

ROOF MOUNTED FANS

MAX-TEMP Series, Centrifugal 400 °C/2h Rated Fans



Description - Applications

The MAX-Temp range of roof extract fans are available in horizontal (CTHB-CTHT) or vertical (CTVB-CTVT) discharge formats, and are suitable for many applications including:

- General ventilation – Industrial ventilation.
- Industrial / Commercial kitchens
- Smoke Extract

PRODUCTS CERTIFIED 400°C/2h: LGAI and CTICM 22019280, 02A426 and 02A438

- Models : Horizontal dis. – CTHB single phase
– CTHT three phase
- Vertical dis. – CTVB single phase
– CTVT three phase
- Air stream temperature –40° C < T > +120° C
- Complete metallic construction
- Models CTVB/4-180 and CTVB/4-225: 200° C.
- Models CTHB/4-180 and CTHB/4-225: 200° C

Performance characteristics for models with horizontal discharge CTHB-CTHT

		Speed	Motor power	Maximum current absorbed (A)		Maximum volume	Sound pressure* level at 2/3 Qmax (dB(A))		Weight
Model Type		(r.p.m.)	(W)	230 V	400 V	(m³/h)	inlet*	outlet*	(kg)
4 POLES SINGLE PHASE	CTHB/4-140	1370	60	0,32	–	800	46	52	7,5
	CTHB/4-180	1330	70	0,33	–	990	46	52	8
	CTHB/4-200	1320	120	0,60	–	1450	49	55	14,2
	CTHB/4-225	1350	170	0,90	–	2100	53	59	17
	CTHB/4-250	1320	280	1,40	–	3100	57	62	28
	CTHB/4-315	1375	590	2,70	–	4900	60	66	32
6 POLES SINGLE PHASE	CTHB/4-400	1380	1100	5,30	–	7000	67	73	42,5
	CTHB/6-200	940	80	0,40	–	970	38	45	14,2
	CTHB/6-225	890	90	0,40	–	1400	42	48	17
	CTHB/6-250	940	100	0,57	–	2000	45	52	28
	CTHB/6-315	840	170	0,81	–	3200	49	55	32
	CTHB/6-400	950	350	1,60	–	4500	56	62	42,5
4 POLES THREE PHASE	CTHT/4-140	1375	60	–	0,17	800	46	52	7,5
	CTHT/4-180	1350	70	–	0,17	990	46	52	8
	CTHT/4-200	1340	130	–	0,35	1450	49	55	14,2
	CTHT/4-225	1360	170	–	0,50	2100	53	59	17
	CTHT/4-250	1400	300	–	0,80	3100	57	62	28
	CTHT/4-315	1410	620	–	1,50	4900	60	66	32
	CTHT/4-400	1350	920	–	1,80	7000	67	73	42,5
	CTHT/4-450	1440	2000	–	4,6	10200	71	76	67
6 POLES THREE PHASE	CTHT/6-200	950	80	–	0,24	970	38	45	14,2
	CTHT/6-225	900	90	–	0,23	1400	42	48	17
	CTHT/6-250	950	100	–	0,41	2000	45	52	28
	CTHT/6-315	900	180	–	0,50	3200	49	55	32
	CTHT/6-400	925	350	–	1,00	4500	56	62	42,5
	CTHT/6-450	940	850	–	3,50	6900	59	66	67
	CTHT/6-500	965	1400	–	4,30	10500	63	69	104
	CTHT/6-560	950	2400	–	5,30	16000	66	73	118
8 POLES THREE PHASE	CTHT/6-630	950	3700	–	8,3	21000	70	76	156
	CTHT/8-450	700	700	–	2,1	5000	55	61	67
	CTHT/8-500	725	770	–	2,40	7500	55	62	104
	CTHT/8-560	730	1100	–	3,60	11500	58	65	118
2 SPEED THREE PHASE	CTHT/8-630	735	1650	–	4,90	15000	62	69	156
	CTHT/4/8-315	1400/700	370/230	–	1,1/0,9	4900/2400	60/45	66/51	33
	CTHT/4/8-400	1400/700	560/260	–	1,3/1,0	7000/3500	67/52	73/58	44
	CTHT/4/8-450	1400/700	2400/600	–	6,1/2,5	10200/5100	71/55	76/61	69
	CTHT/6/12-450	960/490	500/190	–	2/1	6900/3400	59/44	66/51	72
	CTHT/6/12-500	980/490	1520/430	–	4,5/2,2	10500/5300	63/48	69/54	109
	CTHT/6/12-630	960/480	4100/730	–	8,1/2,6	21000/10500	70/55	76/61	161

* ATTENTION: The ratings of sound levels are pressure values measured at 1,5 m at 2/3 Qmax.

Construction

Impellers

Backward curved impellers manufactured in galvanised sheet steel (sizes 140-400) or double coated (cataphoresis + polyester) painted sheet steel (sizes 450-630). All models are dynamically balanced.

Bases: All base parts are manufactured from galvanised sheet steel.

Cowls: All cowls are manufactured from spun aluminium.

Motors

Asynchronous induction motors in diecast aluminium:

- 230V 50Hz Single Phase
- 400V 50Hz Three Phase (230/400 V under request)

- Sealed controllable in single and three phase for models 140-400.
- IP55 Protection.

- Sealed for life ball bearing assemblies.

In three phase voltage, the motors can be operated in Δ/Δ connection at 380-415. which allows two speed operation of the fans.

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



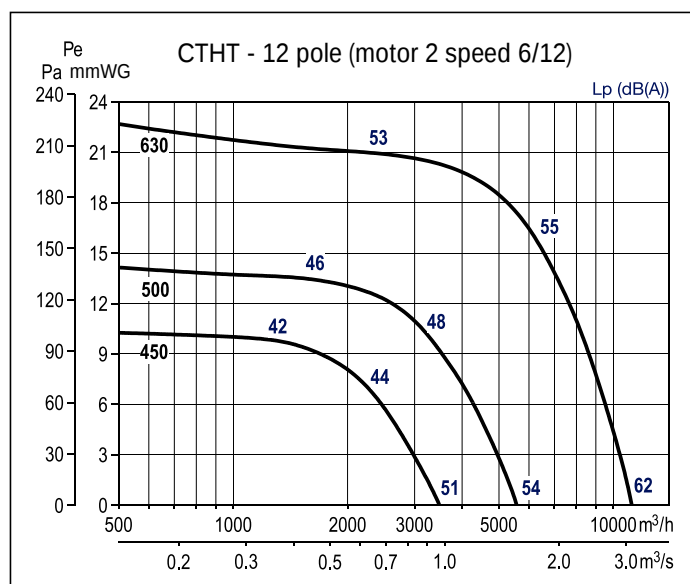
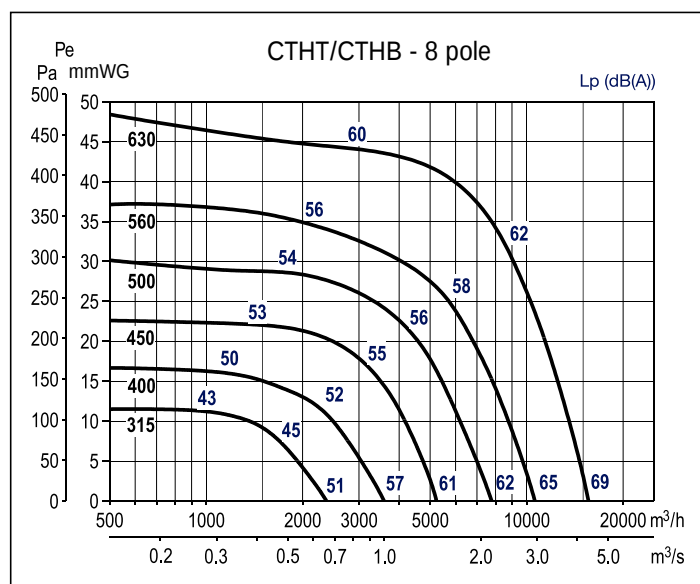
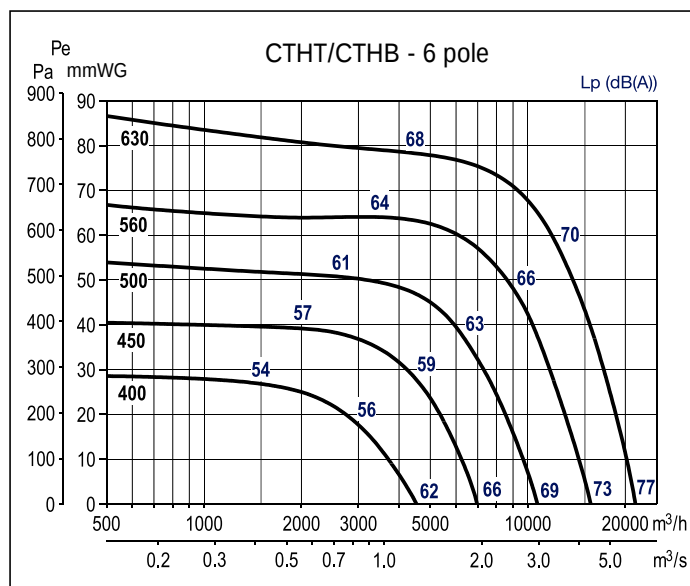
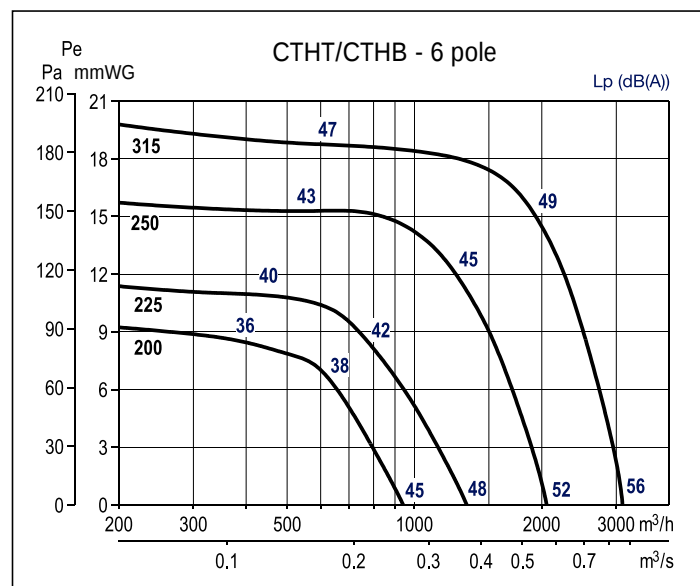
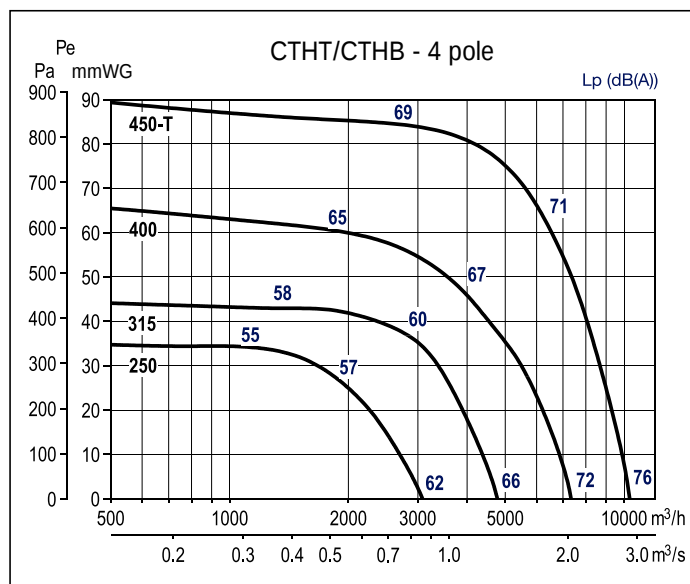
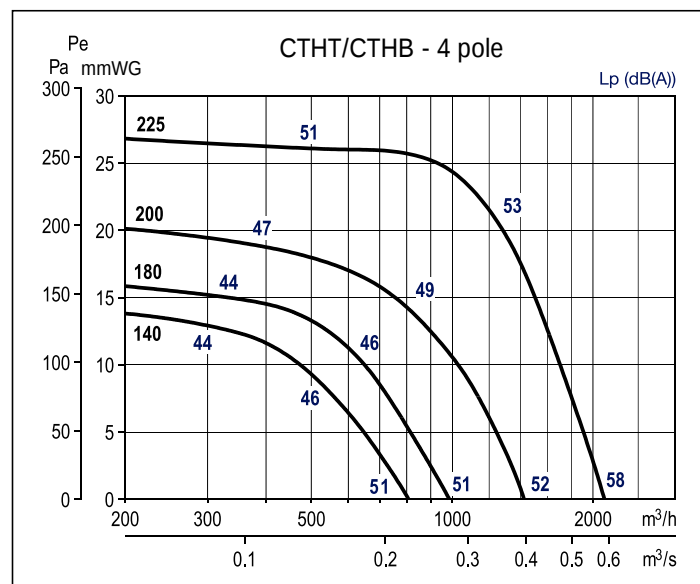
Performance characteristics for models with vertical discharge CTVB-CTVT

Model Type		Speed (r.p.m.)	Motor power (W)	Maximum current absorbed (A)		Maximum volume (m³/h)	Sound pressure* level at 2/3 Qmax (dB(A))		Weight (kg)
				230 V	400 V		inlet*	outlet*	
4 POLES SINGLE PHASE	CTVB/4-140	1375	60	0,3	–	725	46	49	10
	CTVB/4-180	1330	60	0,3	–	830	46	49	10,5
	CTVB/4-200	1330	100	0,60	–	1200	49	53	17
	CTVB/4-225	1350	130	0,71	–	1900	53	56	19,8
	CTVB/4-250	1325	250	1,2	–	2800	56	60	35
	CTVB/4-315	1390	570	2,70	–	4200	60	64	39
6 POLES SINGLE PHASE	CTVB/4-400	1390	1100	5,30	–	6250	67	70	50
	CTVB/6-200	940	80	0,40	–	900	38	42	17
	CTVB/6-225	890	90	0,40	–	1300	41	45	19,8
	CTVB/6-250	940	100	0,57	–	1850	45	49	35
	CTVB/6-315	870	160	0,80	–	2800	48	53	39
	CTVB/6-400	960	340	1,60	–	4300	55	59	50
4 POLES THREE PHASE	CTVT/4-140	1400	60	–	0,18	725	46	49	10
	CTVT/4-180	1350	60	–	0,18	830	46	49	10,5
	CTVT/4-200	1340	130	–	0,44	1200	49	53	17
	CTVT/4-225	1360	180	–	0,47	1900	53	56	19,8
	CTVT/4-250	1400	300	–	0,8	2800	56	60	35
	CTVT/4-315	1410	400	–	1,4	4200	60	64	39
	CTVT/4-400	1330	1000	–	1,80	6250	67	70	50
	CTVT/4-450	1440	2100	–	4,3	9850	70	74	75
6 POLES THREE PHASE	CTVT/6-200	950	80	–	0,24	900	38	42	17
	CTVT/6-225	900	90	–	0,23	1300	41	45	19,8
	CTVT/6-250	950	100	–	0,41	1850	45	49	35
	CTVT/6-315	910	160	–	0,44	2800	48	53	39
	CTVT/6-400	930	350	–	1,00	4300	55	59	50
	CTVT/6-450	950	800	–	3,5	5900	59	63	75
	CTVT/6-500	975	1500	–	3,7	9500	62	66	115
	CTVT/6-560	950	2400	–	5,50	13000	66	70	129
8 POLES THREE PHASE	CTVT/6-630	950	3900	–	8,3	19500	70	74	168
	CTVT/8-450	690	700	–	1,5	4800	55	59	75
	CTVT/8-500	700	770	–	2,4	7100	54	58	115
	CTVT/8-560	730	1100	–	3,3	10000	58	62	129
2 SPEED THREE PHASE	CTVT/8-630	735	1650	–	4,90	13500	61	66	168
	CTVT/4/8-315	1400/700	370/230	–	1,1/0,9	4200/2100	60/45	64/49	40
	CTVT/4/8-400	1400/700	560/260	–	1,3/1,0	6250/3200	67/52	70/55	52
	CTVT/4/8-450	1400/700	2400/600	–	6,1/2,5	9850/4500	70/55	74/59	77
	CTVT/6/12-450	960/490	500/190	–	2/1	5900/2800	59/44	63/48	80
	CTVT/6/12-500	980/490	1520/430	–	4,5/2,2	9500/4800	62/47	66/51	134
2 SPEED THREE PHASE	CTVT/6/12-630	960/480	4100/730	–	8,1/2,6	19500/9500	70/54	74/59	173

* ATTENTION: The ratings of sound levels are pressure values measured at 1,5 m at 2/3 Qmax.

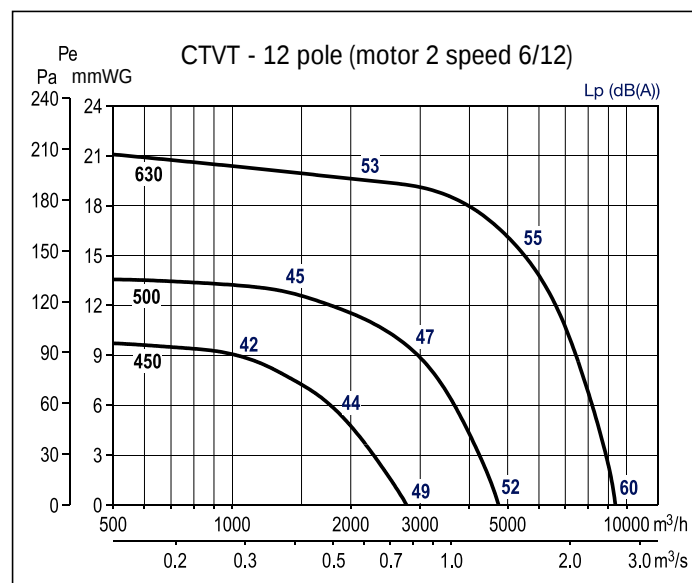
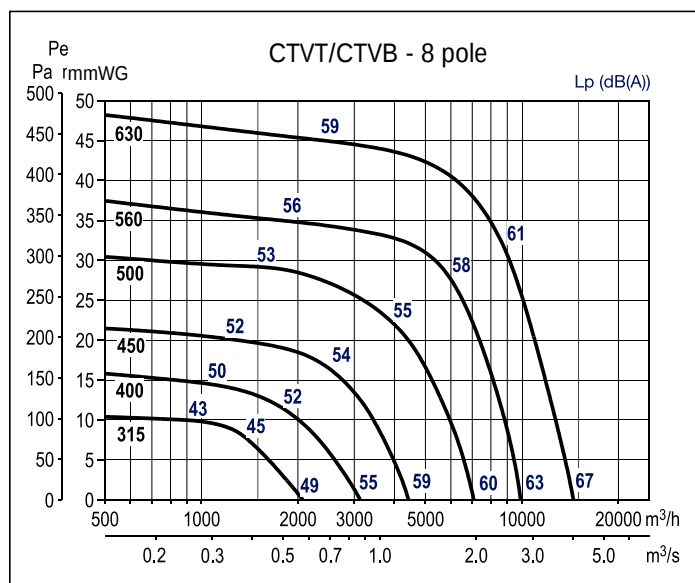
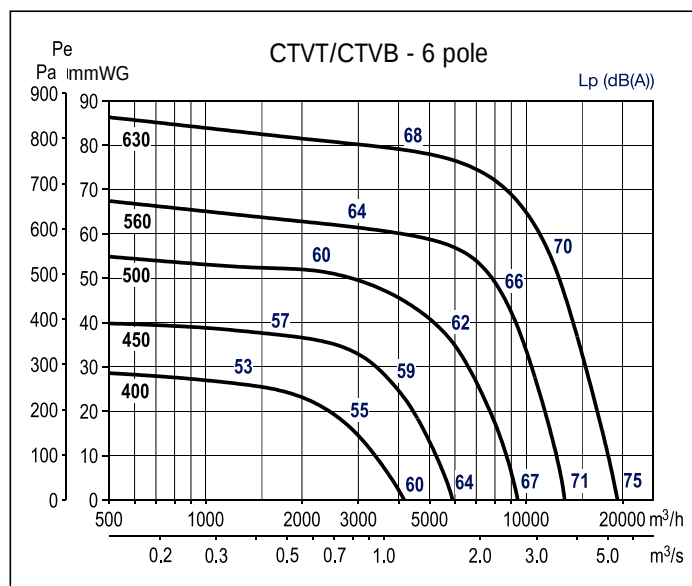
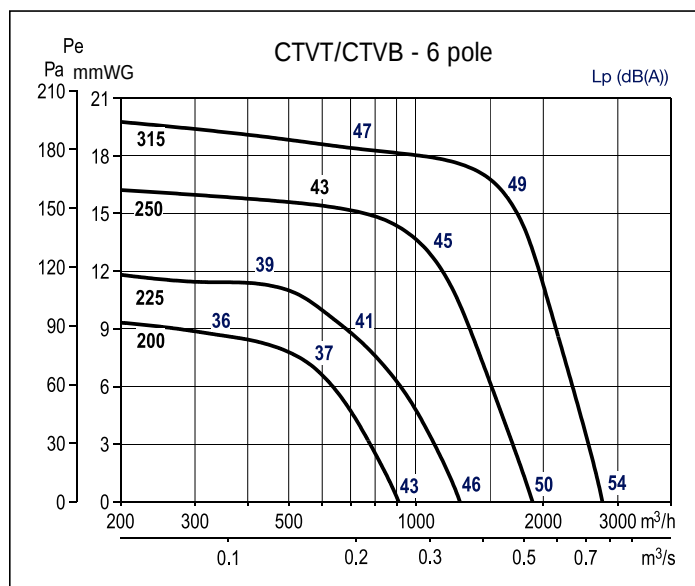
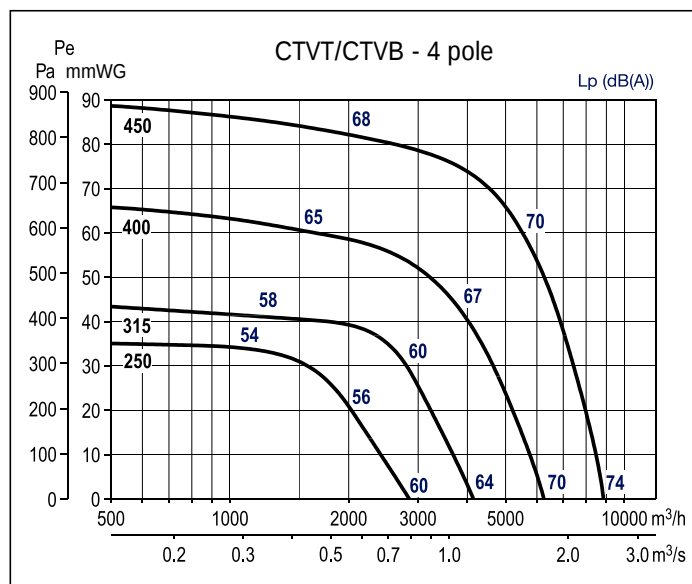
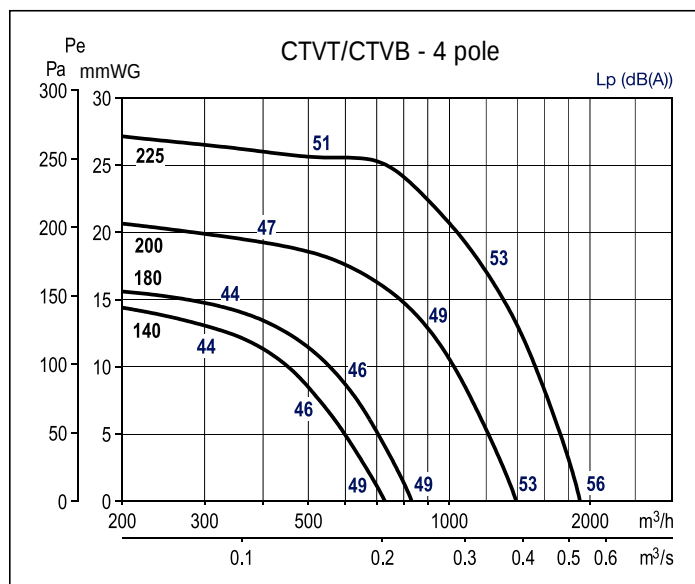
■ Performance curves - Horizontal discharge models

The values of sound are sound pressure levels measured at 1,5 m, in free field conditions, at the fan inlet side.



■ Performance curves - Vertical discharge models

The values of sound are sound pressure levels measured at 1,5 m, in free field conditions, at the fan inlet side.



■ Acoustic characteristics

Sound power spectrum

To obtain the sound power spectrum, subtract the correction value shown in the following chart from the value in the technical characteristics table:

HORIZONTAL DISCHARGE		Frequency bands in Hz							
			125	250	500	1000	2000	4000	8000
	AT THE DISCHARGE	Qmax	2,0	7,5	11,0	11,0	9,0	6,0	0,5
		2/3 Qmax	-0,5	3,5	5,5	5,5	3,5	0,5	-4,5
		1/3 Qmax	-2,5	1,5	3,5	3,5	1,5	-1,5	-6,5
	AT THE INLET	Qmax	5,5	9,0	11,5	11,0	10,0	7,5	3,5
		2/3 Qmax	2,5	5,0	6,0	4,5	1,5	-2,5	-8,6
		1/3 Qmax	0,5	3,0	4,0	2,5	-0,5	-4,5	-10,5

VERTICAL DISCHARGE		Frequency bands in Hz							
			125	250	500	1000	2000	4000	8000
	AT THE DISCHARGE	Qmax	3,0	8,0	11,5	11,5	8,0	1,5	-8,0
		2/3 Qmax	0,5	4,5	6,5	5,0	1,5	-3,0	-10,0
		1/3 Qmax	-1,5	2,5	4,5	3,0	-0,5	-5,0	-12,0
	AT THE INLET	Qmax	4,5	9,0	10,5	8,5	6,5	5,5	3,0
		2/3 Qmax	3,0	5,0	6,0	4,5	1,0	-3,0	-9,5
		1/3 Qmax	1,0	3,0	4,0	2,5	-1,0	-5,0	-11,5

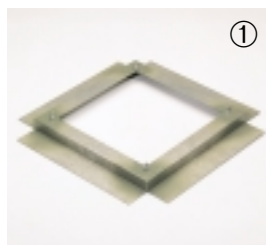
Sound power spectrum

The sound pressure spectrum, at a distance "d", can be obtained by subtracting from each frequency band of the power spectrum, the correction value shown in the following chart:	DISTANCE (d)	1m	1,5m	4m	6m	10m	15m	20m	30m
	CORRECTION (dB)	11	14,5	23	26	31	34	37	40

■ Installation

Type of fan	① Sealing frame	② Flat roof insulate up-stand	③ Acoustic up-stand	④ Accessor and adapter plate	⑤ Back draft shutter	⑥ Flange with spigot	⑦ Flexible coupling	⑧ Circular adapter	⑨ Support base for inclined curb mounted installations
140 180	JMS-300	JBS-300	JAA-300	JPA-300	JCA-300	JBR-300	JAЕ-300	JCC-300	CT-140 CT-180
200 225	JMS-435	JBS-435	JAA-435	JPA-435	JCA-435	JBR-435	JAЕ-435	JCC-435	CT-200 CT-225
250 315	JMS-560	JBS-560	JAA-560	JPA-560	JCA-560	JBR-560	JAЕ-560	JCC-560	CT-250 CT-315
400	JMS-630	JBS-630	JAA-630	JPA-630	JCA-630	JBR-630	JAЕ-630	JCC-630	CT-400
450	JMS-710	JBS-710	JAA-710	JPA-710	JCA-710	JBR-710	JAЕ-710	–	CT-450
500 560	JMS-905	JBS-905	JAA-905	JPA-905	JCA-905	JBR-905	JAЕ-905	–	CT-500 CT-560
630	JMS-1100	JBS-1100	JAA-1100	JPA-1100	JCA-1100	JBR-1100	JAЕ-1100	–	CT-630

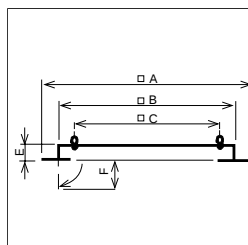
■ Mounting accessories



①

Sealing Frame JMS

- For mounting a roof fan on an up-stand or base.
- Supplied with screws and gasket for a complete weatherproof seal.



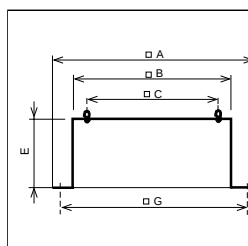
Type JMS	□ A	□ B	□ C	E	F
300	470	290	245	50	70
435	600	420	330	50	70
560	725	545	450	50	70
630	795	615	535	50	70
710	875	695	590	50	70
905	1065	885	750	60	70
1100	1260	1080	840	60	70
1250	1410	1230	950	60	70



②

Flat Roof Up-Stand JBS

- For mounting a fan on a flat roof without up-stands.
- For use on horizontal roofs.
- Internal insulation to prevent condensation.
- Supplied with screws and gasket for a complete weather seal.



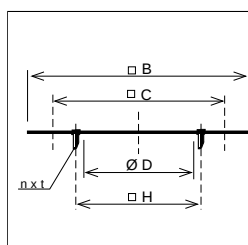
Type JBS	□ A	□ B	□ C	E	□ G
300	470	289	245	300	380
435	600	419	330	300	510
560	725	544	450	300	635
630	795	614	535	300	705
710	875	694	590	300	785
905	1065	884	750	300	975
1100	1260	1079	840	400	1170
1250	1410	1230	950	400	1320



④

Accessory Adapter Plate JPA

- Used when mounting the accessories (JCA, JBR, JAE).
- The adapter plate allows the fan to be disconnected from the up-stand without having to remove the duct.



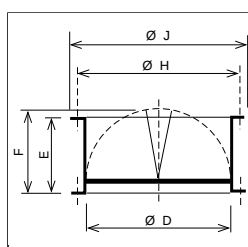
Type JPA	□ B	□ C	Ø D	nxt	Ø H
300	289	245	182	4xM6	205
435	419	330	252	4xM8	280
560	544	450	358	8xM8	395
630	614	535	403	8xM10	450
710	694	590	503	12xM10	560
905	884	750	633	12xM10	690
1100	1079	840	713	16xM10	770
1250	1230	950	1000	8xM12	1070



⑤

Back-Draft Shutter JCA

- Prevents backdraught when the fan is not in operation.
- To be mounted at the fan inlet with the JPA plate or fixed directly to the fan base (rivets or screws not supplied).



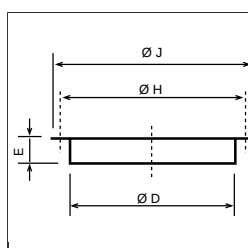
Type JCA	Ø D	E	F	Ø H	Ø J
300	182	100	124	205	219
435	252	145	174	280	300
560-N	358	210	227	395	415
630-N	403	240	250	450	474
710-N	503	285	300	560	581
905-N	633	345	365	690	714
1100-N	713	390	410	770	806
1250	1004	560	560	1070	1110



⑥

Flange JBR

- For use when a circular connection is required directly to the fan or through a flexible connection (by others).
- To be mounted at the fan inlet with the JPA plate or fixed directly to the fan base (rivets or screws not supplied).



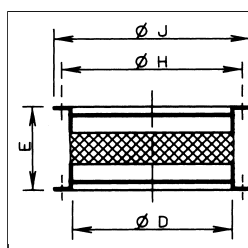
Type JBR	Ø D	E	Ø H	Ø J
300	182	55	205	219
435	252	55	280	300
560	358	55	395	415
630	403	63	450	474
710	503	69	560	581
905	633	69	690	714
1100	713	69	770	797
1250	1004	105	1070	1110



⑦

Flexible Coupling JAE

- Reduces the transmission of vibrations when the duct is connected directly to the fan.
- To be mounted at the fan inlet with the JPA plate or fixed directly to the fan base (rivets or screws not supplied).



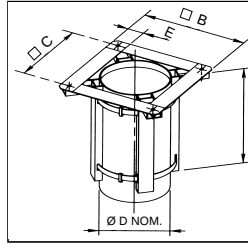
Type JAE	Ø D	E	Ø H	Ø J
300	182	254	205	219
435	252	254	280	300
560	358	254	395	415
630	403	254	450	474
710	503	254	560	581
905	633	254	690	714
1100	713	254	770	797



⑧

Adapter For Circular Duct JCC

- For use when fitting the models up to 400, directly to a spirally wound circular duct.



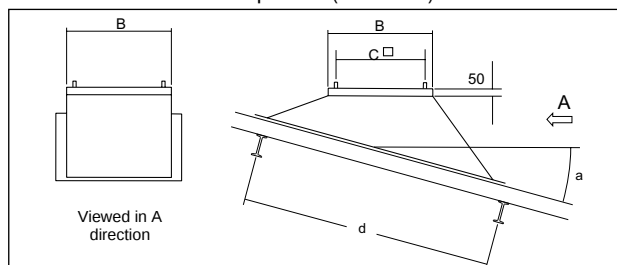
Type JCC	Ø B	Ø C	Ø D	E	L
300	290	245	180	45	350
435	390	330	250	60	350
560	520	450	355	70	350
630	605	535	400	70	350



⑨

CT and HCT support base for inclined curb mounted installations

- To ensure the correct installation of the HT product it is essential to specify the roof pitch angle and the distance between the roof beam profiles (as shown).



d: Distance between the roof beam profiles a: Roof pitch angle (curb)

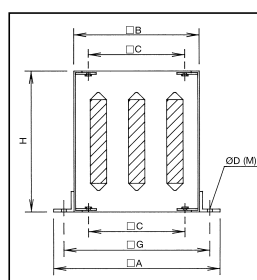
	B	C		B	C
Base CT-140	289	245	Base HCT-315	544	450
Base CT-180	289	245	Base HCT-355	614	535
Base CT-200	419	330	Base HCT-400	614	535
Base CT-225	419	330	Base HCT-450	694	590
Base CT-250	544	450	Base HCT-500	694	590
Base CT-315	544	450	Base HCT-560	884	750
Base CT-400	614	535	Base HCT-630	884	750
Base CT-450	694	590	Base HCT-710	1079	840
Base CT-500	884	750	Base HCT-800	1079	840
Base CT-560	884	750	Base HCT-900	1230	950
Base CT-630	1079	840	Base HCT-1000	1230	950



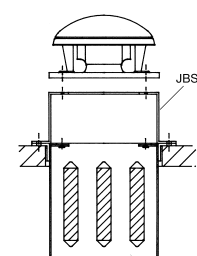
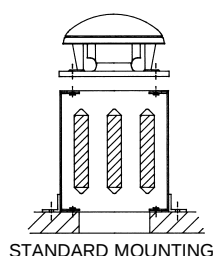
③

Acoustic Up-Stand JAA

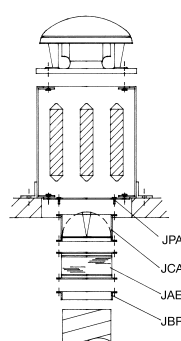
- Reduces in duct and radiated noise.
- For use when mounting a fan on a flat roof without up-stands
- Supplied with screws and gasket for a complete weather seal.



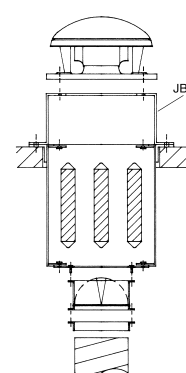
Type JAA	A	B	C	Ø D (M)	H	G
300	470	290	245	13 (M10)	750	380
435	600	419	330	15 (M12)	750	510
560	725	545	450	15 (M12)	750	635
630	795	615	535	15 (M12)	750	705
710	875	695	590	18 (M14)	1000	785
905	1065	885	750	18 (M14)	1000	975
1100	1260	1080	840	18 (M14)	1000	1170



REVERSE MOUNTING



STANDARD MOUNTING WITH ACCESSORIES

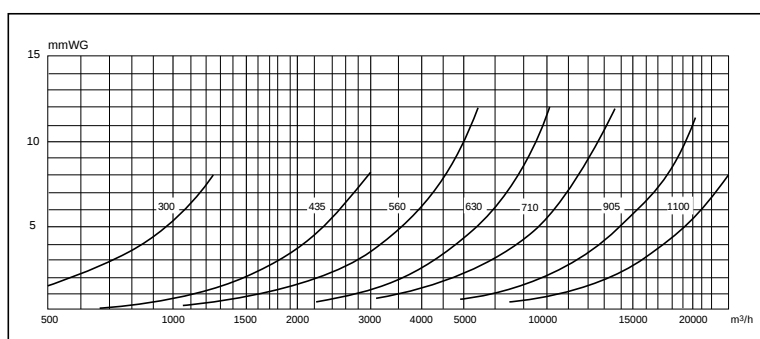


REVERSE MOUNTING WITH ACCESSORIES

Attenuation insertion loss dB at octave average frequencies

Type	125	250	500	1000	2000	4000	8000
JAA-300	1	5	13	22	23	16	12
JAA-435	1	7	16	23	25	18	13
JAA-560	2	8	16	29	32	26	17
JAA-630	2	8	14	24	27	19	13
JAA-710	2	8	14	24	28	16	11
JAA-905	2	7	14	26	30	19	12
JAA-1100	2	7	16	27	32	20	13

Attenuator pressure drops



■ Electrical accessories



REB

Single-phase electronic speed controllers.
– For use with the single-phase roof fans



RMB / RMT

Single phase and three phase auto-transformer speed controllers.
– For single-phase and three-phase roof fans for types 140 to 400.



On/Off Electrical isolation switch

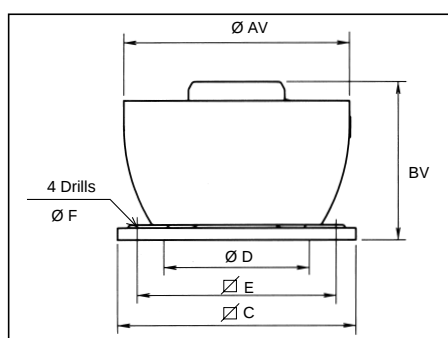
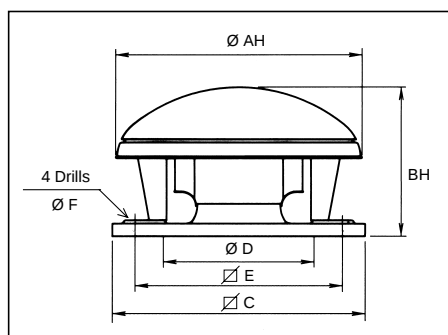
– Five (5) Pole electrical isolation switch.
– Eight (8) Pole electrical isolation switch.



Switch λ/Δ

– Enables two speed commutation for λ/Δ supplied fans.

■ Dimensions (mm)



Type	Ø AH	Ø AV	BH	BV	□ C	Ø D*	□ E	Ø F
140	415	421	277	359	300	180	245	10
180	415	421	292	374	300	180	245	10
200	561	556	340	404	435	250	330	12
225	561	570	383	452	435	250	330	12
250	762	750	425	522	560	355	450	12
315	762	750	469	564	560	355	450	12
400	850	850	532	608	630	400	535	12
450	962	950	713	741	710	500	590	14
500	1214	1216	824	832	905	630	750	14
560	1214	1216	874	832	905	630	750	14
630	1336	1327	1029	1053	1100	710	840	14

* Nominal diameter of the suggested duct.