

# HATCH/HP

*Dynamic smoke exhaust ventilators with high thermal efficiency enclosure*



Dynamic ventilators with high thermal performance enclosure, completely airtight and hermetic, with thermal break and motorised opening. Equipped with roof extractor for smoke evacuation in case of fire 400 °C/2h and 300 °C/2h.

#### Enclosure:

- Construction completely free of thermal bridges.
- 60 mm thick refrigerated sandwich panel sides made of two pre-coated steel sheets on the outside and inside with a high-density polyurethane (PUR) core.
- 60 mm thick cover filled with high-density polyurethane (PUR), made of galvanised sheet metal and coated on the outside.
- Adapter socket (or skirting) for correct and easy installation on the roof.
- Air permeability CLASS 4 (UNE-EN 12207).
- Impermeability against driving rain CLASS E 1350 (UNE-EN 12208).
- Resistance to high wind load.
- Thermal resistance of the assembly less than 0.39 W/m<sup>2</sup>·K.
- Airborne acoustic insulation value according to UNE-EN ISO 10140-2: Rw = 32 (-2;-4) dB.

#### Opening system:

- Motorised opening arm, with encapsulated IP65 mechanism.
- Supply voltage at 230 V AC 50/60 Hz.
- System reinforced and guaranteed with more than 20,000 cycles.
- Limit switches in both positions (open and closed).
- Snow load SL 1000.
- Automatic opening by external signal from the control system (fire panel, smoke detector ...). Control systems not included in the equipment.

#### Fan:

- An extremely robust structure that is able to withstand severe weather changes.
- Maintenance switches for actuator and fan disconnection with auxiliary contacts.
- Approved in accordance with standard EN 12101-3, with certifications no.: 0370-CPR-0305 (F400) and 0370-CPR-0973 (F300).
- Tubular casing in sheet steel with polyester resin anti-corrosive treatment.
- Adjustable cast aluminum impeller.
- Shielded power cable with EMC protection.

#### Motor:

- Class H motors for S1 continuous operation and S2 emergency use. With ball bearings and IP55 protection.
- IE3 efficiency motors.
- Three-phase 230/400 V 50 Hz (up to 3 kW) and 400/690 V 50 Hz (powers greater than 3 kW).
- Maximum temperature of air to be carried: S1 -25 °C +40 °C continuous service, also suitable for warm climates with temperatures up to 50 °C. S2 operation, 300 °C/2h, 400 °C/2h.
- Motors can be regulated by frequency inverter, even in an emergency.

#### Finish:

- Anti-corrosion cover made of galvanised sheet steel coated in RAL 7015.
- Aluminium profiles RAL 7015.
- Side panels RAL 7015.

#### On request:

- Motorised opening arm with supply voltage of 24 V DC.
- Exterior coated in any colour from the RAL chart.
- Customised finishes.

## Order code

<b>HATCH/HP</b>	<b>—</b>	<b>63</b>	<b>—</b>	<b>4T</b>	<b>—</b>	<b>3</b>	<b>—</b>	<b>F400</b>
↓		↓		↓	↓	↓		↓
HATCH/HP: Dynamic smoke exhaust ventilators with high thermal efficiency enclosure		Impeller diameter in cm		Number of motor poles 2=3000 r/min 50 Hz 4=1500 r/min 50 Hz 6=1000 r/min 50 Hz	T = Three-phase	Motor power (HP)		F300: 300 °C/2h approved F400: 400 °C/2h approved

## Technical characteristics

Model	Speed (r/min)	Maximum admissible current (A)			Installed power (kW)	Blade tilt angle (°)	Maximum flow rate (m³/h)	Sound pressure level <sup>1</sup> dB (A)		Approx. weight (Kg)
		230V	400V	690V				Inlet	Exhaust	
HATCH/HP-40-2T-1 IE3	2850	2.76	1.59		0.75	16	6100	62	62	184
HATCH/HP-40-2T-1.5 IE3	2880	3.93	2.26		1.10	20	7040	61	61	188
HATCH/HP-45-2T-2 IE3	2880	4.91	2.84		1.50	16	9400	61	61	193
HATCH/HP-45-2T-3 IE3	2840	7.14	4.13		2.20	22	11325	61	61	194
HATCH/HP-50-2T-4 IE3	2880	9.61	5.52		3.00	16	13860	66	66	206
HATCH/HP-56-2T-5.5 IE3	2870		7.20	4.17	4.00	16	18820	68	68	226
HATCH/HP-56-2T-7.5 IE3	2910		10.10	5.80	5.50	22	22510	68	68	237
HATCH/HP-63-4T-3 IE3	1425	7.86	4.52		2.20	32	22170	58	58	262
HATCH/HP-63-4T-4 IE3	1430	11.01	6.33		3.00	38	24240	59	59	271
HATCH/HP-63-6T-1 IE3	940	3.36	1.93		0.75	38	15890	48	48	252
HATCH/HP-80-4T-3 IE3	1425	7.86	4.52		2.20	12	25460	65	65	280
HATCH/HP-80-4T-4 IE3	1430	11.01	6.33		3.00	16	30270	64	64	289
HATCH/HP-80-4T-5.5 IE3	1440		7.95	4.61	4.00	18	32770	63	63	295
HATCH/HP-80-4T-7.5 IE3	1460		10.40	6.04	5.50	26	39640	63	63	311
HATCH/HP-80-6T-1.5 IE3	945	4.73	2.72		1.10	18	21470	53	53	279
HATCH/HP-80-6T-2 IE3	945	6.25	3.62		1.50	26	25970	54	54	288
HATCH/HP-90-4T-7.5 IE3	1460		10.40	6.04	5.50	18	46140	67	67	392
HATCH/HP-90-4T-10 IE3	1460		14.20	8.17	7.50	22	50140	66	66	403
HATCH/HP-90-4T-15 IE3	1460		20.70	11.99	11.00	30	59390	68	68	456
HATCH/HP-90-6T-3 IE3	950	9.78	5.62		2.20	24	34000	56	56	365
HATCH/HP-90-6T-4 IE3	970	12.80	6.36		3.00	30	38910	59	59	391
HATCH/HP-100-4T-10 IE3	1460		14.20	8.17	7.50	16	57420	69	69	413
HATCH/HP-100-4T-15 IE3	1460		20.70	11.99	11.00	22	66300	69	69	466
HATCH/HP-100-4T-20 IE3	1460		27.80	16.03	15.00	28	76160	70	70	481
HATCH/HP-100-4T/9-25 IE3	1475		35.40	20.39	18.50	26	70620	70	70	535
HATCH/HP-100-4T/9-30 IE3	1475		42.20	24.44	22.00	30	74840	72	72	552
HATCH/HP-100-6T-5.5 IE3	970		8.37	4.82	4.00	26	47780	60	60	413
HATCH/HP-100-6T-7.5 IE3	970		12.30	7.07	5.50	32	53520	62	62	420

<sup>1</sup> The noise level values are pressures in dB(A) measured at a distance of 10 metres in a free field.

## Technical characteristics of the dynamic exhaust system based on standard EN 12101-3

Model	Approval (°C)	Opening time	Wind load (Pa)	Snow load (Pa)
HATCH/HP	F300/2h and F400/2h	<30 s	WL 200	SL 1000



### Erp. (Energy Related Products)

Information on Directive 2009/125/EC can be downloaded from the SODECA website or the QuickFan selector programme.

## Acoustic characteristics

The values given are obtained under laboratory conditions according to ISO 3744.  
Sound power spectrum L<sub>w</sub>(A) in dB(A) per Hz frequency band

Values measured at inlet with maximum flow rate

	63	125	250	500	1000	2000	4000	8000
40-2-1	48	64	76	84	89	87	83	76
40-2-1.5	47	63	75	83	88	86	82	75
45-2-2	47	60	74	86	87	86	82	74
45-2-3	47	64	74	81	88	86	83	75
50-2-4	58	74	84	91	92	89	88	89
56-2-5.5	53	66	84	92	94	93	88	81
56-2-7.5	53	66	84	92	94	93	88	81
63-4-3	56	68	77	83	83	83	77	69
63-4-4	57	69	78	84	84	84	78	70
63-6-1	49	59	69	73	74	72	65	57
80-4-3	55	71	84	91	91	88	82	74
80-4-4	54	70	83	90	90	87	81	73
80-4-5.5	53	69	82	89	89	86	80	72
80-4-7.5	53	69	82	89	89	86	80	72
80-6-1.5	53	68	75	78	79	76	70	62
80-6-2	59	69	75	79	80	78	73	65
90-4-7.5	59	75	86	92	93	91	86	78

Values measured at exhaust with maximum flow rate

	63	125	250	500	1000	2000	4000	8000
40-2-1	48	64	76	84	89	87	83	76
40-2-1.5	47	63	75	83	88	86	82	75
45-2-2	47	60	74	86	87	86	82	74
45-2-3	47	64	74	81	88	86	83	75
50-2-4	58	74	84	91	92	89	88	89
56-2-5.5	53	66	84	92	94	93	88	81
56-2-7.5	53	66	84	92	94	93	88	81
63-4-3	56	68	77	83	83	83	77	69
63-4-4	57	69	78	84	84	84	78	70
63-6-1	49	59	69	73	74	72	65	57
80-4-3	55	71	84	91	91	88	82	74
80-4-4	54	70	83	90	90	87	81	73
80-4-5.5	53	69	82	89	89	86	80	72
80-4-7.5	53	69	82	89	89	86	80	72
80-6-1.5	53	68	75	78	79	76	70	62
80-6-2	59	69	75	79	80	78	73	65
90-4-7.5	59	75	86	92	93	91	86	78

## Acoustic characteristics

The values given are obtained under laboratory conditions according to ISO 3744.  
Sound power spectrum  $L_w(A)$  in dB(A) per Hz frequency band

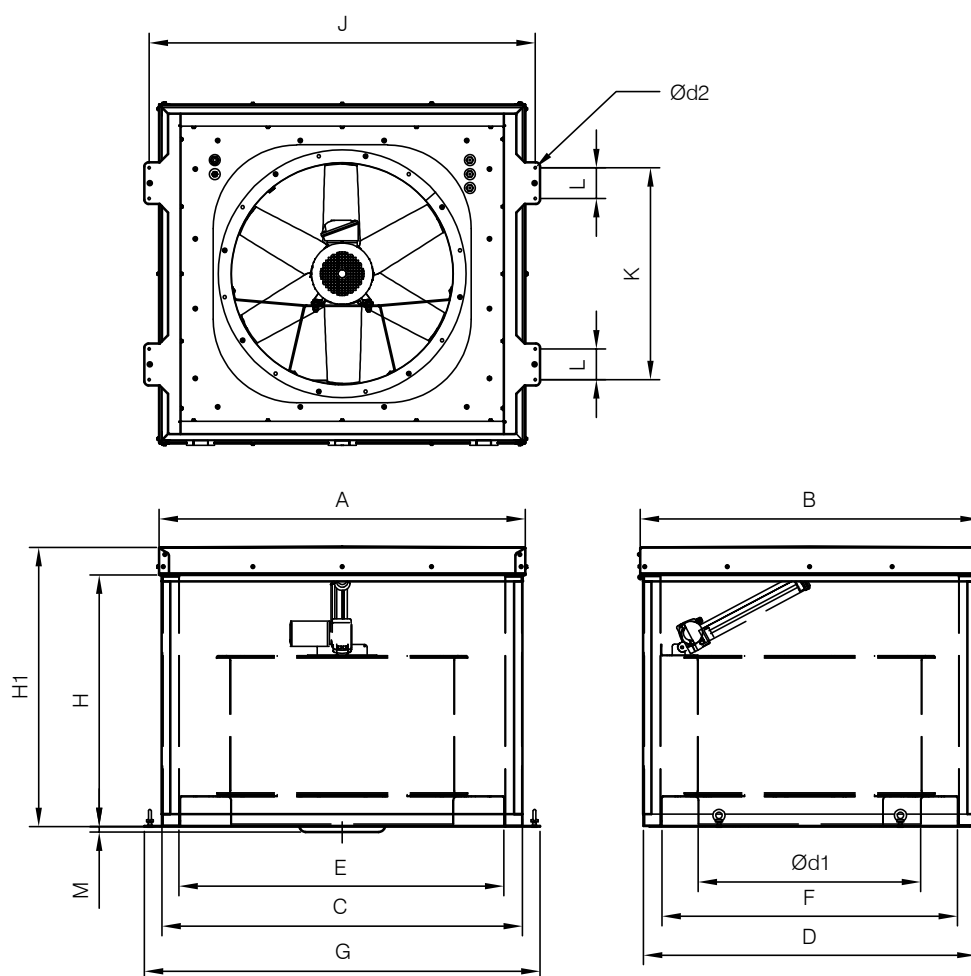
Values measured at inlet with maximum flow rate

	63	125	250	500	1000	2000	4000	8000
90-4-10	58	74	85	91	92	90	85	77
90-4-15	60	76	87	93	94	92	87	79
90-6-3	52	67	78	82	82	78	71	63
90-6-4	60	70	80	85	85	82	76	68
100-4-10	64	80	87	94	95	93	89	81
100-4-15	71	83	87	93	94	94	91	83
100-4-20	72	84	88	94	95	95	92	84
100-4/9-25	72	84	88	94	95	95	92	84
100-4/9-30	74	86	90	96	97	97	94	86
100-6-5.5	57	72	82	85	86	83	75	67
100-6-7.5	59	74	84	87	88	85	77	69

Values measured at exhaust with maximum flow rate

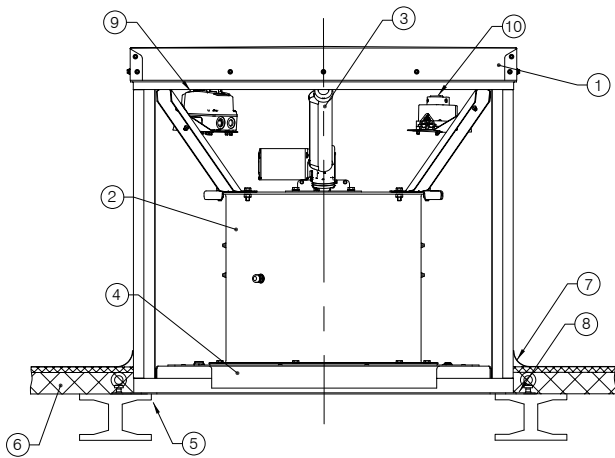
	63	125	250	500	1000	2000	4000	8000
90-4-10	58	74	85	91	92	90	85	77
90-4-15	60	76	87	93	94	92	87	79
90-6-3	52	67	78	82	82	78	71	63
90-6-4	60	70	80	85	85	82	76	68
100-4-10	64	80	87	94	95	93	89	81
100-4-15	71	83	87	93	94	94	91	83
100-4-20	72	84	88	94	95	95	92	84
100-4/9-25	72	84	88	94	95	95	92	84
100-4/9-30	74	86	90	96	97	97	94	86
100-6-5.5	57	72	82	85	86	83	75	67
100-6-7.5	59	74	84	87	88	85	77	69

## Dimensions mm

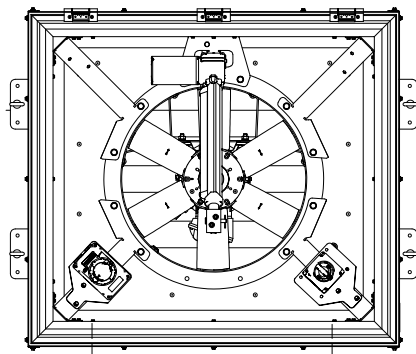


	A	B	C	D	$\varnothing d1$	$\varnothing d2$	E	F	G	H	H1	J	K	L	M
HATCH/HP-40	1120	1010	1100	990	400	10	960	850	1225	900	1000	1180	560	110	-
HATCH/HP-45	1120	1010	1100	990	450	10	960	850	1225	900	1000	1180	560	110	-
HATCH/HP-50	1120	1010	1100	990	500	10	960	850	1225	900	1000	1180	560	110	-
HATCH/HP-56	1120	1010	1100	990	560	10	960	850	1225	900	1000	1180	560	110	-
HATCH/HP-63	1315	1215	1295	1195	630	10	1155	1055	1420	900	1000	1385	760	110	-
HATCH/HP-80	1315	1215	1295	1195	800	10	1155	1055	1420	900	1000	1385	760	110	-
HATCH/HP-90	1520	1420	1500	1400	900	10	1360	1260	1625	900	1000	1560	760	110	-
HATCH/HP-90-4T-15	1520	1420	1500	1400	900	10	1360	1260	1625	900	1000	1560	760	110	40
HATCH/HP-100	1520	1420	1500	1400	1000	10	1360	1260	1625	900	1000	1560	760	110	-
HATCH/HP-100-4T-15	1520	1420	1500	1400	1000	10	1360	1260	1625	900	1000	1560	760	110	80
HATCH/HP-100-4T-20	1520	1420	1500	1400	1000	10	1360	1260	1625	900	1000	1560	760	110	80
HATCH/HP-100-4T/9-25	1520	1420	1500	1400	1000	10	1360	1260	1625	900	1000	1560	760	110	125
HATCH/HP-100-4T/9-30	1520	1420	1500	1400	1000	10	1360	1260	1625	900	1000	1560	760	110	125

## Installation diagram



1. Box HATCH/HP
2. THT fan
3. Motorised arm (230 V AC or 24 V DC)
4. Connection flange in inlet conduit
5. Roof opening
6. Roof
7. Protection against water entry
8. Direct assembly using the adjustable baseboard
9. Motor safety switch
10. Actuator safety switch



--- Pre-installed by the manufacturer

Note: For motors with powers greater than 5.5 kW it is advisable to use an electronic starter.

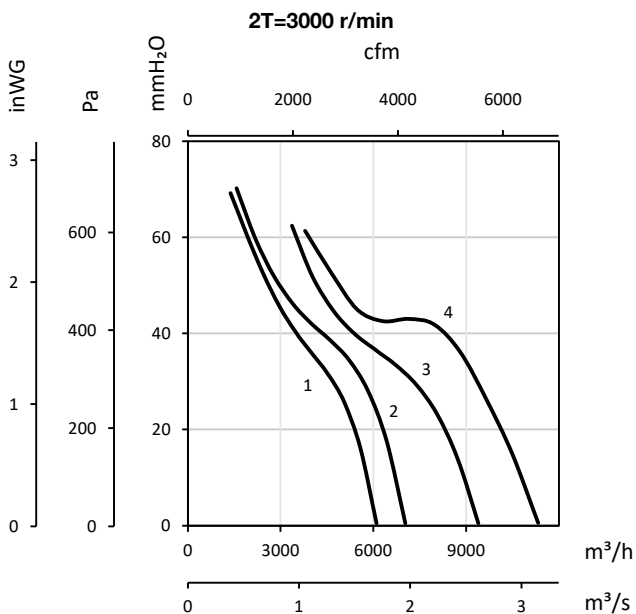
Motor power supply  
3x400 V 50 Hz

Actuator power supply 1x230 V  
50/60 Hz or 24 V DC

## Characteristic curves

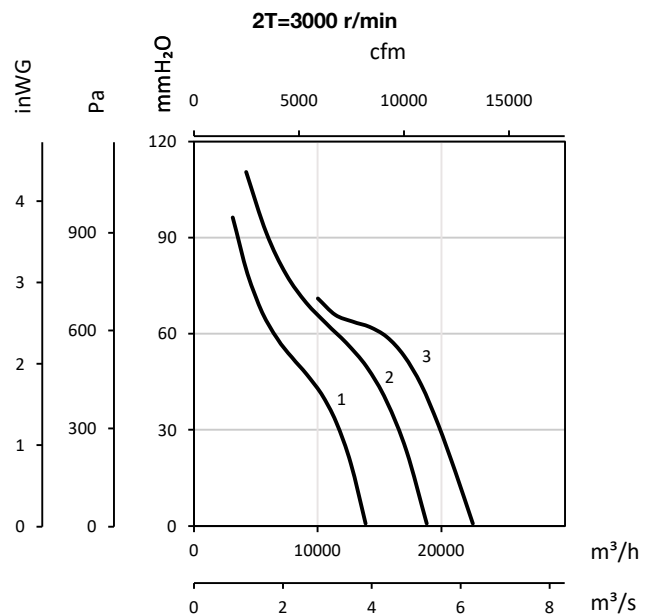
Q= Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm

Pe= Static pressure in mm H<sub>2</sub>O, Pa and inWG



1 : HATCH/HP-40-2T-1  
2 : HATCH/HP-40-2T-1.5

3 : HATCH/HP-45-2T-2  
4 : HATCH/HP-45-2T-3



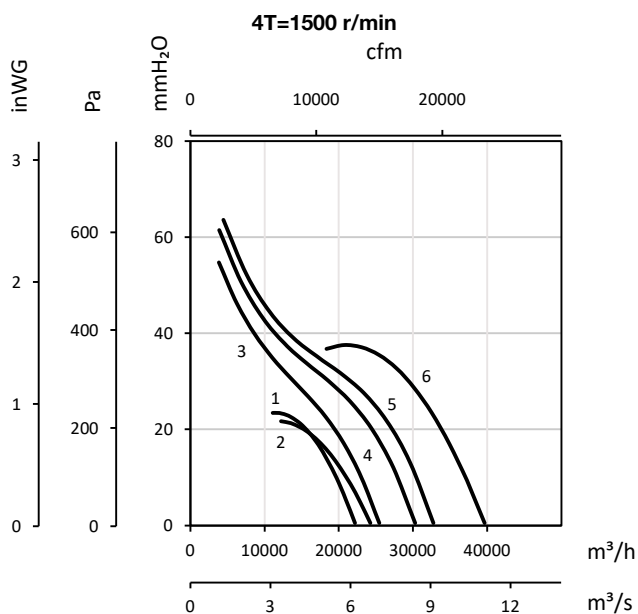
1 : HATCH/HP-50-2T-4  
2 : HATCH/HP-56-2T-5.5

3 : HATCH/HP-56-2T-7.5

### Characteristic curves

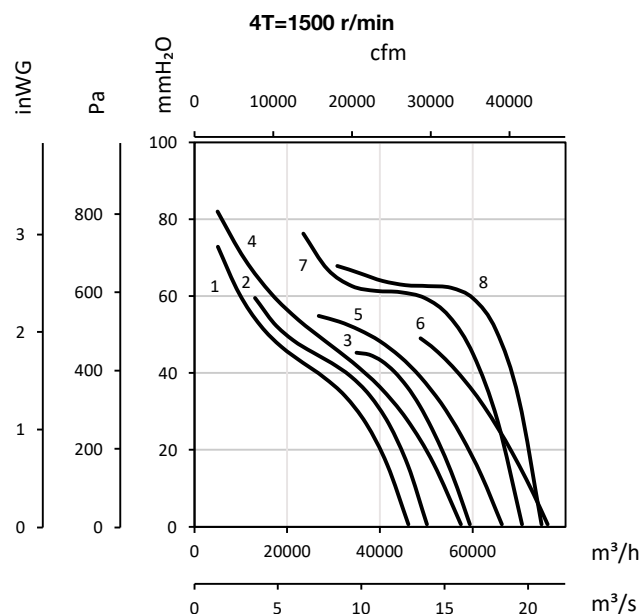
Q= Flow rate in m<sup>3</sup>/h, m<sup>3</sup>/s and cfm

Pe= Static pressure in mm H<sub>2</sub>O, Pa and inwg



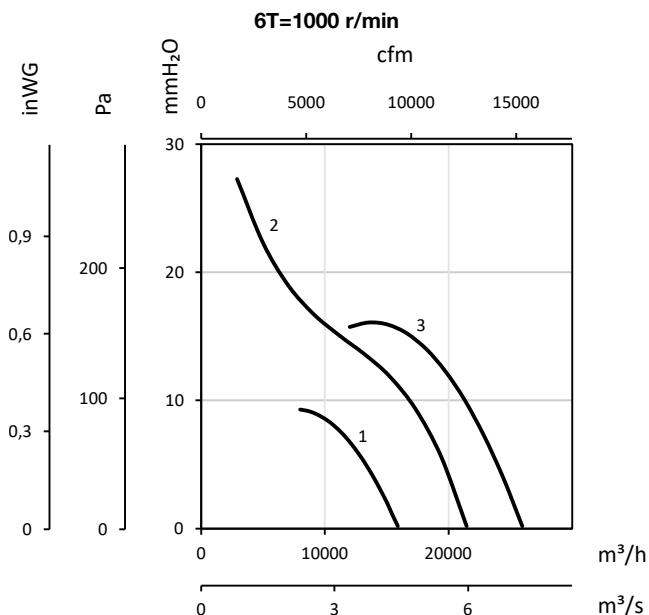
1 : HATCH/HP-63-4T-3  
2 : HATCH/HP-63-4T-4  
3 : HATCH/HP-80-4T-3

4 : HATCH/HP-80-4T-4  
5 : HATCH/HP-80-4T-5.5  
6 : HATCH/HP-80-4T-7.5



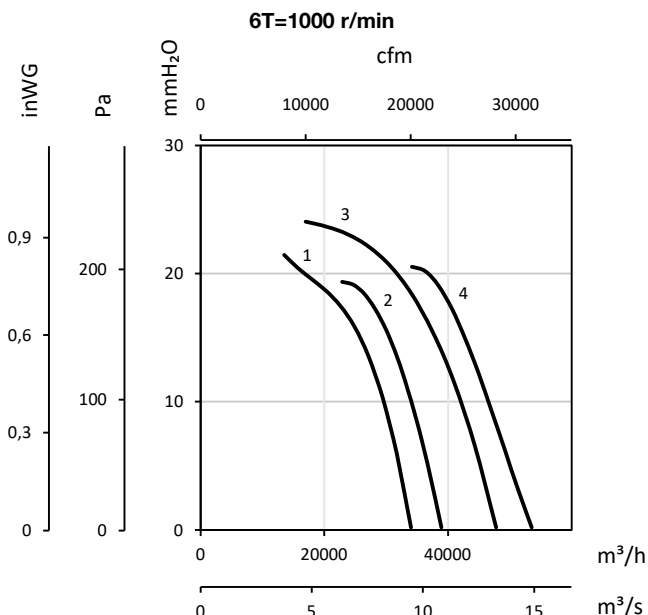
1 : HATCH/HP-90-4T-7.5  
2 : HATCH/HP-90-4T-10  
3 : HATCH/HP-90-4T-15  
4 : HATCH/HP-100-4T-10

5 : HATCH/HP-100-4T-15  
6 : HATCH/HP-100-4T-20  
7 : HATCH/HP-100-4T/9-25  
8 : HATCH/HP-100-4T/9-30



1 : HATCH/HP-63-6T-1  
2 : HATCH/HP-80-6T-1.5

3 : HATCH/HP-80-6T-2



1 : HATCH/HP-90-6T-3  
2 : HATCH/HP-90-6T-4

3 : HATCH/HP-100-6T-5.5  
4 : HATCH/HP-100-6T-7.5

### Accessories



IAT



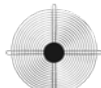
CABLE BOX



VSD3/A-RFT  
- VSD1/A-RFM



FRIDGE/FLAP



RT



PV



B



BTUB