DIRECT DRIVE MOTOR

CMTC

Extremely robust open blade and single inlet centrifugal fans with sheet steel casing and impeller

Designed for air that is very dusty and with materials suspended in the 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 air with a lot of dust and suspended materials.
- Directly coupled motor.
- With inspection and cleaning hatch from size 560 and up.
- Casing continuously welded starting with size 800.

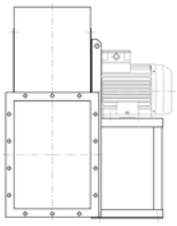
Motor:
- Motors with IE3 efficiency for powers equal to or greater than 0.75kW, except single-phase, 2-speed and 8-pole.
- Class F motors with ball bearings, IP55 protection.
- Three-phase 230/400 V 50 Hz (up to 4 kW) and 400/690 V 50 Hz (powers greater than 4 kW).
- Maximum temperature of air to be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

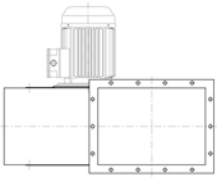
Direct drive motor construction method

SYSTEM 4



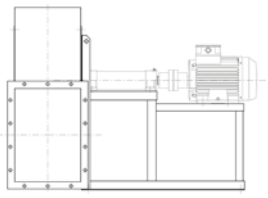
Direct drive, impeller mounted on the motor shaft, mounted on the pedestal.

SYSTEM 5



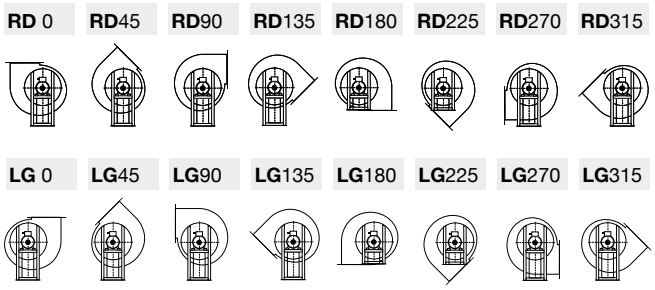
Direct drive, impeller mounted on the motor shaft, flange motor mounted on the fan casing.

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



LARGE SERIES

CMTC-X

Centrifugal, open blade, belt driven fans fitted with electric motors and a standardized set of pulleys, belts and protectors in accordance with standard ISO 13857

Designed for air that is very dusty and with materials suspended in the 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 air with a lot of dust and suspended materials.
- Engine mounted on general bench.
- With inspection and cleaning hatch from size 560 and up.
- Casing continuously welded starting with size 800.

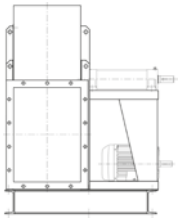
Motor:
- IE3 efficiency motors.
- Class F motors with ball bearings, IP55 protection.
- Three-phase 230/400 V 50 Hz (up to 4 kW) and 400/690 V 50 Hz (powers greater than 4 kW).
- Maximum temperature of air to be carried: -25 ºC +90 ºC.

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.

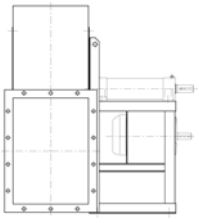
Belt-driven motor construction method

SYSTEM 12



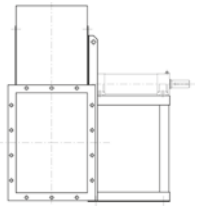
Transmission drive, identical to SYSTEM 1, with the motor and fan mounted on the common bench. Motor positions “W” or “Z” and exceptionally “X” or “Y”.

SYSTEM 9



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

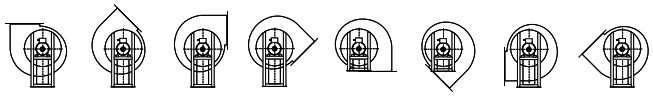
SYSTEM 1



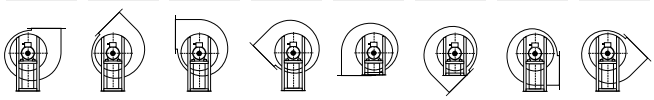
Transmission drive, impeller mounted on the support shaft. Support mounted on the pedestal.

Orientations

RD 0 | **RD**45 | **RD**90 | **RD**135 | **RD**180 | **RD**225 | **RD**270 | **RD**315



LG 0 | **LG**45 | **LG**90 | **LG**135 | **LG**180 | **LG**225 | **LG**270 | **LG**315



QUICK SELECT SYSTEM 4

Outlet characteristics

						V m³/s													
Model	**Frame**	**kW ass**	**kW inst.**	**r.p.m.**	**dB**	**0.46**	**0.52**	**0.58**	**0.67**	**0.75**	**0.83**	**0.93**	**1.05**	**1.2**	**1.3**	**1.5**	**1.7**	**1.85**	**2.05**	**2.3**
						Pt kgf/m²=mmH₂O														
CMTC 630	112 M/4	3.8	4	1420	72					185	185	182	175	166	155	140				
CMTC 670	132 S/4	5.3	5.5	1430	74							215	212	210	200	193	185	172		
CMTC 700	132 MA/4	6.9	7.5	1430	76								240	240	235	223	210	195	180	
CMTC 750	160 M/4	10.5	11	1465	79											295	290	285	275	260
CMTC 800	160 L/4	14	15	1465	80													330	328	319
CMTC 630	90 L/6	1	1.1	910	64	78	78	77	74	71	66	60								
CMTC 670	112 M/6	1.5	2.2	940	65			93	93	91	87	84	81	75						
CMTC 700	112 M/6	1.9	2.2	940	67				103	103	100	94	90	84	77					
CMTC 750	132 MA/6	3	4	950	70							128	126	124	119	113	106	98		
CMTC 800	132 MB/6	4	5.5	950	71									143	142	139	132	126	119	109
CMTC 835	132 MB/6	5	5.5	950	73												138	137	133	127
CMTC 855	160 M/6	5.9	7.5	960	74														139	132

						V m³/s						
Model	**Frame**	**kW ass**	**kW inst.**	**r.p.m.**	**dB**	**2.6**	**3**	**3.3**	**3.75**	**4.2**	**4.7**	**5.3**
						Pt kgf/m²=mmH₂O						
CMTC 750	160 M/4	10.5	11	1465	79	245	225					
CMTC 800	160 L/4	14	15	1465	80	303	290	274	252			
CMTC 835	180 M/4	17.8	18.5	1470	82	320	318	307	294	275		
CMTC 855	180 L/4	21	22	1470	83			320	305	280	250	225
CMTC 835	132 MB/6	5	5.5	950	73	119						
CMTC 855	160 M/6	5.9	7.5	960	74	121	108	97				

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

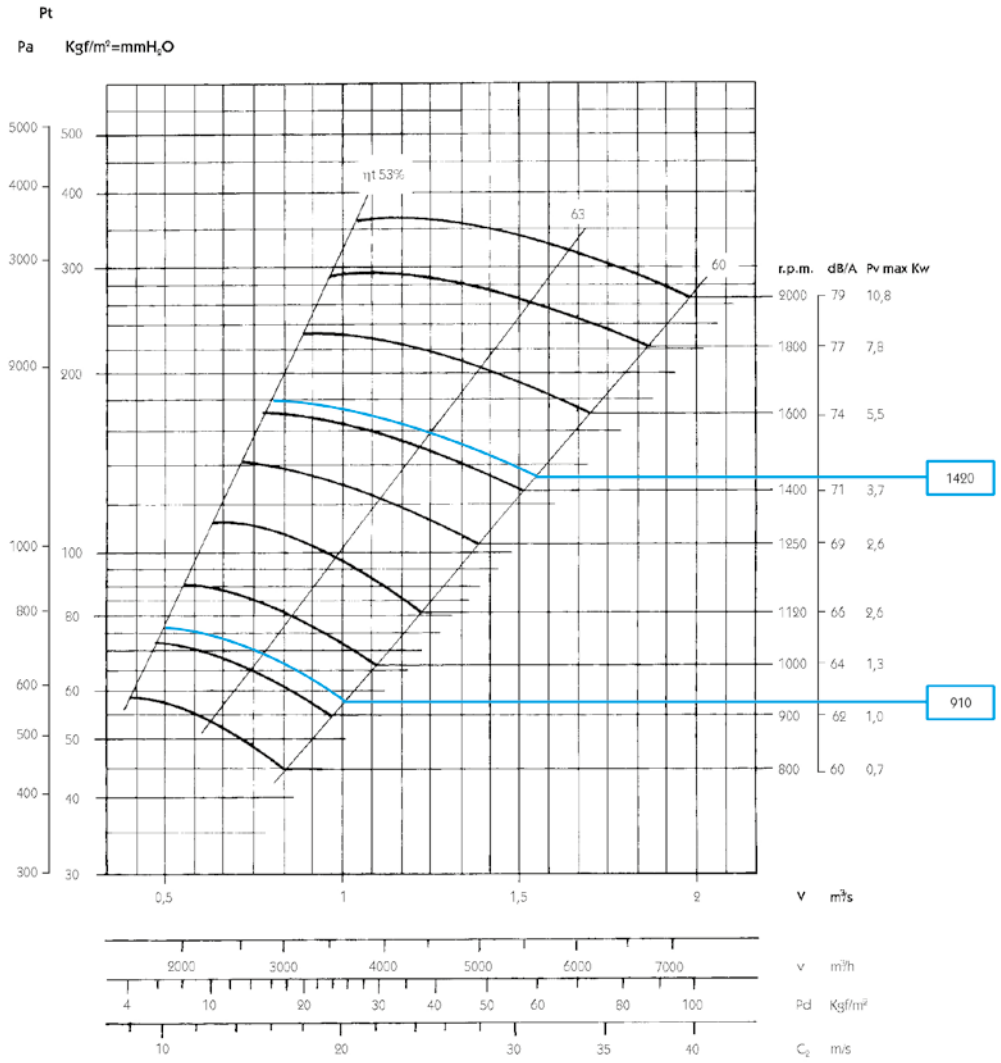
Inlet characteristics

						V m³/s													
Model	**Frame**	**kW ass**	**kW inst.**	**r.p.m.**	**dB**	**0.46**	**0.52**	**0.58**	**0.67**	**0.75**	**0.83**	**0.93**	**1.05**	**1.2**	**1.3**	**1.5**	**1.7**	**1.85**	**2.05**	**2.3**
						Pt kgf/m²=mmH₂O														
CMTC 630	112 M/4	3.8	4	1420	75					167	167	164	158	149	140	126				
CMTC 670	132 S/4	5.3	5.5	1430	77							194	191	189	180	174	167	155		
CMTC 700	132 MA/4	6.9	7.5	1430	79								216	216	212	201	189	176	162	
CMTC 750	160 M/4	10.5	11	1465	81											266	261	257	248	234
CMTC 800	160 L/4	14	15	1465	83													297	295	287
CMTC 630	90 L/6	1	1.1	910	67	70	70	69	67	64	59	54								
CMTC 670	112 M/6	1.5	2.2	940	67			84	84	82	78	76	73	68						
CMTC 700	112 M/6	1.9	2.2	940	70				93	93	90	85	81	76	69					
CMTC 750	132 MA/6	3	4	950	73							115	113	112	107	102	95	88		
CMTC 800	132 MB/6	4	5.5	950	74									129	128	125	119	113	107	98
CMTC 835	132 MB/6	5	5.5	950	76												124	123	120	114
CMTC 855	160 M/6	5.9	7.5	960	77														125	119

						V m³/s						
Model	**Frame**	**kW ass**	**kW inst.**	**r.p.m.**	**dB**	**2.6**	**3**	**3.3**	**3.75**	**4.2**	**4.7**	**5.3**
						Pt kgf/m²=mmH₂O						
CMTC 750	160 M/4	10.5	11	1465	81	221	203					
CMTC 800	160 L/4	14	15	1465	83	273	261	247	227			
CMTC 835	180 M/4	17.8	18.5	1470	85	288	286	276	265	248		
CMTC 855	180 L/4	21	22	1470	85			288	275	252	225	203
CMTC 835	132 MB/6	5	5.5	950	76	107						
CMTC 855	160 M/6	5.9	7.5	960	77	109	97	87				

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

CMTC 630



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

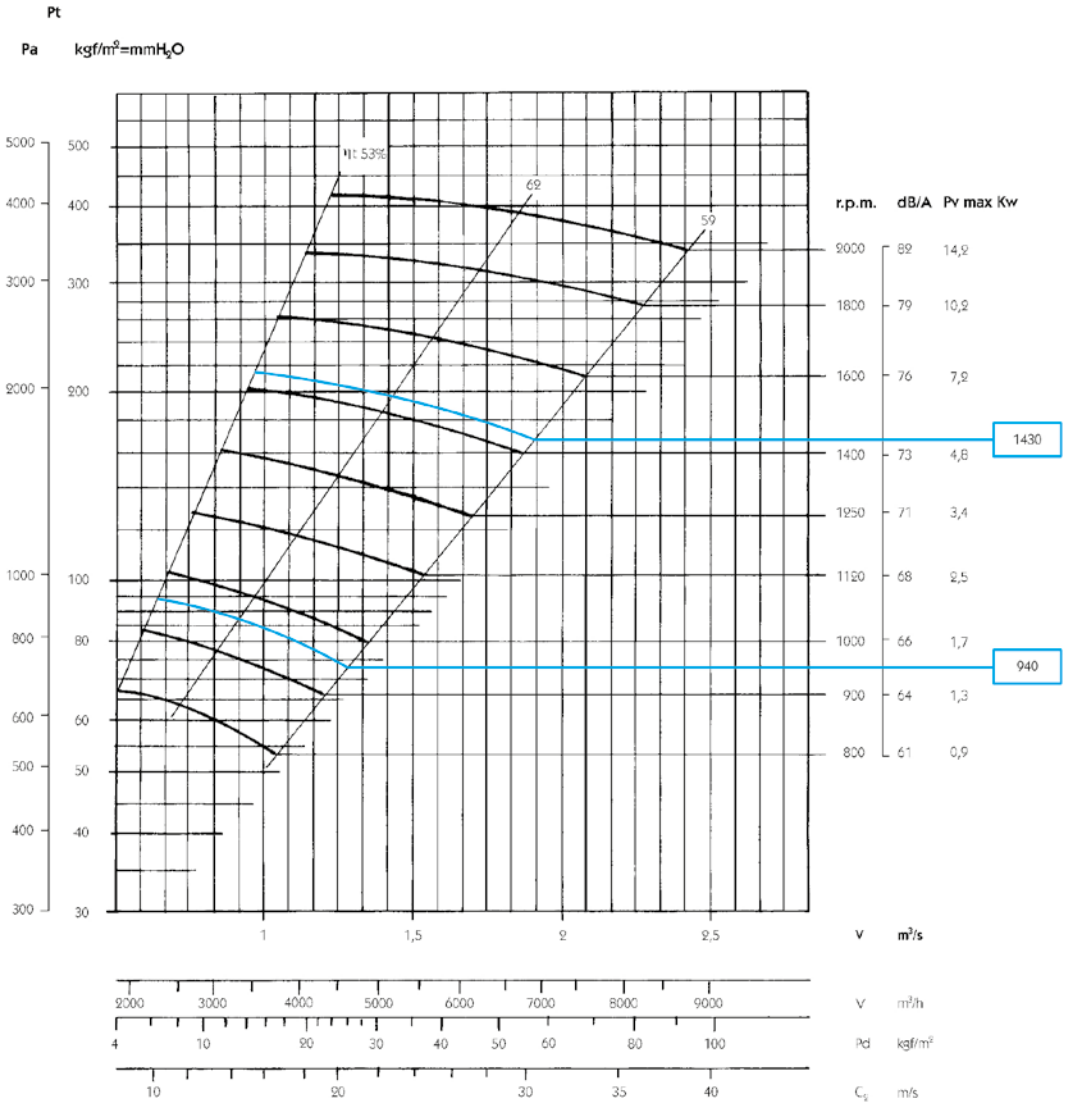
Outlet characteristics.

Rpm

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

Characteristic curves

CMTC 670



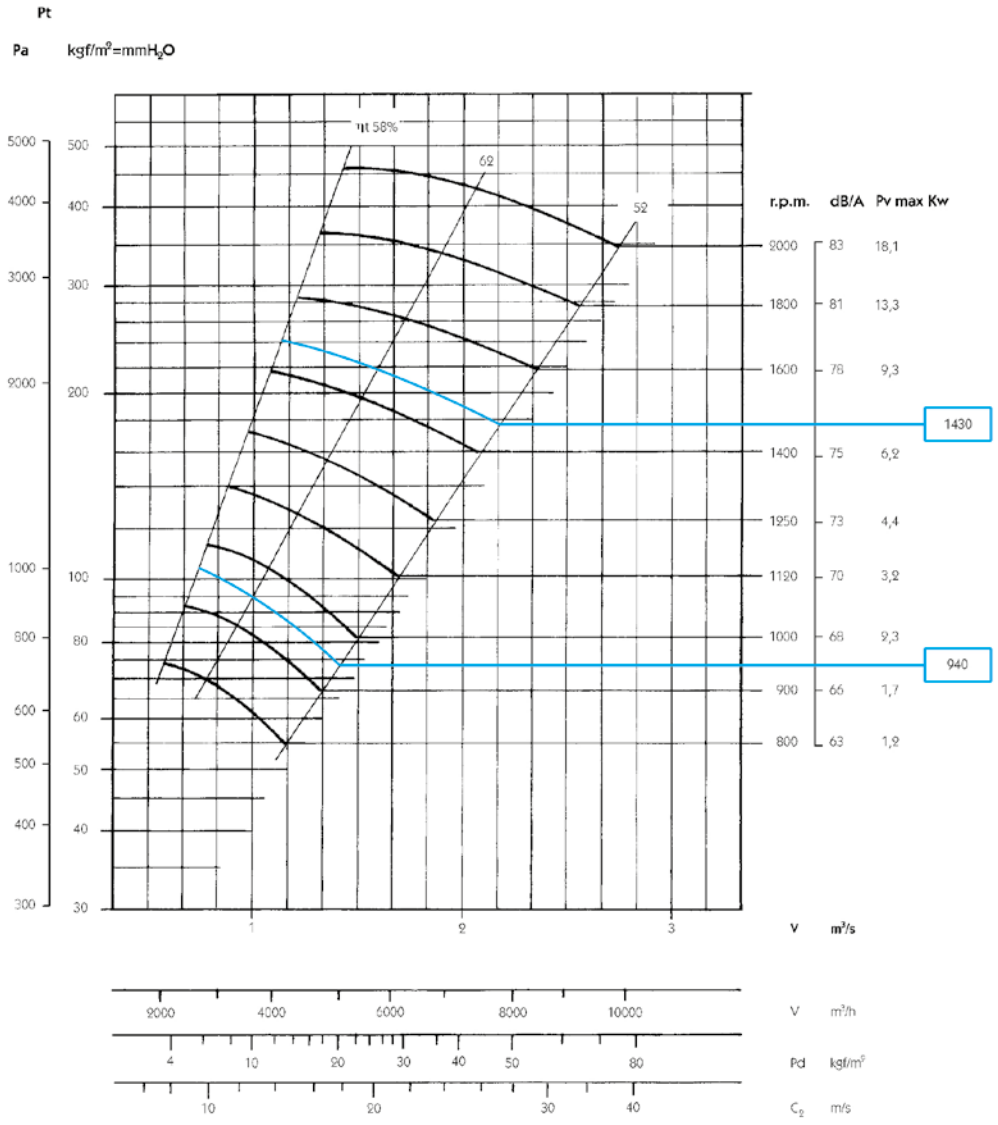
Flow margin ±5%
Noise level margin + 3... 5 dB
Margin of kW absorbed ±3%

Outlet characteristics.

Rpm

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

CMTC 700



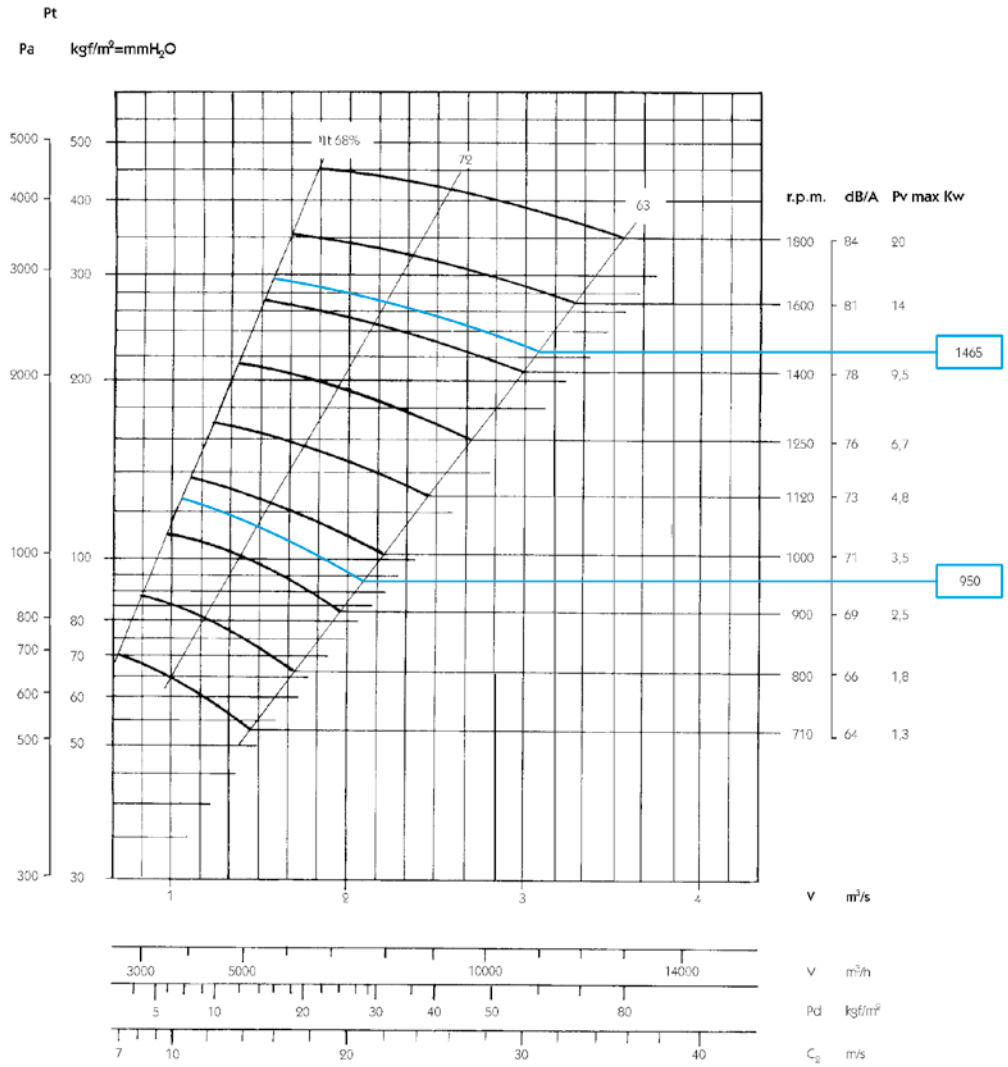
Flow margin ±5%
Noise level margin + 3... 5 dB
Margin of kW absorbed ±3%

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

CMTC 750

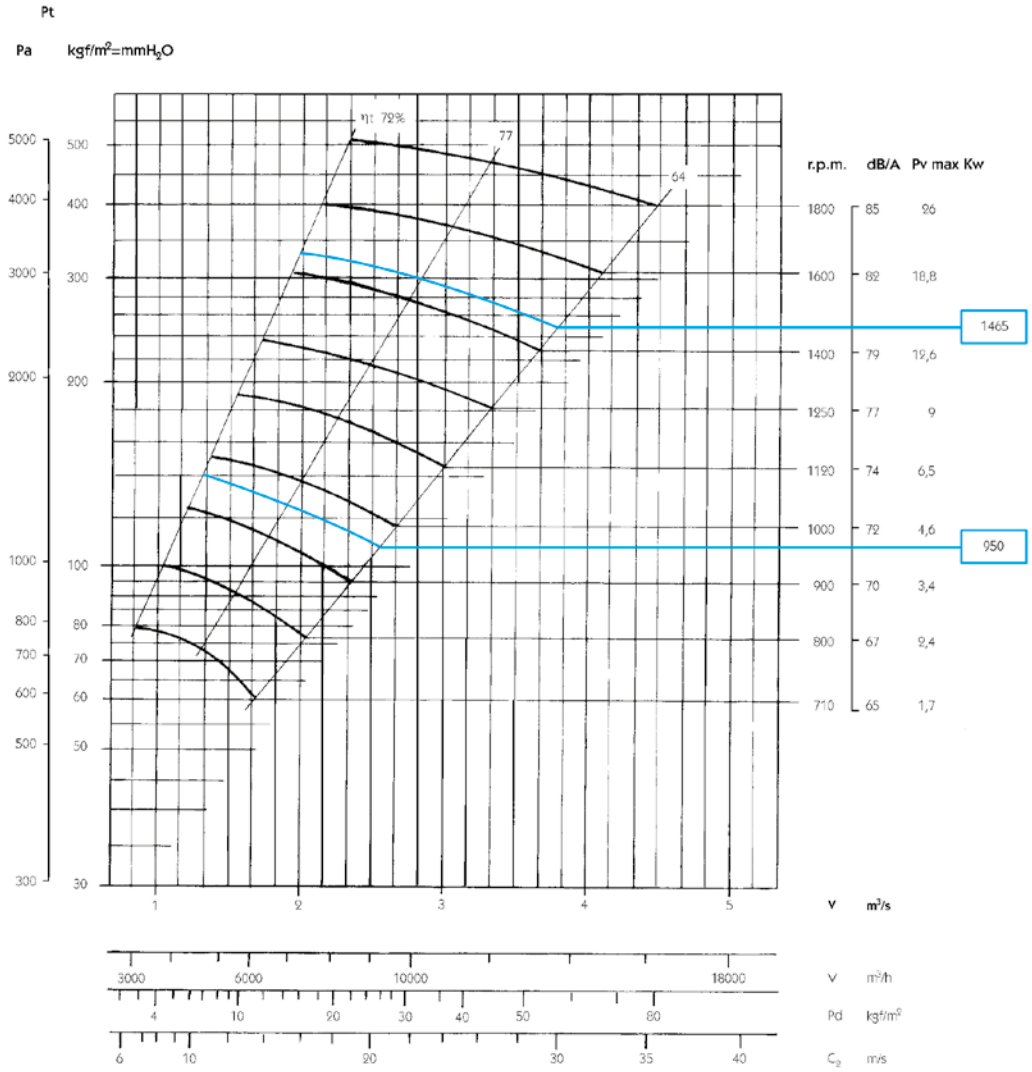


Flow margin ±5%
Noise level margin + 3... 5 dB
Margin of kW absorbed ±3%

Outlet characteristics.

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

CMTC 800



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

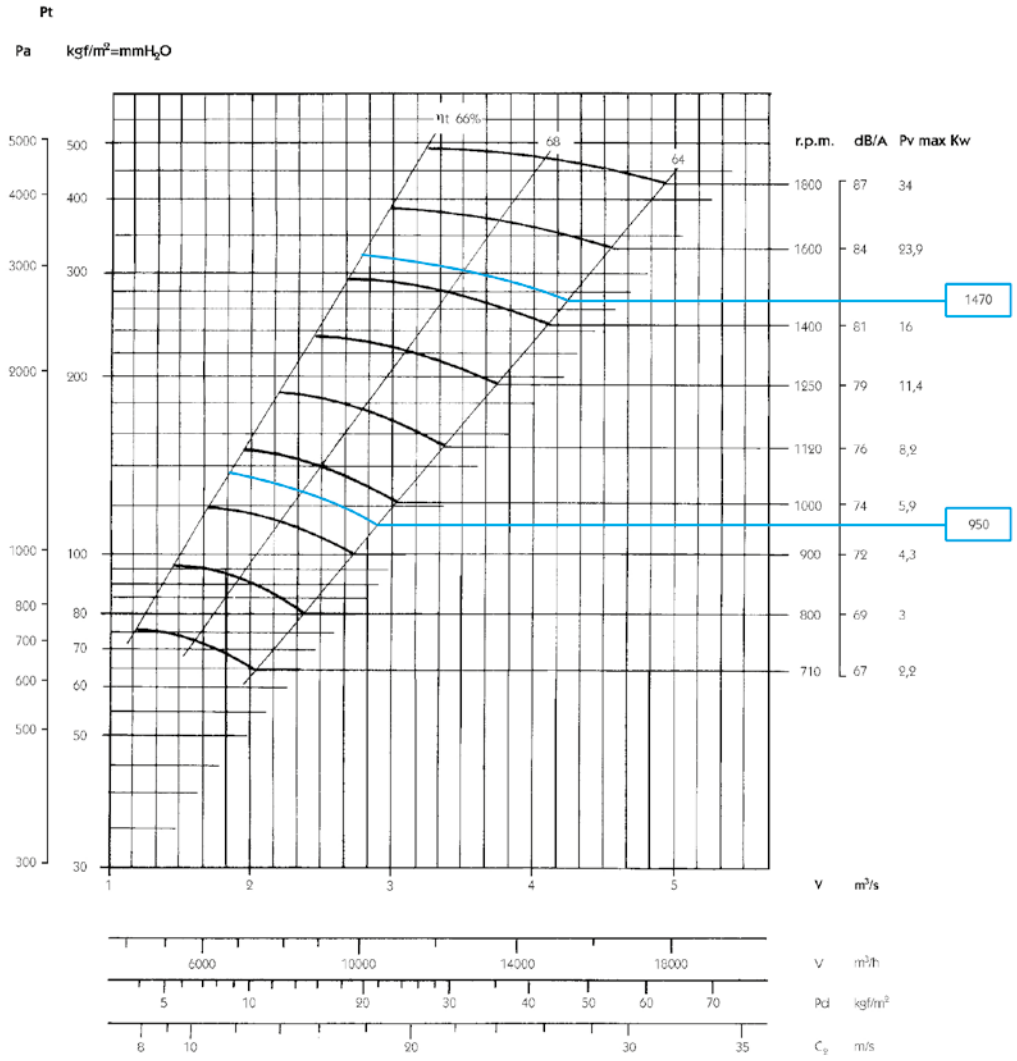
Outlet characteristics.

Rpm

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

Characteristic curves

CMTC 835

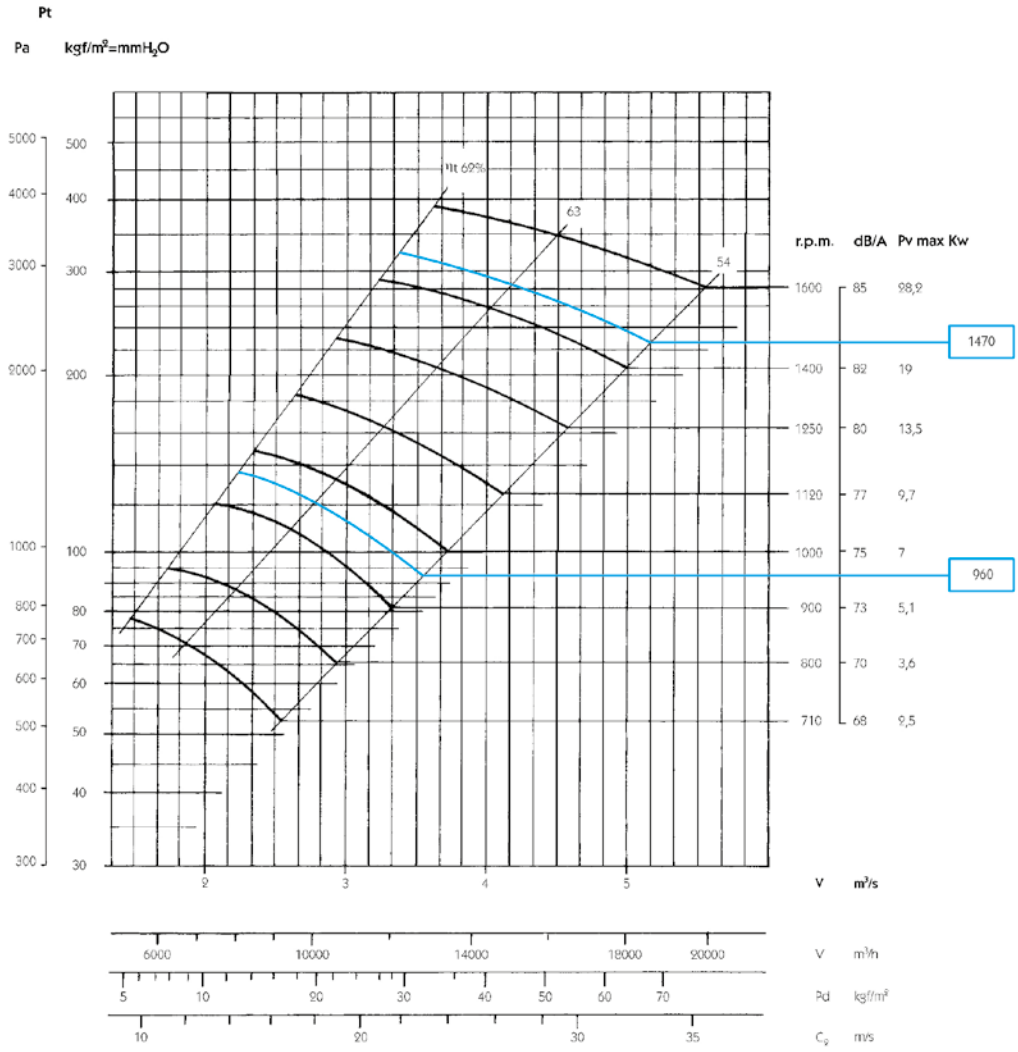


Flow margin ±5%
Noise level margin + 3... 5 dB
Margin of kW absorbed ±3%

Outlet characteristics.

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

CMTC 855



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

Outlet characteristics.

Rpm

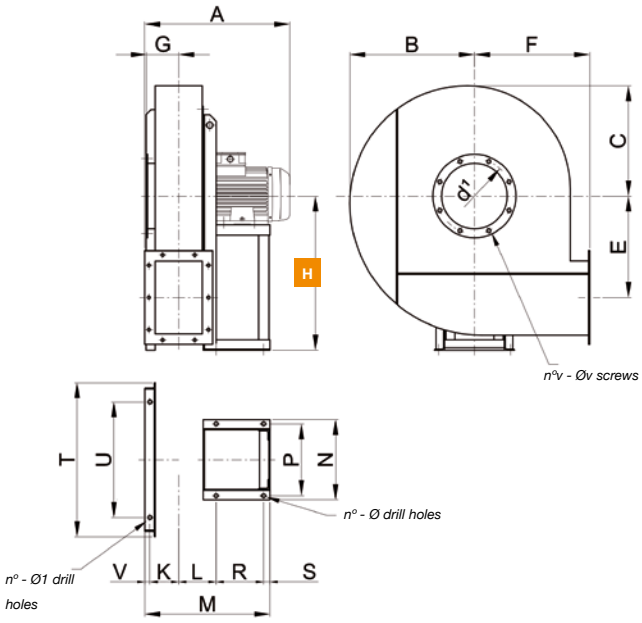
Characteristics for: system 4 and 5 in direct drive motor with 2/4/6/8 poles depending on the model.

LARGE SERIES

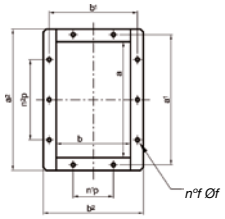
Dimensions mm

SYSTEM 4

CMTC 630...855



OUTLET NOZZLE



ORIENTATIONS

H0	H1	H2	H3	H4	H5	H6	H7
RD0	RD45	RD90	RD135	RD180	RD225	RD270	RD315
LG0	LG45	LG90	LG135	LG180	LG225	LG270	LG315

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	K	M*	N	P	R*	S	T	U
CMTC 630	112 M/4	540	490	435	395	450	125	600	450	600	146	-	260	312	280	185	25	-	-
CMTC 630	90 L/6	510	490	435	395	450	125	600	450	600	146	-	215	269	245	140	25	-	-
CMTC 670	132 S/4	650	535	480	425	475	145	630	475	630	157	-	320	342	310	245	25	-	-
CMTC 670	112 M/6	560	535	480	425	475	145	630	475	630	157	-	260	312	280	185	25	-	-
CMTC 700	132 MA/4	705	575	515	445	500	160	710	500	710	169	-	320	342	310	245	25	-	-
CMTC 700	112 M/6	590	575	515	445	500	160	710	500	710	169	-	260	312	280	185	25	-	-
CMTC 750	160 M/4	775	640	575	494	560	172	750	560	750	183	-	425	440	400	345	30	-	-
CMTC 750	132 MA/6	730	640	575	494	560	172	750	560	750	183	-	320	342	310	245	25	-	-
CMTC 800	160 L/4	915	655	580	500	560	195	800	560	800	198	183	776	440	400	345	30	820	660
CMTC 800	132 MB/6	790	655	580	500	560	195	800	560	800	198	183	671	342	310	245	25	820	660
CMTC 835	180 M/4	990	730	640	560	630	210	900	630	900	235	201	856	490	450	370	30	900	740
CMTC 835	132 MB/6	830	730	640	560	630	210	900	630	900	215	201	706	342	310	245	25	900	740
CMTC 855	180 L/4	990	730	640	560	630	210	900	630	900	235	201	856	490	450	370	30	900	740
CMTC 855	160 M/6	870	730	640	560	630	210	900	630	900	215	201	811	490	450	345	30	900	740

								OUTLET NOZZLE											
MOD.	V	n°	Φ	Φ¹	d¹	n°v	Φv	a	b	a¹	b¹	a²	b²	n¹p	n²p	n°f	Φf	kg	WD²
CMTC 630	-	4	12	-	292	8	11	284	185	332	232	364	265	1-125	2-125	10	12	135	4.1
CMTC 630	-	4	10	-	292	8	11	284	185	332	232	364	265	1-125	2-125	10	12	105	4.1
CMTC 670	-	4	12	-	332	8	11	320	207	366	251	400	287	1-125	2-125	10	12	170	5.3
CMTC 670	-	4	12	-	332	8	11	320	207	366	251	400	287	1-125	2-125	10	12	150	5.3
CMTC 700	-	4	12	-	366	8	11	360	231	405	274	440	311	1-125	2-125	10	12	185	6.1
CMTC 700	-	4	12	-	366	8	11	360	231	405	274	440	311	1-125	2-125	10	12	155	6.1
CMTC 750	-	4	14	-	405	8	11	405	257	448	298	485	337	1-125	3-125	12	12	270	8.9
CMTC 750	-	4	12	-	405	8	11	405	257	448	298	485	337	1-125	3-125	12	12	225	8.9
CMTC 800	20	6	14	19	448	12	11	457	287	497	327	537	367	2-125	3-125	14	12	305	12
CMTC 800	20	6	12	19	448	12	11	457	287	497	327	537	367	2-125	3-125	14	12	255	12
CMTC 835	20	6	17	19	497	12	11	507	322	551	366	587	402	2-125	3-125	14	12	375	14
CMTC 835	20	6	12	19	497	12	11	507	322	551	366	587	402	2-125	3-125	14	12	290	14
CMTC 855	20	6	17	19	497	12	11	507	322	551	366	587	402	2-125	3-125	14	12	400	15.3
CMTC 855	20	6	14	19	497	12	11	507	322	551	366	587	402	2-125	3-125	14	12	320	15.3

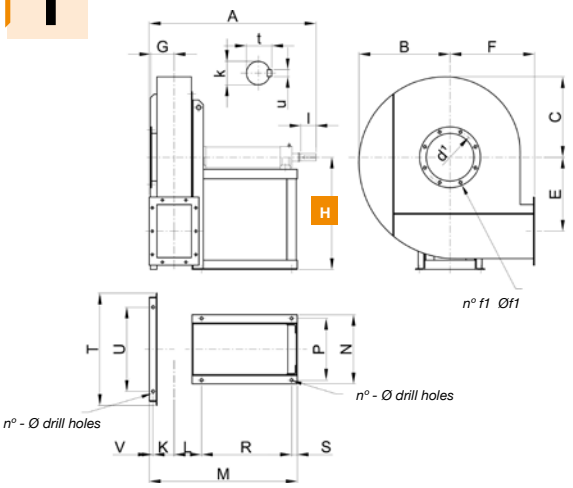
*For "HIGH TEMP." constructions, elevations "A-M-R" + 50 mm.
(kg) Weight of fan with motor.
WD^2 = Moment of inertia of the impeller, expressed in Kg x m^2

LARGE SERIES

Dimensions mm

CMTC-X 630...855

SYSTEM 1



MOD.	A*	B	C	E	F	G	HO-1-2-3	H4-5	H6-7
CMTC 630	890	490	435	395	450	125	600	450	600
CMTC 670	1010	535	480	425	475	145	630	475	630
CMTC 700	1035	575	515	445	500	160	710	500	710
CMTC 750	1060	640	575	494	560	172	750	560	750
CMTC 800	1160	655	580	500	560	195	800	560	800
CMTC 835	1195	730	640	560	630	210	900	630	900
CMTC 855	1195	730	640	560	630	210	900	630	900

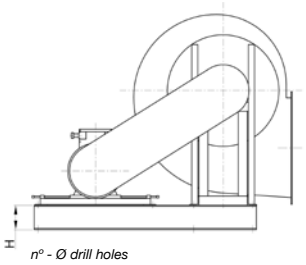
MOD.	L	K	M*	N	P	R*	S	T	U	V	n°	Φ	k
CMTC 630	146	-	560	370	330	480	30	-	-	-	4	14	38 k6
CMTC 670	157	-	605	456	395	515	40	-	-	-	4	19	48 k6
CMTC 700	169	-	605	456	395	515	40	-	-	-	4	19	48 k6
CMTC 750	183	-	605	456	395	515	40	-	-	-	4	19	48 k6
CMTC 800	198	183	1006	496	435	565	40	820	660	20	6	19	55 m6
CMTC 835	215	201	1041	496	435	565	40	900	740	20	6	19	55 m6
CMTC 855	215	201	1041	496	435	565	40	900	740	20	6	19	55 m6

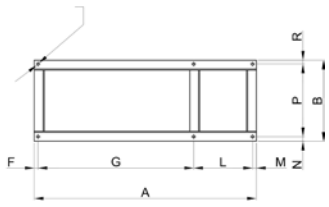
MOD.	l	t	u	d¹	n°f¹	Øf1	kg	WD²
CMTC 630	80	41	10	292	8	11	125	4.1
CMTC 670	110	51.5	14	332	8	11	165	5.3
CMTC 700	110	51.5	14	366	8	11	170	6.1
CMTC 750	110	51.5	14	405	8	11	215	8.9
CMTC 800	110	59	16	448	12	11	245	12
CMTC 835	110	59	16	497	12	11	285	14
CMTC 855	110	59	16	497	12	11	290	15.3

*For "HIGH TEMP." constructions, elevations "A-M-R" + 50 mm.
kg = Weight of fan without motor.
WD² = Moment of inertia of the impeller, expressed in Kg x m²

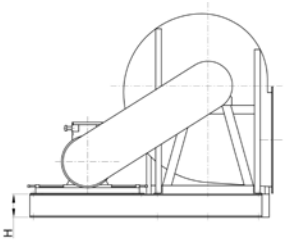
CMTC-X 630...750

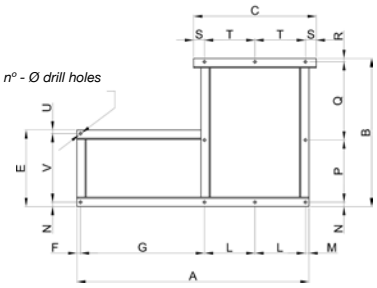
SYSTEM 12





CMTC-X 800...855



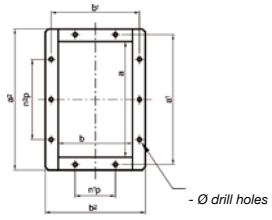


MOD.	A	B*	C	E	H	F	G	L	M	N
CMTC 630	1120	540	-	-	160	25	740	330	25	30
CMTC 670	1405	575	-	-	180	30	950	395	30	30
CMTC 700	1405	575	-	-	180	30	950	395	30	30
CMTC 750	1405	575	-	-	180	30	950	395	30	30
CMTC 800	1445	995	820	625	180	30	950	435	30	30
CMTC 835	1665	1035	900	625	180	30	1170	435	30	30
CMTC 855	1665	1035	900	625	180	30	1170	435	30	30

MOD.	P*	Q	R	S	T	U	V	n°	Φ	Kg
CMTC 630	480	-	30	-	-	-	-	6	14	75
CMTC 670	515	-	30	-	-	-	-	6	19	105
CMTC 700	515	-	30	-	-	-	-	6	19	105
CMTC 750	515	-	30	-	-	-	-	6	19	105
CMTC 800	565	381	19	80	660	30	565	8	19	145
CMTC 835	565	416	24	80	740	30	565	8	19	155
CMTC 855	565	416	24	80	740	30	565	8	19	155

(*) For "HIGH TEMP." constructions, elevations "B-P" + 50 mm.
Kg = Weight of the support base

OUTLET NOZZLE



OUTLET NOZZLE

MOD.	a	b	a¹	b¹	a²	b²	n¹p	n²p	n°f	Φf
CMTC 630	284	185	332	232	364	265	1-125	2-125	10	12
CMTC 670	320	207	366	251	400	287	1-125	2-125	10	12
CMTC 700	360	231	405	274	440	311	1-125	2-125	10	12
CMTC 750	405	257	448	298	485	337	1-125	3-125	12	12
CMTC 800	457	287	497	327	537	367	2-125	3-125	14	12
CMTC 835	507	322	551	366	587	402	2-125	3-125	14	12
CMTC 855	507	322	551	366	587	402	2-125	3-125	14	12

ORIENTATIONS

H0	H1	H2	H3	H4	H5	H6	H7
RD0	RD45	RD90	RD135	RD180	RD225	RD270	RD315
LG0	LG45	LG90	LG135	LG180	LG225	LG270	LG315

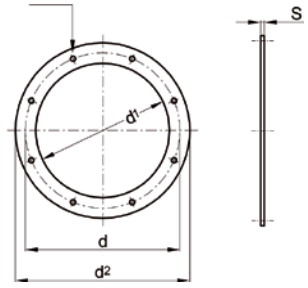
H *The measurement of height H (distance between the ground and the axis) varies depending on the orientations

LARGE SERIES

Accessories

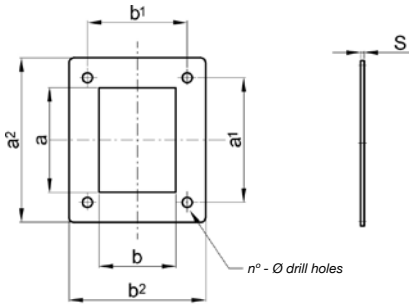
Inlet counter flange

n° - Ø drill holes



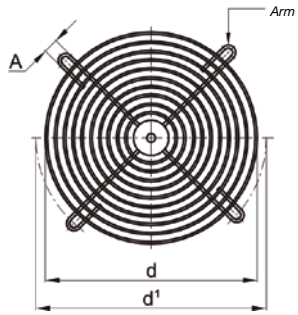
MOD.	d	d¹	d²	n°	Φ	s	kg
CMTC 630	292	255	325	8	11	4	1
CMTC 670	332	286	366	8	11	5	1.6
CMTC 700	366	321	401	8	11	5	1.8
CMTC 750	405	361	441	8	11	5	2
CMTC 800	448	406	486	12	11	5	2.2
CMTC 835	497	456	536	12	11	5	2.5
CMTC 855	497	456	536	12	11	5	2.5

Impulsion counter-flange



MOD.	a	b	a¹	b¹	a²	b²	n¹p	n²p	n⁰	Φ	s	kg
CMTC 630	284	185	332	232	364	265	1-125	2-125	10	12	5	1.7
CMTC 670	320	207	366	251	400	287	1-125	2-125	10	12	5	1.8
CMTC 700	360	231	405	274	440	311	1-125	2-125	10	12	5	2
CMTC 750	405	257	448	298	485	337	1-125	3-125	12	12	5	2.2
CMTC 800	457	287	497	327	537	367	2.125	3.125	14	12	5	2.5
CMTC 835	507	322	551	366	587	402	2-125	3-125	14	12	5	2.8
CMTC 855	507	322	551	366	587	402	2.125	3.125	14	12	5	2.8

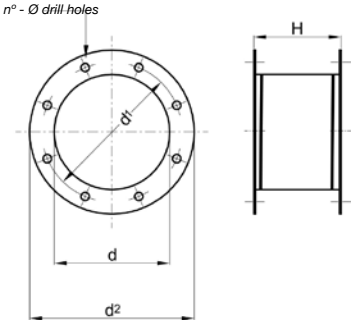
Inlet protection mesh



MOD.	d	d¹	A	n°	kg
CMTC 630	255	292	11	4	0.3
CMTC 670	286	332	11	4	0.35
CMTC 700	321	366	11	4	0.4
CMTC 750	361	405	11	8	0.7
CMTC 800	406	448	11	8	0.8
CMTC 835	456	497	11	8	0.9
CMTC 855	456	497	11	8	0.9

Inlet anti-vibration seal

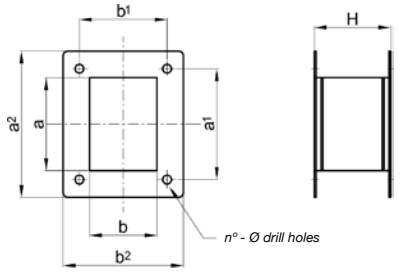
n° - Ø drill holes



MOD.	d	d'	d''	n°	Φ	H	kg
CMTC 630	292	255	325	8	11	200	2.2
CMTC 670	332	286	366	8	11	200	3.4
CMTC 700	366	321	401	8	11	200	3.8
CMTC 750	405	361	441	8	11	200	4.2
CMTC 800	448	406	486	12	11	200	4.6
CMTC 835	497	456	536	12	11	200	5.2
CMTC 855	497	456	536	12	11	200	5.2

Accessories

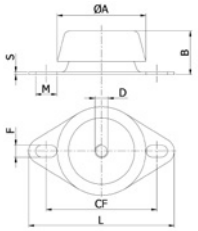
Impulsion anti-vibration seal



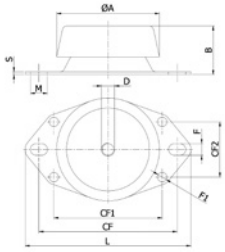
MOD.	a	b	a¹	b¹	a²	b²	n¹p	n²p	n⁰	Φ	H	kg
CMTC 630	284	185	332	232	364	265	1-125	2-125	10	12	200	3.7
CMTC 670	320	207	366	251	400	287	1.125	2.125	10	12	200	3.9
CMTC 700	360	231	405	274	440	311	1-125	2-125	10	12	200	4.3
CMTC 750	405	257	448	298	485	337	1-125	3-125	12	12	200	4.7
CMTC 800	457	287	497	327	537	367	2-125	3-125	14	12	200	5.3
CMTC 835	507	322	551	366	587	402	2-125	3-125	14	12	200	5.9
CMTC 855	507	322	551	366	587	402	2-125	3-125	14	12	200	5.9

Shock absorbers

TYPE 1

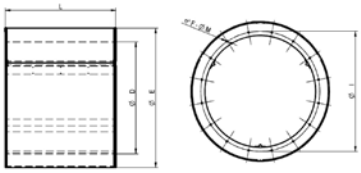


TYPE 2



MOD.	SHOCK-ABSORBERS MODEL	TYPE	øA	B	D	CF	CF1	CF2	F	øF1	L	M	S
CMTC 630	CF 623110	1	67	33...34	10	76.5	-	-	9	-	90.5	16	2
CMTC 670	CF 623110	1	67	33...34	10	76.5	-	-	9	-	90.5	16	2
CMTC 700	CF 623110	1	67	33...34	10	76.5	-	-	9	-	90.5	16	2
CMTC 750	CF 924512	2	92	44...45	12	120	98	50	10.5	8.5	130	15.5	2.5
CMTC 800	CF 924512	2	92	44...45	12	120	98	50	10.5	8.5	130	15.5	2.5
CMTC 835	CF 924512	2	92	44...45	12	120	98	50	10.5	8.5	130	15.5	2.5
CMTC 855	CF 924512	2	92	44...45	12	120	98	50	10.5	8.5	130	15.5	2.5

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	øI	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	øI	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