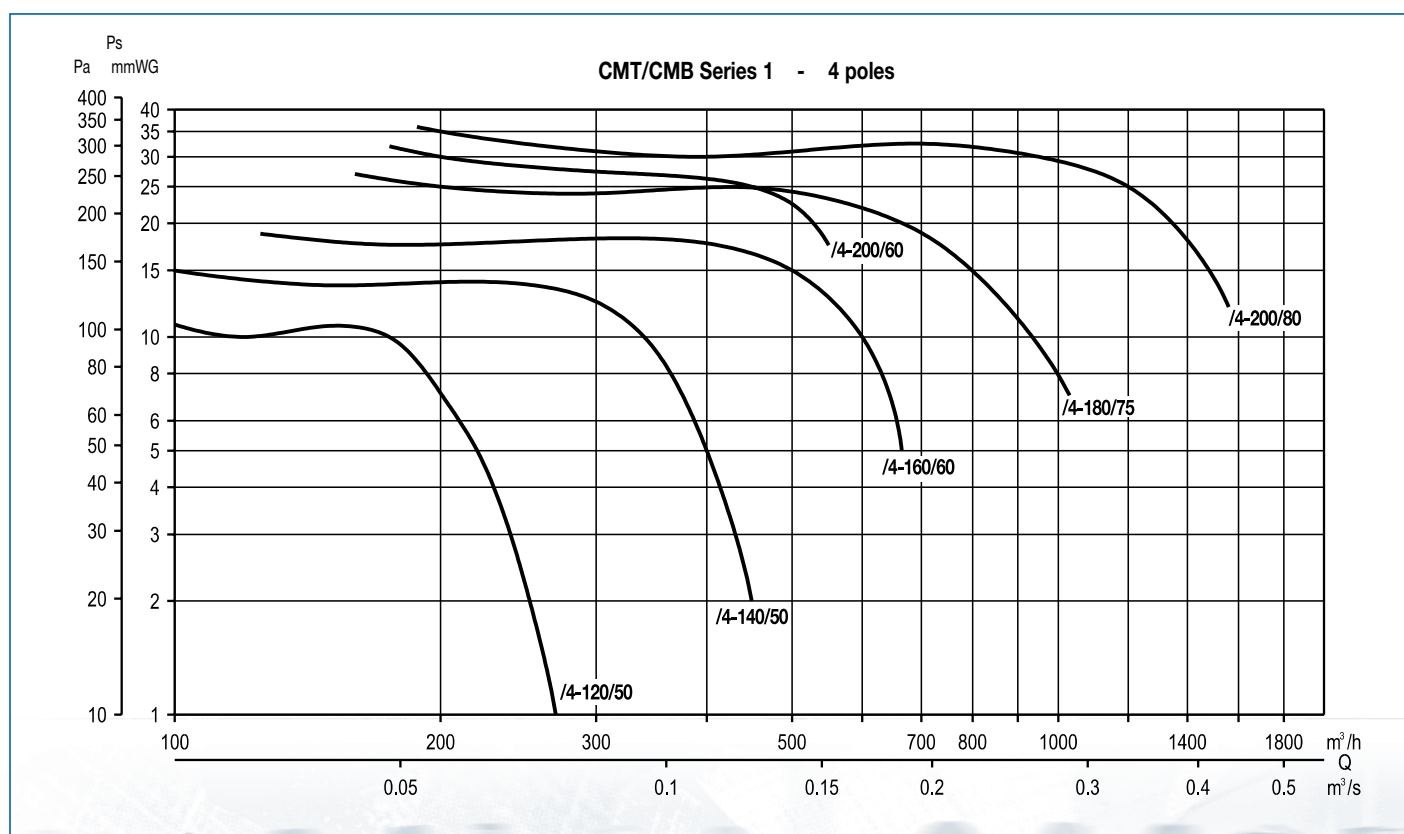
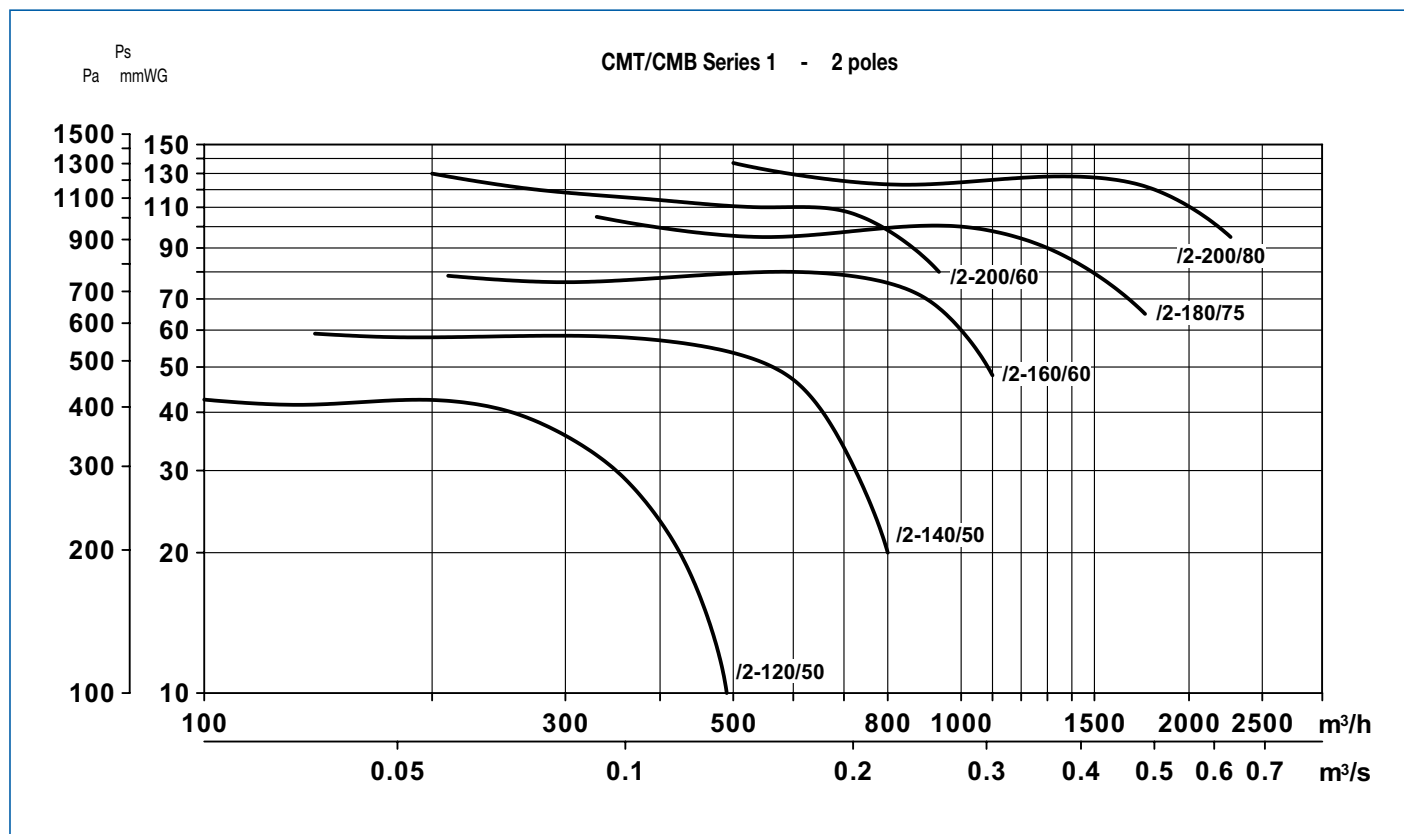


Model	A	B	C max.		D	E	F	G	H	I	K	L	M	N	P	Q	R	S	T	U
			/4*	/6*																
355/145	572	713	390	320	231	228	280	133	159	291	367	394	250	445	343	11	420	450	333	136,5
400/165	632	796	425	340	254	250	320	150	185	334	413	438	270	495	404	11	402	438	327	133,5
450/185	709	898	425	340	288	284	360	164	202	368	463	485	302	560	444	11	502	538	340	140
500/205	795	984	550	445	319	315	450	182,5	250	409	513	535	345	610	544	11	613	653	435	187,5

* Number of poles

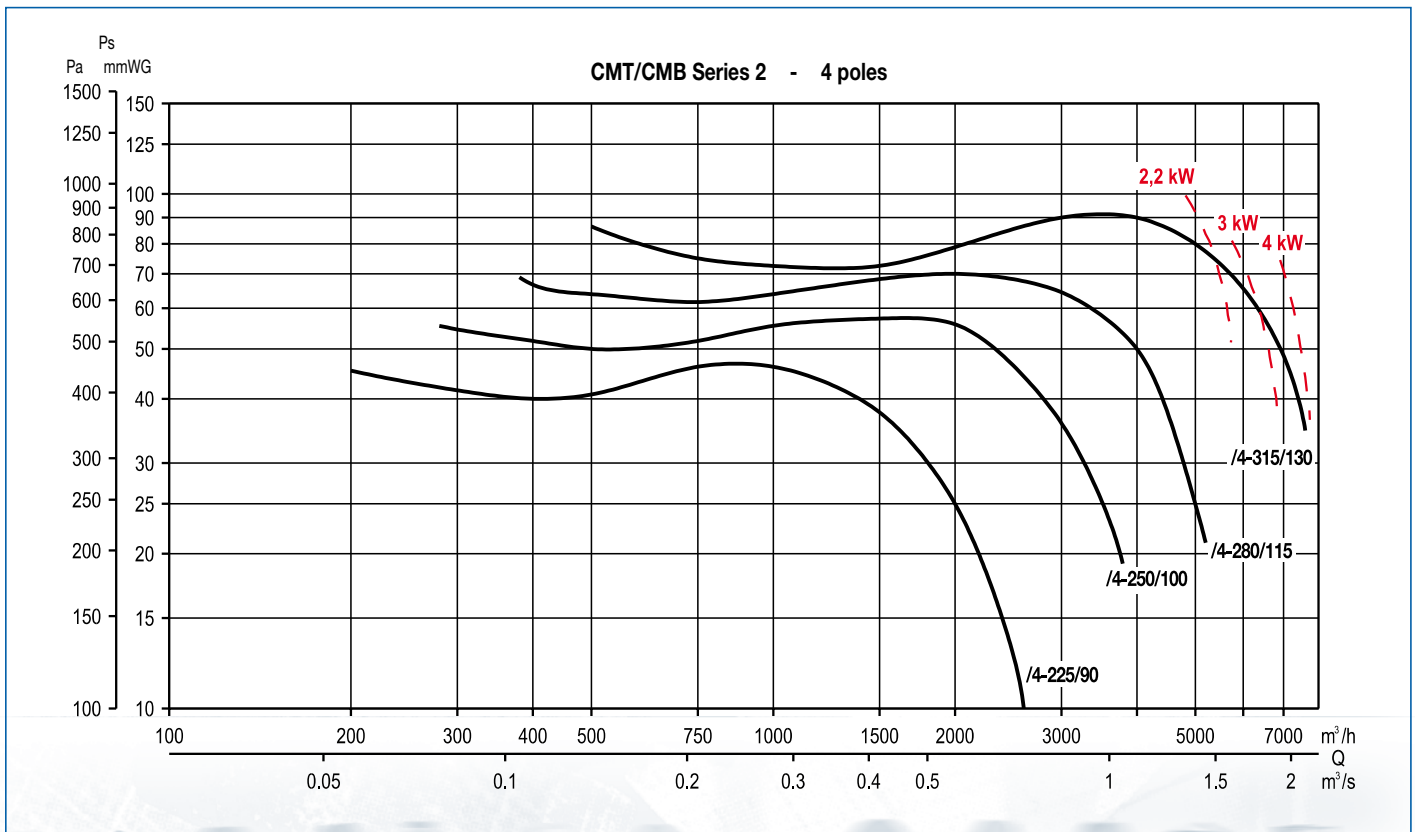
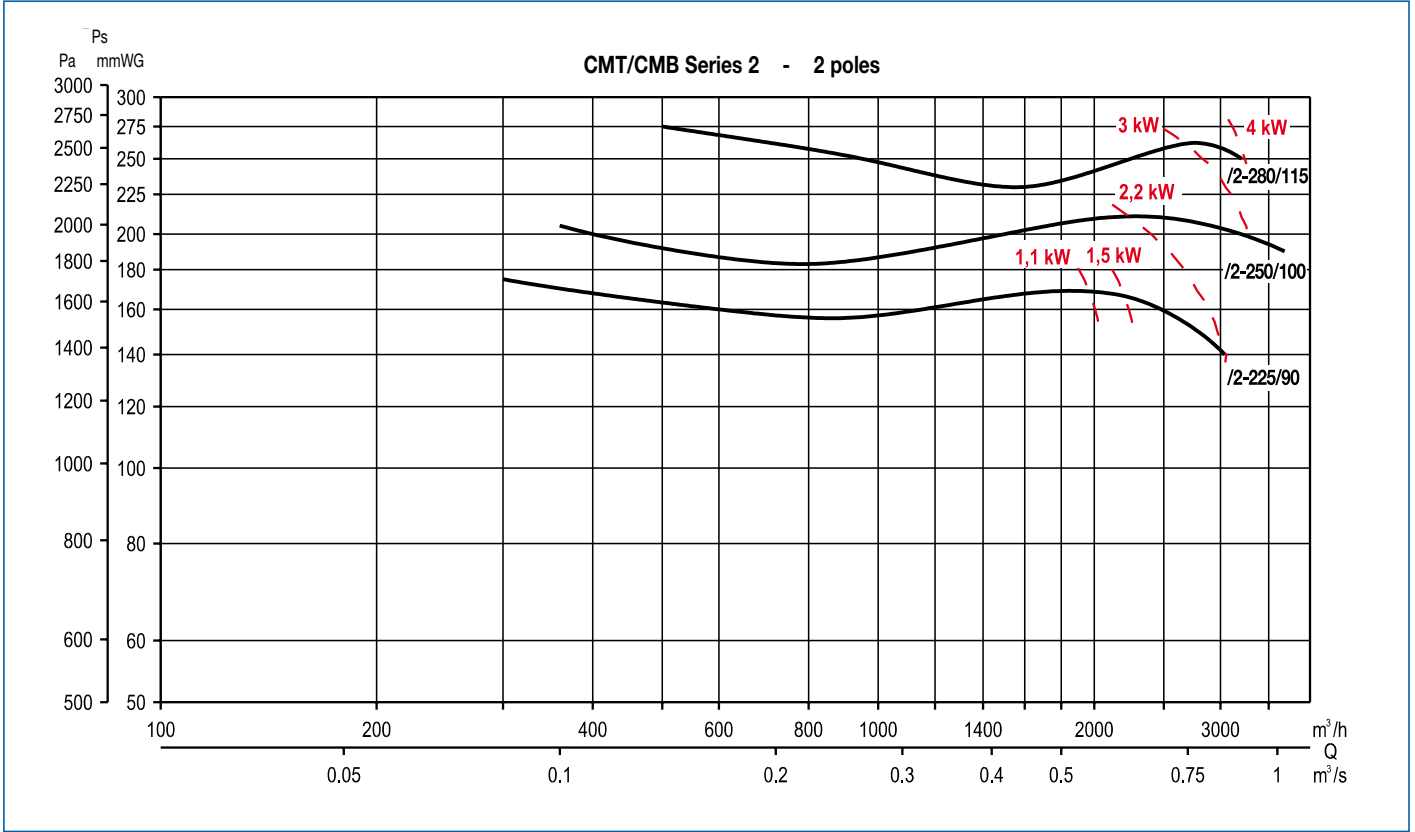
■ Performance curves

- Q = Air volume in, m³/hr and m³/s.
- Ps = Static pressure in mmWG and Pa.
- Dry air at 20°C and 760 mmHg.
- Performance data in accordance with ISO 5801 and AMCA 210-99 Standards.



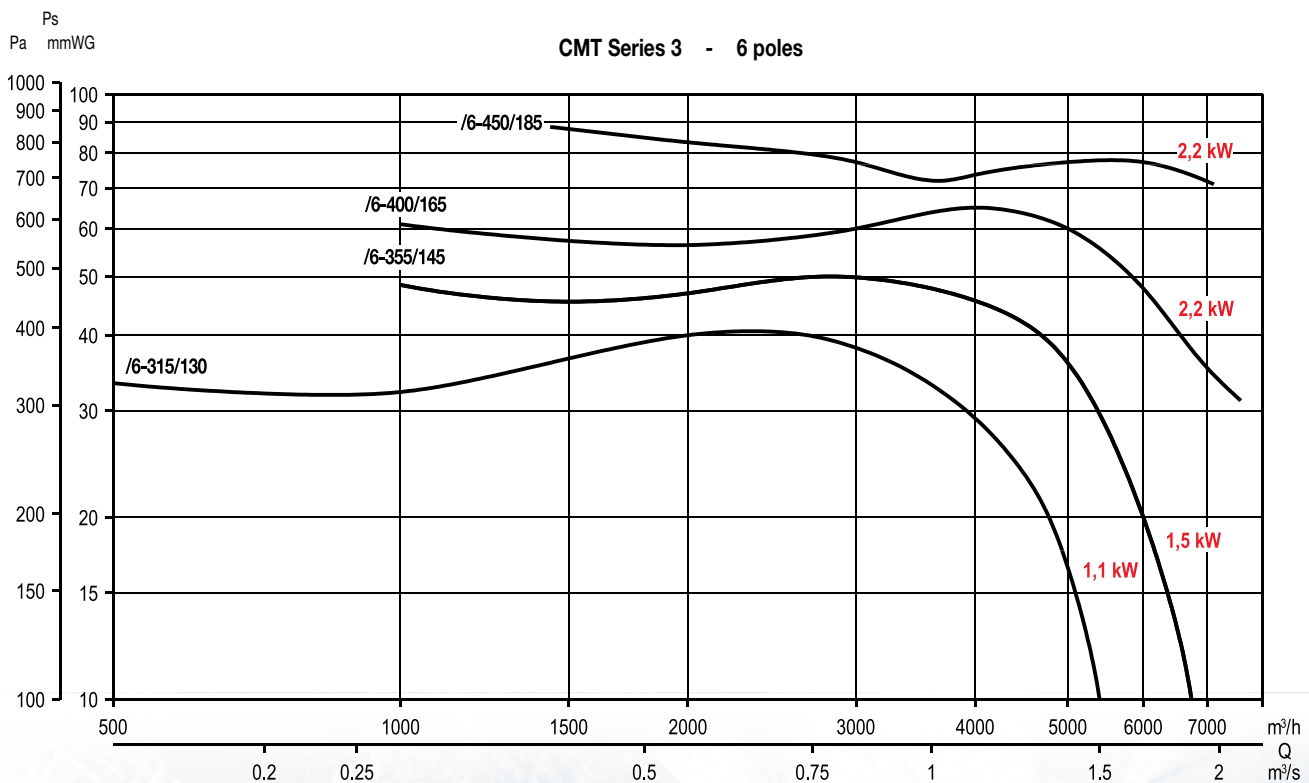
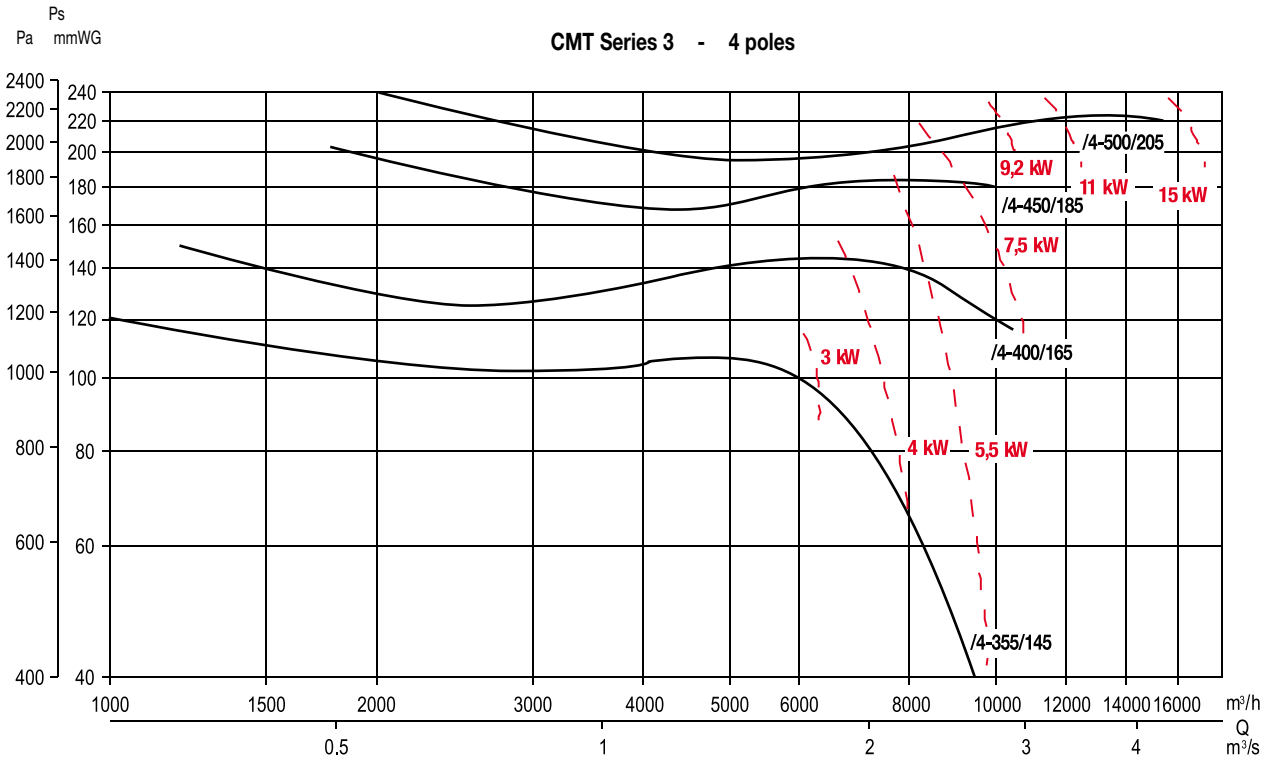
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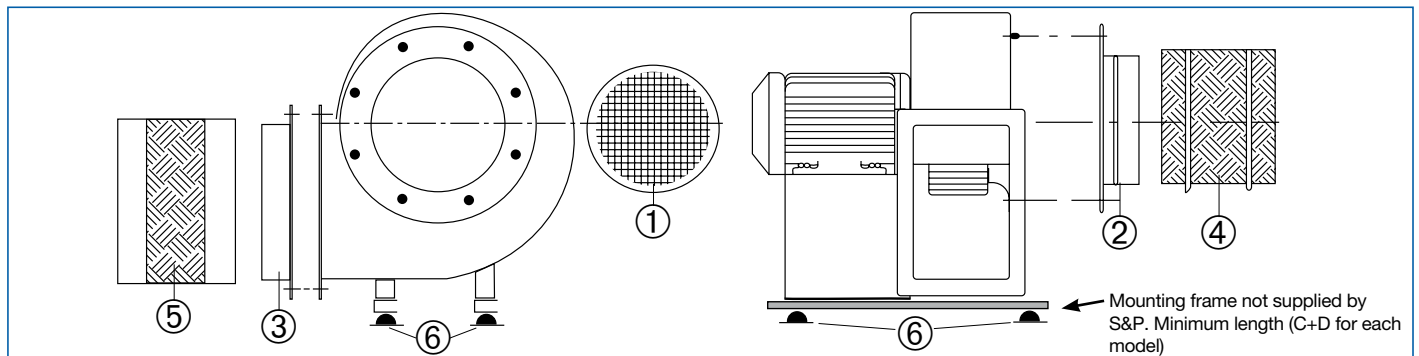


■ Performance curves

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- Performance data in accordance with ISO 5801 and AMCA 210-99 Standards.



■ Mounting accessories



Model CMB/CMT	① Inlet guard	② Inlet flange	③ Discharge flange	④ Circular flexible connector	⑤ Rectangular flexible connector	⑥ Anti-vibration mounts (1 KSE = 4 mounts)
120/50	KRJ-120	KBA-120	KBD-120	KAA-120	KAD-120	-
140/50	KRJ-140	KBA-140	KBD-140	KAA-140	KAD-140	-
160/60	KRJ-160	KBA-160	KBD-160	KAA-160	KAD-160	-
180/75	KRJ-180	KBA-180	KBD-180	KAA-180	KAD-180	-
200/60	KRJ-200	KBA-200	KBD-200/60	KAA-200	KAD-200/60	-
200/80	KRJ-200	KBA-200	KBD-200/80	KAA-200	KAD-200/80	-
225/90	KRJ-225	KBA-225	KBD-225	KAA-225	KAD-225	-
250/100	KRJ-250	KBA-250	KBD-250	KAA-250	KAD-250	Motor power <= 3 kW: KSE-45
280/115	KRJ-280	KBA-280	KBD-280	KAA-280	KAD-280	
315/130	KRJ-315	KBA-315	KBD-315	KAA-315	KAD-315	
355/145	KRJ-355	KBA-355	KBD-355	KAA-355	KAD-355	
400/165	KRJ-400	KBA-400	KBD-400	KAA-400	KAD-400	Motor power >= 4 kW: KSE-70
450/185	KRJ-450	KBA-450	KBD-450	KAA-450	KAD-450	
500/205	KRJ-500	KBA-500	KBD-500	KAA-500	KAD-500	

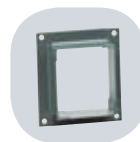
*According to motor power



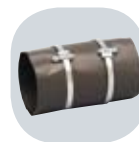
KRJ
Inlet guard



KBA
Inlet flange



KBD
Discharge flange



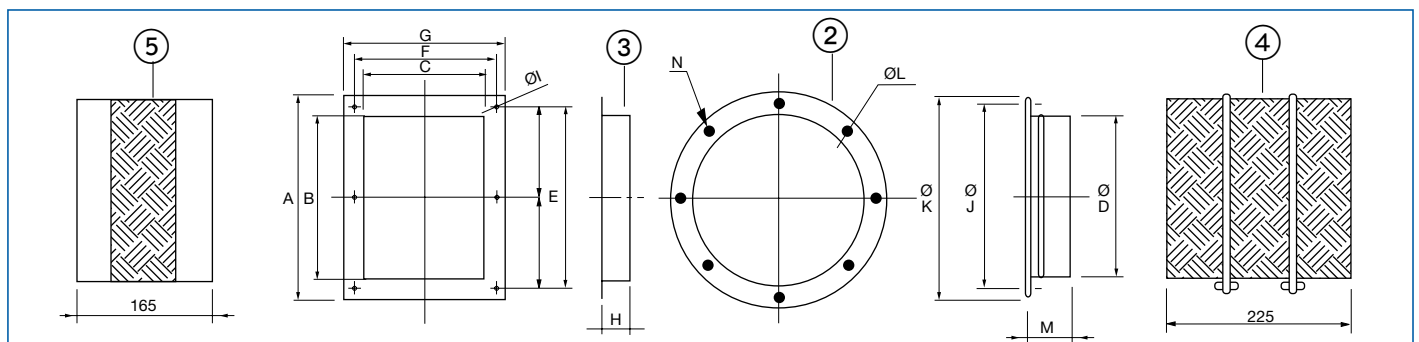
KAA
Circular flexible connector



KAD
Rectangular flexible connector



KSE
Anti-vibration mounts

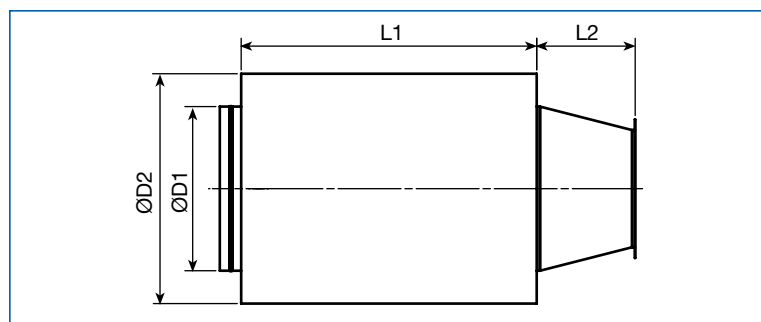


Accessory model	A	B	C	ØD	E	F	G	H	ØI	ØJ	ØK	ØL	M	N
120/50	118	87	75	112	105	92	106	40	5,5	132	150	5	65	4
140/50	147	107	83	125	128	105	123	40	7	152	170	5	65	4
160/60	172	122	103	160	148	128	153	40	7	180	205	7	65	4
180/75	192	142	118,5	180	170	145	168	40	9	210	244	7	65	4
200/60	158	108,5	102	200	135	128	152	45	9	230	255	7	65	4
200/80	212	162	134	200	188	160	183	45	9	230	255	7	65	4
225/90	279	219	143	224	256	180	203	45	10	256	280	9	65	8
250/100	313	253	168	250	290	205	228	45	10	282	306	9	65	8
280/115	363	303	183	280	340	220	243	50	10	320	348	9	65	8
315/130	383	323	203	315	360	240	263	50	11	354	382	9	65	8
355/145	343	283	231	355	318	266	291	50	11	394	422	9	65	8
400/165	404	324	254	400	370	300	334	55	11	438	464	9	65	8
450/185	444	364	288	450	404	328	368	55	11	485	515	9	65	8
500/205	544	454	319	500	500	365	409	60	11	535	565	9	65	8

■ Mounting accessories



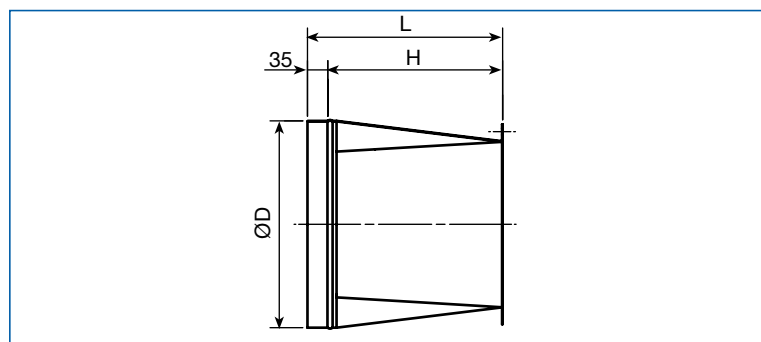
KMTA
Sound attenuators for mounting at the CMT fan inlet



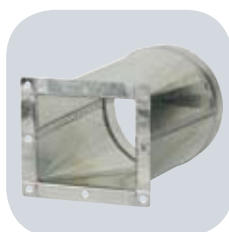
Model CMT	Model KMTA	Model KMTI	L1	L2 (KMTA)	L2 (KMTI)	D1	D2
225	KMTA-225	KMTI-225	600	250	300	315	515
250	KMTA-250	KMTI-250	900	250	300	355	555
280	KMTA-280	KMTI-280	900	300	300	400	600
315	KMTA-315	KMTI-315	900	300	300	450	650
355	KMTA-355	KMTI-355	900	300	300	500	700
400	KMTA-400	KMTI-400	900	300	300	500	700
450	KMTA-450	KMTI-450	900	300	450	560	760
500	KMTA-500	KMTI-500	900	300	450	630	830



KMTI
Sound attenuators for mounting at the CMT fan outlet

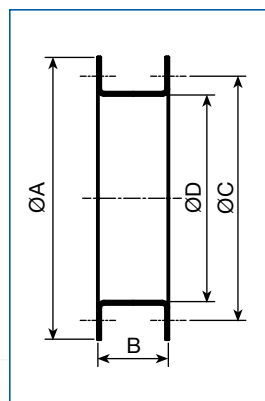


Model CMT	Model KMBI	L	H	D	Model CMT	Model KMBI	L	H	D
120	KMBI-120	235	200	125	250	KMBI-250	335	300	250
140	KMBI-140	235	200	140	280	KMBI-280	335	300	280
160	KMBI-160	235	200	160	315	KMBI-315	335	300	315
180	KMBI-180	235	200	180	355	KMBI-355	335	300	355
200/60	KMBI-200	335	300	200	400	KMBI-400	335	300	400
200/80	KMBI-201	335	300	200	450	KMBI-450	485	450	450
225	KMBI-225	335	300	225	500	KMBI-500	485	450	500



KMBI
Rectangular/circular connection flange for mounting at the CMT fan outlet

Model CMT	Model KMBD	A	B	C	D
120	KMBD-120	150	60	132	112
140	KMBD-140	170	80	152	125
160	KMBD-160	205	80	180	160
180	KMBD-180	244	80	210	180
200	KMBD-200	255	80	230	200
225	KMBD-225	280	80	256	224
250	KMBD-250	306	80	282	250
280	KMBD-280	346	100	320	280
315	KMBD-315	382	100	354	315
355	KMBD-355	422	100	394	366
400	KMBD-400	464	100	438	400
450	KMBD-450	515	100	485	450
500	KMBD-500	565	100	535	500



KMBD
Double connection flange for mounting at the CMT fan inlet

■ Electrical accessories



REB
Electronic single
phase speed
controllers



RMT
Three phase auto
transformer speed
controllers



VFTM TRI IP54
Adjustable frequency
drive for three phase
motors from 0,37 to
15 kW 400 V