# General characteristics

### Noise data

Acoustic measurements made at a distance of 1.0 metre from the surface of the fan (inner side) and 45° radially off the fan axis.

### Air flow performance data

The performance data were determined in accordance with AMCA standard 210-74 on a double chamber test set up with measurement on the suction side.

### Overload

All Crouzet fans have integrated protection against locked rotor condition to avoid damage to windings and electronic components. Restarting is automatic as soon as any constraints on running have been removed.

### Bearing systems

All Crouzet fans have specially designed and precision lubricated sleeve bearings for long, maintenance-free performance at low noise level.
Ball bearing on request.

### Safety

All fans are designed and manufactured in conformance with the requirements of UL, CSA and VDE.

### Life

**AC fans**

**Bearings sleeve**

| | |
|---|---|
| ☑ 120 x 38 mm | 100 000 hours at 25 °C<br>25 000 hours at 55 °C<br>10 000 hours at 70 °C |
| ☑ 92 x 25 mm<br>80 x 38 mm<br>80 x 25 mm | 80 000 hours at 25 °C<br>20 000 hours at 55 °C<br>10 000 hours at 70 °C |

**AC fans**

**Ball bearings**

| | |
|---|---|
| ☑ 120 x 38 mm | 100 000 hours at 25 °C<br>25 000 hours at 55 °C<br>10 000 hours at 70 °C |
| ☑ 92 x 25 mm<br>80 x 38 mm<br>80 x 25 mm | 80 000 hours at 25 °C<br>25 000 hours at 55 °C<br>10 000 hours at 80 °C |

**DC fans**

**Bearings sleeve**

| | |
|---|---|
| ☑ 120 x 38 mm<br>92 x 25 mm<br>80 x 25 mm | 100 000 hours at 25 °C<br>80 000 hours at 25 °C<br>80 000 hours at 25 °C |
| ☑ 60 x 25 mm | 65 000 hours at 25 °C<br>30 000 hours at 55 °C<br>20 000 hours at 65 °C |

### Operating temperature

AC : -10 °C at + 70 °C
DC : 0 °C at + 70 °C

### Storage temperature

AC : -30 °C at + 75 °C
DC : -30 °C at + 75 °C

### Operating voltage

AC : 115 V : 85 V - 125 V
220 V : 185 V - 245 V

DC : 12 V : 10.2 V - 13.8 V
24 V : 20.4 V - 27.6 V

### Dielectric strength

AC : 1500 V ~ for one minute
DC : 600 V ~ for 2 seconds

### Insulation resistance

AC : 500 V ⎓ 100 M
DC : 250 V ⎓ 10 M

### Flow conversion table

| | CFM | m³/h | m³/min | l/min | l/s |
|---|---|---|---|---|---|
| 1 CFM | 1 | 1.7 | 0.028 | 28.3 | 0.47 |
| 1 m³/h | 0.588 | 1 | 0.017 | 16.67 | 0.28 |
| 1 m³/min | 35.28 | 60 | 1 | 1000 | 16.67 |
| 1 l/min | 0.035 | 0.06 | 0.001 | 1 | 0.017 |
| 1 l/s | 2.12 | 3.6 | 0.06 | 60 | 1 |

### The new KDE range
### Self-commutated DC fans

The range of DC fans have the advantage of a new, patented design referred to as "single winding".

This new range, the KDE range, forms a useful replacement for the MD range and provides the following improvements:

- higher air flow thanks to smaller motor diameter,
- quieter (gain of at least 2 dB),
- longer life,
- greater dielectric strength.

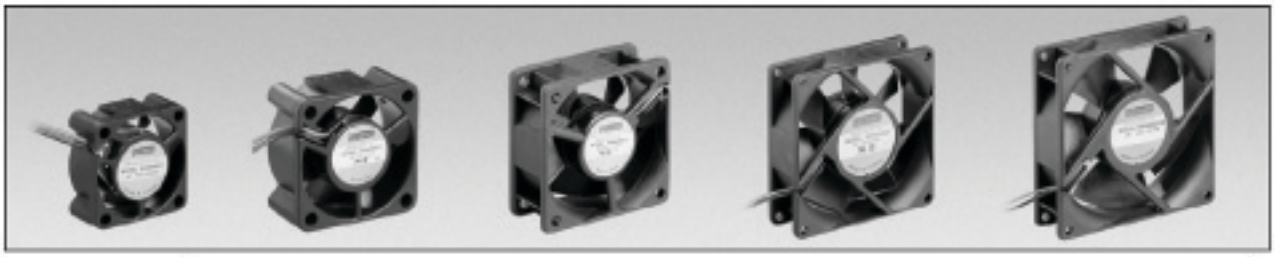
The new range offers upward compatibility (1) with the MD range (see table below) and allows us to offer fans even more compact than the 0 x 0, 0 x 0, 0 x 0, and 0 x 0 models.

*(1) Current consumption should be checked however, as it may be higher in some cases.*

| Old part no | New part no |
|---|---|
| **Ø 60** | |
| 99 486 177 | 99 484 401 |
| 99 486 179 | 99 484 403 |
| 99 486 179 | 99 484 404 |
| **Ø 80** | |
| 99 486 277 | 99 484 301 |
| 99 486 279 | 99 484 303 |
| 99 486 287 | 99 484 304 |
| 99 489 287 | 99 484 354 |
| 99 486 289 | 99 484 306 |
| **Ø 92** | |
| 99 486 377 | 99 484 201 |
| 99 489 377 | 99 484 251 |
| 99 486 379 | 99 484 203 |
| 99 486 387 | 99 484 204 |
| 99 486 389 | 99 484 206 |

| Old part no | New part no |
|---|---|
| **Ø 120** | |
| 99 487 477 | 99 484 001 |
| 99 487 478 | 99 484 003 |
| 99 487 479 | 99 484 004 |
| 99 487 487 | 99 484 005 |
| 99 487 488 | 99 484 007 |
| 99 487 489 | 99 484 008 |
| 99 487 377 | 99 484 101 |
| 99 487 378 | 99 484 102 |
| 99 487 379 | 99 484 103 |
| 99 487 387 | 99 484 104 |
| 99 487 388 | 99 484 105 |
| 99 487 389 | 99 484 106 |

# Brushless DC Axial Fans



**General Specifications**

**Material:**

| | |
|---|---|
| Body | PBT UL 94V-0 |
| Fan | PBT UL 94V-0 |
| Insulation | Class E |
| Approvals | UL, cUL Recognized E118509 |

**Box Count:**

| | |
|---|---|
| 120 x 38 | 40 pieces |
| 120 x 25 | 40 pieces |
| 92 x 25 | 50 pieces |
| 80 x 25 | 50 pieces |
| 60 x 25 | 100 pieces |
| 60 x 15 | 200 pieces |
| 40 x 20 | 200 pieces |
| 40 x 10 | 400 pieces |
| 25 x 10 | 500 pieces |

| Part Number | Voltage (V) | Current (A) | Speed (RPM) | Power (W) | Airflow (CFM) | Max. Air Pressure (Inch-H2O) | Noise (dBA) | Weight (g) | Bearing Type |
|---|---|---|---|---|---|---|---|---|---|
| **80 x 80 x 25mm (3 1/8 x 1 1/2 )** | | | | | | | | | |
| 99484301 | 12 | 0.22 | 3000 | 2.6 | 41.7 | 0.19 | 33.0 | 120 | Sleeve |
| 99484303 | 12 | 0.12 | 2200 | 1.4 | 29.4 | 0.15 | 24.5 | 120 | Sleeve |
| 99484304 | 24 | 0.15 | 3000 | 3.6 | 41.7 | 0.19 | 33.0 | 120 | Sleeve |
| 99484305 | 24 | 0.12 | 2650 | 2.9 | 34.4 | 0.17 | 28.0 | 120 | Sleeve |
| 99484306 | 24 | 0.10 | 2200 | 2.4 | 29.4 | 0.15 | 24.5 | 120 | Sleeve |
| 99484351 | 12 | 0.22 | 3200 | 2.6 | 42.5 | 0.23 | 33.5 | 120 | Ball |
| 99484353 | 12 | 0.12 | 2500 | 1.4 | 30 | 0.14 | 25.0 | 120 | Ball |
| 99484354 | 24 | 0.22 | 3100 | 2.6 | 38 | 0.23 | 33.5 | 120 | Ball |
| 99484356 | 24 | 0.12 | 2350 | 1.4 | 27 | 0.14 | 25.0 | 120 | Ball |
| **60 x 60 x 25 (mm)** | | | | | | | | | |
| 99484401 | 12 | 0.19 | 4500 | 2.2 | 21.7 | 0.20 | 34.0 | 60 | Sleeve |
| 99484402 | 12 | 0.13 | 3800 | 1.6 | 17.6 | 0.14 | 31.0 | 60 | Sleeve |
| 99484403 | 12 | 0.09 | 3300 | 1.2 | 15.9 | 0.10 | 26.7 | 60 | Sleeve |
| 99484404 | 24 | 0.11 | 4500 | 2.6 | 21.7 | 0.20 | 34.0 | 60 | Sleeve |
| 99484406 | 24 | 0.06 | 3300 | 1.4 | 15.9 | 0.10 | 26.7 | 60 | Sleeve |
| 99484451 | 12 | 0.19 | 4700 | 2.2 | 22.1 | 0.22 | 34.3 | 60 | Ball |
| 99484454 | 24 | 0.11 | 4500 | 2.6 | 21.7 | 0.20 | 34.0 | 60 | Ball |
| **60 x 60 x 15 (mm)** | | | | | | | | | |
| 99484501 | 12 | 0.16 | 4000 | 1.9 | 17.8 | 0.14 | 31.0 | 45 | Sleeve |
| 99484502 | 12 | 0.09 | 3300 | 1.2 | 14.8 | 0.11 | 26.0 | 45 | Sleeve |
| **40 x 40 x 20 (mm)** | | | | | | | | | |
| 99484601 | 12 | 0.07 | 6000 | 0.9 | 6.5 | 0.12 | 25.5 | 35 | Sleeve |
| 99484602 | 12 | 0.50 | 4500 | 0.6 | 5.2 | 0.08 | 22.8 | 35 | Sleeve |
| 99484603 | 24 | 0.07 | 6500 | 1.6 | 7.8 | 0.16 | 29.0 | 35 | Sleeve |
| 99484604 | 24 | 0.05 | 6000 | 1.2 | 6.5 | 0.12 | 25.5 | 35 | Sleeve |
| **40 x 40 x 10 (mm)** | | | | | | | | | |
| 99484701 | 12 | 0.09 | 5500 | 1.1 | 5.8 | 0.11 | 25.0 | 15.3 | Sleeve |
| 99484751 | 12 | 0.09 | 6600 | 1.1 | 6.5 | 0.15 | 27.0 | 15.3 | Ball |
| **25 x 25 x 10 (mm)** | | | | | | | | | |
| 99484801 | 12 | 0.10 | 10000 | 1.1 | 1.5 | 0.10 | 23.0 | 7 | Sleeve |

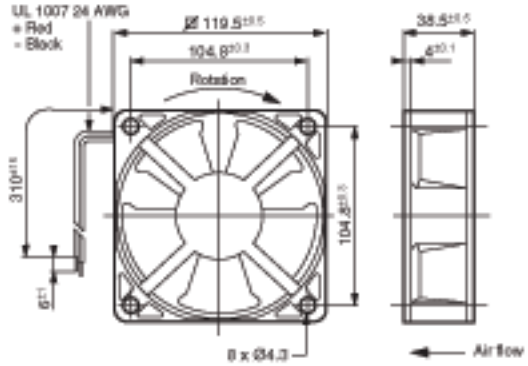
| Other Information | To Order, Specify: | |
|---|---|---|
| For dimensions and air flow performance see page 154.<br>All DC fans are supplied with Lead wires only. | 99484002 | Standard, normally stocked products |
| | 99484003 | Products produced to order B minimum quantities may apply |

4

# Brushless DC Axial Fans - Dimensions and Performance

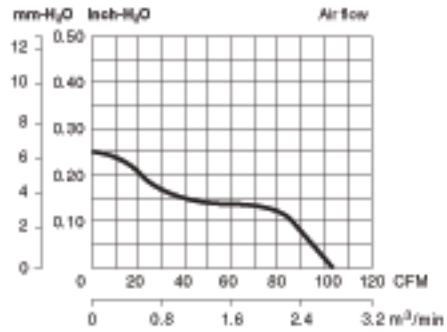
## Dimensions

**Ø 120 x 38**
**120 x 25**



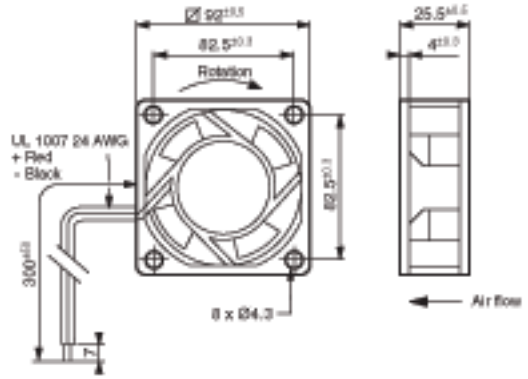

## Air performance

**99 484 002 - 99 484 006**

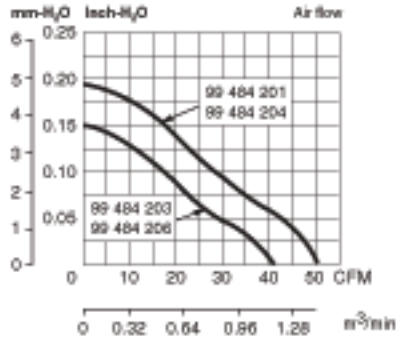



---

**Ø 92 x 25**

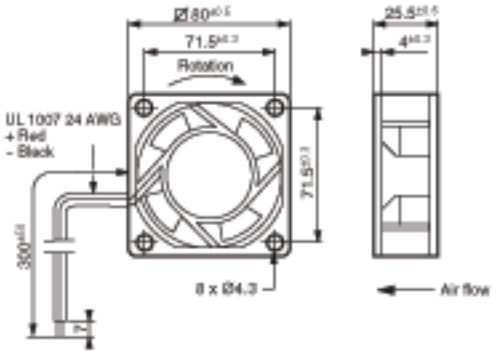



**99 484 201 / 204 - 99 484 203 / 206**

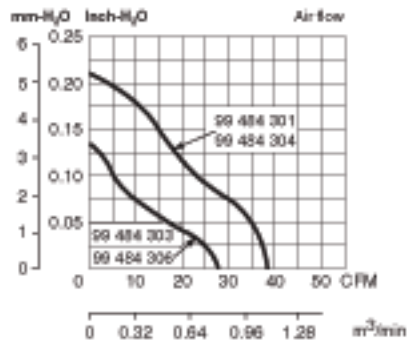



---

**Ø 80 x 25**

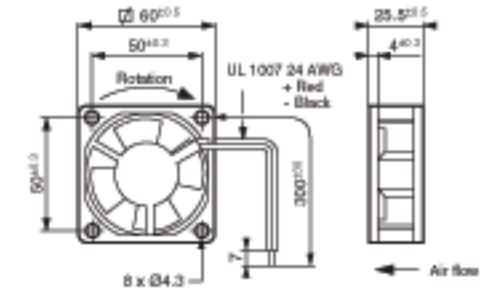



**99 484 301 / 304 - 99 484 303 / 306**

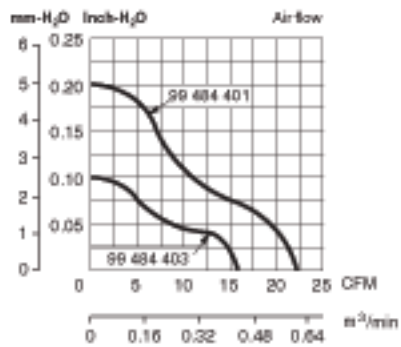



---

**Ø 60 x 25**




**99 484 401 - 99 484 403**






Crouzet