



**Applus<sup>+</sup>**

- ▶ Certificate of constancy of performance 0370-CPR-1843 for F400 and 0370-CPR-1844 for F300.
- ▶ Functional properties according to EN 12101-3:2002+AC:2005.
- ▶ Reverse operation possible.
- ▶ For vertical and horizontal installation.
- ▶ Available in ATEX explosion-proof version.

### 3.1. use

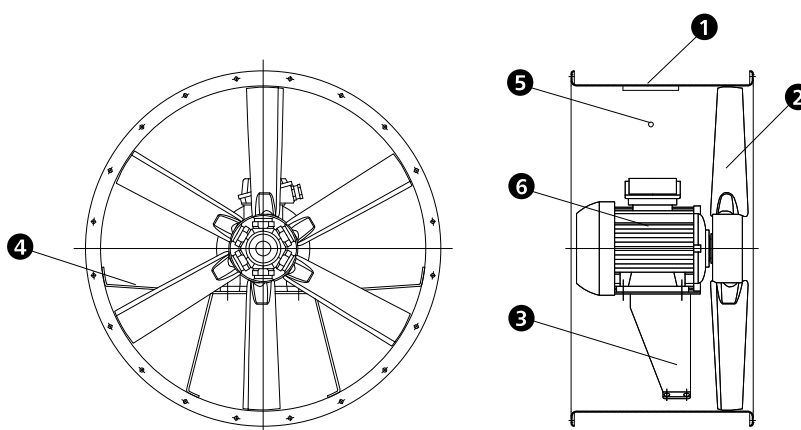
mcr Monsun R axial fans are designed for fire ventilation systems for smoke exhaust and air supply, where reversed operation and explosion-proof design are required, and also for comfort ventilation systems as intake or exhaust fans.

The smoke exhaust fans are designed for removing heat, smoke and combustion gases generated in rooms during fire. They facilitate evacuation of people from area on fire and fire fighting procedures by fire brigades. They also protect the building's structure and equipment against effects of high temperatures and stop fire from spreading to adjacent areas.

The devices can be used indoors and outdoors. The smoke exhaust fans are most often used in civic buildings, shopping malls, boarding houses and industrial halls.

The mcr Monsun R fans can feature two-speed motors and combine comfort ventilation and smoke exhaust functions, e.g. both for ventilation and smoke exhaust in underground garages.

### 3.2. design



1. fan housing
2. axial impeller
3. motor base support
4. motor base
5. electric gland
6. electric motor, fire resistant at the specific temperature class

The fan's housing is made of steel sheet from 2 mm to 6 mm thick depending on the fan size, hot galvanized and powder-coated, cylindrically shaped, with connection flanges for fire/comfort ventilation system. The mcr Monsun's standard version has short housing. The mcr Monsun R/CL fan has long housing and an inspection hatch which permits verification of the impeller sense of rotation.

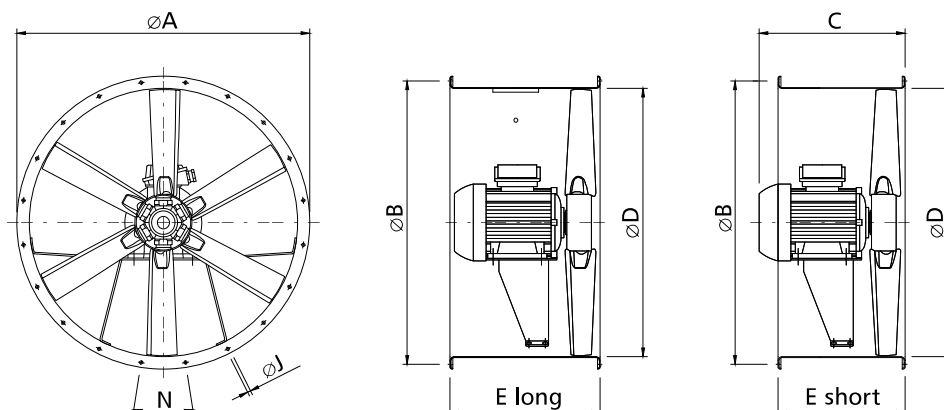
The motor is located and supported by the motor base inside the housing. The impeller with 3, 6 or 9 blades is placed directly on the motor's pirot.

The fan may be equipped with a motor one- or two-speed with different rotational speeds (3000, 1500, 1000, 750 rpm), set on a support fixed to the fan's housing. The motor features insulation class H for continuous operation (S1) and emergency operation (S2). The mechanical protection class is IP 55. The motor's winding is available in two versions: 230/400 V and 400/690 V. Maximum temperatures of the air being transferred is: for S1 from -20°C to +40°C, for S2: 300°C/2h, 400°C/2h. The supply cables are connected directly to motor. The motor is designed for operation with an inverter.

### 3.3. dimensions

Depending on the output or installation location the axial fan mcr Monsun R is available in different housing sizes from D 400 to D 1250 for F400 and from D 400 to D 1600 for F300.

| type             | ØA<br>[mm] | ØB<br>[mm] | C [mm] - depends on the motor size |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      | ØD<br>[mm] | E [mm]  |       | ØJ<br>[mm] | N |
|------------------|------------|------------|------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------------|---------|-------|------------|---|
|                  |            |            |                                    |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |            | housing |       |            |   |
|                  |            |            |                                    |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |            | long    | short |            |   |
| mcr Monsun R 40  | 490        | 450        | 348                                | 364 | 389 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -    | 410  | 400        | 250     | 12    | 8x45'      |   |
| mcr Monsun R 45  | 540        | 500        | 348                                | 364 | 389 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -    | 460  | 400        | 250     | 12    | 8x45'      |   |
| mcr Monsun R 50  | 600        | 560        | 339                                | 364 | 389 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -    | 514  | 400        | 250     | 12    | 12x30'     |   |
| mcr Monsun R 50  | 600        | 560        | -                                  | -   | -   | 419 | 438 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -    | 514  | 500        | 250     | 12    | 12x30'     |   |
| mcr Monsun R 56  | 660        | 620        | 275                                | 364 | 389 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -    | 560  | 400        | 250     | 12    | 12x30'     |   |
| mcr Monsun R 56  | 660        | 620        | -                                  | -   | -   | 416 | 432 | 480 | 518 | -   | -   | -   | -   | -   | -   | -   | -    | 560  | 500        | 250     | 12    | 12x30'     |   |
| mcr Monsun R 56  | 660        | 620        | -                                  | -   | -   | -   | -   | -   | -   | 620 | -   | -   | -   | -   | -   | -   | -    | 560  | 650        | 250     | 12    | 12x30'     |   |
| mcr Monsun R 63  | 730        | 690        | 339                                | 359 | 389 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -    | 640  | 400        | 250     | 12    | 12x30'     |   |
| mcr Monsun R 63  | 730        | 690        | -                                  | -   | -   | 420 | 437 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -    | 640  | 500        | 250     | 12    | 12x30'     |   |
| mcr Monsun R 63  | 730        | 690        | -                                  | -   | -   | -   | -   | 539 | 577 | -   | -   | -   | -   | -   | -   | -   | -    | 640  | 650        | 250     | 12    | 12x30'     |   |
| mcr Monsun R 63  | 730        | 690        | -                                  | -   | -   | -   | -   | -   | -   | 630 | 674 | -   | -   | -   | -   | -   | -    | 640  | 650        | 350     | 12    | 12x30'     |   |
| mcr Monsun R 71  | 810        | 770        | 366                                | 379 | 404 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -    | 710  | 430        | 300     | 12    | 16x22'30'  |   |
| mcr Monsun R 71  | 810        | 770        | -                                  | -   | -   | 438 | 433 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -    | 710  | 500        | 300     | 12    | 16x22'30'  |   |
| mcr Monsun R 80  | 900        | 860        | -                                  | -   | 422 | 456 | 472 | -   | -   | -   | -   | -   | -   | -   | -   | -   | -    | 800  | 500        | 300     | 12    | 16x22'30'  |   |
| mcr Monsun R 80  | 900        | 860        | -                                  | -   | -   | -   | -   | 515 | -   | -   | -   | -   | -   | -   | -   | -   | -    | 800  | 600        | 300     | 12    | 16x22'30'  |   |
| mcr Monsun R 90  | 1015       | 970        | -                                  | -   | -   | 466 | 482 | 525 | 565 | -   | -   | -   | -   | -   | -   | -   | -    | 900  | 600        | 350     | 15    | 16x22'30'  |   |
| mcr Monsun R 100 | 1115       | 1070       | -                                  | -   | -   | -   | 482 | 525 | 565 | -   | -   | -   | -   | -   | -   | -   | -    | 1000 | 600        | 350     | 15    | 16x22'30'  |   |
| mcr Monsun R 100 | 1115       | 1070       | -                                  | -   | -   | -   | -   | -   | -   | 695 | 695 | -   | -   | -   | -   | -   | -    | 1000 | 700        | 450     | 15    | 16x22'30'  |   |
| mcr Monsun R 125 | 1365       | 1320       | -                                  | -   | -   | -   | -   | 561 | 601 | -   | -   | -   | -   | -   | -   | -   | -    | 1250 | 700        | 500     | 15    | 20x18'     |   |
| mcr Monsun R 125 | 1365       | 1320       | -                                  | -   | -   | -   | -   | -   | -   | 695 | 695 | -   | -   | -   | -   | -   | -    | 1250 | 700        | 500     | 15    | 20x18'     |   |
| mcr Monsun R 125 | 1365       | 1320       | -                                  | -   | -   | -   | -   | -   | -   | -   | -   | 740 | 740 | 860 | -   | -   | -    | 1250 | 900        | 500     | 15    | 20x18'     |   |
| mcr Monsun R 125 | 1365       | 1320       | -                                  | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | 907 | -   | -    | 1250 | 1000       | 500     | 15    | 20x18'     |   |
| mcr Monsun R 125 | 1365       | 1320       | -                                  | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | 987 | -    | 1250 | 1000       | 600     | 15    | 20x18'     |   |
| mcr Monsun R 125 | 1365       | 1320       | -                                  | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | 1077 | 1250 | 1200       | 600     | 15    | 20x18'     |   |
| mcr Monsun R 140 | 1515       | 1470       | -                                  | -   | -   | -   | -   | -   | 570 | -   | -   | -   | -   | -   | -   | -   | -    | 1400 | 650        | 400     | 15    | 20x18'     |   |
| mcr Monsun R 140 | 1515       | 1470       | -                                  | -   | -   | -   | -   | -   | -   | -   | 700 | -   | -   | -   | -   | -   | -    | 1400 | 700        | 450     | 15    | 20x18'     |   |
| mcr Monsun R 140 | 1515       | 1470       | -                                  | -   | -   | -   | -   | -   | -   | -   | -   | -   | 765 | -   | -   | -   | -    | 1400 | 900        | 550     | 15    | 20x18'     |   |
| mcr Monsun R 140 | 1515       | 1470       | -                                  | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | 825 | -   | -   | -    | 1400 | 900        | 550     | 15    | 20x18'     |   |
| mcr Monsun R 140 | 1515       | 1470       | -                                  | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | 910 | -   | -    | 1400 | 1000       | 550     | 15    | 20x18'     |   |
| mcr Monsun R 140 | 1515       | 1470       | -                                  | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | 985 | -    | 1400 | 1000       | 600     | 15    | 20x18'     |   |
| mcr Monsun R 160 | 1735       | 1680       | -                                  | -   | -   | -   | -   | -   | 570 | -   | -   | -   | -   | -   | -   | -   | -    | 1600 | 650        | 400     | 19    | 24x15'     |   |
| mcr Monsun R 160 | 1735       | 1680       | -                                  | -   | -   | -   | -   | -   | -   | -   | 700 | -   | -   | -   | -   | -   | -    | 1600 | 700        | 450     | 19    | 24x15'     |   |
| mcr Monsun R 160 | 1735       | 1680       | -                                  | -   | -   | -   | -   | -   | -   | -   | -   | -   | 765 | -   | -   | -   | -    | 1600 | 900        | 550     | 19    | 24x15'     |   |
| mcr Monsun R 160 | 1735       | 1680       | -                                  | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | 825 | -   | -   | -    | 1600 | 1000       | 550     | 19    | 24x15'     |   |
| mcr Monsun R 160 | 1735       | 1680       | -                                  | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | 910 | -   | -    | 1600 | 1000       | 550     | 19    | 24x15'     |   |
| mcr Monsun R 160 | 1735       | 1680       | -                                  | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | 985 | -    | 1600 | 1000       | 600     | 19    | 24x15'     |   |
| mcr Monsun R 160 | 1735       | 1680       | -                                  | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | -   | 1190 | 1600 | 1000       | 700     | 19    | 24x15'     |   |



Motor size depending on power (one-speed)

| speed     | motor power [KM] |       |      |      |      |       |       |       |      |      |        |        |        |        |        |        |        |        |
|-----------|------------------|-------|------|------|------|-------|-------|-------|------|------|--------|--------|--------|--------|--------|--------|--------|--------|
| r/min     | 0.75             | 1     | 1.5  | 2    | 3    | 4     | 5.5   | 7.5   | 10   | 15   | 20     | 25     | 30     | 40     | 50     | 60     | 75     | 100    |
| 2T (3000) | 80               | 80    | 80   | 90S  | 90L  | 100LB | 112M  | 132S  | 132S | 160M | 160M   | 180M   | 180L   | 200L   | 225S/M | 225S/M | 250S/M | 250S/M |
| 4T (1500) | 90S              | 90S   | 90S  | 90L  | 100L | 100LB | 112M  | 132S  | 132M | 160M | 160L   | 180M   | 180L   | 200L   | 225S/M | 225S/M | 250S/M | 250S/M |
| 6T (1000) | 90S              | 90S   | 90L  | 100L | 112M | 132S  | 132MA | 132MB | 100M | 160L | 160L   | 200MLA | 200MLB | 225SMB | 250S/M | 280S/M | 280S/M | -      |
| 8T (750)  | 90L              | 100LA | 100L | 112M | 132S | 132M  | 100MA | 160M  | 160L | 180L | 200MLA | 225SMA | 225SMB | 550SMA | 580S/M | 280S/M | -      | -      |

Motor size depending on power (two-speed)

| speed           | motor power [KM] |      |       |      |       |       |      |      |       |       |      |       |      |        |      |      |      |        |        |        |        |        |  |
|-----------------|------------------|------|-------|------|-------|-------|------|------|-------|-------|------|-------|------|--------|------|------|------|--------|--------|--------|--------|--------|--|
| r/min           | 0.75             | 1    | 1.5   | 2    | 3     | 4     | 5.5  | 6    | 7.5   | 8     | 9    | 10    | 12   | 15     | 18   | 20   | 22   | 24     | 27     | 37     | 38     | 40     |  |
| 2/4 (3000/1500) | -                | -    | 90S   | 90S  | 90L   | 100L  | -    | 112M | -     | -     | 132M | -     | 160M | -      | 160M | -    | 160L | -      | -      | -      | -      | -      |  |
| 4/8 (1500/750)  | -                | -    | 90S   | 100L | 100LA | 100LC | 132S | -    | 132S  | 132S  | -    | 132M  | -    | 160M   | -    | 160L | 180M | 180M   | 180L   | 200MLA | 200L   | 225S/M |  |
| 6/12 (1000/500) | 90L              | 100L | 100LB | 112M | 112M  | 132MC | 160M | 160M | 160LB | 160LB | -    | 160LB | -    | 200MLC | 160L | 200M | -    | 250SMB | 225S/M | -      | 225S/M | -      |  |

### 3.4. technical parameters

#### 3.4.1. motor power

Range of motor power depending on the size of fan and rotational speeds of the impeller.

| motor speed n = 750 [rpm] |                    | motor speed n = 1000 [rpm] |                    | motor speed n = 1500 [rpm] |                    | motor speed n = 3000 [rpm] |                    |
|---------------------------|--------------------|----------------------------|--------------------|----------------------------|--------------------|----------------------------|--------------------|
| size                      | power range P [kW] | size                       | power range P [kW] | size                       | power range P [kW] | size                       | power range P [kW] |
| 80                        | 0.55-0.75          | 40                         | 0.55               | 40                         | 0.55               | 40                         | 1.1-1.5            |
| 90                        | 0.75-2.2           | 45                         | 0.55               | 45                         | 0.55               | 45                         | 1.5-2.2            |
| 100                       | 1.5-3              | 50                         | 0.55               | 50                         | 0.75               | 50                         | 2-4.5              |
| 140                       | 2.2-15             | 56                         | 0.55               | 56                         | 0.75-1.5           | 56                         | 4-9                |
| 160                       | 3-30               | 63                         | 0.55-0.75          | 63                         | 0.75-3             | 63                         | 9-16               |
|                           |                    | 71                         | 0.75-1.1           | 71                         | 1.1-3              |                            |                    |
|                           |                    | 80                         | 1.1-2.2            | 80                         | 2.2-4              |                            |                    |
|                           |                    | 90                         | 1.5-3              | 90                         | 3-7.5              |                            |                    |
|                           |                    | 100                        | 2.2-4              | 100                        | 5.5-15             |                            |                    |
|                           |                    | 125                        | 3-17.5             | 125                        | 7.5-37             |                            |                    |
|                           |                    | 140                        | 4-37               |                            |                    |                            |                    |
|                           |                    | 160                        | 7.5-55             |                            |                    |                            |                    |

#### 3.4.2. fire resistance

In accordance with EN 12101-3 mcr Monsun R fan is certified for the following fire resistance:

- class **F400** – fire resistance 400°C/120 min.
- class **F300** – fire resistance 300°C/60 min.

### 3.4.3. technical and flow parameters

The working parameters of mcr Monsun R fan cover the range from 1000 m³/h for 210000 m³/h at pressure up to 1200 Pa.

#### one-speed fans

| size       | diameter<br>D [mm] | acoustic<br>pressure<br>[dB A] | speed<br>[1/min] | power<br>(electric)<br>P [kW] | current<br>intensity<br>I max [A] | voltage<br>U [V] | fan weight m           |                         |
|------------|--------------------|--------------------------------|------------------|-------------------------------|-----------------------------------|------------------|------------------------|-------------------------|
|            |                    |                                |                  |                               |                                   |                  | long ho-<br>using [kg] | short ho-<br>using [kg] |
| 40-6T-0.75 | 410                | 53                             | 960              | 0.55                          | 2.4                               | 230/400 Y        | 37                     | 34                      |
| 40-4T-0.75 |                    | 64                             | 1410             | 0.55                          | 1.6                               | 230/400 Y        | 32                     | 29                      |
| 40-2T-1.5  |                    | 76                             | 2880             | 1.1                           | 2.7                               | 230/400 Y        | 33                     | 31                      |
| 40-2T-2    |                    | 77                             | 2880             | 1.5                           | 3.4                               | 230/400 Y        | 35                     | 33                      |
| 45-6T-0.75 | 460                | 55                             | 960              | 0.55                          | 2.4                               | 230/400 Y        | 38                     | 35                      |
| 45-4T-0.75 |                    | 68                             | 1410             | 0.55                          | 1.6                               | 230/400 Y        | 34                     | 30                      |
| 45-2T-2    |                    | 78                             | 2880             | 1.5                           | 3.4                               | 230/400 Y        | 38                     | 34                      |
| 45-2T-3    |                    | 80                             | 2900             | 2.2                           | 5.0                               | 230/400 Y        | 39                     | 36                      |
| 50-6T-0.75 | 514                | 57                             | 960              | 0.55                          | 2.4                               | 230/400 Y        | 40                     | 36                      |
| 50-4T-1    |                    | 69                             | 1415             | 0.75                          | 2.0                               | 230/400 Y        | 37                     | 33                      |
| 50-2T-4    |                    | 82                             | 2880             | 3                             | 6.5                               | 230/400 Y        | 49                     | 42                      |
| 50-2T-5.5  |                    | 83                             | 2890             | 4                             | 9.3                               | 400 /690 D       | 65                     | 57                      |
| 56-6T-0.75 | 560                | 62                             | 960              | 0.55                          | 2.4                               | 230/400 Y        | 44                     | 39                      |
| 56-4T-1    |                    | 73                             | 1430             | 0.75                          | 2.0                               | 230/400 Y        | 45                     | 40                      |
| 56-4T-1.5  |                    | 74                             | 1430             | 1.1                           | 2.8                               | 230/400 Y        | 44                     | 40                      |
| 56-4T-2    |                    | 75                             | 1420             | 1.5                           | 3.6                               | 230/400 Y        | 48                     | 43                      |
| 56-2T-5.5  |                    | 88                             | 2920             | 4                             | 9.5                               | 400 /690 D       | 69                     | 60                      |
| 56-2T-12   |                    | 89                             | 2950             | 9                             | 19.2                              | 400 /690 D       | 147                    | 139                     |
| 63-6T-0.75 | 640                | 65                             | 960              | 0.55                          | 2.4                               | 230/400 Y        | 51                     | 45                      |
| 63-6T-1    |                    | 66                             | 950              | 0.75                          | 2.7                               | 230/400 Y        | 54                     | 48                      |
| 63-4T-1    |                    | 73                             | 1430             | 0.75                          | 2.0                               | 230/400 Y        | 49                     | 43                      |
| 63-4T-1.5  |                    | 74                             | 1430             | 1.1                           | 2.8                               | 230/400 Y        | 51                     | 45                      |
| 63-4T-2    |                    | 75                             | 1420             | 1.5                           | 3.6                               | 230/400 Y        | 55                     | 49                      |
| 63-4T-3    |                    | 76                             | 1430             | 2.2                           | 5.2                               | 230/400 Y        | 64                     | 54                      |
| 63-4T-4    |                    | 77                             | 1430             | 3                             | 6.6                               | 230/400 Y        | 73                     | 63                      |
| 63-2T-12   |                    | 90                             | 2950             | 9                             | 19.2                              | 400 /690 D       | 161                    | 143                     |
| 63-2T-22   |                    | 91                             | 2960             | 16                            | 32.3                              | 230/400 Y        | 188                    | 170                     |
| 71-6T-0.75 | 710                | 67                             | 960              | 0.55                          | 2.4                               | 230/400 Y        | 57                     | 52                      |
| 71-6T-1    |                    | 68                             | 950              | 0.75                          | 2.7                               | 230/400 Y        | 61                     | 55                      |
| 71-6T-1.5  |                    | 69                             | 940              | 1.1                           | 3.2                               | 230/400 Y        | 69                     | 61                      |
| 71-4T-1.5  |                    | 78                             | 1430             | 1.1                           | 2.8                               | 230/400 Y        | 58                     | 52                      |
| 71-4T-2    |                    | 79                             | 1420             | 1.5                           | 3.6                               | 230/400 Y        | 61                     | 56                      |
| 71-4T-3    |                    | 81                             | 1430             | 2.2                           | 5.2                               | 230/400 Y        | 70                     | 61                      |
| 71-4T-4    |                    | 82                             | 1430             | 3                             | 6.6                               | 230/400 Y        | 79                     | 70                      |
| 80-8T-0.75 | 800                | 70                             | 700              | 0.55                          | 2.1                               | 230/400 Y        | 71                     | 62                      |
| 80-8T-1    |                    | 71                             | 710              | 0.75                          | 2.8                               | 230/400 Y        | 78                     | 69                      |
| 80-6T-1.5  |                    | 72                             | 940              | 1.1                           | 3.2                               | 230/400 Y        | 78                     | 69                      |
| 80-6T-2    |                    | 73                             | 945              | 1.5                           | 4.3                               | 230/400 Y        | 87                     | 78                      |
| 80-6T-3    |                    | 74                             | 935              | 2.2                           | 5.5                               | 230/400 Y        | 94                     | 84                      |
| 80-4T-3    |                    | 82                             | 1430             | 2.2                           | 5.2                               | 230/400 Y        | 79                     | 69                      |
| 80-4T-4    |                    | 83                             | 1430             | 3                             | 6.6                               | 230/400 Y        | 88                     | 78                      |
| 80-4T-5.5  |                    | 84                             | 1435             | 4                             | 8.4                               | 400 /690 D       | 94                     | 85                      |
| 90-8T-1    | 900                | 71                             | 710              | 0.75                          | 2.8                               | 230/400 Y        | 100                    | 84                      |
| 90-8T-2    |                    | 73                             | 710              | 1.5                           | 4.5                               | 230/400 Y        | 116                    | 99                      |
| 90-8T-3    |                    | 74                             | 710              | 2.2                           | 6.6                               | 230/400 Y        | 134                    | 116                     |
| 90-6T-2    |                    | 77                             | 945              | 1.5                           | 4.3                               | 230/400 Y        | 110                    | 92                      |
| 90-6T-3    |                    | 78                             | 935              | 2.2                           | 5.5                               | 230/400 Y        | 116                    | 99                      |
| 90-6T-4    |                    | 79                             | 970              | 3                             | 7.8                               | 230/400 Y        | 142                    | 124                     |
| 90-4T-4    |                    | 87                             | 1430             | 3                             | 6.6                               | 230/400 Y        | 110                    | 93                      |
| 90-4T-5.5  |                    | 89                             | 1435             | 4                             | 8.4                               | 400/690 D/Y      | 117                    | 99                      |
| 90-4T-7.5  |                    | 91                             | 1460             | 5.5                           | 12.6                              | 400/690 D/Y      | 143                    | 126                     |
| 90-4T-10   |                    | 92                             | 1460             | 7.5                           | 17.7                              | 400/690 D/Y      | 154                    | 137                     |

## one-speed fans

| size         | diameter<br>D [mm] | acoustic<br>pressure<br>[dB A] | speed<br>[1/min] | power<br>(electric)<br>P [kW] | current<br>intensity<br>I max [A] | voltage<br>U [V] | fan weight m           |                         |
|--------------|--------------------|--------------------------------|------------------|-------------------------------|-----------------------------------|------------------|------------------------|-------------------------|
|              |                    |                                |                  |                               |                                   |                  | long ho-<br>using [kg] | short ho-<br>using [kg] |
| 100-8T-2     | 1000               | 77                             | 710              | 1.5                           | 4.5                               | 230/400 Y        | 124                    | 105                     |
| 100-8T-3     |                    | 77                             | 710              | 2.2                           | 6.6                               | 230/400 Y        | 142                    | 122                     |
| 100-8T-4     |                    | 78                             | 710              | 3                             | 9.0                               | 230/400 Y        | 162                    | 142                     |
| 100-6T-3     |                    | 82                             | 935              | 2.2                           | 5.5                               | 230/400 Y        | 124                    | 105                     |
| 100-6T-4     |                    | 83                             | 970              | 3                             | 7.8                               | 230/400 Y        | 150                    | 130                     |
| 100-6T-5.5   |                    | 84                             | 970              | 4                             | 11.0                              | 400/690 D/Y      | 162                    | 142                     |
| 100-4T-7.5   |                    | 92                             | 1460             | 5.5                           | 12.6                              | 400/690 D/Y      | 151                    | 131                     |
| 100-4T-10    |                    | 93                             | 1460             | 7.5                           | 17.7                              | 400/690 D/Y      | 162                    | 142                     |
| 100-4T-15    |                    | 94                             | 1460             | 11                            | 22.0                              | 400/690 D/Y      | 215                    | 195                     |
| 100-4T-20    |                    | 95                             | 1460             | 15                            | 29.0                              | 400/690 D/Y      | 230                    | 210                     |
| 125-4T/3-10  | 1250               | 88                             | 1460             | 7.5                           | 17.7                              | 400/690 D/Y      | 242                    | 210                     |
| 125-4T/3-15  |                    | 89                             | 1460             | 11                            | 22.0                              | 400/690 D/Y      | 294                    | 266                     |
| 125-4T/3-20  |                    | 91                             | 1460             | 15                            | 29.0                              | 400/690 D/Y      | 309                    | 281                     |
| 125-4T/3-25  |                    | 91                             | 1465             | 18.5                          | 37.0                              | 400/690 D/Y      | 377                    | 334                     |
| 125-4T/3-30  |                    | 92                             | 1470             | 22                            | 42.0                              | 400/690 D/Y      | 391                    | 348                     |
| 125-4T/3-40  |                    | 93                             | 1475             | 30                            | 58.0                              | 400/690 D/Y      | 472                    | 429                     |
| 125-4T/6-20  |                    | 89                             | 1460             | 15                            | 29.0                              | 400/690 D/Y      | 318                    | 290                     |
| 125-4T/6-25  |                    | 90                             | 1465             | 18.5                          | 37.0                              | 400/690 D/Y      | 386                    | 343                     |
| 125-4T/6-30  |                    | 90                             | 1470             | 22                            | 42.0                              | 400/690 D/Y      | 400                    | 357                     |
| 125-4T/6-40  |                    | 92                             | 1475             | 30                            | 58.0                              | 400/690 D/Y      | 481                    | 437                     |
| 125-4T/6-50  |                    | 93                             | 1480             | 37                            | 73.0                              | 400/690 D/Y      | 529                    | 473                     |
| 125-4T/9-25  |                    | 88                             | 1465             | 18.5                          | 37.0                              | 400/690 D/Y      | 395                    | 352                     |
| 125-4T/9-30  |                    | 89                             | 1470             | 22                            | 42.0                              | 400/690 D/Y      | 409                    | 366                     |
| 125-4T/9-40  |                    | 91                             | 1475             | 30                            | 58.0                              | 400/690 D/Y      | 490                    | 446                     |
| 125-4T/9-50  |                    | 93                             | 1480             | 37                            | 73.0                              | 400/690 D/Y      | 538                    | 482                     |
| 125-6T/3-4   |                    | 79                             | 970              | 3                             | 7.8                               | 230/400 Y        | 230                    | 197                     |
| 125-6T/3-5.5 |                    | 80                             | 970              | 4                             | 11.0                              | 400/690 D/Y      | 242                    | 209                     |
| 125-6T/3-7.5 |                    | 81                             | 970              | 5.5                           | 12.4                              | 400/690 D/Y      | 249                    | 216                     |
| 125-6T/3-10  |                    | 83                             | 970              | 7.5                           | 17.0                              | 400/690 D/Y      | 274                    | 246                     |
| 125-6T/3-15  |                    | 84                             | 955              | 11                            | 26.0                              | 400/690 D/Y      | 304                    | 276                     |
| 125-6T/3-20  |                    | 85                             | 975              | 15                            | 31.0                              | 400/690 D/Y      | 377                    | 334                     |
| 125-6T/6-5.5 |                    | 77                             | 970              | 4                             | 11.0                              | 400/690 D/Y      | 251                    | 218                     |
| 125-6T/6-7.5 |                    | 77                             | 970              | 5.5                           | 12.4                              | 400/690 D/Y      | 258                    | 225                     |
| 125-6T/6-10  |                    | 79                             | 970              | 7.5                           | 17.0                              | 400/690 D/Y      | 283                    | 255                     |
| 125-6T/6-15  |                    | 81                             | 955              | 11                            | 26.0                              | 400/690 D/Y      | 313                    | 285                     |
| 125-6T/6-20  |                    | 82                             | 975              | 15                            | 31.0                              | 400/690 D/Y      | 386                    | 343                     |
| 125-6T/9-10  |                    | 78                             | 970              | 7.5                           | 17.0                              | 400/690 D/Y      | 292                    | 264                     |
| 125-6T/9-15  |                    | 81                             | 955              | 11                            | 26.0                              | 400/690 D/Y      | 322                    | 294                     |
| 125-6T/9-20  |                    | 84                             | 975              | 15                            | 31.0                              | 400/690 D/Y      | 395                    | 352                     |
| 140-6T/3-5.5 | 1400               | 83                             | 940              | 4                             | 8.7                               | 400/690 D/Y      | 279                    | 242                     |
| 140-6T/3-7.5 |                    | 84                             | 960              | 5.5                           | 12.2                              | 400/690 D/Y      | 287                    | 250                     |
| 140-6T/3-10  |                    | 85                             | 970              | 7.5                           | 15.6                              | 400/690 D/Y      | 339                    | 300                     |
| 140-6T/3-15  |                    | 86                             | 970              | 11                            | 23.3                              | 400/690 D/Y      | 356                    | 317                     |
| 140-6T/3-20  |                    | 88                             | 970              | 15                            | 27.4                              | 400/690 D/Y      | 436                    | 386                     |
| 140-6T/6-7.5 |                    | 84                             | 960              | 5.5                           | 12.2                              | 400/690 D/Y      | 297                    | 260                     |
| 140-6T/6-10  |                    | 85                             | 970              | 7.5                           | 15.6                              | 400/690 D/Y      | 349                    | 310                     |
| 140-6T/6-15  |                    | 86                             | 970              | 11                            | 23.3                              | 400/690 D/Y      | 366                    | 327                     |
| 140-6T/6-20  |                    | 87                             | 970              | 15                            | 27.4                              | 400/690 D/Y      | 445                    | 396                     |
| 140-6T/6-25  |                    | 88                             | 975              | 18.5                          | 34.4                              | 400/690 D/Y      | 497                    | 448                     |
| 140-6T/6-30  |                    | 89                             | 975              | 22                            | 41.4                              | 400/690 D/Y      | 506                    | 457                     |
| 140-6T/9-10  |                    | 84                             | 970              | 7.5                           | 15.6                              | 400/690 D/Y      | 358                    | 319                     |
| 140-6T/9-15  |                    | 86                             | 970              | 11                            | 23.3                              | 400/690 D/Y      | 375                    | 336                     |
| 140-6T/9-20  |                    | 87                             | 970              | 15                            | 27.4                              | 400/690 D/Y      | 455                    | 405                     |
| 140-6T/9-25  |                    | 88                             | 975              | 18.5                          | 34.4                              | 400/690 D/Y      | 506                    | 458                     |
| 140-6T/9-30  |                    | 89                             | 975              | 22                            | 41.4                              | 400/690 D/Y      | 515                    | 467                     |
| 140-6T/9-40  |                    | 91                             | 985              | 30                            | 54.2                              | 400/690 D/Y      | 673                    | 611                     |
| 140-6T/9-50  |                    | 92                             | 980              | 37                            | 66.4                              | 400/690 D/Y      | 751                    | 696                     |
| 140-8T/3-3   |                    | 78                             | 715              | 2.2                           | 5.3                               | 230/400 Y        | 279                    | 242                     |

one-speed fans

| size         | diameter<br>D [mm] | acoustic<br>pressure<br>[dB A] | speed<br>[1/min] | power<br>(electric)<br>P [kW] | current<br>intensity<br>I max [A] | voltage<br>U [V] | fan weight m           |                         |
|--------------|--------------------|--------------------------------|------------------|-------------------------------|-----------------------------------|------------------|------------------------|-------------------------|
|              |                    |                                |                  |                               |                                   |                  | long ho-<br>using [kg] | short ho-<br>using [kg] |
| 140-8T/3-4   | 1400               | 78                             | 710              | 3                             | 7.2                               | 230/400 Y        | 287                    | 250                     |
| 140-8T/3-5.5 |                    | 79                             | 730              | 4                             | 10.0                              | 400/690 D/Y      | 337                    | 298                     |
| 140-8T/3-7.5 |                    | 81                             | 730              | 5.5                           | 13.8                              | 400/690 D/Y      | 346                    | 307                     |
| 140-8T/3-10  |                    | 82                             | 725              | 7.5                           | 17.8                              | 400/690 D/Y      | 357                    | 318                     |
| 140-8T/6-3   |                    | 78                             | 715              | 2.2                           | 5.3                               | 230/400 Y        | 289                    | 252                     |
| 140-8T/6-4   |                    | 79                             | 710              | 3                             | 7.2                               | 230/400 Y        | 297                    | 260                     |
| 140-8T/6-5.5 |                    | 80                             | 730              | 4                             | 10.4                              | 400/690 D/Y      | 347                    | 308                     |
| 140-8T/6-7.5 |                    | 81                             | 730              | 5.5                           | 13.8                              | 400/690 D/Y      | 356                    | 317                     |
| 140-8T/6-10  |                    | 82                             | 725              | 7.5                           | 17.8                              | 400/690 D/Y      | 367                    | 328                     |
| 140-8T/6-15  |                    | 83                             | 725              | 11                            | 21.7                              | 400/690 D/Y      | 453                    | 404                     |
| 140-8T/9-4   |                    | 79                             | 710              | 3                             | 7.2                               | 230/400 Y        | 306                    | 269                     |
| 140-8T/9-5.5 |                    | 79                             | 730              | 4                             | 10.4                              | 400/690 D/Y      | 356                    | 317                     |
| 140-8T/9-7.5 |                    | 81                             | 730              | 5.5                           | 13.8                              | 400/690 D/Y      | 365                    | 326                     |
| 140-8T/9-10  |                    | 82                             | 725              | 7.5                           | 17.8                              | 400/690 D/Y      | 376                    | 337                     |
| 140-8T/9-15  |                    | 83                             | 725              | 11                            | 21.7                              | 400/690 D/Y      | 463                    | 413                     |
| 140-8T/9-20  |                    | 86                             | 725              | 15                            | 32.9                              | 400/690 D/Y      | 516                    | 468                     |
| 160-6T/3-10  | 1600               | 83                             | 970              | 7.5                           | 15.6                              | 400/690 D/Y      | 412                    | 358                     |
| 160-6T/3-15  |                    | 85                             | 970              | 11                            | 23.3                              | 400/690 D/Y      | 429                    | 375                     |
| 160-6T/3-20  |                    | 86                             | 970              | 15                            | 27.4                              | 400/690 D/Y      | 522                    | 453                     |
| 160-6T/3-25  |                    | 87                             | 975              | 18.5                          | 34.5                              | 400/690 D/Y      | 574                    | 504                     |
| 160-6T/3-30  |                    | 89                             | 975              | 22                            | 41.4                              | 400/690 D/Y      | 583                    | 513                     |
| 160-6T/6-15  |                    | 85                             | 970              | 11                            | 23.3                              | 400/690 D/Y      | 440                    | 386                     |
| 160-6T/6-20  |                    | 86                             | 970              | 15                            | 27.4                              | 400/690 D/Y      | 532                    | 463                     |
| 160-6T/6-25  |                    | 87                             | 975              | 18.5                          | 34.4                              | 400/690 D/Y      | 584                    | 515                     |
| 160-6T/6-30  |                    | 88                             | 975              | 22                            | 41.4                              | 400/690 D/Y      | 593                    | 524                     |
| 160-6T/6-40  |                    | 89                             | 985              | 30                            | 54.2                              | 400/690 D/Y      | 768                    | 669                     |
| 160-6T/6-50  |                    | 91                             | 980              | 37                            | 66.4                              | 400/690 D/Y      | 842                    | 757                     |
| 160-6T/9-15  |                    | 85                             | 970              | 11                            | 23.3                              | 400/690 D/Y      | 450                    | 396                     |
| 160-6T/9-20  |                    | 86                             | 970              | 15                            | 27.4                              | 400/690 D/Y      | 542                    | 473                     |
| 160-6T/9-25  |                    | 87                             | 975              | 18.5                          | 34.4                              | 400/690 D/Y      | 594                    | 525                     |
| 160-6T/9-30  |                    | 88                             | 975              | 22                            | 41.4                              | 400/690 D/Y      | 603                    | 534                     |
| 160-6T/9-40  |                    | 89                             | 985              | 30                            | 54.2                              | 400/690 D/Y      | 778                    | 679                     |
| 160-6T/9-50  |                    | 90                             | 980              | 37                            | 66.4                              | 400/690 D/Y      | 852                    | 768                     |
| 160-6T/9-60  |                    | 91                             | 985              | 45                            | 84.5                              | 400/690 D/Y      | 1067                   | 968                     |
| 160-6T/9-75  |                    | 92                             | 985              | 55                            | 100.0                             | 400/690 D/Y      | 1112                   | 1013                    |
| 160-8T/3-4   |                    | 77                             | 710              | 3                             | 7.2                               | 230/400 Y        | 356                    | 304                     |
| 160-8T/3-5.5 |                    | 79                             | 730              | 4                             | 10.4                              | 400/690 D/Y      | 410                    | 356                     |
| 160-8T/3-7.5 |                    | 80                             | 730              | 5.5                           | 13.8                              | 400/690 D/Y      | 419                    | 365                     |
| 160-8T/3-10  |                    | 81                             | 725              | 7.5                           | 17.8                              | 400/690 D/Y      | 430                    | 376                     |
| 160-8T/3-15  |                    | 83                             | 725              | 11                            | 31.7                              | 400/690 D/Y      | 530                    | 461                     |
| 160-8T/6-5.5 |                    | 77                             | 730              | 4                             | 10.4                              | 400/690 D/Y      | 421                    | 367                     |
| 160-8T/6-7.5 |                    | 79                             | 730              | 5.5                           | 13.8                              | 400/690 D/Y      | 430                    | 376                     |
| 160-8T/6-10  |                    | 80                             | 725              | 7.5                           | 17.8                              | 400/690 D/Y      | 441                    | 387                     |
| 160-8T/6-15  |                    | 82                             | 725              | 11                            | 21.7                              | 400/690 D/Y      | 540                    | 471                     |
| 160-8T/6-20  |                    | 83                             | 725              | 15                            | 32.9                              | 400/690 D/Y      | 594                    | 525                     |
| 160-8T/6-25  |                    | 84                             | 730              | 18.5                          | 34.9                              | 400/690 D/Y      | 741                    | 642                     |
| 160-8T/9-7.5 |                    | 79                             | 730              | 5.5                           | 13.8                              | 400/690 D/Y      | 440                    | 386                     |
| 160-8T/9-10  |                    | 80                             | 725              | 7.5                           | 17.8                              | 230/400 Y        | 451                    | 397                     |
| 160-8T/9-15  |                    | 82                             | 725              | 11                            | 21.7                              | 230/400 Y        | 550                    | 481                     |
| 160-8T/9-20  |                    | 83                             | 725              | 15                            | 33.0                              | 230/400 Y        | 604                    | 535                     |
| 160-8T/9-25  |                    | 84                             | 730              | 18.5                          | 34.9                              | 230/400 Y        | 751                    | 652                     |
| 160-8T/9-30  |                    | 85                             | 730              | 22                            | 41.1                              | 230/400 Y        | 776                    | 677                     |
| 160-8T/9-40  |                    | 86                             | 730              | 30                            | 56.3                              | 230/400 Y        | 837                    | 753                     |

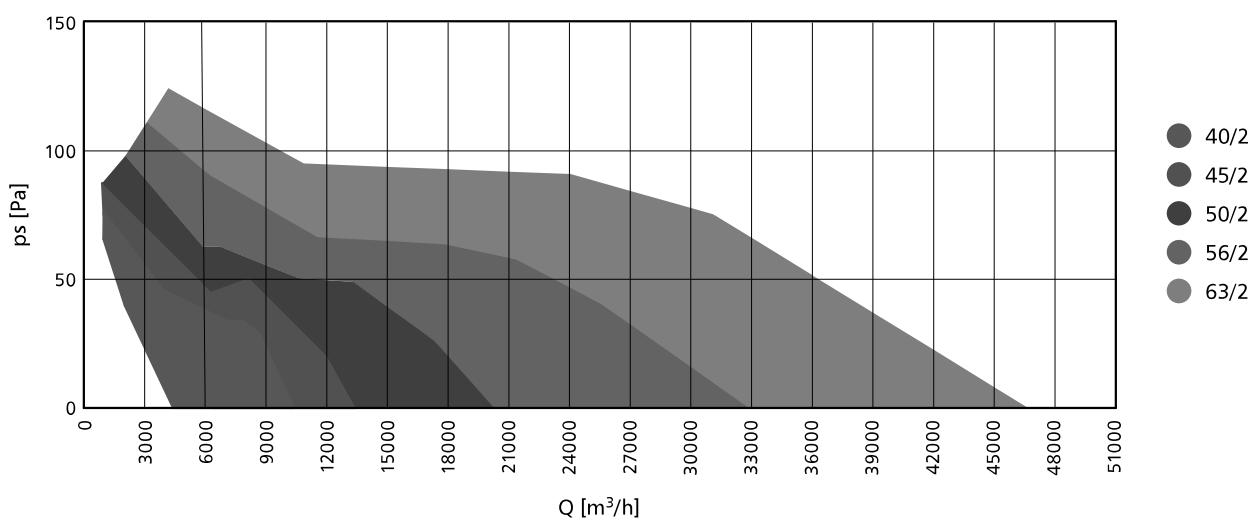
## two-speed fans

| size          | diameter<br>D [mm] | acoustic<br>pressure<br>[dB A] | speed<br>[1/min] | power<br>(electric)<br>P [kW] | current<br>intensity<br>I max [A] | voltage<br>U [V] | fan weight m           |                         |
|---------------|--------------------|--------------------------------|------------------|-------------------------------|-----------------------------------|------------------|------------------------|-------------------------|
|               |                    |                                |                  |                               |                                   |                  | long ho-<br>using [kg] | short ho-<br>using [kg] |
| 40-6/12T-0.75 | 400                | 53/38                          | 940/440          | 0.55/0.9                      | 1.60/0.55                         | 400/400 Y        | 41                     | 38                      |
| 40-2/4T-1.5   |                    | 76/61                          | 2920/1460        | 1.10/0.25                     | 2.90/2.10                         | 400/400 Y        | 34                     | 32                      |
| 40-2/4T-2     |                    | 77/62                          | 2940/1460        | 1.50/0.37                     | 4.40/1.40                         | 400/400 Y        | 35                     | 33                      |
| 45-6/12T-0.75 | 450                | 55/40                          | 940/440          | 0.55/0.09                     | 1.60/0.55                         | 400/400 Y        | 42                     | 39                      |
| 45-2/4T-2     |                    | 78/63                          | 2940/1460        | 1.50/0.37                     | 5.70/1.80                         | 400/400 Y        | 37                     | 34                      |
| 45-2/4T-3     |                    | 80/65                          | 2930/1450        | 2.20/0.60                     | 4.40/1.40                         | 400/400 Y        | 39                     | 36                      |
| 50-6/12T-0.75 | 500                | 57/42                          | 940/440          | 0.55/0.09                     | 1.60/0.55                         | 400/400 Y        | 44                     | 40                      |
| 50-2/4T-4     |                    | 82/67                          | 2920/1440        | 3.00/0.80                     | 6.70/2.00                         | 400/400 Y        | 51                     | 44                      |
| 50-2/4T-6     |                    | 83/68                          | 2930/1450        | 4.50/1.30                     | 10.00/3.20                        | 400/400 Y        | 67                     | 60                      |
| 56-6/12T-0.75 | 560                | 62/47                          | 940/440          | 0.55/0.09                     | 1.60/0.55                         | 400/400 Y        | 48                     | 43                      |
| 56-4/8T-1.5   |                    | 74/59                          | 1440/710         | 1.10/0.25                     | 2.90/1.40                         | 400/400 Y        | 48                     | 43                      |
| 56-4/8T-2     |                    | 75/60                          | 1415/715         | 1.50/0.30                     | 3.60/1.50                         | 400/400 Y        | 59                     | 55                      |
| 56-2/4T-6     |                    | 88/72                          | 2930/1450        | 4.50/1.30                     | 10.00/3.20                        | 400/400 Y        | 71                     | 63                      |
| 56-2/4T-12    |                    | 89/74                          | 2920/1440        | 9.00/2.50                     | 20.70/5.50                        | 400/400 Y        | 137                    | 129                     |
| 63-6/12T-0.75 | 630                | 65/50                          | 940/440          | 0.55/0.09                     | 1.60/0.55                         | 400/400 Y        | 55                     | 49                      |
| 63-6/12T-1    |                    | 66/51                          | 940/440          | 0.75/0.15                     | 2.20/0.87                         | 400/400 Y        | 61                     | 55                      |
| 63-4/8T-1.5   |                    | 74/59                          | 1440/710         | 1.10/0.25                     | 2.9/1.40                          | 400/400 Y        | 55                     | 49                      |
| 63-4/8T-2     |                    | 75/60                          | 1415/715         | 1.50/0.30                     | 3.60/1.50                         | 400/400 Y        | 70                     | 60                      |
| 63-4/8T-3     |                    | 76/61                          | 1415/715         | 2.20/0.45                     | 5.20/1.90                         | 400/400 Y        | 77                     | 66                      |
| 63-4/8T-4     |                    | 77/62                          | 1425/710         | 3.00/0.60                     | 6.80/2.20                         | 400/400 Y        | 86                     | 77                      |
| 63-2/4T-12    |                    | 90/75                          | 2920/1440        | 9.00/2.50                     | 18.50/5.50                        | 400/400 Y        | 151                    | 133                     |
| 63-2/4T-22    |                    | 91/76                          | 2960/1480        | 16.00/4.00                    | 32.30/8.90                        | 400/400 Y        | 188                    | 170                     |
| 71-6/12T-0.75 | 710                | 67/52                          | 940/440          | 0.55/0.09                     | 1.60/0.55                         | 400/400 Y        | 61                     | 56                      |
| 71-6/12T-1    |                    | 68/53                          | 940/441          | 0.75/0.15                     | 2.20/0.87                         | 400/400 Y        | 67                     | 62                      |
| 71-6/12T-1.5  |                    | 69/54                          | 950/470          | 1.10/0.18                     | 3.00/1.15                         | 400/400 Y        | 77                     | 69                      |
| 71-4/8T-1.5   |                    | 78/63                          | 1440/710         | 1.10/0.25                     | 2.90/1.40                         | 400/400 Y        | 61                     | 56                      |
| 71-4/8T-2     |                    | 79/64                          | 1415/715         | 1.50/0.30                     | 3.60/1.50                         | 400/400 Y        | 76                     | 67                      |
| 71-4/8T-3     |                    | 81/66                          | 1415/715         | 2.20/0.45                     | 5.20/1.90                         | 400/400 Y        | 82                     | 74                      |
| 71-4/8T-4     |                    | 82/67                          | 1425/710         | 3.00/0.60                     | 6.80/2.20                         | 400/400 Y        | 92                     | 83                      |
| 80-6/12T-1.5  | 800                | 72/57                          | 950/470          | 1.10/0.18                     | 3.00/1.15                         | 400/400 Y        | 86                     | 77                      |
| 80-6/12T-2    |                    | 73/58                          | 950/460          | 1.50/0.25                     | 4.60/1.90                         | 400/400 Y        | 91                     | 82                      |
| 80-6/12T-3    |                    | 74/59                          | 940/470          | 2.20/0.37                     | 5.60/2.20                         | 400/400 Y        | 100                    | 91                      |
| 80-4/8T-3     |                    | 82/67                          | 1415/715         | 2.20/0.45                     | 5.20/1.90                         | 400/400 Y        | 91                     | 82                      |
| 80-4/8T-4     |                    | 83/68                          | 1425/710         | 3.00/0.60                     | 6.80/2.20                         | 400/400 Y        | 101                    | 92                      |
| 80-4/8T-5.5   |                    | 84/69                          | 1455/725         | 4.00/0.80                     | 9.30/3.40                         | 400/400 Y        | 127                    | 118                     |
| 90-6/12T-2    | 900                | 77/62                          | 960/470          | 1.50/0.25                     | 4.30/1.70                         | 400/400 Y        | 114                    | 96                      |
| 90-6/12T-3    |                    | 78/63                          | 940/470          | 2.20/0.37                     | 5.60/2.20                         | 400/400 Y        | 123                    | 105                     |
| 90-6/12T-4    |                    | 79/64                          | 970/475          | 3.00/0.55                     | 8.90/3.50                         | 400/400 Y        | 143                    | 126                     |
| 90-4/8T-4     |                    | 87/72                          | 1420/705         | 3.00/0.60                     | 6.90/2.30                         | 400/400 Y        | 124                    | 106                     |
| 90-4/8T-5.5   |                    | 89/74                          | 1450/720         | 4.00/0.80                     | 9.40/3.50                         | 400/400 Y        | 150                    | 132                     |
| 90-4/8T-7.5   |                    | 91/76                          | 1455/725         | 5.50/1.10                     | 12.80/4.60                        | 400/400 Y        | 157                    | 140                     |
| 90-4/8T-9     |                    | 92/77                          | 1455/725         | 6.70/1.50                     | 15.50/5.50                        | 400/400 Y        | 157                    | 140                     |
| 100-6/12T-3   | 1000               | 82/67                          | 940/470          | 2.20/0.37                     | 5.60/2.20                         | 400/400 Y        | 130                    | 112                     |
| 100-6/12T-4   |                    | 83/68                          | 970/475          | 3.00/0.55                     | 8.90/3.50                         | 400/400 Y        | 151                    | 131                     |
| 100-6/12T-5.5 |                    | 84/69                          | 970/480          | 4.00/0.65                     | 11.30/4.20                        | 400/400 Y        | 162                    | 142                     |
| 100-4/8T-7.5  |                    | 92/77                          | 1455/725         | 5.50/1.10                     | 12.80/4.60                        | 400/400 Y        | 165                    | 145                     |
| 100-4/8T-9    |                    | 93/78                          | 1455/725         | 6.70/1.50                     | 15.50/5.50                        | 400/400 Y        | 165                    | 145                     |
| 100-4/8T-15   |                    | 94/79                          | 1470/725         | 11.00/2.80                    | 23.20/8.70                        | 400/400 Y        | 215                    | 195                     |
| 100-4/8T-20   |                    | 95/80                          | 1470/725         | 15.00/3.80                    | 31.70/11.80                       | 400/400 Y        | 230                    | 210                     |

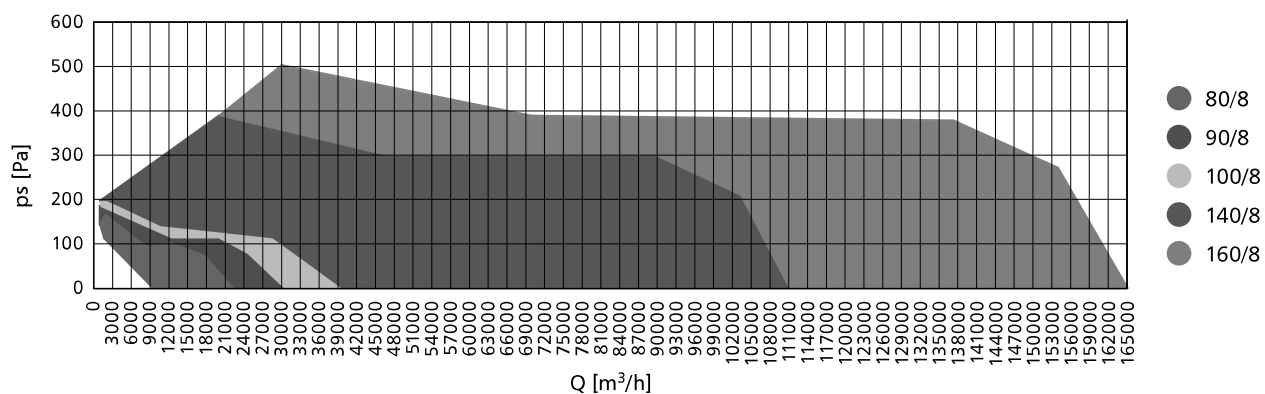
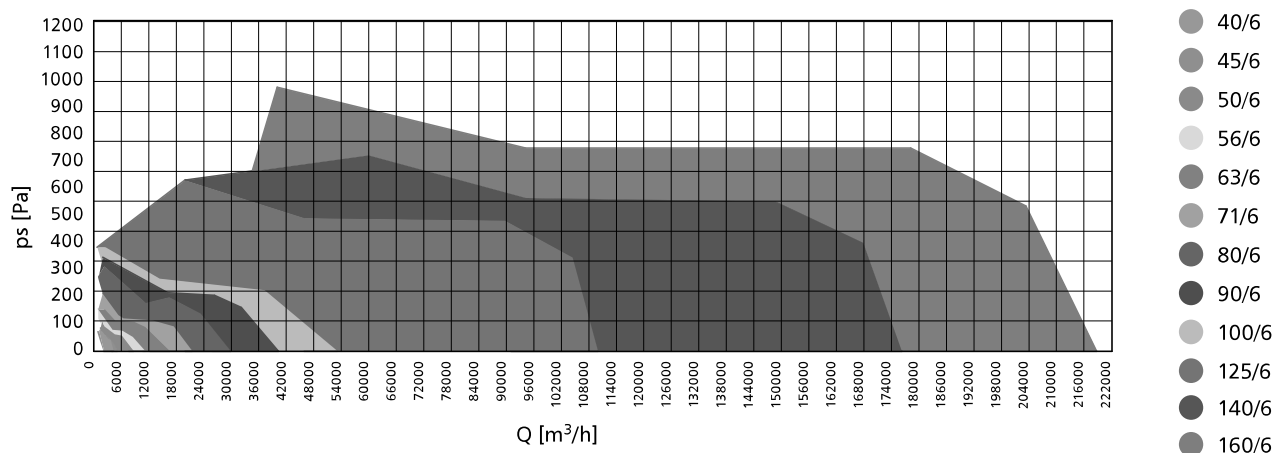
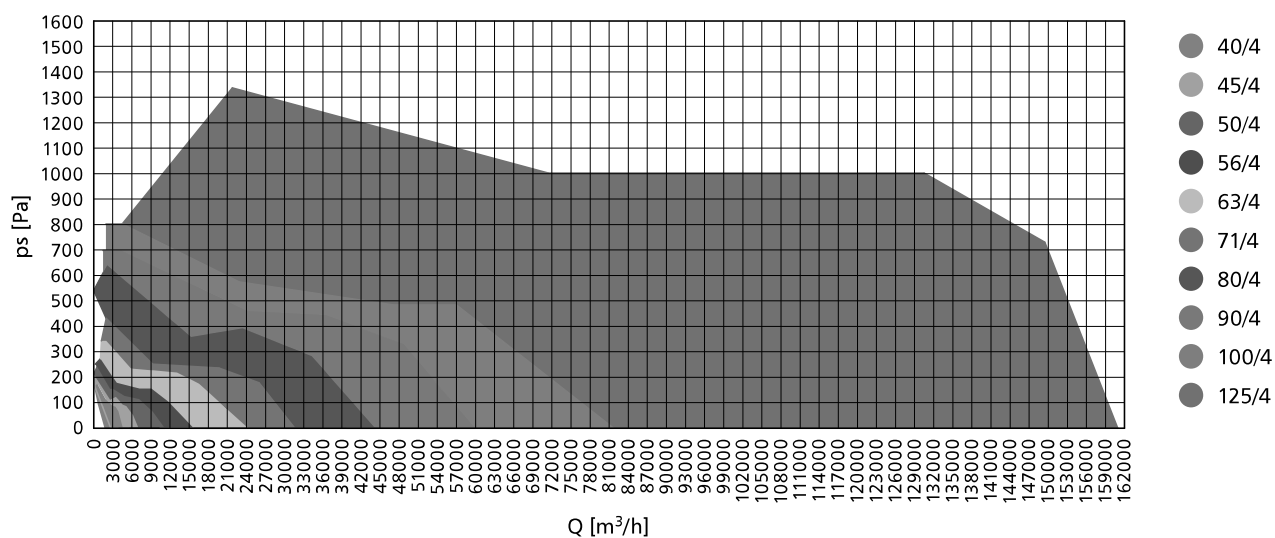
two-speed fans

| size            | diameter<br>D [mm] | acoustic<br>pressure<br>[dB A] | speed<br>[1/min] | power<br>(electric)<br>P [kW] | current<br>intensity<br>I max [A] | voltage<br>U [V] | fan weight m           |                         |
|-----------------|--------------------|--------------------------------|------------------|-------------------------------|-----------------------------------|------------------|------------------------|-------------------------|
|                 |                    |                                |                  |                               |                                   |                  | long ho-<br>using [kg] | short ho-<br>using [kg] |
| 125-4/8T/3-9    | 1250               | 88/68                          | 1455/725         | 6.70/1.50                     | 15.50/5.50                        | 400/400 Y        | 243                    | 210                     |
| 125-4/8T/3-15   |                    | 89/69                          | 1470/725         | 11.00/2.80                    | 23.20/8.70                        | 400/400 Y        | 294                    | 266                     |
| 125-4/8T/3-20   |                    | 91/71                          | 1470/725         | 15.00/3.80                    | 31.70/11.80                       | 400/400 Y        | 309                    | 281                     |
| 125-4/8T/3-27   |                    | 92/71                          | 1470/735         | 20.00/4.00                    | 38.00/13.00                       | 400/400 Y        | 391                    | 348                     |
| 125-4/8T/3-37   |                    | 93/72                          | 1475/735         | 27.00/6.00                    | 51.00/20.60                       | 400/400 Y        | 472                    | 429                     |
| 125-4/8T/3-40   |                    | 93/72                          | 1480/735         | 30.00/10.00                   | 62.00/27.00                       | 400/400 Y        | 618                    | 562                     |
| 125-4/8T/6-20   |                    | 89/68                          | 1470/725         | 15.00/3.80                    | 31.70/11.80                       | 400/400 Y        | 318                    | 290                     |
| 125-4/8T/6-22   |                    | 89/69                          | 1470/735         | 16.50/3.30                    | 31.80/12.00                       | 400/400 Y        | 303                    | 275                     |
| 125-4/8T/6-27   |                    | 90/69                          | 1470/735         | 20.00/4.00                    | 38.00/13.00                       | 400/400 Y        | 400                    | 357                     |
| 125-4/8T/6-37   |                    | 90/70                          | 1475/735         | 27.00/6.00                    | 51.00/20.60                       | 400/400 Y        | 481                    | 437                     |
| 125-4/8T/6-40   |                    | 92/71                          | 1480/735         | 30.00/10.00                   | 62.00/27.00                       | 400/400 Y        | 529                    | 473                     |
| 125-4/8T/9-22   |                    | 88/69                          | 1465/735         | 16.50/3.30                    | 31.80/12.00                       | 400/400 Y        | 312                    | 284                     |
| 125-4/8T/9-27   |                    | 89/70                          | 1470/735         | 20.00/4.00                    | 38.00/13.00                       | 400/400 Y        | 409                    | 366                     |
| 125-4/8T/9-37   |                    | 90/70                          | 1475/735         | 27.00/6.00                    | 51.00/20.60                       | 400/400 Y        | 490                    | 446                     |
| 125-4/8T/9-40   |                    | 91/71                          | 1480/735         | 30.00/10.00                   | 62.00/27.00                       | 400/400 Y        | 636                    | 580                     |
| 125-6/12T/3-4   |                    | 79/64                          | 970/475          | 3.00/0.55                     | 8.90/3.50                         | 400/400 Y        | 232                    | 199                     |
| 125-6/12T/3-5.5 |                    | 80/65                          | 970/480          | 4.00/0.65                     | 11.30/4.20                        | 400/400 Y        | 243                    | 210                     |
| 125-6/12T/3-7.5 |                    | 81/66                          | 970/480          | 5.50/1.00                     | 13.70/5.60                        | 400/400 Y        | 263                    | 230                     |
| 125-6/12T/3-10  |                    | 83/68                          | 970/480          | 7.50/1.40                     | 19.00/8.00                        | 400/400 Y        | 294                    | 266                     |
| 125-6/12T/3-15  |                    | 84/69                          | 970/470          | 11.00/2.00                    | 28.50/13.00                       | 400/400 Y        | 309                    | 281                     |
| 125-6/12T/3-24  |                    | 85/70                          | 970/480          | 17.50/3.50                    | 36.00/14.50                       | 400/400 Y        | 472                    | 429                     |
| 125-6/12T/6-5.5 |                    | 77/62                          | 970/480          | 4.00/0.65                     | 11.30/4.20                        | 400/400 Y        | 252                    | 219                     |
| 125-6/12T/6-7.5 |                    | 77/62                          | 970/480          | 5.50/1.00                     | 13.70/5.60                        | 400/400 Y        | 272                    | 239                     |
| 125-6/12T/6-10  |                    | 79/64                          | 970/480          | 7.50/1.40                     | 19.00/8.00                        | 400/400 Y        | 303                    | 275                     |
| 125-6/12T/6-15  |                    | 81/66                          | 970/470          | 11.00/2.00                    | 28.50/13.00                       | 400/400 Y        | 318                    | 290                     |
| 125-6/12T/6-24  |                    | 82/67                          | 970/480          | 17.50/3.50                    | 36.00/14.50                       | 400/400 Y        | 481                    | 437                     |
| 125-6/12T/9-10  |                    | 78/63                          | 970/480          | 7.50/1.40                     | 19.00/8.00                        | 400/400 Y        | 312                    | 284                     |
| 125-6/12T/9-15  |                    | 81/66                          | 970/470          | 11.00/2.00                    | 28.50/13.00                       | 400/400 Y        | 327                    | 299                     |
| 125-6/12T/9-24  |                    | 84/69                          | 970/480          | 17.50/3.50                    | 36.00/14.50                       | 400/400 Y        | 490                    | 446                     |

Q - capacity [m³/h]  
ps - static pressure [Pa]







## 3.4.4. acoustic parameters

The supplied data refer to measurement of sound pressure and loudness level carried out in a free area at the distance equal to two lengths of the housing plus impeller's diameter but not smaller than 1.5 m.

Sound power level  $L_w(A)$ , spectrum dB(A) at given frequency in Hz.

| size       | sound pressure level [dB A] |        |        |        |         |         |         |         |
|------------|-----------------------------|--------|--------|--------|---------|---------|---------|---------|
|            | 63 Hz                       | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz |
| 40-2-1.5   | 48                          | 69     | 76     | 81     | 84      | 80      | 73      | 62      |
| 40-2-2     | 49                          | 70     | 77     | 82     | 85      | 81      | 74      | 63      |
| 40-4-0.75  | 36                          | 57     | 64     | 69     | 72      | 68      | 61      | 50      |
| 40-4-1.5   | 33                          | 54     | 61     | 66     | 69      | 65      | 58      | 47      |
| 40-4-2     | 34                          | 55     | 62     | 67     | 70      | 66      | 59      | 48      |
| 40-6       | 25                          | 46     | 53     | 58     | 61      | 57      | 50      | 39      |
| 40-12      | 10                          | 31     | 38     | 43     | 46      | 42      | 35      | 24      |
| 45-2-2     | 50                          | 71     | 78     | 83     | 86      | 82      | 75      | 64      |
| 45-2-3     | 52                          | 73     | 80     | 85     | 88      | 84      | 77      | 66      |
| 45-4-0.75  | 40                          | 61     | 68     | 73     | 76      | 72      | 65      | 54      |
| 45-4-2     | 35                          | 56     | 63     | 68     | 71      | 67      | 60      | 49      |
| 45-4-3     | 37                          | 58     | 65     | 70     | 73      | 69      | 62      | 51      |
| 45-6       | 27                          | 48     | 55     | 60     | 63      | 59      | 52      | 41      |
| 45-12      | 12                          | 33     | 40     | 45     | 48      | 44      | 37      | 26      |
| 50-2-4     | 57                          | 77     | 85     | 90     | 92      | 89      | 82      | 71      |
| 50-2-5.5   | 58                          | 78     | 86     | 91     | 93      | 90      | 83      | 72      |
| 50-2-6     | 58                          | 78     | 86     | 91     | 93      | 90      | 83      | 72      |
| 50-4-1     | 44                          | 64     | 72     | 77     | 79      | 76      | 69      | 58      |
| 50-4-4     | 42                          | 62     | 70     | 75     | 77      | 74      | 67      | 56      |
| 50-4-6     | 43                          | 63     | 71     | 76     | 78      | 75      | 68      | 57      |
| 50-6       | 32                          | 52     | 60     | 65     | 67      | 64      | 57      | 46      |
| 50-12      | 17                          | 37     | 45     | 50     | 52      | 49      | 42      | 31      |
| 50-2-5.5   | 63                          | 83     | 91     | 96     | 98      | 95      | 88      | 77      |
| 56-2-6     | 63                          | 83     | 91     | 96     | 98      | 95      | 88      | 77      |
| 56-2-12    | 64                          | 84     | 92     | 97     | 99      | 96      | 89      | 78      |
| 56-4-1     | 48                          | 68     | 76     | 81     | 83      | 80      | 73      | 62      |
| 56-4-1.5   | 49                          | 69     | 77     | 82     | 84      | 81      | 74      | 63      |
| 56-4-2     | 50                          | 70     | 78     | 83     | 85      | 82      | 75      | 64      |
| 56-4-6     | 48                          | 68     | 76     | 81     | 83      | 80      | 73      | 62      |
| 56-4-12    | 49                          | 69     | 77     | 82     | 84      | 81      | 74      | 63      |
| 56-6       | 37                          | 57     | 65     | 70     | 72      | 69      | 62      | 51      |
| 56-8-1.5   | 34                          | 54     | 62     | 67     | 69      | 66      | 59      | 48      |
| 56-8-2     | 35                          | 55     | 63     | 68     | 70      | 67      | 60      | 49      |
| 56-12      | 22                          | 42     | 50     | 55     | 57      | 54      | 47      | 36      |
| 63-2-12    | 67                          | 87     | 95     | 100    | 102     | 99      | 92      | 81      |
| 63-2-22    | 68                          | 88     | 96     | 101    | 103     | 100     | 93      | 82      |
| 63-4-1     | 50                          | 70     | 78     | 83     | 85      | 82      | 75      | 64      |
| 63-4-1.5   | 48                          | 68     | 76     | 81     | 83      | 80      | 73      | 65      |
| 63-4-2     | 52                          | 68     | 76     | 81     | 83      | 80      | 73      | 66      |
| 63-4-3     | 53                          | 70     | 78     | 83     | 85      | 82      | 77      | 67      |
| 63-4-4     | 54                          | 71     | 79     | 84     | 86      | 83      | 78      | 68      |
| 63-4-12    | 52                          | 72     | 80     | 85     | 87      | 84      | 77      | 66      |
| 63-4-22    | 53                          | 73     | 81     | 86     | 88      | 85      | 78      | 67      |
| 63-6-0.75  | 42                          | 60     | 68     | 73     | 75      | 72      | 65      | 56      |
| 63-6-1     | 43                          | 62     | 70     | 75     | 77      | 74      | 67      | 57      |
| 63-8-1.5   | 33                          | 53     | 61     | 66     | 68      | 65      | 58      | 50      |
| 63-8-2     | 37                          | 53     | 61     | 66     | 68      | 65      | 58      | 51      |
| 63-8-3     | 38                          | 55     | 63     | 68     | 70      | 67      | 62      | 52      |
| 63-8-4     | 39                          | 56     | 64     | 69     | 71      | 68      | 63      | 53      |
| 63-12-0.75 | 27                          | 43     | 51     | 56     | 58      | 55      | 48      | 37      |
| 63-12-1    | 28                          | 45     | 53     | 58     | 60      | 57      | 50      | 42      |

| size       | sound pressure level [dB A] |        |        |        |         |         |         |         |
|------------|-----------------------------|--------|--------|--------|---------|---------|---------|---------|
|            | 63 Hz                       | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz |
| 71-4-1.5   | 54                          | 74     | 82     | 87     | 89      | 86      | 79      | 69      |
| 71-4-2     | 53                          | 73     | 81     | 86     | 88      | 85      | 78      | 70      |
| 71-4-3     | 58                          | 72     | 80     | 85     | 87      | 84      | 77      | 71      |
| 71-4-4     | 59                          | 73     | 81     | 86     | 88      | 85      | 78      | 72      |
| 71-6-0.75  | 44                          | 63     | 72     | 74     | 76      | 73      | 66      | 55      |
| 71-6-1     | 45                          | 65     | 73     | 75     | 77      | 74      | 67      | 56      |
| 71-6-1.5   | 46                          | 66     | 71     | 76     | 78      | 75      | 68      | 57      |
| 71-8-1.5   | 38                          | 58     | 66     | 71     | 73      | 70      | 63      | 54      |
| 71-8-2     | 38                          | 58     | 66     | 71     | 73      | 70      | 63      | 55      |
| 71-8-3     | 43                          | 57     | 65     | 70     | 72      | 69      | 62      | 56      |
| 71-8-4     | 44                          | 58     | 66     | 71     | 73      | 70      | 63      | 57      |
| 71-12-0.75 | 29                          | 44     | 52     | 57     | 59      | 56      | 49      | 38      |
| 71-12-1    | 30                          | 46     | 54     | 59     | 61      | 58      | 51      | 40      |
| 71-12-1.5  | 31                          | 46     | 54     | 59     | 61      | 58      | 51      | 40      |
| 80-4-3     | 57                          | 77     | 85     | 90     | 92      | 89      | 82      | 73      |
| 80-4-4     | 56                          | 76     | 84     | 89     | 91      | 88      | 81      | 74      |
| 80-4-5.5   | 56                          | 76     | 84     | 89     | 91      | 88      | 81      | 70      |
| 80-6-1.5   | 49                          | 66     | 74     | 79     | 81      | 78      | 71      | 60      |
| 80-6-2     | 50                          | 67     | 75     | 80     | 82      | 79      | 72      | 61      |
| 80-6-3     | 51                          | 68     | 76     | 81     | 83      | 80      | 73      | 62      |
| 80-8-0.75  | 47                          | 60     | 68     | 73     | 75      | 72      | 65      | 54      |
| 80-8-1     | 48                          | 61     | 69     | 74     | 76      | 73      | 66      | 55      |
| 80-8-3     | 42                          | 62     | 70     | 75     | 77      | 74      | 67      | 58      |
| 80-8-4     | 41                          | 61     | 69     | 74     | 76      | 73      | 66      | 59      |
| 80-8-5.5   | 40                          | 60     | 68     | 73     | 75      | 72      | 65      | 59      |
| 80-12-1.5  | 34                          | 49     | 57     | 62     | 64      | 61      | 54      | 43      |
| 80-12-2    | 35                          | 50     | 58     | 63     | 65      | 62      | 55      | 44      |
| 80-12-3    | 36                          | 51     | 59     | 64     | 66      | 63      | 56      | 45      |
| 90-4-4     | 61                          | 82     | 89     | 94     | 97      | 93      | 86      | 79      |
| 90-4-5.5   | 60                          | 81     | 88     | 93     | 96      | 92      | 85      | 74      |
| 90-4-7.5   | 59                          | 80     | 87     | 92     | 95      | 91      | 84      | 73      |
| 90-4-9     | 58                          | 79     | 86     | 91     | 94      | 90      | 83      | 72      |
| 90-4-10    | 58                          | 79     | 86     | 91     | 94      | 90      | 83      | 72      |
| 90-6-2     | 49                          | 70     | 77     | 82     | 85      | 81      | 74      | 63      |
| 90-6-3     | 56                          | 70     | 77     | 82     | 85      | 81      | 74      | 63      |
| 90-6-4     | 57                          | 72     | 79     | 84     | 87      | 83      | 76      | 65      |
| 90-8-1     | 42                          | 63     | 70     | 75     | 78      | 74      | 67      | 56      |
| 90-8-2     | 51                          | 66     | 73     | 78     | 81      | 77      | 70      | 59      |
| 90-8-3     | 52                          | 66     | 73     | 78     | 81      | 77      | 70      | 59      |
| 90-8-4     | 46                          | 67     | 74     | 79     | 82      | 78      | 71      | 64      |
| 90-8-5.5   | 45                          | 66     | 73     | 78     | 81      | 77      | 70      | 59      |
| 90-8-7.5   | 43                          | 64     | 71     | 76     | 79      | 75      | 68      | 57      |
| 90-8-9     | 43                          | 64     | 71     | 76     | 79      | 75      | 68      | 57      |
| 90-12-2    | 32                          | 53     | 60     | 65     | 68      | 64      | 57      | 46      |
| 90-12-3    | 41                          | 53     | 60     | 65     | 68      | 64      | 57      | 46      |
| 90-12-4    | 42                          | 55     | 62     | 67     | 70      | 66      | 59      | 48      |

| sound pressure level [dB A] |       |        |        |        |         |         |         |         | sound pressure level [dB A] |       |        |        |        |         |         |         |         |
|-----------------------------|-------|--------|--------|--------|---------|---------|---------|---------|-----------------------------|-------|--------|--------|--------|---------|---------|---------|---------|
| size                        | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz | size                        | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz |
| 100-4-7.5                   | 64    | 84     | 92     | 97     | 99      | 96      | 89      | 78      | 125-6/6-20                  | 65    | 74     | 87     | 90     | 91      | 88      | 77      | 73      |
| 100-4-9                     | 63    | 83     | 91     | 96     | 98      | 95      | 88      | 77      | 125-6/6-24                  | 65    | 74     | 87     | 90     | 91      | 88      | 77      | 73      |
| 100-4-10                    | 62    | 82     | 90     | 95     | 97      | 94      | 87      | 76      | 125-8/6-20                  | 46    | 54     | 70     | 77     | 79      | 74      | 68      | 64      |
| 100-4-15                    | 61    | 81     | 89     | 94     | 96      | 93      | 86      | 75      | 125-8/6-22                  | 47    | 55     | 71     | 78     | 80      | 75      | 69      | 65      |
| 100-4-20                    | 63    | 83     | 91     | 96     | 98      | 95      | 88      | 77      | 125-8/6-27                  | 47    | 55     | 71     | 78     | 80      | 75      | 69      | 65      |
| 100-6-3                     | 61    | 72     | 80     | 85     | 87      | 84      | 77      | 66      | 125-8/6-37                  | 48    | 56     | 72     | 79     | 81      | 76      | 70      | 66      |
| 100-6-4                     | 64    | 72     | 80     | 85     | 87      | 84      | 77      | 66      | 125-8/6-40                  | 49    | 57     | 73     | 80     | 82      | 77      | 71      | 67      |
| 100-6-5.5                   | 64    | 73     | 81     | 86     | 88      | 85      | 78      | 67      | 125-12/6-5.5                | 45    | 54     | 67     | 70     | 71      | 68      | 57      | 53      |
| 100-8-2                     | 56    | 66     | 74     | 79     | 81      | 78      | 71      | 60      | 125-12/6-7.5                | 45    | 54     | 67     | 70     | 71      | 68      | 57      | 53      |
| 100-8-3                     | 57    | 68     | 76     | 81     | 83      | 80      | 73      | 62      | 125-12/6-10                 | 47    | 56     | 69     | 72     | 73      | 70      | 59      | 55      |
| 100-8-4                     | 58    | 68     | 76     | 81     | 83      | 80      | 73      | 62      | 125-12/6-15                 | 49    | 58     | 71     | 74     | 75      | 72      | 61      | 57      |
| 100-8-7.5                   | 49    | 69     | 77     | 82     | 84      | 81      | 74      | 63      | 125-12/6-24                 | 50    | 59     | 72     | 75     | 76      | 73      | 62      | 58      |
| 100-8-9                     | 48    | 68     | 76     | 81     | 83      | 80      | 73      | 62      | 125-4/9-22                  | 66    | 74     | 91     | 97     | 98      | 93      | 88      | 84      |
| 100-8-15                    | 46    | 66     | 74     | 79     | 81      | 78      | 71      | 60      | 125-4/9-25                  | 66    | 74     | 91     | 97     | 98      | 93      | 88      | 84      |
| 100-8-20                    | 47    | 67     | 75     | 80     | 82      | 79      | 72      | 61      | 125-4/9-27                  | 67    | 75     | 92     | 98     | 99      | 94      | 89      | 85      |
| 100-12-3                    | 46    | 55     | 63     | 68     | 70      | 67      | 60      | 49      | 125-4/9-30                  | 67    | 75     | 92     | 98     | 99      | 94      | 89      | 85      |
| 100-12-4                    | 48    | 55     | 63     | 68     | 70      | 67      | 60      | 49      | 125-4/9-37                  | 68    | 76     | 93     | 99     | 100     | 95      | 90      | 86      |
| 100-12-5.5                  | 49    | 56     | 64     | 69     | 71      | 68      | 61      | 50      | 125-4/9-40                  | 69    | 77     | 94     | 100    | 101     | 96      | 91      | 87      |
| 125-4/3-9                   | 70    | 76     | 88     | 98     | 98      | 94      | 86      | 82      | 125-4/9-50                  | 71    | 79     | 96     | 102    | 103     | 98      | 93      | 89      |
| 125-4/3-10                  | 70    | 76     | 88     | 98     | 98      | 94      | 86      | 82      | 125-6/9-10                  | 58    | 68     | 83     | 87     | 86      | 85      | 74      | 70      |
| 125-4/3-15                  | 71    | 77     | 89     | 99     | 99      | 95      | 87      | 83      | 125-6/9-15                  | 61    | 71     | 86     | 90     | 89      | 88      | 77      | 73      |
| 125-4/3-20                  | 73    | 79     | 91     | 101    | 101     | 97      | 89      | 85      | 125-6/9-20                  | 64    | 74     | 89     | 93     | 92      | 91      | 80      | 76      |
| 125-4/3-25                  | 73    | 79     | 91     | 101    | 101     | 97      | 89      | 85      | 125-6/9-24                  | 64    | 74     | 89     | 93     | 92      | 91      | 80      | 76      |
| 125-4/3-27                  | 74    | 80     | 92     | 102    | 102     | 98      | 90      | 86      | 125-8/9-22                  | 47    | 55     | 72     | 78     | 79      | 74      | 69      | 65      |
| 125-4/3-30                  | 74    | 80     | 92     | 102    | 102     | 98      | 90      | 86      | 125-8/9-27                  | 48    | 56     | 73     | 79     | 80      | 75      | 70      | 66      |
| 125-4/3-37                  | 75    | 81     | 93     | 103    | 103     | 99      | 91      | 87      | 125-8/9-37                  | 48    | 56     | 73     | 79     | 80      | 75      | 70      | 66      |
| 125-4/3-40                  | 75    | 81     | 93     | 103    | 103     | 99      | 91      | 87      | 125-8/9-40                  | 49    | 57     | 74     | 80     | 81      | 76      | 71      | 67      |
| 125-6/3-5.5                 | 66    | 74     | 86     | 90     | 88      | 83      | 74      | 70      | 125-12/9-10                 | 43    | 53     | 68     | 72     | 71      | 70      | 59      | 55      |
| 125-6/3-7.5                 | 67    | 75     | 87     | 91     | 89      | 84      | 75      | 71      | 125-12/9-15                 | 46    | 56     | 71     | 75     | 74      | 73      | 62      | 58      |
| 125-6/3-10                  | 69    | 77     | 89     | 93     | 91      | 86      | 77      | 73      | 125-12/9-24                 | 49    | 59     | 74     | 78     | 77      | 76      | 65      | 61      |
| 125-6/3-15                  | 70    | 78     | 90     | 94     | 92      | 87      | 78      | 74      | 140-6/3-5.5                 | 69    | 79     | 87     | 92     | 91      | 90      | 77      | 77      |
| 125-6/3-20                  | 71    | 79     | 91     | 95     | 93      | 88      | 79      | 75      | 140-6/3-7.5                 | 70    | 80     | 88     | 93     | 92      | 91      | 78      | 78      |
| 125-6/3-24                  | 71    | 79     | 91     | 95     | 93      | 88      | 79      | 75      | 140-6/3-10                  | 71    | 81     | 89     | 94     | 93      | 92      | 79      | 79      |
| 125-8/3-9                   | 50    | 56     | 68     | 78     | 78      | 74      | 66      | 62      | 140-6/3-15                  | 72    | 82     | 90     | 95     | 94      | 93      | 80      | 80      |
| 125-8/3-15                  | 51    | 57     | 69     | 79     | 79      | 75      | 67      | 63      | 140-6/3-20                  | 74    | 84     | 92     | 97     | 96      | 95      | 82      | 82      |
| 125-8/3-20                  | 53    | 59     | 71     | 81     | 81      | 77      | 69      | 65      | 140-6/6-7.5                 | 68    | 83     | 92     | 94     | 91      | 85      | 77      | 73      |
| 125-8/3-27                  | 53    | 59     | 71     | 81     | 81      | 77      | 69      | 65      | 140-6/6-10                  | 69    | 84     | 93     | 95     | 92      | 86      | 78      | 74      |
| 125-8/3-37                  | 54    | 60     | 72     | 82     | 82      | 78      | 70      | 66      | 140-6/6-15                  | 70    | 85     | 94     | 96     | 93      | 87      | 79      | 75      |
| 125-8/3-40                  | 54    | 60     | 72     | 82     | 82      | 78      | 70      | 66      | 140-6/6-20                  | 71    | 86     | 95     | 97     | 94      | 88      | 80      | 76      |
| 125-6/3-4                   | 65    | 73     | 85     | 89     | 87      | 82      | 73      | 69      | 140-6/6-25                  | 72    | 87     | 96     | 98     | 95      | 89      | 81      | 77      |
| 125-12/3-4                  | 50    | 58     | 70     | 74     | 72      | 67      | 58      | 54      | 140-6/6-30                  | 73    | 88     | 97     | 99     | 96      | 90      | 82      | 78      |
| 125-12/3-5.5                | 51    | 59     | 71     | 75     | 73      | 68      | 59      | 55      | 140-6/9-10                  | 66    | 84     | 93     | 92     | 91      | 87      | 78      | 73      |
| 125-12/3-7.5                | 52    | 60     | 72     | 76     | 74      | 69      | 60      | 56      | 140-6/9-15                  | 68    | 86     | 95     | 94     | 93      | 89      | 80      | 75      |
| 125-12/3-10                 | 54    | 62     | 74     | 78     | 76      | 71      | 62      | 58      | 140-6/9-20                  | 69    | 87     | 96     | 95     | 94      | 90      | 81      | 76      |
| 125-12/3-15                 | 55    | 63     | 75     | 79     | 77      | 72      | 63      | 59      | 140-6/9-25                  | 70    | 88     | 97     | 96     | 95      | 91      | 82      | 77      |
| 125-12/3-24                 | 56    | 64     | 76     | 80     | 78      | 73      | 64      | 60      | 140-6/9-30                  | 71    | 89     | 98     | 97     | 96      | 92      | 83      | 78      |
| 125-4/6-20                  | 67    | 75     | 91     | 98     | 100     | 95      | 89      | 85      | 140-6/9-40                  | 73    | 91     | 100    | 99     | 98      | 94      | 85      | 80      |
| 125-4/6-22                  | 67    | 75     | 91     | 98     | 100     | 95      | 89      | 85      | 140-6/9-50                  | 74    | 92     | 101    | 100    | 99      | 95      | 86      | 81      |
| 125-4/6-25                  | 68    | 76     | 92     | 99     | 101     | 96      | 90      | 86      | 140-8/3-3                   | 64    | 74     | 82     | 87     | 86      | 85      | 72      | 67      |
| 125-4/6-27                  | 68    | 76     | 92     | 99     | 101     | 96      | 90      | 86      | 140-8/3-4                   | 64    | 74     | 82     | 87     | 86      | 85      | 72      | 67      |
| 125-4/6-30                  | 68    | 76     | 92     | 99     | 101     | 96      | 90      | 86      | 140-8/3-5.5                 | 65    | 75     | 83     | 88     | 87      | 86      | 73      | 68      |
| 125-4/6-37                  | 68    | 76     | 92     | 99     | 101     | 96      | 90      | 86      | 140-8/3-7.5                 | 67    | 77     | 85     | 90     | 89      | 88      | 75      | 70      |
| 125-4/6-40                  | 70    | 78     | 94     | 101    | 103     | 98      | 92      | 88      | 140-8/3-10                  | 68    | 78     | 86     | 91     | 90      | 89      | 76      | 71      |
| 125-4/6-50                  | 71    | 79     | 95     | 102    | 104     | 99      | 93      | 89      | 140-8/6-3                   | 63    | 75     | 84     | 88     | 86      | 80      | 70      | 67      |
| 125-6/6-5.5                 | 60    | 69     | 82     | 85     | 86      | 83      | 72      | 68      | 140-8/6-4                   | 64    | 76     | 85     | 89     | 87      | 81      | 71      | 68      |
| 125-6/6-7.5                 | 60    | 69     | 82     | 85     | 86      | 83      | 72      | 68      | 140-8/6-5.5                 | 65    | 77     | 86     | 90     | 88      | 82      | 72      | 69      |
| 125-6/6-10                  | 62    | 71     | 84     | 87     | 88      | 85      | 74      | 70      | 140-8/6-7.5                 | 66    | 78     | 87     | 91     | 89      | 83      | 73      | 70      |
| 125-6/6-15                  | 64    | 73     | 86     | 89     | 90      | 87      | 76      | 72      | 140-8/6-10                  | 67    | 79     | 88     | 92     | 90      | 84      | 74      | 71      |
|                             |       |        |        |        |         |         |         |         | 140-8/6-15                  | 68    | 80     | 89     | 93     | 91      | 85      | 75      | 72      |

| sound pressure level [dB A] |       |        |        |        |         |         |         |         | sound pressure level [dB A] |       |        |        |        |         |         |         |         |
|-----------------------------|-------|--------|--------|--------|---------|---------|---------|---------|-----------------------------|-------|--------|--------|--------|---------|---------|---------|---------|
| size                        | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz | size                        | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz |
| 140-8/9-4                   | 62    | 73     | 84     | 89     | 87      | 83      | 73      | 68      | 160-6/9-50                  | 72    | 90     | 99     | 98     | 97      | 93      | 84      | 79      |
| 140-8/9-5.5                 | 62    | 73     | 84     | 89     | 87      | 83      | 73      | 68      | 160-6/9-60                  | 73    | 91     | 100    | 99     | 98      | 94      | 85      | 80      |
| 140-8/9-7.5                 | 64    | 75     | 86     | 91     | 89      | 85      | 75      | 70      | 160-6/9-75                  | 74    | 92     | 101    | 100    | 99      | 95      | 86      | 81      |
| 140-8/9-10                  | 65    | 76     | 87     | 92     | 90      | 86      | 76      | 71      | 160-8/3-4                   | 63    | 73     | 81     | 86     | 85      | 84      | 71      | 66      |
| 140-8/9-15                  | 66    | 77     | 88     | 93     | 91      | 87      | 77      | 72      | 160-8/3-5.5                 | 65    | 75     | 83     | 88     | 87      | 86      | 73      | 68      |
| 140-8/9-20                  | 69    | 80     | 91     | 96     | 94      | 90      | 80      | 75      | 160-8/3-7.5                 | 66    | 76     | 84     | 89     | 88      | 87      | 74      | 69      |
| 160-6/3-10                  | 69    | 79     | 87     | 92     | 91      | 90      | 77      | 72      | 160-8/3-10                  | 67    | 77     | 85     | 90     | 89      | 88      | 75      | 70      |
| 160-6/3-15                  | 71    | 81     | 89     | 94     | 93      | 92      | 79      | 74      | 160-8/3-15                  | 69    | 79     | 87     | 92     | 91      | 90      | 77      | 72      |
| 160-6/3-20                  | 72    | 82     | 90     | 95     | 94      | 93      | 80      | 75      | 160-8/6-5.5                 | 61    | 76     | 85     | 87     | 84      | 78      | 70      | 66      |
| 160-6/3-25                  | 73    | 83     | 91     | 96     | 95      | 94      | 81      | 76      | 160-8/6-7.5                 | 63    | 78     | 87     | 89     | 86      | 80      | 72      | 68      |
| 160-6/3-30                  | 75    | 85     | 93     | 98     | 97      | 96      | 83      | 78      | 160-8/6-10                  | 64    | 79     | 88     | 90     | 87      | 81      | 73      | 69      |
| 160-6/6-15                  | 69    | 84     | 93     | 95     | 92      | 86      | 78      | 74      | 160-8/6-15                  | 66    | 81     | 90     | 92     | 89      | 83      | 75      | 71      |
| 160-6/6-20                  | 70    | 85     | 94     | 96     | 93      | 87      | 79      | 75      | 160-8/6-20                  | 67    | 82     | 91     | 93     | 90      | 84      | 76      | 72      |
| 160-6/6-25                  | 71    | 86     | 95     | 97     | 94      | 88      | 80      | 76      | 160-8/6-25                  | 68    | 83     | 92     | 94     | 91      | 85      | 77      | 73      |
| 160-6/6-30                  | 72    | 87     | 96     | 98     | 95      | 89      | 81      | 77      | 160-8/9-7.5                 | 61    | 79     | 88     | 87     | 86      | 82      | 73      | 68      |
| 160-6/6-40                  | 73    | 88     | 97     | 99     | 96      | 90      | 82      | 78      | 160-8/9-10                  | 62    | 80     | 89     | 88     | 87      | 83      | 74      | 69      |
| 160-6/6-50                  | 75    | 90     | 99     | 101    | 98      | 92      | 84      | 80      | 160-8/9-15                  | 64    | 82     | 91     | 90     | 89      | 85      | 76      | 71      |
| 160-6/9-15                  | 67    | 85     | 94     | 93     | 92      | 88      | 79      | 74      | 160-8/9-20                  | 65    | 83     | 92     | 91     | 90      | 86      | 77      | 72      |
| 160-6/9-20                  | 68    | 86     | 95     | 94     | 93      | 89      | 80      | 75      | 160-8/9-25                  | 66    | 84     | 93     | 92     | 91      | 87      | 78      | 73      |
| 160-6/9-25                  | 69    | 87     | 96     | 95     | 94      | 90      | 81      | 76      | 160-8/9-30                  | 67    | 85     | 94     | 93     | 92      | 88      | 79      | 74      |
| 160-6/9-30                  | 70    | 88     | 97     | 96     | 95      | 91      | 82      | 77      | 160-8/9-40                  | 68    | 86     | 95     | 94     | 93      | 89      | 80      | 75      |
| 160-6/9-40                  | 71    | 89     | 98     | 97     | 96      | 92      | 83      | 78      |                             |       |        |        |        |         |         |         |         |

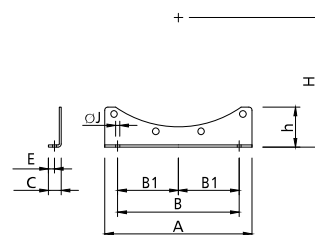
### 3.5. accessories

#### 3.5.1. mounting feet SWc

The mounting feet SWc are designed for installing a fan horizontally (the airflow is in parallel to the installation surface). The feet are made of galvanized steel sheet, powder-coated as standard using the same colour as the fan.

The feet attach to the fan's casing flange with M8 or M10 bolts, depending on the fan size. The openings in the lower part of the feet can be used for installation of shock absorbers.

| mounting feet SWc |         |        |        |         |        |        |        |        |        |
|-------------------|---------|--------|--------|---------|--------|--------|--------|--------|--------|
| fan               | type    | A [mm] | B [mm] | B1 [mm] | C [mm] | E [mm] | h [mm] | H [mm] | J [mm] |
| mcr Monsun R 40   | SW-40c  | 240    | 200    | 100     | 30     | 13     | 60     | 255.5  | 10     |
| mcr Monsun R 45   | SW-45c  | 450    | 400    | 200     | 35     | 14.5   | 125    | 278    | 12     |
| mcr Monsun R 50   | SW-50c  | 450    | 400    | 200     | 35     | 14.5   | 125    | 305    | 12     |
| mcr Monsun R 56   | SW-56c  | 520    | 430    | 215     | 40     | 17     | 155    | 338    | 13     |
| mcr Monsun R 63   | SW-63c  | 520    | 430    | 215     | 40     | 17     | 155    | 385.5  | 13     |
| mcr Monsun R 71   | SW-71c  | 490    | 450    | 225     | 50     | 21     | 150    | 445    | 13     |
| mcr Monsun R 80   | SW-80c  | 600    | 560    | 280     | 50     | 21     | 150    | 490    | 13     |
| mcr Monsun R 90   | SW-90c  | 620    | 560    | 280     | 60     | 28     | 175    | 547.5  | 18     |
| mcr Monsun R 100  | SW-100c | 680    | 560    | 280     | 60     | 28     | 185    | 597.5  | 18     |
| mcr Monsun R 125  | SW-125c | 1000   | 900    | 300     | 60     | 28     | 285    | 726.5  | 18     |
| mcr Monsun R 140  | SW-140c | 1100   | 1000   | 500     | 60     | 30     | 306    | 800    | 18     |
| mcr Monsun R 160  | SW-160c | 1300   | 1200   | 600     | 60     | 25     | 290    | 890    | 18     |

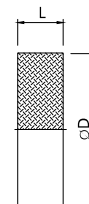


### 3.5.2. flexible connections KDc

The flexible connection KDc is used for eliminating vibrations generated during operation of the fan which might be transmitted to the ventilation system. The connection may also compensate for thermal expansion of ducts during the operation of smoke exhaust system. When an mcr Monsun R fan is integrated in a ventilation system including suction and pumping side, it should have two flexible connections, one on each side.

| flexible connections KDc |        |        |        |
|--------------------------|--------|--------|--------|
| fan                      | type   | D [mm] | L [mm] |
| mcr Monsun R 40          | KD-40c | 400    | 300    |
| mcr Monsun R 45          | KD-45c | 450    | 300    |
| mcr Monsun R 50          | KD-50c | 500    | 300    |
| mcr Monsun R 56          | KD-56c | 560    | 300    |
| mcr Monsun R 63          | KD-63c | 630    | 300    |
| mcr Monsun R 71          | KD-71c | 710    | 300    |

| flexible connections KDc |         |        |        |
|--------------------------|---------|--------|--------|
| fan                      | type    | D [mm] | L [mm] |
| mcr Monsun R 80          | KD-80c  | 800    | 300    |
| mcr Monsun R 90          | KD-90c  | 900    | 300    |
| mcr Monsun R 100         | KD-100c | 1000   | 300    |
| mcr Monsun R 125         | KD-125c | 1250   | 300    |
| mcr Monsun R 140         | KD-140c | 1400   | ~300   |
| mcr Monsun R 160         | KD-160c | 1600   | ~300   |

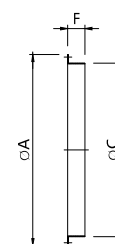


### 3.5.3. counter flanges PKc

The PKc counter flange is designed for installing flexible connections KD to mcr Monsun R fan and the ventilation system. As standard, the counter flange is made of powder-painted steel sheet.

| counter flanges PKc |        |        |        |        |
|---------------------|--------|--------|--------|--------|
| fan                 | type   | C [mm] | A [mm] | F [mm] |
| mcr Monsun R 40     | PK-40c | 400    | 480    | 80     |
| mcr Monsun R 45     | PK-45c | 450    | 530    | 80     |
| mcr Monsun R 50     | PK-50c | 500    | 590    | 80     |
| mcr Monsun R 56     | PK-56c | 560    | 650    | 80     |
| mcr Monsun R 63     | PK-63c | 630    | 720    | 80     |
| mcr Monsun R 71     | PK-71c | 710    | 800    | 80     |

| counter flanges PKc |         |        |        |        |
|---------------------|---------|--------|--------|--------|
| fan                 | type    | C [mm] | A [mm] | F [mm] |
| mcr Monsun R 80     | PK-80c  | 800    | 890    | 100    |
| mcr Monsun R 90     | PK-90c  | 900    | 1000   | 100    |
| mcr Monsun R 100    | PK-100c | 1000   | 1100   | 100    |
| mcr Monsun R 125    | PK-125c | 1250   | 1365   | 100    |
| mcr Monsun R 140    | PK-140c | 1400   | 1520   | 100    |
| mcr Monsun R 160    | PK-160c | 1600   | 1720   | 100    |

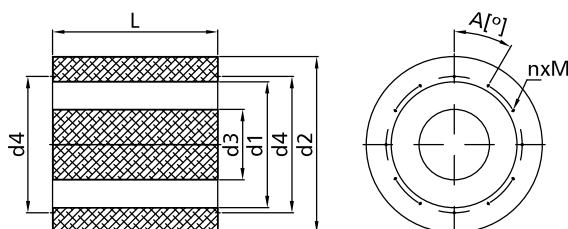


### 3.5.4. noise silencers THc

The THc noise silencer is designed to reduce the noise generated during fan operation in the ventilation system. The silencer's housing is made of galvanised steel sheet with core and internal part made of perforated zinc coated sheet; high-temperature wool with increased sound absorbing characteristics is used for damping.

The threaded holes in the silencer allow direct fastening on the fan housing flange. If using this installation method, seal the joint with high-temperature silicone.

| noise silencers THc |         |         |         |         |         |        |       |        |        |
|---------------------|---------|---------|---------|---------|---------|--------|-------|--------|--------|
| fan                 | type    | d1 [mm] | d2 [mm] | d3 [mm] | d4 [mm] | L [mm] | A [°] | nxM    | m [kg] |
| mcr Monsun R 40     | TH-40c  | 404     | 600     | 220     | 450     | 950    | 45    | 8xM8   | 53     |
| mcr Monsun R 45     | TH-45c  | 454     | 650     | 250     | 500     | 950    | 45    | 8xM8   | 56     |
| mcr Monsun R 50     | TH-50c  | 504     | 700     | 280     | 560     | 950    | 30    | 12xM8  | 62     |
| mcr Monsun R 56     | TH-56c  | 564     | 760     | 315     | 620     | 950    | 30    | 12xM8  | 69     |
| mcr Monsun R 63     | TH-63c  | 634     | 830     | 355     | 690     | 950    | 30    | 12xM8  | 78     |
| mcr Monsun R 71     | TH-71c  | 716     | 960     | 400     | 770     | 1400   | 22'30 | 16xM8  | 122    |
| mcr Monsun R 80     | TH-80c  | 806     | 1050    | 450     | 860     | 1400   | 22'30 | 16xM8  | 138    |
| mcr Monsun R 90     | TH-90c  | 906     | 1150    | 500     | 970     | 1400   | 22'30 | 16xM8  | 155    |
| mcr Monsun R 100    | TH-100c | 1006    | 1250    | 560     | 1070    | 1400   | 22'30 | 16xM10 | 170    |
| mcr Monsun R 125    | TH-125c | 1256    | 1500    | 600     | 1320    | 1400   | 18    | 20xM10 | 200    |



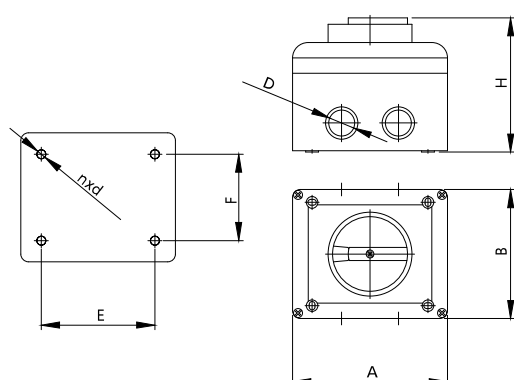
Silencers for fan sizes 140 and 160 on request.

### 3.5.5. service switches WS

The service switch WS is designed for cutting off power from fan for the period of servicing. The switch has an extra auxiliary contact for signaling the cut-off position in case of not returning the switch to original position, i.e. power supply to fan active after service inspection. For installation directly on the fan's housing, use special support bracket WW.

The 3-pole service switch is designed for one-speed 230/400VY motors and the 6-pole switch for one- and two-speed motors rated at 400/690 V D/Y and two-speed motors rated at 230/400 V.

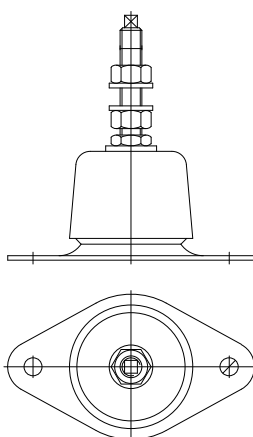
| service switches WS |        |        |        |        |        |          |       |       |                |          |
|---------------------|--------|--------|--------|--------|--------|----------|-------|-------|----------------|----------|
| type                | A [mm] | B [mm] | E [mm] | F [mm] | H [mm] | nxd [mm] | U [V] | I [A] | dławice D [mm] | comments |
| WS-16/3             | 90     | 90     | 67     | 48     | 95     | 4x4      | 690   | 16    | M20[x4]        | 3-pole   |
| WS-16/6             | 90     | 90     | 67     | 48     | 95     | 4x4      | 690   | 16    | M20[x4]        | 3-pole   |
| WS-32/6             | 116    | 100    | 90     | 52     | 108    | 4x4      | 690   | 32    | M25[x4]        | 6-pole   |
| WS-63/6             | 170    | 155    | 105    | 95     | 185    | 4x6      | 690   | 63    | M25/M32[x4]    | 6-pole   |
| WS-100/6            | 200    | 180    | 130    | 125    | 200    | 4x6      | 690   | 100   | M25/M40[x4]    | 6-pole   |



### 3.5.6. shock absorbers AM/BM

The shock absorbers AM/BM reduce vibrations generated during operation of the fan by limiting the vibration transferring to the floor. When a fan is placed correctly on the shock absorbers installed in the feet it works more silently and is more stable.

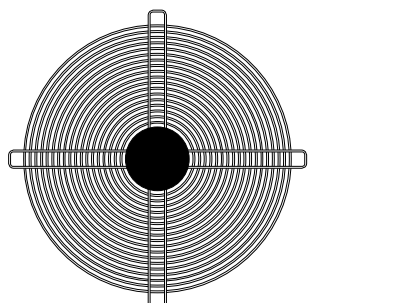
| shock absorbers AM/BM |        |
|-----------------------|--------|
| fan                   | type   |
| mcr Monsun R 40       | AM-40  |
| mcr Monsun R 45       | AM-45  |
| mcr Monsun R 50       | AM-50  |
| mcr Monsun R 56       | AM-56  |
| mcr Monsun R 63       | AM-63  |
| mcr Monsun R 71       | AM-71  |
| mcr Monsun R 80       | AM-80  |
| mcr Monsun R 90       | AM-90  |
| mcr Monsun R 100      | AM-100 |
| mcr Monsun R 125      | AM-125 |
| mcr Monsun R 140      | AM-140 |
| mcr Monsun R 160      | AM-160 |



### 3.5.7. cover grills SOc

The cover grills SOc protect the fan against foreign bodies. The product is designed for direct installation on the fan's housing. With long housing version, the covers may be installed on the suction and pressure side and for short housing only on the fan's suction side.

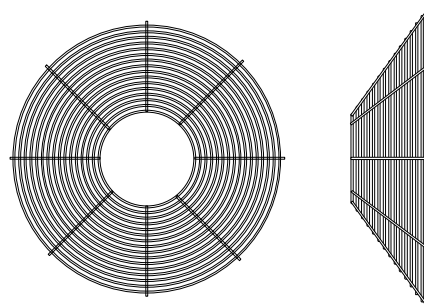
| cover grills SOc |         |
|------------------|---------|
| fan              | type    |
| mcr Monsun R 40  | SO-40c  |
| mcr Monsun R 45  | SO-45c  |
| mcr Monsun R 50  | SO-50c  |
| mcr Monsun R 56  | SO-56c  |
| mcr Monsun R 63  | SO-63c  |
| mcr Monsun R 71  | SO-71c  |
| mcr Monsun R 80  | SO-80c  |
| mcr Monsun R 90  | SO-90c  |
| mcr Monsun R 100 | SO-100c |
| mcr Monsun R 125 | SO-125c |



### 3.5.8. cover grills SOi

The cover grills SOi protect the fan against foreign bodies. The product is designed for direct mounting on the fan's casing flange. This type of covers is intended for short housing and may be installed only on the suction side of fan.

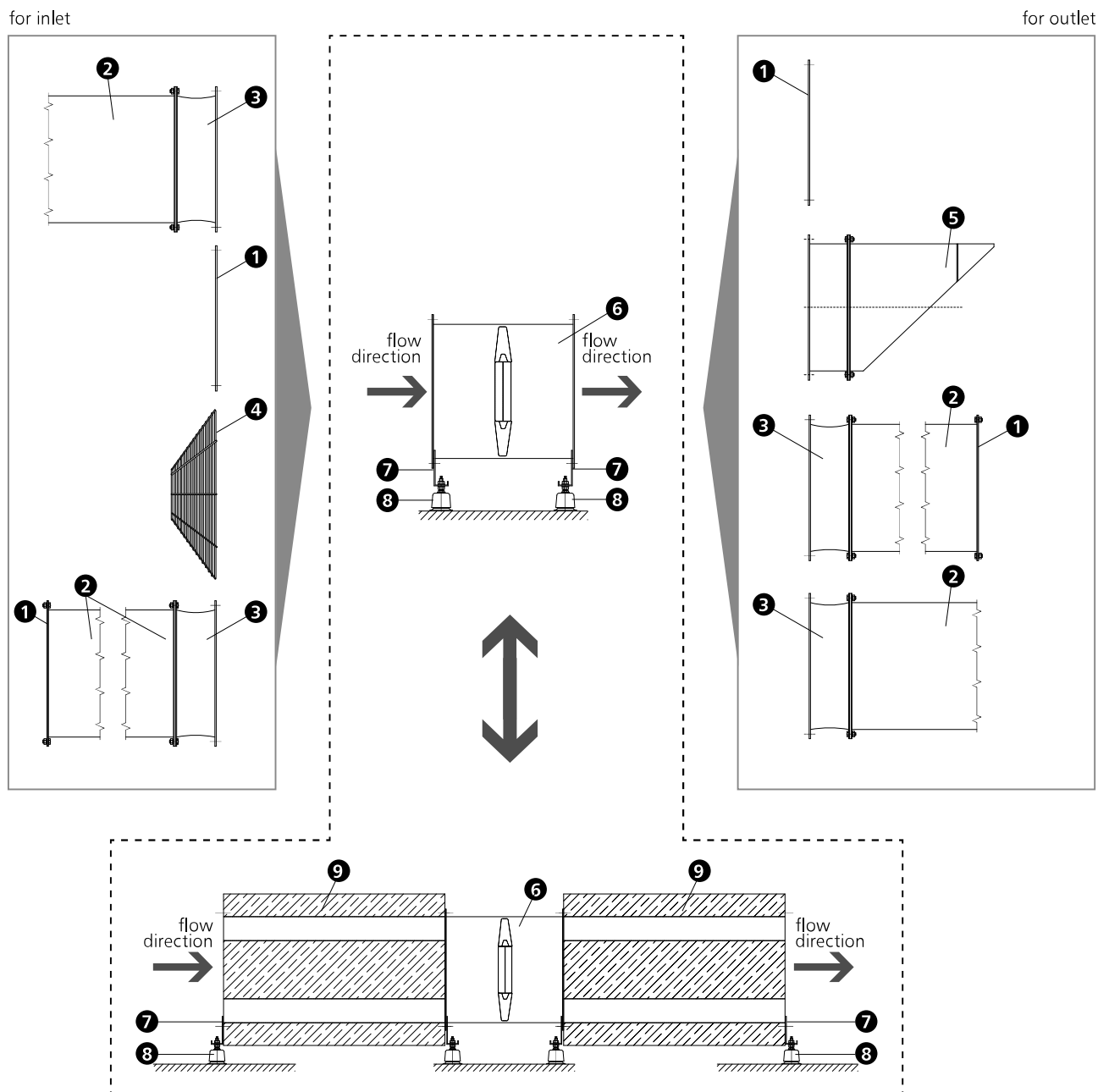
| cover grills SOi |           |            |
|------------------|-----------|------------|
| fan              | type      | motor size |
| mcr Monsun R 40  | SO-40i    | all        |
| mcr Monsun R 45  | SO-45i    | all        |
| mcr Monsun R 50  | SO-50i    | all        |
| mcr Monsun R 56  | SO-56i    | 80, 90     |
| mcr Monsun R 56  | SO-56i-1  | 100, 112   |
| mcr Monsun R 63  | SO-63i    | 80, 90     |
| mcr Monsun R 63  | SO-63i-1  | 100, 112   |
| mcr Monsun R 63  | SO-63i-2  | 132        |
| mcr Monsun R 63  | SO-63i-3  | 160        |
| mcr Monsun R 71  | SO-71i    | 80, 90     |
| mcr Monsun R 71  | SO-71i-1  | 100, 112   |
| mcr Monsun R 80  | SO-80i    | 90, 100    |
| mcr Monsun R 80  | SO-80i-1  | 112        |
| mcr Monsun R 80  | SO-80i-2  | 132        |
| mcr Monsun R 90  | SO-90i    | 90         |
| mcr Monsun R 90  | SO-90i-1  | 110, 112   |
| mcr Monsun R 90  | SO-90i-2  | 132        |
| mcr Monsun R 90  | SO-90i-3  | 160        |
| mcr Monsun R 100 | SO-100i   | 112        |
| mcr Monsun R 100 | SO-100i-1 | 132        |
| mcr Monsun R 100 | SO-100i-2 | 160        |
| mcr Monsun R 125 | SO-125i   | 132        |
| mcr Monsun R 125 | SO-125i-1 | 160        |
| mcr Monsun R 125 | SO-125i-2 | 180        |
| mcr Monsun R 125 | SO-125i-3 | 200        |
| mcr Monsun R 125 | SO-125i-4 | 225, 250   |
| mcr Monsun R 140 | SO-140i   | 132, 180   |
| mcr Monsun R 140 | SO-140i-1 | 160, 200   |
| mcr Monsun R 140 | SO-140i-2 | 225, 250   |
| mcr Monsun R 160 | SO-160i   | 132, 180   |
| mcr Monsun R 160 | SO-160i-1 | 160, 200   |
| mcr Monsun R 160 | SO-160i-2 | 225, 250   |
| mcr Monsun R 160 | SO-160i-3 | 280        |



### 3.6. installation

The fan may work in horizontal or vertical position, both indoors and outdoors. It may act as an exhaust fan (smoke exhaust) or supply fan depending on the installation type, and also as unidirectional or reversible device depending on the designed function.

#### 3.6.1. sample of fan installation variants in horizontal position



As an option, noise silencers may be installed on the fans (on one or on both sides) and the rest of the equipment as shown in diagram. The fans may be also coupled in a row.

- 1 - cover grill SOc
- 2 - ventilation system (duct; not included)
- 3 - flexible connection KDc with counter flange PKc

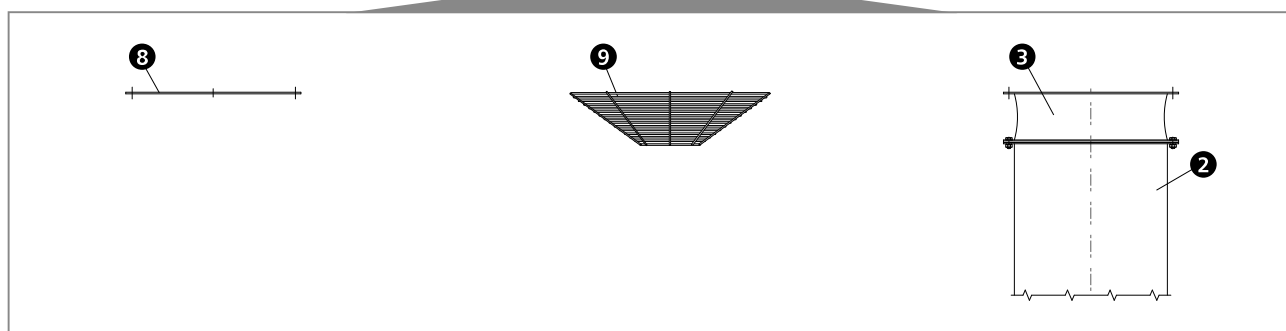
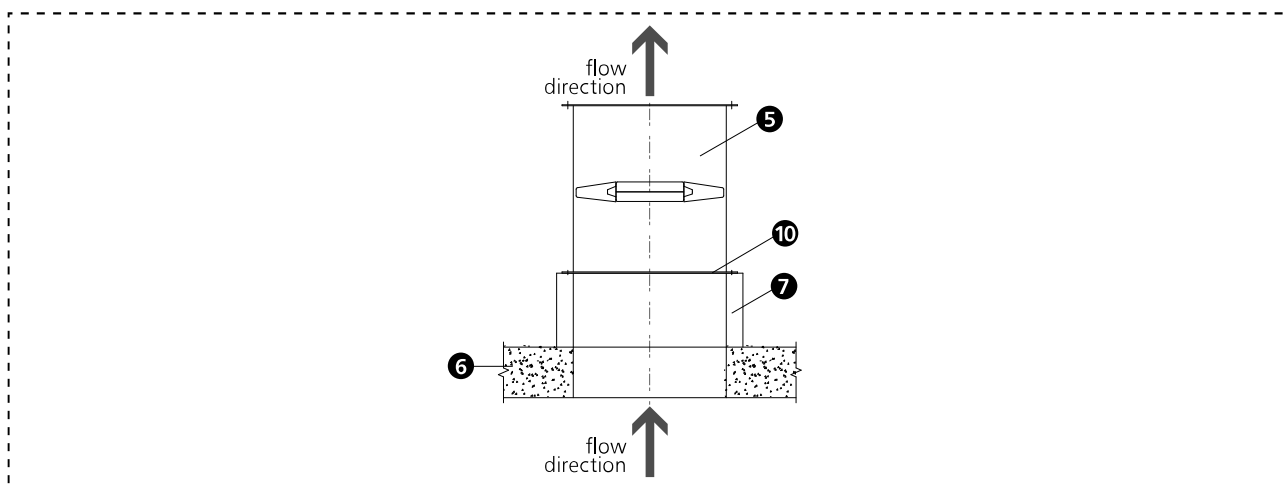
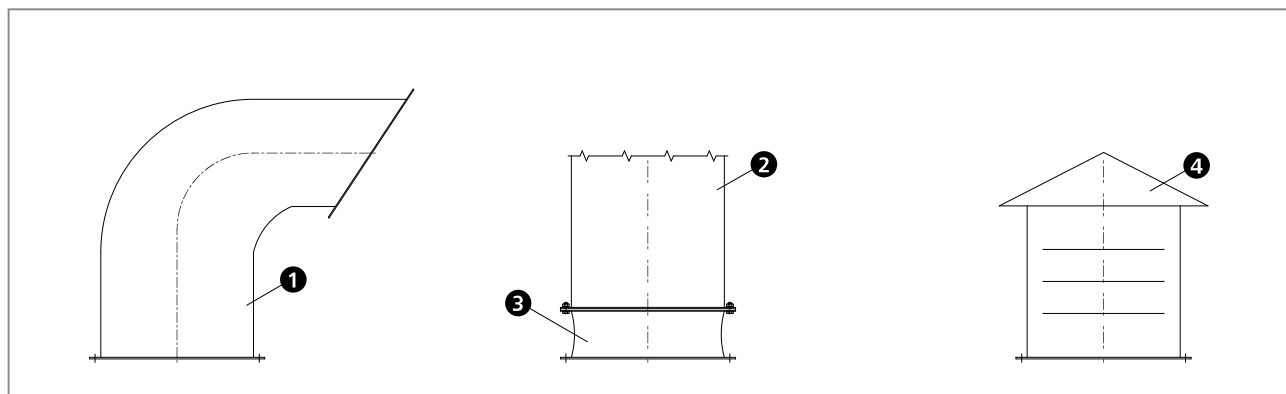
- 4 - cover grill SOi
- 5 - outlet hood (not included)
- 6 - mcr Monsun R fan
- 7 - mounting foot SWc

- 8 - shock absorber AM
- 9 - noise silencer THc



### 3.6.2. sample of fan installation variants in vertical position

for outlet



for inlet

As an option, noise silencers may be installed on the fans (on one or on both sides) and the rest of the equipment as shown in diagram. The fans may be also coupled in a row.

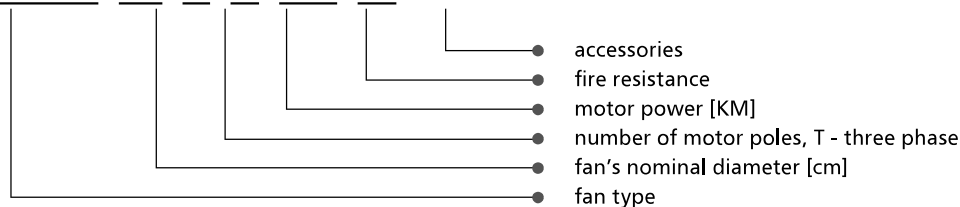
- 1 - outlet connection with grill (not included)
- 2 - ventilation system (duct; not included)
- 3 - flexible connection KDc with counter flange PKc
- 4 - roof outlet hood (not included)
- 5 - mcr Monsun R fan

- 6 - ceiling
- 7 - roof base/pedestal (not included)
- 8 - cover grill SOc
- 9 - cover grill SOi
- 10 - seal or damping mat (not include)

### 3.7. designation

For sizes from 40 to 100

**mcr Monsun R / 100 / 4T / 10 / F400 / SW**



#### Fan type

mcr Monsun R - fans with short housing 400°C/2h, 300°C/2h

mcr Monsun R/ATEX - fans with short housing 400°C/2h, 300°C/2h, ATEX certified

mcr Monsun R/CL - fans with long housing with revision cover 400°C/2h, 300°C/2h

#### Fire resistance

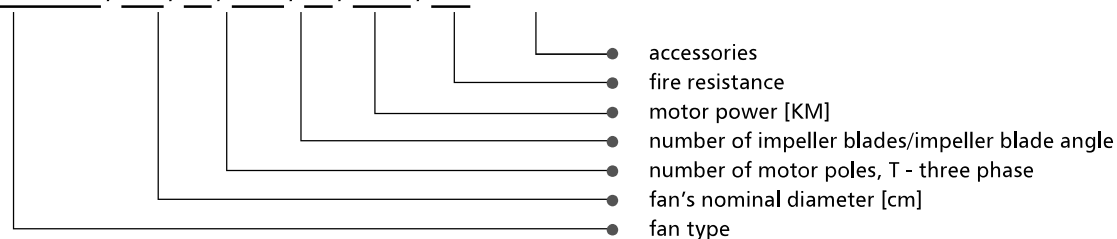
F300 – with approval 300°C/1h

F400 – with approval 400°C/2h

CAT3 – ATEX certified to category 3 Ex II3G

For sizes from 125 to 160

**mcr Monsun R / 125 / 4T / 9-20 / 10 / F400 / SW**



#### Fan type

mcr Monsun R - fans with short housing 400°C/2h, 300°C/2h

mcr Monsun R/ATEX - fans with short housing 400°C/2h, 300°C/2h, ATEX certified

mcr Monsun R/CL - fans with long housing with revision cover 400°C/2h, 300°C/2h

#### Fire resistance

F300 – with approval 300°C/1h

F400 – with approval 400°C/2h

CAT3 – ATEX certified to category 3 Ex II3G

### 3.8. power supply and control

The detailed information and electrical connection diagrams for specific models of fans are included in the operation and maintenance manuals.

It is recommended to use a dedicated, certified power supply and control unit **mcr Omega C2100c**.

General power supply and control diagram for mcr Monsun R fans using mcr Omega unit:

