



THT/HATCH

400°/2h. BOXED ROOF FAN WITH
AUTOMATED TOP COVER



F-400



EN-12101-3-2002
Powered smoke and
heat exhaust ventilators
for use in Construction Works





HIGH-POWERED VENTILATORS WITH ROOF FANS 400°C/2h

The THT/HATCH series was designed using high-powered ventilator technology for smoke extraction in the event of a fire, and is equipped with THT series mechanical roof fans certified to work at 400°C/2h. In order to adhere to European regulations, the full equipment has been certified as fully operational according to EN-12101-3-2002/AC:2005.

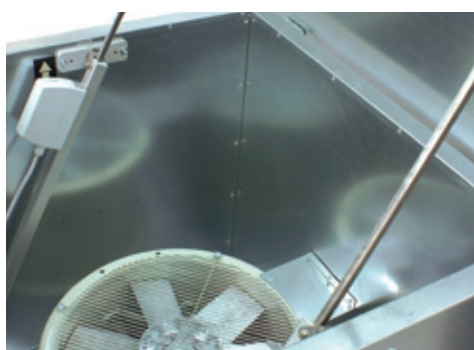
Fast smoke extraction, due to the incorporated exhaust fan, allows for an efficient intervention on behalf of the firefighters and the quick evacuation of people, while avoiding the kindling of new fires and further structural damage to the building.

Furthermore, given the greater capacity for smoke extraction, fewer ventilators actually need to be installed, which of course also greatly reduces the costs of such a project.



HEAT LOSS AND THERMAL INSULATION

One of the main disadvantages of typical roof fans is the constant loss of heating energy through the fan, which escapes outdoors from inside the precinct. The THT/HATCH series is thermally insulated with 60mm panels made of high-density rock wool in addition to having a fully hermetic design, which impedes outdoor temperature leakages.



MOTORISED OPENING

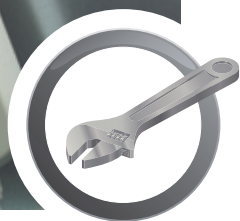
The air outlet damper is opened using two solid motorized arms, which are guaranteed to work for at least 10,000 maximum load operations, which is roughly equal to 1000 Nw per operation. This design allows for seamlessly working with both wind and snow overloads at the same time, in accordance with existing market regulations.

Starting up the ventilators just 30 seconds after activating the opening arms is recommended, in order to avoid pressure overload on the machine. The motor power supply for the opening arms can be requested for either 230V.AC or 24V. DC, depending on installation needs.



EASY TO INSTALL

It works on any roof, no matter what its slope is. It is recommended for the equipment to penetrate the rafters, and that it is then laid against the roof and screwed on to the roof's structure.



The fan's intake can remain free, vacuuming the air directly from the precinct, or it can be directly connected to an extraction duct using the flange incorporated to the base of the exhaust fan.

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:2005, 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 a structure made of anticorrosive galvanised sheet
- Designed to ensure leaktightness at the inlet for water supply
- Thermal insulation to avoid the loss of heat during the winter
- Base/plinth system to ensure a correct and simple installation on the roof

Opening system:

- Motorised opening arms, with IP-65 canned 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 not included.
- Manual opening for regulating environmental ventilation via a switch
- Limit switch in place to indicate the hatch's position

Fan:

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

Motor:

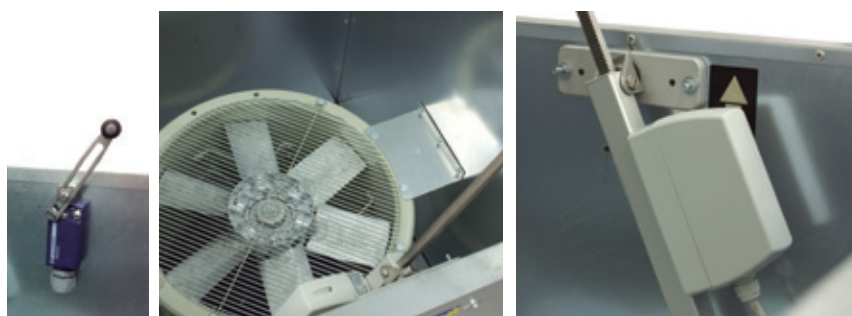
- Class H motors, ongoing use S1 and emergency use S2, with ball bearings and IP55 protection
- Three-phase 230/400V.-50Hz. (up to 4CV.) and 400/690V.-50Hz. (power over 4CV)
- Max. air temperature to transport: S1 Service -20°C + 40°C for ongoing use
- 400°C/2h S2 Service

Finish:

- Anticorrosive galvanised sheet steel

On request:

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



Order code

THT/HATCH	—	40	—	2T	—	1	—	N	—	1	—	G
↓		↓		↓	↓	↓		↓		↓		↓
Model		Size		Number of motor poles 2=2900 r/min. 50 Hz 4=1400 r/min. 50 Hz 6=900 r/min. 50 Hz	T=Three-phase	Power motor (c.v.)		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)	Intensity (A)			Installed power (kW)	Maximum airflow (m ³ /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	160
THT/HATCH-40-2T-1.5	2880	4.70	2.70		1.10	7050	73	164
THT/HATCH-45-2T-2	2880	5.90	3.40		1.50	9405	75	169
THT/HATCH-45-2T-3	2840	8.70	5.00		2.20	11325	77	170
THT/HATCH-50-2T-2	2880	5.90	3.40		1.50	10100	77	173
THT/HATCH-50-2T-3	2840	8.70	5.00		2.20	11925	78	175
THT/HATCH-50-2T-4	2880	11.20	6.50		3.00	13860	79	182
THT/HATCH-50-2T-5.5	2870		9.30	5.40	4.00	15900	80	198
THT/HATCH-56-2T-5.5	2870		9.50	5.50	4.00	18840	85	202
THT/HATCH-56-2T-7.5	2910		10.60	6.14	5.50	22510	86	213
THT/HATCH-56-4T-2	1440	6.20	3.60		1.50	15020	72	181
THT/HATCH-63-4T-3	1425	9.00	5.20		2.20	22460	73	232
THT/HATCH-63-4T-4	1430	11.40	6.60		3.00	24460	74	241
THT/HATCH-63-6T-1	940	4.70	2.70		0.75	16025	63	222
THT/HATCH-80-4T-3	1425	9.00	5.20		2.20	25545	79	250
THT/HATCH-80-4T-4	1430	11.40	6.60		3.00	30410	80	259
THT/HATCH-80-4T-5.5	1440		8.40	4.80	4.00	32940	81	265
THT/HATCH-80-4T-7.5	1460		12.60	7.30	5.50	39820	82	281
THT/HATCH-80-6T-1.5	945	5.50	3.20		1.10	21580	69	249
THT/HATCH-80-6T-2	945	7.40	4.30		1.50	26090	70	258
THT/HATCH-90-4T-7.5	1460		12.60	7.30	5.50	46325	88	356
THT/HATCH-90-4T-10	1460		17.70	10.20	7.50	50315	89	367
THT/HATCH-90-4T-15	1460		22.00	12.70	11.00	59610	90	420
THT/HATCH-90-6T-3	950	9.50	5.50		2.20	34055	75	329
THT/HATCH-90-6T-4	970	13.50	7.80		3.00	39055	76	355
THT/HATCH-100-4T-10	1460		17.70	10.20	7.50	57650	90	376
THT/HATCH-100-4T-15	1460		22.00	12.70	11.00	66505	91	429
THT/HATCH-100-4T-20	1460		29.00	16.70	15.00	76445	92	444
THT/HATCH-100-6T-5.5	970		11.00	6.40	4.00	47955	81	376
THT/HATCH-100-6T-7.5	970		12.40	7.20	5.50	53545	82	383

Technical characteristics of the exutorios dinàmicos according to standard EN-12101-3-2002/AC:2005

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

The THT/HATCH fans are designed to operate under both normal conditions and emergency situations. These types of fans have had their required efficiency grade reduced by 10% for 2013 and by 5% for 2015.

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

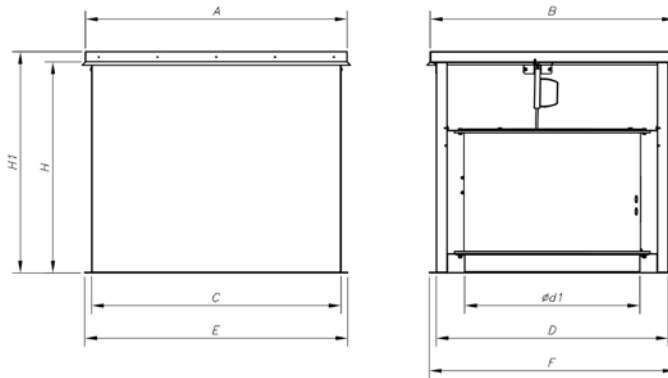
Acoustic features

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

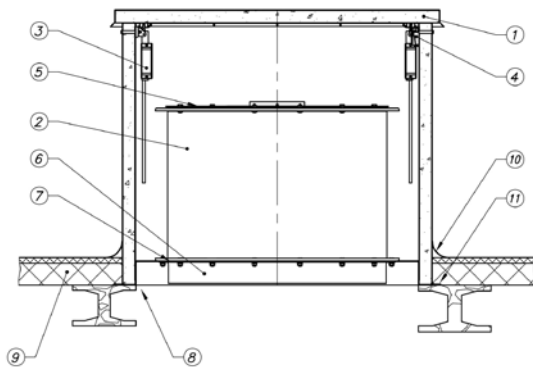
Dimensions in mm



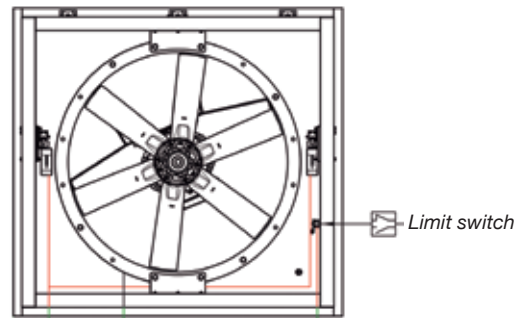
Model	A	B	C	D	ød1	E	F	H	H1
THT/HATCH-40-2T-1	1100	990	1022	920	400	1100	1000	1200	1260
THT/HATCH-40-2T-1'5	1100	990	1022	920	400	1100	1000	1200	1260
THT/HATCH-45-2T-2	1100	990	1022	920	450	1100	1000	1200	1260
THT/HATCH-45-2T-3	1100	990	1022	920	450	1100	1000	1200	1260
THT/HATCH-50-2T-2	1100	990	1022	920	500	1100	1000	1200	1260
THT/HATCH-50-2T-3	1100	990	1022	920	500	1100	1000	1200	1260
THT/HATCH-50-2T-4	1100	990	1022	920	500	1100	1000	1200	1260
THT/HATCH-50-2T-5'5	1100	990	1022	920	500	1100	1000	1200	1260
THT/HATCH-56-2T-5'5	1100	990	1022	920	560	1100	1000	1200	1260
THT/HATCH-56-2T-7'5	1100	990	1022	920	560	1100	1000	1200	1260
THT/HATCH-56-4T-2	1100	990	1022	920	560	1100	1000	1200	1260
THT/HATCH-63-4T-3	1295	1195	1222	1122	630	1300	1200	1200	1260
THT/HATCH-63-4T-4	1295	1195	1222	1122	630	1300	1200	1200	1260
THT/HATCH-63-6T-1	1295	1195	1222	1122	630	1300	1200	1200	1260
THT/HATCH-80-4T-3	1295	1195	1222	1122	800	1300	1200	1200	1260

Model	A	B	C	D	ød1	E	F	H	H1
THT/HATCH-80-4T-4	1295	1195	1222	1122	800	1300	1200	1200	1260
THT/HATCH-80-4T-5'5	1295	1195	1222	1122	800	1300	1200	1200	1260
THT/HATCH-80-4T-7'5	1295	1195	1222	1122	800	1300	1200	1200	1260
THT/HATCH-80-6T-1'5	1295	1195	1222	1122	800	1300	1200	1200	1260
THT/HATCH-80-6T-2	1295	1195	1222	1122	800	1300	1200	1200	1260
THT/HATCH-90-4T-7'5	1492	1392	1420	1320	900	1500	1400	1200	1260
THT/HATCH-90-4T-10	1492	1392	1420	1320	900	1500	1400	1200	1260
THT/HATCH-90-4T-15	1492	1392	1420	1320	900	1500	1400	1200	1260
THT/HATCH-90-6T-3	1492	1392	1420	1320	900	1500	1400	1200	1260
THT/HATCH-90-6T-4	1492	1392	1420	1320	900	1500	1400	1200	1260
THT/HATCH-100-4T-10	1492	1392	1420	1320	1000	1500	1400	1200	1260
THT/HATCH-100-4T-15	1492	1392	1420	1320	1000	1500	1400	1200	1260
THT/HATCH-100-4T-20	1492	1392	1420	1320	1000	1500	1400	1200	1260
THT/HATCH-100-6T-5'5	1492	1392	1420	1320	1000	1500	1400	1200	1260
THT/HATCH-100-6T-7'5	1492	1392	1420	1320	1000	1500	1400	1200	1260

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

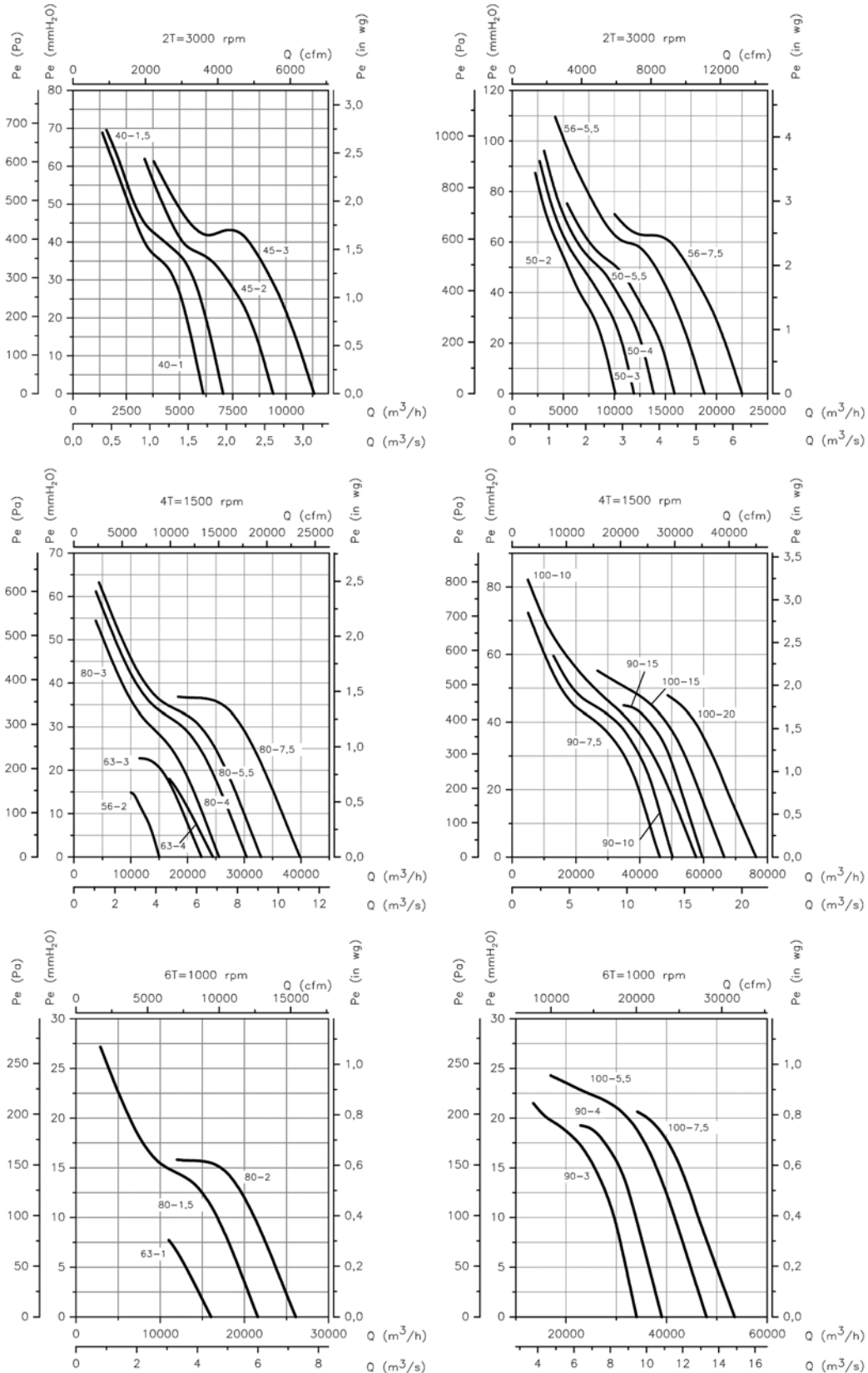
— Pre-installation supplied by the manufacturer
 - - - To be carried out by the installation technician

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.



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