

## Nominal data

|                               |                   |          |          |          |
|-------------------------------|-------------------|----------|----------|----------|
| Type                          | W4D400-GU02-95    |          |          |          |
| Motor                         | M4D094-EA         |          |          |          |
| Phase                         |                   | 3~       | 3~       | 3~       |
| Nominal voltage               | VAC               | 400      | 400      | 480      |
| Connection                    |                   | $\Delta$ | $\Delta$ | $\Delta$ |
| Frequency                     | Hz                | 50       | 60       | 60       |
| Type of data definition       |                   | ml       | ml       | ml       |
| Valid for approval / standard |                   | CE       | CE       | CE       |
| Speed (rpm)                   | min <sup>-1</sup> | 1310     | 1430     | 1550     |
| Power input                   | W                 | 310      | 420      | 450      |
| Current draw                  | A                 | 0.55     | 0.7      | 0.63     |
| Max. back pressure            | Pa                | 120      | 130      | 150      |
| Min. ambient temperature      | °C                | -40      | -40      | -40      |
| Max. ambient temperature      | °C                | 80       | 50       | 50       |
| Starting current              | A                 | 1.7      | 1.57     |          |

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit  
Subject to alterations

## Data in accordance with ecodesign regulation EU 327/2011

|                                   |   | Actual | Request 2015 |
|-----------------------------------|---|--------|--------------|
| 01 Overall efficiency $\eta_{es}$ | % | 32.6   | 30           |
| 02 Measurement category           |   | A      |              |
| 03 Efficiency category            |   | Static |              |
| 04 Efficiency grade N             |   | 42.6   | 40           |
| 05 Variable speed drive           |   | No     |              |

Data definition with optimum efficiency.  
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

|                               |                   |      |
|-------------------------------|-------------------|------|
| 09 Power input $P_e$          | kW                | 0.26 |
| 09 Air flow $q_v$             | m <sup>3</sup> /h | 3105 |
| 09 Pressure increase $p_{fs}$ | Pa                | 100  |
| 10 Speed (rpm) n              | min <sup>-1</sup> | 1350 |
| 11 Specific ratio*            |                   | 1.00 |

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

LU-73762



# AC axial fan

sickled blades (S series)

with full square nozzle

## Technical features

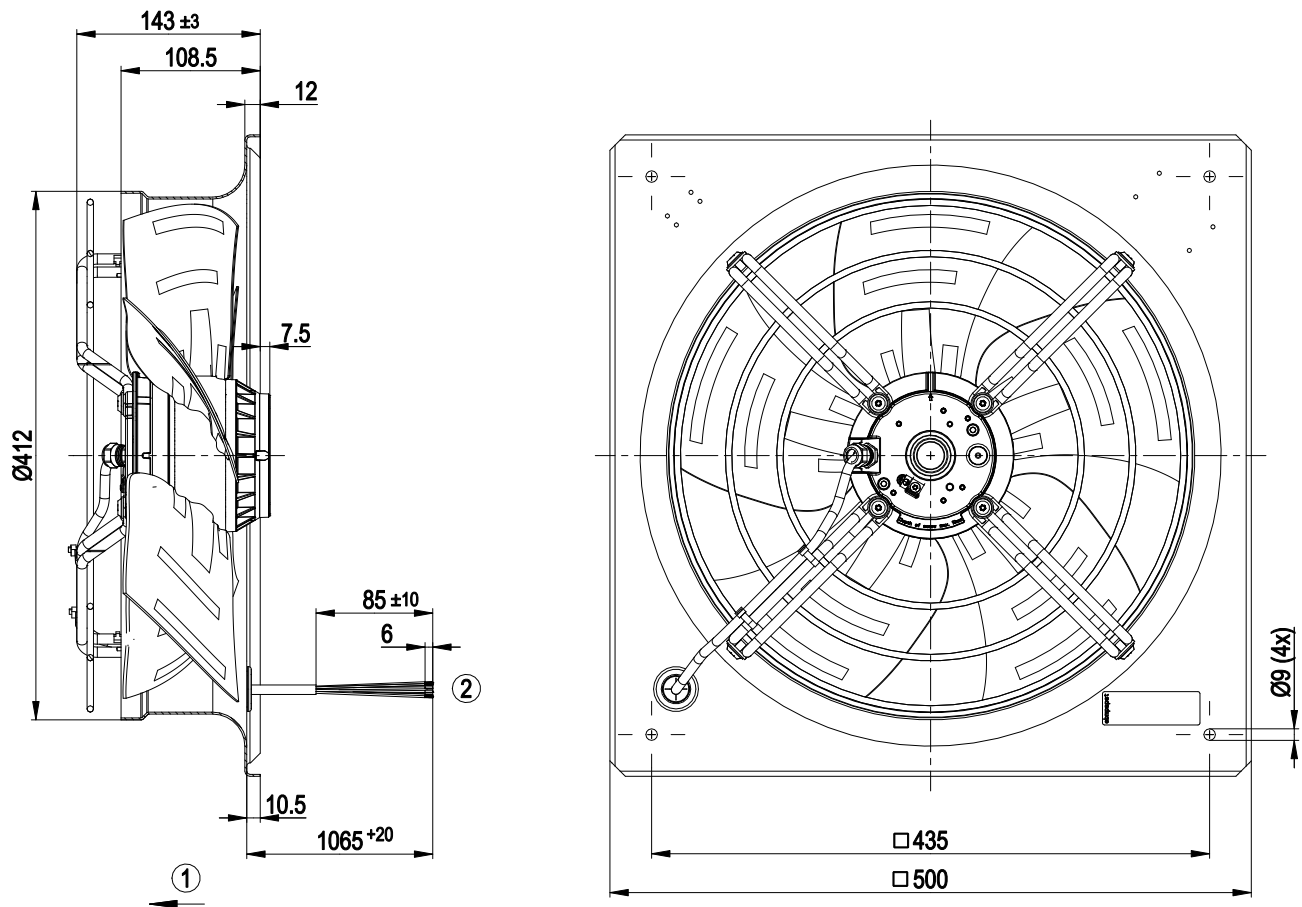
|                                                                    |                                                                                                                                                                                                                                  |
|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mass                                                               | 9.3 kg                                                                                                                                                                                                                           |
| Size                                                               | 400 mm                                                                                                                                                                                                                           |
| Motor size                                                         | 94                                                                                                                                                                                                                               |
| Surface of rotor                                                   | Coated in black                                                                                                                                                                                                                  |
| Material of blades                                                 | Sheet steel, coated in black                                                                                                                                                                                                     |
| Material of mounting ring                                          | Steel, coated in black plastic (RAL 9005)                                                                                                                                                                                        |
| Material of wall ring                                              | Sheet steel, pre-galvanised and coated in black plastic                                                                                                                                                                          |
| Number of blades                                                   | 5                                                                                                                                                                                                                                |
| Direction of air flow                                              | V                                                                                                                                                                                                                                |
| Direction of rotation                                              | Counter-clockwise, seen on rotor                                                                                                                                                                                                 |
| Type of protection                                                 | IP54                                                                                                                                                                                                                             |
| Insulation class                                                   | "F"                                                                                                                                                                                                                              |
| Humidity (F) / environmental protection class (H)                  | H2                                                                                                                                                                                                                               |
| Note ambient temperature                                           | Occasional start-up between -40 °C and -25 °C is permissible. For continuous operation at ambient temperatures below -25 °C (e.g. refrigeration applications), a fan version with special low-temperature bearings must be used. |
| 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 top; rotor on bottom on request                                                                                                                                                                     |
| Condensation drainage holes                                        | On the stator side                                                                                                                                                                                                               |
| Operation mode                                                     | S1                                                                                                                                                                                                                               |
| Motor bearing                                                      | Ball bearing                                                                                                                                                                                                                     |
| Touch current acc. IEC 60990 (measuring network Fig. 4, TN system) | <= 3.5 mA                                                                                                                                                                                                                        |
| Motor protection                                                   | Thermal overload protector (TOP) brought out, basic insulation                                                                                                                                                                   |
| Cable exit                                                         | Variable                                                                                                                                                                                                                         |
| Protection class                                                   | I (if protective earth is connected by customer)                                                                                                                                                                                 |
| Product conforming to standard                                     | CE                                                                                                                                                                                                                               |
| Approval                                                           | EAC; CCC                                                                                                                                                                                                                         |



# AC axial fan

sickled blades (S series)  
with full square nozzle

Product drawing



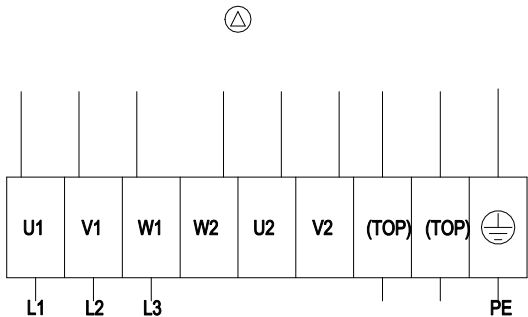
|   |                                                                |
|---|----------------------------------------------------------------|
| 1 | Direction of air flow "V"                                      |
| 2 | Connection line halogen-free, BETAtans® 3 GKW flex, 6G 0.5 mm² |
|   | 6x lead tip                                                    |



# AC axial fan

sickled blades (S series)  
with full square nozzle

Connection screen



Note: Direction of rotation changes when two phases are reversed

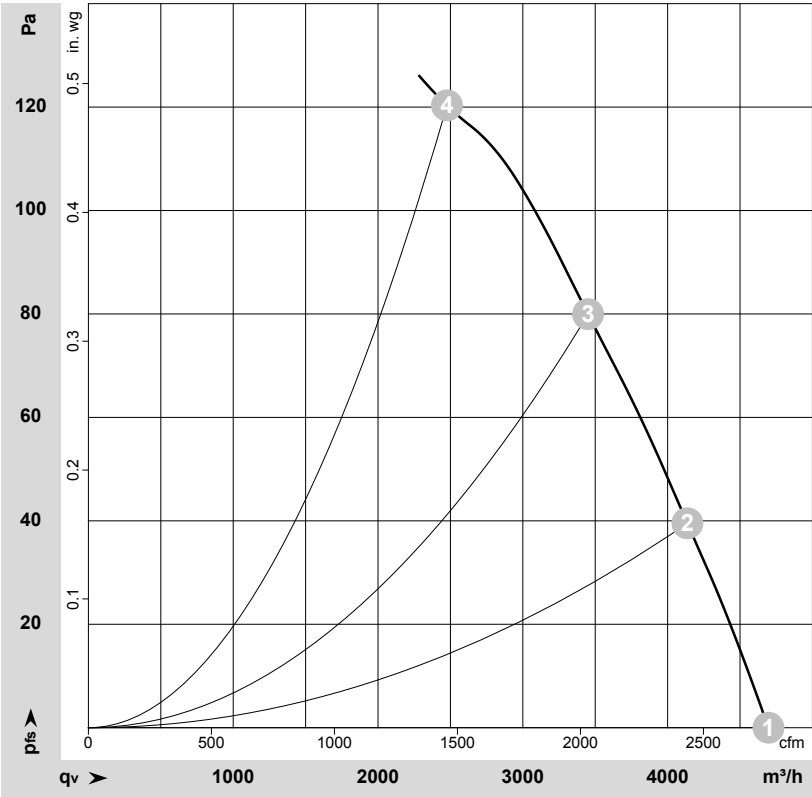
|    |                  |     |              |    |              |
|----|------------------|-----|--------------|----|--------------|
| Δ  | Delta connection | L1  | = U1 = black | L2 | = V1 = blue  |
| L3 | = W1 = brown     | W2  | -            | U2 | -            |
| V2 | -                | TOP | 2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



AC axial fan

sickled blades (S series)  
with full square nozzle

Charts: Air flow 50 Hz



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

Measurement: LU-73762-1

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: LwA measured as per ISO 13347 / LpA 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    | q <sub>v</sub> | p <sub>fs</sub> | q <sub>v</sub> | p <sub>fs</sub> |
|---|-------|-----|----|-------------------|----------------|------|----------------|-----------------|----------------|-----------------|
|   |       | V   | Hz | min <sup>-1</sup> | W              | A    | m³/h           | Pa              | cfm            | in. wg          |
| 1 | Δ     | 400 | 50 | 1390              | 210            | 0.46 | 4695           | 0               | 2765           | 0.00            |
| 2 | Δ     | 400 | 50 | 1370              | 238            | 0.49 | 4135           | 40              | 2435           | 0.16            |
| 3 | Δ     | 400 | 50 | 1355              | 260            | 0.51 | 3450           | 80              | 2030           | 0.32            |
| 4 | Δ     | 400 | 50 | 1310              | 310            | 0.55 | 2475           | 120             | 1455           | 0.48            |

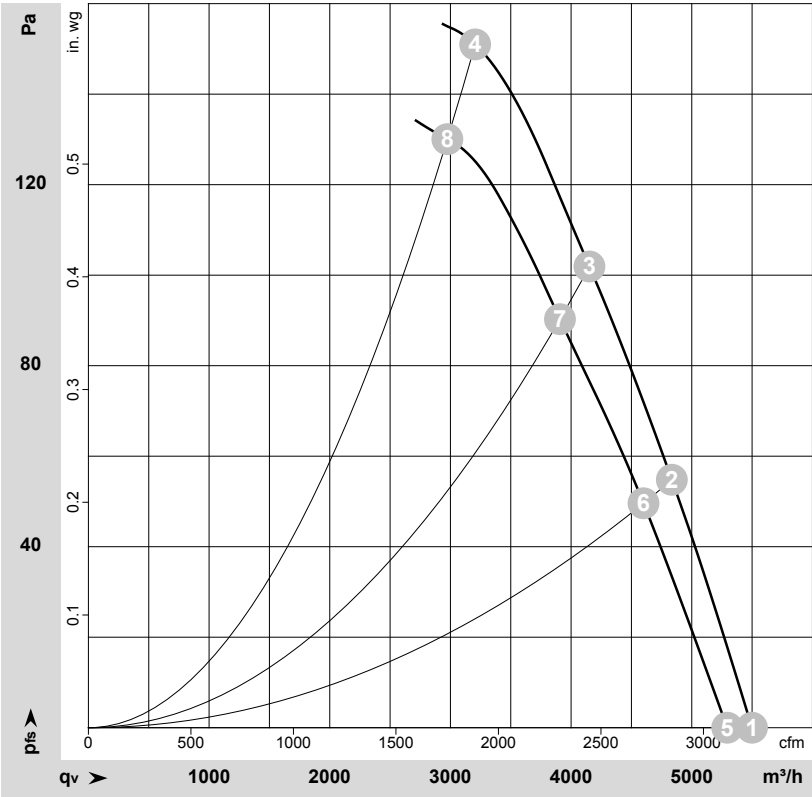
Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power input · I = Current draw · q<sub>v</sub> = Air flow · p<sub>fs</sub> = Pressure increase



AC axial fan

sickled blades (S series)  
with full square nozzle

Charts: Air flow 60 Hz



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

Measurement: LU-73764-1  
Measurement: LU-73763-1

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: LwA measured as per ISO 13347 /  
LpA 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    | q <sub>v</sub>    | p <sub>fs</sub> | q <sub>v</sub> | p <sub>fs</sub> |
|---|-------|-----|----|-------------------|----------------|------|-------------------|-----------------|----------------|-----------------|
|   |       | V   | Hz | min <sup>-1</sup> | W              | A    | m <sup>3</sup> /h | Pa              | cfm            | in. wg          |
| 1 | Δ     | 480 | 60 | 1630              | 333            | 0.52 | 5500              | 0               | 3235           | 0.00            |
| 2 | Δ     | 480 | 60 | 1600              | 383            | 0.58 | 4835              | 55              | 2845           | 0.22            |
| 3 | Δ     | 480 | 60 | 1575              | 417            | 0.62 | 4150              | 102             | 2445           | 0.41            |
| 4 | Δ     | 480 | 60 | 1550              | 450            | 0.63 | 3205              | 150             | 1885           | 0.60            |
| 5 | Δ     | 400 | 60 | 1565              | 307            | 0.53 | 5295              | 0               | 3115           | 0.00            |
| 6 | Δ     | 400 | 60 | 1520              | 351            | 0.60 | 4600              | 50              | 2705           | 0.20            |
| 7 | Δ     | 400 | 60 | 1485              | 383            | 0.65 | 3910              | 90              | 2300           | 0.36            |
| 8 | Δ     | 400 | 60 | 1430              | 420            | 0.70 | 2975              | 130             | 1750           | 0.52            |

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

