

# CMR/ATEX *Robust centrifugal medium-pressure fans fitted with backwards-curved impeller with ATEX certification*



Robust centrifugal single-inlet, medium-pressure fans to work in explosive atmospheres.

**Fan:**

- Steel sheet casing
- Impeller with backward-curved blades made from robust sheet steel
- Anti-spark aspiration ring in copper or aluminium

**Motor:**

- Class F motors, with ball bearings, IP55 protection and ATEX certification, EEx"e" explosion-proof, EEx"d" flame-resistant
- Three-phase 230/400V.-50Hz. (up to 5.5CV) and 400/690V.-50Hz. (power over 5.5CV)
- Max. air temperature to transport: -20°C.+ 80°C.



EEx "e" mark: CE II 2 G. EEx e  
 EEx "d" mark: CE II 2 G. EEx d  
 DIP55 mark: CE II 3 D. IP55  
 DIP65 mark: CE II 2 D. IP65  
 Notified authority: L.O.M.  
 ID:  
 LOM3ATEX147

**Finish:**

- Rust retardant with ATEX paint, free of ferric components, in polyester resin, polymerised at 190°C, with prior alkaline degreasing and with phosphate-free pre-treatment

**On request:**

- Motors with built-in PTC
- Special windings for different voltages and frequencies
- ATEX construction for different categories
- Made from stainless steel

**Order code**

**CMR/ATEX — 1650 — 2T — 5,5 — DIP65**

Robust centrifugal medium-pressure fans, fitted with backward-curved impeller with ATEX certification

EEx "e" mark: CE II 2 G. EEx e  
 EEx "d" mark: CE II 2 G. EEx d  
 DIP55 mark: CE II 3 D. IP55  
 DIP65 mark: CE II 2 D. IP65  
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Impeller 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)

EEx-e: Mark: CE II 2 G. EEx e IIBT3  
 EEx "d" mark: CE II 2 G. EEx d IIBT3  
 DIP55 mark: CE II 3 D. IP55  
 DIP65 mark: CE II 2 D. IP65

**Technical characteristics**

| Model            | Speed (r/min) | Maximum admissible current (A) |       |       | Installed power (kW) | Maximum airflow (m³/h) | Sound pressure level dB(A) | Approx. weight with motor (Kg) |       |
|------------------|---------------|--------------------------------|-------|-------|----------------------|------------------------|----------------------------|--------------------------------|-------|
|                  |               | 230V                           | 400V  | 690V  |                      |                        |                            | EEx-e                          | EEx-d |
| CMR-1240-4T/ATEX | 1410          | 3.81                           | 2.20  |       | 0.75                 | 5800                   | 71                         | 70                             | 84    |
| CMR-1445-2T/ATEX | 2880          |                                | 15.70 | 9.06  | 7.50                 | 16500                  | 87                         | 141                            | 163   |
| CMR-1445-4T/ATEX | 1410          | 5.20                           | 3.00  |       | 1.10                 | 8030                   | 72                         | 93                             | 112   |
| CMR-1650-2T/ATEX | 2930          |                                | 22.00 | 12.70 | 11.00                | 18850                  | 89                         | 178                            | 258   |
| CMR-1650-4T/ATEX | 1400          | 6.93                           | 4.00  |       | 1.50                 | 10500                  | 74                         | 114                            | 134   |
| CMR-1650-6T/ATEX | 930           | 4.16                           | 2.40  |       | 0.75                 | 7410                   | 64                         | 111                            | 130   |
| CMR-1856-4T/ATEX | 1440          | 12.30                          | 7.10  |       | 3.00                 | 15150                  | 79                         | 152                            | 175   |
| CMR-1856-6T/ATEX | 910           | 5.89                           | 3.40  |       | 1.10                 | 10050                  | 70                         | 145                            | 166   |
| CMR-2063-4T/ATEX | 1440          |                                | 12.00 | 6.93  | 5.50                 | 24450                  | 80                         | 225                            | 264   |
| CMR-2063-6T/ATEX | 940           | 7.62                           | 4.40  |       | 1.50                 | 16100                  | 71                         | 209                            | 233   |
| CMR-2271-4T/ATEX | 1460          |                                | 23.80 | 13.74 | 11.00                | 34610                  | 85                         | 315                            | 412   |
| CMR-2271-6T/ATEX | 945           | 14.72                          | 8.50  |       | 3.00                 | 22750                  | 76                         | 280                            | 320   |
| CMR-2380-4T/ATEX | 1465          |                                | 42.00 | 24.00 | 22.00                | 48000                  | 83                         | 416                            | 495   |
| CMR-2380-6T/ATEX | 965           |                                | 16.40 | 9.47  | 7.50                 | 30000                  | 75                         | 363                            | 441   |

Acoustic features

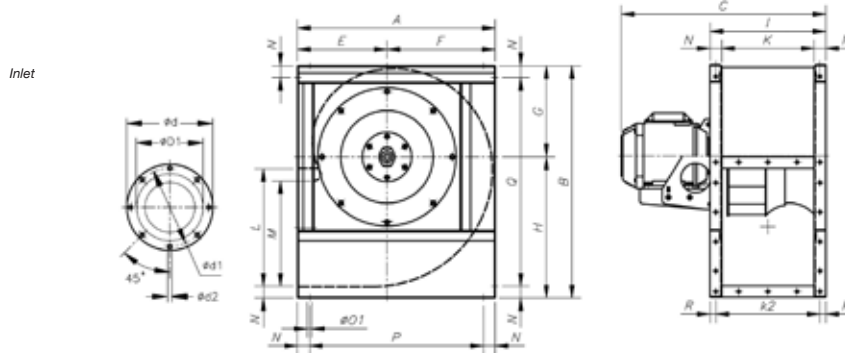
The specified values are determined according to free field measurements of pressure and sound levels in dB(A) at an equivalent distance of twice the fan's span plus the turbine's diameter, with a minimum of 1.5 m.

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

| Model            | Lp dB(A) | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 | Model            | Lp dB(A) | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |
|------------------|----------|----|-----|-----|-----|------|------|------|------|------------------|----------|----|-----|-----|-----|------|------|------|------|
| CMR-1240-4T/ATEX | 71       | 56 | 70  | 76  | 79  | 79   | 80   | 70   | 59   | CMR-1856-6T/ATEX | 70       | 61 | 69  | 81  | 83  | 80   | 81   | 71   | 60   |
| CMR-1445-2T/ATEX | 87       | 73 | 85  | 83  | 95  | 93   | 97   | 99   | 89   | CMR-2063-4T/ATEX | 80       | 80 | 85  | 91  | 93  | 91   | 88   | 81   | 73   |
| CMR-1445-4T/ATEX | 72       | 59 | 72  | 78  | 83  | 80   | 83   | 78   | 64   | CMR-2063-6T/ATEX | 71       | 69 | 70  | 82  | 82  | 81   | 83   | 73   | 63   |
| CMR-1650-2T/ATEX | 89       | 73 | 81  | 85  | 99  | 97   | 99   | 99   | 88   | CMR-2271-4T/ATEX | 85       | 83 | 84  | 93  | 96  | 98   | 99   | 95   | 82   |
| CMR-1650-4T/ATEX | 74       | 64 | 74  | 82  | 84  | 83   | 85   | 76   | 66   | CMR-2271-6T/ATEX | 76       | 73 | 73  | 87  | 86  | 90   | 90   | 79   | 68   |
| CMR-1650-6T/ATEX | 64       | 53 | 65  | 72  | 77  | 73   | 69   | 62   | 54   | CMR-2380-4T/ATEX | 83       | 76 | 78  | 94  | 91  | 96   | 97   | 93   | 82   |
| CMR-1856-4T/ATEX | 79       | 69 | 78  | 91  | 87  | 90   | 91   | 85   | 71   | CMR-2380-6T/ATEX | 75       | 68 | 70  | 86  | 83  | 88   | 89   | 85   | 74   |

Dimensions in mm

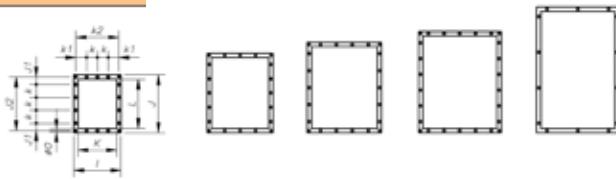
CMR-1240..0,2271



| Model            | EEx-"e" |      | EEx-"d" |       | ØD1* | Ød  | Ød1 | Ød2  | E   | F   | G   | H   | I   | K   | k2  | L   | M   | N  | ØØ1 | P    | Q    | R    |
|------------------|---------|------|---------|-------|------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|------|------|------|
|                  | A       | B    | C       | C     |      |     |     |      |     |     |     |     |     |     |     |     |     |    |     |      |      |      |
| CMR-1240-4T/ATEX | 673     | 790  | 596     | 638   | 400  | 472 | 444 | M.10 | 305 | 368 | 310 | 480 | 395 | 315 | 355 | 400 | 358 | 40 | 11  | 593  | 710  | 20   |
| CMR-1445-2T/ATEX | 765     | 880  | 774     | 857   | 450  | 522 | 494 | M.10 | 350 | 415 | 339 | 541 | 445 | 355 | 405 | 450 | 404 | 45 | 11  | 675  | 790  | 20   |
| CMR-1445-4T/ATEX | 765     | 880  | 679     | 687   | 450  | 522 | 494 | M.10 | 350 | 415 | 339 | 541 | 445 | 355 | 405 | 450 | 404 | 45 | 11  | 675  | 790  | 20   |
| CMR-1650-2T/ATEX | 832     | 970  | 945.5   | 1018  | 500  | 582 | 555 | M.10 | 375 | 457 | 378 | 592 | 490 | 400 | 450 | 500 | 445 | 45 | 13  | 742  | 880  | 20   |
| CMR-1650-4T/ATEX | 832     | 970  | 724.5   | 724.5 | 500  | 582 | 555 | M.10 | 375 | 457 | 378 | 592 | 490 | 400 | 450 | 500 | 445 | 45 | 13  | 742  | 880  | 20   |
| CMR-1650-6T/ATEX | 832     | 970  | 724.5   | 724.5 | 500  | 582 | 555 | M.10 | 375 | 457 | 378 | 592 | 490 | 400 | 450 | 500 | 445 | 45 | 13  | 742  | 880  | 20   |
| CMR-1856-4T/ATEX | 925     | 1084 | 798     | 889   | 560  | 645 | 615 | M.10 | 415 | 510 | 426 | 658 | 550 | 450 | 500 | 560 | 493 | 50 | 13  | 825  | 984  | 25   |
| CMR-1856-6T/ATEX | 925     | 1084 | 780.5   | 809   | 560  | 645 | 615 | M.10 | 415 | 510 | 426 | 658 | 550 | 450 | 500 | 560 | 493 | 50 | 13  | 825  | 984  | 25   |
| CMR-2063-4T/ATEX | 1037    | 1218 | 937     | 1020  | 630  | 720 | 688 | M.10 | 465 | 572 | 477 | 741 | 620 | 500 | 560 | 630 | 530 | 60 | 13  | 917  | 1098 | 30   |
| CMR-2063-6T/ATEX | 1037    | 1218 | 839     | 930   | 630  | 720 | 688 | M.10 | 465 | 572 | 477 | 741 | 620 | 500 | 560 | 630 | 530 | 60 | 13  | 917  | 1098 | 30   |
| CMR-2271-4T/ATEX | 1173    | 1375 | 1129    | 1201  | 710  | 800 | 768 | M.12 | 525 | 648 | 538 | 837 | 690 | 560 | 625 | 710 | 603 | 65 | 13  | 1043 | 1245 | 32.5 |
| CMR-2271-6T/ATEX | 1173    | 1375 | 973     | 1056  | 710  | 800 | 768 | M.12 | 525 | 648 | 538 | 837 | 690 | 560 | 625 | 710 | 603 | 65 | 13  | 1043 | 1245 | 32.5 |

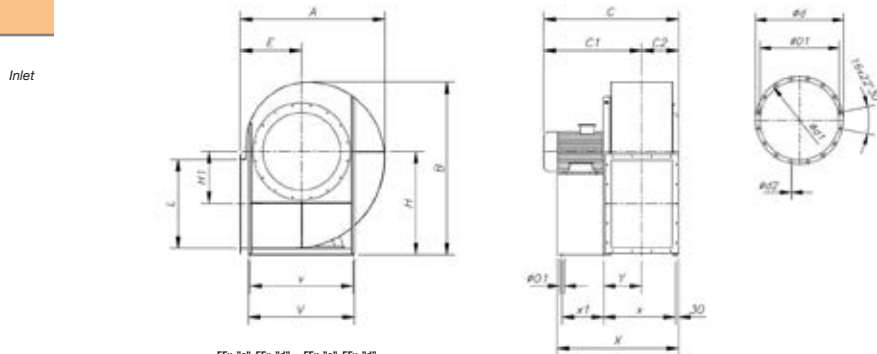
\* Recommended nominal diameter for duct.

CMR-1240...2380



| Model    | I   | J   | J1   | J2  | K   | k   | k1    | k2  | L   | ØØ |
|----------|-----|-----|------|-----|-----|-----|-------|-----|-----|----|
| CMR-1240 | 395 | 480 | 70   | 440 | 315 | 100 | 77.5  | 355 | 400 | 11 |
| CMR-1445 | 445 | 540 | 99   | 498 | 355 | 100 | 102.5 | 405 | 450 | 11 |
| CMR-1650 | 490 | 590 | 87.5 | 550 | 400 | 125 | 100   | 450 | 500 | 13 |
| CMR-1856 | 550 | 660 | 55   | 610 | 450 | 125 | 125   | 500 | 560 | 13 |
| CMR-2063 | 620 | 750 | 95   | 690 | 500 | 125 | 92.5  | 560 | 630 | 13 |
| CMR-2271 | 690 | 840 | 75   | 775 | 560 | 125 | 62.5  | 625 | 710 | 13 |
| CMR-2380 | 680 | 920 | 160  | 871 | 560 | 200 | 140   | 639 | 800 | 14 |

CMR-2380

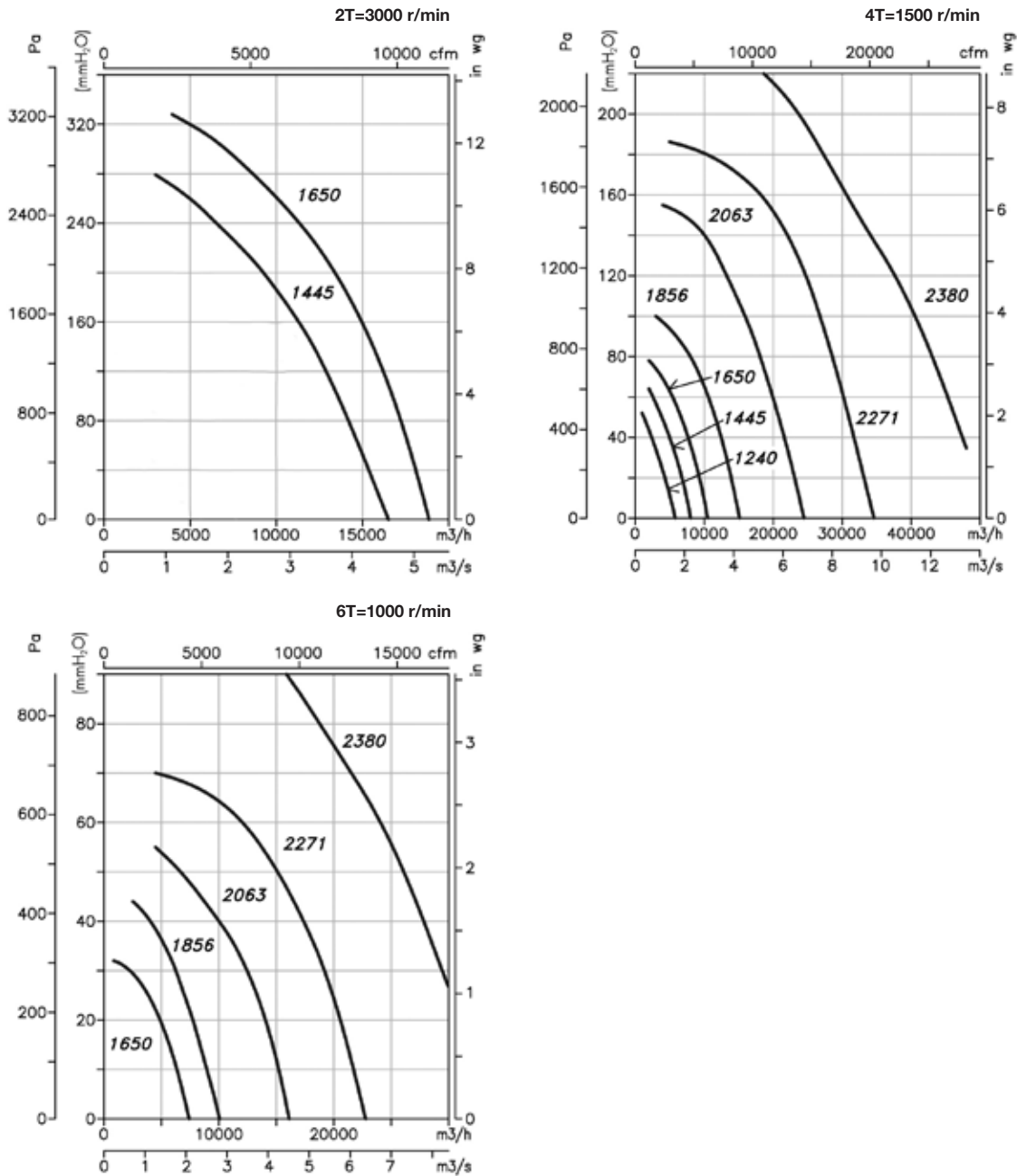


| Model            | EEx-"e" |      | EEx-"d" |     | ØD1* | Ød  | Ød1 | Ød2 | E   | H   | H1   | L   | ØØ1  | V   | v   | X  | x   | x1  | Y      |       |     |       |
|------------------|---------|------|---------|-----|------|-----|-----|-----|-----|-----|------|-----|------|-----|-----|----|-----|-----|--------|-------|-----|-------|
|                  | A       | B    | C       | C1  |      |     |     |     |     |     |      |     |      |     |     |    |     |     |        |       |     |       |
| CMR-2380-4T/ATEX | 1350    | 1660 | 1019    | 733 | 1063 | 777 | 286 | 808 | 906 | 861 | 11.5 | 560 | 1000 | 500 | 800 | 17 | 930 | 870 | 1102.5 | 667.5 | 370 | 352.5 |
| CMR-2380-6T/ATEX | 1350    | 1660 | 590     | 304 | 716  | 430 | 286 | 808 | 906 | 861 | 11.5 | 560 | 1000 | 500 | 800 | 17 | 930 | 870 | 1102.5 | 667.5 | 340 | 352.5 |

**Characteristic Curves**

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

Pe = Static pressure in mm.w.c., Pa and in.wg.



**Positions**

LG 270 standard supply



**Accessories**

See accessories section.

