

# HCDF HDF



**HCDF: ATEX Ex d-certified axial extractor fans with square frames**

**HDF: ATEX Ex d-certified axial extractor fans with circular frames**



HCDF



HDF

ATEX-certified, wall-mounted (HCDF) or circular (HDF) axial extractor fans with CEE ExII2G Ex d non-sparking motor for working in explosive atmospheres.

**Fan:**

- Cast aluminium rotor.
- Airflow direction from Motor to Impeller.
- Non-sparking cable gland included.
- HCDF: Support frame in sheet steel with aluminium strip in rotor zone, in accordance with standard EN-14986.
- HCDF: Anti-contact protective grille pursuant to standard UNE-EN ISO 12499.
- HDF: Support ring made of sheet steel with aluminium strip in rotor zone, in accordance with standard EN-14986.

**Motor:**

- ATE-certified, non-sparking Ex"d" IIBT4, class F motors with ball bearings and IP55 protection.
- Multi voltage motor, special design valid for 220/380V 60Hz, 254/440V 60Hz, 265/460V 60Hz, 277/480V 60Hz
- HDF: Operating temperature: -20 °C +40 °C.
- HCDF: Operating temperature: -20 °C +50 °C.



Marking: cEEx II 2G Ex d  
Notified Body: L.O.M.  
Identification no.:  
LOM3ATEX0157

**Finish:**

- Anti-corrosive finish, with non-ferric ATEX paint of polyester resin polymerised at 190 °C, previously degreased with phosphate-free nanotechnological treatment.

**On request:**

- Special windings for different voltages and frequencies.
- ATEX construction for different categories.
- Extractor fans with 2-speed motors.



Aluminium strips to prevent sparking in accordance with standard EN-14986:2006

**Order code**



HCDF: ATEX Ex D-certified axial extractor fans with square frames  
HDF: ATEX Ex D-certified axial extractor fans with square frames

Marking: cEEx II 2G c

Rotor diameter (cm)

Number of motor poles  
4=1680 r/min. 60 Hz  
6=1080 r/min. 60 Hz

T= Three-phase  
M=Single-phase

60Hz

**Technical characteristics**

| Model      | Speed (r/min) | Maximum admissible current (A) |          | Installed power (kW) | Maximum flow rate (m³/h) | Sound pressure level dB(A) | Approx. weight (kg) |
|------------|---------------|--------------------------------|----------|----------------------|--------------------------|----------------------------|---------------------|
|            |               | 220-277                        | 380-480V |                      |                          |                            |                     |
| HCDF-25-4T | 1644          | 0.78                           | 0.45     | 0.09                 | 890                      | 51                         | 6.5                 |
| HCDF-25-4M | 1692          | 0.72                           |          | 0.06                 | 890                      | 51                         | 6.5                 |
| HCDF-31-4T | 1644          | 0.78                           | 0.45     | 0.09                 | 1700                     | 54                         | 7.5                 |
| HCDF-31-4M | 1692          | 0.72                           |          | 0.06                 | 1700                     | 54                         | 7.5                 |
| HCDF-35-4T | 1644          | 0.78                           | 0.45     | 0.09                 | 2950                     | 58                         | 8.5                 |
| HCDF-35-4M | 1692          | 0.72                           |          | 0.06                 | 2950                     | 58                         | 8.5                 |
| HCDF-40-4T | 1704          | 1.3                            | 0.75     | 0.25                 | 4400                     | 63                         | 12.5                |
| HCDF-40-4M | 1680          | 3.25                           |          | 0.25                 | 4400                     | 63                         | 15                  |
| HCDF-45-4T | 1704          | 1.3                            | 0.75     | 0.25                 | 6450                     | 66                         | 14.5                |
| HCDF-45-4M | 1680          | 3.25                           |          | 0.25                 | 6450                     | 66                         | 17                  |
| HCDF-45-6T | 1110          | 0.95                           | 0.55     | 0.12                 | 5200                     | 57                         | 14.5                |
| HCDF-50-4T | 1668          | 1.73                           | 1        | 0.37                 | 8600                     | 69                         | 16.5                |
| HCDF-50-6T | 1104          | 1.56                           | 0.9      | 0.18                 | 6300                     | 59                         | 16                  |
| HCDF-56-4T | 1668          | 3.08                           | 1.78     | 0.55                 | 10500                    | 72                         | 36.5                |
| HCDF-56-6T | 1092          | 1.59                           | 0.92     | 0.25                 | 8400                     | 63                         | 30.5                |
| HDF-63-4T  | 1698          | 4.5                            | 2.6      | 1.1                  | 15100                    | 76                         | 49                  |
| HDF-63-6T  | 1086          | 2.37                           | 1.37     | 0.37                 | 12400                    | 64                         | 36.5                |
| HDF-71-4T  | 1680          | 5.2                            | 3        | 1.1                  | 20000                    | 79                         | 52                  |
| HDF-71-6T  | 1080          | 3.29                           | 1.9      | 0.55                 | 13800                    | 67                         | 43                  |
| HDF-80-4T  | 1680          | 13.86                          | 8        | 3                    | 34100                    | 83                         | 76                  |
| HDF-80-6T  | 1092          | 5.89                           | 3.4      | 1.1                  | 20200                    | 72                         | 65.5                |
| HDF-90-4T  | 1680          | 15.42                          | 8.9      | 4                    | 48200                    | 89                         | 87                  |
| HDF-90-6T  | 1104          | 7.45                           | 4.3      | 1.5                  | 30000                    | 77                         | 83                  |

### Acoustic characteristics

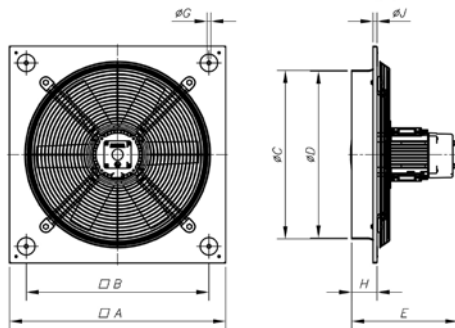
The indicated values are determined by measuring the sound pressure level and sound power in dB(A) obtained in a free field at a distance equivalent to twice the size of the fan plus the rotor diameter, with a minimum of 1.5 m.

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

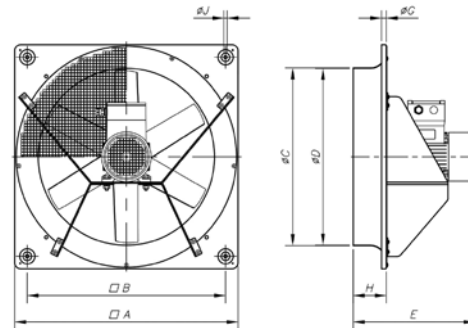
| Model | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | Model | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|-------|----|-----|-----|-----|------|------|------|------|-------|----|-----|-----|-----|------|------|------|------|
| 25    | 22 | 37  | 56  | 55  | 56   | 55   | 50   | 41   | 63-4  | 52 | 66  | 85  | 85  | 86   | 84   | 80   | 71   |
| 31    | 25 | 40  | 59  | 58  | 59   | 58   | 53   | 44   | 63-6  | 40 | 54  | 73  | 73  | 74   | 72   | 68   | 59   |
| 35    | 29 | 44  | 63  | 62  | 63   | 62   | 57   | 48   | 71-4  | 56 | 76  | 84  | 89  | 91   | 88   | 81   | 70   |
| 40    | 34 | 49  | 68  | 67  | 68   | 67   | 62   | 53   | 71-6  | 44 | 64  | 72  | 77  | 79   | 76   | 69   | 58   |
| 45-4  | 37 | 52  | 71  | 70  | 71   | 70   | 65   | 56   | 80-4  | 60 | 80  | 88  | 93  | 95   | 92   | 85   | 74   |
| 45-6  | 28 | 43  | 62  | 61  | 62   | 61   | 56   | 47   | 80-6  | 49 | 69  | 77  | 82  | 84   | 81   | 74   | 63   |
| 50-4  | 43 | 57  | 76  | 76  | 77   | 75   | 71   | 62   | 90-4  | 67 | 88  | 95  | 100 | 103  | 99   | 92   | 81   |
| 56-4  | 46 | 60  | 79  | 79  | 80   | 78   | 74   | 65   | 90-6  | 55 | 76  | 83  | 88  | 91   | 87   | 80   | 69   |
| 56-6  | 37 | 51  | 70  | 70  | 71   | 69   | 65   | 56   |       |    |     |     |     |      |      |      |      |

### Dimensions mm

#### HCDF 25...50

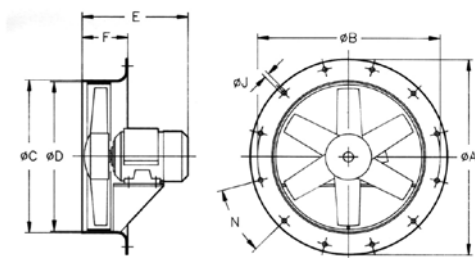


#### HCDF 56



| Model      | A   | B   | ∅C    | ∅D  | E   | G  | H   | ∅I  | ∅J   |
|------------|-----|-----|-------|-----|-----|----|-----|-----|------|
| HCDF-25-4T | 330 | 275 | 262   | 260 | 275 | 11 | 56  | 110 | 8.5  |
| HCDF-25-4M | 330 | 275 | 262   | 260 | 275 | 11 | 56  | 110 | 8.5  |
| HCDF-31-4T | 400 | 336 | 310.5 | 308 | 285 | 11 | 65  | 110 | 10.5 |
| HCDF-31-4M | 400 | 336 | 310.5 | 308 | 285 | 11 | 65  | 110 | 10.5 |
| HCDF-35-4T | 465 | 390 | 362.5 | 360 | 296 | 11 | 76  | 110 | 10.5 |
| HCDF-35-4M | 465 | 390 | 362.5 | 360 | 296 | 11 | 76  | 110 | 10.5 |
| HCDF-40-4T | 532 | 452 | 412.5 | 410 | 335 | 11 | 98  | 136 | 10.5 |
| HCDF-40-4M | 532 | 452 | 412.5 | 410 | 335 | 11 | 98  | 136 | 10.5 |
| HCDF-45-4T | 596 | 504 | 462.5 | 460 | 331 | 11 | 105 | 136 | 10.5 |
| HCDF-45-4M | 596 | 504 | 462.5 | 460 | 331 | 11 | 105 | 136 | 10.5 |
| HCDF-45-6T | 596 | 504 | 462.5 | 460 | 338 | 11 | 105 | 136 | 10.5 |
| HCDF-50-4T | 665 | 562 | 516.5 | 514 | 345 | 11 | 115 | 136 | 10.5 |
| HCDF-56-4T | 710 | 630 | 563   | 560 | 397 | 15 | 115 | -   | 10.5 |
| HCDF-56-6T | 710 | 630 | 563   | 560 | 386 | 15 | 115 | -   | 10.5 |

#### HDF

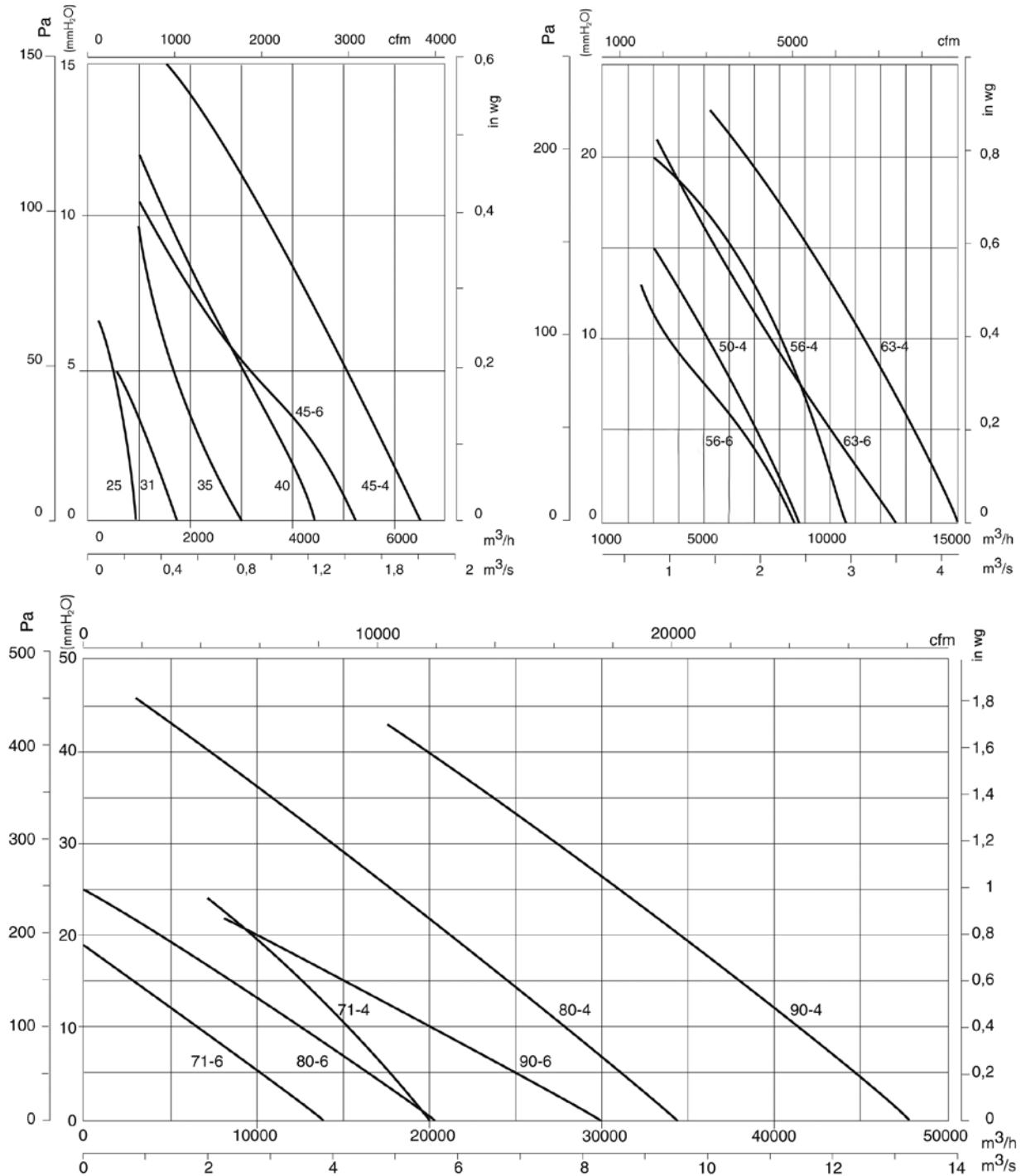


| Model     | ∅A   | ∅B  | ∅C  | D   | E   | F   | ∅J | N         |
|-----------|------|-----|-----|-----|-----|-----|----|-----------|
| HDF-63-4T | 730  | 690 | 645 | 640 | 370 | 150 | 12 | 12x30°    |
| HDF-63-6T | 730  | 690 | 645 | 640 | 330 | 150 | 12 | 12x30°    |
| HDF-71-4T | 810  | 770 | 715 | 710 | 349 | 150 | 12 | 16x22°30' |
| HDF-71-6T | 810  | 770 | 715 | 710 | 323 | 150 | 12 | 16x22°30' |
| HDF-80-4T | 900  | 860 | 805 | 800 | 421 | 180 | 12 | 16x22°30' |
| HDF-80-6T | 900  | 860 | 805 | 800 | 371 | 180 | 12 | 16x22°30' |
| HDF-90-4T | 1015 | 970 | 906 | 900 | 457 | 180 | 15 | 16x22°30' |
| HDF-90-6T | 1015 | 970 | 906 | 900 | 415 | 180 | 15 | 16x22°30' |

**Characteristic curves**

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

Pe= Static pressure in mmH<sub>2</sub>O, Pa and inwg.



**Accessories**



INT

VSD3/A-RFT  
VSD1/A-RFM

CUADROS

P

R

RI

S