

## KARTA KATALOGOWA

# R3G190-RC05-22

Wentylator promieniowy EC RadiCal, łopatki zakrzywione do tyłu, jednostronnie ssący

Producent: ebm-papst



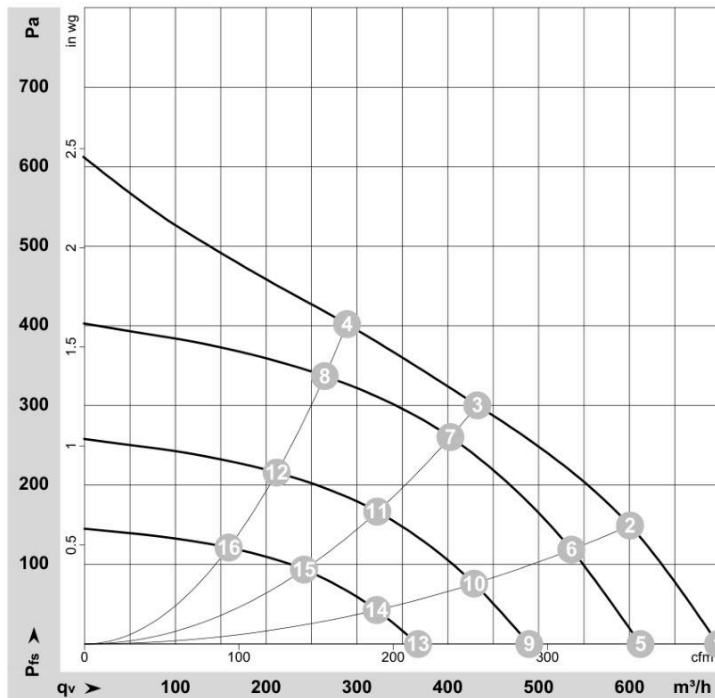
Zdjęcie poglądowe

| Dane znamionowe           |                        |
|---------------------------|------------------------|
| Napięcie znamionowe       | 1~ 230 V (200...240 V) |
| Częstotliwość             | 50/60 Hz               |
| Prędkość obrotowa         | 3200 obr/min           |
| Pobór mocy                | 83 W                   |
| Pobór prądu               | 0,75 A                 |
| Maks. wydajność           | 695 m³/h               |
| Maks. ciśnienie statyczne | 610 Pa                 |
| Temperatura otoczenia     | -25...+60 °C           |
| Regulacja obrotów         | 0-10 V / PWM           |

| Budowa                 |                                     |
|------------------------|-------------------------------------|
| Wielkość               | 190 mm                              |
| Silnik                 | M3G055-BI                           |
| Materiał wirnika       | tworzywo PA                         |
| Liczba łopatek         | 7                                   |
| Kierunek obrotów       | w prawo, patrząc na wirnik          |
| Stopień ochrony        | IP54                                |
| Klasa izolacji         | B                                   |
| Zabezpieczenie silnika | ochrona przed zablokowaniem wirnika |
| Łożyskowanie           | kulkowe                             |
| Masa                   | 1,1 kg                              |

## Charakterystyka przepływowa (50 Hz)

### Curves: Air performance 50 Hz



$$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$$

Measurement: LU-171430-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Dane na okładce wg karty katalogowej producenta ebm-papst (oryginał na kolejnych stronach).  
Wartości przy maksymalnym obciążeniu; producent zastrzega możliwość zmian.

## Dobór, wycena i dostawa – zapytaj LUFTBERG

tel. +48 600 100 371 · tel. +48 604 959 199  
biuro@luftberg.pl · www.luftberg.pl

**R3G190-RC05-22**

# EC centrifugal fan - RadiCal

backward-curved, single-intake

**ebm-papst Mulfingen GmbH & Co. KG**

Bachmühle 2 · D-74673 Mulfingen

Phone +49 7938 81-0

Fax +49 7938 81-110

info1@de.ebmpapst.com

www.ebmpapst.com

## Nominal data

|                          |                   |            |
|--------------------------|-------------------|------------|
| Type                     | R3G190-RC05-22    |            |
| Motor                    | M3G055-BI         |            |
| Phase                    |                   | 1~         |
| Nominal voltage          | VAC               | 230        |
| Nominal voltage range    | VAC               | 200 .. 240 |
| Frequency                | Hz                | 50/60      |
| Method of obtaining data |                   | ml         |
| Speed (rpm)              | min <sup>-1</sup> | 3200       |
| Power consumption        | W                 | 83         |
| Current draw             | A                 | 0.75       |
| Min. ambient temperature | °C                | -25        |
| Max. ambient temperature | °C                | 60         |

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment  
Subject to change



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## Technical description

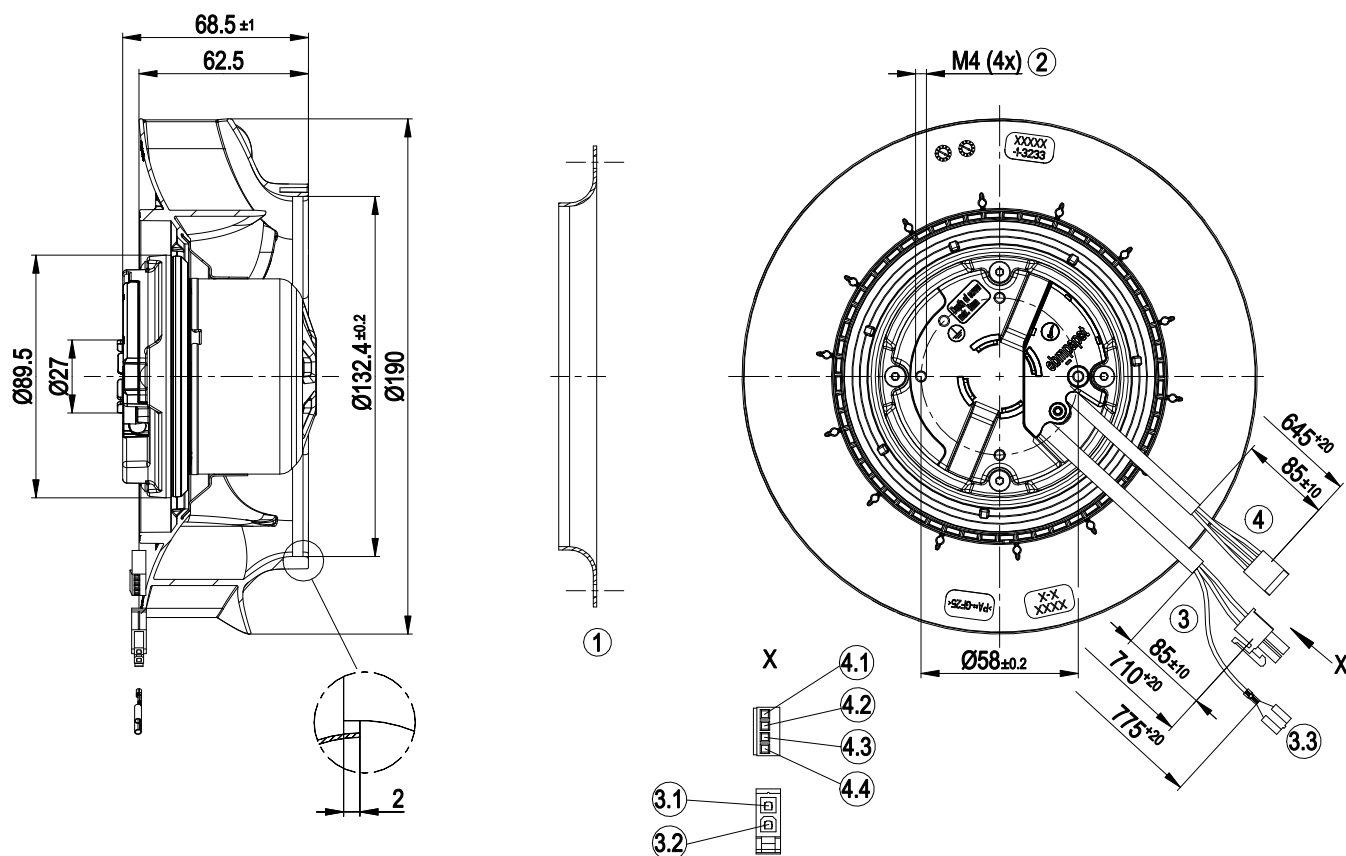
|                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Weight                                                                     | 1.1 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Fan size                                                                   | 190 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Rotor surface                                                              | Thick-film passivated                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Impeller material                                                          | PA plastic                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Number of blades                                                           | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Direction of rotation                                                      | Clockwise, viewed toward rotor                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Degree of protection                                                       | IP54                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Insulation class                                                           | "B"                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Max. permitted ambient temp. for motor (transport/storage)                 | - 40 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Min. permitted ambient temp. for motor (transport/storage)                 | + 80 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Installation position                                                      | Any                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Condensation drainage holes                                                | None, open rotor                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Mode                                                                       | S1                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Motor bearing                                                              | Ball bearing                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Technical features                                                         | <ul style="list-style-type: none"> <li>- Output 10 VDC, max. 1.1 mA</li> <li>- Tach output</li> <li>- Power limiter</li> <li>- Motor current limitation</li> <li>- Soft start</li> <li>- Control input 0-10 VDC / PWM</li> <li>- Control interface with SELV potential safely disconnected from the mains</li> <li>- Overvoltage detection</li> <li>- Thermal overload protection for electronics/motor</li> <li>- Line undervoltage detection</li> </ul> |
| Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system) | <= 3.5 mA                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Motor protection                                                           | Locked-rotor protection                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| With cable                                                                 | Variable                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Protection class                                                           | I (with customer connection of protective earth)                                                                                                                                                                                                                                                                                                                                                                                                          |
| Conformity with standards                                                  | EN 60335-1; CE                                                                                                                                                                                                                                                                                                                                                                                                                                            |

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## Product drawing



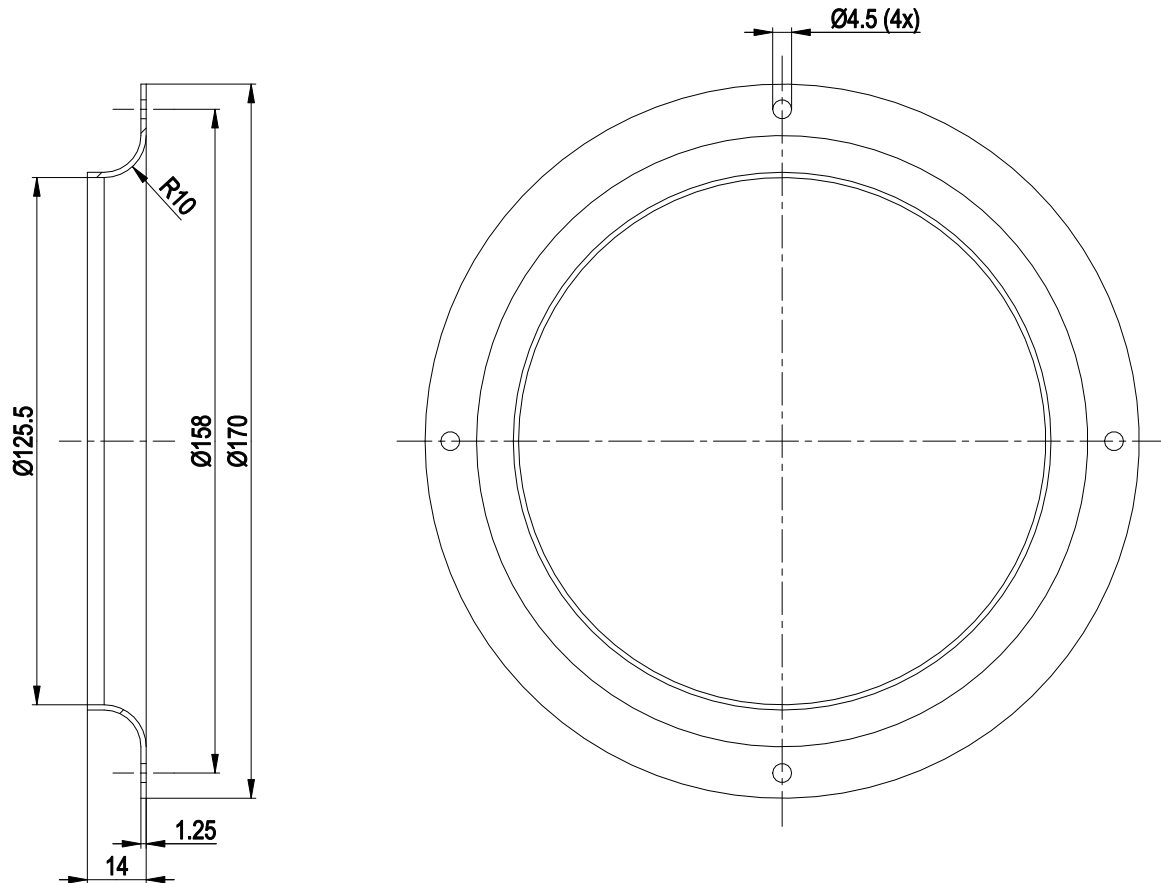
|     |                                                                                     |
|-----|-------------------------------------------------------------------------------------|
| 1   | Accessory part: inlet ring 09576-2-4013 not included in scope of delivery           |
| 2   | Max. clearance for screw 5 mm                                                       |
| 3   | Cable PVC AWG20, 3-pole connector housing JST NVR-03, 2x crimped socket JST SVH-21T |
| 3.1 | L (black)                                                                           |
| 3.2 | N (blue)                                                                            |
| 3.3 | PE (green-yellow), flat push-on receptacle 6.3 x 0.8                                |
| 4   | Cable PVC AWG22, 4-pole connector housing JST PHR-4, 4x crimped socket JST SPH-002T |
| 4.1 | GND (blue)                                                                          |
| 4.2 | +10 V (red)                                                                         |
| 4.3 | 0-10 V PWM (yellow)                                                                 |
| 4.4 | Tach (white)                                                                        |

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## Accessory part

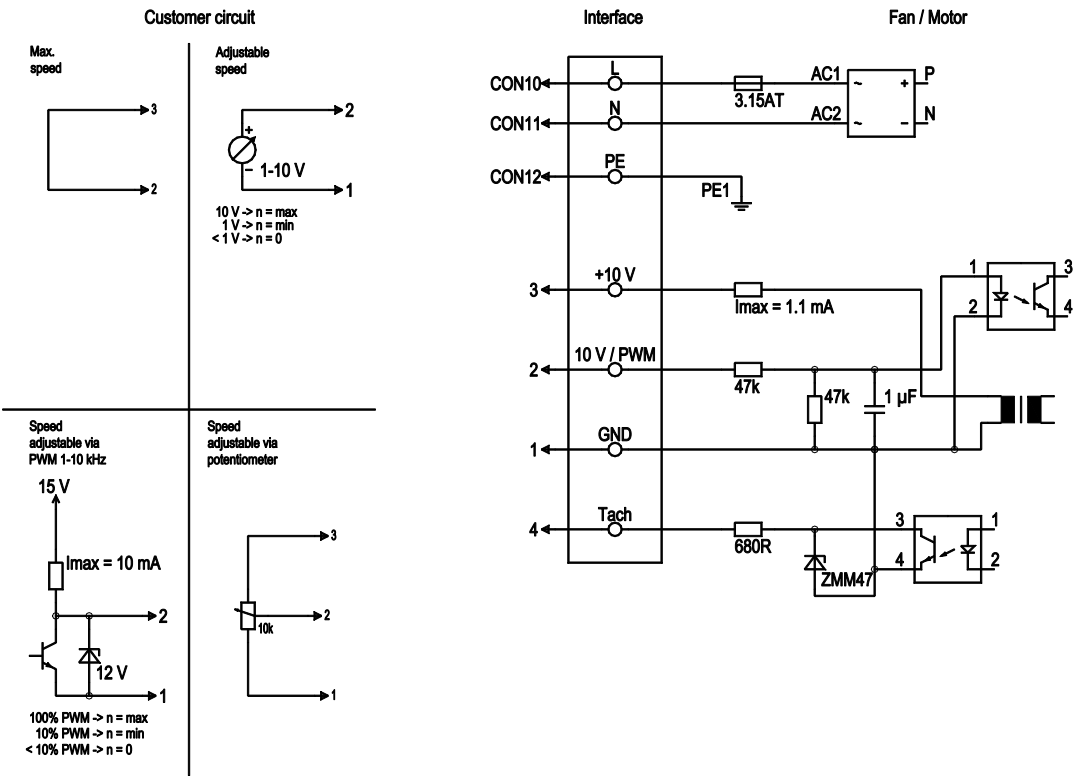


1 Accessory part: inlet ring 09576-2-4013 not included in scope of delivery

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Connection diagram



| No. | Conn. | Designation        | Color        | Function/assignment                                                        |
|-----|-------|--------------------|--------------|----------------------------------------------------------------------------|
|     | CON10 | L                  | black        | Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range            |
|     | CON11 | N                  | blue         | Neutral conductor                                                          |
|     | CON12 | PE                 | green/yellow | Protective earth                                                           |
|     | 1     | GND                | blue         | GND connection for control interface                                       |
|     | 2     | 0-10V PWM          | yellow       | Control input 0-10 V or PWM, electrically isolated                         |
|     | 3     | 10 V / max. 1,1 mA | red          | Voltage output 10 VDC 1.1 mA, electrically isolated, short-circuit-proof   |
|     | 4     | Tacho              | white        | Tach output: open collector, 1 pulse per revolution, electrically isolated |

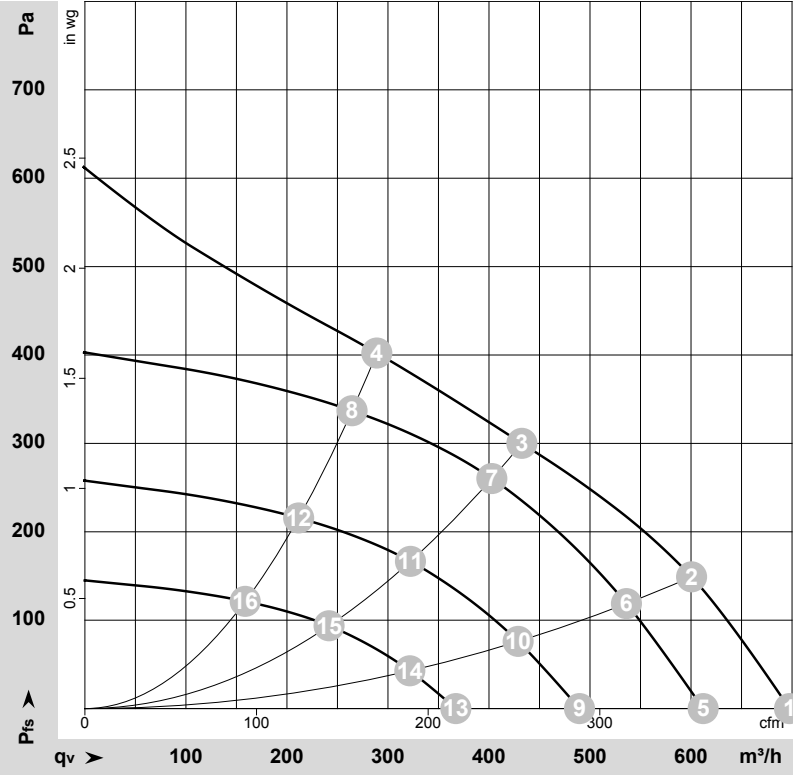


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Measured values

|    | U   | f  | n                 | P <sub>ed</sub> | I    | LpA <sub>in</sub> | LwA <sub>in</sub> | qv   | P <sub>fs</sub> | qv  | P <sub>fs</sub> |
|----|-----|----|-------------------|-----------------|------|-------------------|-------------------|------|-----------------|-----|-----------------|
|    | V   | Hz | min <sup>-1</sup> | W               | A    | dB(A)             | dB(A)             | m³/h | Pa              | CFM | inH2O           |
| 1  | 230 | 50 | 3420              | 75              | 0.67 | 66                | 73                | 695  | 0               | 410 | 0.00            |
| 2  | 230 | 50 | 3360              | 79              | 0.70 | 60                | 68                | 600  | 150             | 355 | 0.60            |
| 3  | 230 | 50 | 3200              | 83              | 0.75 | 58                | 66                | 435  | 300             | 255 | 1.20            |
| 4  | 230 | 50 | 3275              | 83              | 0.73 | 60                | 69                | 290  | 400             | 170 | 1.61            |
| 5  | 230 | 50 | 3000              | 51              | 0.45 |                   |                   | 610  | 0               | 360 | 0.00            |
| 6  | 230 | 50 | 3000              | 56              | 0.50 |                   |                   | 535  | 119             | 315 | 0.48            |
| 7  | 230 | 50 | 3000              | 69              | 0.60 |                   |                   | 405  | 261             | 235 | 1.05            |
| 8  | 230 | 50 | 3000              | 64              | 0.56 |                   |                   | 265  | 337             | 155 | 1.35            |
| 9  | 230 | 50 | 2400              | 26              | 0.23 |                   |                   | 490  | 0               | 290 | 0.00            |
| 10 | 230 | 50 | 2400              | 29              | 0.26 |                   |                   | 430  | 76              | 250 | 0.31            |
| 11 | 230 | 50 | 2400              | 35              | 0.31 |                   |                   | 320  | 167             | 190 | 0.67            |
| 12 | 230 | 50 | 2400              | 33              | 0.29 |                   |                   | 210  | 216             | 125 | 0.87            |
| 13 | 230 | 50 | 1800              | 11              | 0.10 |                   |                   | 365  | 0               | 215 | 0.00            |
| 14 | 230 | 50 | 1800              | 12              | 0.11 |                   |                   | 320  | 43              | 190 | 0.17            |
| 15 | 230 | 50 | 1800              | 15              | 0.13 |                   |                   | 240  | 94              | 140 | 0.38            |
| 16 | 230 | 50 | 1800              | 14              | 0.12 |                   |                   | 160  | 121             | 95  | 0.49            |

U = Power supply · f = Frequency · n = Speed (rpm) · P<sub>ed</sub> = Power consumption · I = Current draw · LpA<sub>in</sub> = Sound pressure level intake side · LwA<sub>in</sub> = Sound power level intake side  
qv = Air flow · p<sub>fs</sub> = Pressure increase

