

THT/HATCH

High-powered ventilators with motorised opening and equipped with a roof fan, for smoke extraction in the event of a fire, 400°C/2h



High-powered ventilators with roof fan and motorised opening. Specially designed to extract smoke and dangerous fumes in a quick and efficient manner in the event of a fire. Suitable for installation in industrial warehouses or commercial facilities. Approval according to Standard EN 12101-3:2002/AC:2006, with F-400 certification.

Fast smoke extraction allows for an efficient intervention on behalf of the firefighters and the quick evacuation of people, while avoiding the kindling of new fires and further structural damage to the building. It may also be used for the purpose of environmental ventilation throughout the building in which it has been installed



Ventilator:

- Extremely robust structure which can withstand severe climate changes
- Equipment's structure made of anti-corrosive galvanised sheet metal
- Designed to ensure airtightness at the inlet for water supply
- 60mm-thick thermal insulation to prevent heat loss during the winter
- Base/plinth system to ensure a correct and simple installation on the roof
- Maintenance switch fitted with auxiliary NO/NC contact to control disconnection of the machine.

- Limit switch in place to indicate the hatch's position

Fan:

- THT series fans, with F-400 certification No. 0370-CPR-0305
- Sheet steel tubular casing with anti-corrosive finish in polyester resin
- Turnable impellers in cast aluminium.

Motor:

- Class H motors, ongoing use S1 and emergency use S2, with ball bearings and IP55 protection
- Three-phase 230/400V.-50Hz. (up to 4HP) and 400/690V.-50Hz. (power over 4HP)
- Max. air temperature to transport: S1 Service -25°C +40°C for ongoing use. S2 Service 400°C/2h

Opening system:

- Motorised opening arms, with IP-65 actuator drive
- Power supply voltage of 230 V. AC 50Hz or 24V. DC
- Reinforced system, guaranteed for over 10,000 maximum load operations
- Maximum load: 1000 Nw
- Automatic opening via external control input (fire control panel, smoke detector, manual switch...) Control system is not included.
- Manual opening for regulating environmental ventilation via a switch

Finish:

- Anti-corrosive galvanised sheet steel

On request:

- Equipped with F-300 certified fans
- Finish in anti-corrosive paint with polyester resin



Order code

THT/HATCH	—	40	—	2T	—	1	—	N	—	1	—	G
↓		↓		↓		↓		↓		↓		↓
Model		Size		Number of motor pole 2=2900 r/min. 50 Hz 4=1400 r/min. 50 Hz 6=900 r/min. 50 Hz	T=Three-phase	Motor power (HP)		Electrical accessories N= no accessories Y= With limit switch		Power voltage opening system 1=230 V.AC 2=24 V.DC		Finish G=galvanised P=painted a special colour

Technical characteristics

Model	Speed (r/min)	Maximum admissible current (A)			Installed power (kW)	Maximum airflow (m³/h)	Sound pressure level dB(A)	Weight approx. (Kg)
		230V	400V	690V				
THT/HATCH-40-2T-1	2850	3,15	1,80		0,75	6115	72	184
THT/HATCH-40-2T-1,5	2880	4,70	2,70		1,10	7050	73	188
THT/HATCH-45-2T-2	2880	5,90	3,40		1,50	9405	75	193
THT/HATCH-45-2T-3	2840	8,70	5,00		2,20	11325	77	194
THT/HATCH-50-2T-2	2880	5,90	3,40		1,50	10100	77	197
THT/HATCH-50-2T-3	2840	8,70	5,00		2,20	11925	78	199
THT/HATCH-50-2T-4	2880	11,20	6,50		3,00	13860	79	206
THT/HATCH-50-2T-5,5	2870		9,30	5,40	4,00	15900	80	222
THT/HATCH-56-2T-5,5	2870		9,50	5,50	4,00	18840	85	226
THT/HATCH-56-2T-7,5	2910		10,60	6,14	5,50	22510	86	237
THT/HATCH-56-4T-2	1440	6,20	3,60		1,50	15020	72	205
THT/HATCH-63-4T-3	1425	9,00	5,20		2,20	22460	73	262
THT/HATCH-63-4T-4	1430	11,40	6,60		3,00	24460	74	271
THT/HATCH-63-6T-1	940	4,70	2,70		0,75	16025	63	252
THT/HATCH-80-4T-3	1425	9,00	5,20		2,20	25545	79	280
THT/HATCH-80-4T-4	1430	11,40	6,60		3,00	30410	80	289
THT/HATCH-80-4T-5,5	1440		8,40	4,80	4,00	32940	81	295
THT/HATCH-80-4T-7,5	1460		12,60	7,30	5,50	39820	82	311
THT/HATCH-80-6T-1,5	945	5,50	3,20		1,10	21580	69	279
THT/HATCH-80-6T-2	945	7,40	4,30		1,50	26090	70	288
THT/HATCH-90-4T-7,5	1460		12,60	7,30	5,50	46325	88	392
THT/HATCH-90-4T-10	1460		17,70	10,20	7,50	50315	89	403
THT/HATCH-90-4T-15	1460		22,00	12,70	11,00	59610	90	456
THT/HATCH-90-6T-3	950	9,50	5,50		2,20	34055	75	365
THT/HATCH-90-6T-4	970	13,50	7,80		3,00	39055	76	391
THT/HATCH-100-4T-10	1460		17,70	10,20	7,50	57650	90	413
THT/HATCH-100-4T-15	1460		22,00	12,70	11,00	66505	91	466
THT/HATCH-100-4T-20	1460		29,00	16,70	15,00	76445	92	481
THT/HATCH-100-6T-5,5	970		11,00	6,40	4,00	47955	81	413
THT/HATCH-100-6T-7,5	970		12,40	7,20	5,50	53545	82	420

Technical characteristics of the high-powered ventilators according to standard EN 12101-3:2002/AC:2006

Model	Officially approved °C	Class insulation for motor	Durability	Minimum environmental temperature	Wind load (Pa)	Snow load (Pa)
THT/HATCH	F-400	H Class	RE 10000	T(-15)	WL 1500	SL 500



Erp. BEP (best efficiency point) characteristics

<(°)	Angle of inclination of the blades, in degrees	SR	Specific ratio
PN	Motor's nominal power in kW	ηe[%]	Efficiency
MC	Measurement category	N	Efficiency grade
EC	Efficiency category	[kW]	Input power
S	Static	[m³/h]	Airflow
T	Total	[mmH²O]	Static or total pressure (According to EC)
VSD	Variable-speed drive	[RPM]	Speed

Model	<(°)	PN	MC	EC	VSD	SR	ηe[%]	N	(kW)	(m³/h)	(mmH²O)	(RPM)
THT/HATCH-40-2T-1	16	0.75	A	S	NO	1.00	41.5%	48.1	0.933	4420	32.19	2850
THT/HATCH-40-2T-1.5	20	1.1	A	S	NO	1.00	33.6%	38.9	1.445	5180	34.43	2884
THT/HATCH-45-2T-2	16	1.5	A	S	NO	1.00	35.9%	40.8	1.688	6802	32.70	2896
THT/HATCH-45-2T-3	22	2.2	A	S	NO	1.01	37.7%	41.6	2.405	8144	40.86	2854
THT/HATCH-50-2T-2	8	1.5	A	S	NO	1.00	35.9%	40.3	2.014	6731	39.48	2876
THT/HATCH-50-2T-3	12	2.2	A	S	NO	1.01	36.8%	40.5	2.586	7884	44.29	2843
THT/HATCH-50-2T-4	16	3	A	S	NO	1.01	34.3%	37.3	3.381	8962	47.55	2885
THT/HATCH-50-2T-5.5	20	4	A	S	NO	1.01	32.6%	35.1	4.131	9537	51.91	2885
THT/HATCH-56-2T-5.5	16	4	A	S	NO	1.01	45.4%	47.8	4.202	12896	54.34	2883
THT/HATCH-56-2T-7.5	22	5.5	A	S	NO	1.01	41.2%	42.6	6.055	15917	57.53	2913
THT/HATCH-56-4T-2	36	1.5	B	T	NO	1.00	45.7%	50.7	1.665	13581	20.60	1445
THT/HATCH-63-4T-3	32	2.2	B	T	NO	1.00	62.0%	65.9	2.443	20324	27.38	1430
THT/HATCH-63-4T-4	38	3	B	T	NO	1.00	57.8%	60.9	3.270	24239	28.64	1440
THT/HATCH-63-6T-1	38	0.75	B	T	NO	1.00	48.4%	54.4	1.099	15880	12.29	942
THT/HATCH-80-4T-3	12	2.2	C	S	NO	1.00	47.1%	51.0	2.413	16923	24.69	1430
THT/HATCH-80-4T-4	16	3	C	S	NO	1.00	41.1%	43.8	3.686	20444	27.19	1432
THT/HATCH-80-4T-5.5	18	4	C	S	NO	1.00	41.2%	43.5	4.246	22304	28.78	1448
THT/HATCH-80-4T-7.5	26	5.5	B	T	NO	1.00	63.0%	64.5	5.914	35186	38.92	1465
THT/HATCH-80-6T-1.5	18	1.1	C	S	NO	1.00	35.4%	40.8	1.389	14613	12.35	951
THT/HATCH-80-6T-2	26	1.5	B	T	NO	1.00	57.5%	62.1	1.825	23053	16.71	950
THT/HATCH-90-4T-7.5	18	5.5	C	S	NO	1.00	44.1%	45.2	6.749	31521	34.72	1460
THT/HATCH-90-4T-10	22	7.5	C	S	NO	1.01	38.9%	39.2	9.154	35009	37.36	1463
THT/HATCH-90-4T-15	30	11	B	T	NO	1.01	67.1%	67.1	11.526	52205	54.45	1463
THT/HATCH-90-6T-3	24	2.2	C	S	NO	1.00	38.0%	41.5	2.832	23831	16.58	950
THT/HATCH-90-6T-4	30	3	B	T	NO	1.00	58.8%	61.6	3.698	34203	23.37	971
THT/HATCH-100-4T-10	16	7.5	C	S	NO	1.00	41.3%	41.4	9.606	37591	38.73	1461
THT/HATCH-100-4T-15	22	11	C	S	NO	1.01	43.6%	43.5	12.145	44571	43.65	1461
THT/HATCH-100-4T-20	28	15	B	T	NO	1.01	64.1%	63.8	16.091	66559	56.95	1462
THT/HATCH-100-6T-5.5	26	4	B	T	NO	1.00	57.6%	59.7	4.671	42042	23.50	973
THT/HATCH-100-6T-7.5	32	5.5	B	T	NO	1.00	56.3%	57.9	5.690	53520	22.00	975

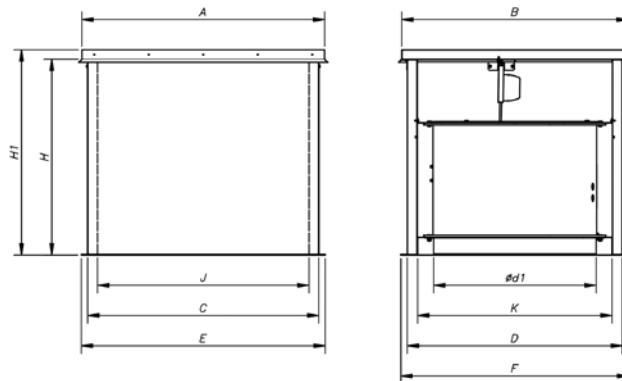
Acoustic features

The specified values are determined according to free field measurements of sound levels in dB(A) at an equivalent distance of twice the fan's span plus the impeller's diameter, with a minimum of 1.5 m.

Sound power Lw(A) spectrum in dB(A) via frequency band in Hz.

Model	63	125	250	500	1000	2000	4000	8000	Model	63	125	250	500	1000	2000	4000	8000
40-2-1	44	65	72	77	80	76	69	58	80-4-4	54	74	82	87	89	86	79	71
40-2-1,5	45	66	73	78	81	77	70	59	80-4-5,5	54	74	82	87	89	86	79	72
45-2-2	47	68	75	80	83	79	72	61	80-4-7,5	55	75	83	88	90	87	80	73
45-2-3	49	70	77	82	85	81	74	63	80-6-1,5	47	64	72	77	79	76	69	58
50-2-2	52	72	80	85	87	84	77	66	80-6-2	48	65	73	78	80	77	70	59
50-2-3	53	73	81	86	88	85	78	67	90-4-7,5	57	78	85	90	93	89	82	71
50-2-4	54	74	82	87	89	86	79	68	90-4-10	56	77	84	89	92	88	81	70
50-2-5,5	55	75	83	88	90	87	80	69	90-4-15	58	79	86	91	94	90	83	72
56-2-5,5	60	80	88	93	95	92	85	74	90-6-3	54	68	75	80	83	79	72	61
56-2-7,5	61	81	89	94	96	93	86	75	90-6-4	55	70	77	82	85	81	74	63
56-4-2	47	67	75	80	82	79	72	61	100-4-10	60	80	88	93	95	92	85	74
63-4-3	50	68	76	81	83	80	75	64	100-4-15	59	79	87	92	94	91	84	73
63-4-4	51	69	77	82	84	81	76	65	100-4-20	61	81	89	94	96	93	86	75
63-6-1	41	60	68	73	75	72	65	55	100-6-5,5	62	71	79	84	86	83	76	65
80-4-3	56	75	83	89	90	87	81	70	100-6-7,5	63	72	80	85	87	84	77	66

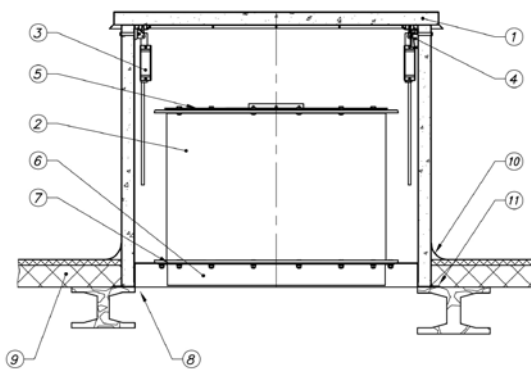
Dimensions in mm



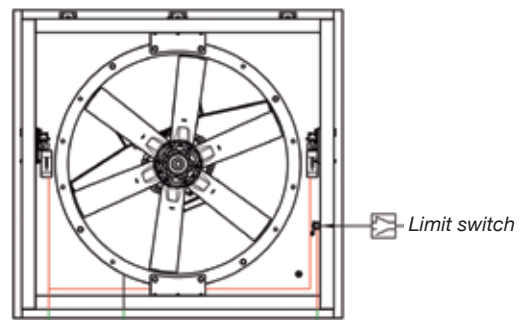
	A	B	C	D	$\varnothing d1$	E	F	H	H1	J	K
THT/HATCH-40-2T-1	1100	990	1022	920	400	1100	1000	940	1000	900	800
THT/HATCH-40-2T-1'5	1100	990	1022	920	400	1100	1000	940	1000	900	800
THT/HATCH-45-2T-2	1100	990	1022	920	450	1100	1000	940	1000	900	800
THT/HATCH-45-2T-3	1100	990	1022	920	450	1100	1000	940	1000	900	800
THT/HATCH-50-2T-4	1100	990	1022	920	500	1100	1000	940	1000	900	800
THT/HATCH-50-2T-5'5	1100	990	1022	920	500	1100	1000	940	1000	900	800
THT/HATCH-56-2T-5'5	1100	990	1022	920	560	1100	1000	940	1000	900	800
THT/HATCH-56-2T-7'5	1100	990	1022	920	560	1100	1000	940	1000	900	800
THT/HATCH-56-4T-2	1100	990	1022	920	560	1100	1000	940	1000	900	800
THT/HATCH-63-4T-3	1295	1195	1222	1122	630	1300	1200	940	1000	1100	1000
THT/HATCH-63-4T-4	1295	1195	1222	1122	630	1300	1200	940	1000	1100	1000
THT/HATCH-63-6T-1	1295	1195	1222	1122	630	1300	1200	940	1000	1100	1000
THT/HATCH-80-4T-3	1295	1195	1222	1122	800	1300	1200	940	1000	1100	1000
THT/HATCH-80-4T-4	1295	1195	1222	1122	800	1300	1200	940	1000	1100	1000

	A	B	C	D	$\varnothing d1$	E	F	H	H1	J	K
THT/HATCH-80-4T-5'5	1295	1195	1222	1122	800	1300	1200	940	1000	1100	1000
THT/HATCH-80-4T-7'5	1295	1195	1222	1122	800	1300	1200	940	1000	1100	1000
THT/HATCH-80-6T-1'5	1295	1195	1222	1122	800	1300	1200	940	1000	1100	1000
THT/HATCH-80-6T-2	1295	1195	1222	1122	800	1300	1200	940	1000	1100	1000
THT/HATCH-90-4T-7'5	1492	1392	1420	1320	900	1500	1400	940	1000	1300	1200
THT/HATCH-90-4T-10	1492	1392	1420	1320	900	1500	1400	940	1000	1300	1200
THT/HATCH-90-4T-15	1492	1392	1420	1320	900	1500	1400	940	1000	1300	1200
THT/HATCH-90-6T-3	1492	1392	1420	1320	900	1500	1400	940	1000	1300	1200
THT/HATCH-90-6T-4	1492	1392	1420	1320	900	1500	1400	940	1000	1300	1200
THT/HATCH-100-4T-10	1492	1392	1420	1320	1000	1500	1400	940	1000	1300	1200
THT/HATCH-100-4T-15	1492	1392	1420	1320	1000	1500	1400	940	1000	1300	1200
THT/HATCH-100-4T-20	1492	1392	1420	1320	1000	1500	1400	940	1000	1300	1200
THT/HATCH-100-6T-5'5	1492	1392	1420	1320	1000	1500	1400	940	1000	1300	1200
THT/HATCH-100-6T-7'5	1492	1392	1420	1320	1000	1500	1400	940	1000	1300	1200

Installation diagram



1. THT/HATCH high-powered ventilators
2. THT fan
3. Motorised arms (230V AC or 24V DC x2)
4. Limit switch
5. Protection guard for outlet
6. Connection flange for inlet duct
7. Protection guard for inlet (optional)
8. Roof opening
9. Roofing
10. Leak protection
11. Direct mounting using base/plinth adaptation system



Actuator power source
1x230V 50Hz
or 24 VDC

Motor power source
3x400V 50Hz

Limit switch connection

— Pre-installation supplied by the manufacturer
 - - - To be carried out by the installation technician

Note: The use of electronic starters is recommended for motors of over 5.5kW

Characteristic curves

Q = Airflow in m³/h, m³/s and cfm.

Pe = Static pressure in mmH₂O, Pa and inwg.

