**R4D630-AQ15-01**

# AC centrifugal fan

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

Limited partnership · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

## Nominal data

| | |
|---|---|
| **Type** | **R4D630-AQ15-01** |
| **Motor** | **M4D138-LA** |

| | | | |
|---|---|---|---|
| Phase | | 3~ | 3~ |
| Nominal voltage | VAC | 230 | 400 |
| Wiring | | Δ | Y |
| Frequency | Hz | 50 | 50 |
| Method of obtaining data | | ml | ml |
| Valid for approval/standard | | - | - |
| Speed (rpm) | $min^{-1}$ | 1300 | 1300 |
| Power consumption | W | 4250 | 4250 |
| Current draw | A | 13.1 | 7.55 |
| Min. back pressure | Pa | 0 | 0 |
| Min. back pressure | in. wg | 0 | 0 |
| Min. ambient temperature | °C | -40 | -40 |
| Max. ambient temperature | °C | 60 | 60 |
| Starting current | A | | 27 |

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

# AC centrifugal fan

backward-curved, single-intake

## Technical description

| | |
|---|---|
| **Weight** | 27.8 kg |
| **Fan size** | 630 mm |
| **Rotor surface** | Cast in aluminum |
| **Impeller material** | Sheet aluminum |
| **Number of blades** | 6 |
| **Direction of rotation** | Clockwise, viewed toward rotor |
| **Degree of protection** | IP20 |
| **Insulation class** | "F" |
| **Moisture (F) / Environmental (H) protection class** | F0 |
| **Ambient temperature note** | Occasional start-up between -40°C and -25°C is permissible.<br>For continuous operation at temperatures below -25°C (e.g. refrigeration applications) we recommend our fan design with special low-temperature bearings. |
| **Max. permitted ambient temp. for motor (transport/storage)** | + 80 °C |
| **Min. permitted ambient temp. for motor (transport/storage)** | - 40 °C |
| **Installation position** | Any |
| **Cooling hole/opening** | On rotor and stator sides |
| **Mode** | S1 |
| **Motor bearing** | Ball bearing |
| **Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)** | <= 3.5 mA |
| **Motor protection** | Thermal overload protector (TOP) with basic insulation |
| **With cable** | Lateral |
| **Protection class** | I (with customer connection of protective earth) |
| **Conformity with standards** | EN 61800-5-1; EN 60034 |
| **Approval** | VDE; EAC |

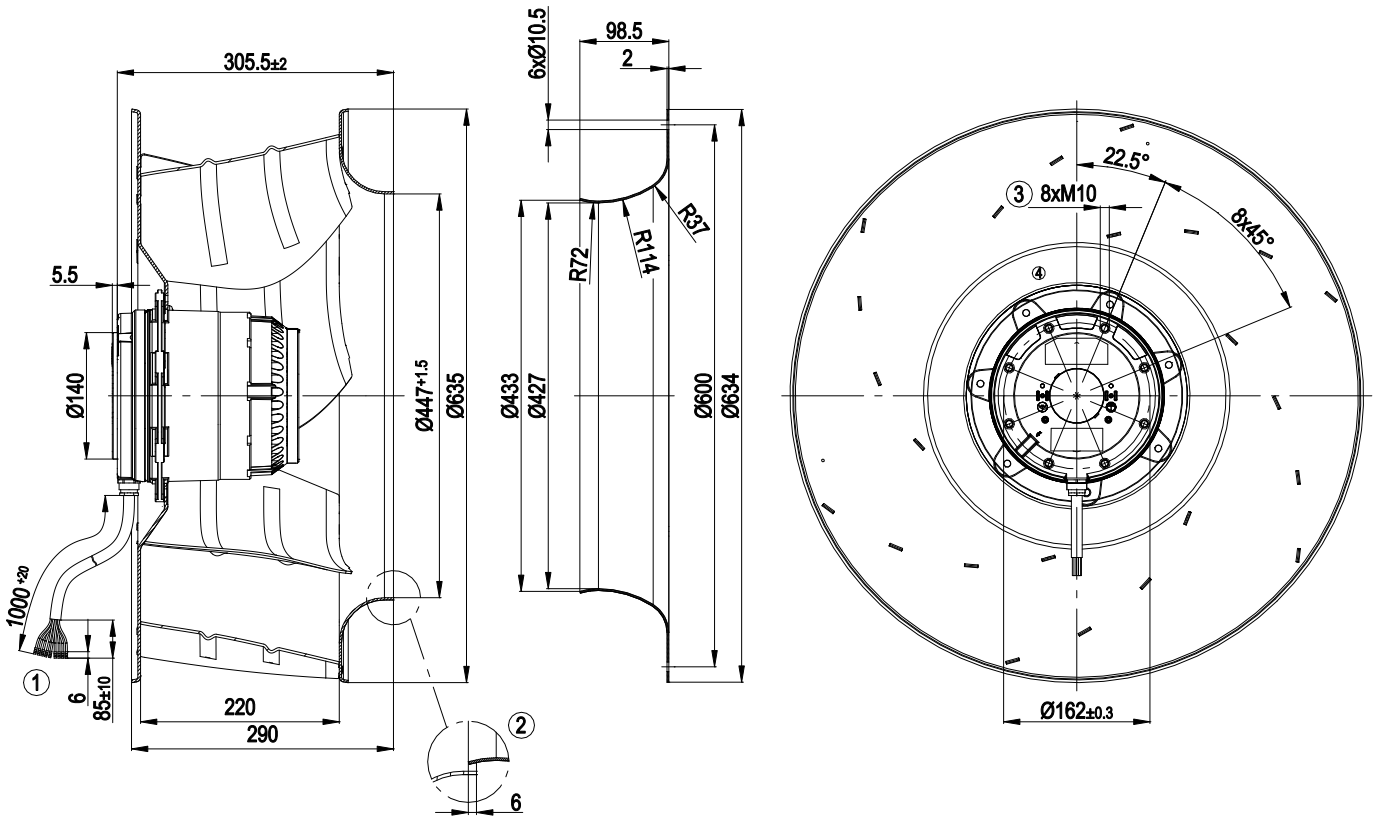


ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

# AC centrifugal fan

backward-curved, single-intake

## Product drawing




| | |
|---|---|
| 1 | Cable halogen-free 9 x 0.75 mm², 9 x crimped splices |
| 2 | Accessory part: inlet ring 63070-2-4013 not included in scope of delivery |
| 3 | Max. clearance for screw 18 mm |

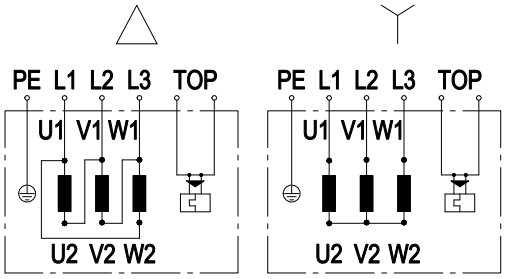


ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

# AC centrifugal fan

backward-curved, single-intake

## Connection diagram




Note: Change of rotation direction by reversing two phases

| | | | | | |
|---|---|---|---|---|---|
| Δ | Delta connection | Y | Star connection | L1 | black |
| L2 | blue | L3 | brown | U1 | black |
| V1 | blue | W1 | brown | U2 | green |
| V2 | white | W2 | yellow | TOP | 2x gray |
| PE | green/yellow | | | | |

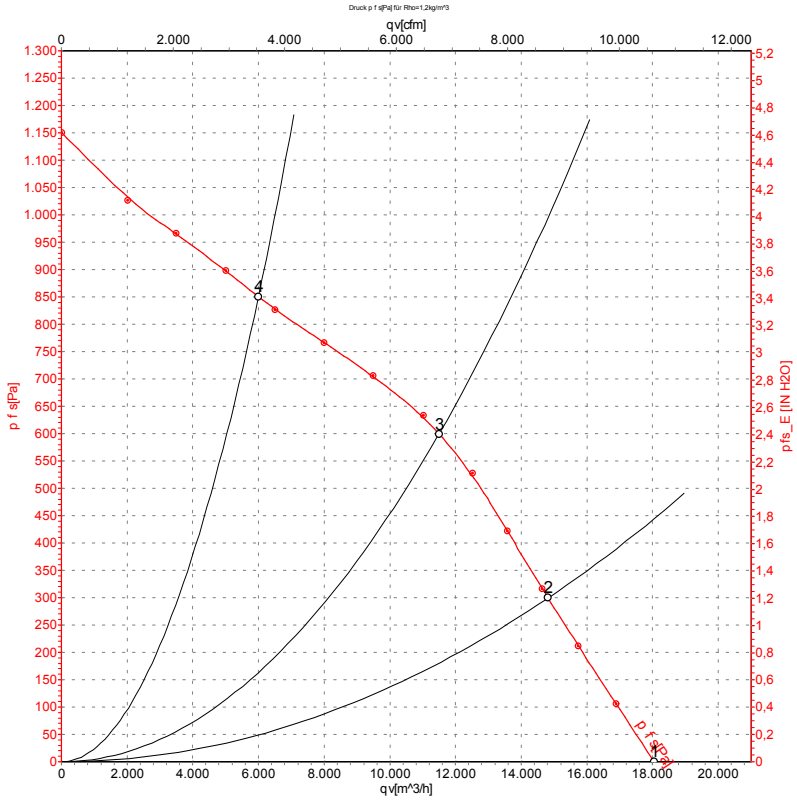


ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

# AC centrifugal fan

backward-curved, single-intake

## Curves: Air performance 50 Hz




Measurement: LU-100921-1

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.

## Measured values

| | Wired | U | f | n | $P_e$ | I | $LpA_{in}$ | $LwA_{in}$ | $q_V$ | $p_{fs}$ | $q_V$ | $p_{fs}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | V | Hz | $min^{-1}$ | W | A | dB(A) | dB(A) | $m^3/h$ | Pa | cfm | in. wg |
| 1 | Y | 400 | 50 | 1365 | 3265 | 6.20 | 82 | 89 | 18040 | 0 | 10620 | 0.00 |
| 2 | Y | 400 | 50 | 1330 | 3815 | 6.93 | 77 | 85 | 14820 | 300 | 8725 | 1.20 |
| 3 | Y | 400 | 50 | 1300 | 4250 | 7.55 | 74 | 82 | 11500 | 600 | 6770 | 2.41 |
| 4 | Y | 400 | 50 | 1330 | 3687 | 6.67 | 77 | 85 | 5995 | 850 | 3530 | 3.41 |

Wired = Wiring · U = Power supply · f = Frequency · n = Speed (rpm) · $P_e$ = Power consumption · I = Current draw · $LpA_{in}$ = Sound pressure level intake side · $LwA_{in}$ = Sound power level intake side
$q_V$ = Air flow · $p_{fs}$ = Pressure increase



ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com