

CTH3 F400



ROOF FAN, ABS COWL F400

MANUFACTURING FEATURES

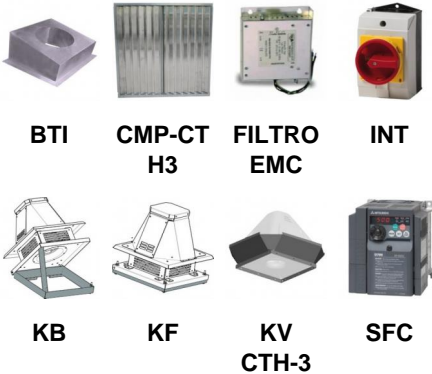
- Roof cowl made of ABS
- Structure, roof base support and bird protection guard made of galvanised steel.
- High efficiency backward curved impellers of steel.
- Standard asynchronous motor with IP-55 protection and Class F insulation. Manufactured with standard voltages: 230V 50Hz in single phase motors, 230/400V 50Hz in three phase motors and 400V 50Hz in 2 speed motors.

APPLICATIONS

Specially designed for roof installation, they are suitable for:

- Smoke extraction.
- Smoke emergency exhaust with motor outside the hazardous area.
- Air renewal in buildings and industries.
- Industrial and professional kitchen hoods.
- Maximum continuous operation temperature: 80°C (fluid).
- Maximum ambient temperature: 50°C

Accessories



UNDER REQUEST

- 60Hz and special voltages.
- Sparking proof fan with EEx_d certified motor.

Official homologation by the European laboratory APPLUS according to EN 12101-3:2002, EN 12101-3:2002/AC:2005
 Certification Nr: 0370-CPR-2656

Technical data

Single-phase motor / 4 poles

Code	Model	R.P.M.	Rated I. (A) 230V	Rated power kW	Max. Airflow m3/h	Sound db (A)*	Weight	Connect. diagram
279220103	CTH3 225 M4 0,12kW	1380	1,15	0,12	750	36	9	1
279250103	CTH3 250 M4 0,12kW	1380	1,15	0,12	900	39	10	1
279280103	CTH3 280 M4 0,12kW	1380	1,15	0,12	1.550	44	11	1
279310103	CTH3 315 M4 0,25KW	1400	1,93	0,25	2.300	48	15	1

Single-phase motor / 6 poles

Code	Model	R.P.M.	Rated I. (A) 230V	Rated power kW	Max. Airflow m3/h	Sound db (A)*	Weight	Connect. diagram
279410103	CTH3 400 M6 0,37KW	890	2,9	0,37	3.550	47	21	1

Three-phase motor / 4 poles

Code	Model	R.P.M.	Rated I. (A) 400V	Rated power kW	Max. Airflow m3/h	Sound db (A)*	Weight	Connect. diagram
279220106	CTH3 225 T4 0,12kW	1400	0,46	0,12	750	36	9	2
279250106	CTH3 250 T4 0,12kW	1400	0,46	0,12	900	39	10	2
279280106	CTH3 280 T4 0,12kW	1400	0,46	0,12	1.550	44	11	2
279310106	CTH3 315 T4 0,25KW	1400	0,79	0,25	2.300	48	15	2
279350106	CTH3 355 T4 0,55KW	1400	1,49	0,55	3.400	52	19	2
279400106	CTH3 400 T4 0,75KW	1390	1,63	0,75	5.400	56	21	2
279450106	CTH3 450 T4 1,1KW	1400	2,49	1,10	7.600	60	38	2
279500106	CTH3 500 T4 1,5KW	1400	3,26	1,50	10.200	63	50	2
279560106	CTH3 560 T4 3KW	1430	6,17	3	13.200	65	55	2

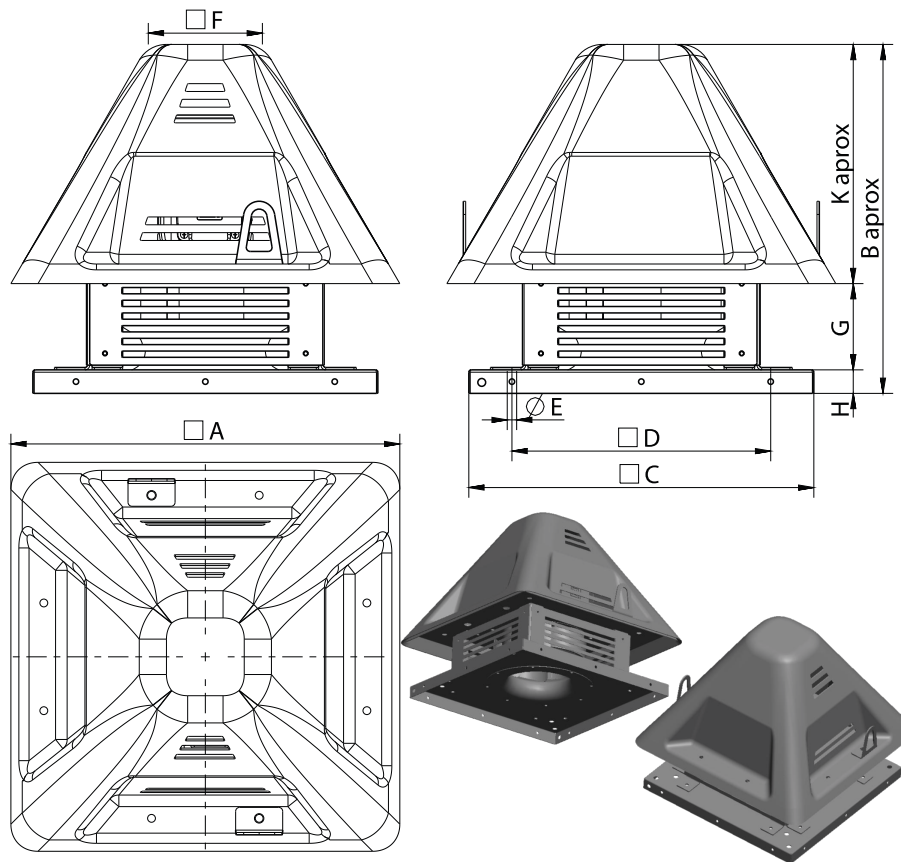
Three-phase motor / 6 poles

Code	Model	R.P.M.	Rated I. (A) 400V	Rated power kW	Max. Airflow m3/h	Sound db (A)*	Weight	Connect. diagram
279410106	CTH3 400 T6 0,37KW	900	1,27	0,37	3.550	47	21	2
279460106	CTH3 450 T6 0,37KW	910	1,27	0,37	4.850	51	38	2
279510106	CTH3 500 T6 0,75KW	910	1,95	0,75	6.450	53	50	2
279570106	CTH3 560 T6 0,75KW	910	1,95	0,75	8.400	56	55	2
279630106	CTH3 630 T6 1,5KW	940	3,71	1,50	12.200	60	70	2

Code	Model	R.P.M.	Rated I. (A) 400V	Rated power kW	Max. Airflow m3/h	Sound db (A)*	Weight	Connect. diagram
279710106	CTH3 710 T6 2,2KW	940	5,94	2,20	19.000	64	101	2
279800106	CTH3 800 T6 4KW	960	9,46	4	25.000	67	118	2

Notes:
 * Total sound pressure level at the point of maximum flow measured in dB(A) in the suction measured in free field at a distance of 6m from the source

Dimensions



Model	A	B aprox	C	D	E	F	G	H	K aprox
CTH3 225 M4 0,12kW	496	445	440	330	12	145,5	110	30	305
CTH3 225 T4 0,12kW	496	445	440	330	12	145,5	110	30	305
CTH3 250 M4 0,12kW	496	445	440	330	12	145,5	110	30	305
CTH3 250 T4 0,12kW	496	445	440	330	12	145,5	110	30	305
CTH3 280 M4 0,12kW	616	503,5	560	450	12	240,2	138,5	40	325
CTH3 280 T4 0,12kW	616	503,5	560	450	12	240,2	138,5	40	325
CTH3 315 M4 0,25KW	616	548	560	450	12	240,2	183	40	325
CTH3 315 T4 0,25KW	616	548	560	450	12	240,2	183	40	325
CTH3 355 T4 0,55KW	698,5	647	630	535	12	240,2	208,5	40	398,5
CTH3 400 M6 0,37KW	698,5	705	630	535	12	240,2	266,5	40	398,5
CTH3 400 T4 0,75KW	698,5	705	630	535	12	240,2	266,5	40	398,5
CTH3 400 T6 0,37KW	698,5	705	630	535	12	240,2	266,5	40	398,5
CTH3 450 T4 1,1KW	777	760	710	590	14	295,6	302	40	418
CTH3 450 T6 0,37KW	777	760	710	590	14	295,6	302	40	418
CTH3 500 T4 1,5KW	972,75	865,5	905	750	14	388	317,5	50	498

Model	A	B aprox	C	D	E	F	G	H	K aprox
CTH3 500 T6 0,75KW	972,75	865,5	905	750	14	388	317,5	50	498
CTH3 560 T4 3KW	972,75	882,5	905	750	14	388	334,5	50	498
CTH3 560 T6 0,75KW	972,75	882,5	905	750	14	388	334,5	50	498
CTH3 630 T6 1,5KW	972,75	924,5	905	750	14	388	376,5	50	498
CTH3 710 T6 2,2KW	1168,5	1118,5	1100	940	14	429,6	439,5	50	629
CTH3 800 T6 4KW	1168,5	1145	1100	940	14	429,6	466	50	629

Wiring diagram

DIAGRAM N° 1

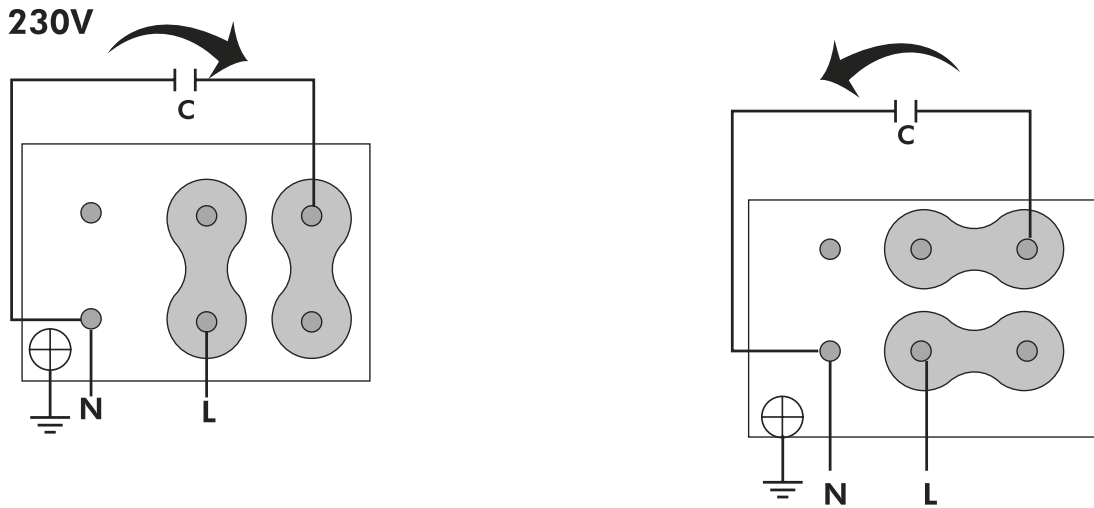
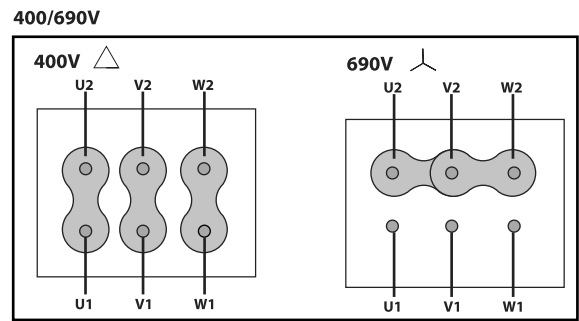
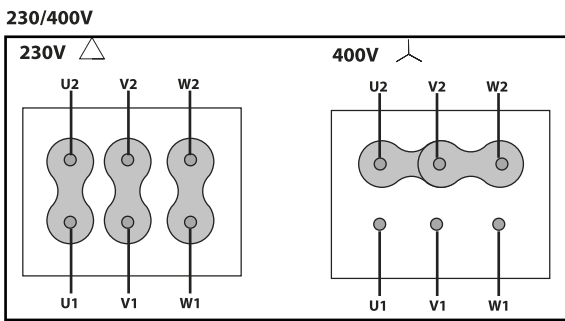


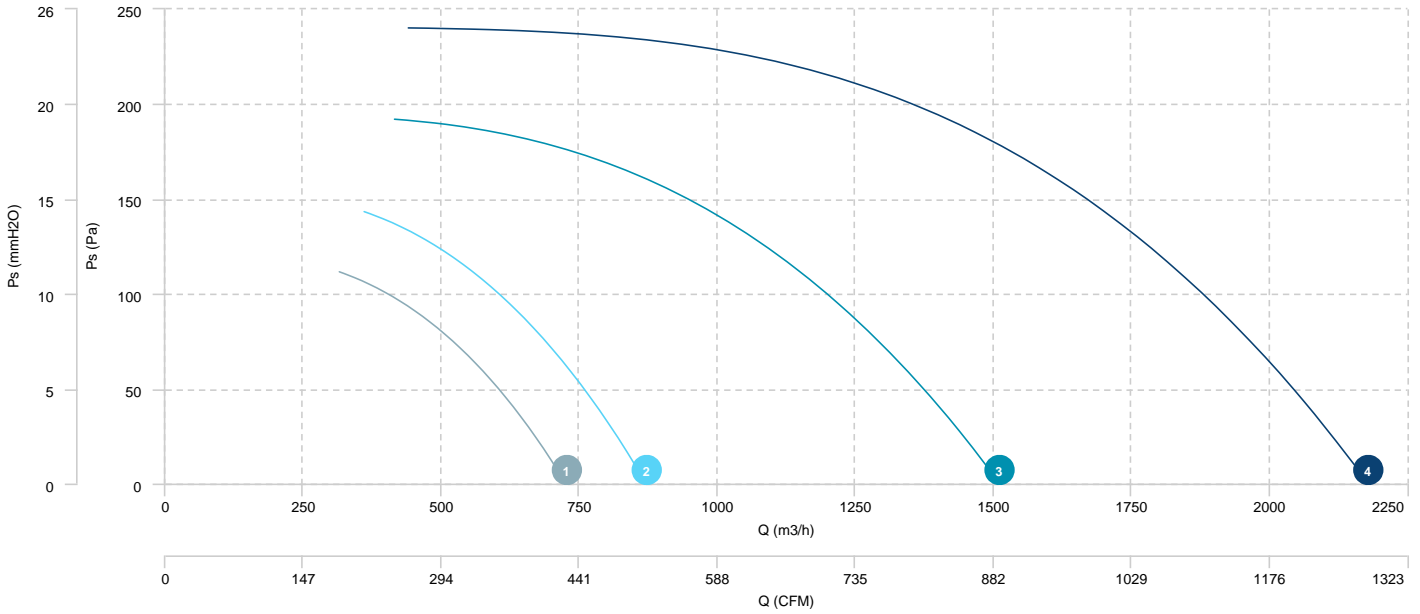
DIAGRAM N° 2



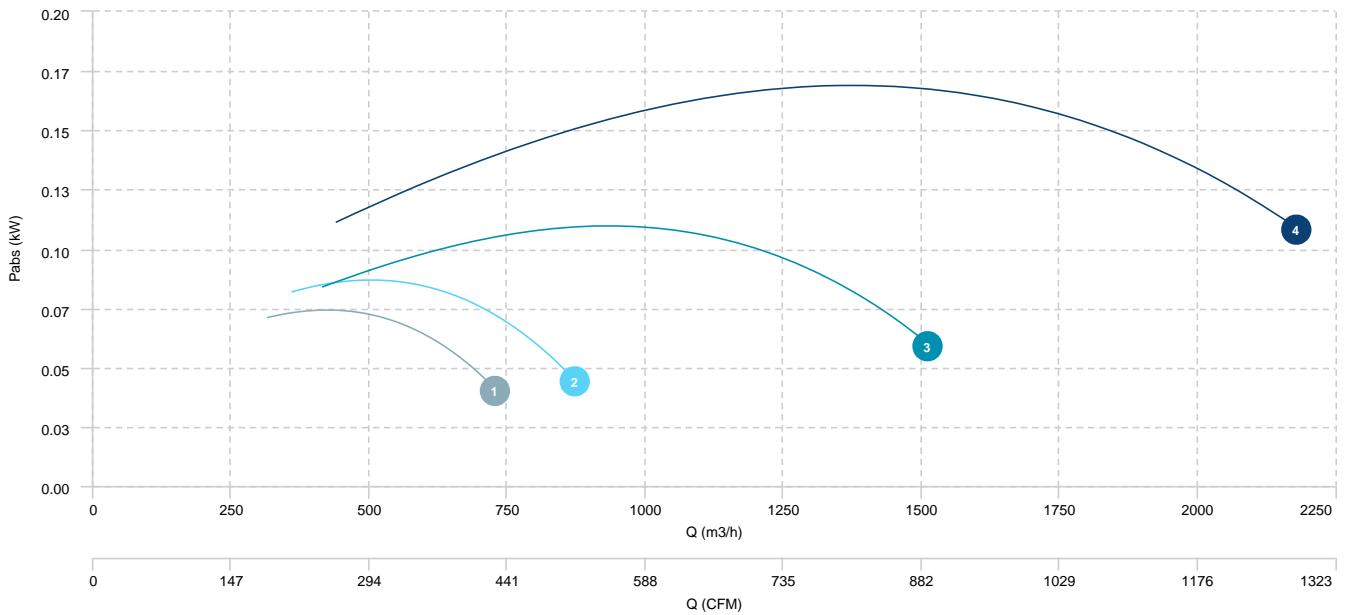
CHARACTERISCTIC CURVE

- 1 CTH3 225 M4 0,12kW
- 2 CTH3 250 M4 0,12kW
- 3 CTH3 280 M4 0,12kW
- 4 CTH3 315 M4 0,25KW

AIR FLOW - PRESSURE

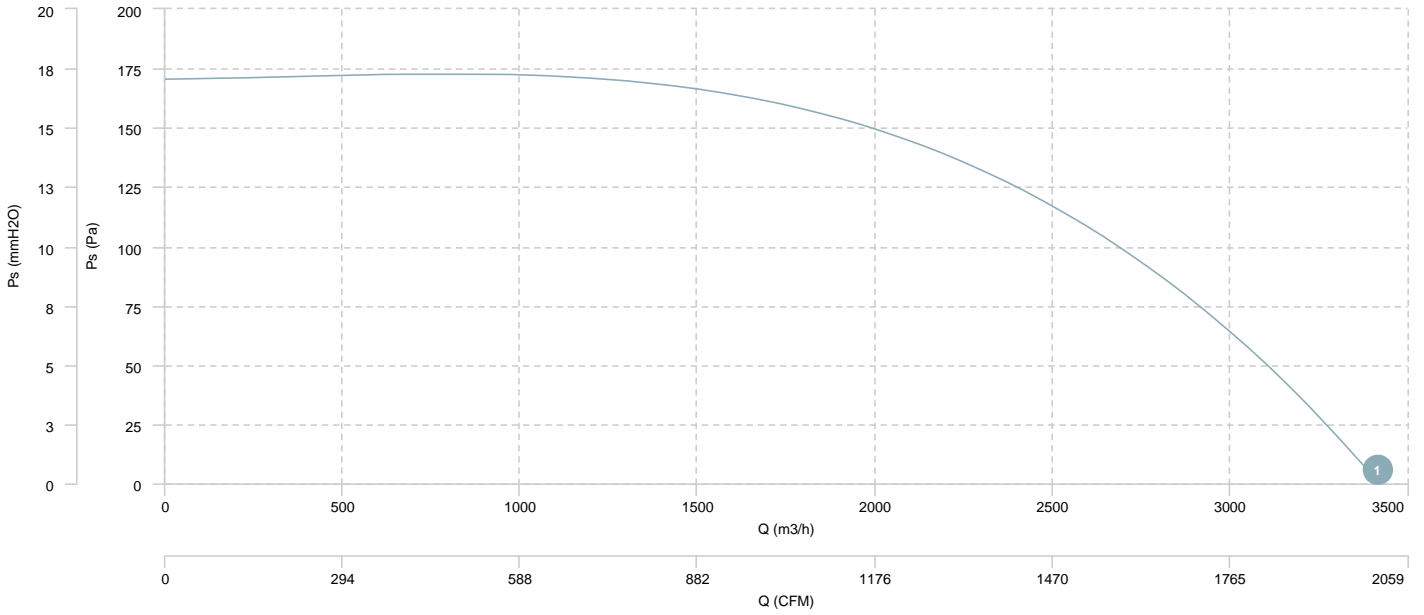


AIR FLOW - ABSORBED POWER

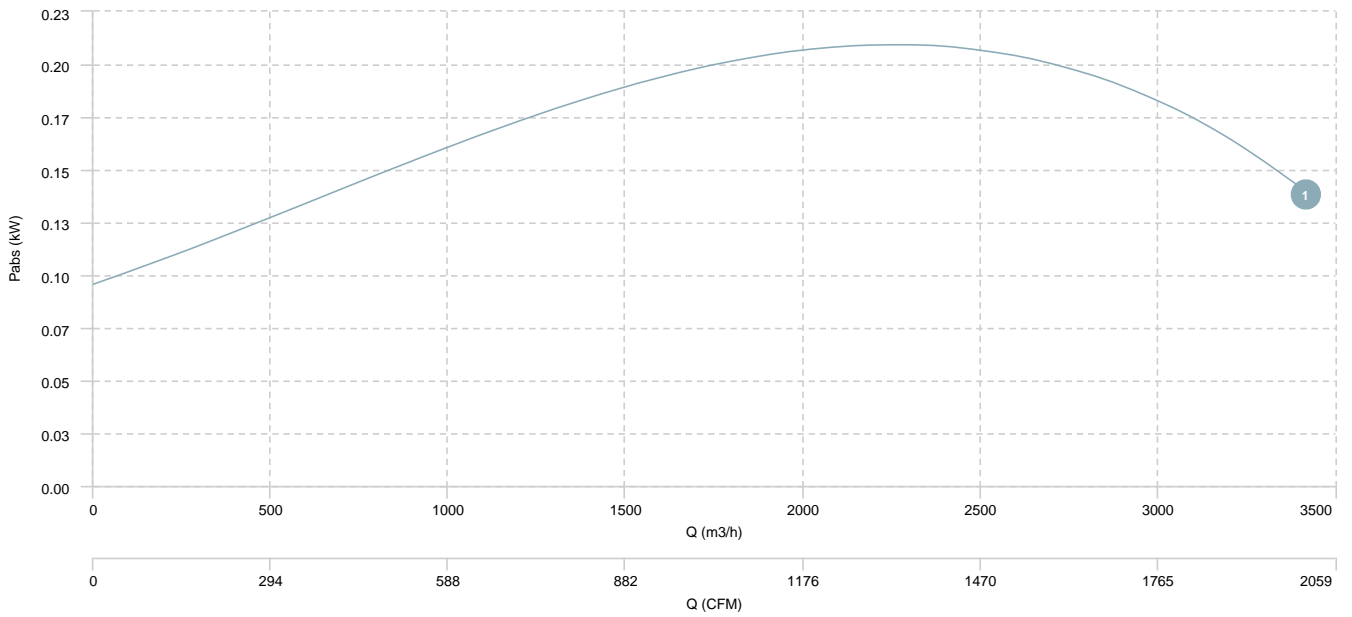


1 CTH3 400 M6 0,37KW

AIR FLOW - PRESSURE

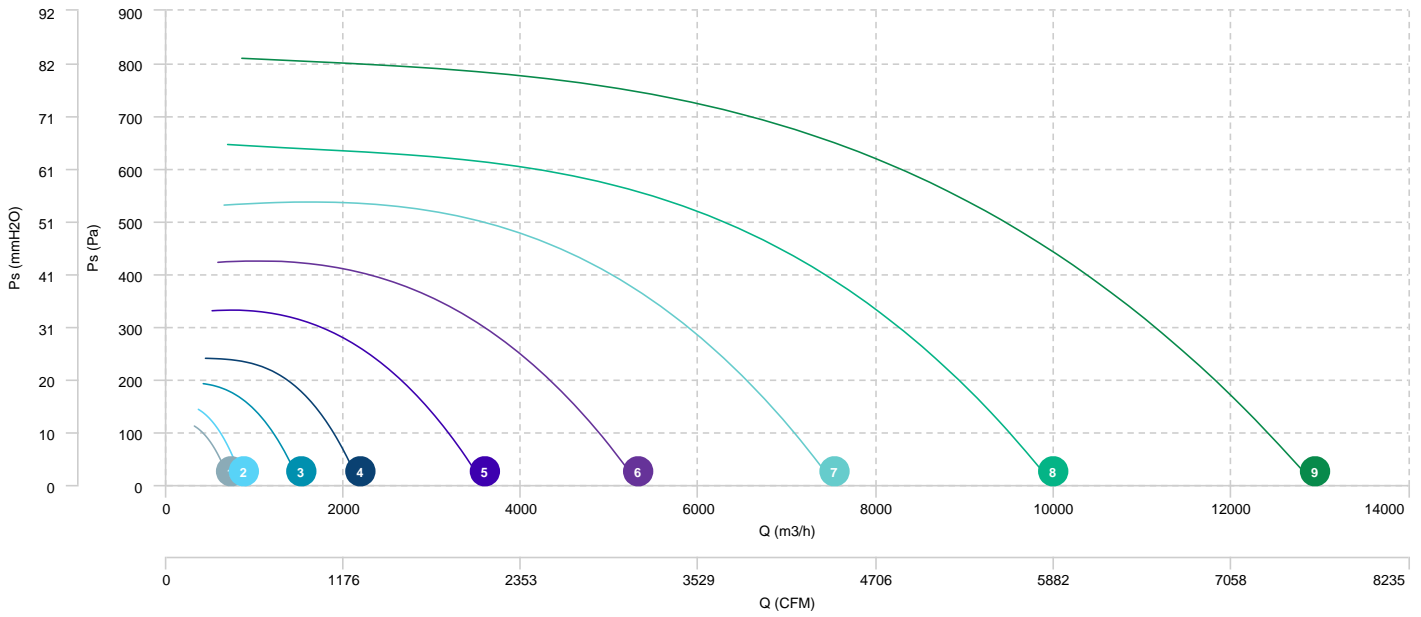


AIR FLOW - ABSORBED POWER

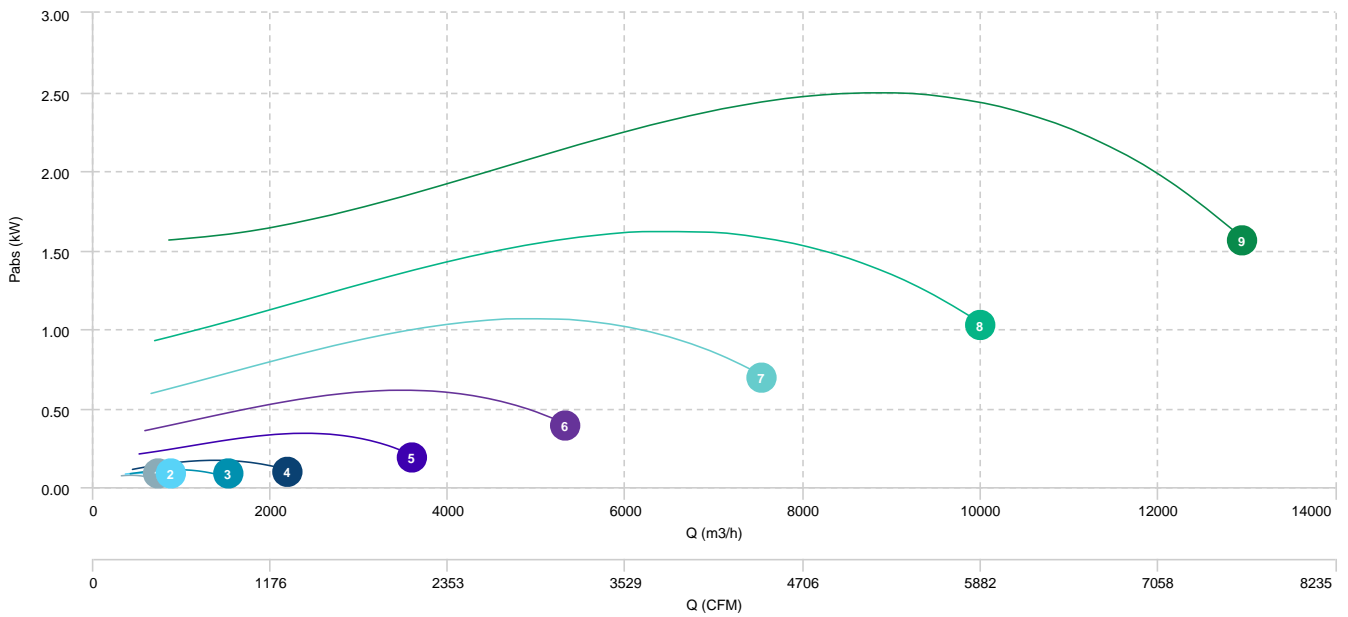


1	CTH3 225 T4 0,12kW	2	CTH3 250 T4 0,12kW	3	CTH3 280 T4 0,12kW	4	CTH3 315 T4 0,25KW
5	CTH3 355 T4 0,55KW	6	CTH3 400 T4 0,75KW	7	CTH3 450 T4 1,1KW	8	CTH3 500 T4 1,5KW
9	CTH3 560 T4 3KW						

AIR FLOW - PRESSURE

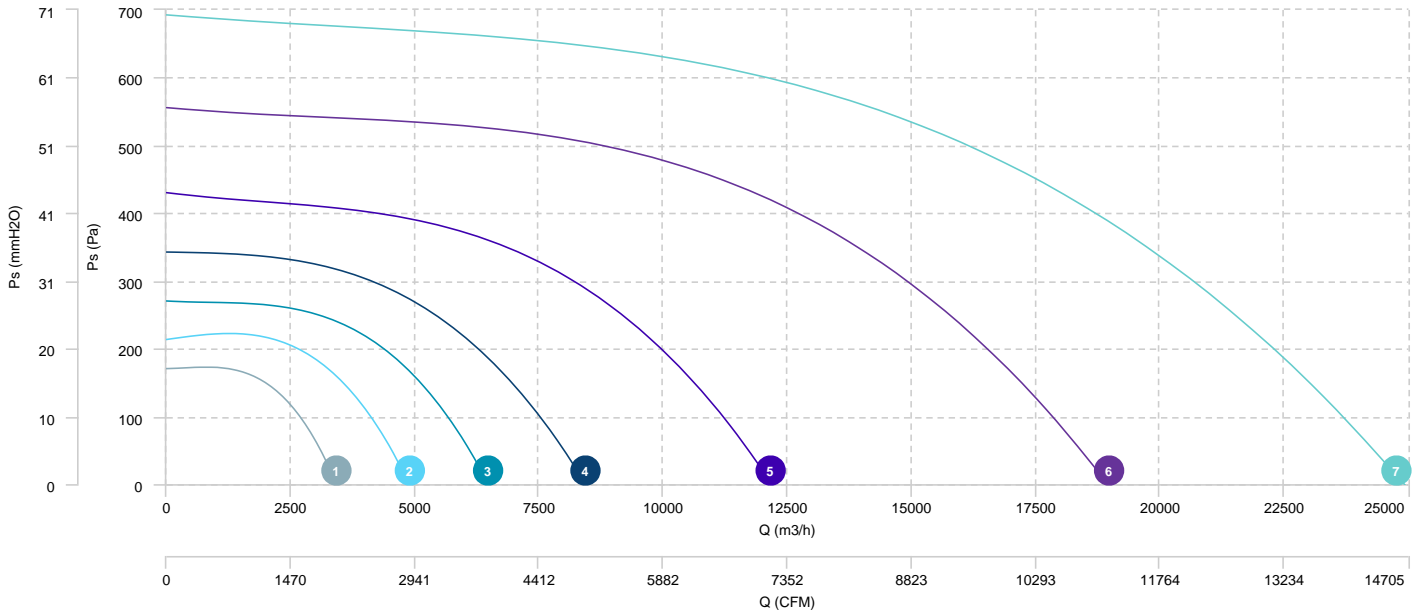


AIR FLOW - ABSORBED POWER

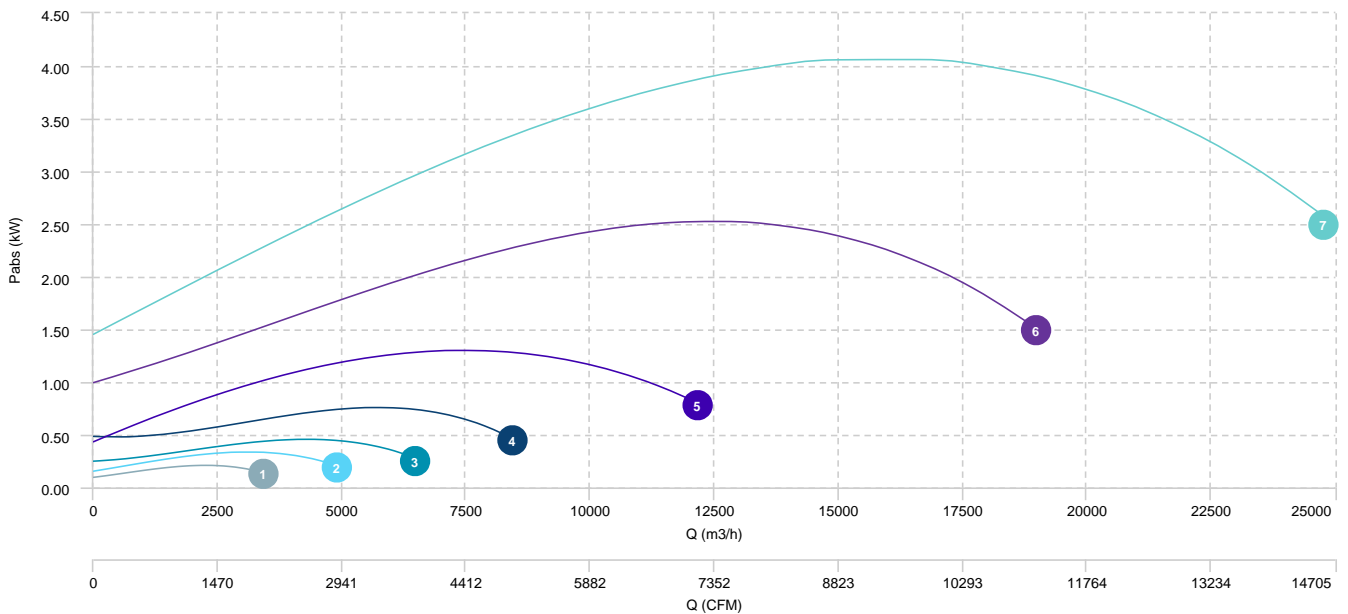


1	CTH3 400 T6 0,37KW	2	CTH3 450 T6 0,37KW	3	CTH3 500 T6 0,75KW	4	CTH3 560 T6 0,75KW
5	CTH3 630 T6 1,5KW	6	CTH3 710 T6 2,2KW	7	CTH3 800 T6 4KW		

AIR FLOW - PRESSURE



AIR FLOW - ABSORBED POWER



Sound data

Sound / 4 poles

		Sound power Lw dB (A)								
Model		63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	Total
CTH3 225 M4 0,12kW	Inlet	40	48	53	56	57	55	52	47	62
CTH3 225 T4 0,12kW	Inlet	40	48	53	56	57	55	52	47	62
CTH3 250 M4 0,12kW	Inlet	43	51	55	59	60	58	55	50	65
CTH3 250 T4 0,12kW	Inlet	43	51	55	59	60	58	55	50	65
CTH3 280 M4 0,12kW	Inlet	48	56	60	63	65	63	60	55	70
CTH3 280 T4 0,12kW	Inlet	48	56	60	63	65	63	60	55	70
CTH3 315 M4 0,25KW	Inlet	52	60	64	68	69	67	64	59	74
CTH3 315 T4 0,25KW	Inlet	52	60	64	68	69	67	64	59	74
CTH3 355 T4 0,55KW (1410 RPM)	Inlet	56	64	68	72	73	71	68	63	78
CTH3 400 T4 0,75KW (1430 RPM)	Inlet	60	68	72	76	77	75	72	67	82
CTH3 450 T4 1,1KW	Inlet	64	72	76	79	81	79	76	71	86
CTH3 500 T4 1,5KW	Inlet	66	74	79	82	83	82	78	73	89
CTH3 560 T4 3KW	Inlet	69	77	82	85	86	84	81	76	91

Sound / 6 poles

		Sound power Lw dB (A)								
Model		63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	Total
CTH3 400 M6 0,37KW	Inlet	51	59	63	67	68	66	63	58	73
CTH3 400 T6 0,37KW	Inlet	51	59	63	67	68	66	63	58	73
CTH3 450 T6 0,37KW	Inlet	54	62	67	70	71	70	66	61	77
CTH3 500 T6 0,75KW	Inlet	57	65	70	73	74	72	69	64	79
CTH3 560 T6 0,75KW	Inlet	60	68	72	76	77	75	72	67	82
CTH3 630 T6 1,5KW	Inlet	63	71	76	79	80	79	75	70	86
CTH3 710 T6 2,2KW	Inlet	68	76	80	84	85	83	80	75	90
CTH3 800 T6 4KW	Inlet	71	79	83	86	88	86	83	77	93

Notes:

* To calculate the sound power level at different rpm from those indicated above, use the following formula:

$$Lw \text{ dB(A)}_{rpmA} = Lw \text{ dB(A)}_{rpmB} + 52.5 \cdot \log_{10} \frac{rpmA}{rpmB}$$

erp data

ERP	
Fan type	Centrifugal fan backward blades without casing
Installation category	A
Efficiency category	Static
The fan has to be installed with FSC	No

ERP / 4 poles

Model	Motor power (kW)	Maximum efficiency point data						
		Max. efficiency (%)	Efficiency grade (N) (N)	Air Flow (m3/h)	Ps (Pa)	Pabs (kW)	speed (rpm)	Specific ratio
CTH3 315 M4 0,25KW	0,25	47,65	66,26	1.440,76	188,93	0,17	1400	1,00
CTH3 315 T4 0,25KW	0,25	47,65	66,26	1.440,76	188,93	0,17	1400	1,00
CTH3 355 T4 0,55KW	0,55/0,09	50,49	65,96	2.135,10	265,26	0,34	1410	1,00
CTH3 400 T4 0,75KW	0,75/0,15	53,05	65,82	3.197,50	338,17	0,61	1430	1,00
CTH3 450 T4 1,1KW	1,1	57,07	67,29	4.662,32	430,90	1,06	1400	1,00
CTH3 500 T4 1,5KW	1,5	58,36	66,67	6.256,73	501,03	1,62	1400	1,00
CTH3 560 T4 3KW	3	60,74	67,12	7.997,61	619,22	2,47	1430	1,00

ERP / 6 poles

Model	Motor power (kW)	Maximum efficiency point data						
		Max. efficiency (%)	Efficiency grade (N) (N)	Air Flow (m3/h)	Ps (Pa)	Pabs (kW)	speed (rpm)	Specific ratio
CTH3 400 M6 0,37KW	0,37	43,51	61,16	2.117,08	143,42	0,21	890	1,00
CTH3 400 T6 0,37KW	0,37	43,51	61,16	2.117,08	143,42	0,21	900	1,00
CTH3 450 T6 0,37KW	0,75	49,51	64,99	3.055,87	181,68	0,34	910	1,00
CTH3 500 T6 0,75KW	0,75	57,69	71,76	4.227,80	207,80	0,46	910	1,00
CTH3 560 T6 0,75KW	0,75	54,35	66,17	5.143,46	262,55	0,75	910	1,00
CTH3 630 T6 1,5KW	1,5	57,73	67,03	7.440,49	330,34	1,30	940	1,00
CTH3 710 T6 2,2KW	2,2	59,82	66,14	11.282,88	446,60	2,50	940	1,00
CTH3 800 T6 4KW	4	60,59	64,70	15.313,01	525,47	4,07	960	1,00