

# 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.
- Adaptable skirting for correct, easy installation on the roof.
- Air permeability CLASS 4 (UNE-EN 12207).
- Impermeability against driving rain.
- Resistance to high wind load.
- Thermal resistance of the assembly less than 0.39 W/m<sup>2</sup>·K.

#### 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 as a whole in accordance with standard EN 12101-3.
- 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>63</b>               | — | <b>4T</b>   | —               | <b>3</b>         | — | <b>F400</b>  |
| ↓  |   | ↓                       |   | ↓   | ↓               | ↓                |   | ↓  |
| HATCH/HP: Dynamic smoke exhaust ventilators with high thermal efficiency enclosure |   | Impeller diameter in cm |   | Number of motor poles<br>2=3000 r/min 50 Hz<br>4=1500 r/min 50 Hz<br>6=1000 r/min 50 Hz | T = Three-phase | Motor power (HP) |   | F300: 300 °C/2h approved<br>F400: 400 °C/2h approved |

## Technical characteristics

| Model                    | Speed<br>(r/min) | Maximum admissible current (A) |       |       | Installed power<br>(kW) | Blade tilt angle<br>(°) | Maximum flow rate<br>(m³/h) | Sound pressure level <sup>1</sup><br>dB (A) |         | Approx. weight<br>(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-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                       | 69  | 69      | 535                    |
| HATCH/HP-100-4T/9-30 IE3 | 1475             |                                | 42.20 | 24.44 | 22.00                   | 30                      | 74840                       | 71  | 71      | 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 standards EN-12101-3

| Model    | Approval            | Opening time | Wind load | Snow load |
|----------|---------------------|--------------|-----------|-----------|
|          | (°C)                |              | (Pa)      | (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

### Sound power spectrum Lw(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   |

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   |

## Acoustic characteristics

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

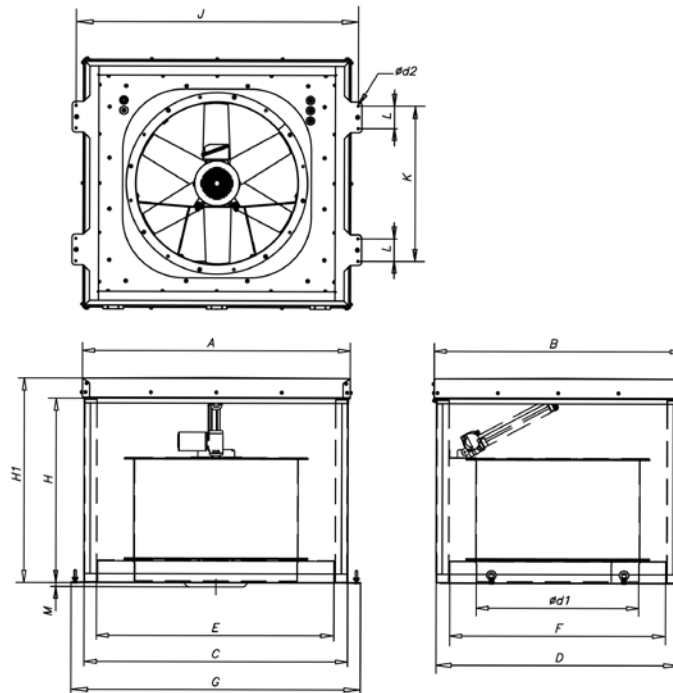
Values measured at inlet with maximum flow rate

|            | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|------------|----|-----|-----|-----|------|------|------|------|
| 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   |
| 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 | 71 | 83  | 87  | 93  | 94   | 94   | 91   | 83   |
| 100-4/9-30 | 73 | 85  | 89  | 95  | 96   | 96   | 93   | 85   |
| 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

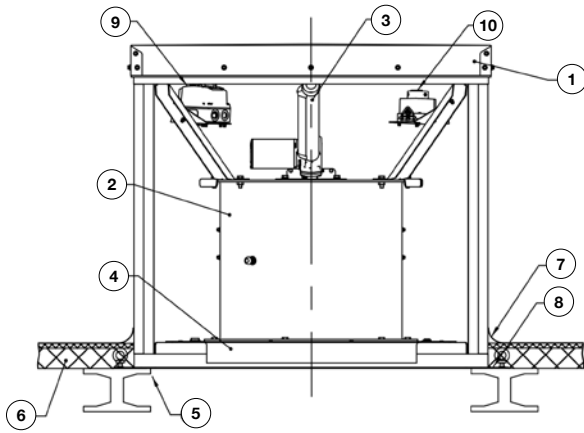
|            | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|------------|----|-----|-----|-----|------|------|------|------|
| 63-6-1     | 49 | 59  | 69  | 73  | 74   | 72   | 65   | 57   |
| 80-4-3     | 55 | 71  | 84  | 91  | 91   | 88   | 82   | 74   |
| 80-4-4     | 54 | 70  | 83  | 90  | 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   |
| 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 | 71 | 83  | 87  | 93  | 94   | 94   | 91   | 83   |
| 100-4/9-30 | 73 | 85  | 89  | 95  | 96   | 96   | 93   | 85   |
| 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

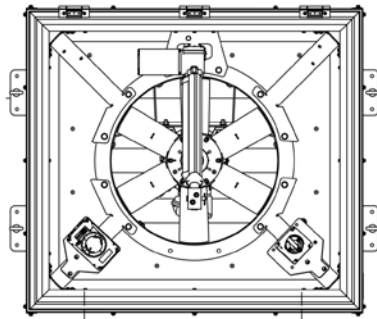


|                       | A    | B    | C    | D    | ød1  | ød2 | E    | F    | G    | H   | H1   | J    | K   | L   | M   |
|-----------------------|------|------|------|------|------|-----|------|------|------|-----|------|------|-----|-----|-----|
| THT/HATCH-40          | 1120 | 1010 | 1100 | 990  | 400  | 10  | 960  | 850  | 1225 | 900 | 1000 | 1180 | 560 | 110 |     |
| THT/HATCH-45          | 1120 | 1010 | 1100 | 990  | 450  | 10  | 960  | 850  | 1225 | 900 | 1000 | 1180 | 560 | 110 |     |
| THT/HATCH-50          | 1120 | 1010 | 1100 | 990  | 500  | 10  | 960  | 850  | 1225 | 900 | 1000 | 1180 | 560 | 110 |     |
| THT/HATCH-56          | 1120 | 1010 | 1100 | 990  | 560  | 10  | 960  | 850  | 1225 | 900 | 1000 | 1180 | 560 | 110 |     |
| THT/HATCH-63          | 1315 | 1215 | 1295 | 1195 | 630  | 10  | 1155 | 1055 | 1420 | 900 | 1000 | 1385 | 760 | 110 |     |
| THT/HATCH-80          | 1315 | 1215 | 1295 | 1195 | 800  | 10  | 1155 | 1055 | 1420 | 900 | 1000 | 1385 | 760 | 110 |     |
| THT/HATCH-90          | 1520 | 1420 | 1500 | 1400 | 900  | 10  | 1360 | 1260 | 1625 | 900 | 1000 | 1560 | 760 | 110 |     |
| THT/HATCH-90-4T-15    | 1520 | 1420 | 1500 | 1400 | 900  | 10  | 1360 | 1260 | 1625 | 900 | 1000 | 1560 | 760 | 110 | 40  |
| THT/HATCH-100         | 1520 | 1420 | 1500 | 1400 | 1000 | 10  | 1360 | 1260 | 1625 | 900 | 1000 | 1560 | 760 | 110 |     |
| THT/HATCH-100-4T-15   | 1520 | 1420 | 1500 | 1400 | 1000 | 10  | 1360 | 1260 | 1625 | 900 | 1000 | 1560 | 760 | 110 | 80  |
| THT/HATCH-100-4T-20   | 1520 | 1420 | 1500 | 1400 | 1000 | 10  | 1360 | 1260 | 1625 | 900 | 1000 | 1560 | 760 | 110 | 80  |
| THT/HATCH-100-4T/9-25 | 1520 | 1420 | 1500 | 1400 | 1000 | 10  | 1360 | 1260 | 1625 | 900 | 1000 | 1560 | 760 | 110 | 125 |
| THT/HATCH-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.

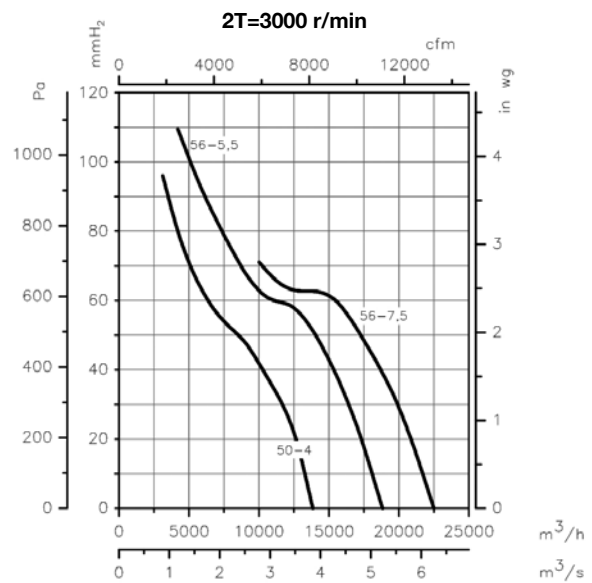
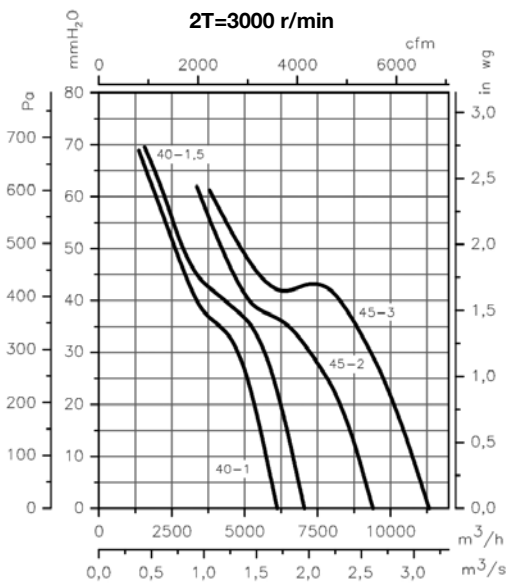
Motor power supply  
3x400 V 50 Hz

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

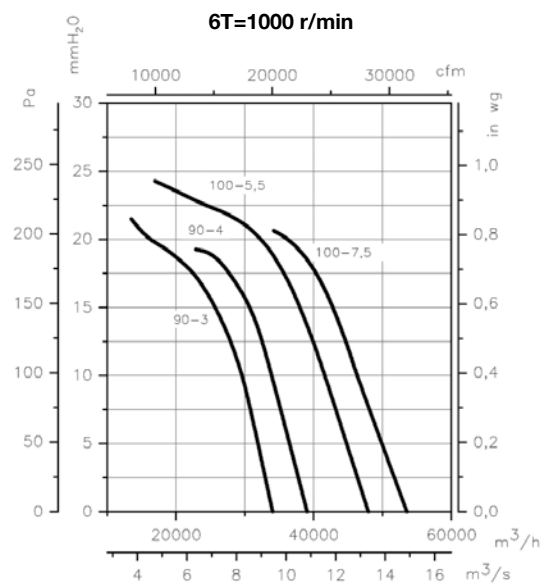
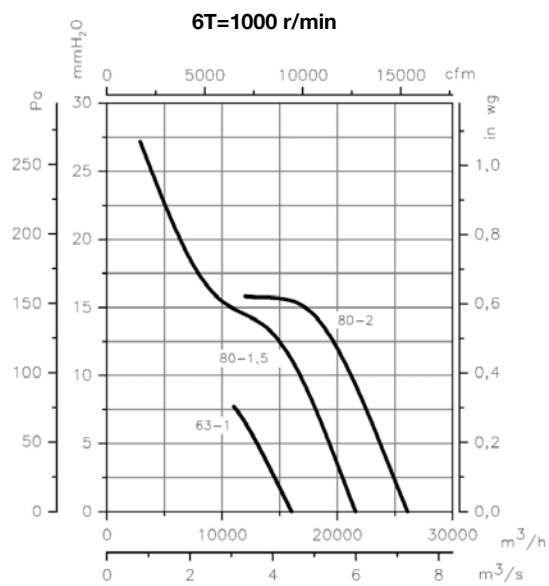
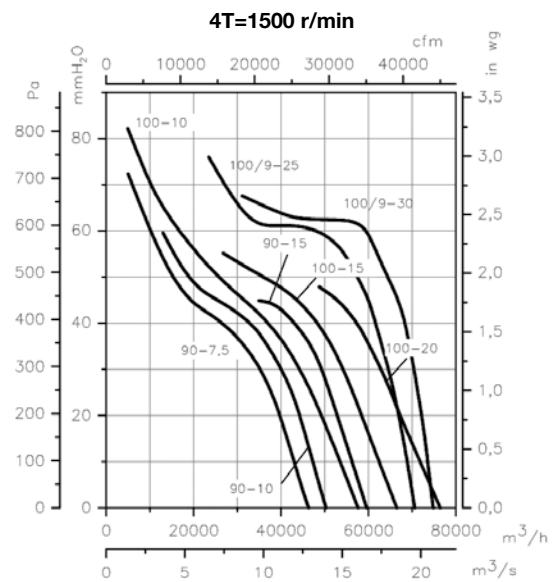
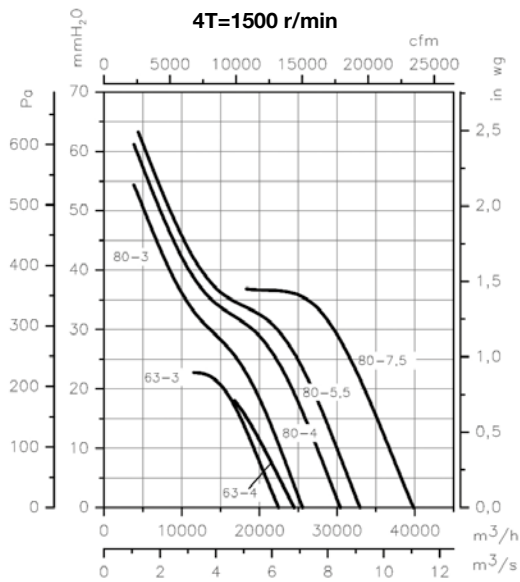
Pe= Static pressure in mm H<sub>2</sub>O, Pa and inwg



## 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



## Accessories



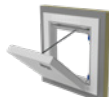
IAT



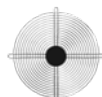
CABLE BOX



VSD3/A-RFT  
- VSD1/A-RFM



FRIDGE/FLAP



RT



PV



B



BTUB