

# AC axial fan

sickled blades (S series)

**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

County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

County court Stuttgart · HRB 590142



## Nominal data

|                               |                   |      |      |      |      |
|-------------------------------|-------------------|------|------|------|------|
| Type                          | A4D350-AP08-16    |      |      |      |      |
| Motor                         | M4D074-DF         |      |      |      |      |
| Phase                         |                   | 3~   | 3~   | 3~   | 3~   |
| Nominal voltage               | VAC               | 230  | 230  | 400  | 400  |
| Connection                    |                   | Δ    | Δ    | Y    | Y    |
| Frequency                     | Hz                | 50   | 60   | 50   | 60   |
| Type of data definition       |                   | fa   | fa   | fa   | fa   |
| Valid for approval / standard |                   | CE   | CE   | CE   | CE   |
| Speed                         | min <sup>-1</sup> | 1410 | 1600 | 1410 | 1600 |
| Power input                   | W                 | 130  | 180  | 130  | 180  |
| Current draw                  | A                 | 0.61 | 0.59 | 0.35 | 0.34 |
| Max. back pressure            | Pa                | 90   | 90   | 90   | 90   |
| Max. ambient temperature      | °C                | 50   | 40   | 50   | 40   |

ml = max. load · me = max. efficiency · fa = running at free air · cs = customer specs · cu = customer unit  
Subject to alterations

## Data according to ErP directive

|                       |        |
|-----------------------|--------|
| Installation category | A      |
| Efficiency category   | Static |
| Variable speed drive  | No     |
| Specific ratio*       | 1.00   |

\* Specific ratio =  $1 + p_b / 100\,000\text{ Pa}$

|                                | Actual            | Request 2013 | Request 2015 |
|--------------------------------|-------------------|--------------|--------------|
| Overall efficiency $\eta_{es}$ | 30.7              | 24.5         | 28.5         |
| Efficiency grade N             | 42.2              | 36           | 40           |
| Power input $P_e$              | kW                | 0.15         |              |
| Air flow $q_v$                 | m <sup>3</sup> /h | 2110         |              |
| Pressure increase $p_{fs}$     | Pa                | 80           |              |
| Speed n                        | min <sup>-1</sup> | 1385         |              |

Data established at point of optimum efficiency



# AC axial fan

sickled blades (S series)

## Technical features

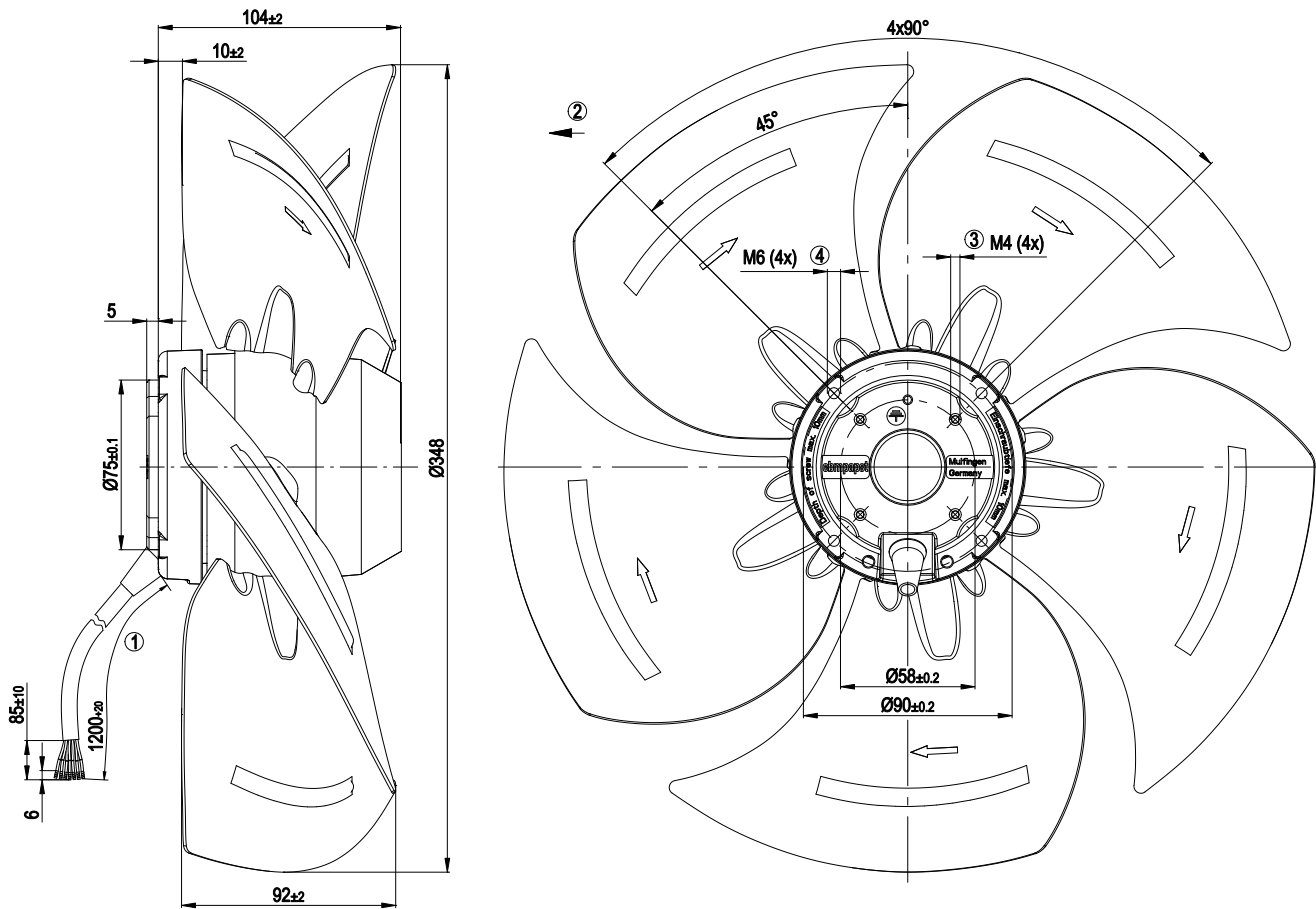
|                                                                    |                                                                 |
|--------------------------------------------------------------------|-----------------------------------------------------------------|
| Mass                                                               | 3.7 kg                                                          |
| Size                                                               | 350 mm                                                          |
| Surface of rotor                                                   | Coated in black                                                 |
| Material of blades                                                 | Sheet steel, coated in black                                    |
| Number of blades                                                   | 5                                                               |
| Direction of rotation                                              | "V"                                                             |
| Type of protection                                                 | IP 44; Depending on installation and position as per EN 60034-5 |
| Insulation class                                                   | "B"                                                             |
| Max. permissible ambient motor temp. (transp./ storage)            | + 80 °C                                                         |
| Min. permissible ambient motor temp. (transp./storage)             | - 40 °C                                                         |
| Mounting position                                                  | Shaft horizontal or rotor on bottom; rotor on top on request    |
| Condensate discharge holes                                         | Rotor-side                                                      |
| Operation mode                                                     | S1                                                              |
| Motor bearing                                                      | Ball bearing                                                    |
| Touch current acc. IEC 60990 (measuring network Fig. 4, TN system) | < 0.75 mA                                                       |
| Cable exit                                                         | Variable                                                        |
| Protection class                                                   | I (if protective earth is connected by customer)                |
| Product conforming to standard                                     | EN 60335-1                                                      |



# AC axial fan

sickled blades (S series)

## Product drawing

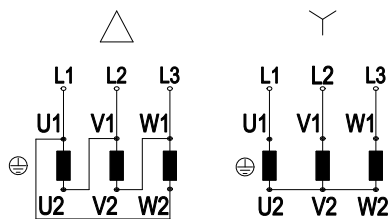


|   |                                                                         |
|---|-------------------------------------------------------------------------|
| 1 | Connection line PVC 7G 0.5 mm <sup>2</sup> , 7x brass lead tips crimped |
| 2 | Direction of air flow "V"                                               |
| 3 | Depth of screw max. 5 mm                                                |
| 4 | Depth of screw max. 10 mm                                               |

# AC axial fan

sickled blades (S series)

Connection screen



Note: Direction of rotation changes when two phases are reversed

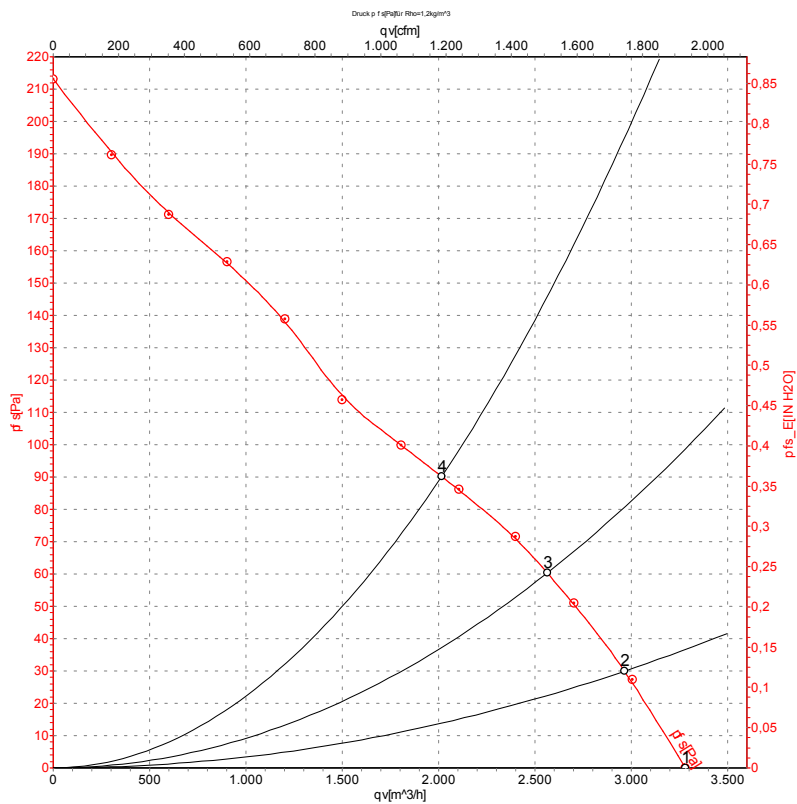
|    |                  |    |                 |    |       |
|----|------------------|----|-----------------|----|-------|
| Δ  | Delta connection | Y  | Star connection | L1 | black |
| L2 | blue             | L3 | brown           | U1 | black |
| V1 | blue             | W1 | brown           | U2 | green |
| V2 | white            | W2 | yellow          |    |       |



# AC axial fan

sickled blades (S series)

## Charts: Air flow 50 Hz



Measurement: LU-122615

Air performance measured as per ISO 5801  
Installation category A. For detailed  
information on the measuring set-up, please  
contact ebm-papst. Suction-side noise  
levels: L<sub>WA</sub> measured as per ISO 13347 /  
L<sub>pA</sub> measured with 1m distance to fan axis.  
The values given are valid under the  
measuring conditions mentioned above and  
may vary according to the actual installation  
situation. With any deviation from the  
standard set-up, the specific values have to  
be checked and reviewed with the unit  
installed.

## Measured values

|   | Conn. | U   | f  | n                 | P <sub>e</sub> | I    | qv   | p <sub>fs</sub> |
|---|-------|-----|----|-------------------|----------------|------|------|-----------------|
|   |       | V   | Hz | min <sup>-1</sup> | W              | A    | m³/h | Pa              |
| 1 | Y     | 400 | 50 | 1410              | 130            | 0.35 | 3280 | 0               |
| 2 | Y     | 400 | 50 | 1395              | 145            | 0.35 | 2965 | 30              |
| 3 | Y     | 400 | 50 | 1380              | 158            | 0.36 | 2565 | 60              |
| 4 | Y     | 400 | 50 | 1355              | 179            | 0.38 | 2015 | 90              |

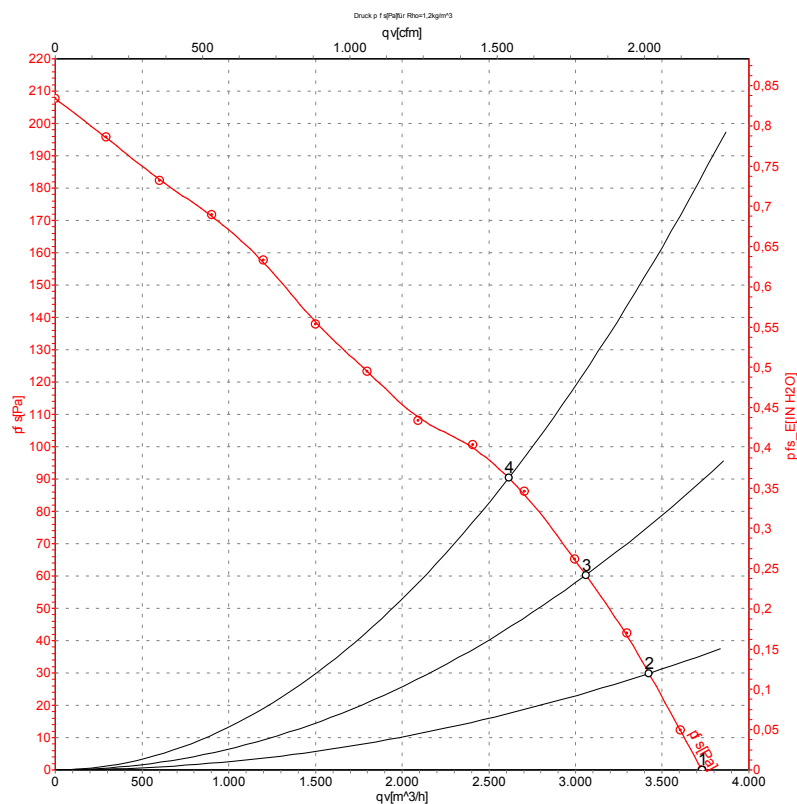
Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed · P<sub>e</sub> = Power input · I = Current draw · qv = Air flow · p<sub>fs</sub> = Pressure increase



# AC axial fan

sickled blades (S series)

## Charts: Air flow 60 Hz



Measurement: LU-122616

Air performance measured as per ISO 5801  
Installation category A. For detailed  
information on the measuring set-up, please  
contact ebm-papst. Suction-side noise  
levels: L<sub>WA</sub> measured as per ISO 13347 /  
L<sub>pA</sub> measured with 1m distance to fan axis.  
The values given are valid under the  
measuring conditions mentioned above and  
may vary according to the actual installation  
situation. With any deviation from the  
standard set-up, the specific values have to  
be checked and reviewed with the unit  
installed.

## Measured values

|   | Conn. | U   | f  | n                 | P <sub>e</sub> | I    | qv                | p <sub>fs</sub> |
|---|-------|-----|----|-------------------|----------------|------|-------------------|-----------------|
|   |       | V   | Hz | min <sup>-1</sup> | W              | A    | m <sup>3</sup> /h | Pa              |
| 1 | Y     | 400 | 60 | 1600              | 180            | 0.34 | 3730              | 0               |
| 2 | Y     | 400 | 60 | 1585              | 196            | 0.35 | 3425              | 30              |
| 3 | Y     | 400 | 60 | 1555              | 214            | 0.37 | 3060              | 60              |
| 4 | Y     | 400 | 60 | 1525              | 232            | 0.40 | 2615              | 90              |

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed · P<sub>e</sub> = Power input · I = Current draw · qv = Air flow · p<sub>fs</sub> = Pressure increase

