



Axial fans

ebm-papst's axial fans prove their reputation as space-saving wonders by moving air for hot or cold air exchange in a wide variety of devices and systems. Their outstanding features are their small installation depth, low noise level and exceptional efficiency, and are particularly well suited for air flow through heat exchangers.

Furthermore, in the EC version, they become intelligent "energy-saving wonders" for an extremely wide range of applications, primarily in ventilation, air-conditioning and refrigeration technology and the automotive industry.



One principle, countless options

The axial fan, the function of which is similar to a propeller, moves the air axially, parallel to the revolving motor shaft. The ebm-papst external rotor motor is integrated directly into the axial impeller, forming a compact axial fan unit. They are usually installed with wall rings in short or long nozzles.

The extensive ebm-papst product range offers the right solution for each requirement and is classified for a wide variety of applications:

- S series with sickle-shaped blades for high air flow at medium pressure
- K series with especially low noise level – ideally suited for refrigeration plant applications
- A series for high-pressure applications

Design according to requirements

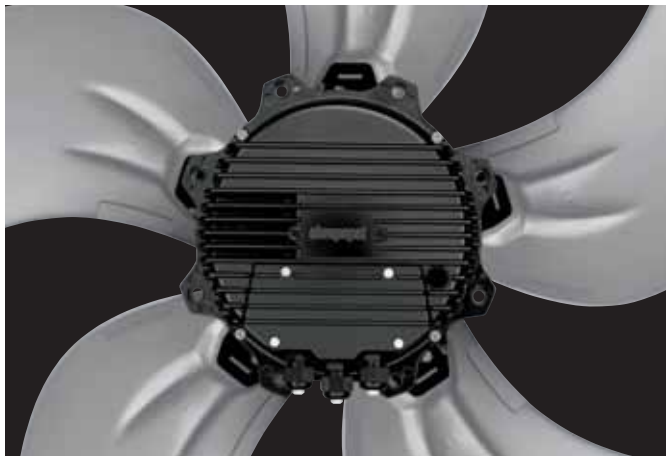
Energy efficiency, controllability and low-noise performance – and all this together with external rotor motors in AC and EC technology: ebm-papst axial fans are optimally matched to customer requirements.

The EC technology (12 VDC to 110 VDC or line-voltage-powered 100 VAC to 480 VAC) with integrated or external electronics enables

precision open and closed-loop control with very high efficiency. The following standard features are available:
tach output, error message, linear or PWM input, temperature or flow rate-dependent control systems or bus-connectable interface.

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Company profile: ebm-papst

The entire scope of ventilation and drive technology: this is the world of ebm-papst. More than 9,800 people – in Germany and throughout the world – develop, produce and sell our motors and fans. Our global presence and our unique range of products based on a quality standard that surpasses every other have made us what we are: world market leader in motors and fans. Expertly knowing what our customers need and incessantly striving to arrive at the perfect application solution for a wide variety of different industries is what determines our daily work. Those who know us know the high standards we apply to our work and know our creed: to be as close to our customers as possible and to simply be the best in terms of innovation and reliability.



Our headquarters in Muldingen



*Left:
Our location in St. Georgen
Right:
Our location in Landshut*

Our history – Our drive

Rooted in ebm, PAPST and mvl, the three leading innovators in the development and production of motors and fans, ebm-papst has established itself as the world market leader. Now as ever, our legendary inventive spirit shines through in products that set standards in many segments of industry worldwide. We are proud to say that despite difficult competition, our performance has always been exemplary and outstanding – in business, in our personal relationship with our customers, and of course with respect to technology and engineering. For decades, we have contributed to the world of air technology and drive engineering with small revolutions and large milestones.

To maintain this advantage in skills and knowledge to get maximum quality and thus the highest degree of customer satisfaction, our employees around the world put their passion and dedication to work for you.

Passionately involved in R&D

Our catalogues just list the results of our incessant efforts in R&D: products of highest quality and reliability. After all, it is our passion to constantly try something new and improve what we have. In doing so, we take advantage of the latest development methods and state-of-the-art technology and invest quite heavily in R&D facilities. Best of all, though, we rely on excellently trained and skilled engineers and technicians to be at your service in R&D and Sales & Distribution.

Producing and safeguarding high-quality products and services

This is our promise without any compromise. Whether produced in one of our five factories in Germany or one of our eleven international production sites, our products always have the same high level of quality. This quality control is something you can definitely rely on! And this across all levels of production and throughout all processes: consulting customers, development, material selection through to picking certified, choice suppliers and on to the production of parts and final delivery. On top of this, our products have to pass the most rigorous tests under all realistic operating conditions: continuous stress test, salt spray test, vibration test, or precision noise measuring, just to mention a few. And the product gets

clearance for serial production only after all the desired characteristics have been determined to be just right.

Environmental care is another priority with ebm-papst. This is why we have developed our product line in EC technology, which makes for very low power consumption. Due to our manufacturing philosophy, there is absolute focus on environmental care in production, recycling, waste and waste water disposal.

Global Domestic

In order to be specialist for customised solutions throughout the world, you need strong partners. Global Domestic – i.e. being present all over the world and being a national company in each individual country – is how we have established ourselves in all important markets on this globe with our successful subsidiaries. And so you will always find ebm-papst close to home, speaking your language, and knowing the demands of your markets. Besides, our worldwide production alliance serves as a basis for competitive pricing. Our global services and logistic outlets, i.e. IT networking, safeguard short reaction times and just-in-time delivery.

All our efforts are documented in a comprehensive quality management system, both for products and services. Being certified as complying with the tough requirements of the international standards DIN EN ISO 9001, ISO/TS 16949-2 and of standard DIN EN ISO 14001 is just one seal of approval we have received for our unceasing efforts to provide only the best quality products and services.

Our key to success

Our innovations and technologies keep on turning into new industrial standards. This competitive capability can only be maintained by seeing ventilation as a whole: the interrelationship between, and thus the system of, motor engineering, aerodynamics, and electronics. These are our three core competencies, imminently connected and linked in each of our products. And so we handle air intelligently and quietly and continue to set new standards in drive technology. Our system solutions form the main part of our product range by now. And they will be our main key to success.



Production



Winding machine

Motor engineering, aerodynamics, electronics

Our drive is well known and famous with specialists: our external-rotor motor, which has made us world market leader – quietly, yet powerfully. Being versatile as to integration, it is ideally suited to the most diverse applications. Based on this principle, we here at ebm-papst have developed the widest range of fans and motor types in the world. And for hot or aggressive blower mediums, the internal-rotor motor is the perfect complement.

Still, in drive engineering, certain applications simply require the internal-rotor motor principle, and they are then realised with our motors specifically developed for such cases. Take, for instance, the steering support motor in the automotive field developed as innovation in active steering.

Be it axial or centrifugal fans, centrifugal blowers, compact fans or tangential blowers: we always design fan blades, impeller blades and ducted housings with the specific application in mind. We strive to minimise noise and to optimise efficiency. This is the challenge that we have taken up and which we meet – working away powerfully and quietly.

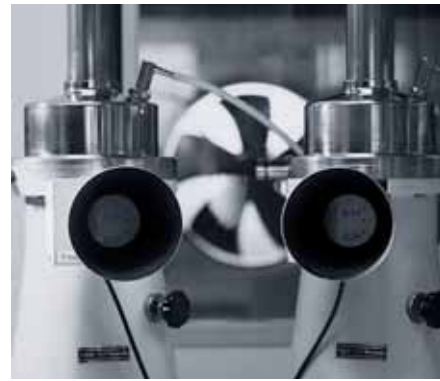
Finally, intelligence will become the decisive factor on all markets in future. After all, only in connection with electronics can drive and air flow – as a system solution – have an optimal effect in a product or application. Interfaces are avoided, and thus potential faults and failures.

Setting new standards with EC technology

Wherever intelligent air handling is required, where energy consumption needs to be reduced and performance has to be maximised, there our EC motors are your reliable answer. They do not waste financial or natural resources. Instead, they boost high efficiency, continuous controllability via analogue or digital inputs, long and maintenance-free service life, and robustness.



*Left: Endurance test room
Centre: Shaker
Right: Measurement station*



*Top: Betz manometer
Left: Precision noise measurement lab*

Without any problems, the ebm-papst EC technology allows you to realise networked, bus-linked appliances, to integrate simple or complex controls at low cost and to also realise time and again new, customised and complete solutions. Here, ebm-papst excels as competent development partner, with our experience of more than 25 years and our excellent know-how in R & D and production also being well documented in a few hundred national and international patents. And there is also our ability to listen intently, to pay good attention to our customers and their demands – in order to come up with new and pioneering ideas, such as:

- EC fan units for clean room technology.
As the electronics are integrated and the unit is wired up completely and ready to plug in, there is no need for our customers to waste time and money on laborious wiring work.
- Sensitive EC sensor fans for the automotive industry providing optimal selection of the air-conditioning unit in the car and, combined with booster blowers, individual air-conditioning of each and every passenger seat.
- EC gas blowers with commutation and control electronics including a processor. They are developed in such a way as to make the blower premix the required amount of air with the gas. Aerodynamics with these blowers are adjusted in such a way as to make these blowers ideal for use in very limited space at high back pressure.

How to use this catalogue



The ebm-papst catalogue combines a technical and a product-specific section.

Technical section: General information on how to select and find ebm-papst products for your specific application is found in the chapters "Selection" (p. 10) and "Technical parameters" (p. 392).

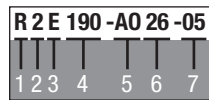
In case you require technical background information on ebm-papst product groups, simply turn to the chapters "Impellers" (p. 396), "Motors" (p.410) and "Control technology" (p. 414).

Product-specific section: The product-specific section is organised according to product diameters, lines, materials and/or design principles.

Headline

The headline indicates which technology (AC or EC), which design (centrifugal, axial, etc.), and which line (e.g. S-Range) the product belongs to. Impeller diameter or other features are also indicated.

Part designation / Type



This key designates and identifies all ebm-papst products and serves as part number:

1) Type

- A - axial fan
- S - axial fan with guard grille
- W - axial fan with wall ring
- V - axial combination
- R - centrifugal fan, single inlet
- G - centrifugal blower, single inlet (with scroll housing)
- B - centrifugal fan, dual inlet
- D - centrifugal blower, dual inlet (with scroll housing)
- K - centrifugal combination
- M - motor
- P - pumps

2) Number of poles (AC) / number of cores (EC)

2-, 4-, 6-, 8- and 12-pole (Z = 12) / 1- and 3-core

3) Motor type

- D - 3-phase motor
- E - single-phase motor with operating capacitor
- G - EC motor
- S - shaded-pole motor
- Q - square shaded-pole motors

4) Impeller diameter in mm


5) Key for mechanical design

6) Key for electrical design

7) Key for mechanical variants

AC centrifugal fans

backward curved, 3-D, Ø 400

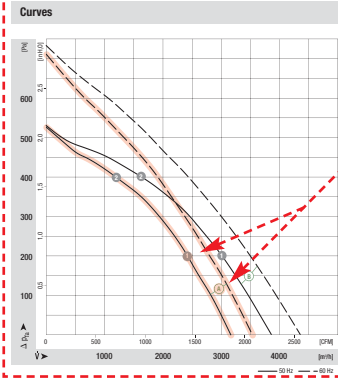


- **Material:** Impeller: Sheet aluminium, joined by tabs
Rotor: Coated in black
- **Number of blades:** 6
- **Direction of rotation:** Clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Any
- **Condensate discharges:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage | Frequency | Speed/rpm ⁽¹⁾ | Max. power input (W) | Max. current (A) | Capacitor | Perm. amb. temp. | Elect. connection |
|--------------|------------|-------|-----------------|-----------|--------------------------|----------------------|------------------|-----------|------------------|-------------------|
| Type | Motor | | VAC | Hz | rpm | W | A | µF/VDB | °C | p. 596 f. |
| R4E 400 | M4E 094-FA | ⊙ | 230 | 50 | 1355 | 375 | 1.75 | 8.0/400 | -40 to +60 | A2a |
| R4E 400 | M4E 094-HA | ⊙ | 230 | 50 | 1370 | 480 | 2.40 | 10.0/450 | -40 to +60 | A2a |

(1) Nominal data in operating point with maximum load

Curves

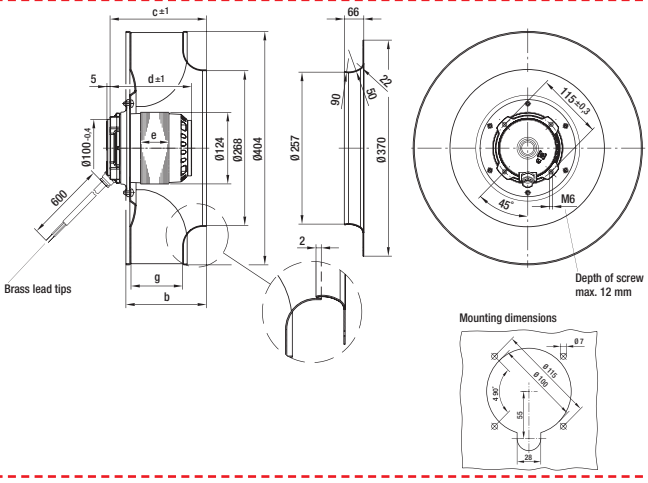


| n (rpm) | P ₁ [W] | I [A] | L _{pA} [dB(A)] |
|---------|--------------------|-------|-------------------------|
| ⊙ 1350 | 370 | 1.75 | 64 |
| ⊙ 1380 | 331 | 1.58 | 65 |
| ⊙ 1370 | 469 | 2.37 | 66 |
| ⊙ 1390 | 430 | 2.17 | 66 |

What a product page is made up of (reduced scale - 50%)

- Motor protection: Design with thermal overload protector
- Cable exit: Diagonal
- Protection class: I (acc. to EN 61800-5-1)
- Product conforming to standard: CE

| Centrifugal fan | kg | Dimensions | | | | | | Inlet nozzle (long) |
|------------------|-----|------------|-------|-------|------|-------|--------------|---------------------|
| | | b | c | d | e | g | | |
| RAE 400-AR05 -06 | 7.1 | 141.0 | 172.0 | 128.0 | 50.0 | 90.0 | 54476-2-4013 | |
| RAE 400-AP17 -06 | 8.8 | 164.0 | 193.0 | 148.0 | 70.0 | 113.0 | 54476-2-4013 | |



ebmpapst

| | | | |
|------------------------|------------------------|------------------------|---------------------------------|
| Inlet nozzle p. 550 | Guard grille p. 553 | Capacitor p. 560 f. | Elect. connections p. 596 f. |
|------------------------|------------------------|------------------------|---------------------------------|

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Product description

Depending on the product, information is provided here on the following: material, number of blades, direction of air flow, direction of rotation, system of protection, insulation class, mounting position, condensate discharge holes, mode of operation, design, bearing, technical equipment, EMC, leakage current, motor protection, electrical connection, cable exit, protection class, capacitor, product conforming to standards, approvals and options.

Nominal data

AC products (up to motor size 074) and EC products (DC-fed): Free-blowing or at minimal backpressure
AC products (from motor size 094) and EC products (AC-fed): In operating point at maximum load

Graphic rendition of products

All drawings represent the design principle and are not to scale. Dimensions are either given in the product drawing or, with varying dimensions, in the table of dimensions given above the drawing.

Indication of relevant accessories and additional information

The pages indicated at the bottom refer to the accessories, e.g. inlet nozzles, guard grilles, wall rings, etc. for this particular product, as well as additional information (e. g. the connection diagram).

Curves and operating points

The diagram gives air performance curves pertaining to the product. Refer to the operating point table to the right for information on speed, power consumption, current draw, sound level or sound pressure level and overall efficiency of the impeller.

How to select your ebm-papst product



Solutions for ventilation offered by ebm-papst

In the field of ventilation, ebm-papst offers the perfect solution for a vast number of applications. Depending on motor, impeller and control technology, there is almost no limit to the number of possible combinations, thus making sure you can find the best solution for your application.

Criteria for selection

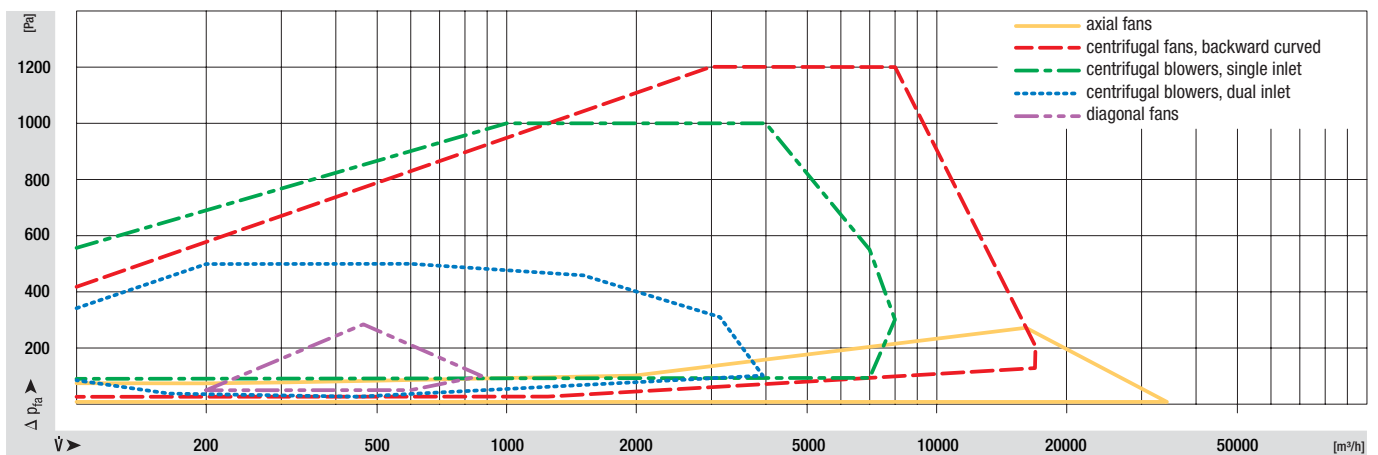
When selecting a fan for a specific application, these parameters play an important role:

- Air flow with given back pressure
- Voltage supply, divided into DC and AC voltage (1~, 3~)
- Noise generation
- Efficiency
- Available mounting space

Selecting a fan

The following diagram shows the range of characteristic curves for the most important fan designs and serves as a helpful tool in preselecting a design on the basis of air flow and back pressure.

Characteristic curves of the various designs



How to order your ebm-papst product



Have you found the suitable ebm-papst product and would like to order it now?

In this case, simply contact your nearest ebm-papst sales office by E-mail, fax or phone.

Don't know exactly which ebm-papst product you need to order?

In this case, simply contact your nearest ebm-papst sales office by E-mail, fax or phone. Our specialists in ventilation and drive technology are always there to help you find the best solution for your specific application.

Using the questions provided in the checklist here as a guideline, you can make sure your ebm-papst contact has all the necessary information to handle your enquiry as efficiently and quickly as possible.

How your ebm-papst product is delivered

In our order confirmation, you will find information on when, how and where to the delivery will be made.

We deliver:

- Ex works (excluding packaging)
- Via freight carrier (we also use postal services for shipments up to 30 kg)

All the other details such as packaging, freight, insurance and customs duty will be settled with your ebm-papst contact prior to the time we issue our order confirmation.

Is there anything else you need to know about your ebm-papst product?

In this case, simply contact your nearest ebm-papst sales office by E-mail, fax or phone. We have the answer to your problem and are always glad to be able to be of assistance.

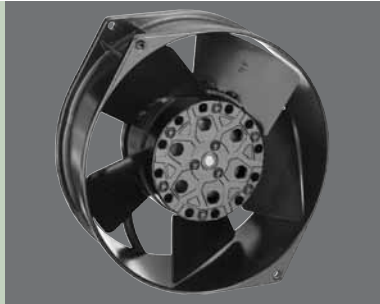
Using the questions provided in the checklist here as a guideline, you can make sure your ebm-papst contact has all the necessary information to handle your enquiry as efficiently and quickly as possible.

Checklist

- Part designation / type
- Quantity needed
- Field of application
- Ambient conditions (humidity, temperature, climate)
- Impeller diameter
- Air flow
- Back pressure
- Voltage supply

For your nearest sales office, please turn to page 430.





AC axial fans, AC diagonal fans

| | | |
|------------------|---------------|----|
| AC axial fans | Ø 130 - Ø 250 | 14 |
| AC diagonal fans | Ø 208 | 20 |



AC axial fans

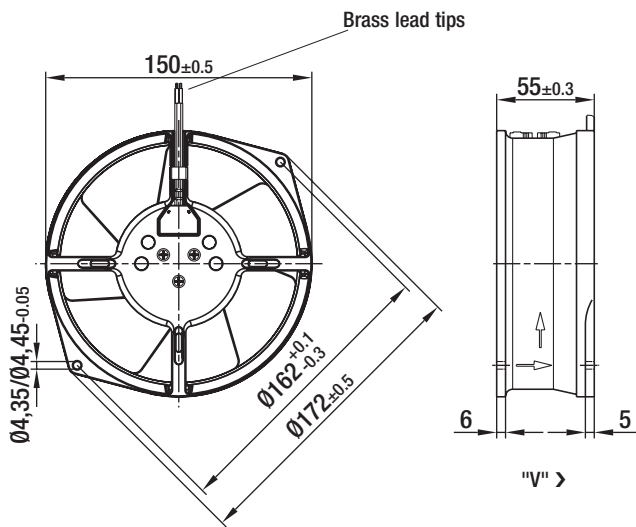
Ø 130



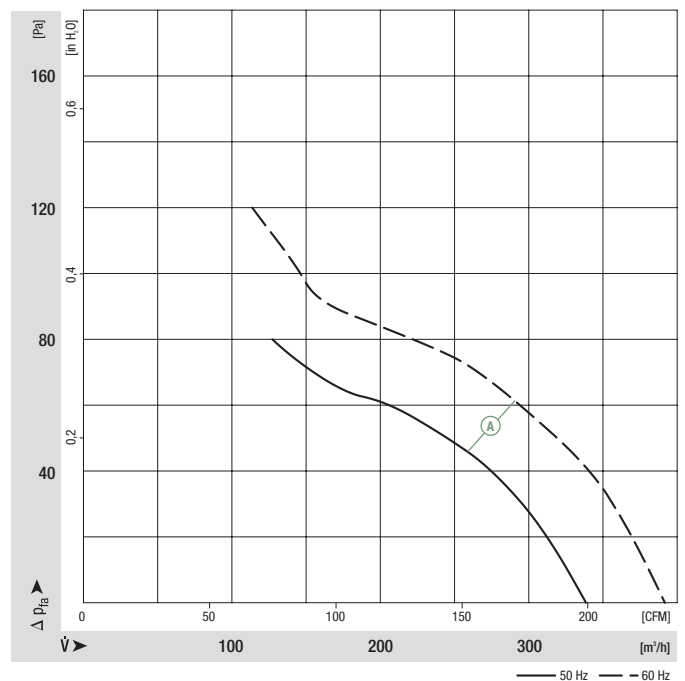
- **Material:**
Wall ring: Die-cast aluminium, coated in black
Blades: Sheet steel, coated in black
Rotor: Open, coated in black
- **Number of blades:** 7
- **Direction of air flow:** "V", exhaust over struts
- **Direction of rotation:** Counter-clockwise, seen on rotor
- **Type of protection:** IP 20
- **Insulation class:** "B"
- **Mounting position:** Any
- **Condensate discharges:** None
- **Mode of operation:**
Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings
- **Motor protection:** TOP wired internally
- **Electrical connection:**
Cable length 330 mm, beginning at wall ring
- **Protection class:** I
- **Product conforming to standards:**
EN 60335-1, CE
- **Approvals:** VDE, UL, CSA, CCC, GOST

| Nominal data | | Curve | Nominal voltage | Frequency | Air flow | Speed/rpm | Power input | Current draw | Capacitor | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass | Electr. connection |
|------------------|------------|-------|-----------------|-----------|----------|-----------|-------------|--------------|-----------|----------------------|----------------------|------------------|------|--------------------|
| Type | Motor | | VAC | Hz | m³/h | rpm | W | A | µF/VDB | dB(A) | Pa | °C | kg | p. 416 f. |
| W2S 130-AA25 -01 | M2S 052-CA | Ⓐ | 1~ 115 | 50 | 325 | 2800 | 41 | — | — | 49 | 80 | -25 to +60 | 1.1 | B) |
| | | | 1~ 115 | 60 | 380 | 3250 | 38 | — | — | 53 | 120 | -25 to +80 | | |
| W2S 130-AA03 -01 | M2S 052-CA | Ⓐ | 1~ 230 | 50 | 325 | 2800 | 45 | — | — | 49 | 80 | -25 to +50 | 1.1 | B) |
| | | | 1~ 230 | 60 | 380 | 3250 | 39 | — | — | 53 | 120 | -25 to +70 | | |

subject to alterations



Curves



AC axial fans

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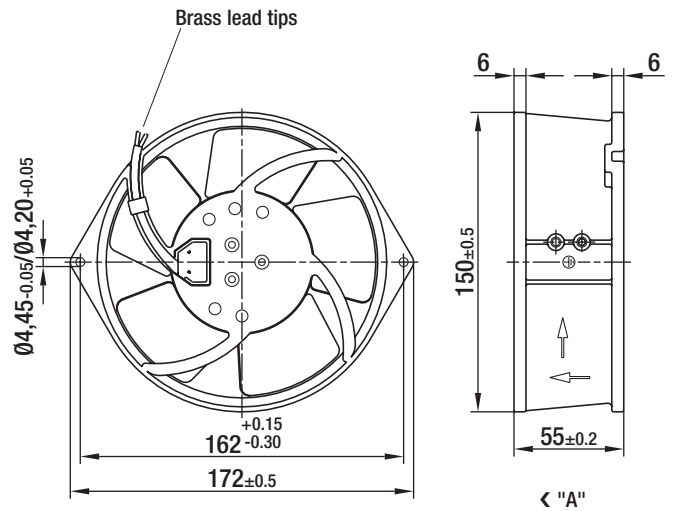
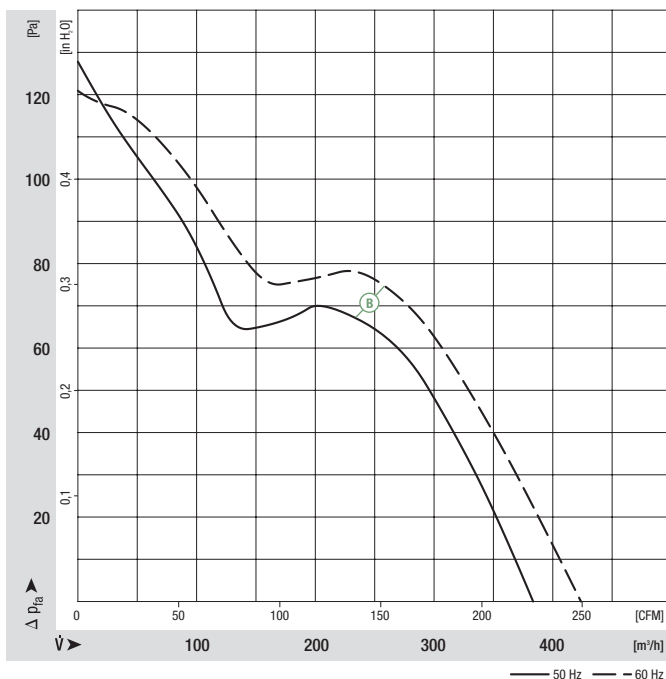


- **Material:**
Wall ring: Die-cast aluminium, coated in black
Blades: Sheet steel, coated in black
Rotor: Open, coated in black
- **Number of blades:** 5
- **Direction of air flow:** "A", intake over struts
- **Direction of rotation:** Counter-clockwise, seen on rotor
- **Type of protection:** IP 20
- **Insulation class:** "B"
- **Mounting position:** Any
- **Condensate discharges:** None
- **Mode of operation:**
Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings
- **Motor protection:** TOP wired internally
- **Electrical connection:**
Cable length 330 mm, beginning at wall ring
- **Protection class:** I
- **Product conforming to standards:**
EN 60335-1, CE
- **Approvals:** VDE, UL, CSA, CCC, GOST

| Nominal data | | Curve | Nominal voltage | Frequency | Air flow | Speed/rpm | Power input | Current draw | Capacitor | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass | Electr. connection |
|-----------------|------------|----------|-----------------|-----------|----------|-----------|-------------|--------------|-----------|----------------------|----------------------|------------------|-----------|--------------------|
| Type | Motor | VAC | Hz | m³/h | rpm | W | A | µF/VDB | dB(A) | Pa | °C | kg | p. 416 f. | |
| W2S 130-BM15-01 | M2S 052-CA | ⓑ 1~ 115 | 50 | 380 | 2700 | 47 | — | — | 60 | — | -25 to +50 | 1.1 | B) | |
| | | 1~ 115 | 60 | 425 | 3050 | 46 | — | — | 62 | — | -25 to +70 | | | |
| W2S 130-BM03-01 | M2S 052-CA | ⓑ 1~ 230 | 50 | 380 | 2700 | 47 | — | — | 60 | — | -25 to +50 | 1.1 | B) | |
| | | 1~ 230 | 60 | 425 | 3050 | 46 | — | — | 62 | — | -25 to +70 | | | |

subject to alterations

Curves



AC axial fans

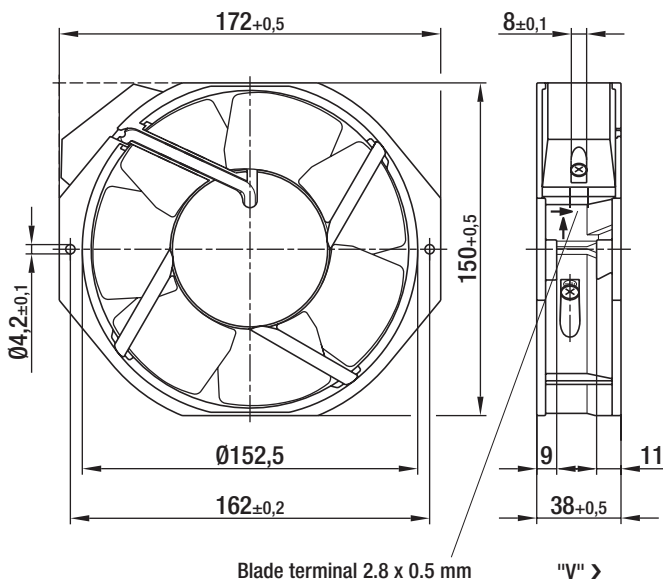
Ø 142



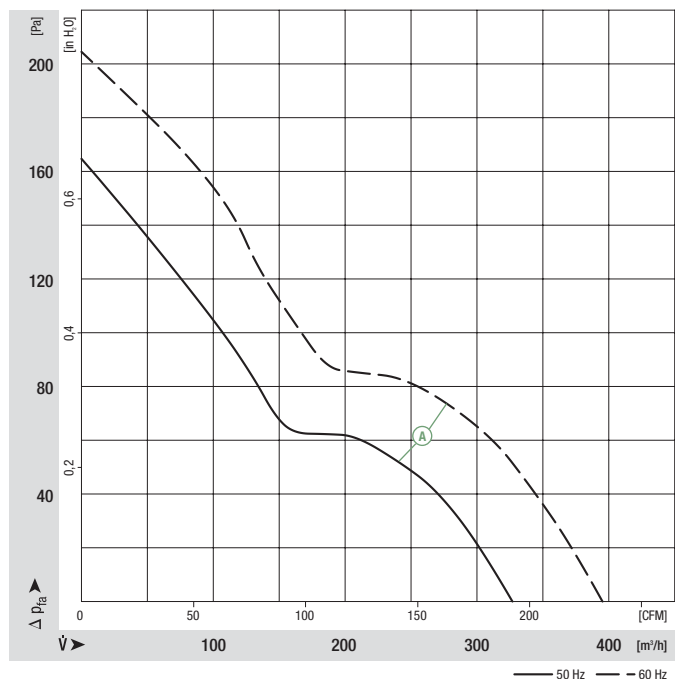
- **Material:**
Wall ring: Die-cast aluminium, coated in black
Blades: Sheet steel, coated in black
Rotor: Open, coated in black
- **Number of blades:** 7
- **Direction of air flow:** "V", exhaust over struts
- **Direction of rotation:** Counter-clockwise, seen on rotor
- **Type of protection:** IP 22
- **Insulation class:** "B"
- **Mounting position:** Any
- **Condensate discharges:** None
- **Mode of operation:**
Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings
- **Motor protection:** TOP wired internally
- **Electrical connection:** Blade terminal 2.8 x 0.5 mm (operating capacitor connected)
- **Protection class:** I
- **Product conforming to standards:**
EN 60335-1, CE
- **Approvals:** VDE, UL, CSA, CCC, GOST

| Nominal data | | Curve | Nominal voltage | Frequency | Air flow | Speed/rpm | Power input | Current draw | Capacitor | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass |
|------------------|------------|-------|-----------------|-----------|----------|-----------|-------------|--------------|-----------|----------------------|----------------------|------------------|------|
| Type | Motor | | VAC | Hz | m³/h | rpm | W | A | µF/VDB | dB(A) | Pa | °C | kg |
| W2E 142-BB05 -01 | M2E 052-BA | Ⓐ | 1~ 115 | 50 | 330 | 2800 | 25 | — | — | 52 | — | -25 to +55 | 0.9 |
| | | | 1~ 115 | 60 | 390 | 3300 | 24 | — | — | 57 | — | -25 to +70 | |
| W2E 142-BB01 -01 | M2E 052-BA | Ⓐ | 1~ 230 | 50 | 330 | 2800 | 25 | — | — | 52 | — | -25 to +55 | 0.9 |
| | | | 1~ 230 | 60 | 390 | 3300 | 24 | — | — | 57 | — | -25 to +70 | |

subject to alterations



Curves



AC axial fans

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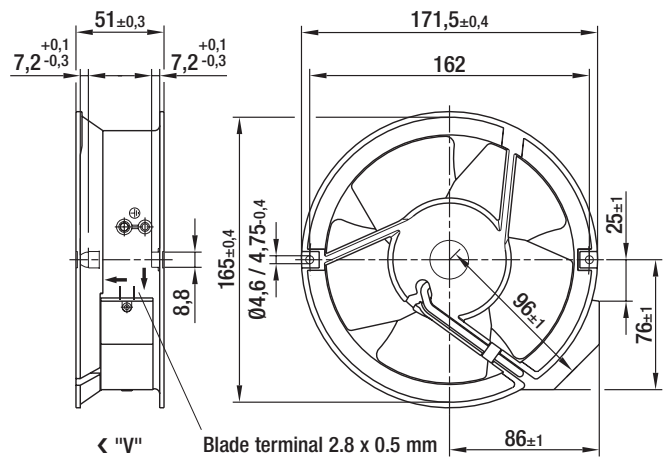
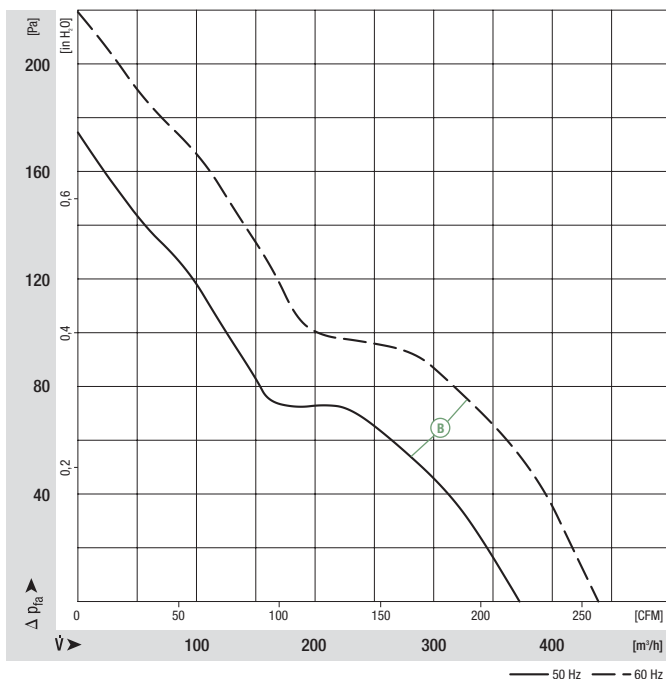


- **Material:**
Wall ring: Die-cast aluminium, coated in black
Blades: Sheet steel, coated in black
Rotor: Open, coated in black
- **Number of blades:** 5
- **Direction of air flow:** "V", exhaust over struts
- **Direction of rotation:** Counter-clockwise, seen on rotor
- **Type of protection:** IP 20
- **Insulation class:** "B"
- **Mounting position:** Any
- **Condensate discharges:** None
- **Mode of operation:**
Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings
- **Motor protection:** TOP wired internally
- **Electrical connection:** Blade terminal 2.8 x 0.5 mm (operating capacitor connected)
- **Protection class:** I
- **Product conforming to standards:**
EN 60335-1, CE
- **Approvals:** VDE, UL, CSA, CCC, GOST

| Nominal data | | Curve | Nominal voltage | Frequency | Air flow | Speed/rpm | Power input | Current draw | Capacitor | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass |
|----------------|------------|----------|-----------------|-----------|----------|-----------|-------------|--------------|-----------|----------------------|----------------------|------------------|------|
| Type | Motor | VAC | Hz | m³/h | rpm | W | A | µF/VDB | dB(A) | Pa | °C | kg | |
| W2E143-AA15-01 | M2E 052-BF | ⓑ 1~ 115 | 50 | 375 | 2800 | 24 | — | — | 55 | — | -25 to +70 | 1.0 | |
| | | 1~ 115 | 60 | 440 | 3300 | 26 | — | — | 60 | — | -25 to +70 | | |
| W2E143-AA09-01 | M2E 052-BF | ⓑ 1~ 230 | 50 | 375 | 2800 | 24 | — | — | 55 | — | -25 to +70 | 1.0 | |
| | | 1~ 230 | 60 | 440 | 3300 | 26 | — | — | 60 | — | -25 to +70 | | |

subject to alterations

Curves



AC axial fans

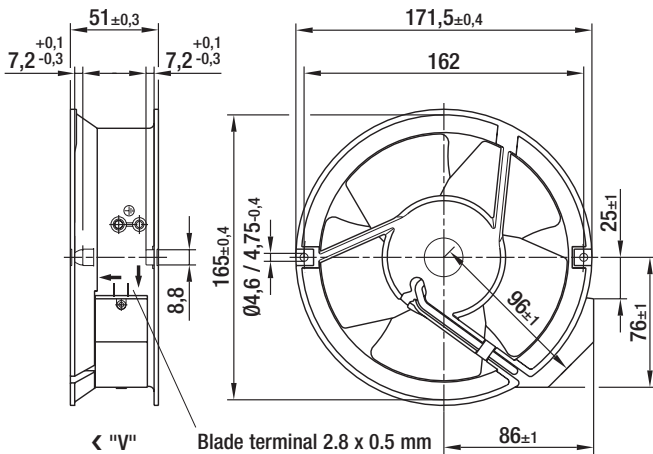
Ø 143



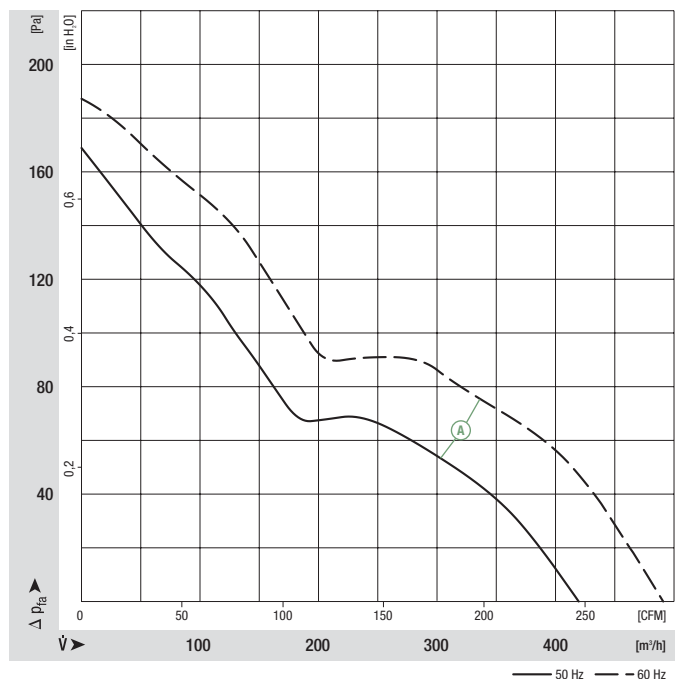
- **Material:**
Wall ring: Die-cast aluminium, coated in black
Blades: Sheet steel, coated in black
Rotor: Open, coated in black
- **Number of blades:** 5
- **Direction of air flow:** "V", exhaust over struts
- **Direction of rotation:** Counter-clockwise, seen on rotor
- **Type of protection:** IP 20
- **Insulation class:** "B"
- **Mounting position:** Any
- **Condensate discharges:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings
- **Motor protection:** TOP wired internally
- **Electrical connection:** Blade terminal 2.8 x 0.5 mm (operating capacitor connected)
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, CE
- **Approvals:** VDE, UL, CSA, CCC, GOST

| Nominal data | | Curve | Nominal voltage | Frequency | Air flow | Speed/rpm | Power input | Current draw | Capacitor | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass |
|------------------|------------|----------|-----------------|-------------------|----------|-----------|-------------|--------------|-----------|----------------------|----------------------|------------------|------|
| Type | Motor | VAC | Hz | m ³ /h | rpm | W | A | µF/VDB | dB(A) | Pa | °C | kg | |
| W2E 143-AB15 -01 | M2E 052-BF | Ⓐ 1~ 115 | 50 | 420 | 2800 | 26 | — | — | 54 | — | -25 to +60 | 1.0 | |
| | | 1~ 115 | 60 | 500 | 3300 | 29 | — | — | 58 | — | -25 to +75 | | |
| W2E 143-AB09 -01 | M2E 052-BF | Ⓐ 1~ 230 | 50 | 420 | 2800 | 26 | — | — | 54 | — | -25 to +60 | 1.0 | |
| | | 1~ 230 | 60 | 500 | 3300 | 29 | — | — | 58 | — | -25 to +75 | | |

subject to alterations



Curves



AC axial fans

Ø 200

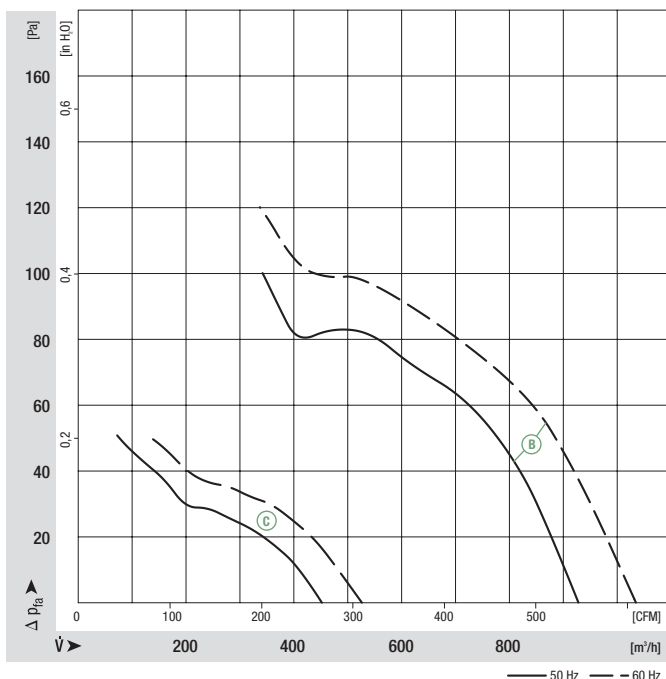


- **Material:**
 Wall ring: Die-cast aluminium
 Blades: Sheet steel, coated in black
 Rotor: Coated in black
- **Number of blades:** 7
- **Direction of air flow:** "V", exhaust over struts
- **Direction of rotation:** Counter-clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "B"
- **Mounting position:** Any
- **Condensate discharges:** None
- **Mode of operation:**
 Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings
- **Motor protection:** TOP wired internally
- **Electrical connection:** Terminal strips (operating capacitor connected)
- **Protection class:** I
- **Product conforming to standards:**
 EN 60335-1, CE
- **Approvals:** VDE, UL, CSA, CCC;
 Ⓟ also GOST

| Nominal data | | Curve | Nominal voltage | Frequency | Air flow | Speed/rpm | Power input | Current draw | Capacitor | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass |
|------------------|------------|-------|-----------------|-----------|----------|-----------|-------------|--------------|-----------|----------------------|----------------------|------------------|------|
| Type | Motor | VAC | Hz | m³/h | rpm | W | A | µF/VDB | dB(A) | Pa | °C | kg | |
| W2E 200-HK86 -01 | M2E 068-BF | Ⓟ | 1~ 115 | 50 | 925 | 2550 | 64 | 0.58 | 5.0/220 | 59 | 100 | -25 to +60 | 2.0 |
| | | | 1~ 115 | 60 | 1030 | 2800 | 80 | 0.70 | 5.0/220 | 61 | 120 | -25 to +65 | |
| W2E 200-HK38 -01 | M2E 068-BF | Ⓟ | 1~ 230 | 50 | 925 | 2550 | 64 | 0.29 | 1.5/400 | 59 | 100 | -25 to +60 | 2.0 |
| | | | 1~ 230 | 60 | 1030 | 2800 | 80 | 0.35 | 1.5/400 | 61 | 120 | -25 to +65 | |
| W4S 200-HK04 -01 | M4S 068-BF | Ⓞ | 1~ 230 | 50 | 450 | 1370 | 30 | 0.21 | — | 40 | 50 | -25 to +70 | 2.0 |
| | | | 1~ 230 | 60 | 525 | 1590 | 26 | 0.18 | — | 44 | 50 | -25 to +80 | |

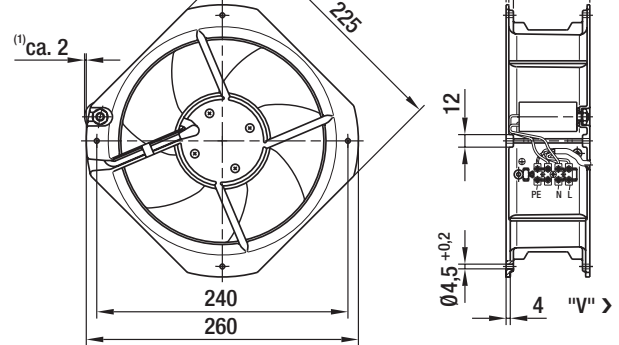
subject to alterations

Curves

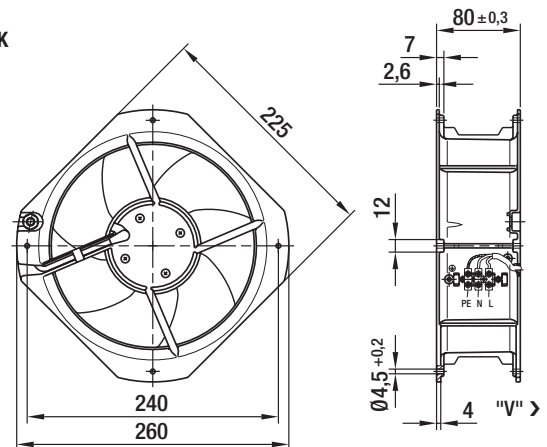


W2E 200-HK

⁽¹⁾ Protruding capacitor



W4S 200-HK



AC diagonal fans

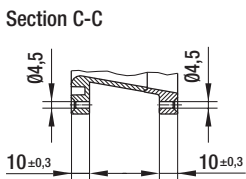
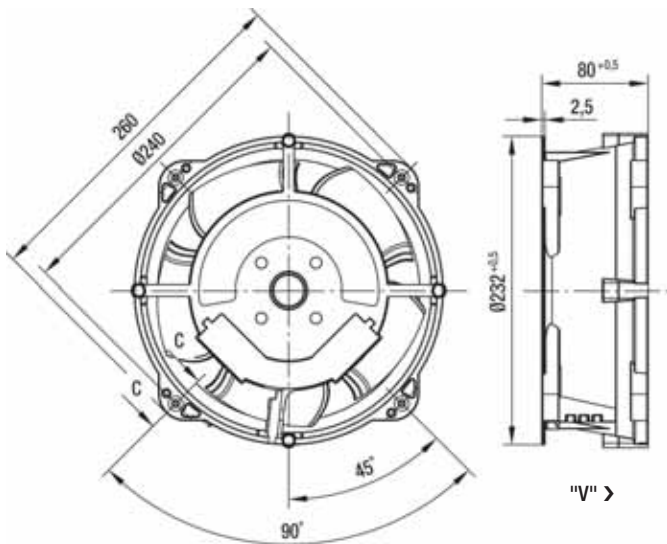
Ø 208



- **Material:**
Wall ring: Die-cast aluminium
Blades: Plastic PA
Rotor: Coated in black
- **Number of blades:** 5
- **Direction of air flow:** "V", exhaust over struts
- **Direction of rotation:** Counter-clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "F"
- **Mounting position:** Any
- **Condensate discharges:** None
- **Mode of operation:**
Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings
- **Motor protection:** (A) Without TOP, (B) TOP wired internally
- **Electrical connection:** Terminal strips (operating capacitor connected)
- **Protection class:** I
- **Product conforming to standards:**
EN 60335-1, (B) also CE
- **Approvals:** VDE, CCC, GOST

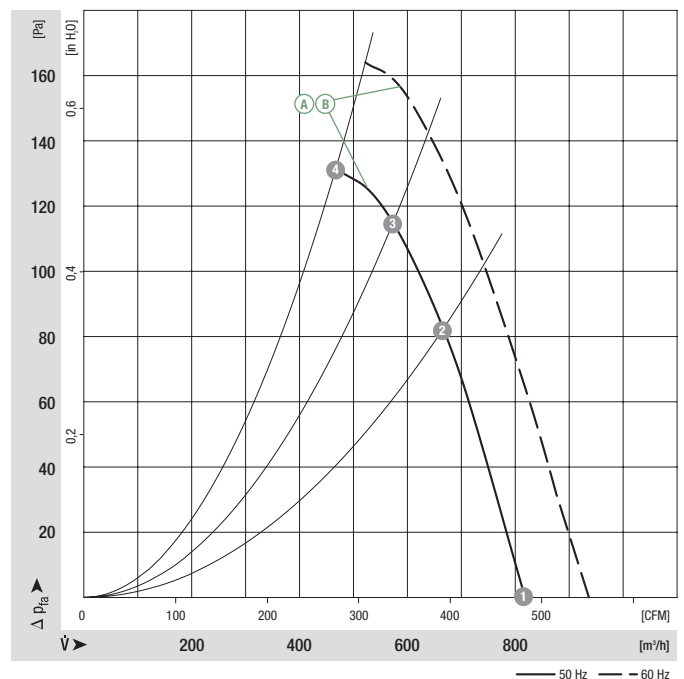
| Nominal data | | Curve | Nominal voltage | Frequency | Air flow | Speed/rpm | Power input | Current draw | Capacitor | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass |
|------------------|------------|--------------|-----------------|-----------|----------|-----------|-------------|--------------|-----------|----------------------|----------------------|------------------|------|
| Type | Motor | VAC | Hz | m³/h | rpm | W | A | µF/VDB | dB(A) | Pa | °C | kg | |
| W2D208-BA02 -01 | M2D 068-CF | (A) 3~ 400 Y | 50 | 820 | 2740 | 60 | 0.15 | — | 67 | 135 | -25 to +70 | 2.8 | |
| | | (A) 3~ 400 Y | 60 | 920 | 3090 | 80 | 0.15 | — | 70 | 165 | -25 to +70 | | |
| W2E 208-BA86 -01 | M2E 068-CF | (B) 1~ 115 | 50 | 815 | 2750 | 67 | 0.70 | 6.0/220 | 68 | 135 | -25 to +72 | 2.8 | |
| | | (B) 1~ 115 | 60 | 925 | 3100 | 87 | 0.78 | 6.0/220 | 70 | 165 | -25 to +72 | | |
| W2E 208-BA20 -01 | M2E 068-CF | (B) 1~ 230 | 50 | 815 | 2750 | 67 | 0.33 | 1.5/450 | 68 | 135 | -25 to +72 | 2.8 | |
| | | (B) 1~ 230 | 60 | 925 | 3100 | 87 | 0.39 | 1.5/450 | 70 | 165 | -25 to +72 | | |

subject to alterations



| | n [rpm] | P ₁ [W] | Lp _A [dB(A)] | | n [rpm] | P ₁ [W] | Lp _A [dB(A)] |
|-------|---------|--------------------|-------------------------|-------|---------|--------------------|-------------------------|
| (A) 1 | 3090 | 80 | 70 | (B) 1 | 3100 | 87 | 70 |
| (A) 2 | 2990 | 93 | 69 | (B) 2 | 2990 | 100 | 70 |
| (A) 3 | 2960 | 96 | 69 | (B) 3 | 2960 | 102 | 69 |
| (A) 4 | 2990 | 92 | 70 | (B) 4 | 3020 | 97 | 70 |

Curves



AC axial fans

Ø 250

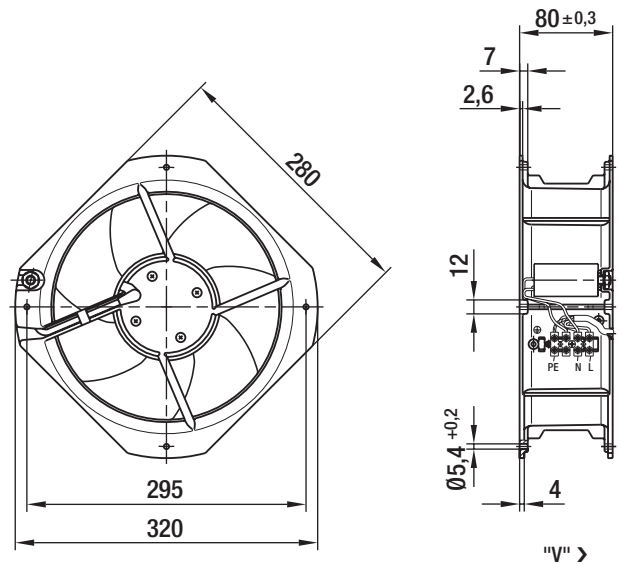
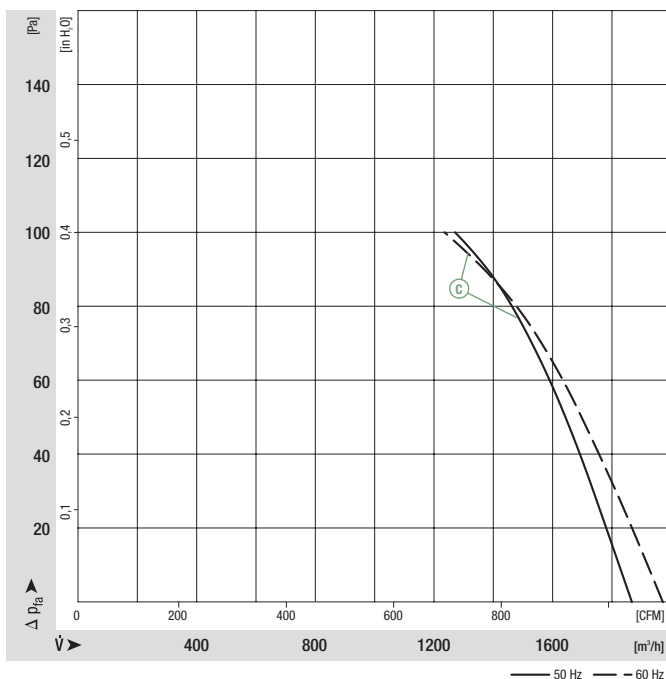


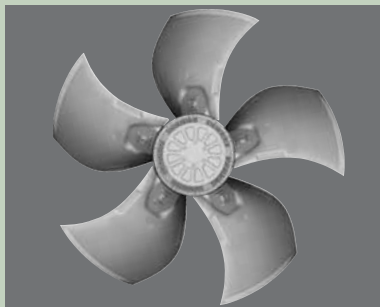
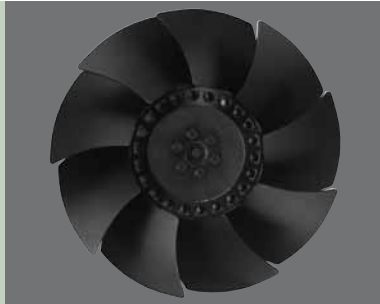
- **Material:**
 Wall ring: Die-cast aluminium
 Blades: Sheet steel, coated in black
 Rotor: Coated in black
- **Number of blades:** 7
- **Direction of air flow:** "V", exhaust over struts
- **Direction of rotation:** Counter-clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "F"
- **Mounting position:** Any
- **Condensate discharges:** None
- **Mode of operation:**
 Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings
- **Motor protection:** TOP wired internally
- **Electrical connection:** Terminal strips (operating capacitor connected)
- **Protection class:** I
- **Product conforming to standards:**
 EN 60335-1, CE
- **Approvals:** VDE, UL, CSA, CCC, GOST

| Nominal data | | Curve | Nominal voltage | Frequency | Air flow | Speed/rpm | Power input | Current draw | Capacitor | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass |
|-------------------------|------------|--------------------|-----------------|--------------|--------------|------------|--------------|--------------------|-----------|----------------------|--------------------------|------------------|------|
| Type | Motor | VAC | Hz | m³/h | rpm | W | A | µF/VDB | dB(A) | Pa | °C | kg | |
| W2E 250-HL06 -01 | M2E 068-CF | Ⓢ 1~ 230 1~ 230 | 50 60 | 1865 1970 | 2550 2700 | 127 180 | 0.56 0.79 | 4.0/400 4.0/400 | 69 70 | 100 100 | -25 to +60 -25 to +45 | 2.0 | |

subject to alterations

Curves





AC axial fans S series

| | | |
|-------------------------|---------------|----|
| AC axial fans, S series | Ø 200 - Ø 450 | 24 |
| AC axial fans, S series | Ø 500 - Ø 910 | 74 |



AC axial fans

S series, Ø 200



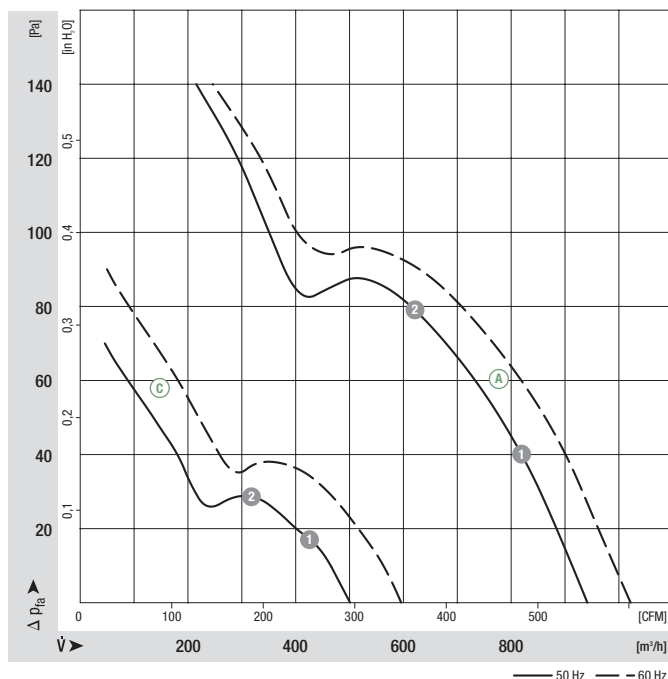
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Sheet steel, coated in black
Rotor: Coated in black
- **Number of blades:** 9
- **Direction of rotation:** Counter-clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "B"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage | Frequency | Air flow | Speed/rpm | Power input | Current draw | Capacitor | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|------------------------|------------|----------------------------|-----------------|------------|--------------|-----------|------------------------|--------------------|-----------|----------------------|--------------------------|------------------|--------------------------|--------------------|
| Type | Motor | VAC | Hz | m³/h | rpm | W | A | µF/VDB | dB(A) | Pa | °C | kg | p. 416 f. | |
| *2D 200 ⁽¹⁾ | M2D 068-BF | Ⓐ 3~ 230/400 3~ 230/400 | 50 60 | 890 990 | 2600 2900 | 68 70 | 0.29/0.17 0.23/0.13 | — | 65 68 | 140 140 | -25 to +45 -25 to +70 | 1.6 | C1)/C2) | |
| *2E 200 | M2E 068-BF | Ⓑ 1~ 230 1~ 230 | 50 60 | 890 990 | 2600 2900 | 64 78 | 0.30 0.34 | 1.5/400 1.5/400 | 65 68 | 150 150 | -25 to +70 -25 to +70 | 1.4 | A1) | |
| *4D 200 ⁽¹⁾ | M4D 068-BF | Ⓒ 3~ 230/400 3~ 230/400 | 50 60 | 500 600 | 1440 1690 | 20 20 | 0.12/0.07 0.10/0.06 | — | 43 47 | 70 90 | -25 to +80 -25 to +90 | 1.4 | C1)/C2) | |
| *4S 200 | M4S 068-BF | Ⓓ 1~ 230 1~ 230 | 50 60 | 470 540 | 1370 1580 | 30 27 | 0.21 0.19 | — | 42 46 | 50 50 | -25 to +75 -25 to +80 | 1.2 | B) | |

subject to alterations

(1) 230 VAC Δ / 400 VAC Y

Curves



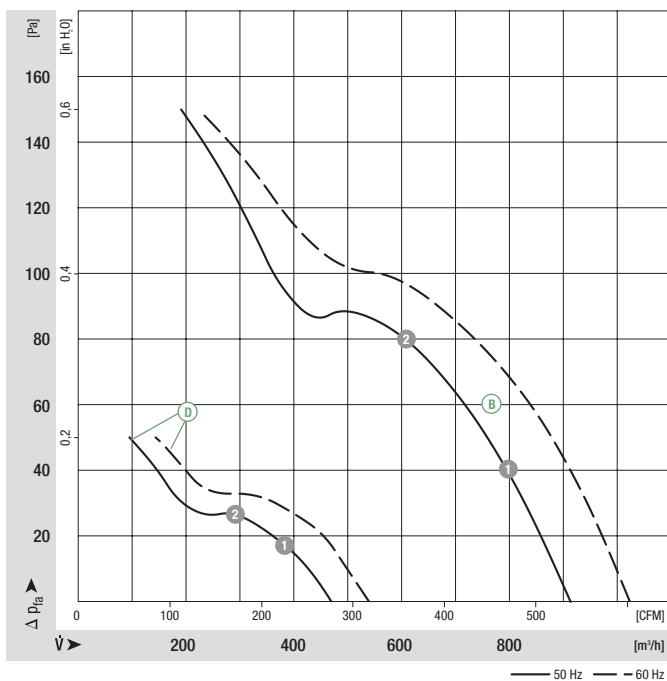
| | n [rpm] | P ₁ [W] | I [A] |
|-----|---------|--------------------|-----------|
| Ⓐ 1 | 2540 | 70 | 0.29/0.17 |
| Ⓐ 2 | 2470 | 74 | 0.29/0.17 |
| Ⓒ 1 | 1430 | 21 | 0.12/0.07 |
| Ⓒ 2 | 1420 | 23 | 0.12/0.07 |

- **Motor protection:** (A) (C) Without TOP, (B) (D) TOP wired internally
- **Cable exit:** (A) (C) Lateral, (B) (D) variable
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, (B) (D) also CE
- **Approvals:** (B) CCC

| Direction of air flow | | | | |
|-----------------------|--------------------------------------|---|--|---|
| | < "V"/"A" > Without attachments | < "V"/"A" > With full round nozzle (1) | < "V"/"A" > With guard grille for full nozzle | < "V"/"A" > With guard grille for short nozzle |
| "V" "A" | A2D 200-AH18 -01 A2D 200-AI18 -01 | W2D 200-CH18 -01 W2D 200-CI18 -01 | S2D 200-BH18 -01 S2D 200-BI18 -01 | S2D 200-AH18 -01 S2D 200-AI18 -01 |
| "V" "A" | A2E 200-AH38 -01 A2E 200-AI38 -01 | W2E 200-CH38 -01 W2E 200-CI38 -01 | S2E 200-BH38 -01 S2E 200-BI38 -01 | S2E 200-AH38 -01 S2E 200-AI38 -01 |
| "V" "A" | A4D 200-AH14 -01 A4D 200-AI14 -01 | W4D 200-CH14 -01 W4D 200-CI14 -01 | S4D 200-BH14 -01 S4D 200-BI14 -01 | S4D 200-AH14 -01 S4D 200-AI14 -01 |
| "V" "A" | A4S 200-AH04 -01 A4S 200-AI04 -01 | W4S 200-CH04 -01 W4S 200-CI04 -01 | S4S 200-BH04 -01 S4S 200-BI04 -01 | S4S 200-AH04 -01 S4S 200-AI04 -01 |

(1) Increased noise levels in "V" direction of air flow

Curves



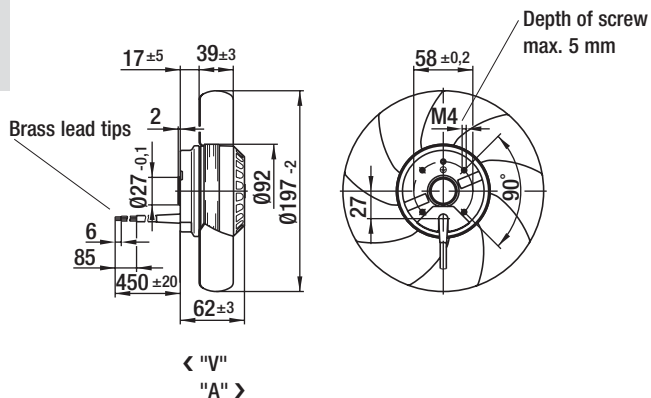
| | n [rpm] | P ₁ [W] | I [A] |
|-------|---------|--------------------|-------|
| (B) 1 | 2555 | 67 | 0.31 |
| (B) 2 | 2465 | 70 | 0.32 |
| (D) 1 | 1360 | 31 | 0.22 |
| (D) 2 | 1350 | 31 | 0.22 |

AC axial fans

S series, Ø 200, drawings of directions of air flow "V" and "A"



Without attachments

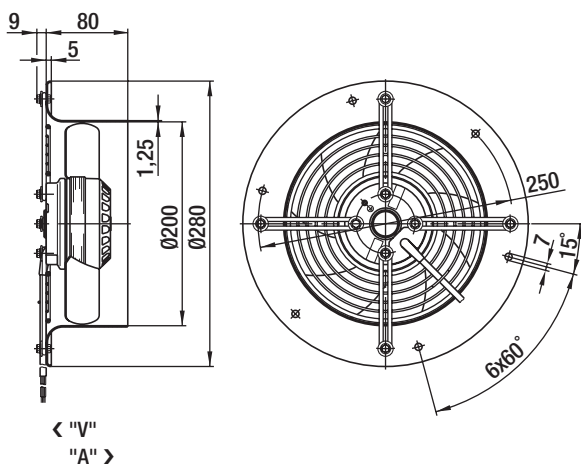


Type

| | |
|------------------|-----|
| A2D 200-AH18 -01 | "V" |
| A2D 200-AI18 -01 | "A" |
| A2E 200-AH38 -01 | "V" |
| A2E 200-AI38 -01 | "A" |
| A4D 200-AH14 -01 | "V" |
| A4D 200-AI14 -01 | "A" |
| A4S 200-AH04 -01 | "V" |
| A4S 200-AI04 -01 | "A" |



With full round nozzle

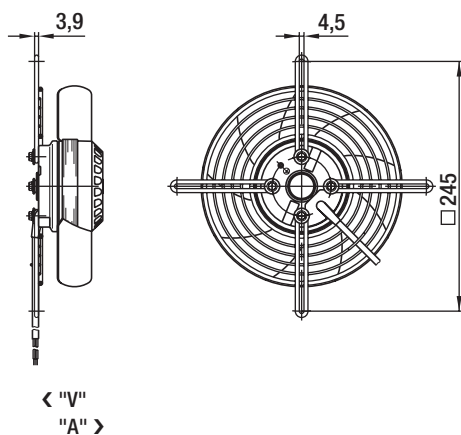


Type

| | |
|------------------|-----|
| W2D 200-CH18 -01 | "V" |
| W2D 200-CI18 -01 | "A" |
| W2E 200-CH38 -01 | "V" |
| W2E 200-CI38 -01 | "A" |
| W4D 200-CH14 -01 | "V" |
| W4D 200-CI14 -01 | "A" |
| W4S 200-CH04 -01 | "V" |
| W4S 200-CI04 -01 | "A" |



With guard grille for full nozzle

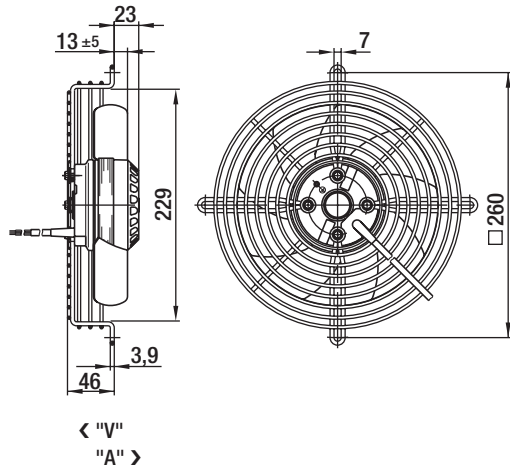


Type

| | |
|------------------|-----|
| S2D 200-BH18 -01 | "V" |
| S2D 200-BI18 -01 | "A" |
| S2E 200-BH38 -01 | "V" |
| S2E 200-BI38 -01 | "A" |
| S4D 200-BH14 -01 | "V" |
| S4D 200-BI14 -01 | "A" |
| S4S 200-BH04 -01 | "V" |
| S4S 200-BI04 -01 | "A" |



With guard grille for short nozzle



Type

| | |
|------------------|-----|
| S2D 200-AH18 -01 | "V" |
| S2D 200-AI18 -01 | "A" |
| S2E 200-AH38 -01 | "V" |
| S2E 200-AI38 -01 | "A" |
| S4D 200-AH14 -01 | "V" |
| S4D 200-AI14 -01 | "A" |
| S4S 200-AH04 -01 | "V" |
| S4S 200-AI04 -01 | "A" |

AC axial fans

S series, Ø 250



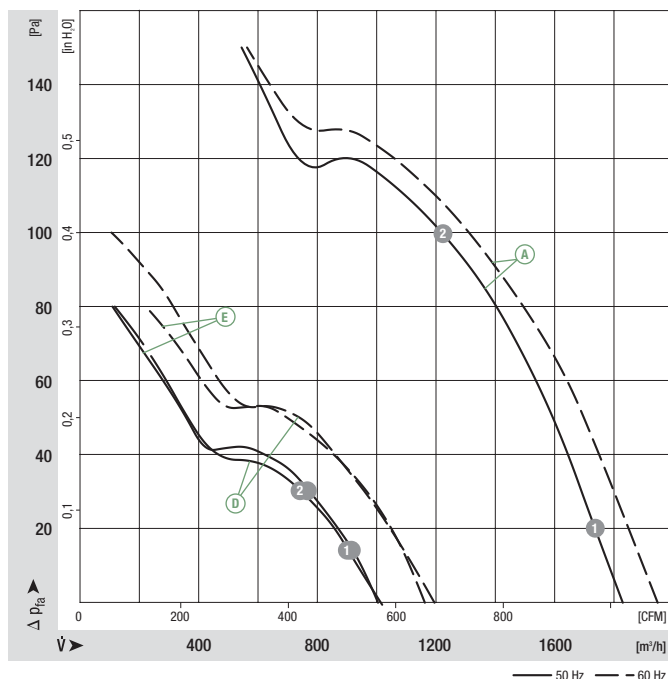
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Sheet steel, coated in black
Rotor: Coated in black
- **Number of blades:** 7
- **Direction of rotation:** Counter-clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "B"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage | Frequency | Air flow | Speed/rpm | Power input | Current draw | Capacitor | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|------------------------|------------|--------------|-----------------|-----------|----------|-----------|-------------|--------------|-----------|----------------------|----------------------|------------------|--------------------------|--------------------|
| Type | Motor | VAC | Hz | m³/h | rpm | W | A | µF/VDB | dB(A) | Pa | °C | kg | p. 416 f. | |
| *2D 250 ⁽¹⁾ | M2D 068-CF | Ⓐ 3~ 230/400 | 50 | 1830 | 2500 | 100 | 0.34/0.20 | — | 69 | 150 | -25 to +65 | 2.1 | C1)/C2) | |
| | | Ⓐ 3~ 230/400 | 60 | 1950 | 2650 | 140 | 0.40/0.23 | — | 70 | 150 | -25 to +45 | | | |
| *2E 250 | M2E 068-CF | Ⓑ 1~ 230 | 50 | 1820 | 2450 | 115 | 0.51 | 3.0/400 | 69 | 120 | -25 to +65 | 1.9 | A1) | |
| | | Ⓑ 1~ 230 | 60 | 1970 | 2600 | 150 | 0.66 | 3.0/400 | 71 | 85 | -25 to +50 | | | |
| *4D 250 ⁽¹⁾ | M4D 068-CF | Ⓒ 3~ 230/400 | 50 | 1010 | 1400 | 25 | 0.12/0.07 | — | 54 | 70 | -25 to +85 | 1.9 | C1)/C2) | |
| | | Ⓒ 3~ 230/400 | 60 | 1140 | 1580 | 32 | 0.12/0.07 | — | 57 | 70 | -25 to +80 | | | |
| *4E 250 | M4E 068-BF | Ⓓ 1~ 230 | 50 | 1010 | 1400 | 42 | 0.19 | 1.5/400 | 54 | 80 | -25 to +55 | 1.9 | A1) | |
| | | Ⓓ 1~ 230 | 60 | 1200 | 1630 | 45 | 0.20 | 1.5/400 | 58 | 100 | -25 to +70 | | | |
| *4S 250 | M4S 068-CF | Ⓔ 1~ 230 | 50 | 1000 | 1390 | 69 | 0.53 | — | 54 | 80 | -25 to +50 | 1.7 | B) | |
| | | Ⓔ 1~ 230 | 60 | 1160 | 1600 | 63 | 0.45 | — | 58 | 80 | -25 to +65 | | | |

subject to alterations


(1) 230 VAC Δ / 400 VAC Y

Curves



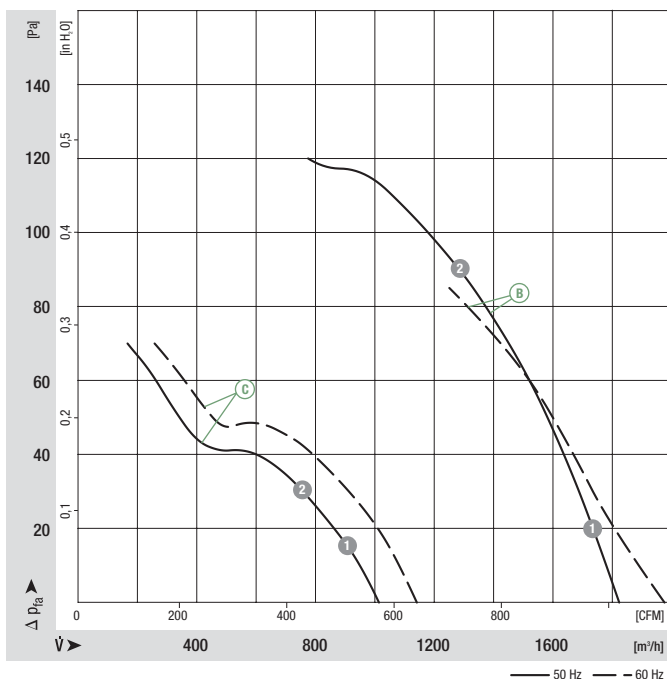
| | n [rpm] | P ₁ [W] | I [A] |
|-----|---------|--------------------|-----------|
| Ⓐ 1 | 2455 | 106 | 0.34/0.20 |
| Ⓐ 2 | 2310 | 125 | 0.38/0.22 |
| Ⓓ 1 | 1370 | 43 | 0.20 |
| Ⓓ 2 | 1360 | 45 | 0.20 |
| Ⓔ 1 | 1370 | 71 | 0.53 |
| Ⓔ 2 | 1360 | 73 | 0.53 |

- **Motor protection:** (A) (C) Without TOP, (B) (D) (E) TOP wired internally
- **Cable exit:** (A) (C) (E) Lateral, (B) (D) variable
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, (B) (D) (E) also CE
- **Approvals:** (A) (B) (D) CCC; (D) also GOST

| Direction of air flow |  | | | |
|-----------------------|---|---------------------------------------|--------------------------------------|--------------------------------------|
| | Without attachments | With full round nozzle ⁽¹⁾ | With guard grille for full nozzle | With guard grille for short nozzle |
| "V" "A" | A2D 250-AH02 -01 A2D 250-AI02 -01 | W2D 250-CH02 -01 W2D 250-CI02 -01 | S2D 250-BH02 -01 S2D 250-BI02 -01 | S2D 250-AH02 -01 S2D 250-AI02 -01 |
| "V" "A" | A2E 250-AL06 -01 A2E 250-AM06 -01 | W2E 250-CL06 -01 W2E 250-CM06 -01 | S2E 250-BL06 -01 S2E 250-BM06 -01 | S2E 250-AL06 -01 S2E 250-AM06 -01 |
| "V" "A" | A4D 250-AH22 -01 A4D 250-AI22 -01 | W4D 250-CH22 -01 W4D 250-CI22 -01 | S4D 250-BH22 -01 S4D 250-BI22 -01 | S4D 250-AH22 -01 S4D 250-AI22 -01 |
| "V" "A" | A4E 250-AH02 -01 A4E 250-AI02 -01 | W4E 250-CH02 -01 W4E 250-CI02 -01 | S4E 250-BH02 -01 S4E 250-BI02 -01 | S4E 250-AH02 -01 S4E 250-AI02 -01 |
| "V" "A" | A4S 250-AH02 -01 A4S 250-AI02 -01 | W4S 250-CH02 -01 W4S 250-CI02 -01 | S4S 250-BH02 -01 S4S 250-BI02 -01 | S4S 250-AH02 -01 S4S 250-AI02 -01 |

(1) Increased noise levels in "V" direction of air flow

Curves



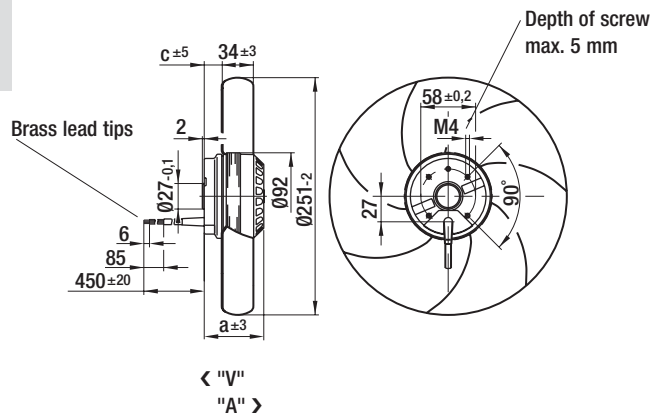
| | n [rpm] | P ₁ [W] | I [A] |
|-------|---------|--------------------|-----------|
| (B) 1 | 2455 | 116 | 0.51 |
| (B) 2 | 2290 | 132 | 0.57 |
| (C) 1 | 1375 | 27 | 0.12/0.07 |
| (C) 2 | 1350 | 30 | 0.12/0.07 |

AC axial fans

S series, Ø 250, drawings of directions of air flow "V" and "A"



Without attachments

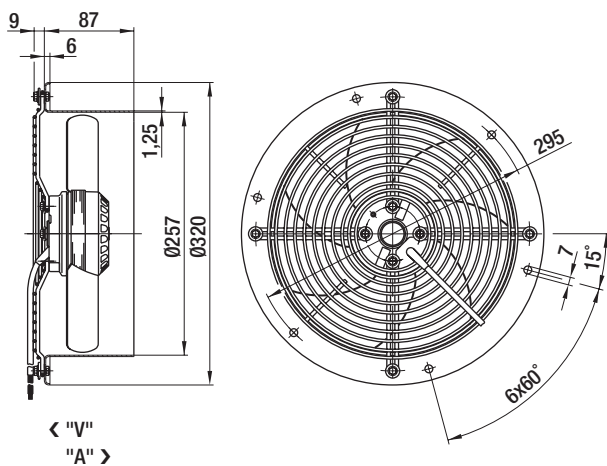


Type

| Type | | a | c |
|------------------|-----|------|------|
| A2D 250-AH02 -01 | "V" | 72.0 | 18.0 |
| A2D 250-AI02 -01 | "A" | 72.0 | 21.0 |
| A2E 250-AL06 -01 | "V" | 72.0 | 18.0 |
| A2E 250-AM06 -01 | "A" | 72.0 | 27.0 |
| A4D 250-AH22 -01 | "V" | 72.0 | 18.0 |
| A4D 250-AI22 -01 | "A" | 72.0 | 27.0 |
| A4E 250-AH02 -01 | "V" | 62.0 | 14.0 |
| A4E 250-AI02 -01 | "A" | 62.0 | 22.0 |
| A4S 250-AH02 -01 | "V" | 72.0 | 18.0 |
| A4S 250-AI02 -01 | "A" | 72.0 | 23.0 |



With full round nozzle

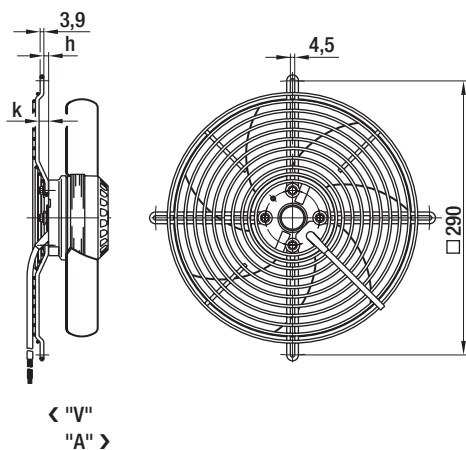


Type

| | |
|------------------|-----|
| W2D 250-CH02 -01 | "V" |
| W2D 250-CI02 -01 | "A" |
| W2E 250-CL06 -01 | "V" |
| W2E 250-CM06 -01 | "A" |
| W4D 250-CH22 -01 | "V" |
| W4D 250-CI22 -01 | "A" |
| W4E 250-CH02 -01 | "V" |
| W4E 250-CI02 -01 | "A" |
| W4S 250-CH02 -01 | "V" |
| W4S 250-CI02 -01 | "A" |



With guard grille for full nozzle

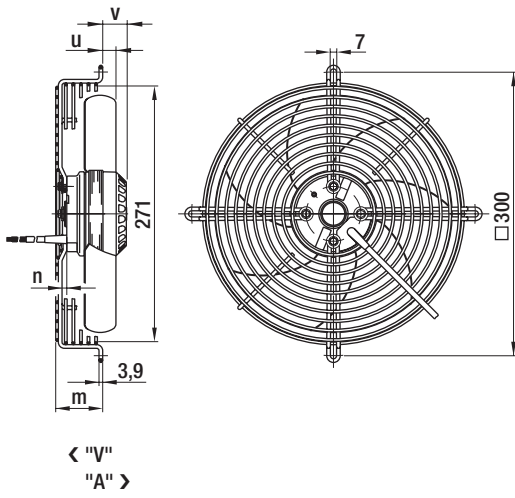


Type

| Type | | h | k |
|------------------|-----|-----|------|
| S2D 250-BH02 -01 | "V" | 5.0 | 10.0 |
| S2D 250-BI02 -01 | "A" | 0 | 0 |
| S2E 250-BL06 -01 | "V" | 5.0 | 10.0 |
| S2E 250-BM06 -01 | "A" | 0 | 0 |
| S4D 250-BH22 -01 | "V" | 5.0 | 10.0 |
| S4D 250-BI22 -01 | "A" | 0 | 0 |
| S4E 250-BH02 -01 | "V" | 5.0 | 10.0 |
| S4E 250-BI02 -01 | "A" | 0 | 0 |
| S4S 250-BH02 -01 | "V" | 5.0 | 10.0 |
| S4S 250-BI02 -01 | "A" | 0 | 0 |



With guard grille for short nozzle



Type

| | | m | n | u | v |
|------------------|-----|------|-----|------|------|
| S2D 250-AH02 -01 | "V" | 50.0 | 5.0 | 14.0 | 34.0 |
| S2D 250-AI02 -01 | "A" | 45.0 | 0 | 17.0 | 34.0 |
| S2E 250-AL06 -01 | "V" | 50.0 | 5.0 | 14.0 | 34.0 |
| S2E 250-AM06 -01 | "A" | 45.0 | 0 | 23.0 | 34.0 |
| S4D 250-AH22 -01 | "V" | 50.0 | 5.0 | 14.0 | 34.0 |
| S4D 250-AI22 -01 | "A" | 45.0 | 0 | 23.0 | 34.0 |
| S4E 250-AH02 -01 | "V" | 50.0 | 5.0 | 10.0 | 24.0 |
| S4E 250-AI02 -01 | "A" | 45.0 | 0 | 18.0 | 24.0 |
| S4S 250-AH02 -01 | "V" | 50.0 | 5.0 | 14.0 | 34.0 |
| S4S 250-AI02 -01 | "A" | 45.0 | 0 | 19.0 | 34.0 |

AC axial fans 2-pole

S series, Ø 300



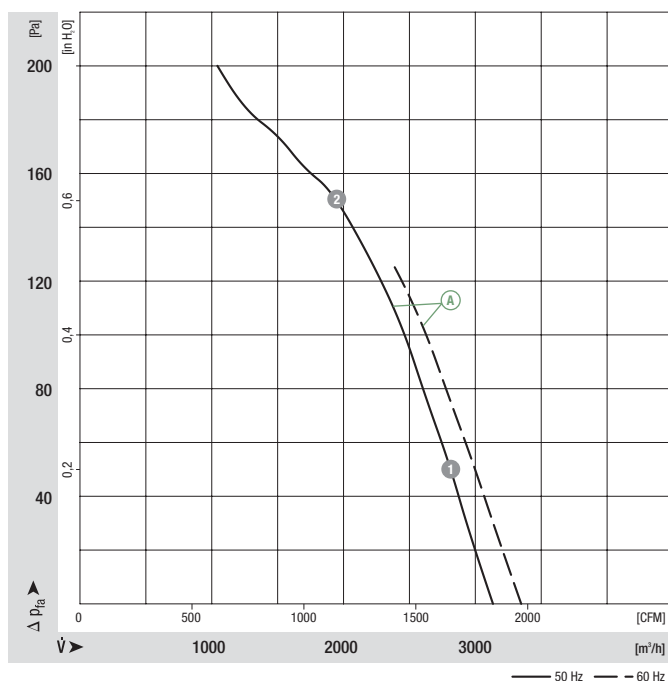
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Sheet steel, coated in black
Rotor: Coated in black
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "B"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage | Frequency | Air flow | Speed/rpm | Power input | Current draw | Capacitor | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|------------------------|------------|--------------|-----------------|-----------|----------|-----------|-------------|--------------|-----------|----------------------|----------------------|------------------|--------------------------|--------------------|
| Type | Motor | VAC | Hz | m³/h | rpm | W | A | µF/VDB | dB(A) | Pa | °C | kg | p. 416 f. | |
| *2D 300 ⁽¹⁾ | M2D 074-DF | Ⓐ 3~ 230/400 | 50 | 3130 | 2580 | 210 | 0.62/0.36 | — | 72 | 200 | -25 to +55 | 3.0 | C1)/C2) | |
| | | 3~ 230/400 | 60 | 3350 | 2750 | 300 | 0.83/0.48 | — | 73 | 125 | -25 to +40 | | | |
| *2E 300 | M2E 074-DF | Ⓑ 1~ 230 | 50 | 3410 | 2700 | 230 | 1.10 | 8.0/400 | 73 | 200 | -25 to +50 | 3.0 | A1) | |
| | | 1~ 230 | 60 | 3740 | 3000 | 350 | 1.55 | 8.0/400 | 76 | 50 | -25 to +40 | | | |

subject to alterations

(1) 230 VAC Δ / 400 VAC Y

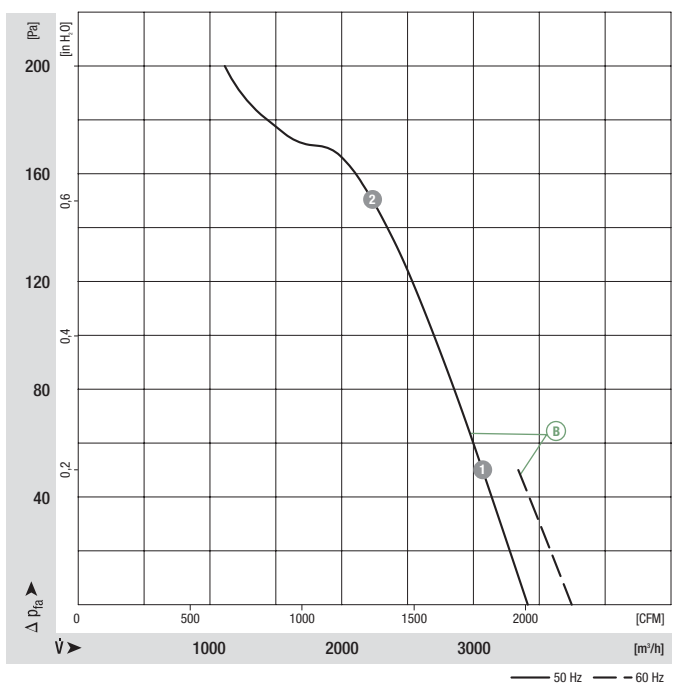
Curves



- **Motor protection:** (A) Without TOP, (B) TOP wired internally
- **Cable exit:** Variable
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, (B) also CE
- **Approvals:** CCC

| Direction of air flow | | | | |
|-----------------------|---------------------|------------------------|-----------------------------------|------------------------------------|
| | Without attachments | With full round nozzle | With guard grille for full nozzle | With guard grille for short nozzle |
| "V" | A2D 300-AP02 -01 | W2D 300-CP02 -30 | S2D 300-BP02 -30 | S2D 300-AP02 -30 |
| "A" | A2D 300-AP02 -02 | W2D 300-CP02 -31 | S2D 300-BP02 -31 | S2D 300-AP02 -31 |
| "V" | A2E 300-AP02 -01 | W2E 300-CP02 -30 | S2E 300-BP02 -30 | S2E 300-AP02 -30 |
| "A" | A2E 300-AP02 -02 | W2E 300-CP02 -31 | S2E 300-BP02 -31 | S2E 300-AP02 -31 |

Curves



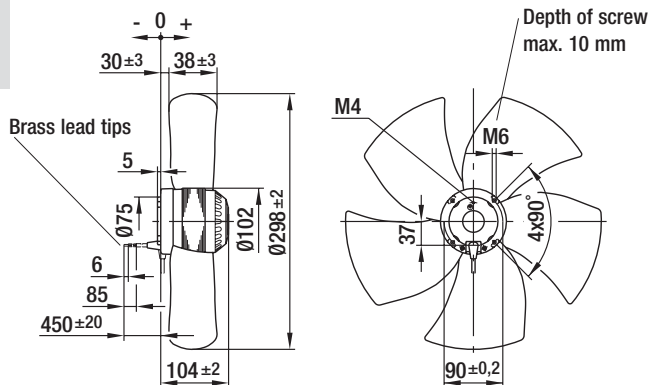
| | n [rpm] | P ₁ [W] | I [A] |
|-------|---------|--------------------|-------|
| (B) 1 | 2680 | 252 | 1.11 |
| (B) 2 | 2560 | 290 | 1.27 |

AC axial fans 2-pole

S series, Ø 300, drawings of directions of air flow "V" and "A"



Without attachments



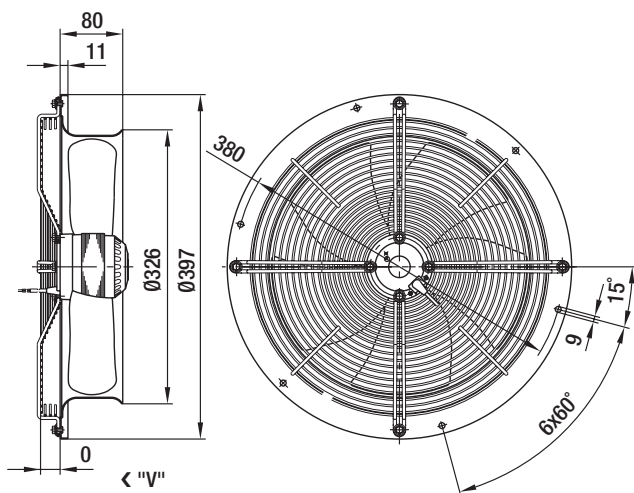
< "V"
"A" >

Type

| | |
|------------------|-----|
| A2D 300-AP02 -01 | "V" |
| A2D 300-AP02 -02 | "A" |
| A2E 300-AP02 -01 | "V" |
| A2E 300-AP02 -02 | "A" |



With full round nozzle



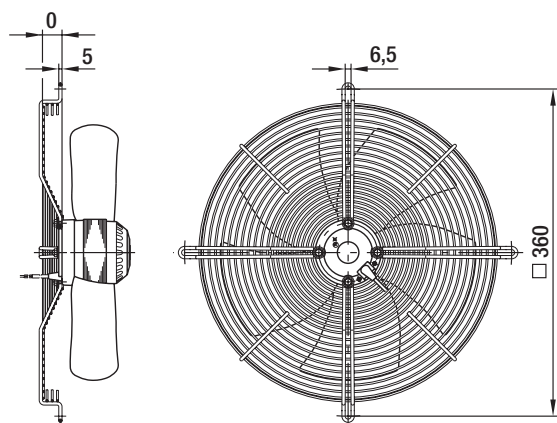
< "V"
"A" >

Type

| | |
|------------------|-----|
| W2D 300-CP02 -30 | "V" |
| W2D 300-CP02 -31 | "A" |
| W2E 300-CP02 -30 | "V" |
| W2E 300-CP02 -31 | "A" |



With guard grille for full nozzle



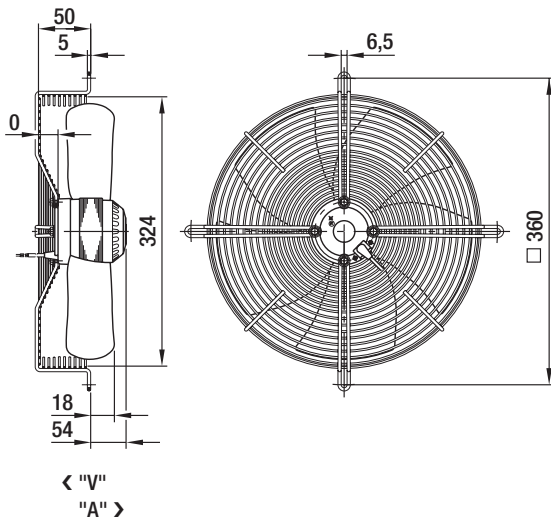
< "V"
"A" >

Type

| | |
|------------------|-----|
| S2D 300-BP02 -30 | "V" |
| S2D 300-BP02 -31 | "A" |
| S2E 300-BP02 -30 | "V" |
| S2E 300-BP02 -31 | "A" |



With guard grille for short nozzle



Type

| | |
|------------------|-----|
| S2D 300-AP02 -30 | "V" |
| S2D 300-AP02 -31 | "A" |
| S2E 300-AP02 -30 | "V" |
| S2E 300-AP02 -31 | "A" |

AC axial fans 4-pole

S series, Ø 300



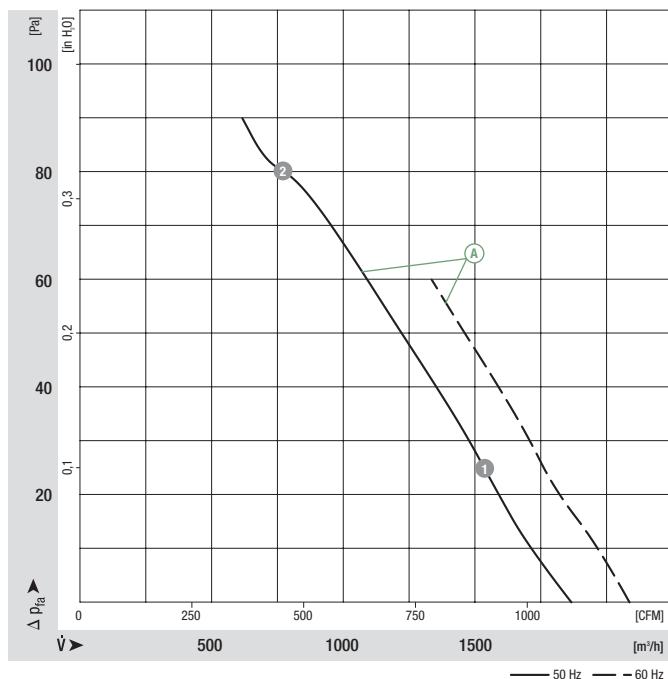
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Sheet steel, coated in black
Rotor: Coated in black
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "B"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage | Frequency | Air flow | Speed/rpm | Power input | Current draw | Capacitor | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|------------------------|------------|--------------|-----------------|-----------|----------|-----------|-------------|--------------|-----------|----------------------|----------------------|------------------|--------------------------|--------------------|
| Type | Motor | VAC | Hz | m³/h | rpm | W | A | µF/VDB | dB(A) | Pa | °C | kg | p. 416 f. | |
| *4D 300 ⁽¹⁾ | M4D 068-CF | Ⓐ 3~ 230/400 | 50 | 1860 | 1370 | 60 | 0.29/0.17 | — | 57 | 90 | -25 to +45 | 1.9 | C1)/C2) | |
| | | 3~ 230/400 | 60 | 2080 | 1540 | 75 | 0.26/0.15 | — | 60 | 60 | -25 to +40 | | | |
| *4E 300 | M4E 068-CF | Ⓑ 1~ 230 | 50 | 1740 | 1400 | 68 | 0.30 | 2.0/400 | 59 | 80 | -25 to +60 | 1.9 | A1) | |
| | | 1~ 230 | 60 | 2040 | 1630 | 92 | 0.41 | 2.0/400 | 63 | 70 | -25 to +45 | | | |

subject to alterations

(1) 230 VAC Δ / 400 VAC Y

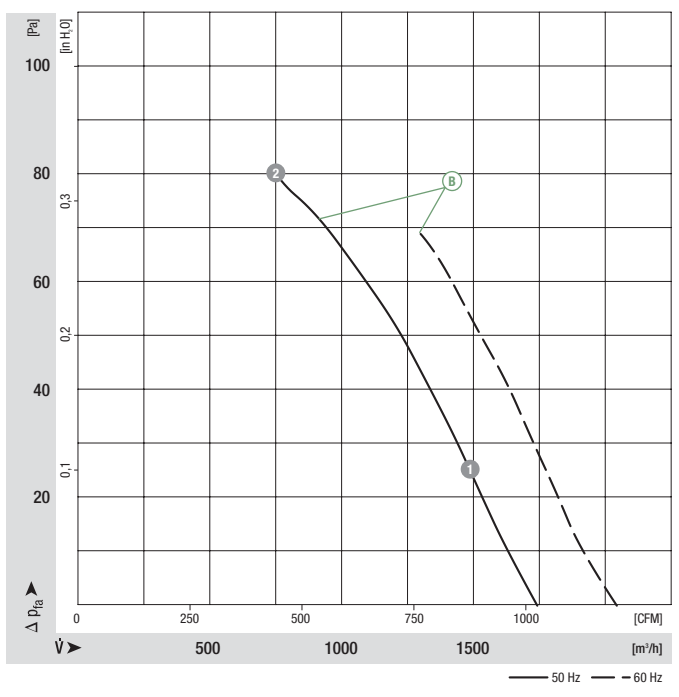
Curves



- **Motor protection:** (A) Without TOP, (B) TOP wired internally
- **Cable exit:** (A) Axial, (B) variable
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, (B) also CE
- **Approvals:** CCC; (B) also GOST

| Direction of air flow | | | | |
|-----------------------|---------------------|------------------------|-----------------------------------|------------------------------------|
| | Without attachments | With full round nozzle | With guard grille for full nozzle | With guard grille for short nozzle |
| "V" | A4D 300-AP28 -01 | W4D 300-CP28 -30 | S4D 300-BP28 -30 | S4D 300-AP28 -30 |
| "A" | A4D 300-AP28 -02 | W4D 300-CP28 -31 | S4D 300-BP28 -31 | S4D 300-AP28 -31 |
| "V" | A4E 300-AP26 -01 | W4E 300-CP26 -30 | S4E 300-BP26 -30 | S4E 300-AP26 -30 |
| "A" | A4E 300-AP26 -02 | W4E 300-CP26 -31 | S4E 300-BP26 -31 | S4E 300-AP26 -31 |

Curves

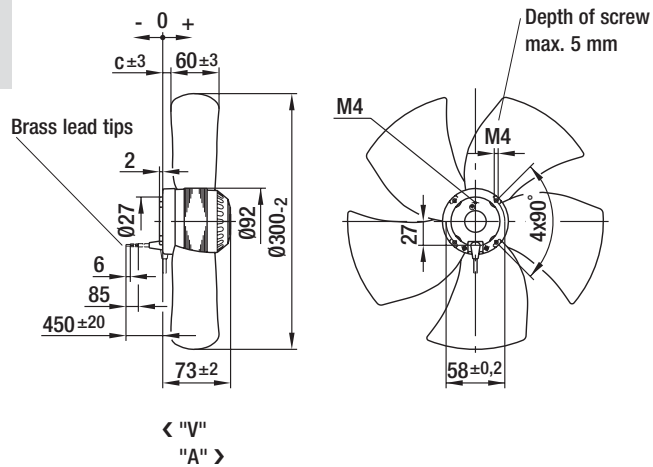


AC axial fans 4-pole

S series, Ø 300, drawings of directions of air flow "V" and "A"



Without attachments

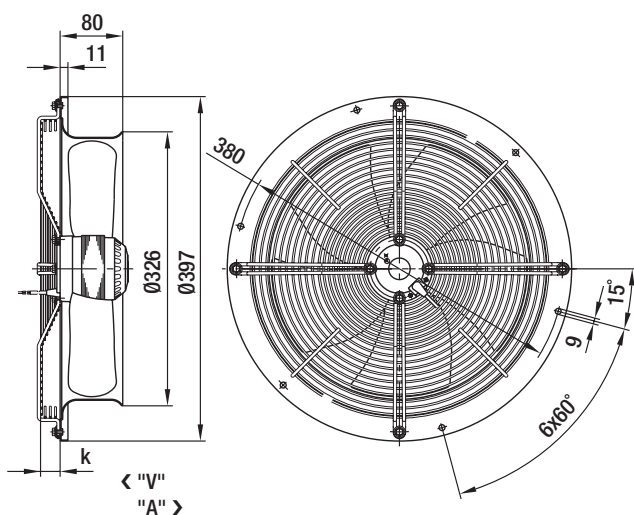


Type

| Type | | c |
|------------------|-----|------|
| A4D 300-AP28 -01 | "V" | 13.0 |
| A4D 300-AP28 -02 | "A" | -7.0 |
| A4E 300-AP26 -01 | "V" | 13.0 |
| A4E 300-AP26 -02 | "A" | -7.0 |



With full round nozzle

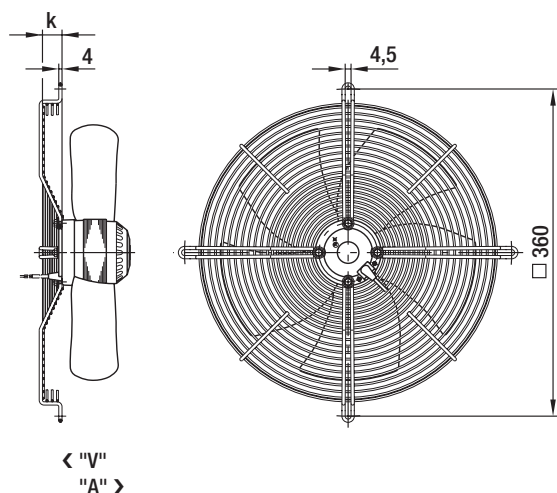


Type

| Type | | k |
|------------------|-----|------|
| W4D 300-CP28 -30 | "V" | 0.0 |
| W4D 300-CP28 -31 | "A" | 30.0 |
| W4E 300-CP26 -30 | "V" | 0.0 |
| W4E 300-CP26 -31 | "A" | 30.0 |



With guard grille for full nozzle

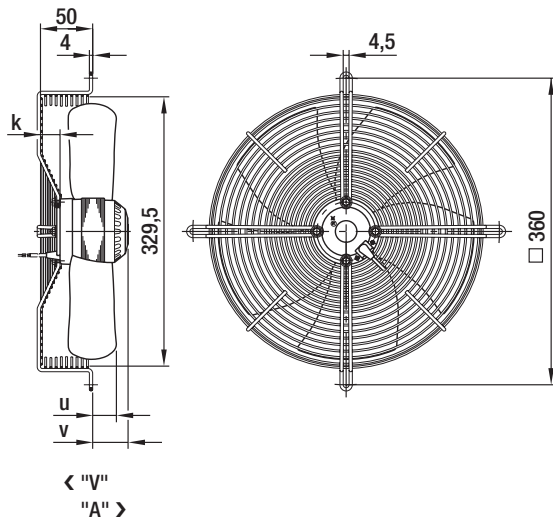


Type

| Type | | k |
|------------------|-----|------|
| S4D 300-BP28 -30 | "V" | 0.0 |
| S4D 300-BP28 -31 | "A" | 30.0 |
| S4E 300-BP26 -30 | "V" | 0.0 |
| S4E 300-BP26 -31 | "A" | 30.0 |



With guard grille for short nozzle



Type

| | | k | u | v |
|------------------|-----|------|------|------|
| S4D 300-AP28 -30 | "V" | 0.0 | 23.0 | 23.0 |
| S4D 300-AP28 -31 | "A" | 30.0 | 29.0 | 49.0 |
| S4E 300-AP26 -30 | "V" | 0.0 | 23.0 | 23.0 |
| S4E 300-AP26 -31 | "A" | 30.0 | 29.0 | 49.0 |

AC axial fans

S series, Ø 315



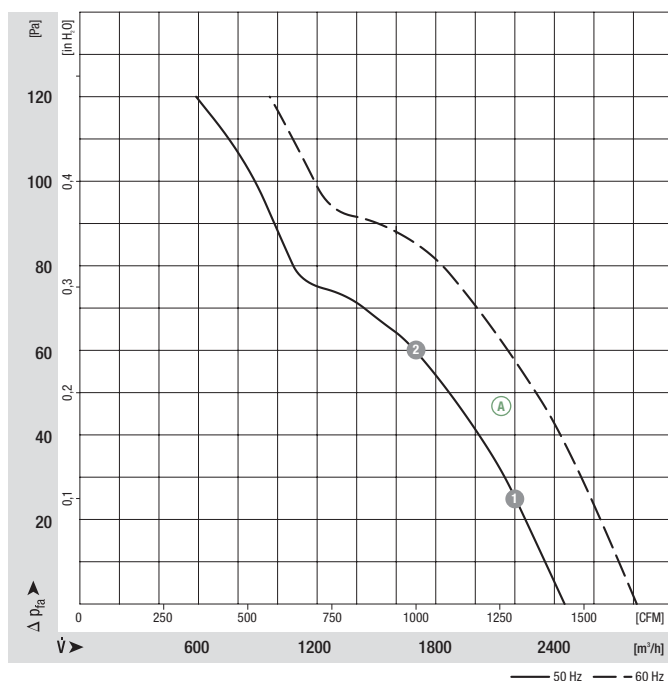
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Sheet steel, coated in black
Rotor: Coated in black
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "B"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage | Frequency | Air flow | Speed/rpm | Power input | Current draw | Capacitor | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|------------------------|------------|-------|-----------------|-----------|----------|-----------|-------------|--------------|-----------|----------------------|----------------------|------------------|--------------------------|--------------------|
| Type | Motor | VAC | Hz | m³/h | rpm | W | A | µF/VDB | dB(A) | Pa | °C | kg | p. 416 f. | |
| *4D 315 ⁽¹⁾ | M4D 068-DF | Ⓐ 3~ | 230/400 | 50 | 2450 | 1400 | 85 | 0.45/0.26 | — | 60 | 120 | -25 to +55 | 2.4 | C1)/C2) |
| | | 3~ | 230/400 | 60 | 2810 | 1620 | 110 | 0.42/0.24 | — | 64 | 120 | -25 to +55 | | |
| *4E 315 | M4E 068-DF | Ⓑ 1~ | 230 | 50 | 2440 | 1410 | 102 | 0.52 | 4.0/400 | 59 | 120 | -25 to +55 | 2.4 | A1) |
| | | 1~ | 230 | 60 | 2840 | 1650 | 120 | 0.53 | 4.0/400 | 64 | 120 | -25 to +55 | | |
| *6E 315 | M6E 068-DF | Ⓒ 1~ | 230 | 50 | 1650 | 950 | 65 | 0.33 | 2.0/400 | 51 | 70 | -25 to +50 | 2.4 | A1) |
| | | 1~ | 230 | 60 | 1950 | 1120 | 68 | 0.30 | 2.0/450 | 55 | 80 | -25 to +60 | | |

subject to alterations

(1) 230 VAC Δ / 400 VAC Y

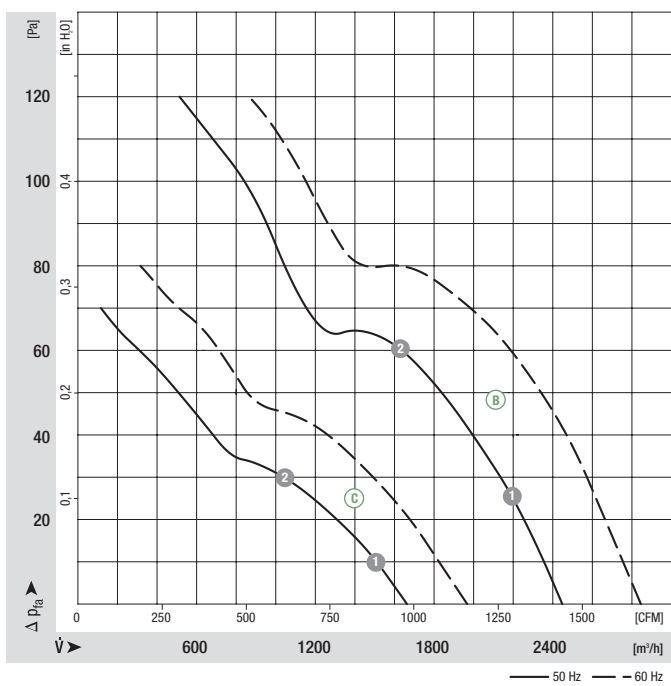
Curves



- **Motor protection:** (A) Without TOP, (B) (C) TOP wired internally
- **Cable exit:** Axial
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, (B) (C) also CE
- **Approvals:** CCC; (A) also GOST

| Direction of air flow | < "V"/"A" > | | < "V"/"A" > | | < "V"/"A" > | | < "V"/"A" > | | < "V" > | |
|-----------------------|---------------------|------------------|------------------------|------------------|-----------------------------------|--|------------------------------------|--|------------------|--|
| | Without attachments | | With full round nozzle | | With guard grille for full nozzle | | With guard grille for short nozzle | | In-line duct fan | |
| "V" | A4D 315-AP10 -01 | W4D 315-CP10 -30 | S4D 315-BP10 -30 | S4D 315-AP10 -30 | W4D 315-IP10 -01 | | | | | |
| "A" | A4D 315-AP10 -02 | W4D 315-CP10 -31 | S4D 315-BP10 -31 | S4D 315-AP10 -31 | — | | | | | |
| "V" | A4E 315-AP18 -01 | W4E 315-CP18 -30 | S4E 315-BP18 -30 | S4E 315-AP18 -30 | W4E 315-IP18 -01 | | | | | |
| "A" | A4E 315-AP18 -02 | W4E 315-CP18 -31 | S4E 315-BP18 -31 | S4E 315-AP18 -31 | — | | | | | |
| "V" | A6E 315-AP02 -01 | W6E 315-CP02 -30 | S6E 315-BP02 -30 | S6E 315-AP02 -30 | — | | | | | |
| "A" | A6E 315-AP02 -02 | W6E 315-CP02 -31 | S6E 315-BP02 -31 | S6E 315-AP02 -31 | — | | | | | |

Curves



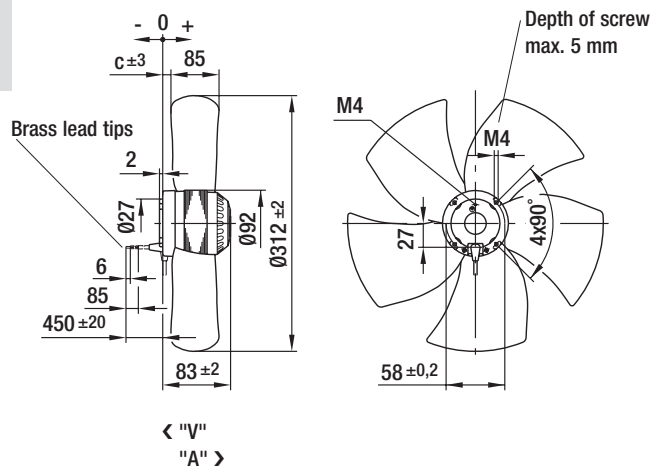
| | n [rpm] | P ₁ [W] | I [A] |
|-------|---------|--------------------|-------|
| (B) 1 | 1400 | 108 | 0.54 |
| (B) 2 | 1380 | 120 | 0.57 |
| (C) 1 | 945 | 63 | 0.33 |
| (C) 2 | 930 | 66 | 0.33 |

AC axial fans

S series, Ø 315, drawings of directions of air flow "V" and "A"



Without attachments

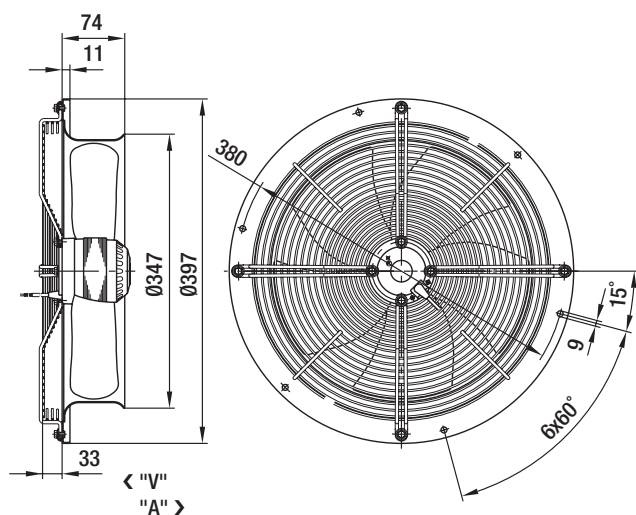


Type

| Type | | c |
|------------------|-----|------|
| A4D 315-AP10 -01 | "V" | 5.0 |
| A4D 315-AP10 -02 | "A" | -7.0 |
| A4E 315-AP18 -01 | "V" | 5.0 |
| A4E 315-AP18 -02 | "A" | -7.0 |
| A6E 315-AP02 -01 | "V" | 5.0 |
| A6E 315-AP02 -02 | "A" | -7.0 |



With full round nozzle

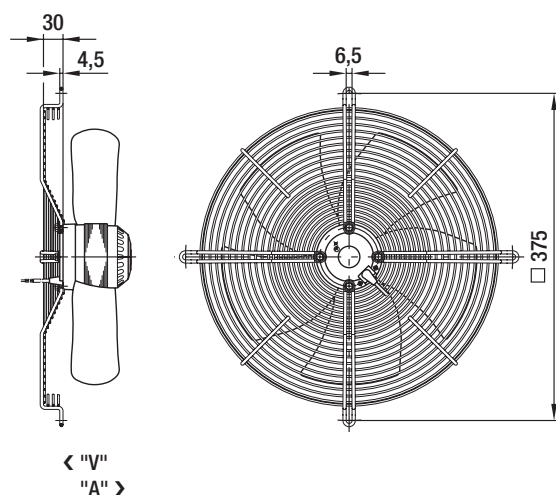


Type

| | |
|------------------|-----|
| W4D 315-CP10 -30 | "V" |
| W4D 315-CP10 -31 | "A" |
| W4E 315-CP18 -30 | "V" |
| W4E 315-CP18 -31 | "A" |
| W6E 315-CP02 -30 | "V" |
| W6E 315-CP02 -31 | "A" |



With guard grille for full nozzle

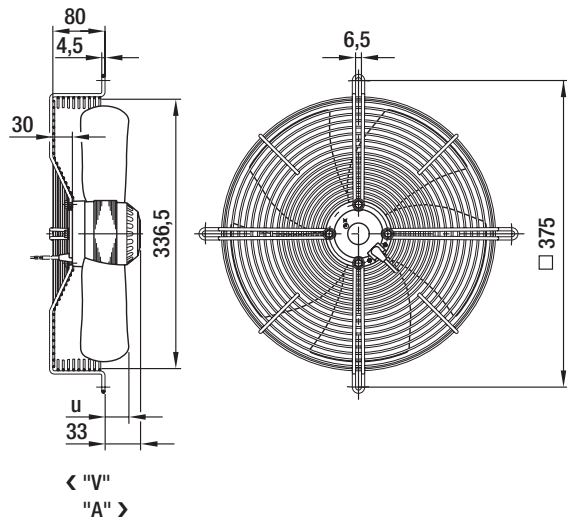


Type

| | |
|------------------|-----|
| S4D 315-BP10 -30 | "V" |
| S4D 315-BP10 -31 | "A" |
| S4E 315-BP18 -30 | "V" |
| S4E 315-BP18 -31 | "A" |
| S6E 315-BP02 -30 | "V" |
| S6E 315-BP02 -31 | "A" |



With guard grille for short nozzle

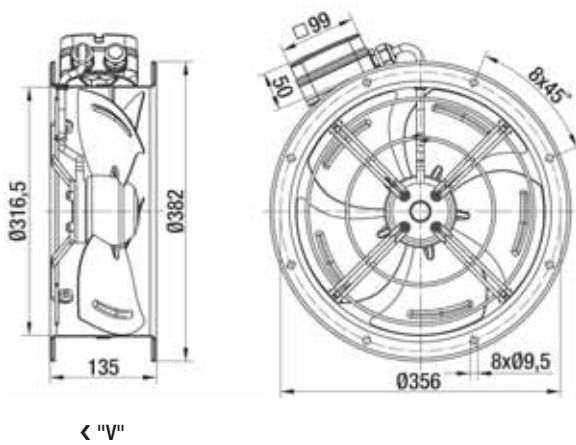


Type

| Type | | u |
|------------------|-----|------|
| S4D 315-AP10 -30 | "V" | 40.0 |
| S4D 315-AP10 -31 | "A" | 28.0 |
| S4E 315-AP18 -30 | "V" | 40.0 |
| S4E 315-AP18 -31 | "A" | 28.0 |
| S6E 315-AP02 -30 | "V" | 40.0 |
| S6E 315-AP02 -31 | "A" | 28.0 |



In-line duct fan



Type

| | |
|------------------|-----|
| W4D 315-IP10 -01 | "V" |
| W4E 315-IP18 -01 | "V" |

AC axial fans

S series, Ø 330



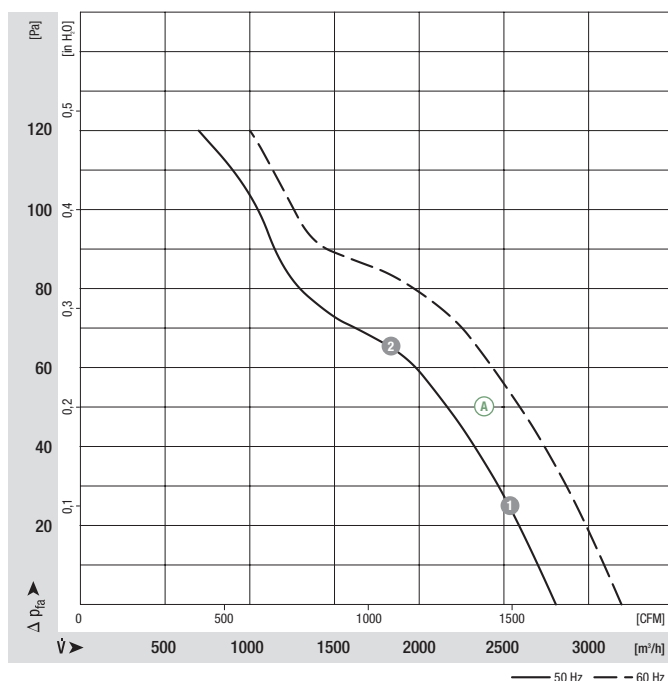
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Sheet steel, coated in black
Rotor: Coated in black
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "B"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage | Frequency | Air flow | Speed/rpm | Power input | Current draw | Capacitor | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|------------------------|------------|--------------|-----------------|-----------|----------|-----------|-------------|--------------|-----------|----------------------|----------------------|------------------|--------------------------|--------------------|
| Type | Motor | VAC | Hz | m³/h | rpm | W | A | µF/VDB | dB(A) | Pa | °C | kg | p. 416 f. | |
| *4D 330 ⁽¹⁾ | M4D 068-DF | Ⓐ 3~ 230/400 | 50 | 2800 | 1390 | 100 | 0.45/0.26 | — | 59 | 120 | -25 to +55 | 2.6 | C1)/C2) | |
| | | 3~ 230/400 | 60 | 3180 | 1570 | 130 | 0.42/0.24 | — | 63 | 120 | -25 to +45 | | | |
| *4E 330 | M4E 068-DF | Ⓑ 1~ 230 | 50 | 2830 | 1390 | 120 | 0.57 | 4.0/400 | 63 | 90 | -25 to +50 | 2.5 | A1) | |
| | | 1~ 230 | 60 | 3230 | 1600 | 140 | 0.60 | 4.0/400 | 67 | 75 | -25 to +40 | | | |
| *6E 330 | M6E 068-DF | Ⓒ 1~ 230 | 50 | 1940 | 940 | 65 | 0.33 | 2.0/400 | 49 | 60 | -25 to +50 | 2.5 | A1) | |
| | | 1~ 230 | 60 | 2280 | 1100 | 72 | 0.32 | 2.0/450 | 53 | 70 | -25 to +65 | | | |

subject to alterations


(1) 230 VAC Δ / 400 VAC Y

Curves

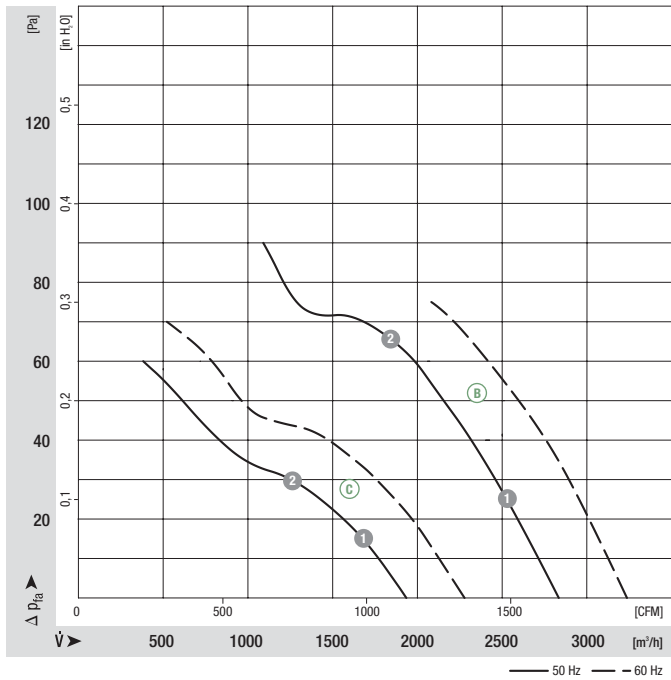


| | n [rpm] | P ₁ [W] | I [A] |
|-----|---------|--------------------|-----------|
| Ⓐ 1 | 1370 | 102 | 0.45/0.26 |
| Ⓐ 2 | 1325 | 126 | 0.48/0.28 |

- **Motor protection:** (A) Without TOP, (B) (C) TOP wired internally
- **Cable exit:** Axial
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, (B) (C) also CE
- **Approvals:** (B) (C) CCC

| Direction of air flow |  | | | |
|-----------------------|---|---------------------------------------|--|---|
| | < "V"/"A" > Without attachments | < "V"/"A" > With full round nozzle | < "V"/"A" > With guard grille for full nozzle | < "V"/"A" > With guard grille for short nozzle |
| "V" "A" | A4D 330-AP10 -01 A4D 330-AP10 -02 | W4D 330-CP10 -30 W4D 330-CP10 -31 | S4D 330-BP10 -30 S4D 330-BP10 -31 | S4D 330-AP10 -30 S4D 330-AP10 -31 |
| "V" "A" | A4E 330-AP18 -01 A4E 330-AP18 -02 | W4E 330-CP18 -30 W4E 330-CP18 -31 | S4E 330-BP18 -30 S4E 330-BP18 -31 | S4E 330-AP18 -30 S4E 330-AP18 -31 |
| "V" "A" | A6E 330-AP02 -01 A6E 330-AP02 -02 | W6E 330-CP02 -30 W6E 330-CP02 -31 | S6E 330-BP02 -30 S6E 330-BP02 -31 | S6E 330-AP02 -30 S6E 330-AP02 -31 |

Curves



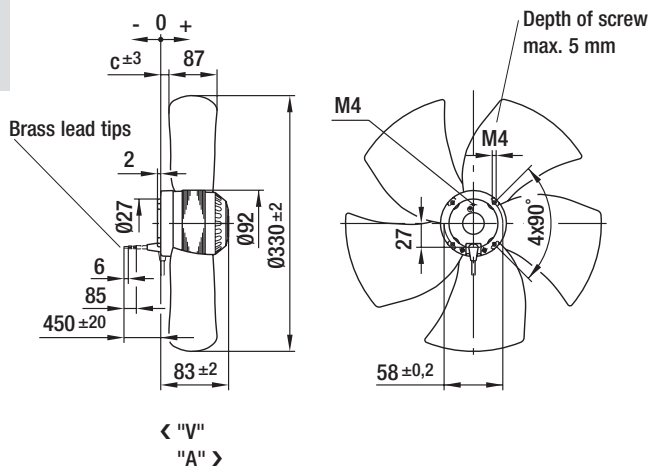
| | n [rpm] | P ₁ [W] | I [A] |
|-------|---------|--------------------|-------|
| (B) 1 | 1375 | 122 | 0.58 |
| (B) 2 | 1325 | 140 | 0.64 |
| (C) 1 | 925 | 68 | 0.34 |
| (C) 2 | 910 | 70 | 0.35 |

AC axial fans

S series, Ø 330, drawings of directions of air flow "V" and "A"



Without attachments

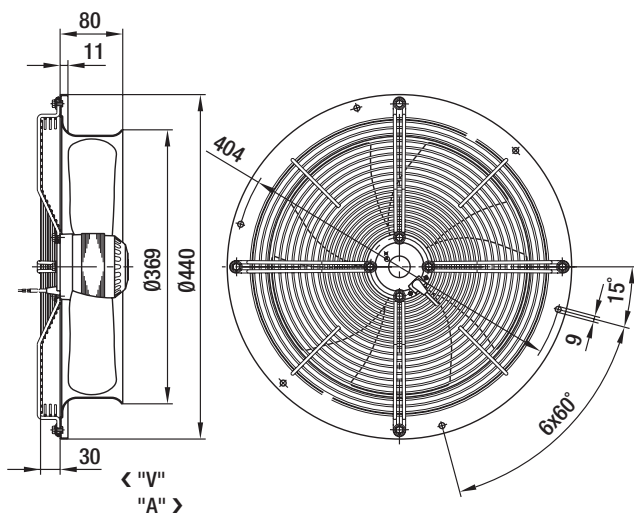


Type

| Type | | c |
|------------------|-----|------|
| A4D 330-AP10 -01 | "V" | 6.0 |
| A4D 330-AP10 -02 | "A" | -8.0 |
| A4E 330-AP18 -01 | "V" | 6.0 |
| A4E 330-AP18 -02 | "A" | -8.0 |
| A6E 330-AP02 -01 | "V" | 6.0 |
| A6E 330-AP02 -02 | "A" | -8.0 |



With full round nozzle

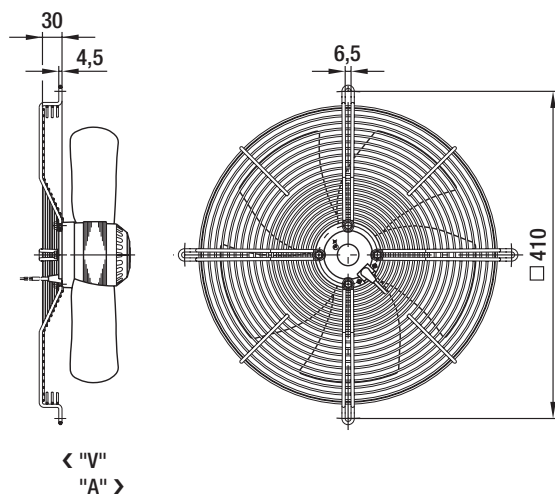


Type

| | |
|------------------|-----|
| W4D 330-CP10 -30 | "V" |
| W4D 330-CP10 -31 | "A" |
| W4E 330-CP18 -30 | "V" |
| W4E 330-CP18 -31 | "A" |
| W6E 330-CP02 -30 | "V" |
| W6E 330-CP02 -31 | "A" |



With guard grille for full nozzle

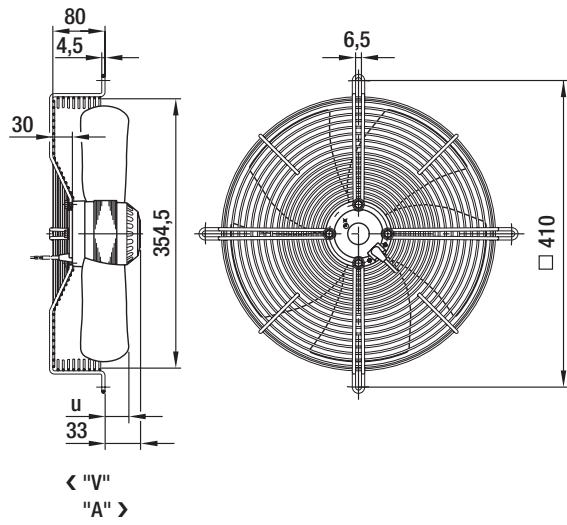


Type

| | |
|------------------|-----|
| S4D 330-BP10 -30 | "V" |
| S4D 330-BP10 -31 | "A" |
| S4E 330-BP18 -30 | "V" |
| S4E 330-BP18 -31 | "A" |
| S6E 330-BP02 -30 | "V" |
| S6E 330-BP02 -31 | "A" |



With guard grille for short nozzle



Type

| Type | | u |
|------------------|-----|------|
| S4D 330-AP10 -30 | "V" | 43.0 |
| S4D 330-AP10 -31 | "A" | 29.0 |
| S4E 330-AP18 -30 | "V" | 43.0 |
| S4E 330-AP18 -31 | "A" | 29.0 |
| S6E 330-AP02 -30 | "V" | 43.0 |
| S6E 330-AP02 -31 | "A" | 29.0 |

AC axial fans

S series, Ø 350



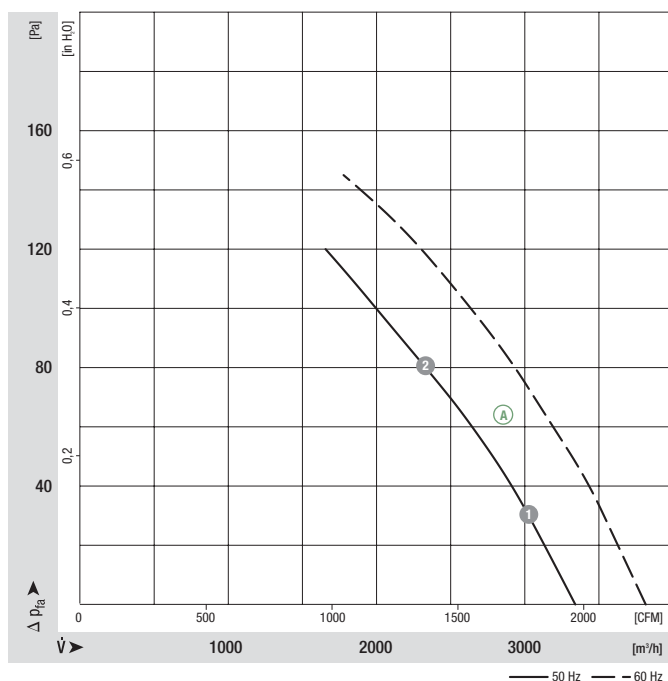
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Sheet steel, coated in black
Rotor: Coated in black
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** (A) (C) "B", (B) "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage | Frequency | Air flow | Speed/rpm | Power input | Current draw | Capacitor | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|------------------------|------------|--------|-----------------|-----------|----------|-----------|-------------|--------------|-----------|----------------------|----------------------|------------------|--------------------------|--------------------|
| Type | Motor | VAC | Hz | m³/h | rpm | W | A | µF/VDB | dB(A) | Pa | °C | kg | p. 416 f. | |
| *4D 350 ⁽¹⁾ | M4D 068-EC | (A) 3~ | 230/400 | 50 | 3340 | 1420 | 135 | 0.73/0.42 | — | 64 | 120 | -25 to +60 | 3.6 | C1)/C2) |
| | | 3~ | 230/400 | 60 | 3815 | 1620 | 185 | 0.64/0.37 | — | 68 | 145 | -25 to +45 | | |
| *4E 350 | M4E 068-EC | (B) 1~ | 230 | 50 | 3250 | 1365 | 132 | 0.58 | 5.0/400 | 64 | 90 | -25 to +60 | 3.6 | A1) |
| | | 1~ | 230 | 60 | 3640 | 1530 | 180 | 0.80 | 5.0/400 | 67 | 65 | -25 to +50 | | |
| *6E 350 | M6E 068-DF | (C) 1~ | 230 | 50 | 2110 | 905 | 60 | 0.27 | 2.5/400 | 55 | 40 | -25 to +60 | 3.6 | A1) |
| | | 1~ | 230 | 60 | 2420 | 1040 | 85 | 0.38 | 2.5/400 | 58 | 45 | -25 to +55 | | |

subject to alterations

(1) 230 VAC Δ / 400 VAC Y

Curves

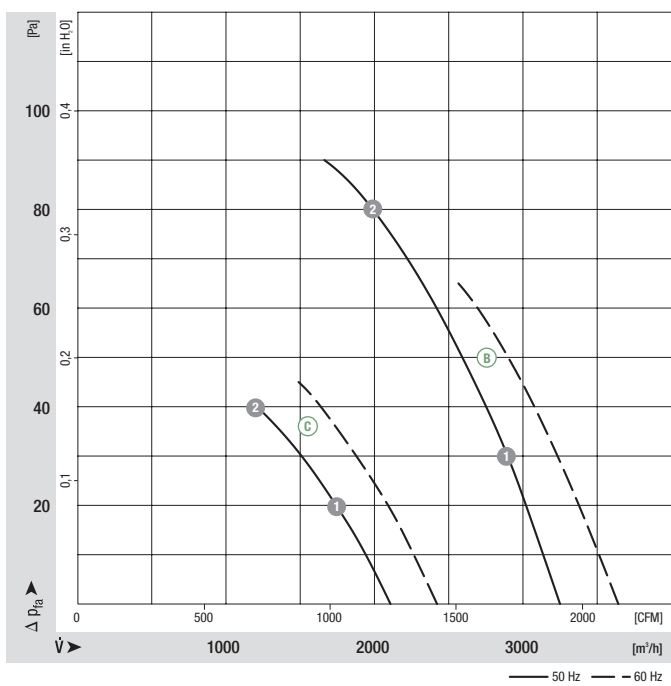


| | n [rpm] | P ₁ [W] | I [A] |
|-------|---------|--------------------|-----------|
| (A) 1 | 1400 | 150 | 0.75/0.43 |
| (A) 2 | 1380 | 173 | 0.75/0.43 |

- **Motor protection:** (A) Without TOP, (B) (C) TOP wired internally
- **Cable exit:** (A) Lateral, (B) (C) axial
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, (B) (C) also CE

| Direction of air flow | | | | | |
|-----------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|-----------------------|
| | Without attachments | With full round nozzle | With guard grille for full nozzle | With guard grille for short nozzle | In-line duct fan |
| "V" "A" | A4D 350-AR06 -01 A4D 350-AR06 -02 | W4D 350-CR06 -30 W4D 350-CR06 -31 | S4D 350-BR06 -30 S4D 350-BR06 -31 | S4D 350-AR06 -30 S4D 350-AR06 -31 | W4D 350-IR06 -01 — |
| "V" "A" | A4E 350-AR06 -01 A4E 350-AR06 -02 | W4E 350-CR06 -30 W4E 350-CR06 -31 | S4E 350-BR06 -30 S4E 350-BR06 -31 | S4E 350-AR06 -30 S4E 350-AR06 -31 | W4E 350-IR06 -01 — |
| "V" "A" | A6E 350-AR08 -01 A6E 350-AR08 -02 | W6E 350-CR08 -30 W6E 350-CR08 -31 | S6E 350-BR08 -30 S6E 350-BR08 -31 | S6E 350-AR08 -30 S6E 350-AR08 -31 | — — |

Curves



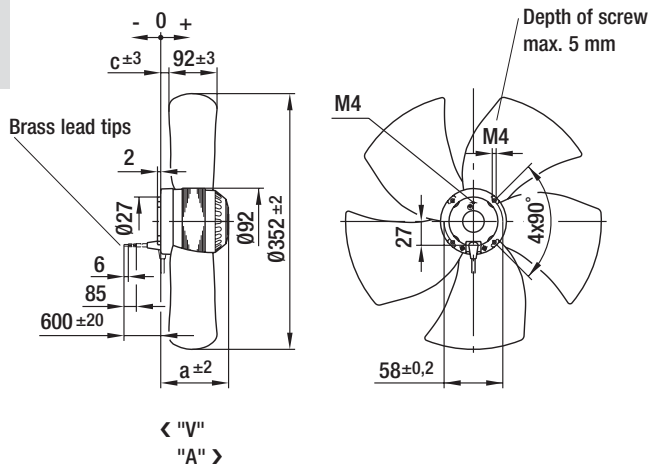
| | n [rpm] | P ₁ [W] | I [A] |
|-------|---------|--------------------|-------|
| (B) 1 | 1335 | 142 | 0.63 |
| (B) 2 | 1260 | 166 | 0.74 |
| (C) 1 | 880 | 63 | 0.28 |
| (C) 2 | 825 | 68 | 0.30 |

AC axial fans

S series, Ø 350, drawings of directions of air flow "V" and "A"



Without attachments

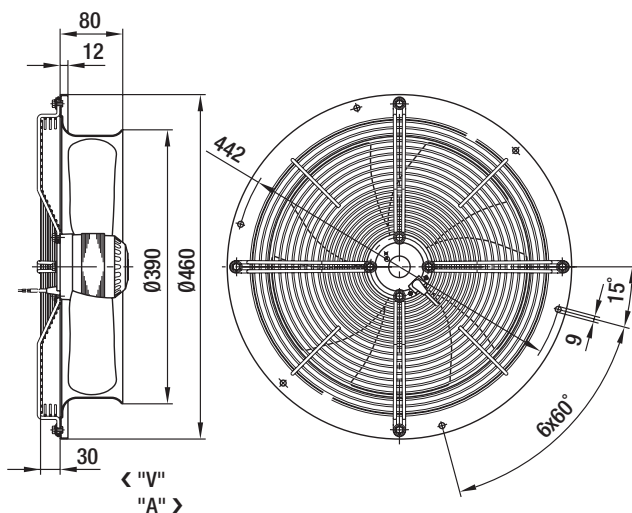


Type

| Type | | a | c |
|------------------|-----|-------|-------|
| A4D 350-AR06 -01 | "V" | 102.0 | 10.0 |
| A4D 350-AR06 -02 | "A" | 102.0 | -10.0 |
| A4E 350-AR06 -01 | "V" | 102.0 | 10.0 |
| A4E 350-AR06 -02 | "A" | 102.0 | -10.0 |
| A6E 350-AR08 -01 | "V" | 83.0 | 5.0 |
| A6E 350-AR08 -02 | "A" | 83.0 | -12.0 |



With full round nozzle

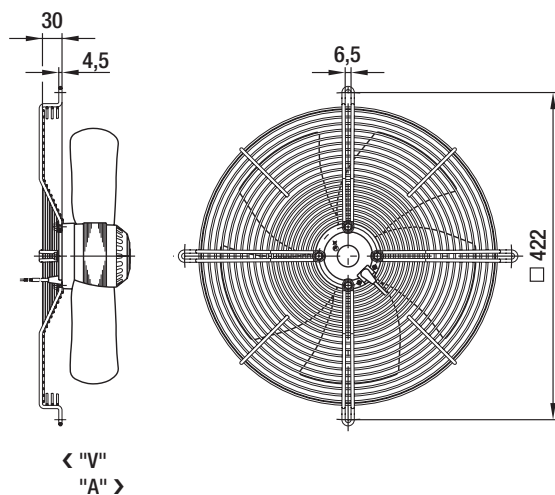


Type

| | |
|------------------|-----|
| W4D 350-CR06 -30 | "V" |
| W4D 350-CR06 -31 | "A" |
| W4E 350-CR06 -30 | "V" |
| W4E 350-CR06 -31 | "A" |
| W6E 350-CR08 -30 | "V" |
| W6E 350-CR08 -31 | "A" |



With guard grille for full nozzle

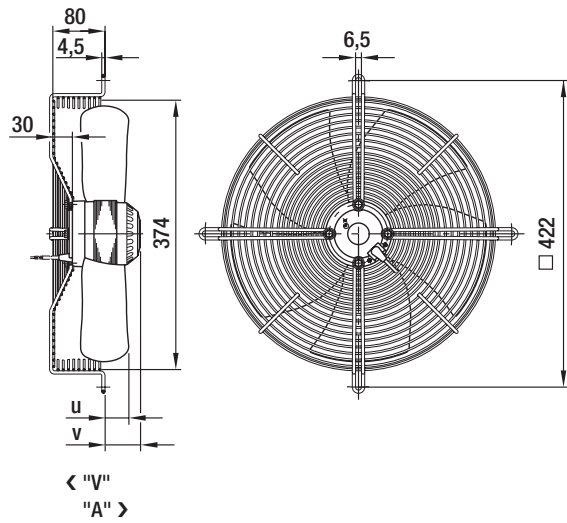


Type

| | |
|------------------|-----|
| S4D 350-BR06 -30 | "V" |
| S4D 350-BR06 -31 | "A" |
| S4E 350-BR06 -30 | "V" |
| S4E 350-BR06 -31 | "A" |
| S6E 350-BR08 -30 | "V" |
| S6E 350-BR08 -31 | "A" |



With guard grille for short nozzle

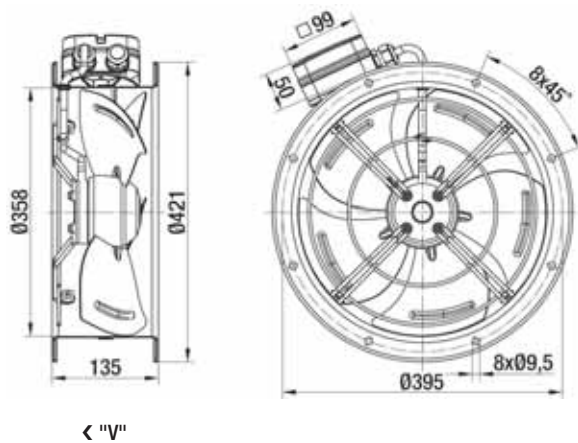


Type

| | | u | v | |
|--------------|-----|-----|------|------|
| S4D 350-AR06 | -30 | "V" | 52.0 | 52.0 |
| S4D 350-AR06 | -31 | "A" | 32.0 | 52.0 |
| S4E 350-AR06 | -30 | "V" | 52.0 | 52.0 |
| S4E 350-AR06 | -31 | "A" | 32.0 | 52.0 |
| S6E 350-AR08 | -30 | "V" | 47.0 | 33.0 |
| S6E 350-AR08 | -31 | "A" | 30.0 | 33.0 |



In-line duct fan



Type

| | | |
|--------------|-----|-----|
| W4D 350-IR06 | -01 | "V" |
| W4E 350-IR06 | -01 | "V" |

AC axial fans

S series, Ø 400



- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Sheet steel, coated in black
Rotor: Coated in black
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** (A) (B) "B", (C) "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

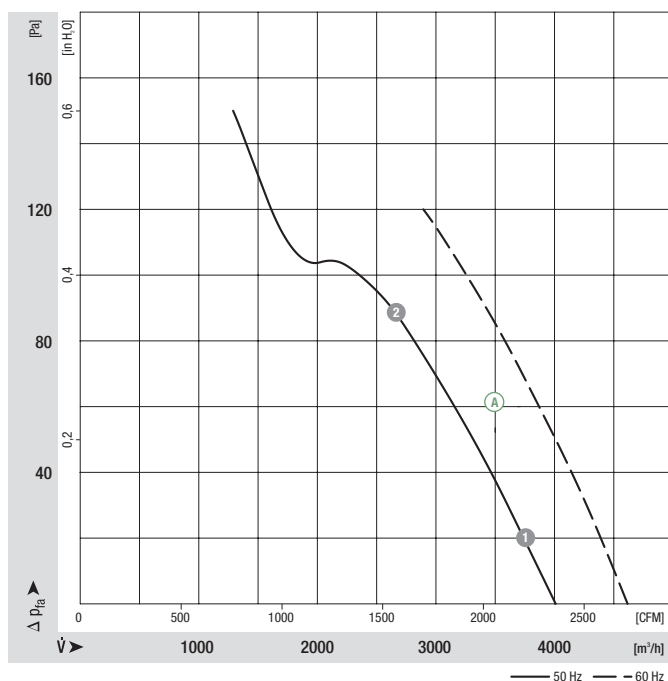
| Nominal data | | Curve | Nominal voltage | Frequency | Air flow | Speed/rpm | Power input | Current draw | Capacitor | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|----------------|------------|--------|-----------------|-----------|----------|-----------|-------------|--------------|-----------|----------------------|----------------------|------------------|--------------------------|--------------------|
| Type | Motor | VAC | Hz | m³/h | rpm | W | A | µF/VDB | dB(A) | Pa | °C | kg | p. 416 f. | |
| *4D 400 (1)(2) | M4D 074-EI | (A) 3~ | 230/400 | 50 | 4000 | 1450 | 135 | 0.76/0.44 | — | 68 | 150 | -25 to +40 | 4.2 | C1)/C2) |
| | | 3~ | 230/400 | 60 | 4610 | 1690 | 185 | 0.68/0.39 | — | 72 | 120 | -25 to +40 | | |
| *4E 400 | M4E 074-EI | (B) 1~ | 230 | 50 | 4235 | 1430 | 160 | 0.73 | 6.0/400 | 69 | 150 | -25 to +40 | 4.2 | A1) |
| | | 1~ | 230 | 60 | 4950 | 1700 | 240 | 1.06 | 6.0/400 | 73 | 75 | -25 to +40 | | |
| *6E 400 | M6E 074-DF | (C) 1~ | 230 | 50 | 3290 | 940 | 120 | 0.55 | 3.0/450 | 59 | 50 | -25 to +40 | 4.0 | A1) |
| | | 1~ | 230 | 60 | 3780 | 1080 | 170 | 0.75 | 3.0/400 | 62 | 40 | -25 to +60 | | |

subject to alterations

(1) 400 VAC Δ/Y for two speed steps available on request

(2) 230 VAC Δ / 400 VAC Y

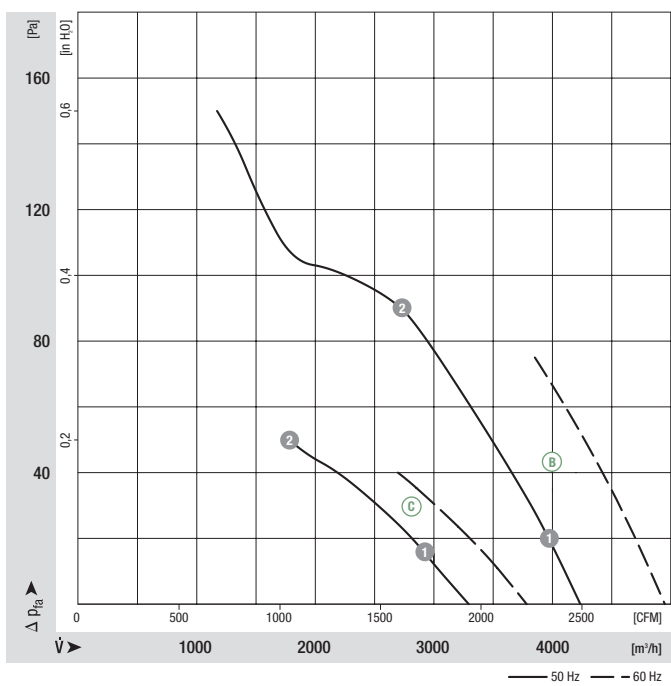
Curves



- **Motor protection:** (A) Without TOP, (B) (C) TOP wired internally
- **Cable exit:** Variable
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, (B) (C) also CE
- **Approvals:** CCC
- **Options:** Terminal box

| Direction of air flow | < "V"/"A" > | | < "V"/"A" > | | < "V"/"A" > | | < "V"/"A" > | | < "V" > | |
|-----------------------|---------------------|------------------|------------------------|------------------|-----------------------------------|--|------------------------------------|--|------------------|--|
| | Without attachments | | With full round nozzle | | With guard grille for full nozzle | | With guard grille for short nozzle | | In-line duct fan | |
| "V" | A4D 400-AP12 -01 | W4D 400-CP12 -30 | S4D 400-BP12 -30 | S4D 400-AP12 -03 | W4D 400-IP12 -01 | | | | | |
| "A" | A4D 400-AP12 -02 | W4D 400-CP12 -31 | S4D 400-BP12 -31 | S4D 400-AP12 -04 | — | | | | | |
| "V" | A4E 400-AP02 -01 | W4E 400-CP02 -30 | S4E 400-BP02 -30 | S4E 400-AP02 -03 | W4E 400-IP02 -01 | | | | | |
| "A" | A4E 400-AP02 -02 | W4E 400-CP02 -31 | S4E 400-BP02 -31 | S4E 400-AP02 -04 | — | | | | | |
| "V" | A6E 400-AP10 -01 | W6E 400-CP10 -30 | S6E 400-BP10 -30 | S6E 400-AP10 -30 | — | | | | | |
| "A" | A6E 400-AP10 -02 | W6E 400-CP10 -31 | S6E 400-BP10 -31 | S6E 400-AP10 -31 | — | | | | | |

Curves



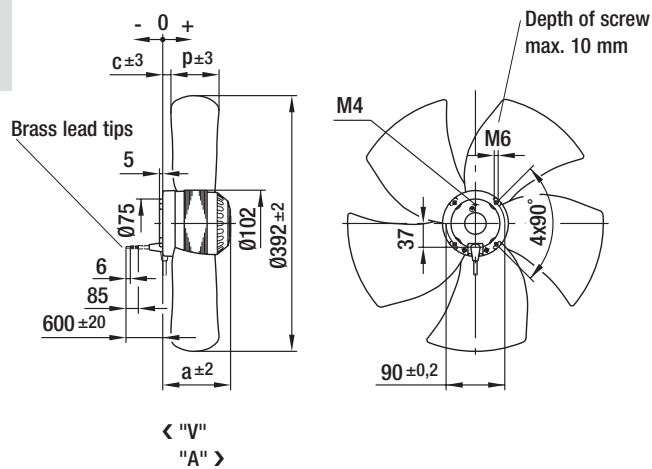
| | n [rpm] | P ₁ [W] | I [A] |
|-------|---------|--------------------|-------|
| (B) 1 | 1430 | 172 | 0.78 |
| (B) 2 | 1395 | 210 | 0.93 |
| (C) 1 | 935 | 126 | 0.57 |
| (C) 2 | 895 | 140 | 0.62 |

AC axial fans

S series, Ø 400, drawings of directions of air flow "V" and "A"



Without attachments

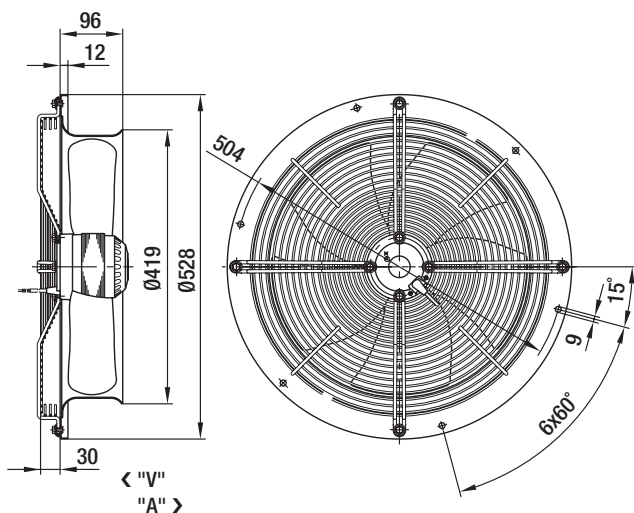


Type

| Type | | a | c | p |
|------------------|-----|-------|------|------|
| A4D 400-AP12 -01 | "V" | 117.0 | 26.0 | 68.0 |
| A4D 400-AP12 -02 | "A" | 117.0 | 22.0 | 68.0 |
| A4E 400-AP02 -01 | "V" | 117.0 | 26.0 | 68.0 |
| A4E 400-AP02 -02 | "A" | 117.0 | 22.0 | 68.0 |
| A6E 400-AP10 -01 | "V" | 104.0 | -5.0 | 90.0 |
| A6E 400-AP10 -02 | "A" | 104.0 | 14.0 | 88.0 |



With full round nozzle

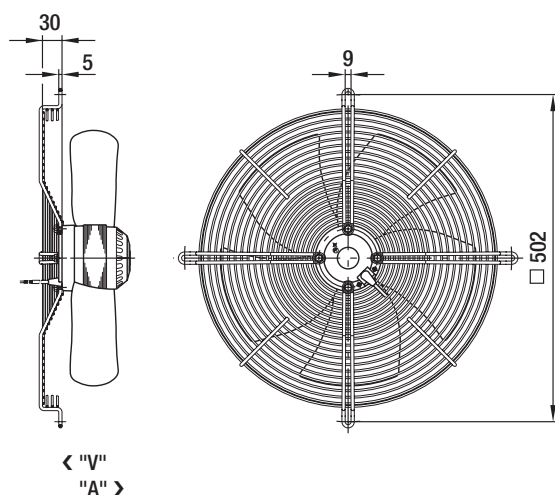


Type

| | |
|------------------|-----|
| W4D 400-CP12 -30 | "V" |
| W4D 400-CP12 -31 | "A" |
| W4E 400-CP02 -30 | "V" |
| W4E 400-CP02 -31 | "A" |
| W6E 400-CP10 -30 | "V" |
| W6E 400-CP10 -31 | "A" |



With guard grille for full nozzle

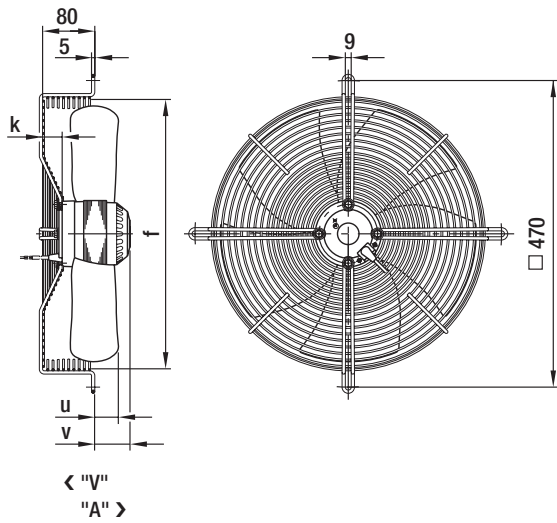


Type

| | |
|------------------|-----|
| S4D 400-BP12 -30 | "V" |
| S4D 400-BP12 -31 | "A" |
| S4E 400-BP02 -30 | "V" |
| S4E 400-BP02 -31 | "A" |
| S6E 400-BP10 -30 | "V" |
| S6E 400-BP10 -31 | "A" |



With guard grille for short nozzle

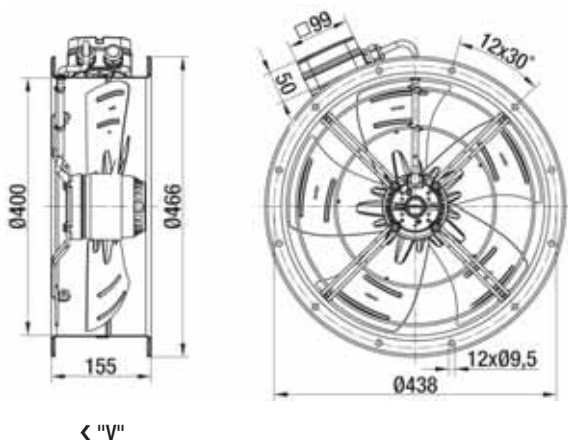


Type

| | | f | k | u | v |
|------------------|-----|-------|------|------|------|
| S4D 400-AP12 -03 | "V" | 420.0 | 10.0 | 24.0 | 47.0 |
| S4D 400-AP12 -04 | "A" | 420.0 | 10.0 | 20.0 | 47.0 |
| S4E 400-AP02 -03 | "V" | 420.0 | 10.0 | 24.0 | 47.0 |
| S4E 400-AP02 -04 | "A" | 420.0 | 10.0 | 20.0 | 47.0 |
| S6E 400-AP10 -30 | "V" | 414.0 | 30.0 | 35.0 | 54.0 |
| S6E 400-AP10 -31 | "A" | 414.0 | 30.0 | 52.0 | 54.0 |



In-line duct fan



Type

| | |
|------------------|-----|
| W4D 400-IP12 -01 | "V" |
| W4E 400-IP02 -01 | "V" |

AC axial fans

S series, Ø 420



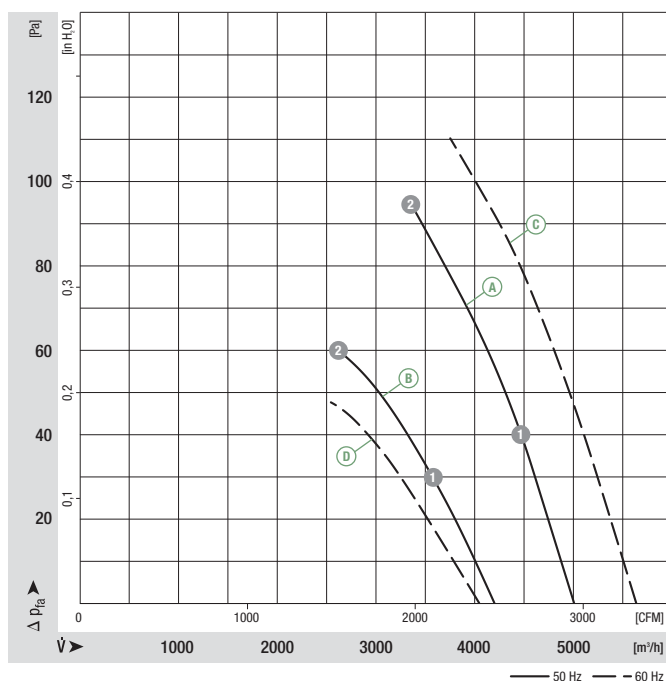
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Plastic, coated in black
Rotor: Coated in black
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage | Frequency | Speed/rpm ⁽¹⁾ | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Capacitor | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|--------------|------------|--------------|-----------------|-----------|--------------------------|---------------------------------|----------------------------------|-----------|----------------------|------------------|--------------------------|--------------------|
| Type | Motor | VAC | Hz | rpm | W | A | µF/VDB | Pa | °C | kg | p. 416 f. | |
| *4D 420 | M4D 094-EA | (A) 3~ 400 Δ | 50 | 1360 | 260 | 0.52 | — | 95 | -40 to +60 | 5.8 | F1b)/F2b) | |
| | | (B) 3~ 400 Y | 50 | 1060 | 185 | 0.31 | — | 60 | -40 to +60 | | | |
| | | (C) 3~ 400 Δ | 60 | 1490 | 385 | 0.65 | — | 110 | -40 to +60 | 5.8 | F1b)/F2b) | |
| | | (D) 3~ 400 Y | 60 | 970 | 220 | 0.37 | — | 47 | -40 to +60 | | | |
| *4E 420 | M4E 094-EA | (E) 1~ 230 | 50 | 1360 | 280 | 1.25 | 7.0/400 | 95 | -40 to +60 | 5.8 | A2b) | |
| | | 1~ 230 | 60 | 1520 | 385 | 1.68 | 7.0/400 | 100 | -40 to +60 | | | |

subject to alterations


(1) Nominal data in operating point with maximum load

Curves

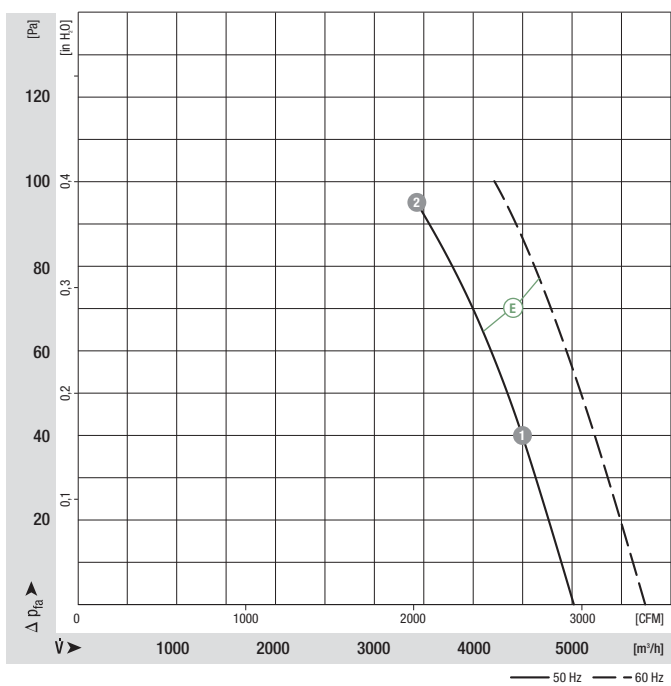


| | n [rpm] | P ₁ [W] | I [A] | Lp _A [dB(A)] |
|-------|---------|--------------------|-------|-------------------------|
| (A) 1 | 1380 | 225 | 0.47 | 67 |
| (A) 2 | 1360 | 260 | 0.52 | 65 |
| (B) 1 | 1120 | 170 | 0.29 | 61 |
| (B) 2 | 1060 | 185 | 0.31 | 58 |

- **Motor protection:** Ⓐ-Ⓓ Design with thermal overload protector, Ⓔ TOP wired internally
- **Cable exit:** Lateral via terminal box
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE

| Direction of air flow |  | | | |
|-----------------------|---|--------------------------------------|--------------------------------------|--------------------------------------|
| | Without attachments | With full round nozzle | With guard grille for full nozzle | With guard grille for short nozzle |
| "V" "A" | A4D 420-AU02 -01 A4D 420-AU02 -02 | W4D 420-CU02 -30 W4D 420-CU02 -31 | S4D 420-BU02 -30 S4D 420-BU02 -31 | S4D 420-AU02 -03 S4D 420-AU02 -04 |
| "V" "A" | A4E 420-AU03 -01 A4E 420-AU03 -02 | W4E 420-CU03 -30 W4E 420-CU03 -31 | S4E 420-BU03 -30 S4E 420-BU03 -31 | S4E 420-AU03 -03 S4E 420-AU03 -04 |

Curves



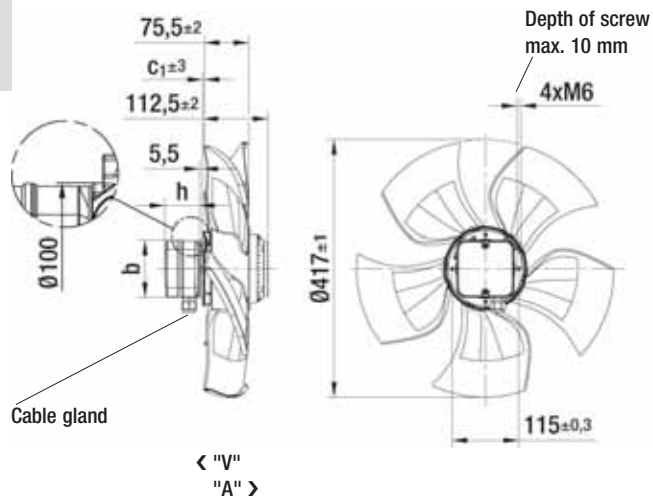
| | n [rpm] | P ₁ [W] | I [A] | Lp _A [dB(A)] |
|-----|---------|--------------------|-------|-------------------------|
| Ⓔ 1 | 1390 | 247 | 1.13 | 67 |
| Ⓔ 2 | 1360 | 280 | 1.25 | 65 |

AC axial fans

S series, Ø 420, drawings of directions of air flow "V" and "A"



Without attachments

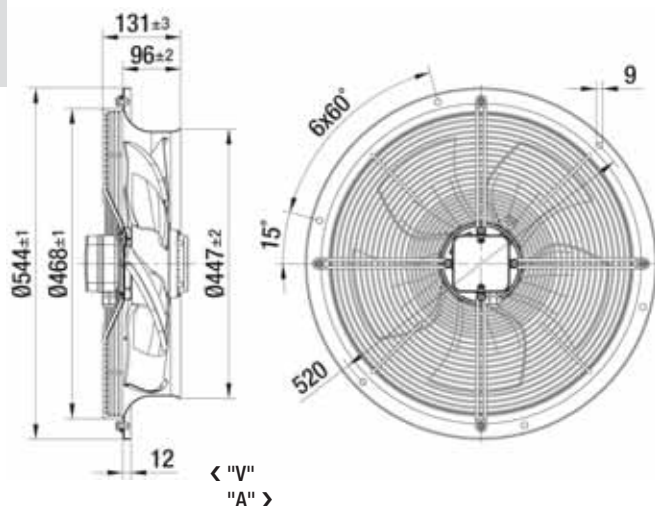


Type

| Type | b | c ₁ | h |
|------------------|-----------|----------------|------|
| A4D 420-AU02 -01 | "V" Ø 89 | 2.0 | 33.5 |
| A4D 420-AU02 -02 | "A" Ø 89 | 16.0 | 33.5 |
| A4E 420-AU03 -01 | "V" 99x99 | 2.0 | 59.5 |
| A4E 420-AU03 -02 | "A" 99x99 | 16.0 | 59.5 |



With full round nozzle

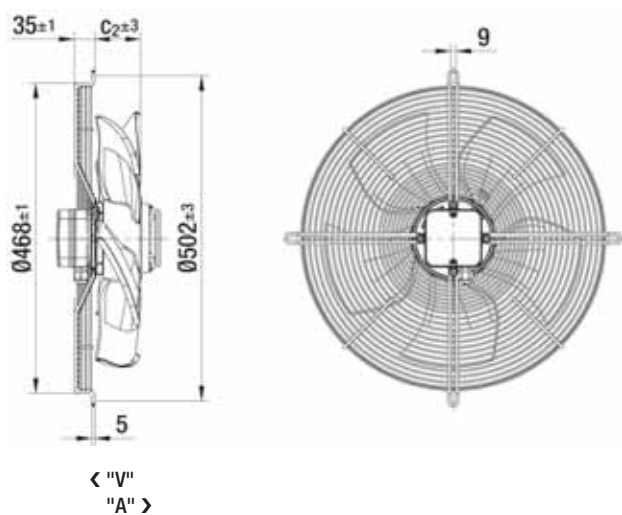


Type

| | |
|------------------|-----|
| W4D 420-CU02 -30 | "V" |
| W4D 420-CU02 -31 | "A" |
| W4E 420-CU03 -30 | "V" |
| W4E 420-CU03 -31 | "A" |



With guard grille for full nozzle

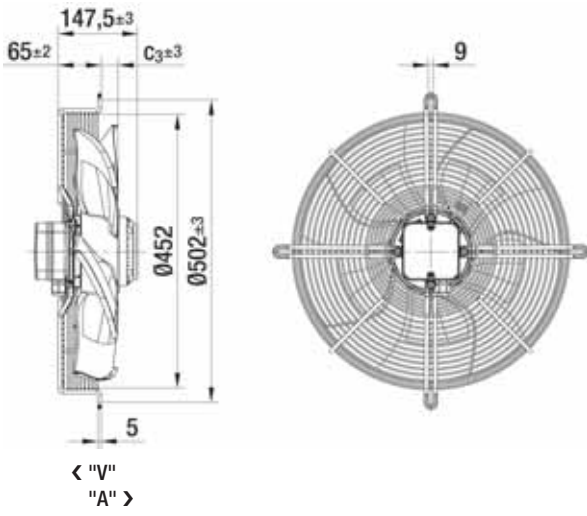


Type

| Type | c ₂ |
|------------------|----------------|
| S4D 420-BU02 -30 | "V" 77.5 |
| S4D 420-BU02 -31 | "A" 91.5 |
| S4E 420-BU03 -30 | "V" 77.5 |
| S4E 420-BU03 -31 | "A" 91.5 |



With guard grille for short nozzle



Type

| Type | | c ₃ |
|------------------|-----|----------------|
| S4D 420-AU02 -03 | "V" | 47.5 |
| S4D 420-AU02 -04 | "A" | 61.5 |
| S4E 420-AU03 -03 | "V" | 47.5 |
| S4E 420-AU03 -04 | "A" | 61.5 |

AC axial fans 6-pole

S series, Ø 420 / 450

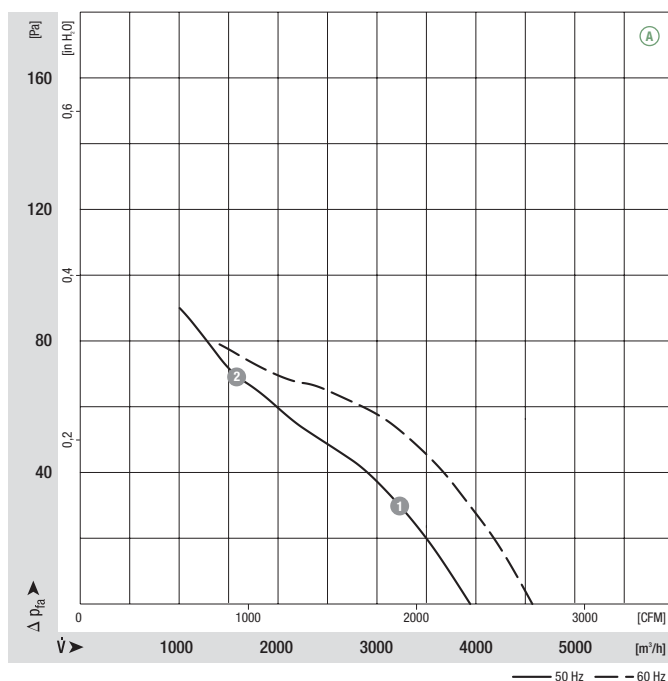


- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Sheet steel, coated in black
Rotor: Coated in black
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage | Frequency | Air flow | Speed/rpm | Power input | Current draw | Capacitor | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|--------------|------------|-------|-----------------|-----------|----------|-----------|-------------|--------------|-----------|----------------------|----------------------|------------------|--------------------------|--------------------|
| Type | Motor | VAC | Hz | m³/h | rpm | W | A | µF/VDB | dB(A) | Pa | °C | kg | p. 416 f. | |
| *6E 420 | M6E 074-EI | Ⓐ | 1~ 230 | 50 | 3940 | 940 | 145 | 0.67 | 4.0/450 | 60 | 90 | -25 to +50 | 4.4 | A1) |
| | | | 1~ 230 | 60 | 4570 | 1090 | 205 | 0.90 | 4.0/450 | 63 | 80 | -25 to +45 | | |
| *6E 450 | M6E 074-GA | Ⓑ | 1~ 230 | 50 | 4725 | 940 | 165 | 0.80 | 4.0/450 | 63 | 70 | -25 to +40 | 5.0 | A1) |
| | | | 1~ 230 | 60 | 5450 | 1070 | 225 | 0.98 | 4.0/450 | 67 | 45 | -25 to +40 | | |





subject to alterations

Curves

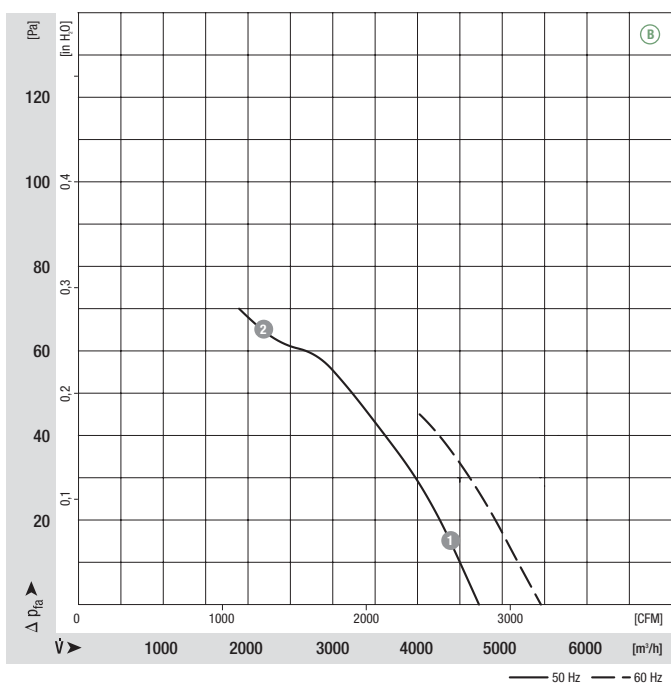


| | n [rpm] | P ₁ [W] | I [A] |
|-----|---------|--------------------|-------|
| Ⓐ 1 | 930 | 155 | 0.71 |
| Ⓐ 2 | 890 | 176 | 0.80 |

- **Motor protection:** TOP wired internally
- **Cable exit:** Variable
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, CE
- **Approvals:** CCC
- **Options:** Terminal box

| Direction of air flow | <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>< "V"/"A" ></p> <p>Without attachments</p> </div> <div style="text-align: center;">  <p>< "V"/"A" ></p> <p>With full round nozzle</p> </div> <div style="text-align: center;">  <p>< "V"/"A" ></p> <p>With guard grille for full nozzle</p> </div> <div style="text-align: center;">  <p>< "V"/"A" ></p> <p>With guard grille for short nozzle</p> </div> </div> | | | |
|-----------------------|--|------------------|------------------|------------------|
| | "V" | A6E 420-AP02 -01 | W6E 420-CP02 -30 | S6E 420-BP02 -30 |
| "A" | A6E 420-AP02 -02 | W6E 420-CP02 -31 | S6E 420-BP02 -31 | S6E 420-AP02 -31 |
| "V" | A6E 450-AP02 -01 | W6E 450-CP02 -01 | S6E 450-BP02 -01 | S6E 450-AP02 -01 |
| "A" | A6E 450-AP02 -02 | W6E 450-CP02 -02 | S6E 450-BP02 -02 | S6E 450-AP02 -02 |

Curves



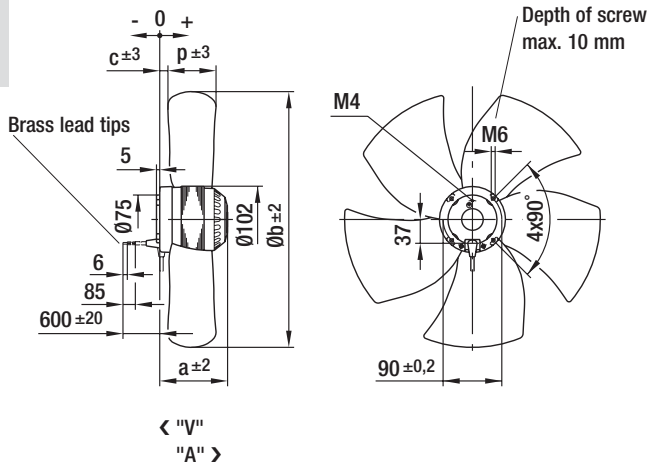
| | n [rpm] | P ₁ [W] | I [A] |
|-----|---------|--------------------|-------|
| ⓑ 1 | 930 | 171 | 0.82 |
| ⓑ 2 | 870 | 200 | 0.94 |

AC axial fans

S series, Ø 420 / 450, drawings of directions of air flow "V" and "A"



Without attachments

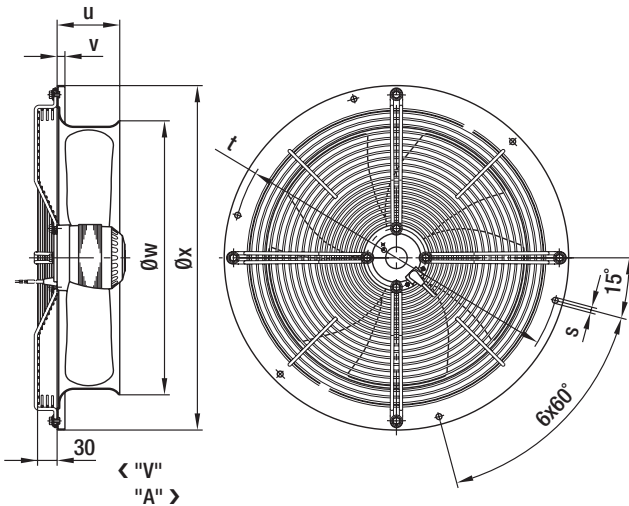


Type

| | | a | b | c | p |
|------------------|-----|-------|-------|------|------|
| A6E 420-AP02 -01 | "V" | 117.0 | 418.0 | 2.0 | 89.0 |
| A6E 420-AP02 -02 | "A" | 117.0 | 418.0 | 21.0 | 89.0 |
| A6E 450-AP02 -01 | "V" | 129.0 | 446.0 | 10.0 | 92.0 |
| A6E 450-AP02 -02 | "A" | 129.0 | 446.0 | 25.0 | 92.0 |



With full round nozzle

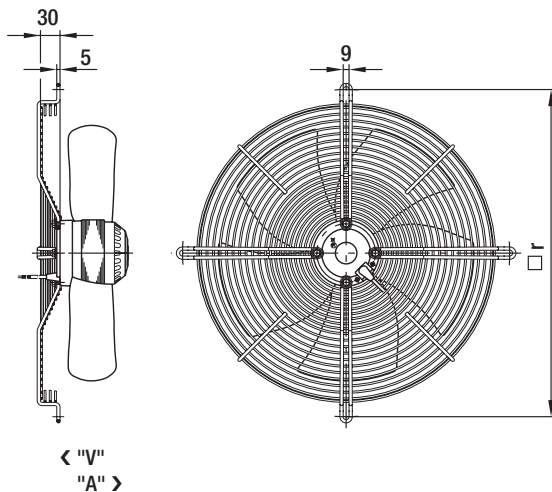


Type

| | | s | t | u | v | w | x |
|------------------|-----|------|-------|-------|------|-------|-------|
| W6E 420-CP02 -30 | "V" | 9.0 | 520.0 | 96.0 | 12.0 | 447.0 | 544.0 |
| W6E 420-CP02 -31 | "A" | 9.0 | 520.0 | 96.0 | 12.0 | 447.0 | 544.0 |
| W6E 450-CP02 -01 | "V" | 11.0 | 578.0 | 100.0 | 14.0 | 465.0 | 607.0 |
| W6E 450-CP02 -02 | "A" | 11.0 | 578.0 | 100.0 | 14.0 | 465.0 | 607.0 |



With guard grille for full nozzle

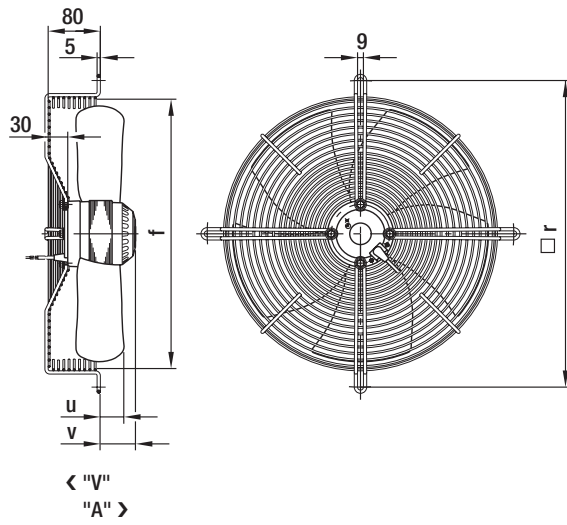


Type

| | | r |
|------------------|-----|-------|
| S6E 420-BP02 -30 | "V" | 502.0 |
| S6E 420-BP02 -31 | "A" | 502.0 |
| S6E 450-BP02 -01 | "V" | 522.0 |
| S6E 450-BP02 -02 | "A" | 522.0 |



With guard grille for short nozzle

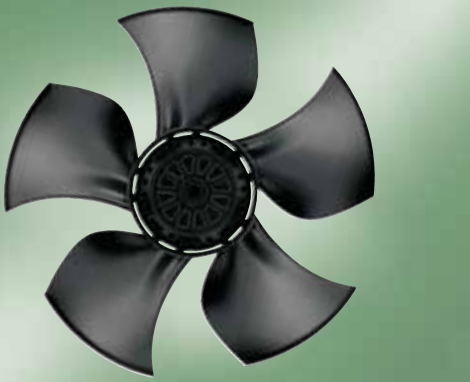


Type

| | | f | r | u | v |
|------------------|-----|-------|-------|------|------|
| S6E 420-AP02 -30 | "V" | 452.0 | 502.0 | 41.0 | 67.0 |
| S6E 420-AP02 -31 | "A" | 452.0 | 502.0 | 60.0 | 67.0 |
| S6E 450-AP02 -01 | "V" | 476.0 | 522.0 | 52.0 | 79.0 |
| S6E 450-AP02 -02 | "A" | 476.0 | 522.0 | 67.0 | 79.0 |

AC axial fans

S series, Ø 450



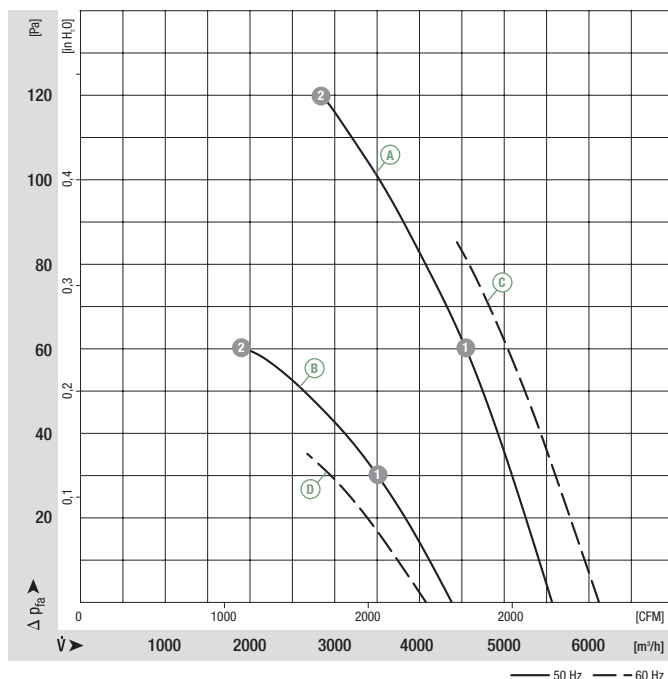
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Plastic, coated in black
Rotor: Coated in black
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage | Frequency | Speed/rpm ⁽¹⁾ | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Capacitor | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|--------------|------------|--------------|-----------------|-----------|--------------------------|---------------------------------|----------------------------------|-----------|----------------------|------------------|--------------------------|--------------------|
| Type | Motor | VAC | Hz | rpm | W | A | µF/VDB | Pa | °C | kg | p. 416 f. | |
| *4D 450 | M4D 094-EA | (A) 3~ 400 Δ | 50 | 1250 | 340 | 0.61 | — | 120 | -40 to +60 | 6.0 | F1b)/F2b) | |
| | | (B) 3~ 400 Y | 50 | 875 | 200 | 0.33 | — | 60 | -40 to +60 | | | |
| | | (C) 3~ 400 Δ | 60 | 1360 | 415 | 0.70 | — | 85 | -40 to +50 | 6.0 | F1b)/F2b) | |
| | | (D) 3~ 400 Y | 60 | 860 | 205 | 0.35 | — | 35 | -40 to +50 | | | |
| *4E 450 | M4E 094-EA | (E) 1~ 230 | 50 | 1300 | 350 | 1.55 | 8.0/400 | 120 | -40 to +55 | 6.0 | A2b) | |
| | | 1~ 230 | 60 | 1490 | 425 | 1.87 | 8.0/400 | 50 | -40 to +45 | | | |


subject to alterations

(1) Nominal data in operating point with maximum load

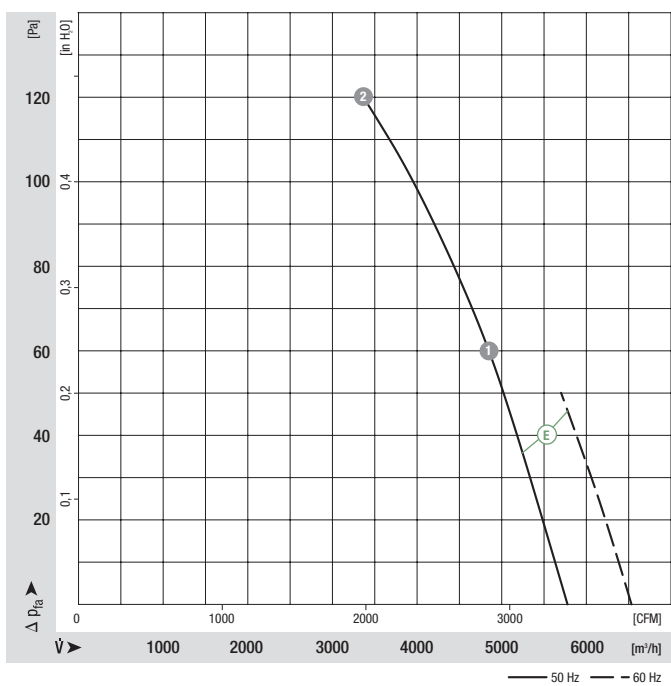
Curves



- **Motor protection:** Ⓐ-Ⓓ Design with thermal overload protector, Ⓔ TOP wired internally
- **Cable exit:** Lateral via terminal box
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE

| Direction of air flow |  | | | |
|-----------------------|---|--------------------------------------|--------------------------------------|--------------------------------------|
| | Without attachments | With full round nozzle | With guard grille for full nozzle | With guard grille for short nozzle |
| "V" "A" | A4D 450-AU01 -01 A4D 450-AU01 -02 | W4D 450-CU01 -01 W4D 450-CU01 -02 | S4D 450-BU01 -01 S4D 450-BU01 -02 | S4D 450-AU01 -01 S4D 450-AU01 -02 |
| "V" "A" | A4E 450-AU03 -01 A4E 450-AU03 -02 | W4E 450-CU03 -01 W4E 450-CU03 -02 | S4E 450-BU03 -01 S4E 450-BU03 -02 | S4E 450-AU03 -01 S4E 450-AU03 -02 |

Curves



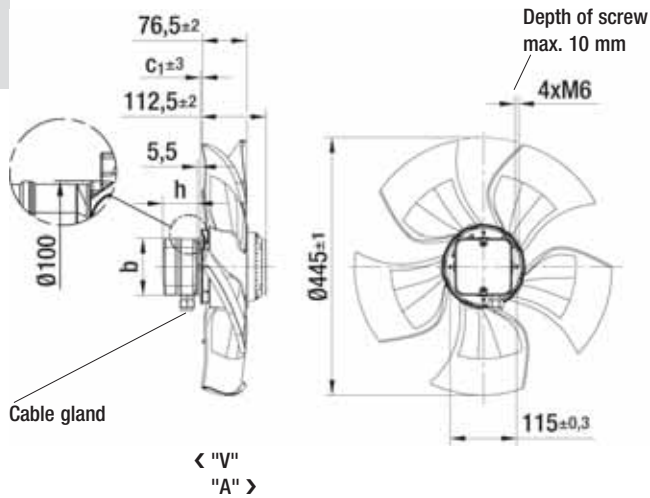
| | n [rpm] | P ₁ [W] | I [A] | Lp _A [dB(A)] |
|-----|---------|--------------------|-------|-------------------------|
| Ⓔ 1 | 1350 | 310 | 1.35 | 68 |
| Ⓔ 2 | 1300 | 350 | 1.55 | 65 |

AC axial fans

S series, Ø 450, drawings of directions of air flow "V" and "A"



Without attachments

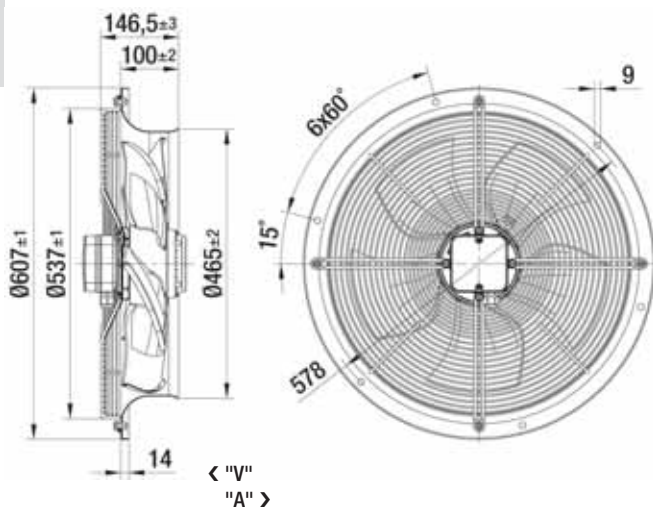


Type

| | b | c ₁ | h |
|------------------|-----------|----------------|------|
| A4D 450-AU01 -01 | "V" Ø 89 | 6.0 | 33.5 |
| A4D 450-AU01 -02 | "A" Ø 89 | 20.0 | 33.5 |
| A4E 450-AU03 -01 | "V" 99x99 | 6.0 | 59.5 |
| A4E 450-AU03 -02 | "A" 99x99 | 20.0 | 59.5 |



With full round nozzle

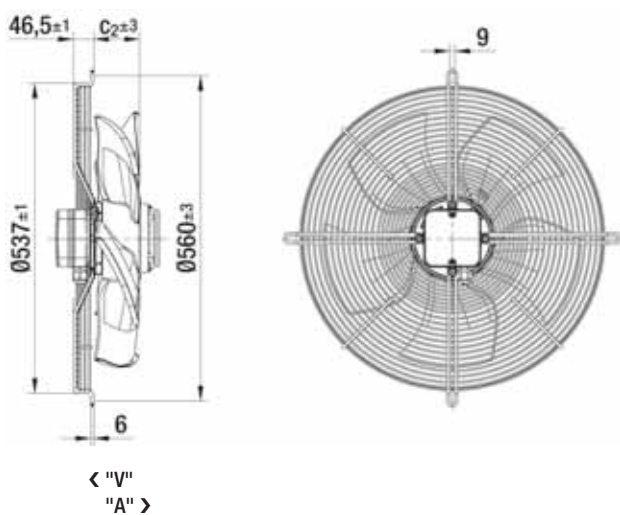


Type

| | |
|------------------|-----|
| W4D 450-CU01 -01 | "V" |
| W4D 450-CU01 -02 | "A" |
| W4E 450-CU03 -01 | "V" |
| W4E 450-CU03 -02 | "A" |



With guard grille for full nozzle

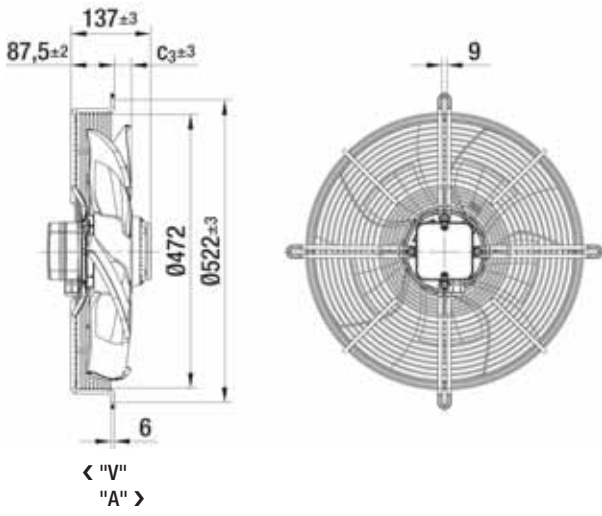


Type

| | c ₂ |
|------------------|----------------|
| S4D 450-BU01 -01 | "V" 60.5 |
| S4D 450-BU01 -02 | "A" 74.5 |
| S4E 450-BU03 -01 | "V" 60.5 |
| S4E 450-BU03 -02 | "A" 74.5 |



With guard grille for short nozzle



Type

| Type | | c ₃ |
|------------------|-----|----------------|
| S4D 450-AU01 -01 | "V" | 19.5 |
| S4D 450-AU01 -02 | "A" | 33.5 |
| S4E 450-AU03 -01 | "V" | 19.5 |
| S4E 450-AU03 -02 | "A" | 33.5 |

AC axial fans

S series, Ø 450



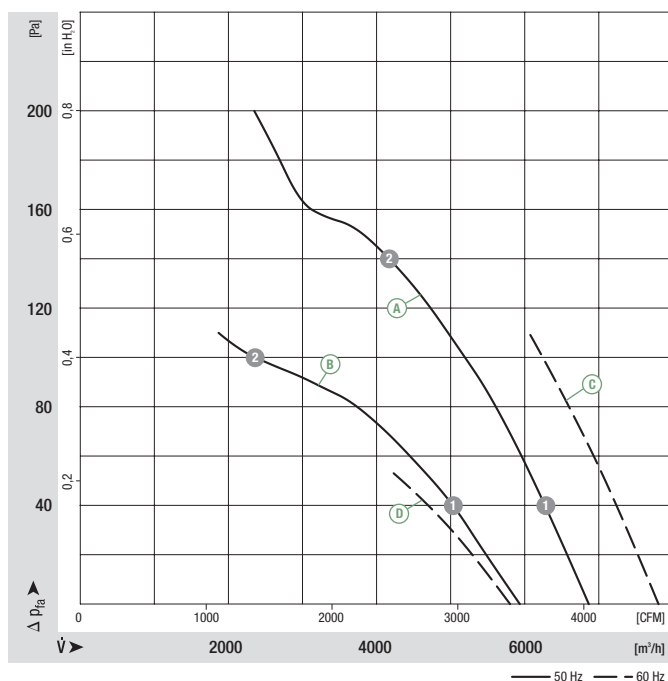
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Sheet steel, coated in black
Rotor: Coated in black
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage | Frequency | Speed/rpm ⁽¹⁾ | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Capacitor | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|--------------|------------|--------------|-----------------|-----------|--------------------------|---------------------------------|----------------------------------|-----------|----------------------|------------------|--------------------------|--------------------|
| Type | Motor | VAC | Hz | rpm | W | A | µF/VDB | Pa | °C | kg | p. 416 f. | |
| *4D 450 | M4D 094-HA | (A) 3~ 400 Δ | 50 | 1330 | 585 | 1.10 | — | 200 | -40 to +70 | 7.9 | F1b)/F2b) | |
| | | (B) 3~ 400 Y | 50 | 1000 | 390 | 0.67 | — | 110 | -40 to +70 | | | |
| | | (C) 3~ 400 Δ | 60 | 1540 | 660 | 1.16 | — | 110 | -40 to +50 | 7.9 | F1b)/F2b) | |
| | | (D) 3~ 400 Y | 60 | 1060 | 400 | 0.70 | — | 55 | -40 to +50 | | | |
| *4E 450 | M4E 094-HA | (E) 1~ 230 | 50 | 1350 | 480 | 2.10 | 10.0/400 | 125 | -40 to +65 | 7.9 | A2b) | |
| | | 1~ 230 | 60 | 1490 | 665 | 2.90 | 10.0/400 | 115 | -40 to +50 | | | |

subject to alterations

(1) Nominal data in operating point with maximum load

Curves

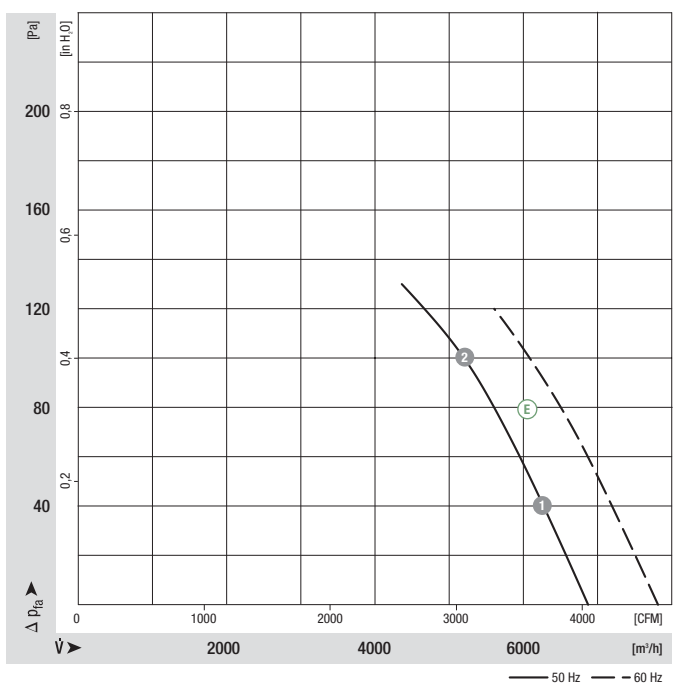


| | n [rpm] | P ₁ [W] | I [A] | Lp _A [dB(A)] |
|-------|---------|--------------------|-------|-------------------------|
| (A) 1 | 1400 | 392 | 0.89 | 72 |
| (A) 2 | 1370 | 476 | 0.98 | 70 |
| (B) 1 | 1170 | 303 | 0.53 | 68 |
| (B) 2 | 1030 | 375 | 0.63 | 66 |

- **Motor protection:** Design with thermal overload protector
- **Cable exit:** Lateral via terminal box
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE

| Direction of air flow | < "V"/"A" > | | < "V"/"A" > | | < "V"/"A" > | | < "V"/"A" > | | < "V" > | |
|-----------------------|---------------------|------------------|------------------------|------------------|-----------------------------------|--|------------------------------------|--|------------------|--|
| | Without attachments | | With full round nozzle | | With guard grille for full nozzle | | With guard grille for short nozzle | | In-line duct fan | |
| "V" | A4D 450-BA14 -01 | W4D 450-GA14 -01 | S4D 450-HA14 -01 | S4D 450-GA14 -01 | — | | — | | — | |
| "A" | A4D 450-BA14 -02 | W4D 450-GA14 -02 | S4D 450-HA14 -02 | S4D 450-GA14 -02 | — | | — | | — | |
| "V" | A4E 450-BA09 -01 | W4E 450-GA09 -01 | S4E 450-HA09 -01 | S4E 450-GA09 -01 | — | | — | | — | |
| "A" | A4E 450-BA09 -02 | W4E 450-GA09 -02 | S4E 450-HA09 -02 | S4E 450-GA09 -02 | — | | — | | — | |

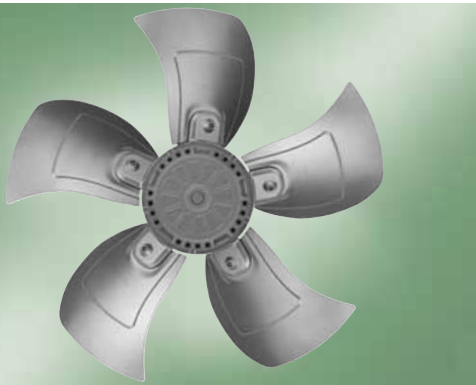
Curves



| | n [rpm] | P ₁ [W] | I [A] | Lp _A [dB(A)] |
|-----|---------|--------------------|-------|-------------------------|
| Ⓔ 1 | 1380 | 413 | 2.01 | 72 |
| Ⓔ 2 | 1360 | 460 | 2.20 | 70 |

AC axial fans

S series, Ø 450



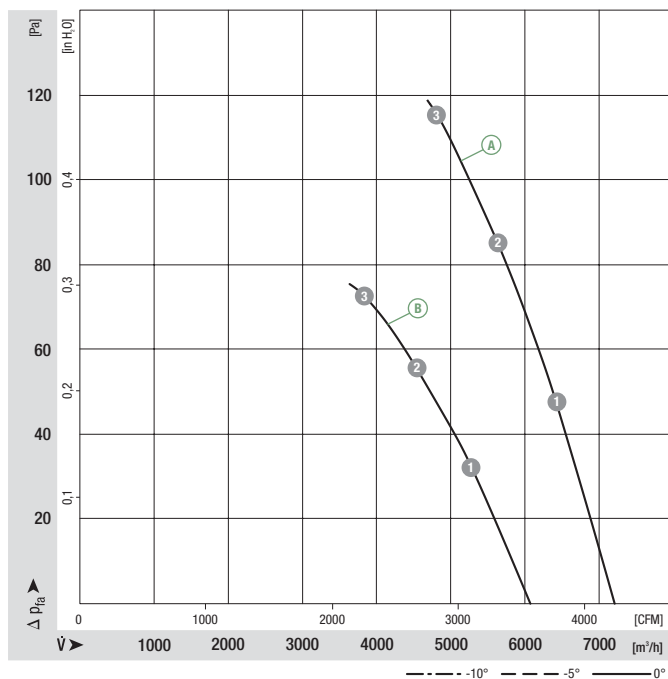
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Sheet aluminium
Rotor: Encased in aluminium
- **Number of blades:** 5
- **Direction of rotation:** Counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Any
- **Condensate discharge holes:** On rotor and stator side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Blade angle | Curve | Nominal voltage | Frequency | Speed/rpm ⁽¹⁾ | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Capacitor | Max. operative range | Perm. amb. temp. | Mass of in-line duct fan | Electr. connection |
|--------------|------------|-------------|-------|-----------------|-----------|--------------------------|---------------------------------|----------------------------------|-----------|----------------------|------------------|--------------------------|--------------------|
| Type | Motor | | | VAC | Hz | rpm | W | A | µF/VDB | Pa | °C | kg | p. 416 f. |
| *4D 450 | M4D 110-EF | 0° | Ⓐ | 3~ 400 Δ | 50 | 1350 | 490 | 1.00 | — | 115 | -40 to +95 | 14.5 | F1b)/F2b) |
| | | | Ⓑ | 3~ 400 Y | 50 | 1075 | 340 | 0.58 | — | 75 | -40 to +95 | | |
| *4E 450 | M4E 110-EF | 0° | Ⓒ | 1~ 230 | 50 | 1330 | 500 | 2.20 | 10.0/400 | 100 | -40 to +80 | 14.5 | A2b) |

subject to alterations

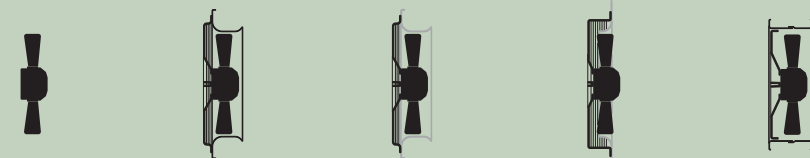
(1) Nominal data in operating point with maximum load

Curves

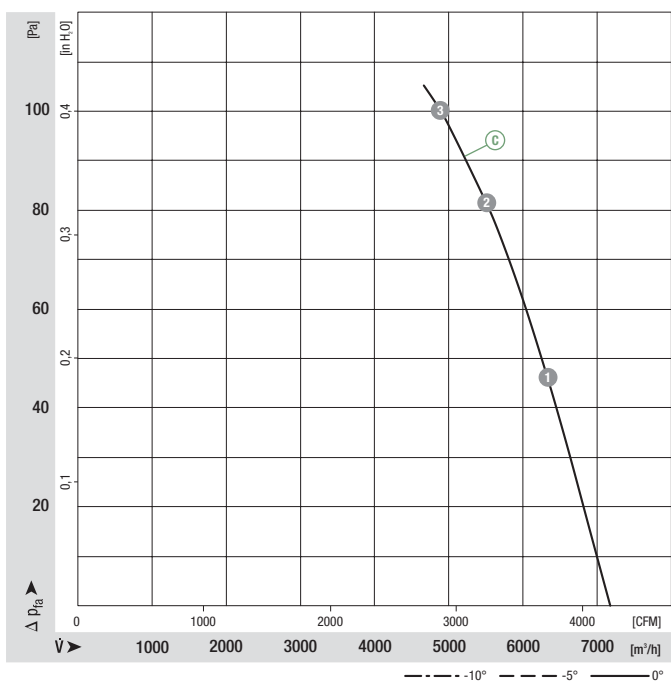


| | n [rpm] | P ₁ [W] | I [A] | L _{wA} [dB(A)] |
|-----|---------|--------------------|-------|-------------------------|
| Ⓐ 1 | 1370 | 450 | 0.97 | 76 |
| Ⓐ 2 | 1360 | 470 | 0.99 | 77 |
| Ⓐ 3 | 1350 | 490 | 1.00 | 79 |
| Ⓑ 1 | 1120 | 320 | 0.56 | 71 |
| Ⓑ 2 | 1090 | 330 | 0.57 | 73 |
| Ⓑ 3 | 1075 | 340 | 0.58 | 75 |

- **Motor protection:** Design with thermal overload protector
- **Cable exit:** Via terminal box
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** VDE (acc. to EN 60034)

| Direction of air flow |  | | | | |
|-----------------------|--|------------------------|-----------------------------------|------------------------------------|-----------------------|
| | Without attachments | With full round nozzle | With guard grille for full nozzle | With guard grille for short nozzle | In-line duct fan |
| "V" "A" | — | — | — | — | W4D 450-IG01 -01 — |
| "V" "A" | — | — | — | — | W4E 450-IG01 -01 — |

Curves



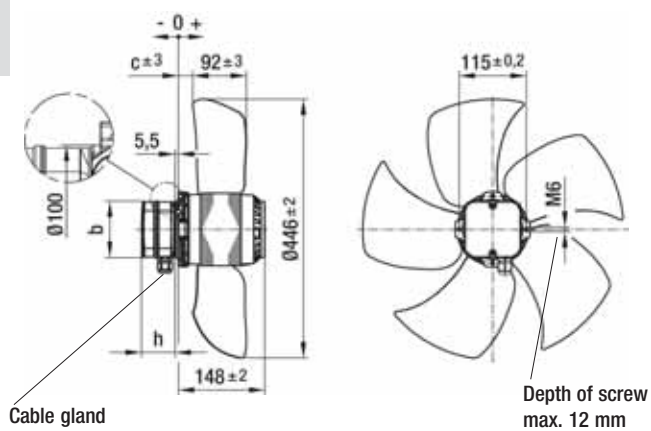
| | n [rpm] | P ₁ [W] | I [A] | L _{wA} [dB(A)] |
|-----|---------|--------------------|-------|-------------------------|
| ⊙ 1 | 1360 | 460 | 2.00 | 76 |
| ⊙ 2 | 1340 | 480 | 2.10 | 77 |
| ⊙ 3 | 1330 | 500 | 2.20 | 78 |

AC axial fans

S series, Ø 450, drawings of directions of air flow "V" and "A"



Without attachments



Cable gland

Depth of screw
max. 12 mm

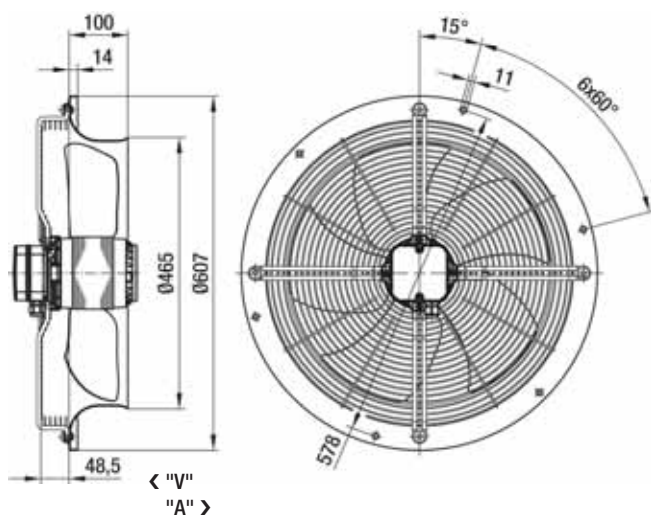
< "V"
"A" >

Type

| | b | c | h |
|------------------|-----------|------|------|
| A4D 450-BA14 -01 | "V" Ø 89 | 35.0 | 33.5 |
| A4D 450-BA14 -02 | "A" Ø 89 | 36.7 | 33.5 |
| A4E 450-BA09 -01 | "V" 99x99 | 35.0 | 59.5 |
| A4E 450-BA09 -02 | "A" 99x99 | 36.7 | 59.5 |



With full round nozzle



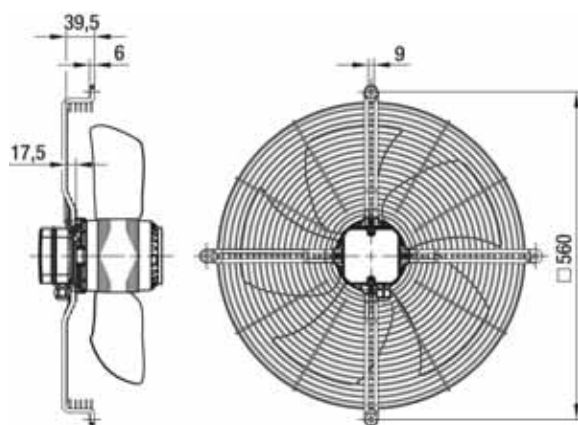
< "V"
"A" >

Type

| | |
|------------------|-----|
| W4D 450-GA14 -01 | "V" |
| W4D 450-GA14 -02 | "A" |
| W4E 450-GA09 -01 | "V" |
| W4E 450-GA09 -02 | "A" |



With guard grille for full nozzle



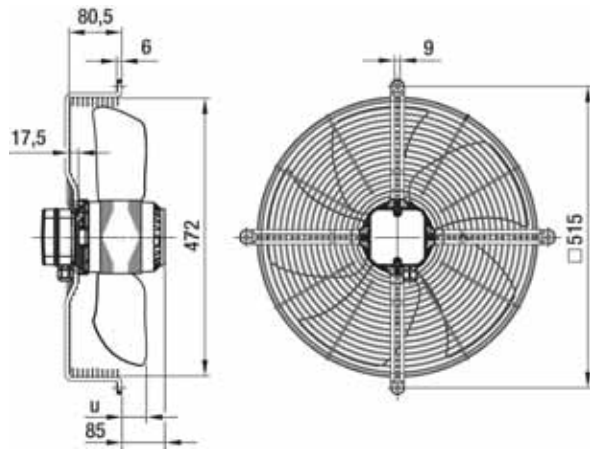
< "V"
"A" >

Type

| | |
|------------------|-----|
| S4D 450-HA14 -01 | "V" |
| S4D 450-HA14 -02 | "A" |
| S4E 450-HA09 -01 | "V" |
| S4E 450-HA09 -02 | "A" |



With guard grille for short nozzle



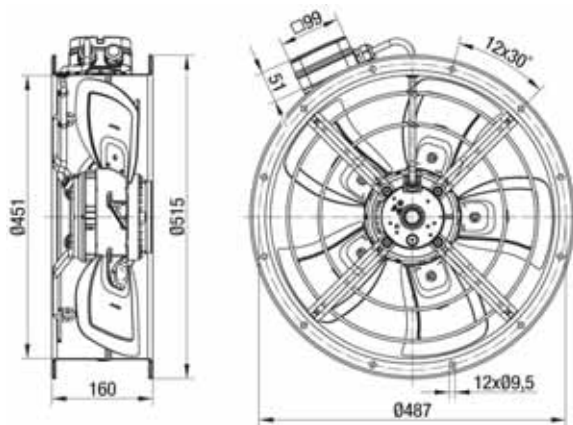
< "V"
"A" >

Type

| Type | | u |
|------------------|-----|------|
| S4D 450-GA14 -01 | "V" | 64.0 |
| S4D 450-GA14 -02 | "A" | 65.7 |
| S4E 450-GA09 -01 | "V" | 64.0 |
| S4E 450-GA09 -02 | "A" | 65.7 |



In-line duct fan



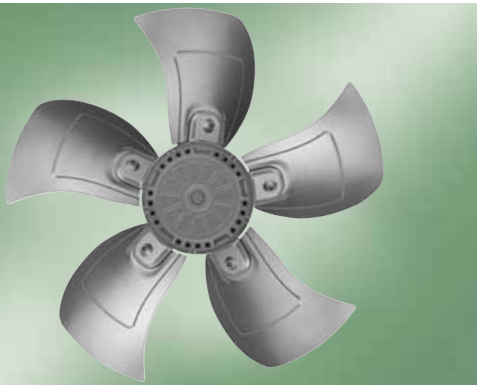
< "V"

Type

| | |
|------------------|-----|
| W4D 450-IG01 -01 | "V" |
| W4E 450-IG01 -01 | "V" |

AC axial fans

S series, Ø 500



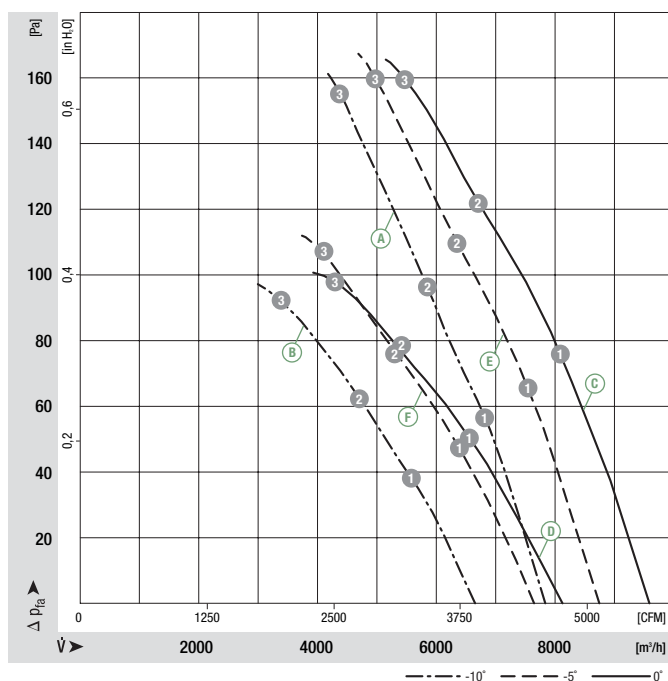
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Sheet aluminium
Rotor: Encased in aluminium
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Any
- **Condensate discharge holes:** On rotor and stator side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Blade angle | Curve | Nominal voltage | Frequency | Speed/rpm ⁽¹⁾ | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Capacitor | Max. operative range | Perm. amb. temp. | Electr. connection |
|--------------|------------|-------------|-------|-----------------|-----------|--------------------------|---------------------------------|----------------------------------|-----------|----------------------|------------------|--------------------|
| Type | Motor | | | VAC | Hz | rpm | kW | A | µF/VDB | Pa | °C | p. 416 f. |
| *4D 500 | M4D 110-EF | -10° | (A) | 3~ 400 Δ | 50 | 1310 | 0.58 | 1.10 | — | 155 | -40 to +85 | F1b)/F2b) |
| | | | (B) | 3~ 400 Y | 50 | 1010 | 0.38 | 0.65 | — | 95 | -40 to +85 | |
| *4D 500 | M4D 110-GF | 0° | (C) | 3~ 400 Δ | 50 | 1325 | 0.82 | 1.59 | — | 160 | -40 to +80 | F1b)/F2b) |
| | | | (D) | 3~ 400 Y | 50 | 1035 | 0.55 | 0.95 | — | 100 | -40 to +80 | |
| *4D 500 | M4D 110-GF | -5° | (E) | 3~ 400 Δ | 50 | 1360 | 0.69 | 1.43 | — | 160 | -40 to +90 | F1b)/F2b) |
| | | | (F) | 3~ 400 Y | 50 | 1110 | 0.49 | 0.86 | — | 105 | -40 to +90 | |

subject to alterations








(1) Nominal data in operating point 3 with maximum load

Curves



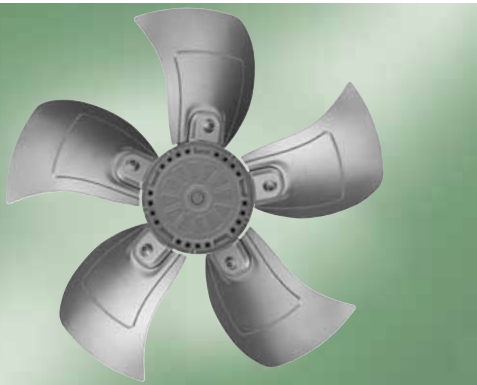
| | n [rpm] | P ₁ [kW] | I [A] | Lw _A [dB(A)] |
|-------|---------|---------------------|-------|-------------------------|
| (A) 1 | 1355 | 0.46 | 0.97 | 76 |
| (A) 2 | 1340 | 0.50 | 1.01 | 78 |
| (A) 3 | 1310 | 0.58 | 1.10 | 80 |
| (B) 1 | 1110 | 0.33 | 0.56 | 72 |
| (B) 2 | 1070 | 0.34 | 0.60 | 73 |
| (B) 3 | 1010 | 0.38 | 0.65 | 74 |
| (C) 1 | 1355 | 0.70 | 1.39 | 77 |
| (C) 2 | 1345 | 0.75 | 1.44 | 78 |
| (C) 3 | 1325 | 0.82 | 1.59 | 80 |
| (D) 1 | 1100 | 0.50 | 0.84 | 73 |
| (D) 2 | 1070 | 0.52 | 0.87 | 72 |
| (D) 3 | 1035 | 0.55 | 0.95 | 74 |
| (E) 1 | 1390 | 0.57 | 1.23 | 76 |
| (E) 2 | 1380 | 0.62 | 1.29 | 77 |
| (E) 3 | 1360 | 0.69 | 1.43 | 80 |
| (F) 1 | 1180 | 0.43 | 0.72 | 73 |
| (F) 2 | 1150 | 0.46 | 0.77 | 73 |
| (F) 3 | 1110 | 0.49 | 0.86 | 76 |

- **Motor protection:** Design with thermal overload protector
- **Cable exit:** Via terminal box
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** VDE (acc. to EN 60034)

| Direction of air flow |  < "V"/"A" > | |  < "V"/"A" > | |  < "V" | |  < "V" | |  "A" > | |  "A" > | |  < "V" | |
|-----------------------|--|-------------------------|--|------------------------------------|--|------------------------------------|--|------------------------------------|---|---|--|---|--|------------------|
| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle | With guard grille for short nozzle | In-line duct fan | | | | | |
| "V" | A4D 500-AI01 -01 | W4D 500-GI01 -01 | S4D 500-CI01 -01 | S4D 500-AI01 -01 | — | — | — | — | — | — | — | — | — | — |
| "A" | A4D 500-AI01 -02 | W4D 500-DI01 -02 | — | — | S4D 500-BI01 -02 | S4D 500-AI01 -02 | — | — | — | — | — | — | — | — |
| "V" | A4D 500-AD03 -01 | W4D 500-GD03 -01 | S4D 500-CD03 -01 | S4D 500-AD03 -01 | — | — | — | — | — | — | — | — | — | W4D 500-ID03 -01 |
| "A" | A4D 500-AD03 -02 | W4D 500-DD03 -02 | — | — | S4D 500-BD03 -02 | S4D 500-AD03 -02 | — | — | — | — | — | — | — | — |
| "V" | A4D 500-AE03 -01 | W4D 500-GE03 -01 | S4D 500-CE03 -01 | S4D 500-AE03 -01 | — | — | — | — | — | — | — | — | — | — |
| "A" | A4D 500-AE03 -02 | W4D 500-DE03 -02 | — | — | S4D 500-BE03 -02 | S4D 500-AE03 -02 | — | — | — | — | — | — | — | — |

AC axial fans

S series, Ø 500



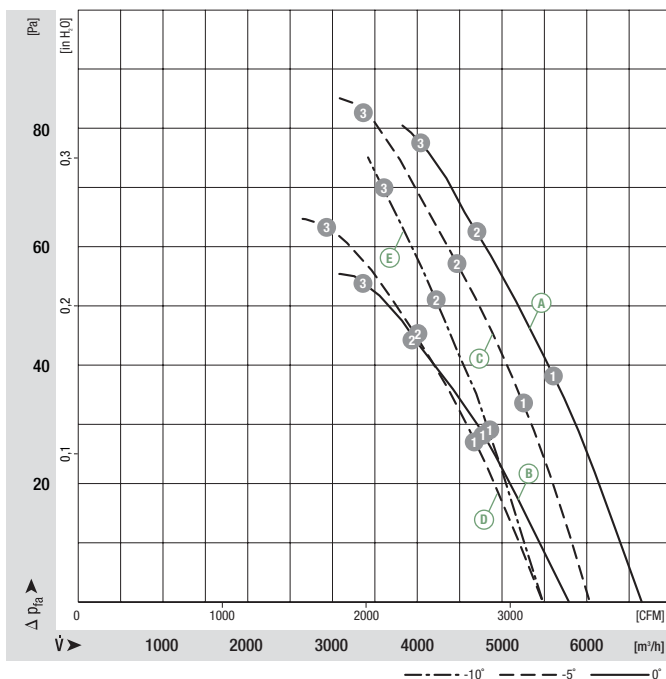
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Sheet aluminium
Rotor: Encased in aluminium
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Any
- **Condensate discharge holes:** On rotor and stator side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Blade angle | Curve | Nominal voltage | Frequency | Speed/rpm ⁽¹⁾ | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Capacitor | Max. operative range | Perm. amb. temp. | Electr. connection |
|--------------|------------|-------------|-------|-----------------|-----------|--------------------------|---------------------------------|----------------------------------|-----------|----------------------|------------------|--------------------|
| Type | Motor | | | VAC | Hz | rpm | kW | A | µF/VDB | Pa | °C | p. 416 f. |
| *6D 500 | M6D 110-EF | 0° | (A) | 3~ 400 Δ | 50 | 920 | 0.32 | 0.75 | — | 75 | -40 to +75 | F1b)/F2b) |
| | | | (B) | 3~ 400 Y | 50 | 765 | 0.23 | 0.40 | — | 50 | -40 to +75 | |
| *6D 500 | M6D 110-EF | -5° | (C) | 3~ 400 Δ | 50 | 945 | 0.29 | 0.74 | — | 80 | -40 to +80 | F1b)/F2b) |
| | | | (D) | 3~ 400 Y | 50 | 790 | 0.20 | 0.36 | — | 60 | -40 to +80 | |
| *6D 500 | M6D 110-EF | -10° | (E) | 3~ 400 Δ | 50 | 950 | 0.23 | 0.69 | — | 65 | -40 to +80 | F1b)/F2b) |
| *8D 500 | M8D 110-EF | 0° | (G) | 3~ 400 Δ | 50 | 700 | 0.21 | 0.61 | — | 45 | -40 to +70 | F1b)/F2b) |
| | | | (H) | 3~ 400 Y | 50 | 615 | 0.12 | 0.25 | — | 34 | -40 to +70 | |

subject to alterations

(1) Nominal data in operating point 3 with maximum load

Curves

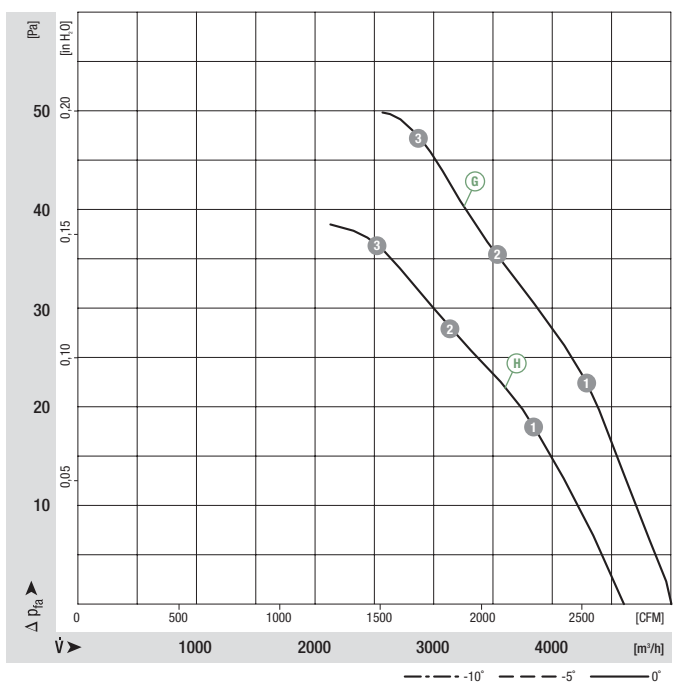


| | n [rpm] | P ₁ [kW] | I [A] | Lw _A [dB(A)] |
|-------|---------|---------------------|-------|-------------------------|
| (A) 1 | 935 | 0.29 | 0.75 | 70 |
| (A) 2 | 930 | 0.30 | 0.76 | 70 |
| (A) 3 | 920 | 0.32 | 0.75 | 71 |
| (B) 1 | 800 | 0.20 | 0.36 | 67 |
| (B) 2 | 785 | 0.21 | 0.37 | 66 |
| (B) 3 | 765 | 0.23 | 0.40 | 67 |
| (C) 1 | 950 | 0.24 | 0.71 | 69 |
| (C) 2 | 940 | 0.25 | 0.72 | 69 |
| (C) 3 | 945 | 0.29 | 0.74 | 72 |
| (D) 1 | 845 | 0.17 | 0.31 | 66 |
| (D) 2 | 830 | 0.18 | 0.33 | 66 |
| (D) 3 | 790 | 0.20 | 0.36 | 68 |
| (E) 1 | 960 | 0.20 | 0.68 | 68 |
| (E) 2 | 955 | 0.21 | 0.68 | 70 |
| (E) 3 | 950 | 0.23 | 0.69 | 71 |

- **Motor protection:** Design with thermal overload protector
- **Cable exit:** Via terminal box
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** VDE (acc. to EN 60034)

| Direction of air flow | | | | | | | |
|-----------------------|---------------------|-------------------------|-----------------------------------|------------------------------------|-----------------------------------|------------------------------------|------------------|
| | < "V"/"A" > | < "V"/"A" > | < "V" > | < "V" > | "A" > | "A" > | < "V" > |
| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle | With guard grille for short nozzle | In-line duct fan |
| "V" | A6D 500-AG03 -01 | W6D 500-GG03 -01 | S6D 500-CG03 -01 | S6D 500-AG03 -01 | — | — | — |
| "A" | A6D 500-AG03 -02 | W6D 500-DG03 -02 | — | — | S6D 500-BG03 -02 | S6D 500-AG03 -02 | — |
| "V" | A6D 500-AH03 -01 | W6D 500-GH03 -01 | S6D 500-CH03 -01 | S6D 500-AH03 -01 | — | — | — |
| "A" | A6D 500-AH03 -02 | W6D 500-DH03 -02 | — | — | S6D 500-BH03 -02 | S6D 500-AH03 -02 | — |
| "V" | A6D 500-AI03 -01 | W6D 500-GI03 -01 | S6D 500-CI03 -01 | S6D 500-AI03 -01 | — | — | — |
| "A" | A6D 500-AI03 -02 | W6D 500-DI03 -02 | — | — | S6D 500-BI03 -02 | S6D 500-AI03 -02 | — |
| "V" | A8D 500-AG01 -01 | W8D 500-GG01 -01 | S8D 500-CG01 -01 | S8D 500-AG01 -01 | — | — | — |
| "A" | A8D 500-AG01 -02 | W8D 500-DG01 -02 | — | — | S8D 500-BG01 -02 | S8D 500-AG01 -02 | — |

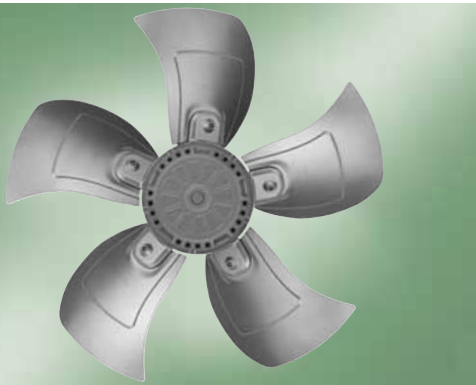
Curves



| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] |
|-----|---------|---------------------|-------|-------------------------|
| Ⓔ 1 | 710 | 0.19 | 0.64 | 64 |
| Ⓔ 2 | 710 | 0.20 | 0.63 | 62 |
| Ⓔ 3 | 700 | 0.21 | 0.61 | 65 |
| Ⓕ 1 | 635 | 0.11 | 0.23 | 61 |
| Ⓕ 2 | 630 | 0.12 | 0.24 | 60 |
| Ⓕ 3 | 615 | 0.12 | 0.25 | 61 |

AC axial fans

S series, Ø 500



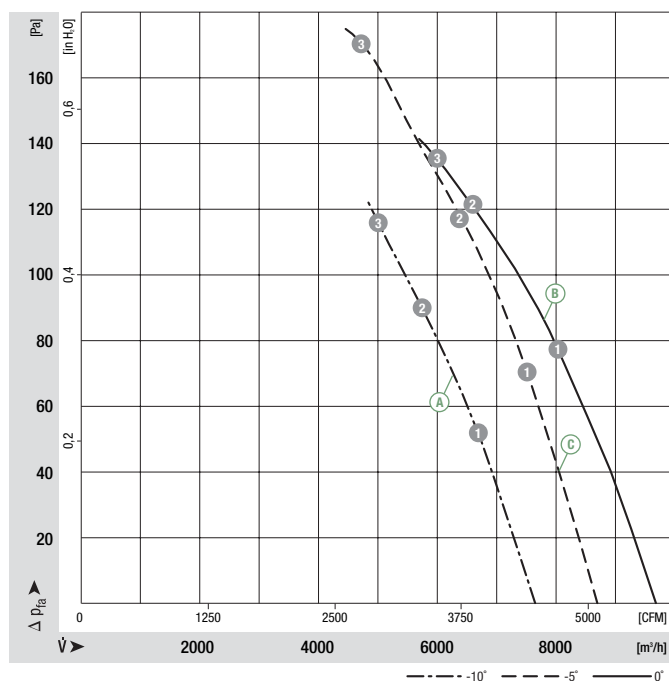
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Sheet aluminium
Rotor: Encased in aluminium
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Any
- **Condensate discharge holes:** On rotor and stator side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Blade angle | Curve | Nominal voltage | Frequency | Speed/rpm ⁽¹⁾ | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Capacitor | Max. operative range | Perm. amb. temp. | Electr. connection |
|--------------|------------|-------------|-------|-----------------|-----------|--------------------------|---------------------------------|----------------------------------|-----------|----------------------|------------------|--------------------|
| Type | Motor | | | VAC | Hz | rpm | kW | A | µF/VDB | Pa | °C | p. 416 f. |
| *4E 500 | M4E 110-EF | -10° | (A) | 1~ 230 | 50 | 1300 | 0.53 | 2.31 | 10.0/450 | 115 | -40 to +75 | A2b) |
| *4E 500 | M4E 110-GF | 0° | (B) | 1~ 230 | 50 | 1270 | 0.76 | 3.33 | 14.0/400 | 130 | -40 to +60 | A2b) |
| *4E 500 | M4E 110-GF | -5° | (C) | 1~ 230 | 50 | 1330 | 0.71 | 3.10 | 14.0/450 | 160 | -40 to +70 | A2b) |

subject to alterations

(1) Nominal data in operating point 3 with maximum load

Curves



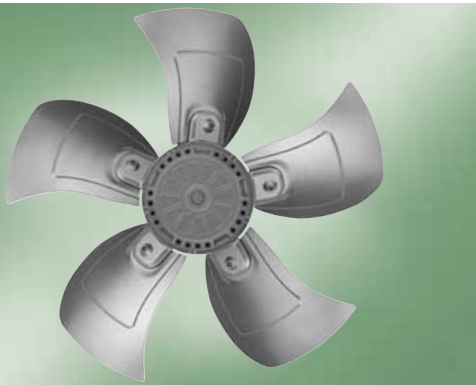
| | n [rpm] | P ₁ [kW] | I [A] | Lw _A [dB(A)] |
|-------|---------|---------------------|-------|-------------------------|
| (A) 1 | 1345 | 0.47 | 2.06 | 76 |
| (A) 2 | 1320 | 0.51 | 2.21 | 77 |
| (A) 3 | 1300 | 0.53 | 2.31 | 78 |
| (B) 1 | 1305 | 0.71 | 3.13 | 77 |
| (B) 2 | 1285 | 0.75 | 3.28 | 77 |
| (B) 3 | 1270 | 0.76 | 3.33 | 78 |
| (C) 1 | 1375 | 0.59 | 2.59 | 76 |
| (C) 2 | 1355 | 0.64 | 2.80 | 77 |
| (C) 3 | 1330 | 0.71 | 3.10 | 80 |

- **Motor protection:** Design with thermal overload protector
- **Cable exit:** Via terminal box
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** VDE (acc. to EN 60034)

| Direction of air flow | | | | | | | | | | | | | | |
|-----------------------|---------------------|------------------|-------------------------|------------------|-----------------------------------|---|------------------------------------|---|-----------------------------------|------------------|------------------------------------|---|------------------|------------------|
| | < "V"/"A" > | | < "V"/"A" > | | < "V" > | | < "V" > | | "A" > | | "A" > | | < "V" > | |
| | Without attachments | | With full square nozzle | | With guard grille for full nozzle | | With guard grille for short nozzle | | With guard grille for full nozzle | | With guard grille for short nozzle | | In-line duct fan | |
| "V" | A4E 500-AI01 -01 | W4E 500-GI01 -01 | S4E 500-CI01 -01 | S4E 500-AI01 -01 | — | — | — | — | — | — | — | — | — | — |
| "A" | A4E 500-AI01 -02 | W4E 500-DI01 -02 | — | — | — | — | — | — | S4E 500-BI01 -02 | S4E 500-AI01 -02 | — | — | — | — |
| "V" | A4E 500-AD03 -01 | W4E 500-GD03 -01 | S4E 500-CD03 -01 | S4E 500-AD03 -01 | — | — | — | — | — | — | — | — | — | W4E 500-ID03 -01 |
| "A" | A4E 500-AD03 -02 | W4E 500-DD03 -02 | — | — | — | — | — | — | S4E 500-BD03 -02 | S4E 500-AD03 -02 | — | — | — | — |
| "V" | A4E 500-AE03 -01 | W4E 500-GE03 -01 | S4E 500-CE03 -01 | S4E 500-AE03 -01 | — | — | — | — | — | — | — | — | — | — |
| "A" | A4E 500-AE03 -02 | W4E 500-DE03 -02 | — | — | — | — | — | — | S4E 500-BE03 -02 | S4E 500-AE03 -02 | — | — | — | — |

AC axial fans

S series, Ø 500



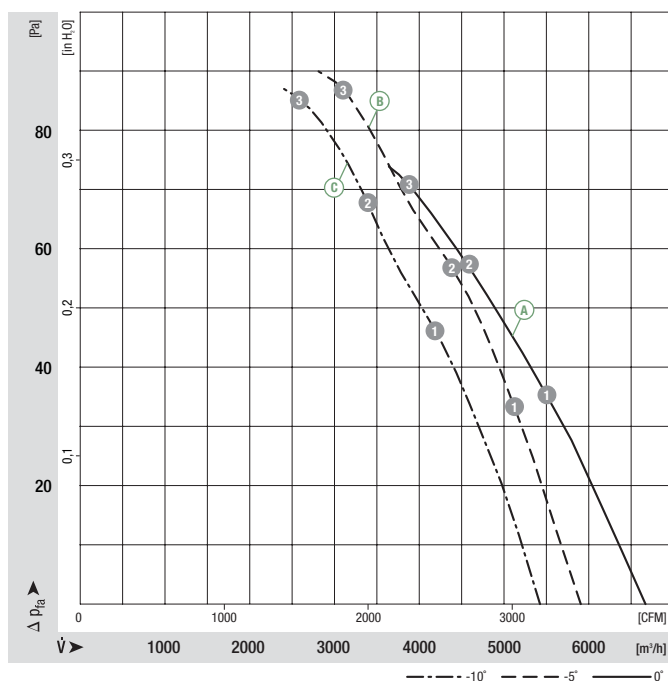
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Sheet aluminium
Rotor: Encased in aluminium
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Any
- **Condensate discharge holes:** On rotor and stator side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Blade angle | Curve | Nominal voltage | Frequency | Speed/rpm ⁽¹⁾ | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Capacitor | Max. operative range | Perm. amb. temp. | Electr. connection |
|--------------|------------|-------------|-------|-----------------|-----------|--------------------------|---------------------------------|----------------------------------|-----------|----------------------|------------------|--------------------|
| Type | Motor | | | VAC | Hz | rpm | kW | A | µF/VDB | Pa | °C | p. 416 f. |
| *6E 500 | M6E 110-EF | 0° | (A) | 1~ 230 | 50 | 890 | 0.30 | 1.32 | 8.0/400 | 70 | -40 to +80 | A2b) |
| *6E 500 | M6E 110-EF | -5° | (B) | 1~ 230 | 50 | 910 | 0.27 | 1.19 | 8.0/450 | 80 | -40 to +85 | A2b) |
| *6E 500 | M6E 110-EF | -10° | (C) | 1~ 230 | 50 | 930 | 0.25 | 1.10 | 8.0/450 | 85 | -40 to +85 | A2b) |
| *8E 500 | M8E 110-EF | 0° | (D) | 1~ 230 | 50 | 690 | 0.19 | 1.11 | 4.0/450 | 40 | -40 to +80 | A2b) |

subject to alterations

(1) Nominal data in operating point 3 with maximum load

Curves

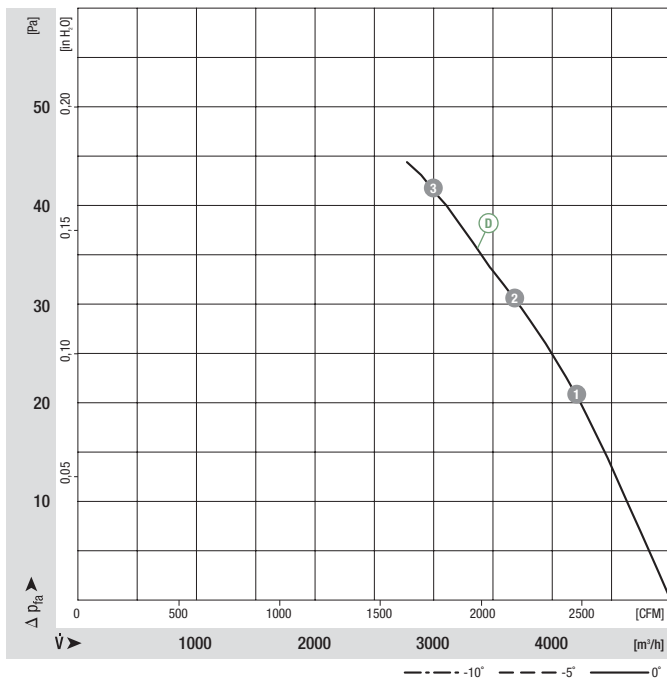


| | n [rpm] | P ₁ [kW] | I [A] | Lw _A [dB(A)] |
|-------|---------|---------------------|-------|-------------------------|
| (A) 1 | 910 | 0.28 | 1.20 | 71 |
| (A) 2 | 900 | 0.29 | 1.25 | 69 |
| (A) 3 | 890 | 0.30 | 1.32 | 70 |
| (B) 1 | 935 | 0.24 | 1.04 | 69 |
| (B) 2 | 925 | 0.25 | 1.09 | 69 |
| (B) 3 | 910 | 0.27 | 1.19 | 72 |
| (C) 1 | 945 | 0.23 | 0.99 | 69 |
| (C) 2 | 940 | 0.24 | 1.04 | 71 |
| (C) 3 | 930 | 0.25 | 1.10 | 74 |

- **Motor protection:** Design with thermal overload protector
- **Cable exit:** Via terminal box
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** VDE (acc. to EN 60034)

| Direction of air flow | | | | | | | | |
|-----------------------|---------------------|-------------------------|-----------------------------------|------------------------------------|-----------------------------------|------------------------------------|------------------|---|
| | < "V"/"A" > | < "V"/"A" > | < "V" > | < "V" > | "A" > | "A" > | < "V" > | |
| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle | With guard grille for short nozzle | In-line duct fan | |
| "V" | A6E 500-AG03 -01 | W6E 500-GG03 -01 | S6E 500-CG03 -01 | S6E 500-AG03 -01 | — | — | W6E 500-IG03 -01 | — |
| "A" | A6E 500-AG03 -02 | W6E 500-DG03 -02 | — | — | S6E 500-BG03 -02 | S6E 500-AG03 -02 | — | — |
| "V" | A6E 500-AH03 -01 | W6E 500-GH03 -01 | S6E 500-CH03 -01 | S6E 500-AH03 -01 | — | — | — | — |
| "A" | A6E 500-AH03 -02 | W6E 500-DH03 -02 | — | — | S6E 500-BH03 -02 | S6E 500-AH03 -02 | — | — |
| "V" | A6E 500-AI03 -01 | W6E 500-GI03 -01 | S6E 500-CI03 -01 | S6E 500-AI03 -01 | — | — | — | — |
| "A" | A6E 500-AI03 -02 | W6E 500-DI03 -02 | — | — | S6E 500-BI03 -02 | S6E 500-AI03 -02 | — | — |
| "V" | A8E 500-AG01 -01 | W8E 500-GG01 -01 | S8E 500-CG01 -01 | S8E 500-AG01 -01 | — | — | — | — |
| "A" | A8E 500-AG01 -02 | W8E 500-DG01 -02 | — | — | S8E 500-BG01 -02 | S8E 500-AG01 -02 | — | — |

Curves

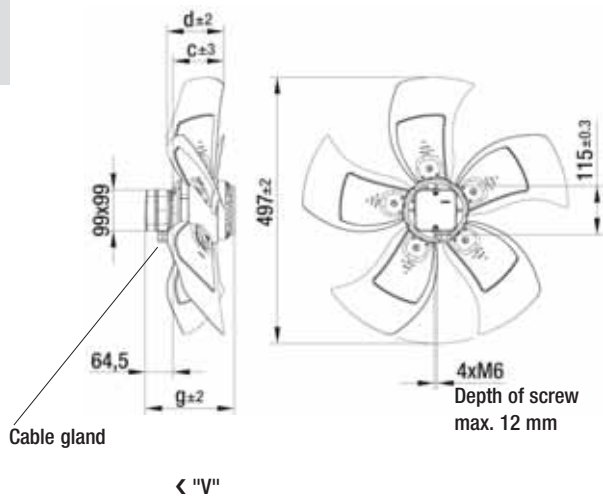


| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] |
|-----|---------|---------------------|-------|-------------------------|
| ⊙ 1 | 695 | 0.18 | 1.09 | 64 |
| ⊙ 2 | 695 | 0.19 | 1.10 | 63 |
| ⊙ 3 | 690 | 0.19 | 1.11 | 63 |

AC axial fans

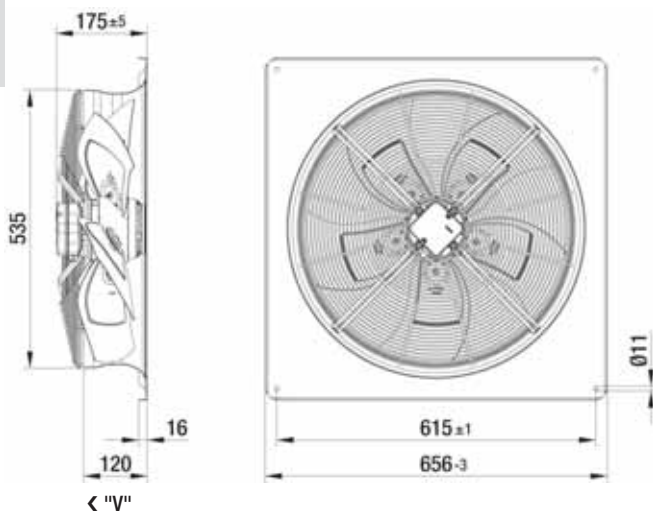
S series, Ø 500, drawings for direction of air flow "V"

Without attachments



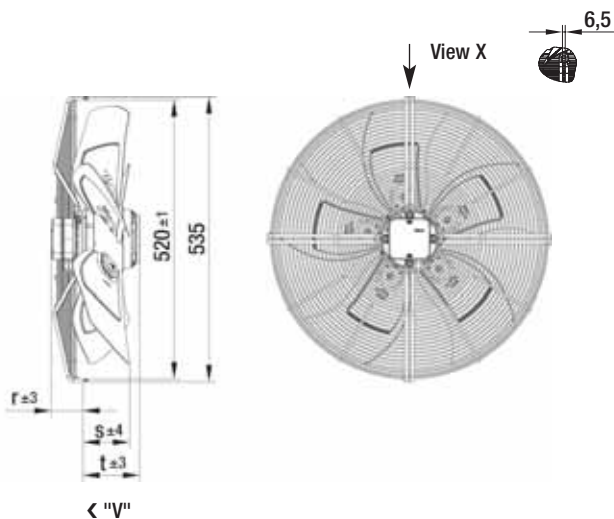
| Type | Mass [kg] | c | d | g |
|------------------|-----------|-------|-------|-------|
| A4D 500-AI01 -01 | 8.8 | 92.0 | 78.0 | 188.5 |
| A4D 500-AD03 -01 | 11.0 | 104.0 | 101.0 | 208.5 |
| A4D 500-AE03 -01 | 11.0 | 98.0 | 89.0 | 208.5 |
| A6D 500-AG03 -01 | 8.8 | 104.0 | 101.0 | 188.5 |
| A6D 500-AH03 -01 | 8.8 | 98.0 | 89.0 | 188.5 |
| A6D 500-AI03 -01 | 8.8 | 92.0 | 78.0 | 188.5 |
| A8D 500-AG01 -01 | 8.8 | 104.0 | 101.0 | 188.5 |
| A4E 500-AI01 -01 | 8.8 | 92.0 | 78.0 | 188.5 |
| A4E 500-AD03 -01 | 11.0 | 104.0 | 101.0 | 208.5 |
| A4E 500-AE03 -01 | 11.0 | 98.0 | 89.0 | 208.5 |
| A6E 500-AG03 -01 | 8.8 | 104.0 | 101.0 | 188.5 |
| A6E 500-AH03 -01 | 8.8 | 98.0 | 89.0 | 188.5 |
| A6E 500-AI03 -01 | 8.8 | 92.0 | 78.0 | 188.5 |
| A8E 500-AG01 -01 | 8.8 | 104.0 | 101.0 | 188.5 |

With full square nozzle



| Type | Mass [kg] |
|------------------|-----------|
| W4D 500-GI01 -01 | 18.6 |
| W4D 500-GD03 -01 | 21.0 |
| W4D 500-GE03 -01 | 21.0 |
| W6D 500-GG03 -01 | 18.6 |
| W6D 500-GH03 -01 | 18.6 |
| W6D 500-GI03 -01 | 18.6 |
| W8D 500-GG01 -01 | 18.6 |
| W4E 500-GI01 -01 | 18.6 |
| W4E 500-GD03 -01 | 21.0 |
| W4E 500-GE03 -01 | 21.0 |
| W6E 500-GG03 -01 | 18.6 |
| W6E 500-GH03 -01 | 18.6 |
| W6E 500-GI03 -01 | 18.6 |
| W8E 500-GG01 -01 | 18.6 |

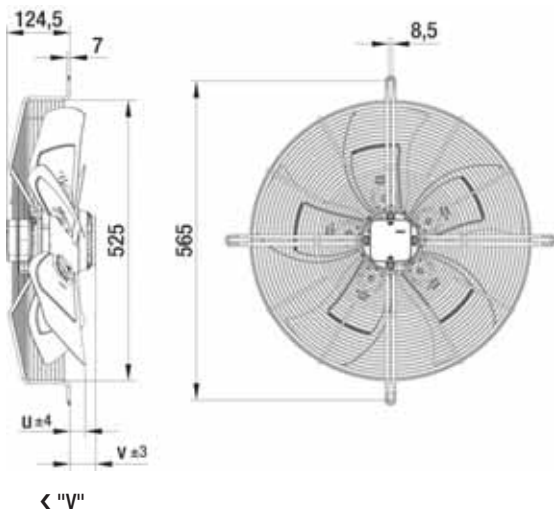
With guard grille for full nozzle



| Type | Mass [kg] | r | s | t |
|------------------|-----------|------|-------|-------|
| S4D 500-CI01 -01 | 12.6 | 63.5 | 91.0 | 123.0 |
| S4D 500-CD03 -01 | 14.8 | 65.5 | 103.0 | 143.0 |
| S4D 500-CE03 -01 | 14.8 | 65.5 | 97.0 | 143.0 |
| S6D 500-CG03 -01 | 12.6 | 65.5 | 103.0 | 123.0 |
| S6D 500-CH03 -01 | 12.6 | 65.5 | 97.0 | 123.0 |
| S6D 500-CI03 -01 | 12.6 | 63.5 | 97.0 | 123.0 |
| S8D 500-CG01 -01 | 12.6 | 63.5 | 103.0 | 123.0 |
| S4E 500-CI01 -01 | 12.6 | 63.5 | 91.0 | 123.0 |
| S4E 500-CD03 -01 | 14.8 | 65.5 | 103.0 | 143.0 |
| S4E 500-CE03 -01 | 14.8 | 65.5 | 97.0 | 143.0 |
| S6E 500-CG03 -01 | 12.6 | 63.5 | 103.0 | 123.0 |
| S6E 500-CH03 -01 | 12.6 | 63.5 | 97.0 | 123.0 |
| S6E 500-CI03 -01 | 12.6 | 63.5 | 97.0 | 123.0 |
| S8E 500-CG01 -01 | 12.6 | 63.5 | 103.0 | 123.0 |



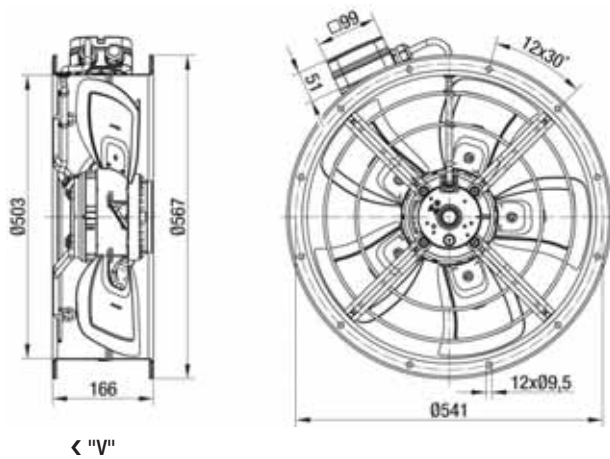
With guard grille for short nozzle



| Type | Mass [kg] | u | v |
|------------------|-----------|------|------|
| S4D 500-AI01 -01 | 13.3 | 32.0 | 64.0 |
| S4D 500-AD03 -01 | 15.5 | 44.0 | 84.0 |
| S4D 500-AE03 -01 | 15.5 | 38.0 | 84.0 |
| S6D 500-AG03 -01 | 13.3 | 44.0 | 64.0 |
| S6D 500-AH03 -01 | 13.3 | 38.0 | 64.0 |
| S6D 500-AI03 -01 | 13.3 | 32.0 | 64.0 |
| S8D 500-AG01 -01 | 13.3 | 44.0 | 64.0 |
| S4E 500-AI01 -01 | 13.3 | 32.0 | 64.0 |
| S4E 500-AD03 -01 | 15.5 | 44.0 | 84.0 |
| S4E 500-AE03 -01 | 15.5 | 38.0 | 84.0 |
| S6E 500-AG03 -01 | 13.3 | 44.0 | 64.0 |
| S6E 500-AH03 -01 | 13.3 | 38.0 | 64.0 |
| S6E 500-AI03 -01 | 13.3 | 32.0 | 64.0 |
| S8E 500-AG01 -01 | 13.3 | 44.0 | 64.0 |



In-line duct fan

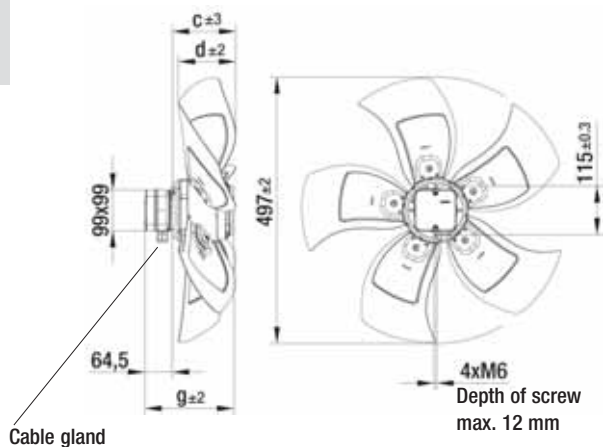


| Type | Mass [kg] |
|------------------|-----------|
| W4D 500-ID03 -01 | 16.8 |
| W4E 500-ID03 -01 | 16.8 |
| W6E 500-IG03 -01 | 14.8 |

AC axial fans

S series, Ø 500, drawings for direction of air flow "A"

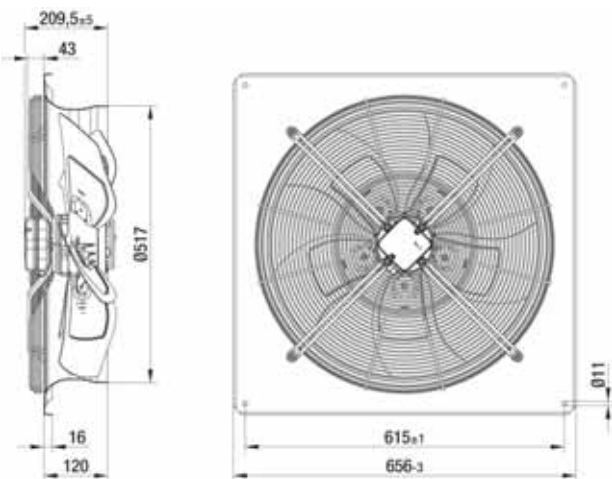
Without attachments



"A" >

| Type | Mass [kg] | c | d | g |
|------------------|-----------|-------|-------|-------|
| A4D 500-AI01 -02 | 8.8 | 95.0 | 78.0 | 188.5 |
| A4D 500-AD03 -02 | 11.0 | 131.0 | 101.0 | 208.5 |
| A4D 500-AE03 -02 | 11.0 | 126.0 | 89.0 | 208.5 |
| A6D 500-AG03 -02 | 8.8 | 131.0 | 101.0 | 188.5 |
| A6D 500-AH03 -02 | 8.8 | 126.0 | 89.0 | 188.5 |
| A6D 500-AI03 -02 | 8.8 | 120.0 | 78.0 | 188.5 |
| A8D 500-AG01 -02 | 8.8 | 131.0 | 101.0 | 188.5 |
| A4E 500-AI01 -02 | 8.8 | 120.0 | 78.0 | 188.5 |
| A4E 500-AD03 -02 | 11.0 | 131.0 | 101.0 | 208.5 |
| A4E 500-AE03 -02 | 11.0 | 126.0 | 89.0 | 208.5 |
| A6E 500-AG03 -02 | 8.8 | 131.0 | 101.0 | 188.5 |
| A6E 500-AH03 -02 | 8.8 | 126.0 | 89.0 | 188.5 |
| A6E 500-AI03 -02 | 8.8 | 120.0 | 78.0 | 188.5 |
| A8E 500-AG01 -02 | 8.8 | 131.0 | 101.0 | 188.5 |

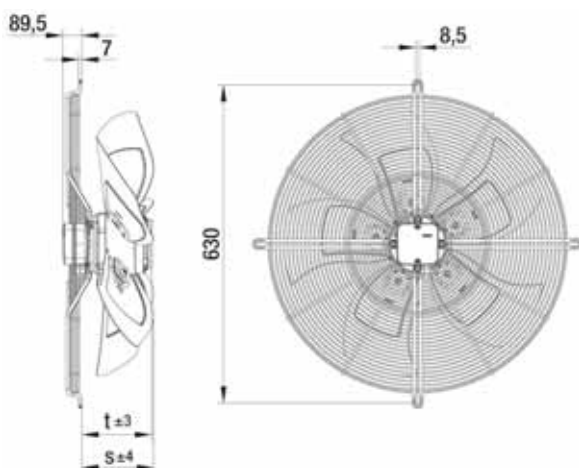
With full square nozzle



"A" >

| Type | Mass [kg] |
|------------------|-----------|
| W4D 500-DI01 -02 | 18.8 |
| W4D 500-DD03 -02 | 21.0 |
| W4D 500-DE03 -02 | 21.0 |
| W6D 500-DG03 -02 | 18.8 |
| W6D 500-DH03 -02 | 18.8 |
| W6D 500-DI03 -02 | 18.8 |
| W8D 500-DG01 -02 | 18.8 |
| W4E 500-DI01 -02 | 18.8 |
| W4E 500-DD03 -02 | 21.0 |
| W4E 500-DE03 -02 | 21.0 |
| W6E 500-DG03 -02 | 18.8 |
| W6E 500-DH03 -02 | 18.8 |
| W6E 500-DI03 -02 | 18.8 |
| W8E 500-DG01 -02 | 18.8 |

With guard grille for full nozzle

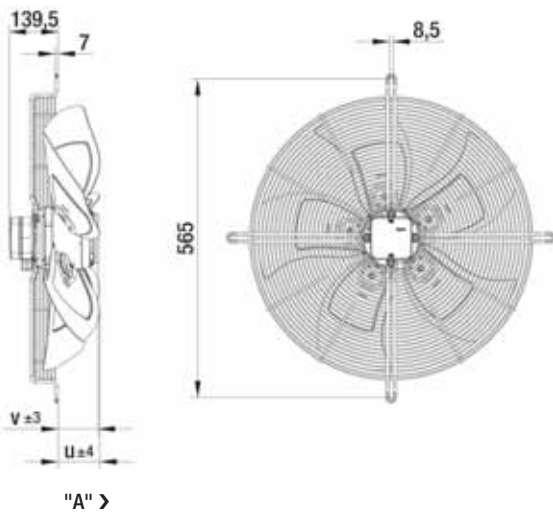


"A" >

| Type | Mass [kg] | s | t |
|------------------|-----------|-------|-------|
| S4D 500-BI01 -02 | 12.6 | 95.0 | 99.0 |
| S4D 500-BD03 -02 | 14.8 | 119.0 | 106.0 |
| S4D 500-BE03 -02 | 14.8 | 119.0 | 101.0 |
| S6D 500-BG03 -02 | 12.6 | 99.0 | 106.0 |
| S6D 500-BH03 -02 | 12.6 | 99.0 | 101.0 |
| S6D 500-BI03 -02 | 12.6 | 95.0 | 99.0 |
| S8D 500-BG01 -02 | 12.6 | 106.0 | 99.0 |
| S4E 500-BI01 -02 | 12.6 | 95.0 | 99.0 |
| S4E 500-BD03 -02 | 14.8 | 119.0 | 106.0 |
| S4E 500-BE03 -02 | 14.8 | 119.0 | 101.0 |
| S6E 500-BG03 -02 | 12.6 | 106.0 | 99.0 |
| S6E 500-BH03 -02 | 12.6 | 101.0 | 99.0 |
| S6E 500-BI03 -02 | 12.6 | 95.0 | 99.0 |
| S8E 500-BG01 -02 | 12.6 | 106.0 | 99.0 |



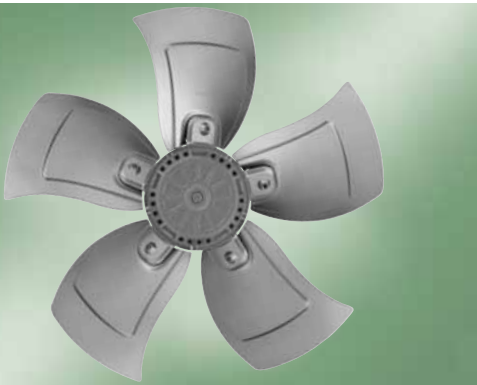
With guard grille for short nozzle



| Type | Mass [kg] | u | v |
|------------------|-----------|------|------|
| S4D 500-AI01 -02 | 12.3 | 45.0 | 49.0 |
| S4D 500-AD03 -02 | 14.5 | 56.0 | 69.0 |
| S4D 500-AE03 -02 | 14.5 | 51.0 | 69.0 |
| S6D 500-AG03 -02 | 12.3 | 56.0 | 49.0 |
| S6D 500-AH03 -02 | 12.3 | 51.0 | 49.0 |
| S6D 500-AI03 -02 | 12.3 | 45.0 | 49.0 |
| S8D 500-AG01 -02 | 12.3 | 56.0 | 49.0 |
| S4E 500-AI01 -02 | 12.3 | 45.0 | 49.0 |
| S4E 500-AD03 -02 | 14.5 | 56.0 | 69.0 |
| S4E 500-AE03 -02 | 14.5 | 51.0 | 69.0 |
| S6E 500-AG03 -02 | 12.3 | 56.0 | 49.0 |
| S6E 500-AH03 -02 | 12.3 | 51.0 | 49.0 |
| S6E 500-AI03 -02 | 12.3 | 45.0 | 49.0 |
| S8E 500-AG01 -02 | 12.3 | 56.0 | 49.0 |

AC axial fans

S series, Ø 560



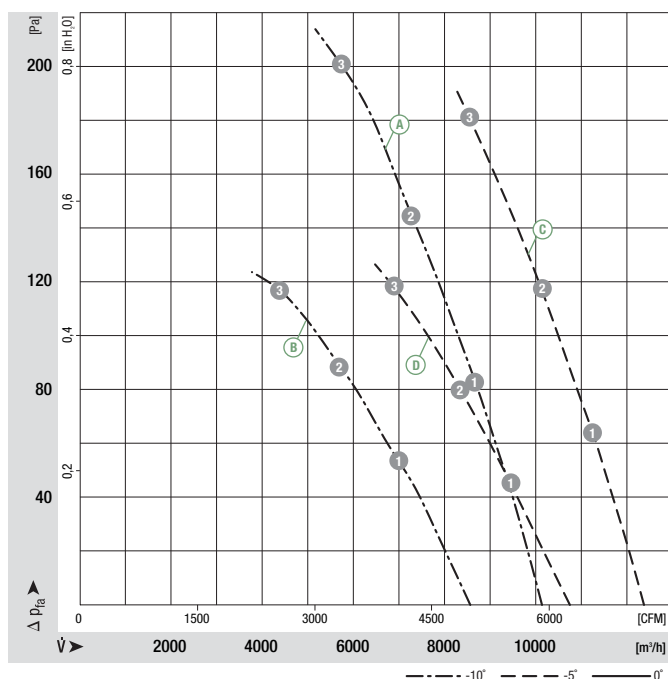
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Sheet aluminium
Rotor: Encased in aluminium
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Any
- **Condensate discharge holes:** On rotor and stator side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Blade angle | Curve | Nominal voltage | Frequency | Speed/rpm ⁽¹⁾ | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Capacitor | Max. operative range | Perm. amb. temp. | Electr. connection |
|--------------|------------|-------------|-------|-----------------|-----------|--------------------------|---------------------------------|----------------------------------|-----------|----------------------|------------------|--------------------|
| Type | Motor | | | VAC | Hz | rpm | kW | A | µF/VDB | Pa | °C | p. 416 f. |
| *4D 560 | M4D 110-GF | -10° | (A) | 3~ 400 Δ | 50 | 1305 | 0.93 | 1.78 | — | 195 | -40 to +65 | F1b)/F2b) |
| | | | (B) | 3~ 400 Y | 50 | 995 | 0.60 | 1.05 | — | 110 | -40 to +65 | |
| *4D 560 | M4D 110-IA | -5° | (C) | 3~ 400 Δ | 50 | 1355 | 1.17 | 2.53 | — | 170 | -40 to +60 | F1b)/F2b) |
| | | | (D) | 3~ 400 Y | 50 | 1080 | 0.80 | 1.45 | — | 113 | -40 to +60 | |
| *6D 560 | M6D 110-EF | 0° | (E) | 3~ 400 Δ | 50 | 860 | 0.50 | 0.95 | — | 80 | -40 to +55 | F1b)/F2b) |
| | | | (F) | 3~ 400 Y | 50 | 615 | 0.30 | 0.52 | — | 40 | -40 to +55 | |
| *6D 560 | M6D 110-EF | -5° | (G) | 3~ 400 Δ | 50 | 890 | 0.43 | 0.90 | — | 90 | -40 to +70 | F1b)/F2b) |
| | | | (H) | 3~ 400 Y | 50 | 660 | 0.28 | 0.48 | — | 50 | -40 to +70 | |

subject to alterations

(1) Nominal data in operating point 3 with maximum load

Curves

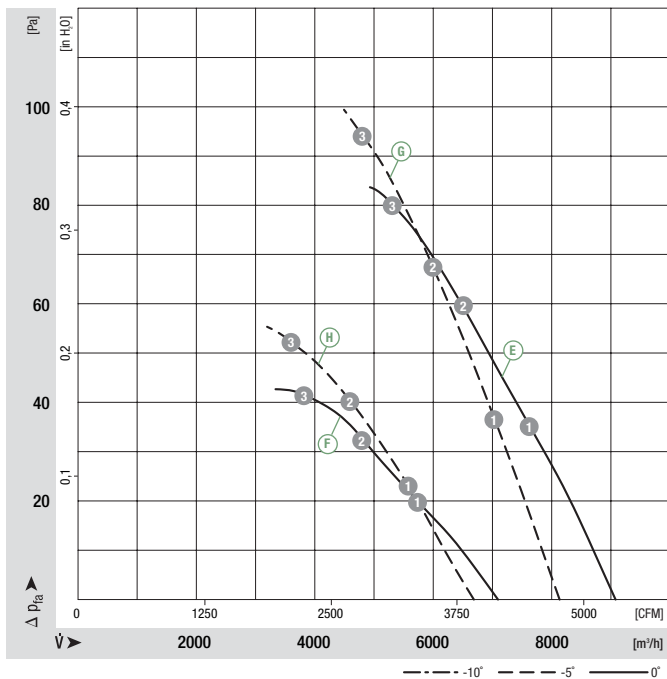


| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] |
|-------|---------|---------------------|-------|-------------------------|
| (A) 1 | 1350 | 0.76 | 1.50 | 79 |
| (A) 2 | 1330 | 0.84 | 1.60 | 79 |
| (A) 3 | 1305 | 0.93 | 1.78 | 80 |
| (B) 1 | 1085 | 0.53 | 0.89 | 76 |
| (B) 2 | 1040 | 0.56 | 0.95 | 75 |
| (B) 3 | 995 | 0.60 | 1.05 | 75 |
| (C) 1 | 1385 | 0.99 | 2.33 | 80 |
| (C) 2 | 1370 | 1.07 | 2.45 | 80 |
| (C) 3 | 1355 | 1.17 | 2.53 | 81 |
| (D) 1 | 1155 | 0.72 | 1.28 | 77 |
| (D) 2 | 1125 | 0.76 | 1.35 | 76 |
| (D) 3 | 1080 | 0.80 | 1.45 | 77 |

- **Motor protection:** Design with thermal overload protector
- **Cable exit:** Via terminal box
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** VDE (acc. to EN 60034)

| Direction of air flow | < "V"/"A" > | | < "V"/"A" > | | < "V" > | | < "V" > | | "A" > | | "A" > | | < "V" > | |
|-----------------------|---------------------|------------------|-------------------------|------------------|-----------------------------------|---|------------------------------------|---|-----------------------------------|------------------|------------------------------------|---|------------------|------------------|
| | Without attachments | | With full square nozzle | | With guard grille for full nozzle | | With guard grille for short nozzle | | With guard grille for full nozzle | | With guard grille for short nozzle | | In-line duct fan | |
| "V" | A4D 560-AF03 -01 | W4D 560-GF03 -01 | S4D 560-CF03 -01 | S4D 560-AF03 -01 | — | — | — | — | S4D 560-BF03 -02 | S4D 560-AF03 -02 | — | — | — | — |
| "A" | A4D 560-AF03 -02 | W4D 560-DF03 -02 | — | — | — | — | — | — | — | — | — | — | — | — |
| "V" | A4D 560-AB01 -01 | W4D 560-GB01 -01 | S4D 560-CB01 -01 | S4D 560-AB01 -01 | — | — | — | — | — | — | — | — | — | W4D 560-IB01 -01 |
| "A" | A4D 560-AB01 -02 | W4D 560-DB01 -02 | — | — | — | — | — | — | S4D 560-BB01 -02 | S4D 560-AB01 -02 | — | — | — | — |
| "V" | A6D 560-AG03 -01 | W6D 560-GG03 -01 | S6D 560-CG03 -01 | S6D 560-AG03 -01 | — | — | — | — | — | — | — | — | — | W6D 560-IG03 -01 |
| "A" | A6D 560-AG03 -02 | W6D 560-DG03 -02 | — | — | — | — | — | — | S6D 560-BG03 -02 | S6D 560-AG03 -02 | — | — | — | — |
| "V" | A6D 560-AH03 -01 | W6D 560-GH03 -01 | S6D 560-CH03 -01 | S6D 560-AH03 -01 | — | — | — | — | — | — | — | — | — | — |
| "A" | A6D 560-AH03 -02 | W6D 560-DH03 -02 | — | — | — | — | — | — | S6D 560-BH03 -02 | S6D 560-AH03 -02 | — | — | — | — |

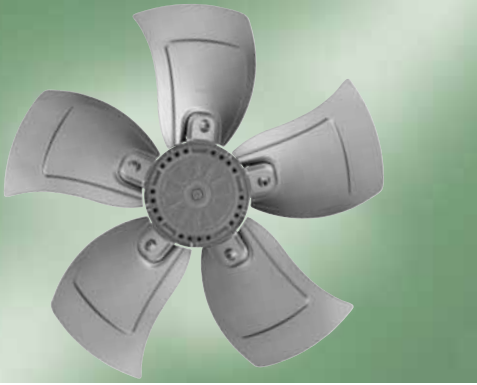
Curves



| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] |
|-----|---------|---------------------|-------|-------------------------|
| E 1 | 885 | 0.43 | 0.87 | 73 |
| E 2 | 875 | 0.46 | 0.89 | 73 |
| E 3 | 860 | 0.50 | 0.95 | 74 |
| F 1 | 670 | 0.28 | 0.49 | 66 |
| F 2 | 645 | 0.29 | 0.50 | 66 |
| F 3 | 615 | 0.30 | 0.52 | 66 |
| G 1 | 915 | 0.36 | 0.78 | 71 |
| G 2 | 900 | 0.39 | 0.81 | 71 |
| G 3 | 890 | 0.43 | 0.90 | 71 |
| H 1 | 720 | 0.25 | 0.40 | 66 |
| H 2 | 695 | 0.26 | 0.42 | 65 |
| H 3 | 660 | 0.28 | 0.48 | 64 |

AC axial fans

S series, Ø 560



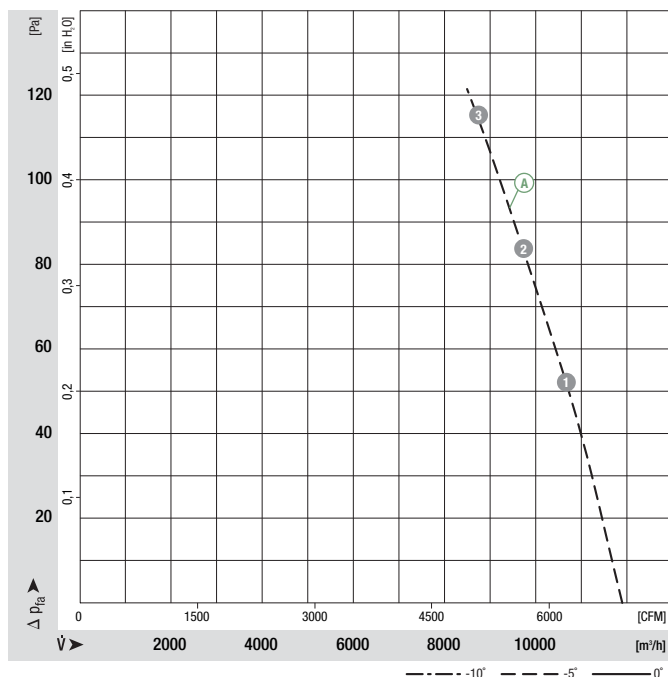
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Sheet aluminium
Rotor: Encased in aluminium
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Any
- **Condensate discharge holes:** On rotor and stator side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Blade angle | Curve | Nominal voltage | Frequency | Speed/rpm ⁽¹⁾ | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Capacitor | Max. operative range | Perm. amb. temp. | Electr. connection |
|--------------|------------|-------------|-------|-----------------|-----------|--------------------------|---------------------------------|----------------------------------|-----------|----------------------|------------------|--------------------|
| Type | Motor | | | VAC | Hz | rpm | kW | A | µF/VDB | Pa | °C | p. 416 f. |
| *4E 560 | M4E 110-IA | -5° | A | 1~ 230 | 50 | 1300 | 1.05 | 4.60 | 20.0/400 | 110 | -40 to +60 | A2b) |
| *6E 560 | M6E 110-GF | -5° | B | 1~ 230 | 50 | 910 | 0.43 | 1.95 | 10.0/450 | 90 | -40 to +70 | A2b) |

subject to alterations

(1) Nominal data in operating point 3 with maximum load

Curves

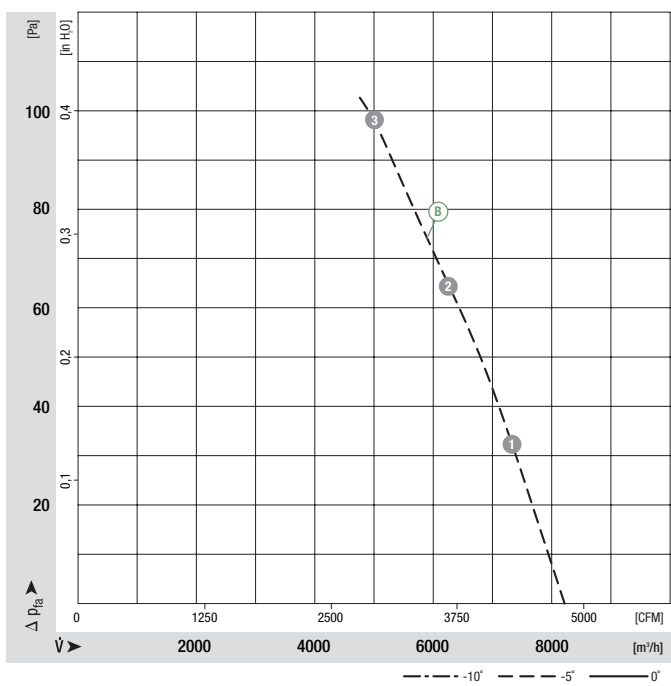


| | n [rpm] | P ₁ [kW] | I [A] | Lw _A [dB(A)] |
|-----|---------|---------------------|-------|-------------------------|
| A 1 | 1330 | 0.97 | 4.21 | 79 |
| A 2 | 1310 | 1.01 | 4.39 | 79 |
| A 3 | 1300 | 1.05 | 4.60 | 79 |

- **Motor protection:** Design with thermal overload protector
- **Cable exit:** Via terminal box
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** VDE (acc. to EN 60034)

| Direction of air flow | | | | | | | |
|-----------------------|---------------------|-------------------------|-----------------------------------|------------------------------------|-----------------------------------|------------------------------------|------------------|
| | < "V"/"A" > | < "V"/"A" > | < "V" > | < "V" > | "A" > | "A" > | < "V" > |
| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle | With guard grille for short nozzle | In-line duct fan |
| "V" | A4E 560-AB01 -01 | W4E 560-GB01 -01 | S4E 560-CB01 -01 | S4E 560-AB01 -01 | — | — | W4E 560-IB01 -01 |
| "A" | A4E 560-AB01 -02 | W4E 560-DB01 -02 | — | — | S4E 560-BB01 -02 | S4E 560-AB01 -02 | — |
| "V" | A6E 560-AE01 -01 | W6E 560-GE01 -01 | S6E 560-CE01 -01 | S6E 560-AE01 -01 | — | — | — |
| "A" | A6E 560-AE01 -02 | W6E 560-DE01 -02 | — | — | S6E 560-BE01 -02 | S6E 560-AE01 -02 | — |

Curves



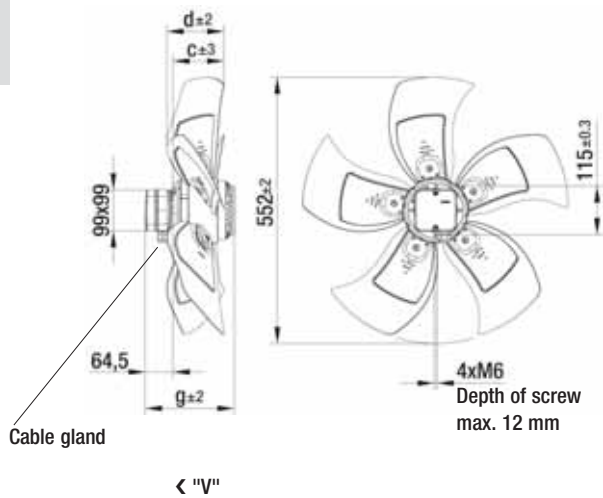
| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] |
|-----|---------|---------------------|-------|-------------------------|
| ⓑ 1 | 935 | 0.37 | 1.65 | 73 |
| ⓑ 2 | 925 | 0.39 | 1.80 | 72 |
| ⓑ 3 | 910 | 0.43 | 1.95 | 72 |

AC axial fans

S series, Ø 560, drawings for direction of air flow "V"



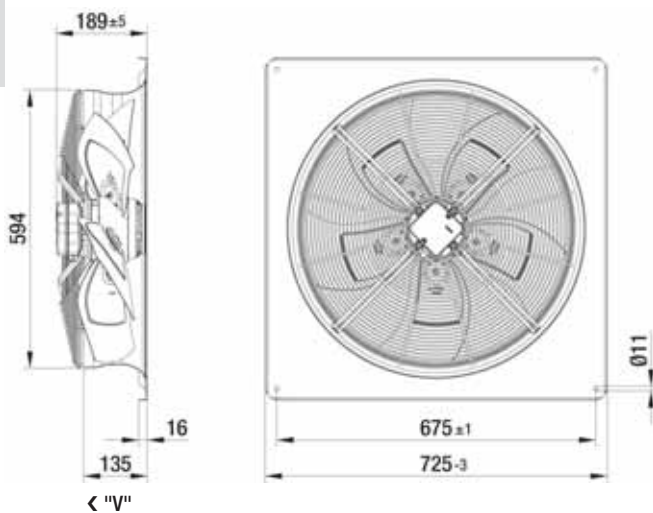
Without attachments



| Type | Mass [kg] | c | d | g |
|------------------|-----------|-------|-------|-------|
| A4D 560-AF03 -01 | 11.5 | 95.0 | 96.0 | 208.5 |
| A4D 560-AB01 -01 | 13.5 | 105.0 | 113.0 | 223.5 |
| A6D 560-AG03 -01 | 9.0 | 114.0 | 129.0 | 188.5 |
| A6D 560-AH03 -01 | 9.0 | 105.0 | 113.0 | 188.5 |
| A4E 560-AB01 -01 | 13.5 | 105.0 | 113.0 | 223.5 |
| A6E 560-AE01 -01 | 11.5 | 105.0 | 113.0 | 208.5 |



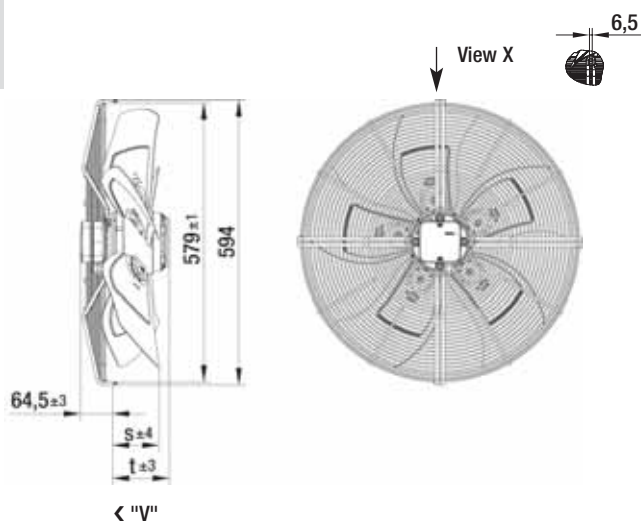
With full square nozzle



| Type | Mass [kg] |
|------------------|-----------|
| W4D 560-GF03 -01 | 20.0 |
| W4D 560-GB01 -01 | 21.5 |
| W6D 560-GG03 -01 | 18.0 |
| W6D 560-GH03 -01 | 18.0 |
| W4E 560-GB01 -01 | 21.5 |
| W6E 560-GE01 -01 | 20.0 |



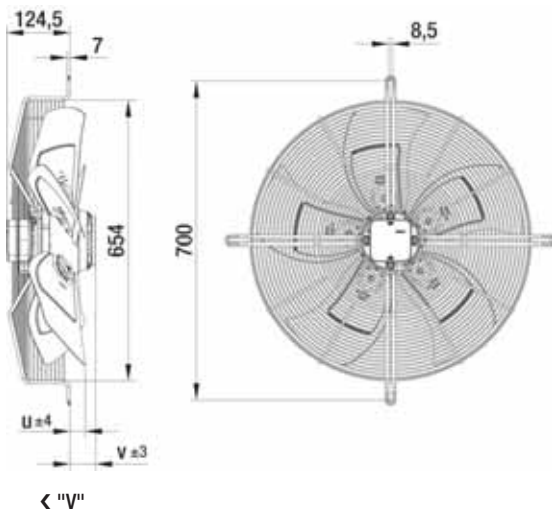
With guard grille for full nozzle



| Type | Mass [kg] | s | t |
|------------------|-----------|-------|-------|
| S4D 560-CF03 -01 | 14.0 | 95.0 | 144.0 |
| S4D 560-CB01 -01 | 15.5 | 105.0 | 159.0 |
| S6D 560-CG03 -01 | 12.0 | 114.0 | 124.0 |
| S6D 560-CH03 -01 | 12.0 | 105.0 | 124.0 |
| S4E 560-CB01 -01 | 15.5 | 105.0 | 159.0 |
| S6E 560-CE01 -01 | 14.0 | 105.0 | 144.0 |



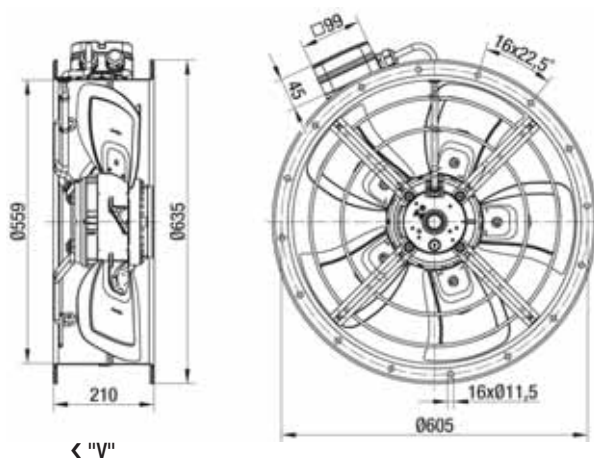
With guard grille for short nozzle



| Type | Mass [kg] | u | v |
|------------------|-----------|------|------|
| S4D 560-AF03 -01 | 15.5 | 35.0 | 84.0 |
| S4D 560-AB01 -01 | 17.0 | 45.0 | 99.0 |
| S6D 560-AG03 -01 | 13.5 | 54.0 | 64.0 |
| S6D 560-AH03 -01 | 13.5 | 45.0 | 64.0 |
| S4E 560-AB01 -01 | 17.0 | 45.0 | 99.0 |
| S6E 560-AE01 -01 | 15.5 | 45.0 | 84.0 |



In-line duct fan



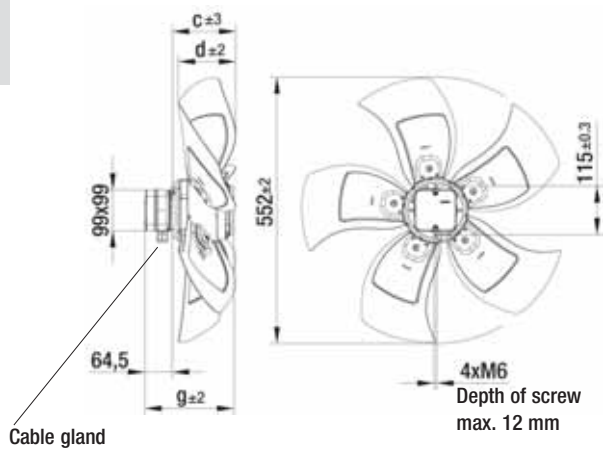
| Type | Mass [kg] |
|------------------|-----------|
| W4D 560-IB01 -01 | 20.9 |
| W6D 560-IG03 -01 | 16.4 |
| W4E 560-IB01 -01 | 20.9 |

AC axial fans

S series, Ø 560, drawings for direction of air flow "A"



Without attachments

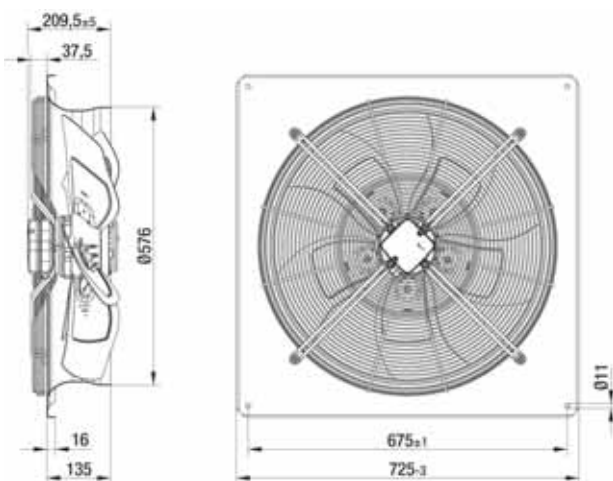


"A" >

| Type | Mass [kg] | c | d | g |
|------------------|-----------|-------|-------|-------|
| A4D 560-AF03 -02 | 11.5 | 134.0 | 96.0 | 208.5 |
| A4D 560-AB01 -02 | 13.5 | 142.0 | 113.0 | 223.5 |
| A6D 560-AG03 -02 | 9.0 | 149.0 | 129.0 | 188.5 |
| A6D 560-AH03 -02 | 9.0 | 142.0 | 113.0 | 188.5 |
| A4E 560-AB01 -02 | 13.5 | 142.0 | 113.0 | 223.5 |
| A6E 560-AE01 -02 | 11.5 | 142.0 | 113.0 | 208.5 |



With full square nozzle

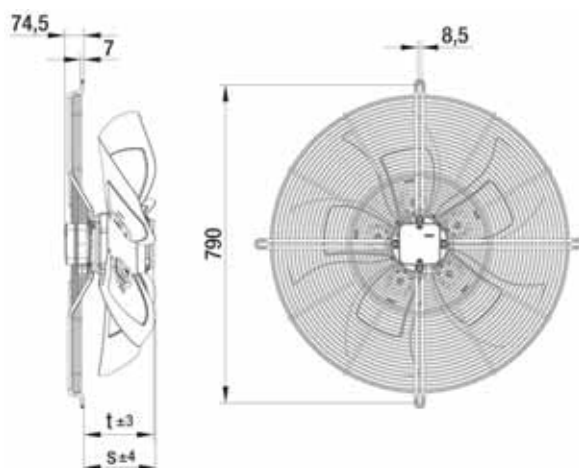


"A" >

| Type | Mass [kg] |
|------------------|-----------|
| W4D 560-DF03 -02 | 20.3 |
| W4D 560-DB01 -02 | 21.8 |
| W6D 560-DG03 -02 | 18.3 |
| W6D 560-DH03 -02 | 18.3 |
| W4E 560-DB01 -02 | 21.8 |
| W6E 560-DE01 -02 | 20.3 |



With guard grille for full nozzle

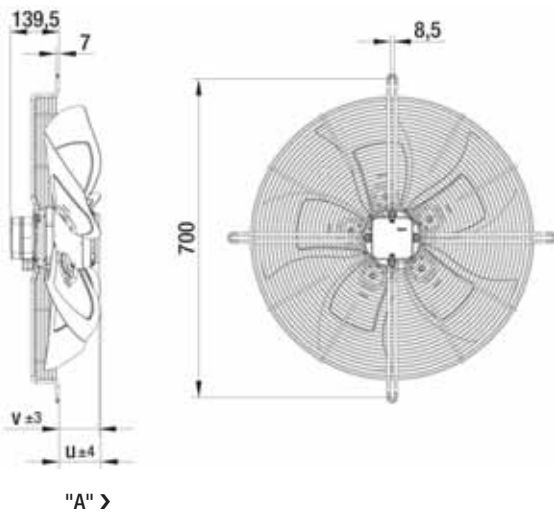


"A" >

| Type | Mass [kg] | s | t |
|------------------|-----------|-------|-------|
| S4D 560-BF03 -02 | 14.0 | 134.0 | 124.0 |
| S4D 560-BB01 -02 | 15.5 | 149.0 | 132.0 |
| S6D 560-BG03 -02 | 12.0 | 114.0 | 139.0 |
| S6D 560-BH03 -02 | 12.0 | 114.0 | 132.0 |
| S4E 560-BB01 -02 | 15.5 | 149.0 | 132.0 |
| S6E 560-BE01 -02 | 14.0 | 134.0 | 132.0 |



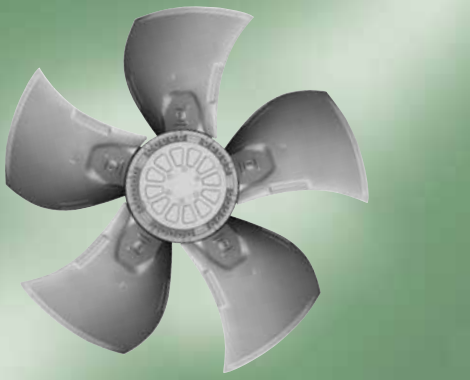
With guard grille for short nozzle



| Type | Mass [kg] | u | v |
|------------------|-----------|------|------|
| S4D 560-AF03 -02 | 14.5 | 59.0 | 69.0 |
| S4D 560-AB01 -02 | 16.0 | 67.0 | 84.0 |
| S6D 560-AG03 -02 | 12.5 | 74.0 | 49.0 |
| S6D 560-AH03 -02 | 12.5 | 67.0 | 49.0 |
| S4E 560-AB01 -02 | 16.0 | 67.0 | 84.0 |
| S6E 560-AE01 -02 | 14.5 | 67.0 | 69.0 |

AC axial fans

S series, Ø 630



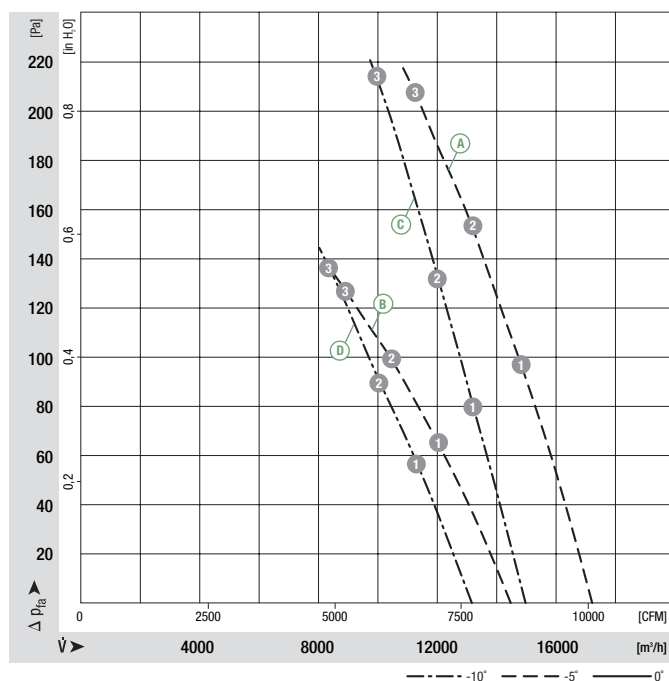
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Die-cast aluminium
Rotor: Encased in aluminium
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" clockwise, direction of air flow "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Any
- **Condensate discharge holes:** On rotor and stator side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Blade angle | Curve | Nominal voltage | Frequency | Speed/rpm ⁽¹⁾ | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Capacitor | Max. operative range | Perm. amb. temp. | Electr. connection |
|--------------|------------|-------------|-------|-----------------|-----------|--------------------------|---------------------------------|----------------------------------|-----------|----------------------|------------------|--------------------|
| Type | Motor | | | VAC | Hz | rpm | kW | A | µF/VDB | Pa | °C | p. 416 f. |
| *4D 630 | M4D 138-HF | -5° | Ⓐ | 3~ 400 Δ | 50 | 1330 | 1.94 | 3.40 | — | 200 | -40 to +65 | F1b)/F2b) |
| | | | Ⓑ | 3~ 400 Y | 50 | 1040 | 1.29 | 2.20 | — | 120 | -40 to +65 | |
| *4D 630 | M4D 138-HF | -10° | Ⓒ | 3~ 400 Δ | 50 | 1360 | 1.62 | 3.02 | — | 200 | -40 to +65 | F1b)/F2b) |
| | | | Ⓓ | 3~ 400 Y | 50 | 1120 | 1.12 | 1.87 | — | 130 | -40 to +65 | |
| *4D 630 | M4D 138-LA | 0° | Ⓔ | 3~ 400 Δ | 50 | 1340 | 2.53 | 4.95 | — | 240 | -40 to +60 | F1b)/F2b) |
| | | | Ⓕ | 3~ 400 Y | 50 | 1045 | 1.64 | 2.88 | — | 145 | -40 to +60 | |

subject to alterations

(1) Nominal data in operating point 3 with maximum load

Curves

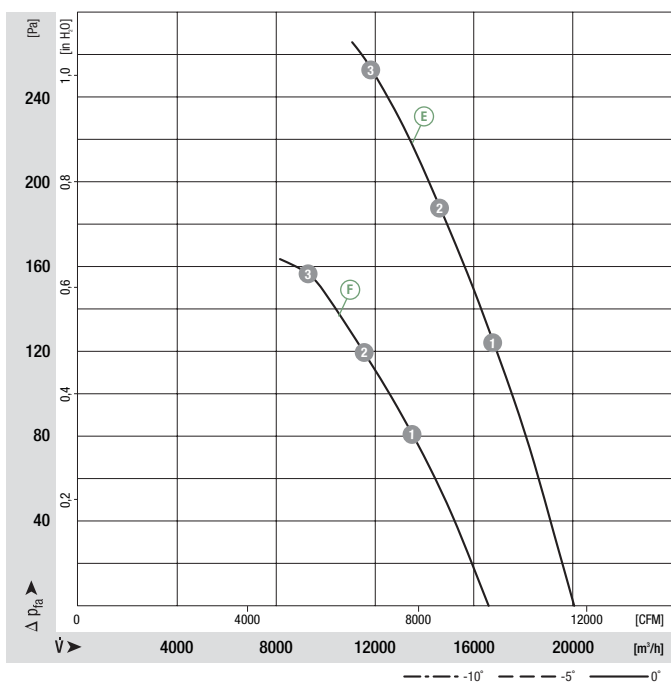


| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] |
|-----|---------|---------------------|-------|-------------------------|
| Ⓐ 1 | 1350 | 1.66 | 3.03 | 79 |
| Ⓐ 2 | 1335 | 1.78 | 3.17 | 79 |
| Ⓐ 3 | 1330 | 1.94 | 3.40 | 81 |
| Ⓑ 1 | 1095 | 1.16 | 1.95 | 73 |
| Ⓑ 2 | 1065 | 1.22 | 2.04 | 73 |
| Ⓑ 3 | 1040 | 1.29 | 2.20 | 75 |
| Ⓒ 1 | 1390 | 1.29 | 2.58 | 80 |
| Ⓒ 2 | 1380 | 1.41 | 2.70 | 80 |
| Ⓒ 3 | 1360 | 1.62 | 3.02 | 83 |
| Ⓓ 1 | 1190 | 0.98 | 1.65 | 76 |
| Ⓓ 2 | 1160 | 1.04 | 1.75 | 75 |
| Ⓓ 3 | 1120 | 1.12 | 1.87 | 78 |

- **Motor protection:** Design with thermal overload protector
- **Cable exit:** Via terminal box
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** VDE (acc. to EN 60034)

| Direction of air flow | | | | | | | |
|-----------------------|---------------------|-------------------------|-----------------------------------|------------------------------------|-----------------------------------|------------------------------------|------------------|
| | < "V"/"A" > | < "V"/"A" > | < "V" > | < "V" > | "A" > | "A" > | < "V" > |
| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle | With guard grille for short nozzle | In-line duct fan |
| "V" | A4D 630-AN01 -01 | W4D 630-GN01 -01 | S4D 630-CN01 -01 | S4D 630-AN01 -01 | — | — | W4D 630-IN01 -01 |
| "A" | A4D 630-AN01 -02 | W4D 630-DN01 -02 | — | — | S4D 630-BN01 -02 | — | — |
| "V" | A4D 630-A001 -01 | W4D 630-G001 -01 | S4D 630-C001 -01 | S4D 630-A001 -01 | — | — | — |
| "A" | A4D 630-A001 -02 | W4D 630-D001 -02 | — | — | S4D 630-B001 -02 | — | — |
| "V" | A4D 630-AJ01 -01 | W4D 630-GJ01 -01 | S4D 630-CJ01 -01 | S4D 630-AJ01 -01 | — | — | — |
| "A" | A4D 630-AJ01 -02 | W4D 630-DJ01 -02 | — | — | S4D 630-BJ01 -02 | — | — |

Curves



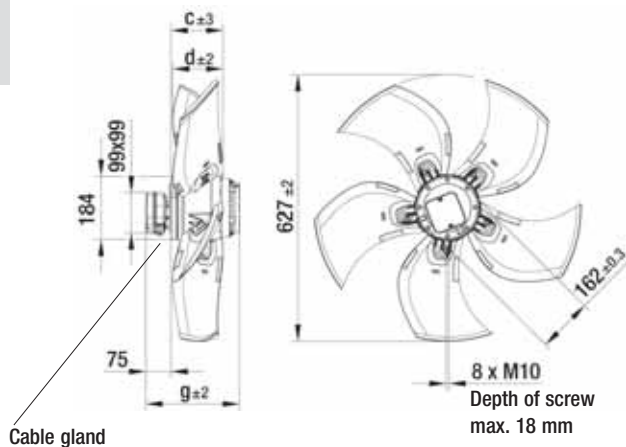
| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] |
|-----|---------|---------------------|-------|-------------------------|
| E 1 | 1355 | 2.28 | 4.43 | 78 |
| E 2 | 1345 | 2.40 | 4.63 | 79 |
| E 3 | 1340 | 2.53 | 4.95 | 81 |
| F 1 | 1085 | 1.56 | 2.73 | 72 |
| F 2 | 1065 | 1.61 | 2.82 | 73 |
| F 3 | 1045 | 1.64 | 2.88 | 75 |

AC axial fans

S series, Ø 630, drawings for direction of air flow "V"



Without attachments

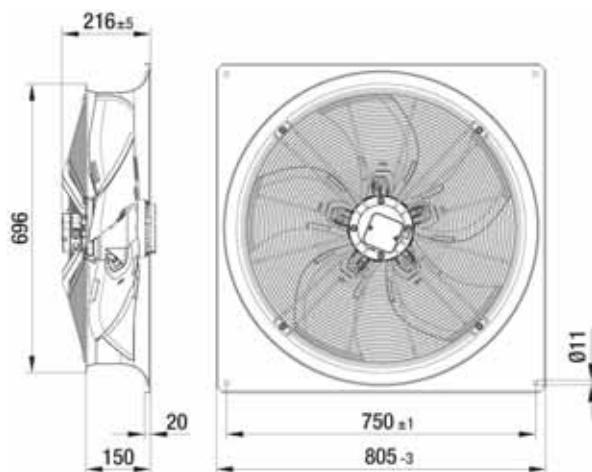


< "V"

| Type | Mass [kg] | c | d | g |
|------------------|-----------|-------|-------|-------|
| A4D 630-AN01 -01 | 20.0 | 147.0 | 133.0 | 251.0 |
| A4D 630-A001 -01 | 20.0 | 142.0 | 118.0 | 251.0 |
| A4D 630-AJ01 -01 | 24.0 | 152.0 | 147.0 | 276.0 |



With full square nozzle

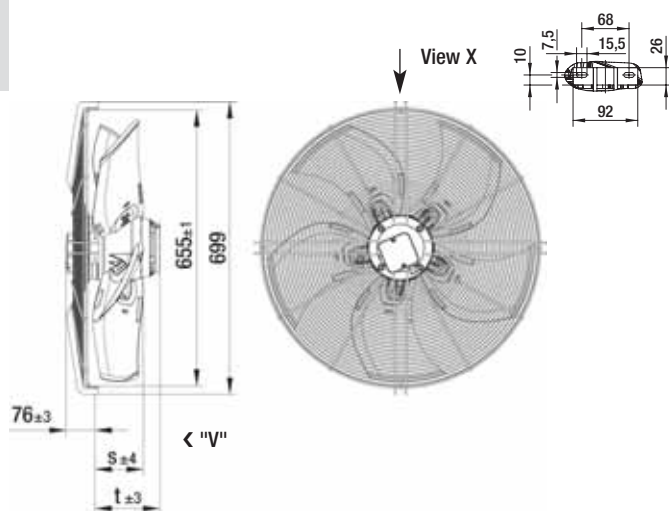


< "V"

| Type | Mass [kg] |
|------------------|-----------|
| W4D 630-GN01 -01 | 37.0 |
| W4D 630-GO01 -01 | 37.0 |
| W4D 630-GJ01 -01 | 41.0 |



With guard grille for full nozzle

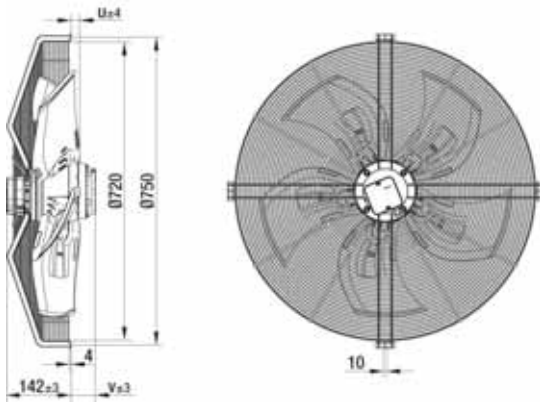


< "V"

| Type | Mass [kg] | s | t |
|------------------|-----------|-------|-------|
| S4D 630-CN01 -01 | 28.0 | 146.0 | 175.0 |
| S4D 630-CO01 -01 | 28.0 | 141.0 | 175.0 |
| S4D 630-CJ01 -01 | 32.0 | 76.0 | 151.0 |



With guard grille for short nozzle

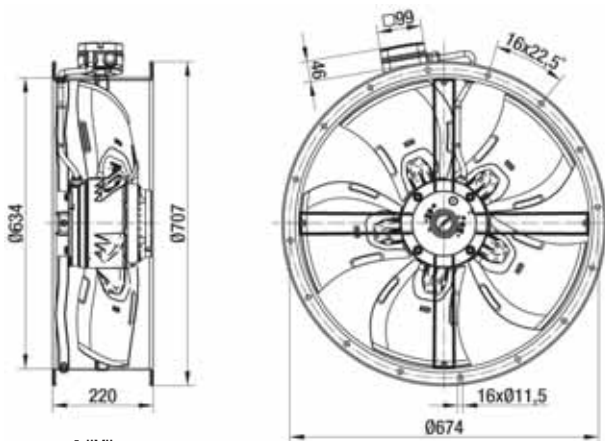


< "V"

| Type | Mass [kg] | u | v |
|------------------|-----------|------|-------|
| S4D 630-AN01 -01 | 29.5 | 80.0 | 109.0 |
| S4D 630-A001 -01 | 29.5 | 75.0 | 109.0 |
| S4D 630-AJ01 -01 | 33.5 | 85.0 | 134.0 |



In-line duct fan



< "V"

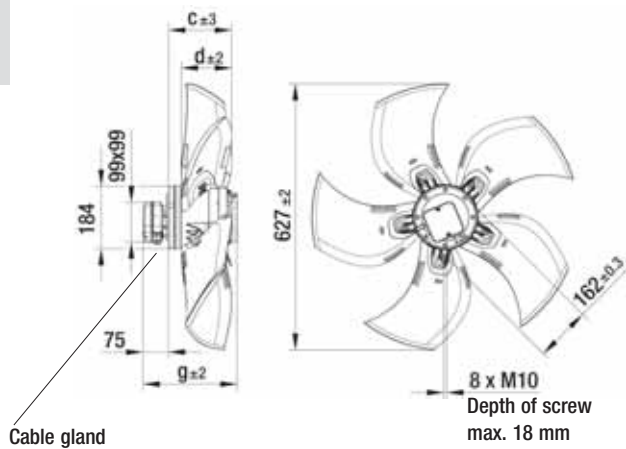
| Type | Mass [kg] |
|------------------|-----------|
| W4D 630-IN01 -01 | 27.9 |

AC axial fans

S series, Ø 630, drawings for direction of air flow "A"



Without attachments



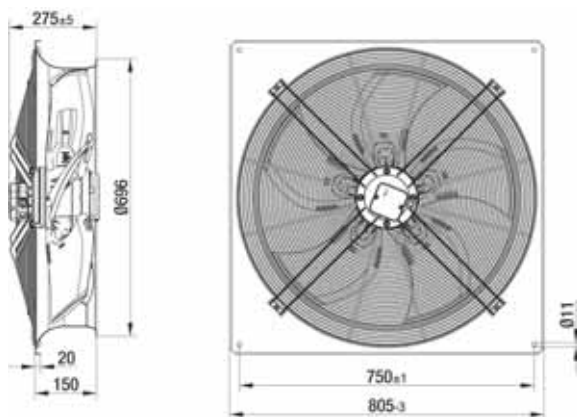
Cable gland

"A" >

| Type | Mass [kg] | c | d | g |
|------------------|-----------|-------|-------|-------|
| A4D 630-AN01 -02 | 20.0 | 175.0 | 133.0 | 251.0 |
| A4D 630-A001 -02 | 20.0 | 165.0 | 118.0 | 251.0 |
| A4D 630-AJ01 -02 | 24.0 | 185.0 | 147.0 | 276.0 |



With full square nozzle

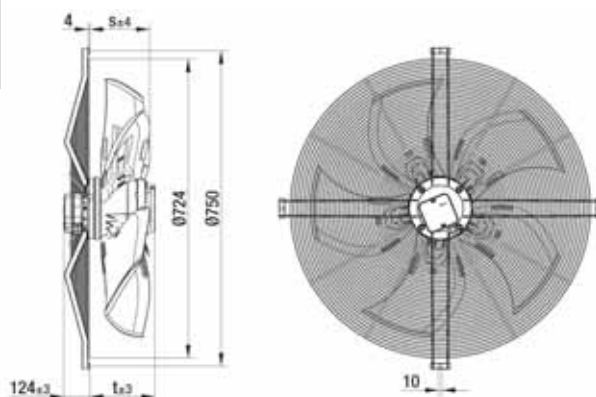


"A" >

| Type | Mass [kg] |
|------------------|-----------|
| W4D 630-DN01 -02 | 38.0 |
| W4D 630-DO01 -02 | 38.0 |
| W4D 630-DJ01 -02 | 42.0 |



With guard grille for full nozzle



"A" >

| Type | Mass [kg] | s | t |
|------------------|-----------|-------|-------|
| S4D 630-BN01 -02 | 29.0 | 126.0 | 127.0 |
| S4D 630-BO01 -02 | 29.0 | 116.0 | 127.0 |
| S4D 630-BJ01 -02 | 33.0 | 136.0 | 152.0 |

AC axial fans

S series, Ø 630



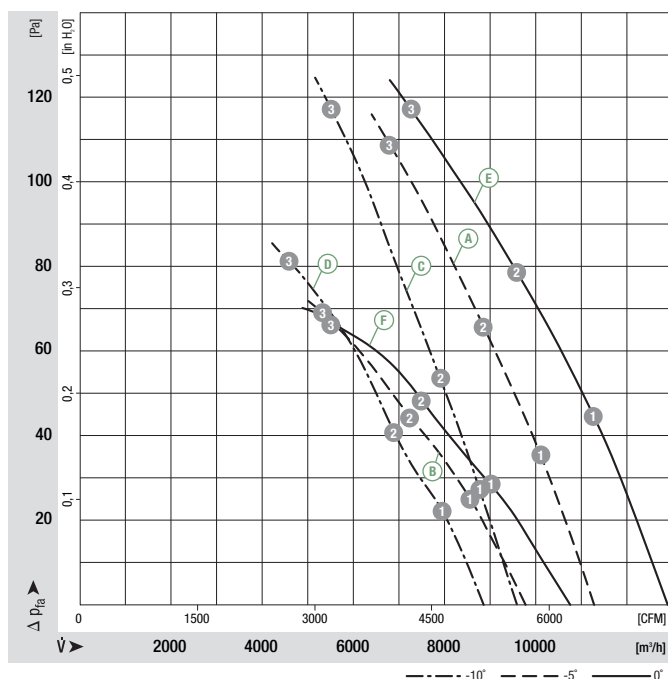
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Sheet aluminium
Rotor: Encased in aluminium
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Any
- **Condensate discharge holes:** On rotor and stator side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Blade angle | Curve | Nominal voltage | Frequency | Speed/rpm ⁽¹⁾ | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Capacitor | Max. operative range | Perm. amb. temp. | Electr. connection |
|--------------|------------|-------------|-------|-----------------|-----------|--------------------------|---------------------------------|----------------------------------|-----------|----------------------|------------------|--------------------|
| Type | Motor | | | VAC | Hz | rpm | kW | A | µF/VDB | Pa | °C | p. 416 f. |
| *6D 630 | M6D 110-GF | -5° | (A) | 3~ 400 Δ | 50 | 890 | 0.61 | 1.26 | — | 105 | -40 to +60 | F1b)/F2b) |
| | | | (B) | 3~ 400 Y | 50 | 680 | 0.40 | 0.72 | — | 60 | -40 to +60 | |
| *6D 630 | M6D 110-GF | -10° | (C) | 3~ 400 Δ | 50 | 910 | 0.53 | 1.15 | — | 110 | -40 to +70 | F1b)/F2b) |
| | | | (D) | 3~ 400 Y | 50 | 725 | 0.38 | 0.67 | — | 70 | -40 to +70 | |
| *6D 630 | M6D 110-IA | 0° | (E) | 3~ 400 Δ | 50 | 885 | 0.83 | 1.68 | — | 120 | -40 to +55 | F1b)/F2b) |
| | | | (F) | 3~ 400 Y | 50 | 655 | 0.53 | 0.95 | — | 68 | -40 to +55 | |
| *8D 630 | M8D 110-GF | 0° | (G) | 3~ 400 Δ | 50 | 640 | 0.38 | 0.91 | — | 62 | -40 to +65 | F1b)/F2b) |
| | | | (H) | 3~ 400 Y | 50 | 440 | 0.21 | 0.42 | — | 30 | -40 to +65 | |
| *8D 630 | M8D 110-GF | -5° | (I) | 3~ 400 Δ | 50 | 660 | 0.33 | 0.85 | — | 65 | -40 to +75 | F1b)/F2b) |
| | | | (J) | 3~ 400 Y | 50 | 500 | 0.20 | 0.40 | — | 35 | -40 to +75 | |

subject to alterations

(1) Nominal data in operating point 3 with maximum load

Curves

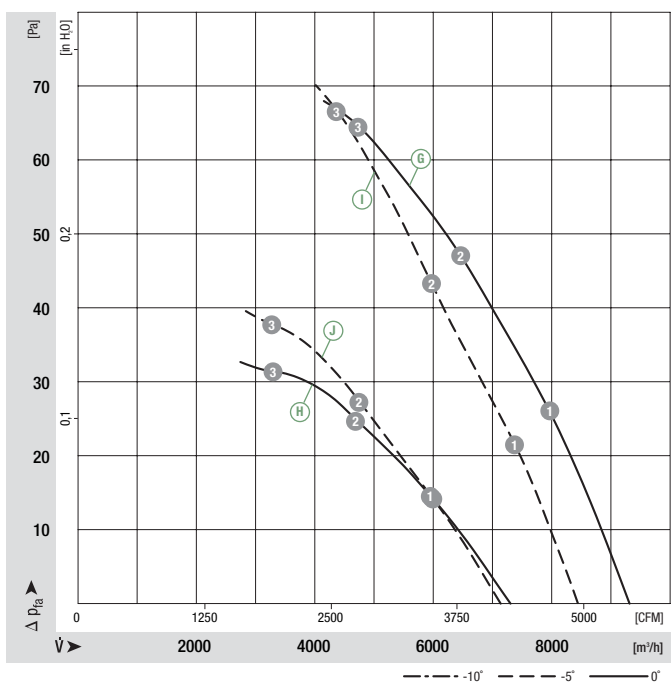


| | n [rpm] | P ₁ [kW] | I [A] | Lw _A [dB(A)] |
|-------|---------|---------------------|-------|-------------------------|
| (A) 1 | 925 | 0.48 | 1.12 | 75 |
| (A) 2 | 915 | 0.52 | 1.16 | 75 |
| (A) 3 | 890 | 0.61 | 1.26 | 76 |
| (B) 1 | 770 | 0.35 | 0.63 | 72 |
| (B) 2 | 745 | 0.37 | 0.66 | 71 |
| (B) 3 | 680 | 0.40 | 0.72 | 71 |
| (C) 1 | 940 | 0.41 | 1.04 | 75 |
| (C) 2 | 930 | 0.45 | 1.06 | 75 |
| (C) 3 | 910 | 0.53 | 1.15 | 78 |
| (D) 1 | 825 | 0.29 | 0.52 | 73 |
| (D) 2 | 805 | 0.31 | 0.55 | 72 |
| (D) 3 | 725 | 0.38 | 0.67 | 74 |
| (E) 1 | 915 | 0.67 | 1.48 | 75 |
| (E) 2 | 905 | 0.72 | 1.54 | 76 |
| (E) 3 | 885 | 0.83 | 1.68 | 76 |
| (F) 1 | 735 | 0.47 | 0.83 | 71 |
| (F) 2 | 710 | 0.49 | 0.86 | 71 |
| (F) 3 | 655 | 0.53 | 0.95 | 70 |

- **Motor protection:** Design with thermal overload protector
- **Cable exit:** Via terminal box
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** VDE (acc. to EN 60034)

| Direction of air flow | < "V"/"A" > | | < "V"/"A" > | | < "V" > | | < "V" > | | > "A" > | | > "A" > | | < "V" > | |
|-----------------------|---------------------|------------------|-------------------------|------------------|-----------------------------------|---|------------------------------------|---|-----------------------------------|------------------|------------------------------------|---|------------------|---|
| | Without attachments | | With full square nozzle | | With guard grille for full nozzle | | With guard grille for short nozzle | | With guard grille for full nozzle | | With guard grille for short nozzle | | In-line duct fan | |
| "V" | A6D 630-AE01 -01 | W6D 630-GE01 -01 | S6D 630-CE01 -01 | S6D 630-AE01 -01 | — | — | — | — | — | — | — | — | — | — |
| "A" | A6D 630-AE01 -02 | W6D 630-DE01 -02 | — | — | — | — | — | — | S6D 630-BE01 -02 | S6D 630-AE01 -02 | — | — | — | — |
| "V" | A6D 630-AF01 -01 | W6D 630-GF01 -01 | S6D 630-CF01 -01 | S6D 630-AF01 -01 | — | — | — | — | — | — | — | — | — | — |
| "A" | A6D 630-AF01 -02 | W6D 630-DF01 -02 | — | — | — | — | — | — | S6D 630-BF01 -02 | S6D 630-AF01 -02 | — | — | — | — |
| "V" | A6D 630-AA01 -01 | W6D 630-GA01 -01 | S6D 630-CA01 -01 | S6D 630-AA01 -01 | — | — | — | — | — | — | — | — | W6D 630-IA01 -01 | — |
| "A" | A6D 630-AA01 -02 | W6D 630-DA01 -02 | — | — | — | — | — | — | S6D 630-BA01 -02 | S6D 630-AA01 -02 | — | — | — | — |
| "V" | A8D 630-AD01 -01 | W8D 630-GD01 -01 | S8D 630-CD01 -01 | S8D 630-AD01 -01 | — | — | — | — | — | — | — | — | — | — |
| "A" | A8D 630-AD01 -02 | W8D 630-DD01 -02 | — | — | — | — | — | — | S8D 630-BD01 -02 | S8D 630-AD01 -02 | — | — | — | — |
| "V" | A8D 630-AE01 -01 | W8D 630-GE01 -01 | S8D 630-CE01 -01 | S8D 630-AE01 -01 | — | — | — | — | — | — | — | — | — | — |
| "A" | A8D 630-AE01 -02 | W8D 630-DE01 -02 | — | — | — | — | — | — | S8D 630-BE01 -02 | S8D 630-AE01 -02 | — | — | — | — |

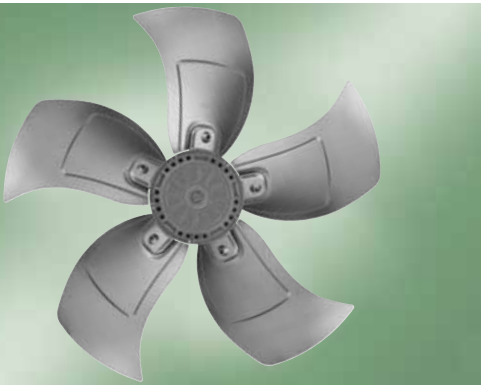
Curves



| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] |
|-----|---------|---------------------|-------|-------------------------|
| G 1 | 660 | 0.33 | 0.84 | 69 |
| G 2 | 655 | 0.35 | 0.85 | 69 |
| G 3 | 640 | 0.38 | 0.91 | 69 |
| H 1 | 495 | 0.19 | 0.40 | 63 |
| H 2 | 475 | 0.20 | 0.41 | 62 |
| H 3 | 440 | 0.21 | 0.42 | 61 |
| L 1 | 680 | 0.28 | 0.81 | 69 |
| L 2 | 675 | 0.30 | 0.82 | 70 |
| L 3 | 660 | 0.33 | 0.85 | 71 |
| J 1 | 555 | 0.17 | 0.36 | 71 |
| J 2 | 535 | 0.18 | 0.38 | 71 |
| J 3 | 500 | 0.20 | 0.40 | 71 |

AC axial fans

S series, Ø 630



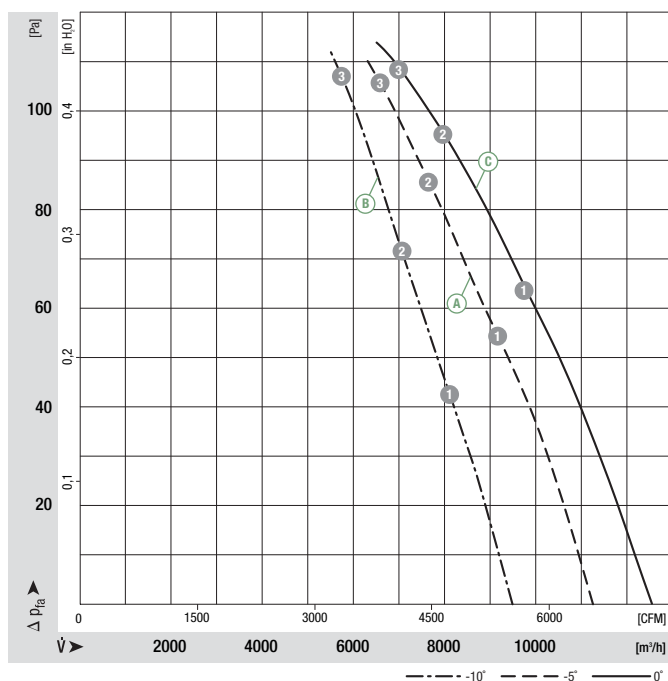
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Sheet aluminium
Rotor: Encased in aluminium
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Any
- **Condensate discharge holes:** On rotor and stator side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Blade angle | Curve | Nominal voltage | Frequency | Speed/rpm ⁽¹⁾ | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Capacitor | Max. operative range | Perm. amb. temp. | Electr. connection |
|--------------|------------|-------------|-------|-----------------|-----------|--------------------------|---------------------------------|----------------------------------|-----------|----------------------|------------------|--------------------|
| Type | Motor | | | VAC | Hz | rpm | kW | A | µF/VDB | Pa | °C | p. 416 f. |
| *6E 630 | M6E 110-GF | -5° | (A) | 1~ 230 | 50 | 880 | 0.61 | 2.65 | 14.0/450 | 100 | -40 to +60 | A2b) |
| *6E 630 | M6E 110-GF | -10° | (B) | 1~ 230 | 50 | 905 | 0.49 | 2.15 | 12.0/450 | 100 | -40 to +70 | A2b) |
| *6E 630 | M6E 110-IA | 0° | (C) | 1~ 230 | 50 | 860 | 0.76 | 3.35 | 16.0/450 | 100 | -40 to +50 | A2b) |
| *8E 630 | M8E 110-GF | -5° | (D) | 1~ 230 | 50 | 655 | 0.35 | 1.79 | 7.0/450 | 60 | -40 to +60 | A2b) |

subject to alterations

(1) Nominal data in operating point 3 with maximum load

Curves

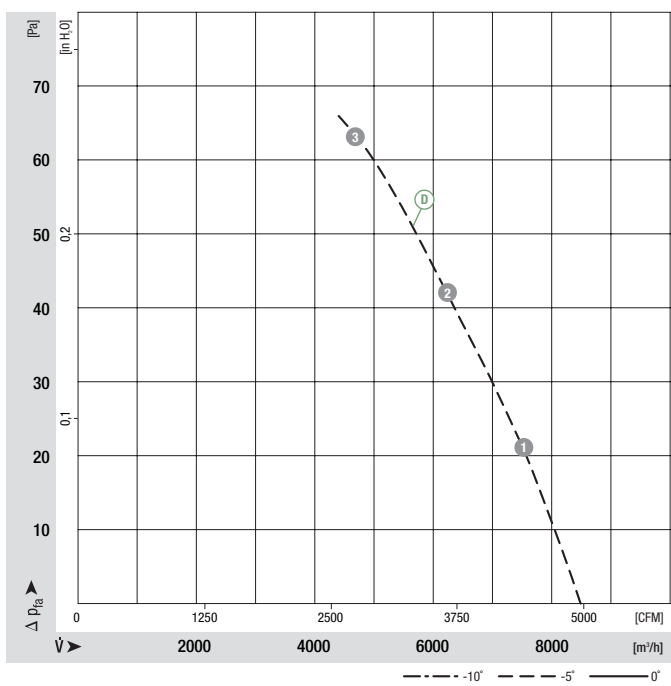


| | n [rpm] | P ₁ [kW] | I [A] | Lw _A [dB(A)] |
|-------|---------|---------------------|-------|-------------------------|
| (A) 1 | 905 | 0.55 | 2.41 | 75 |
| (A) 2 | 895 | 0.58 | 2.51 | 75 |
| (A) 3 | 880 | 0.61 | 2.65 | 76 |
| (B) 1 | 925 | 0.43 | 1.89 | 75 |
| (B) 2 | 920 | 0.45 | 1.99 | 76 |
| (B) 3 | 905 | 0.49 | 2.15 | 78 |
| (C) 1 | 890 | 0.71 | 3.11 | 76 |
| (C) 2 | 875 | 0.73 | 3.23 | 76 |
| (C) 3 | 860 | 0.76 | 3.35 | 76 |

- **Motor protection:** Design with thermal overload protector
- **Cable exit:** Via terminal box
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** VDE (acc. to EN 60034)

| Direction of air flow | < "V"/"A" > | < "V"/"A" > | < "V" > | < "V" > | "A" > | "A" > | < "V" > |
|-----------------------|---------------------|-------------------------|-----------------------------------|------------------------------------|-----------------------------------|------------------------------------|------------------|
| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle | With guard grille for short nozzle | In-line duct fan |
| "V" | A6E 630-AE01 -01 | W6E 630-GE01 -01 | S6E 630-CE01 -01 | S6E 630-AE01 -01 | — | — | — |
| "A" | A6E 630-AE01 -02 | W6E 630-DE01 -02 | — | — | S6E 630-BE01 -02 | S6E 630-AE01 -02 | — |
| "V" | A6E 630-AF01 -01 | W6E 630-GF01 -01 | S6E 630-CF01 -01 | S6E 630-AF01 -01 | — | — | — |
| "A" | A6E 630-AF01 -02 | W6E 630-DF01 -02 | — | — | S6E 630-BF01 -02 | S6E 630-AF01 -02 | — |
| "V" | A6E 630-AA03 -01 | W6E 630-GA03 -01 | S6E 630-CA03 -01 | S6E 630-AA03 -01 | — | — | W6E 630-IA03 -01 |
| "A" | A6E 630-AA03 -02 | W6E 630-DA03 -02 | — | — | S6E 630-BA03 -02 | S6E 630-AA03 -02 | — |
| "V" | A8E 630-AE01 -01 | W8E 630-GE01 -01 | S8E 630-CE01 -01 | S8E 630-AE01 -01 | — | — | — |
| "A" | A8E 630-AE01 -02 | W8E 630-DE01 -02 | — | — | S8E 630-BE01 -02 | S8E 630-AE01 -02 | — |

Curves



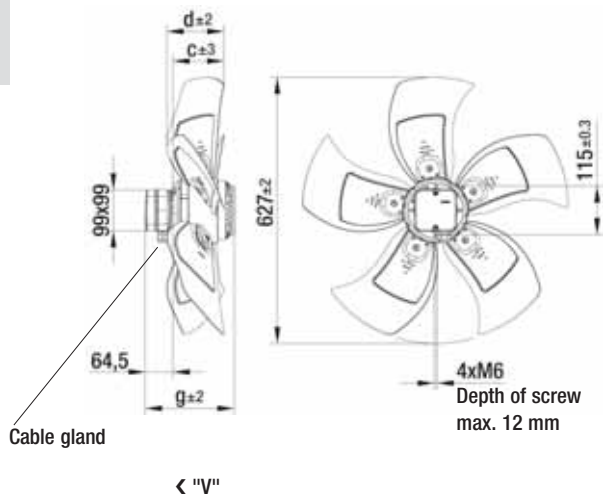
| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] |
|-----|---------|---------------------|-------|-------------------------|
| ⊙ 1 | 685 | 0.30 | 1.61 | 69 |
| ⊙ 2 | 675 | 0.32 | 1.68 | 69 |
| ⊙ 3 | 655 | 0.35 | 1.79 | 69 |

AC axial fans

S series, Ø 630, drawings for direction of air flow "V"



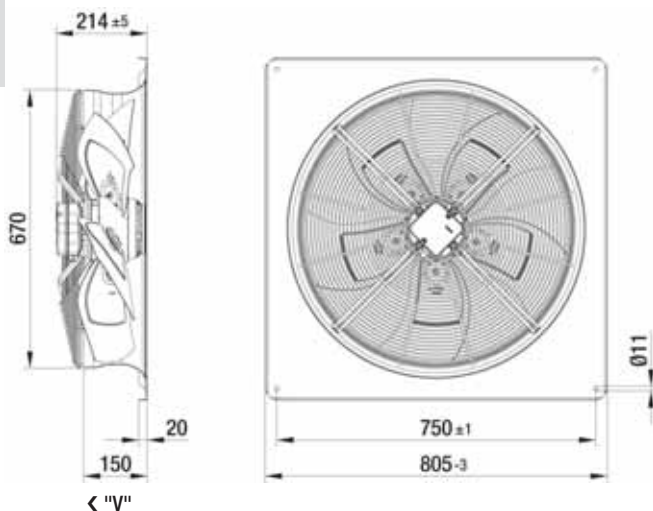
Without attachments



| Type | Mass [kg] | c | d | g |
|------------------|-----------|-------|-------|-------|
| A6D 630-AE01 -01 | 12.5 | 108.0 | 116.0 | 208.5 |
| A6D 630-AF01 -01 | 12.5 | 96.0 | 96.0 | 208.5 |
| A6D 630-AA01 -01 | 14.0 | 120.0 | 135.0 | 223.5 |
| A8D 630-AD01 -01 | 12.5 | 120.0 | 135.0 | 208.5 |
| A8D 630-AE01 -01 | 12.5 | 108.0 | 116.0 | 208.5 |
| A6E 630-AE01 -01 | 12.5 | 108.0 | 116.0 | 208.5 |
| A6E 630-AF01 -01 | 12.5 | 96.0 | 96.0 | 208.5 |
| A6E 630-AA03 -01 | 14.0 | 120.0 | 135.0 | 223.5 |
| A8E 630-AE01 -01 | 12.5 | 108.0 | 116.0 | 208.5 |



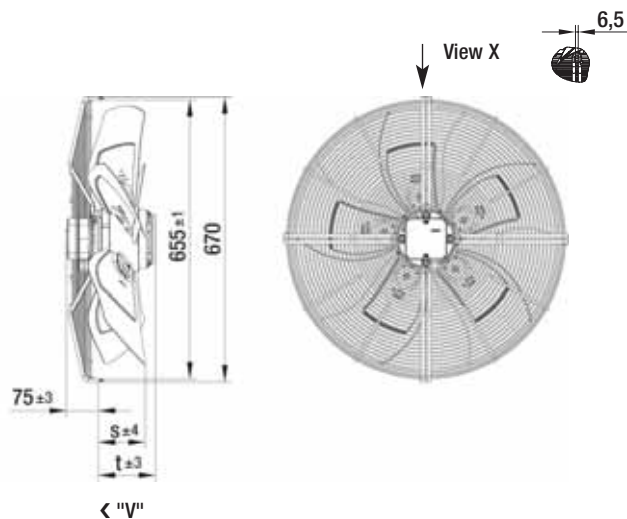
With full square nozzle



| Type | Mass [kg] |
|------------------|-----------|
| W6D 630-GE01 -01 | 20.5 |
| W6D 630-GF01 -01 | 20.5 |
| W6D 630-GA01 -01 | 23.0 |
| W8D 630-GD01 -01 | 20.5 |
| W8D 630-GE01 -01 | 20.5 |
| W6E 630-GE01 -01 | 20.5 |
| W6E 630-GF01 -01 | 20.5 |
| W6E 630-GA03 -01 | 23.0 |
| W8E 630-GE01 -01 | 20.5 |



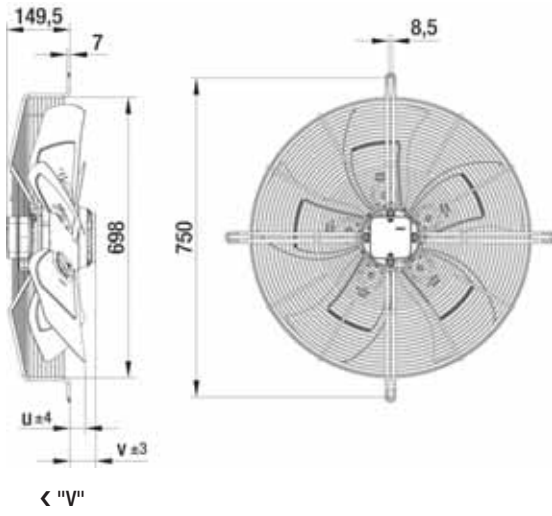
With guard grille for full nozzle



| Type | Mass [kg] | s | t |
|------------------|-----------|-------|-------|
| S6D 630-CE01 -01 | 14.5 | 97.5 | 111.5 |
| S6D 630-CF01 -01 | 14.5 | 85.5 | 111.5 |
| S6D 630-CA01 -01 | 17.0 | 109.5 | 126.5 |
| S8D 630-CD01 -01 | 14.5 | 109.5 | 133.5 |
| S8D 630-CE01 -01 | 14.5 | 97.5 | 111.5 |
| S6E 630-CE01 -01 | 14.5 | 97.5 | 133.5 |
| S6E 630-CF01 -01 | 14.5 | 85.5 | 111.5 |
| S6E 630-CA03 -01 | 17.0 | 109.5 | 148.5 |
| S8E 630-CE01 -01 | 14.5 | 97.5 | 133.5 |



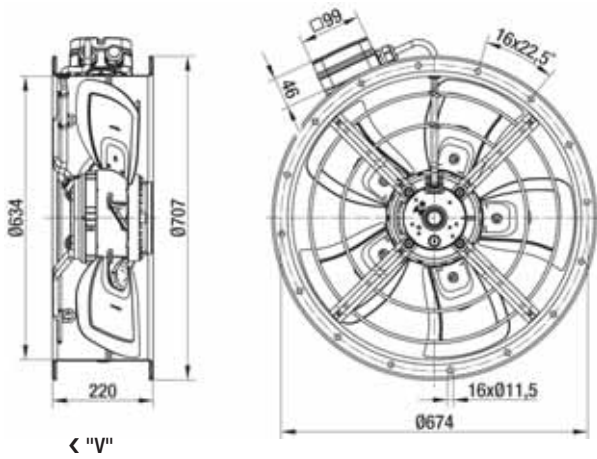
With guard grille for short nozzle



| Type | Mass [kg] | u | v |
|------------------|-----------|------|------|
| S6D 630-AE01 -01 | 16.0 | 23.0 | 59.0 |
| S6D 630-AF01 -01 | 16.0 | 11.0 | 59.0 |
| S6D 630-AA01 -01 | 18.5 | 35.0 | 74.0 |
| S8D 630-AD01 -01 | 16.0 | 35.0 | 59.0 |
| S8D 630-AE01 -01 | 16.0 | 23.0 | 59.0 |
| S6E 630-AE01 -01 | 16.0 | 23.0 | 59.0 |
| S6E 630-AF01 -01 | 16.0 | 11.0 | 59.0 |
| S6E 630-AA03 -01 | 18.5 | 35.0 | 74.0 |
| S8E 630-AE01 -01 | 16.0 | 23.0 | 59.0 |



In-line duct fan



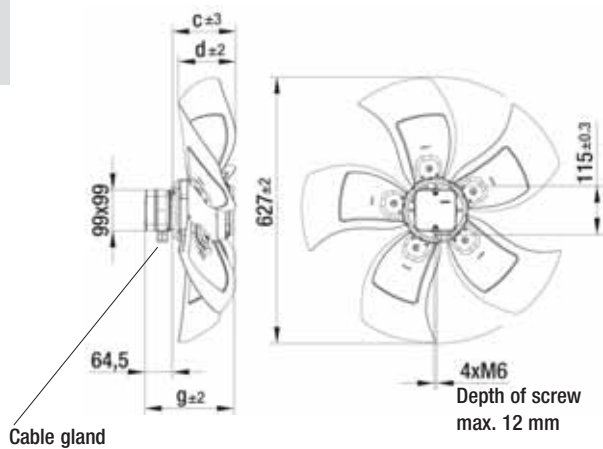
| Type | Mass [kg] |
|------------------|-----------|
| W6D 630-IA01 -01 | 21.4 |
| W6E 630-IA03 -01 | 21.4 |

AC axial fans

S series, Ø 630, drawings for direction of air flow "A"



Without attachments

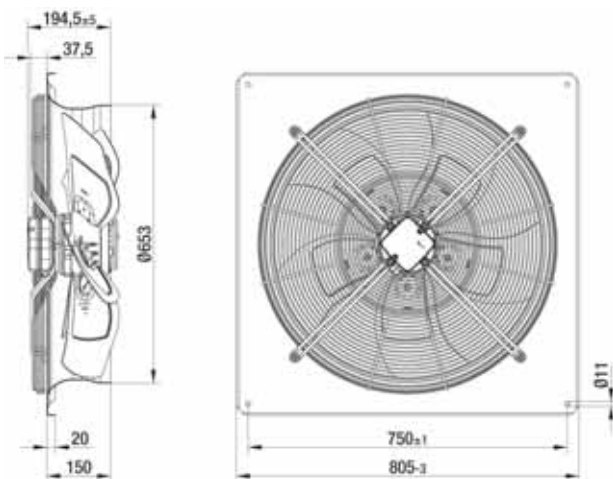


"A" >

| Type | Mass [kg] | c | d | g |
|------------------|-----------|-------|-------|-------|
| A6D 630-AE01 -02 | 12.5 | 142.0 | 116.0 | 208.5 |
| A6D 630-AF01 -02 | 12.5 | 134.0 | 96.0 | 208.5 |
| A6D 630-AA01 -02 | 14.0 | 149.0 | 135.0 | 223.5 |
| A8D 630-AD01 -02 | 12.5 | 149.0 | 135.0 | 208.5 |
| A8D 630-AE01 -02 | 12.5 | 142.0 | 116.0 | 208.5 |
| A6E 630-AE01 -02 | 12.5 | 142.0 | 116.0 | 208.5 |
| A6E 630-AF01 -02 | 12.5 | 134.0 | 96.0 | 208.5 |
| A6E 630-AA03 -02 | 14.0 | 149.0 | 135.0 | 223.5 |
| A8E 630-AE01 -02 | 12.5 | 142.0 | 116.0 | 208.5 |



With full square nozzle

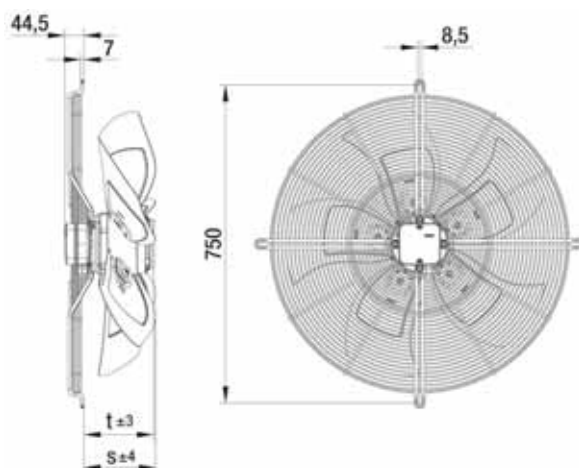


"A" >

| Type | Mass [kg] |
|------------------|-----------|
| W6D 630-DE01 -02 | 21.0 |
| W6D 630-DF01 -02 | 21.0 |
| W6D 630-DA01 -02 | 23.5 |
| W8D 630-DD01 -02 | 21.0 |
| W8D 630-DE01 -02 | 21.0 |
| W6E 630-DE01 -02 | 21.0 |
| W6E 630-DF01 -02 | 21.0 |
| W6E 630-DA03 -02 | 23.5 |
| W8E 630-DE01 -02 | 21.0 |



With guard grille for full nozzle

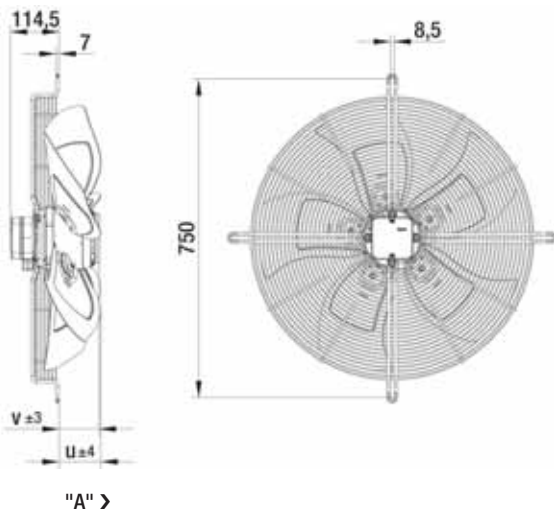


"A" >

| Type | Mass [kg] | s | t |
|------------------|-----------|-------|-------|
| S6D 630-BE01 -02 | 14.5 | 164.0 | 162.0 |
| S6D 630-BF01 -02 | 14.5 | 164.0 | 154.0 |
| S6D 630-BA01 -02 | 17.0 | 179.0 | 169.0 |
| S8D 630-BD01 -02 | 14.5 | 164.0 | 169.0 |
| S8D 630-BE01 -02 | 14.5 | 164.0 | 162.0 |
| S6E 630-BE01 -02 | 14.5 | 164.0 | 162.0 |
| S6E 630-BF01 -02 | 14.5 | 164.0 | 154.0 |
| S6E 630-BA03 -02 | 17.0 | 179.0 | 169.0 |
| S8E 630-BE01 -02 | 14.5 | 164.0 | 162.0 |



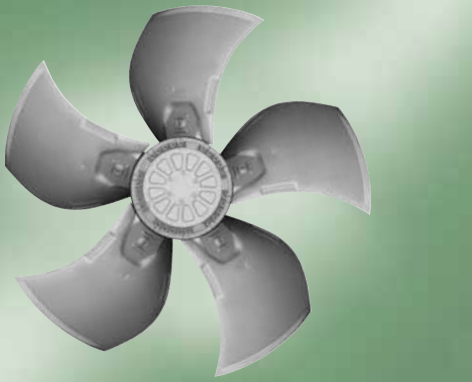
With guard grille for short nozzle



| Type | Mass [kg] | u | v |
|------------------|-----------|------|-------|
| S6D 630-AE01 -02 | 15.0 | 92.0 | 94.0 |
| S6D 630-AF01 -02 | 15.0 | 84.0 | 94.0 |
| S6D 630-AA01 -02 | 17.5 | 99.0 | 109.0 |
| S8D 630-AD01 -02 | 15.0 | 99.0 | 94.0 |
| S8D 630-AE01 -02 | 15.0 | 92.0 | 94.0 |
| S6E 630-AE01 -02 | 15.0 | 92.0 | 94.0 |
| S6E 630-AF01 -02 | 15.0 | 84.0 | 94.0 |
| S6E 630-AA03 -02 | 17.5 | 99.0 | 109.0 |
| S8E 630-AE01 -02 | 15.0 | 92.0 | 94.0 |

AC axial fans

S series, Ø 710



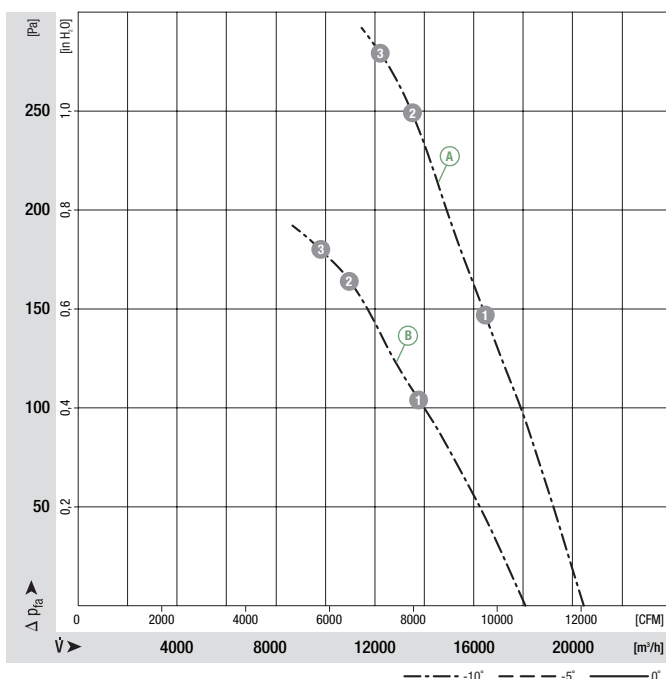
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Die-cast aluminium
Rotor: Encased in aluminium
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" clockwise, direction of air flow "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Any
- **Condensate discharge holes:** On rotor and stator side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Blade angle | Curve | Nominal voltage | Frequency | Speed/rpm ⁽¹⁾ | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Capacitor | Max. operative range | Perm. amb. temp. | Electr. connection |
|--------------|------------|-------------|-------|-----------------|-----------|--------------------------|---------------------------------|----------------------------------|-----------|----------------------|------------------|--------------------|
| Type | Motor | | | VAC | Hz | rpm | kW | A | µF/VDB | Pa | °C | p. 416 f. |
| *4D 710 | M4D 138-LA | -10° | Ⓐ | 3~ 400 Δ | 50 | 1350 | 2.32 | 4.65 | — | 280 | -40 to +70 | F1b)/F2b) |
| | | | Ⓑ | 3~ 400 Y | 50 | 1090 | 1.59 | 2.78 | — | 180 | -40 to +70 | |
| *6D 710 | M6D 138-HF | -5° | Ⓒ | 3~ 400 Δ | 50 | 910 | 1.01 | 2.40 | — | 130 | -40 to +80 | F1b)/F2b) |
| | | | Ⓓ | 3~ 400 Y | 50 | 750 | 0.70 | 1.33 | — | 87 | -40 to +80 | |

subject to alterations

(1) Nominal data in operating point 3 with maximum load

Curves

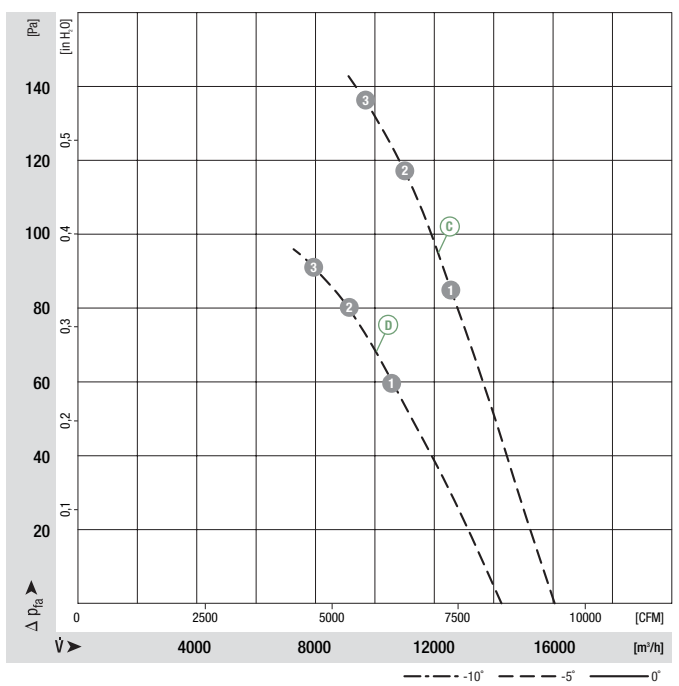


| | n [rpm] | P ₁ [kW] | I [A] | Lw _A [dB(A)] |
|-----|---------|---------------------|-------|-------------------------|
| Ⓐ 1 | 1380 | 1.96 | 4.13 | 82 |
| Ⓐ 2 | 1360 | 2.21 | 4.49 | 86 |
| Ⓐ 3 | 1350 | 2.32 | 4.65 | 87 |
| Ⓑ 1 | 1160 | 1.43 | 2.50 | 78 |
| Ⓑ 2 | 1110 | 1.55 | 2.70 | 80 |
| Ⓑ 3 | 1090 | 1.59 | 2.78 | 81 |

- **Motor protection:** Design with thermal overload protector
- **Cable exit:** Via terminal box
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** VDE (acc. to EN 60034)

| Direction of air flow | < "V"/"A" > | < "V"/"A" > | < "V" > | < "V" > | "A" > | "A" > | < "V" > |
|-----------------------|---------------------|-------------------------|-----------------------------------|------------------------------------|-----------------------------------|------------------------------------|------------------|
| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle | With guard grille for short nozzle | In-line duct fan |
| "V" | A4D 710-AL01 -01 | W4D 710-GL01 -01 | S4D 710-CL01 -01 | S4D 710-AL01 -01 | — | — | W4D 710-IL01 -01 |
| "A" | A4D 710-AL01 -02 | W4D 710-DL01 -02 | — | — | S4D 710-BL01 -02 | — | — |
| "V" | A6D 710-AN01 -01 | W6D 710-GN01 -01 | S6D 710-CN01 -01 | S6D 710-AN01 -01 | — | — | W6D 710-IN01 -01 |
| "A" | A6D 710-AN01 -02 | W6D 710-DN01 -02 | — | — | S6D 710-BN01 -02 | — | — |

Curves



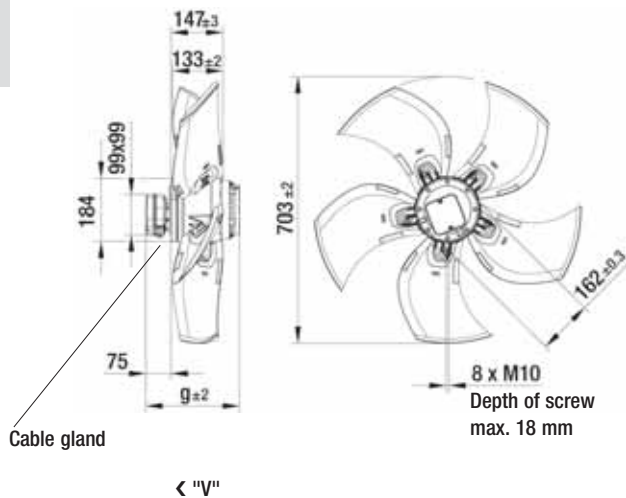
| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] |
|-----|---------|---------------------|-------|-------------------------|
| ⊙ 1 | 925 | 0.91 | 2.32 | 72 |
| ⊙ 2 | 920 | 0.97 | 2.38 | 75 |
| ⊙ 3 | 910 | 1.01 | 2.40 | 77 |
| ⊙ 1 | 780 | 0.65 | 1.22 | 69 |
| ⊙ 2 | 765 | 0.68 | 1.27 | 71 |
| ⊙ 3 | 750 | 0.70 | 1.33 | 72 |

AC axial fans

S series, Ø 710, drawings for direction of air flow "V"



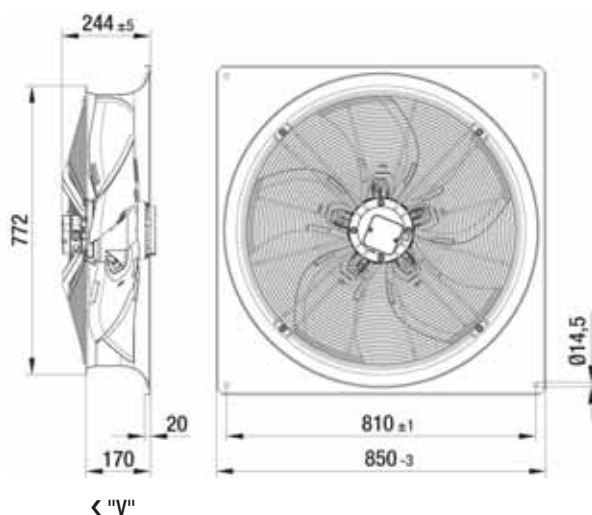
Without attachments



| Type | Mass [kg] | g |
|------------------|-----------|-------|
| A4D 710-AL01 -01 | 25.0 | 276.0 |
| A6D 710-AN01 -01 | 21.0 | 251.0 |



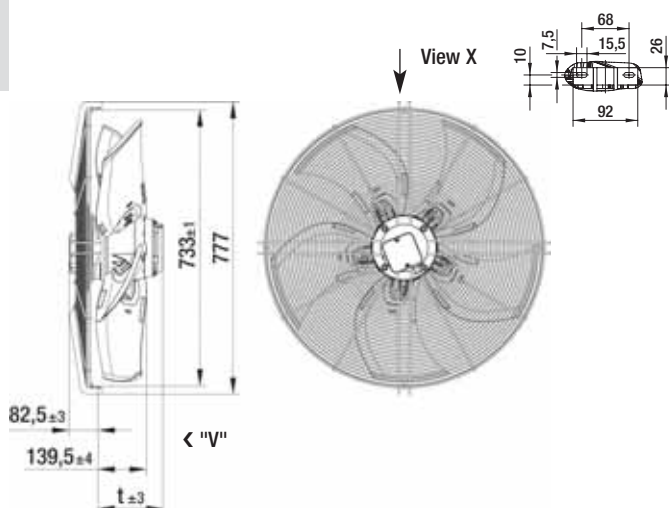
With full square nozzle



| Type | Mass [kg] |
|------------------|-----------|
| W4D 710-GL01 -01 | 43.0 |
| W6D 710-GN01 -01 | 39.0 |



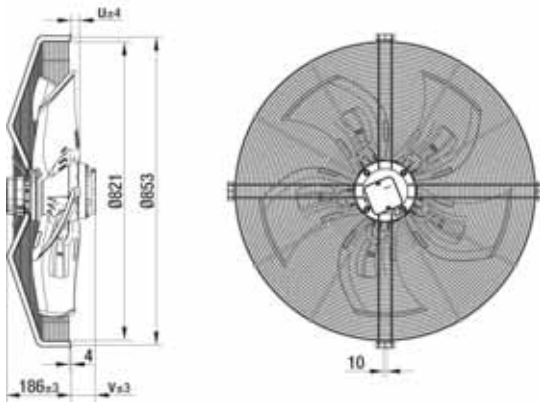
With guard grille for full nozzle



| Type | Mass [kg] | t |
|------------------|-----------|-------|
| S4D 710-CL01 -01 | 34.0 | 193.5 |
| S6D 710-CN01 -01 | 30.0 | 168.5 |



With guard grille for short nozzle

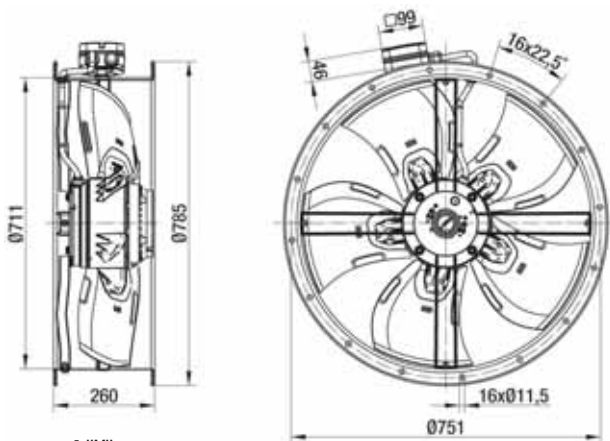


< "V"

| Type | Mass [kg] | u | v |
|------------------|-----------|------|------|
| S4D 710-AL01 -01 | 35.5 | 31.0 | 90.0 |
| S6D 710-AN01 -01 | 31.5 | 27.0 | 65.0 |



In-line duct fan



< "V"

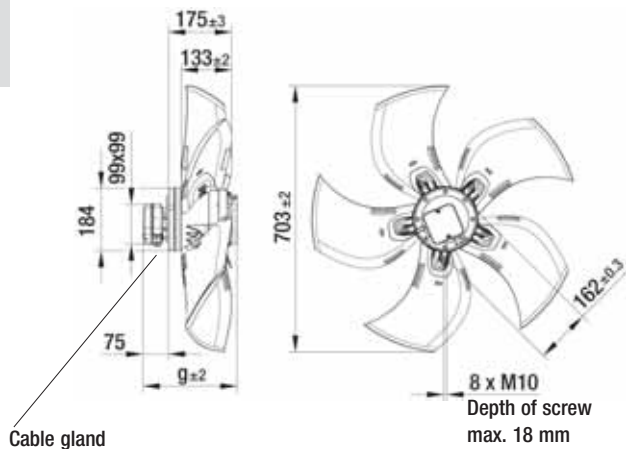
| Type | Mass [kg] |
|------------------|-----------|
| W4D 710-IL01 -01 | 40.0 |
| W6D 710-IN01 -01 | 36.0 |

AC axial fans

S series, Ø 710, drawings for direction of air flow "A"



Without attachments

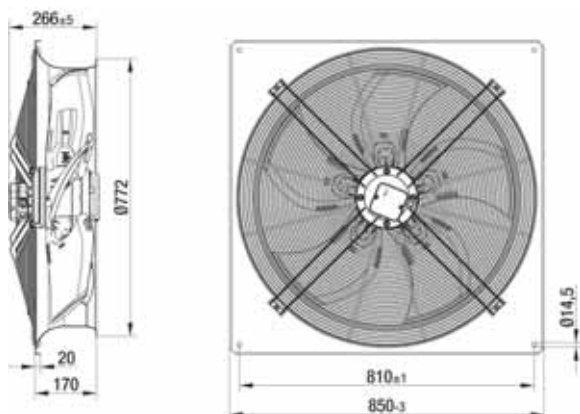


"A" >

| Type | Mass | |
|------------------|------|-------|
| | [kg] | g |
| A4D 710-AL01 -02 | 25.0 | 276.0 |
| A6D 710-AN01 -02 | 21.0 | 251.0 |



With full square nozzle

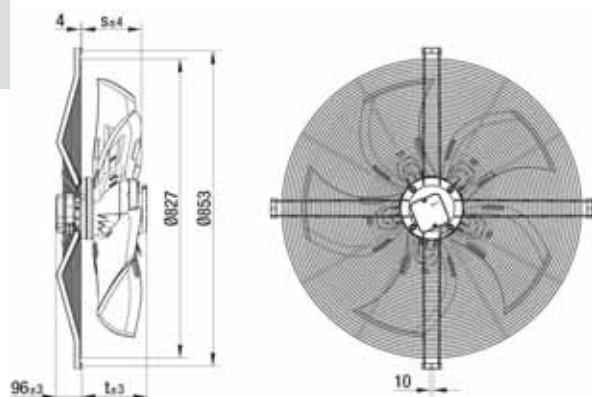


"A" >

| Type | Mass | |
|------------------|------|--|
| | [kg] | |
| W4D 710-DL01 -02 | 44.0 | |
| W6D 710-DN01 -02 | 40.0 | |



With guard grille for full nozzle

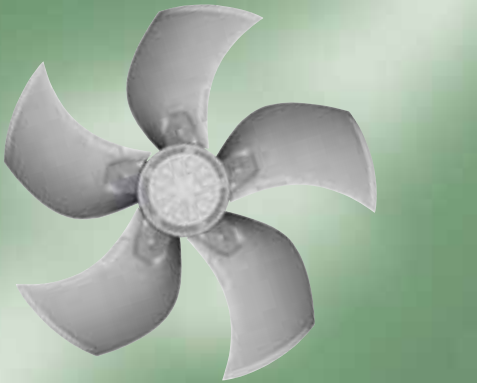


"A" >

| Type | Mass [kg] | | |
|------------------|-----------|-------|-------|
| | | s | t |
| S4D 710-BL01 -02 | 35.0 | 144.0 | 160.0 |
| S6D 710-BN01 -02 | 32.0 | 154.0 | 155.0 |

AC axial fans

S series, Ø 800



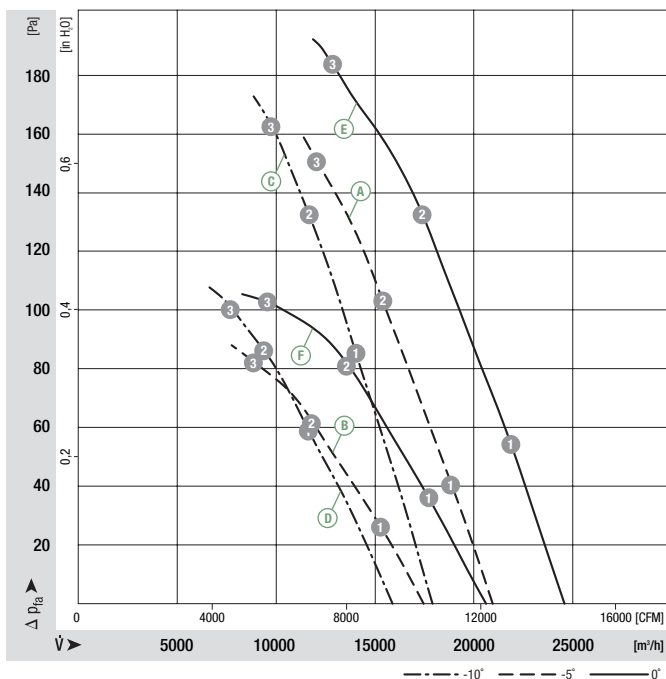
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Die-cast aluminium
Rotor: Encased in aluminium
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" clockwise, direction of air flow "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Any
- **Condensate discharge holes:** On rotor and stator side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Blade angle | Curve | Nominal voltage | Frequency | Speed/rpm ⁽¹⁾ | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Capacitor | Max. operative range | Perm. amb. temp. | Electr. connection |
|--------------|------------|-------------|-------|-----------------|-----------|--------------------------|---------------------------------|----------------------------------|-----------|----------------------|------------------|--------------------|
| Type | Motor | | | VAC | Hz | rpm | kW | A | µF/VDB | Pa | °C | p. 416 f. |
| *6D 800 | M6D 138-HF | -5° | (A) | 3~ 400 Δ | 50 | 870 | 1.45 | 3.20 | — | 150 | -40 to +60 | F1b)/F2b) |
| | | | (B) | 3~ 400 Y | 50 | 610 | 0.81 | 1.64 | — | 75 | -40 to +60 | |
| *6D 800 | M6D 138-HF | -10° | (C) | 3~ 400 Δ | 50 | 895 | 1.14 | 2.45 | — | 160 | -40 to +75 | F1b)/F2b) |
| | | | (D) | 3~ 400 Y | 50 | 710 | 0.75 | 1.45 | — | 98 | -40 to +75 | |
| *6D 800 | M6D 138-LA | 0° | (E) | 3~ 400 Δ | 50 | 895 | 2.00 | 4.30 | — | 180 | -40 to +60 | F1b)/F2b) |
| | | | (F) | 3~ 400 Y | 50 | 685 | 1.27 | 2.50 | — | 100 | -40 to +60 | |
| *6D 800 | M6D 138-NA | +5° | (G) | 3~ 400 Δ | 50 | 910 | 2.18 | 5.17 | — | 120 | -40 to +55 | F1b)/F2b) |
| | | | (H) | 3~ 400 Y | 50 | 730 | 1.47 | 2.80 | — | 75 | -40 to +55 | |
| *6D 800 | M6D 138-NA | 0° | (I) | 3~ 400 Δ | 50 | 915 | 2.08 | 4.62 | — | 180 | -40 to +60 | F1b)/F2b) |
| | | | (J) | 3~ 400 Y | 50 | 740 | 1.43 | 2.66 | — | 118 | -40 to +60 | |

subject to alterations

(1) Nominal data in operating point 3 with maximum load

Curves

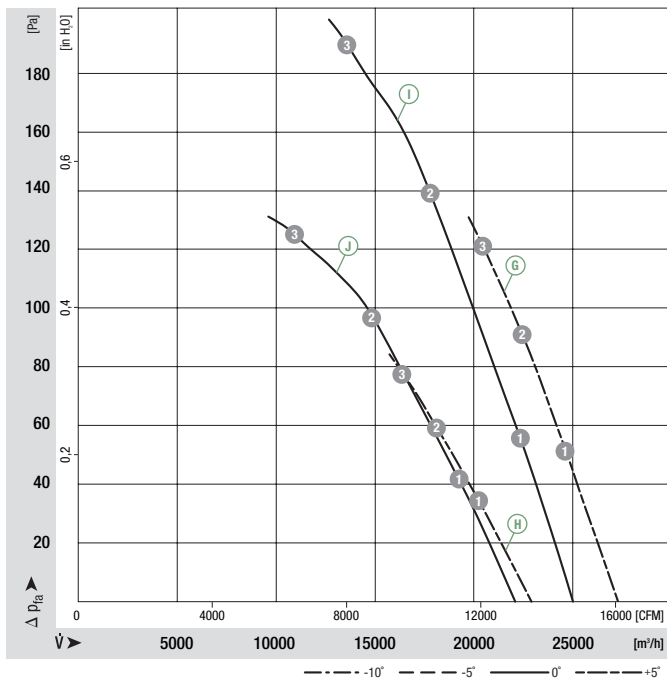


| | n [rpm] | P ₁ [kW] | I [A] | Lw _A [dB(A)] |
|-------|---------|---------------------|-------|-------------------------|
| (A) 1 | 910 | 1.07 | 2.50 | 72 |
| (A) 2 | 890 | 1.23 | 2.69 | 72 |
| (A) 3 | 870 | 1.45 | 3.20 | 74 |
| (B) 1 | 745 | 0.72 | 1.35 | 68 |
| (B) 2 | 690 | 0.79 | 1.49 | 66 |
| (B) 3 | 610 | 0.81 | 1.64 | 67 |
| (C) 1 | 920 | 0.94 | 2.29 | 74 |
| (C) 2 | 910 | 1.04 | 2.40 | 75 |
| (C) 3 | 895 | 1.14 | 2.45 | 78 |
| (D) 1 | 770 | 0.66 | 1.24 | 70 |
| (D) 2 | 735 | 0.71 | 1.34 | 70 |
| (D) 3 | 710 | 0.75 | 1.45 | 71 |
| (E) 1 | 915 | 1.55 | 3.48 | 71 |
| (E) 2 | 900 | 1.75 | 3.72 | 72 |
| (E) 3 | 895 | 2.00 | 4.30 | 78 |
| (F) 1 | 750 | 1.08 | 2.02 | 68 |
| (F) 2 | 705 | 1.16 | 2.17 | 67 |
| (F) 3 | 685 | 1.27 | 2.50 | 72 |

- **Motor protection:** Design with thermal overload protector
- **Cable exit:** Via terminal box
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** VDE (acc. to EN 60034)

| Direction of air flow | < "V"/"A" > | | < "V"/"A" > | | < "V" > | | < "V" > | | > "A" > | | > "A" > | | < "V" > | |
|-----------------------|---------------------|------------------|-------------------------|------------------|-----------------------------------|---|------------------------------------|---|-----------------------------------|---|------------------------------------|---|------------------|---|
| | Without attachments | | With full square nozzle | | With guard grille for full nozzle | | With guard grille for short nozzle | | With guard grille for full nozzle | | With guard grille for short nozzle | | In-line duct fan | |
| "V" | A6D 800-AN01 -01 | W6D 800-GN01 -01 | S6D 800-CN01 -01 | S6D 800-AN01 -01 | — | — | — | — | — | — | — | — | — | — |
| "A" | A6D 800-AN01 -02 | W6D 800-DN01 -02 | — | — | — | — | — | — | S6D 800-BN01 -02 | — | — | — | — | — |
| "V" | A6D 800-AO01 -01 | W6D 800-GO01 -01 | S6D 800-CO01 -01 | S6D 800-AO01 -01 | — | — | — | — | — | — | — | — | — | — |
| "A" | A6D 800-AO01 -02 | W6D 800-DO01 -02 | — | — | — | — | — | — | S6D 800-BO01 -02 | — | — | — | — | — |
| "V" | A6D 800-AJ01 -01 | W6D 800-GJ01 -01 | S6D 800-CJ01 -01 | S6D 800-AJ01 -01 | — | — | — | — | — | — | — | — | W6D 800-IJ01 -01 | — |
| "A" | A6D 800-AJ01 -02 | W6D 800-DJ01 -02 | — | — | — | — | — | — | S6D 800-BJ01 -02 | — | — | — | — | — |
| "V" | A6D 800-AS01 -01 | W6D 800-GS01 -01 | S6D 800-CS01 -01 | S6D 800-AS01 -01 | — | — | — | — | — | — | — | — | — | — |
| "A" | A6D 800-AS01 -02 | W6D 800-DS01 -02 | — | — | — | — | — | — | S6D 800-BS01 -02 | — | — | — | — | — |
| "V" | A6D 800-AP01 -01 | W6D 800-GP01 -01 | S6D 800-CP01 -01 | S6D 800-AP01 -01 | — | — | — | — | — | — | — | — | — | — |
| "A" | A6D 800-AP01 -02 | W6D 800-DP01 -02 | — | — | — | — | — | — | S6D 800-BP01 -02 | — | — | — | — | — |

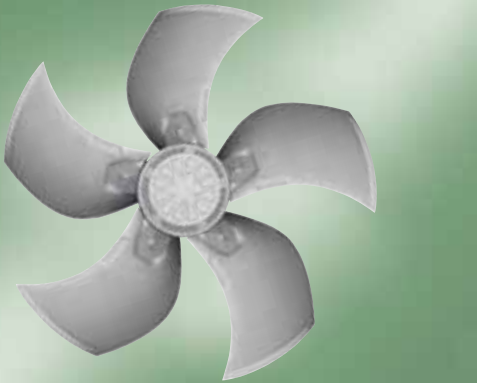
Curves



| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] |
|-----|---------|---------------------|-------|-------------------------|
| G 1 | 920 | 2.01 | 4.99 | 74 |
| G 2 | 915 | 2.11 | 5.15 | 74 |
| G 3 | 910 | 2.18 | 5.17 | 75 |
| H 1 | 755 | 1.40 | 2.68 | 69 |
| H 2 | 740 | 1.44 | 2.75 | 69 |
| H 3 | 730 | 1.47 | 2.80 | 71 |
| I 1 | 940 | 1.63 | 4.26 | 72 |
| I 2 | 925 | 1.85 | 4.47 | 73 |
| I 3 | 915 | 2.08 | 4.62 | 79 |
| J 1 | 810 | 1.22 | 2.25 | 69 |
| J 2 | 775 | 1.33 | 2.44 | 70 |
| J 3 | 740 | 1.43 | 2.66 | 73 |

AC axial fans

S series, Ø 800



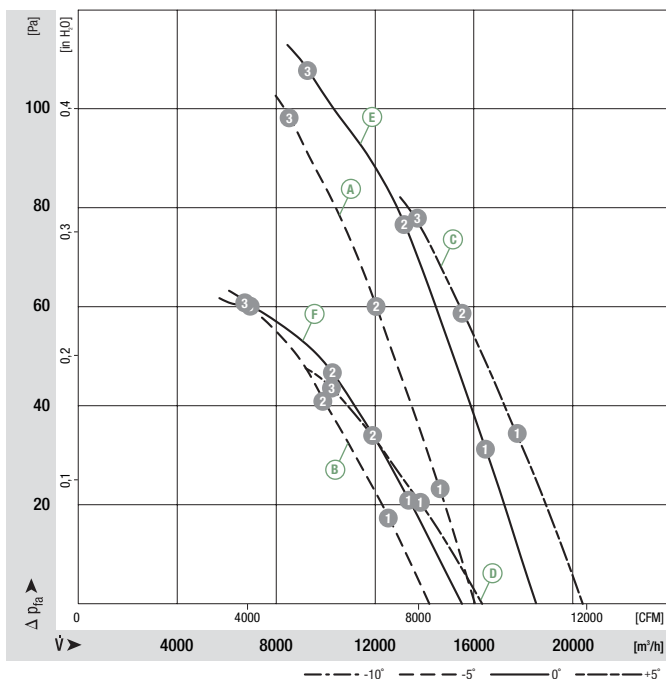
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Die-cast aluminium
Rotor: Encased in aluminium
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" clockwise, direction of air flow "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Any
- **Condensate discharge holes:** On rotor and stator side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Blade angle | Curve | Nominal voltage | Frequency | Speed/rpm ⁽¹⁾ | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Capacitor | Max. operative range | Perm. amb. temp. | Electr. connection |
|--------------|------------|-------------|-------|-----------------|-----------|--------------------------|---------------------------------|----------------------------------|-----------|----------------------|------------------|--------------------|
| Type | Motor | | | VAC | Hz | rpm | kW | A | µF/VDB | Pa | °C | p. 416 f. |
| *8D 800 | M8D 138-HF | -5° | (A) | 3~ 400 Δ | 50 | 680 | 0.79 | 2.15 | — | 100 | -40 to +55 | F1b)/F2b) |
| | | | (B) | 3~ 400 Y | 50 | 540 | 0.48 | 1.05 | — | 60 | -40 to +55 | |
| *8D 800 | M8D 138-LA | +5° | (C) | 3~ 400 Δ | 50 | 665 | 1.05 | 2.70 | — | 80 | -40 to +70 | F1b)/F2b) |
| | | | (D) | 3~ 400 Y | 50 | 500 | 0.63 | 1.31 | — | 45 | -40 to +70 | |
| *8D 800 | M8D 138-LA | 0° | (E) | 3~ 400 Δ | 50 | 660 | 0.98 | 2.41 | — | 105 | -40 to +65 | F1b)/F2b) |
| | | | (F) | 3~ 400 Y | 50 | 515 | 0.57 | 1.21 | — | 57 | -40 to +65 | |
| *ZD 800 | MZD 138-HF | 0° | (G) | 3~ 400 Δ | 50 | 435 | 0.37 | 1.15 | — | 44 | -40 to +80 | F1b)/F2b) |
| | | | (H) | 3~ 400 Y | 50 | 330 | 0.20 | 0.48 | — | 25 | -40 to +80 | |

subject to alterations

(1) Nominal data in operating point 3 with maximum load

Curves

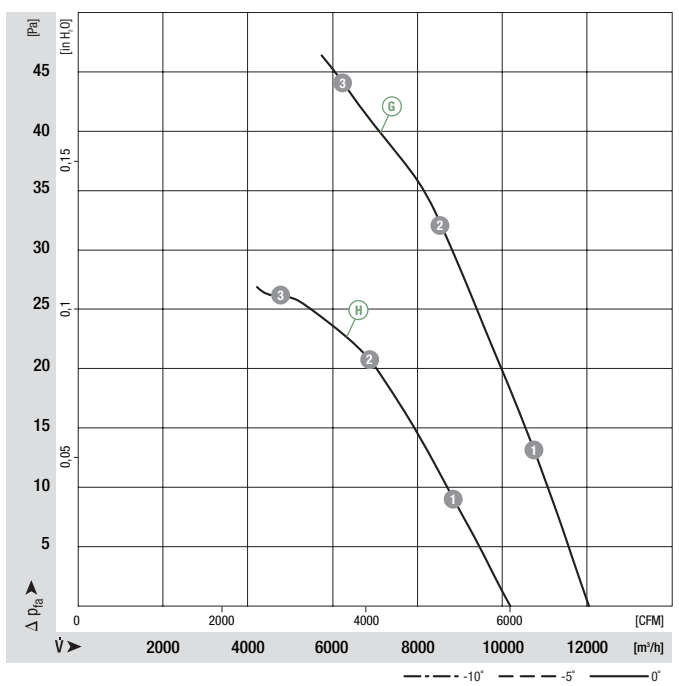


| | n [rpm] | P ₁ [kW] | I [A] | Lw _A [dB(A)] |
|-------|---------|---------------------|-------|-------------------------|
| (A) 1 | 700 | 0.60 | 2.08 | 67 |
| (A) 2 | 690 | 0.68 | 2.10 | 67 |
| (A) 3 | 680 | 0.79 | 2.15 | 71 |
| (B) 1 | 605 | 0.40 | 0.87 | 64 |
| (B) 2 | 575 | 0.44 | 0.94 | 63 |
| (B) 3 | 540 | 0.48 | 1.05 | 65 |
| (C) 1 | 680 | 0.96 | 2.57 | 68 |
| (C) 2 | 670 | 1.01 | 2.61 | 69 |
| (C) 3 | 665 | 1.05 | 2.70 | 71 |
| (D) 1 | 525 | 0.60 | 1.26 | 63 |
| (D) 2 | 510 | 0.62 | 1.29 | 63 |
| (D) 3 | 500 | 0.63 | 1.31 | 64 |
| (E) 1 | 690 | 0.76 | 2.21 | 67 |
| (E) 2 | 680 | 0.85 | 2.28 | 67 |
| (E) 3 | 660 | 0.98 | 2.41 | 71 |
| (F) 1 | 560 | 0.50 | 1.06 | 63 |
| (F) 2 | 530 | 0.54 | 1.13 | 62 |
| (F) 3 | 515 | 0.57 | 1.21 | 64 |

- **Motor protection:** Design with thermal overload protector
- **Cable exit:** Via terminal box
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** VDE (acc. to EN 60034)

| Direction of air flow | < "V"/"A" > | < "V"/"A" > | < "V" > | < "V" > | "A" > | "A" > | < "V" > |
|-----------------------|---------------------|-------------------------|-----------------------------------|------------------------------------|-----------------------------------|------------------------------------|------------------|
| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle | With guard grille for short nozzle | In-line duct fan |
| "V" | A8D 800-AN01 -01 | W8D 800-GN01 -01 | S8D 800-CN01 -01 | S8D 800-AN01 -01 | — | — | — |
| "A" | A8D 800-AN01 -02 | W8D 800-DN01 -02 | — | — | S8D 800-BN01 -02 | — | — |
| "V" | A8D 800-AT03 -01 | W8D 800-GT03 -01 | S8D 800-CT03 -01 | S8D 800-AT03 -01 | — | — | — |
| "A" | A8D 800-AT03 -02 | W8D 800-DT03 -02 | — | — | S8D 800-BT03 -02 | — | — |
| "V" | A8D 800-AJ01 -01 | W8D 800-GJ01 -01 | S8D 800-CJ01 -01 | S8D 800-AJ01 -01 | — | — | — |
| "A" | A8D 800-AJ01 -02 | W8D 800-DJ01 -02 | — | — | S8D 800-BJ01 -02 | — | — |
| "V" | AZD 800-AM03 -01 | WZD 800-GM03 -01 | SZD 800-CM03 -01 | SZD 800-AM03 -01 | — | — | — |
| "A" | AZD 800-AM03 -02 | WZD 800-DM03 -02 | — | — | SZD 800-BM03 -02 | — | — |

Curves



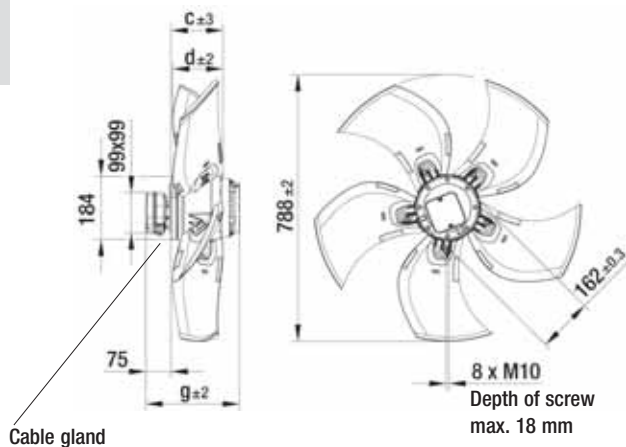
| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] |
|-----|---------|---------------------|-------|-------------------------|
| Ⓔ ① | 455 | 0.31 | 1.09 | 59 |
| Ⓔ ② | 445 | 0.33 | 1.10 | 58 |
| Ⓔ ③ | 435 | 0.37 | 1.15 | 61 |
| Ⓕ ① | 375 | 0.17 | 0.43 | 55 |
| Ⓕ ② | 360 | 0.18 | 0.45 | 55 |
| Ⓕ ③ | 330 | 0.20 | 0.48 | 55 |

AC axial fans

S series, Ø 800, drawings for direction of air flow "V"



Without attachments

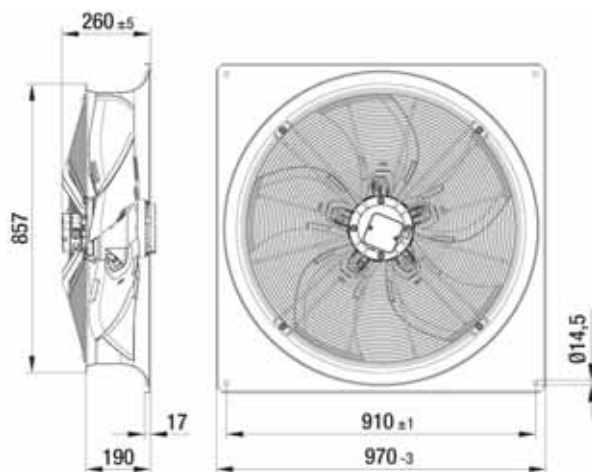


< "V"

| Type | Mass [kg] | c | d | g |
|------------------|-----------|-------|-------|-------|
| A6D 800-AN01 -01 | 22.0 | 147.0 | 133.0 | 251.0 |
| A6D 800-AO01 -01 | 22.0 | 142.0 | 118.0 | 251.0 |
| A6D 800-AJ01 -01 | 26.0 | 152.0 | 147.0 | 276.0 |
| A6D 800-AS01 -01 | 29.0 | 157.0 | 162.0 | 296.0 |
| A6D 800-AP01 -01 | 29.0 | 152.0 | 147.0 | 296.0 |
| A8D 800-AN01 -01 | 22.0 | 147.0 | 133.0 | 251.0 |
| A8D 800-AT03 -01 | 26.0 | 157.0 | 162.0 | 276.0 |
| A8D 800-AJ01 -01 | 26.0 | 152.0 | 147.0 | 276.0 |
| AZD 800-AM03 -01 | 22.0 | 152.0 | 147.0 | 251.0 |



With full square nozzle

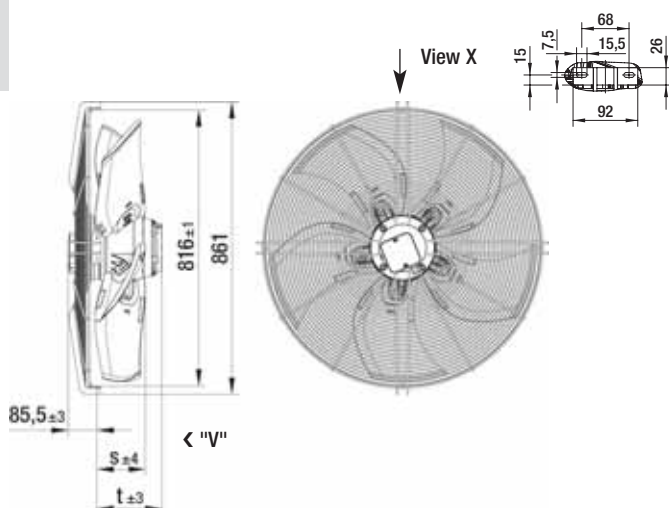


< "V"

| Type | Mass [kg] |
|------------------|-----------|
| W6D 800-GN01 -01 | 42.0 |
| W6D 800-GO01 -01 | 42.0 |
| W6D 800-GJ01 -01 | 46.0 |
| W6D 800-GS01 -01 | 49.0 |
| W6D 800-GP01 -01 | 49.0 |
| W8D 800-GN01 -01 | 42.0 |
| W8D 800-GT03 -01 | 46.0 |
| W8D 800-GJ01 -01 | 46.0 |
| WZD 800-GM03 -01 | 42.0 |



With guard grille for full nozzle

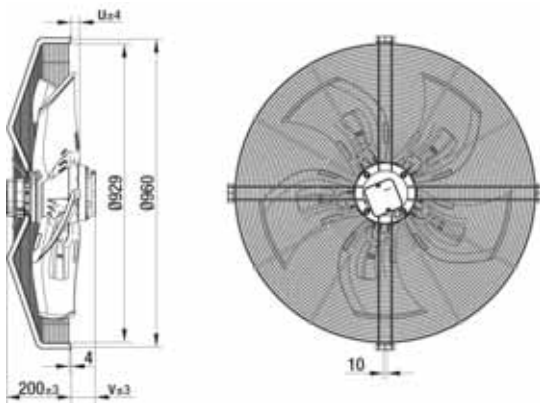


< "V"

| Type | Mass [kg] | s | t |
|------------------|-----------|-------|-------|
| S6D 800-CN01 -01 | 32.0 | 136.5 | 165.5 |
| S6D 800-CO01 -01 | 32.0 | 131.5 | 165.5 |
| S6D 800-CJ01 -01 | 36.0 | 141.5 | 190.5 |
| S6D 800-CS01 -01 | 39.0 | 146.5 | 210.5 |
| S6D 800-CP01 -01 | 39.0 | 141.5 | 210.5 |
| S8D 800-CN01 -01 | 32.0 | 136.5 | 165.5 |
| S8D 800-CT03 -01 | 36.0 | 146.5 | 190.5 |
| S8D 800-CJ01 -01 | 36.0 | 141.5 | 190.5 |
| SZD 800-CM03 -01 | 32.0 | 141.5 | 165.5 |



With guard grille for short nozzle

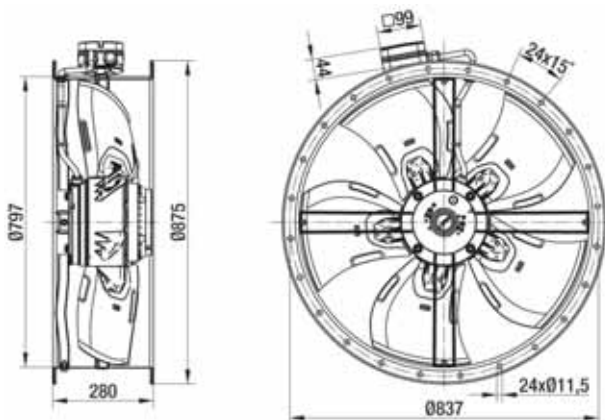


< "V"

| Type | Mass [kg] | u | v |
|------------------|-----------|------|------|
| S6D 800-AN01 -01 | 34.0 | 17.0 | 51.0 |
| S6D 800-AO01 -01 | 34.0 | 17.0 | 51.0 |
| S6D 800-AJ01 -01 | 38.0 | 27.0 | 76.0 |
| S6D 800-AS01 -01 | 41.0 | 32.0 | 96.0 |
| S6D 800-AP01 -01 | 41.0 | 27.0 | 96.0 |
| S8D 800-AN01 -01 | 34.0 | 22.0 | 51.0 |
| S8D 800-AT03 -01 | 38.0 | 32.0 | 76.0 |
| S8D 800-AJ01 -01 | 38.0 | 27.0 | 76.0 |
| SZD 800-AM03 -01 | 34.0 | 17.0 | 51.0 |



In-line duct fan



< "V"

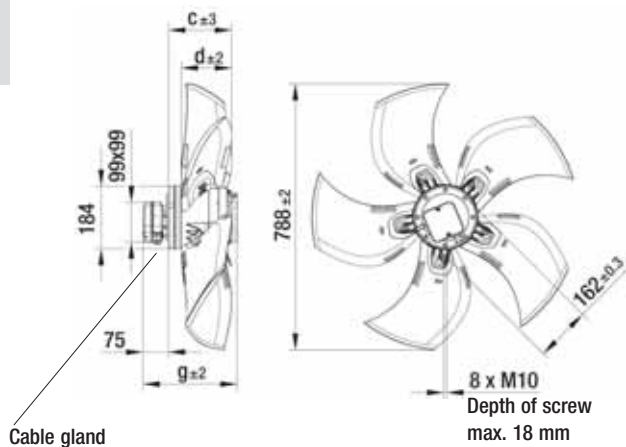
| Type | Mass [kg] |
|------------------|-----------|
| W6D 800-IJ01 -01 | 43.8 |

AC axial fans

S series, Ø 800, drawings for direction of air flow "A"



Without attachments



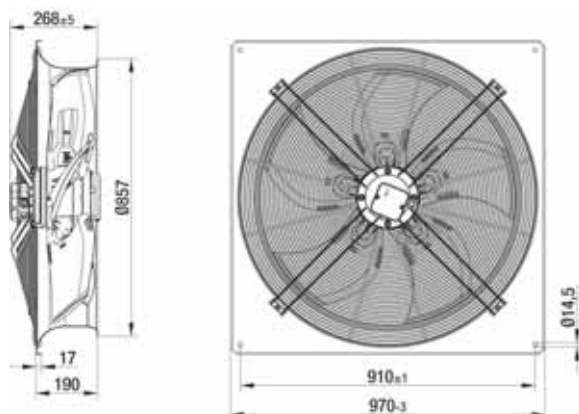
Cable gland

"A" >

| Type | Mass [kg] | c | d | g |
|------------------|-----------|-------|-------|-------|
| A6D 800-AN01 -02 | 22.0 | 175.0 | 133.0 | 251.0 |
| A6D 800-AO01 -02 | 22.0 | 165.0 | 188.0 | 251.0 |
| A6D 800-AJ01 -02 | 26.0 | 185.0 | 147.0 | 276.0 |
| A6D 800-AS01 -02 | 29.0 | 194.0 | 162.0 | 296.0 |
| A6D 800-AP01 -02 | 29.0 | 185.0 | 147.0 | 296.0 |
| A8D 800-AN01 -02 | 22.0 | 175.0 | 133.0 | 251.0 |
| A8D 800-AT03 -02 | 26.0 | 194.0 | 162.0 | 276.0 |
| A8D 800-AJ01 -02 | 26.0 | 185.0 | 147.0 | 276.0 |
| AZD 800-AM03 -02 | 22.0 | 185.0 | 147.0 | 251.0 |



With full square nozzle

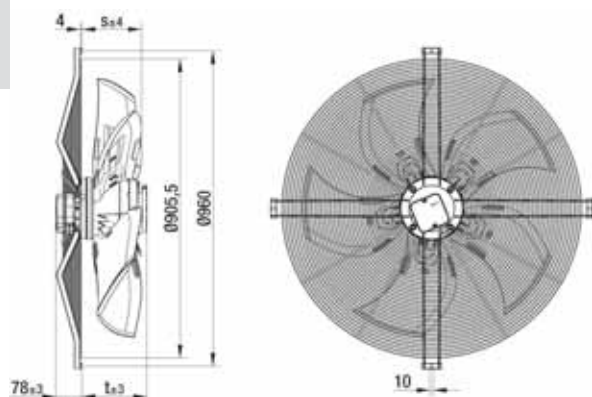


"A" >

| Type | Mass [kg] |
|------------------|-----------|
| W6D 800-DN01 -02 | 43.5 |
| W6D 800-DO01 -02 | 43.5 |
| W6D 800-DJ01 -02 | 47.5 |
| W6D 800-DS01 -02 | 50.5 |
| W6D 800-DP01 -02 | 50.5 |
| W8D 800-DN01 -02 | 43.5 |
| W8D 800-DT03 -02 | 47.5 |
| W8D 800-DJ01 -02 | 47.5 |
| WZD 800-DM03 -02 | 43.5 |



With guard grille for full nozzle

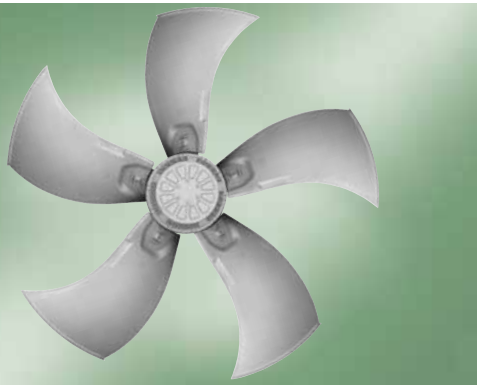


"A" >

| Type | Mass [kg] | s | t |
|------------------|-----------|-------|-------|
| S6D 800-BN01 -02 | 33.0 | 172.0 | 173.0 |
| S6D 800-BO01 -02 | 33.0 | 162.0 | 173.0 |
| S6D 800-BJ01 -02 | 37.0 | 182.0 | 198.0 |
| S6D 800-BS01 -02 | 40.0 | 191.0 | 218.0 |
| S6D 800-BP01 -02 | 40.0 | 182.0 | 218.0 |
| S8D 800-BN01 -02 | 34.0 | 172.0 | 173.0 |
| S8D 800-BT03 -02 | 37.0 | 191.0 | 198.0 |
| S8D 800-BJ01 -02 | 37.0 | 182.0 | 198.0 |
| SZD 800-BM03 -02 | 34.0 | 182.0 | 173.0 |

AC axial fans

S series, Ø 910



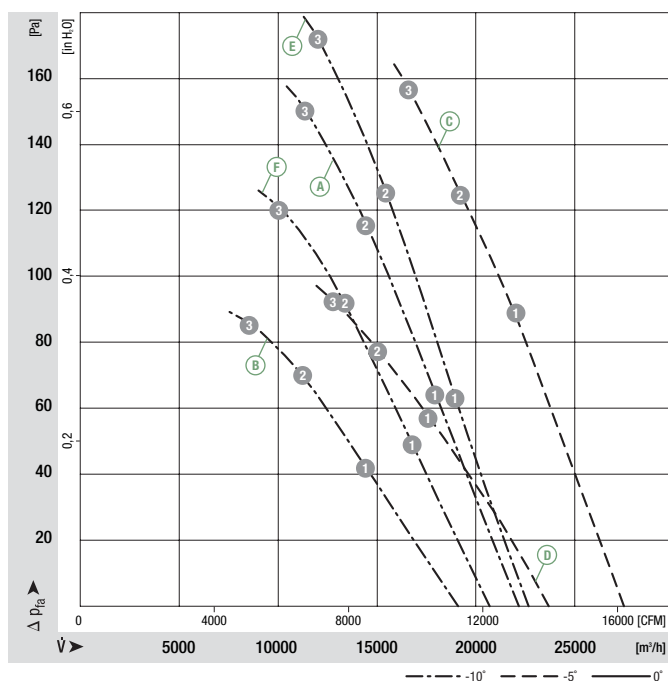
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Die-cast aluminium
Rotor: Encased in aluminium
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" clockwise, direction of air flow "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Any
- **Condensate discharge holes:** On rotor and stator side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Blade angle | Curve | Nominal voltage | Frequency | Speed/rpm ⁽¹⁾ | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Capacitor | Max. operative range | Perm. amb. temp. | Electr. connection |
|--------------|------------|-------------|-------|-----------------|-----------|--------------------------|---------------------------------|----------------------------------|-----------|----------------------|------------------|--------------------|
| Type | Motor | | | VAC | Hz | rpm | kW | A | µF/VDB | Pa | °C | p. 416 f. |
| *6D 910 | M6D 138-HF | -10° | (A) | 3~ 400 Δ | 50 | 880 | 1.30 | 2.75 | — | 150 | -40 to +60 | F1b)/F2b) |
| | | | (B) | 3~ 400 Y | 50 | 670 | 0.81 | 1.56 | — | 85 | -40 to +60 | |
| *6D 910 | M6D 138-LA | -5° | (C) | 3~ 400 Δ | 50 | 900 | 1.84 | 3.76 | — | 150 | -40 to +60 | F1b)/F2b) |
| | | | (D) | 3~ 400 Y | 50 | 700 | 1.20 | 2.24 | — | 88 | -40 to +60 | |
| *6D 910 | M6D 138-LA | -10° | (E) | 3~ 400 Δ | 50 | 930 | 1.41 | 3.20 | — | 165 | -40 to +75 | F1b)/F2b) |
| | | | (F) | 3~ 400 Y | 50 | 780 | 1.03 | 1.90 | — | 115 | -40 to +75 | |
| *6D 910 | M6D 138-NA | 0° | (G) | 3~ 400 Δ | 50 | 890 | 2.45 | 5.20 | — | 160 | -40 to +50 | F1b)/F2b) |
| | | | (H) | 3~ 400 Y | 50 | 685 | 1.56 | 2.90 | — | 95 | -40 to +50 | |
| *6D 910 | M6D 138-NA | -5° | (I) | 3~ 400 Δ | 50 | 920 | 1.96 | 4.50 | — | 170 | -40 to +60 | F1b)/F2b) |
| | | | (J) | 3~ 400 Y | 50 | 760 | 1.37 | 2.55 | — | 115 | -40 to +60 | |
| *6D 910 | M6D 138-NA | -10° | (K) | 3~ 400 Δ | 50 | 940 | 1.53 | 4.45 | — | 170 | -40 to +70 | F1b)/F2b) |
| | | | (L) | 3~ 400 Y | 50 | 830 | 1.14 | 2.15 | — | 130 | -40 to +70 | |

subject to alterations

(1) Nominal data in operating point 3 with maximum load

Curves

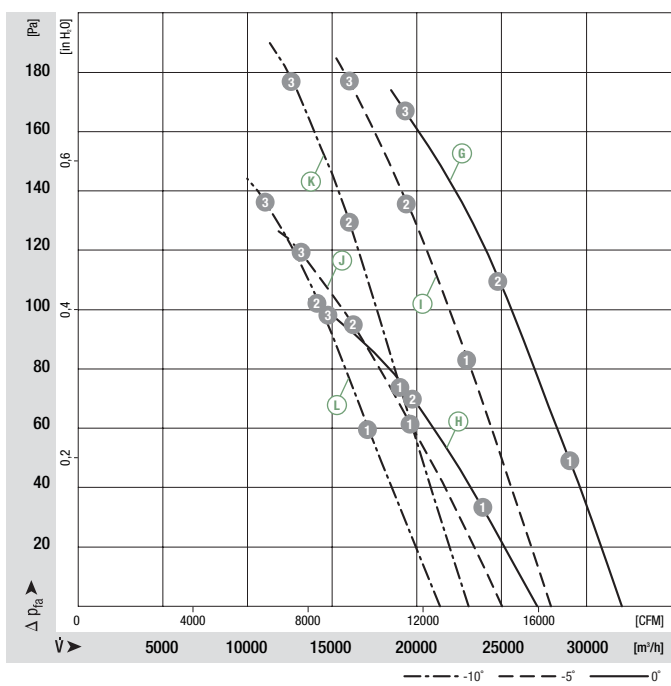


| | n [rpm] | P ₁ [kW] | I [A] | Lw _A [dB(A)] |
|-------|---------|---------------------|-------|-------------------------|
| (A) 1 | 910 | 1.06 | 2.56 | 77 |
| (A) 2 | 890 | 1.21 | 2.72 | 78 |
| (A) 3 | 880 | 1.30 | 2.75 | 82 |
| (B) 1 | 740 | 0.72 | 1.36 | 72 |
| (B) 2 | 700 | 0.78 | 1.47 | 72 |
| (B) 3 | 670 | 0.81 | 1.56 | 74 |
| (C) 1 | 920 | 1.59 | 3.51 | 76 |
| (C) 2 | 910 | 1.72 | 3.67 | 77 |
| (C) 3 | 900 | 1.84 | 3.76 | 79 |
| (D) 1 | 745 | 1.10 | 2.01 | 71 |
| (D) 2 | 720 | 1.15 | 2.11 | 71 |
| (D) 3 | 700 | 1.20 | 2.24 | 72 |
| (E) 1 | 945 | 1.11 | 2.91 | 78 |
| (E) 2 | 935 | 1.27 | 3.08 | 79 |
| (E) 3 | 930 | 1.41 | 3.20 | 83 |
| (F) 1 | 840 | 0.85 | 1.56 | 75 |
| (F) 2 | 805 | 0.96 | 1.74 | 75 |
| (F) 3 | 780 | 1.03 | 1.90 | 78 |

- **Motor protection:** Design with thermal overload protector
- **Cable exit:** Via terminal box
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** VDE (acc. to EN 60034)

| Direction of air flow | < "V"/"A" > | | < "V"/"A" > | | < "V" > | | < "V" > | | "A" > | | "A" > | | < "V" > | |
|-----------------------|---------------------|------------------|-------------------------|------------------|-----------------------------------|---|------------------------------------|---|-----------------------------------|---|------------------------------------|---|------------------|---|
| | Without attachments | | With full square nozzle | | With guard grille for full nozzle | | With guard grille for short nozzle | | With guard grille for full nozzle | | With guard grille for short nozzle | | In-line duct fan | |
| "V" | A6D 910-A001 -01 | W6D 910-G001 -01 | S6D 910-C001 -01 | S6D 910-A001 -01 | — | — | — | — | — | — | — | — | — | — |
| "A" | A6D 910-A001 -02 | W6D 910-D001 -02 | — | — | — | — | — | — | S6D 910-B001 -02 | — | — | — | — | — |
| "V" | A6D 910-AK01 -01 | W6D 910-GK01 -01 | S6D 910-CK01 -01 | S6D 910-AK01 -01 | — | — | — | — | — | — | — | — | — | — |
| "A" | A6D 910-AK01 -02 | W6D 910-DK01 -02 | — | — | — | — | — | — | S6D 910-BK01 -02 | — | — | — | — | — |
| "V" | A6D 910-AL01 -01 | W6D 910-GL01 -01 | S6D 910-CL01 -01 | S6D 910-AL01 -01 | — | — | — | — | — | — | — | — | — | — |
| "A" | A6D 910-AL01 -02 | W6D 910-DL01 -02 | — | — | — | — | — | — | S6D 910-BL01 -02 | — | — | — | — | — |
| "V" | A6D 910-AP01 -01 | W6D 910-GP01 -01 | S6D 910-CP01 -01 | S6D 910-AP01 -01 | — | — | — | — | — | — | — | — | — | — |
| "A" | A6D 910-AP01 -02 | W6D 910-DP01 -02 | — | — | — | — | — | — | S6D 910-BP01 -02 | — | — | — | — | — |
| "V" | A6D 910-AQ01 -01 | W6D 910-GQ01 -01 | S6D 910-CQ01 -01 | S6D 910-AQ01 -01 | — | — | — | — | — | — | — | — | — | — |
| "A" | A6D 910-AQ01 -02 | W6D 910-DQ01 -02 | — | — | — | — | — | — | S6D 910-BQ01 -02 | — | — | — | — | — |
| "V" | A6D 910-AR01 -01 | W6D 910-GR01 -01 | S6D 910-CR01 -01 | S6D 910-AR01 -01 | — | — | — | — | — | — | — | — | — | — |
| "A" | A6D 910-AR01 -02 | W6D 910-DR01 -02 | — | — | — | — | — | — | S6D 910-BR01 -02 | — | — | — | — | — |

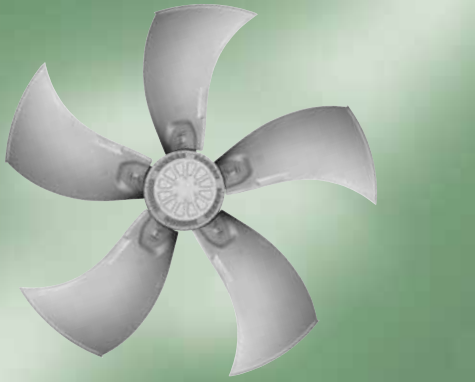
Curves



| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] |
|-----|---------|---------------------|-------|-------------------------|
| G 1 | 920 | 1.99 | 4.65 | 76 |
| G 2 | 905 | 2.24 | 4.95 | 76 |
| G 3 | 890 | 2.45 | 5.20 | 79 |
| H 1 | 760 | 1.39 | 2.57 | 72 |
| H 2 | 725 | 1.49 | 2.76 | 70 |
| H 3 | 685 | 1.56 | 2.90 | 72 |
| I 1 | 940 | 1.64 | 4.33 | 77 |
| I 2 | 930 | 1.82 | 4.51 | 78 |
| I 3 | 920 | 1.96 | 4.50 | 80 |
| J 1 | 810 | 1.20 | 2.23 | 73 |
| J 2 | 780 | 1.30 | 2.40 | 73 |
| J 3 | 760 | 1.37 | 2.55 | 75 |
| K 1 | 960 | 1.24 | 4.27 | 78 |
| K 2 | 950 | 1.40 | 4.35 | 80 |
| K 3 | 940 | 1.53 | 4.45 | 83 |
| L 1 | 875 | 0.94 | 1.79 | 76 |
| L 2 | 850 | 1.05 | 1.97 | 77 |
| L 3 | 830 | 1.14 | 2.15 | 80 |

AC axial fans

S series, Ø 910



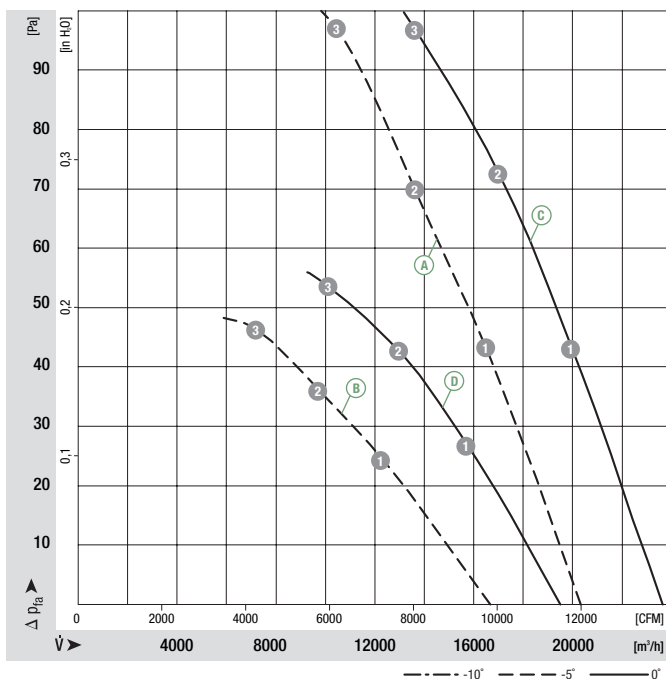
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Die-cast aluminium
Rotor: Encased in aluminium
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" clockwise, direction of air flow "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Any
- **Condensate discharge holes:** On rotor and stator side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Blade angle | Curve | Nominal voltage | Frequency | Speed/rpm ⁽¹⁾ | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Capacitor | Max. operative range | Perm. amb. temp. | Electr. connection |
|--------------|------------|-------------|-------|-----------------|-----------|--------------------------|---------------------------------|----------------------------------|-----------|----------------------|------------------|--------------------|
| Type | Motor | | | VAC | Hz | rpm | kW | A | µF/VDB | Pa | °C | p. 416 f. |
| *8D 910 | M8D 138-HF | -5° | (A) | 3~ 400 Δ | 50 | 645 | 0.85 | 2.09 | — | 90 | -40 to +60 | F1b)/F2b) |
| | | | (B) | 3~ 400 Y | 50 | 450 | 0.45 | 1.00 | — | 43 | -40 to +60 | |
| *8D 910 | M8D 138-LA | 0° | (C) | 3~ 400 Δ | 50 | 665 | 1.11 | 2.70 | — | 90 | -40 to +65 | F1b)/F2b) |
| | | | (D) | 3~ 400 Y | 50 | 495 | 0.68 | 1.36 | — | 50 | -40 to +65 | |
| *ZD 910 | MZD 138-HF | 0° | (E) | 3~ 400 Δ | 50 | 425 | 0.42 | 1.15 | — | 40 | -40 to +70 | F1b)/F2b) |
| | | | (F) | 3~ 400 Y | 50 | 315 | 0.22 | 0.50 | — | 21 | -40 to +70 | |
| *ZD 910 | MZD 138-HF | -5° | (G) | 3~ 400 Δ | 50 | 430 | 0.32 | 0.86 | — | 42 | -40 to +100 | F1b)/F2b) |
| | | | (H) | 3~ 400 Y | 50 | 320 | 0.17 | 0.40 | — | 22 | -40 to +100 | |

subject to alterations

(1) Nominal data in operating point 3 with maximum load

Curves

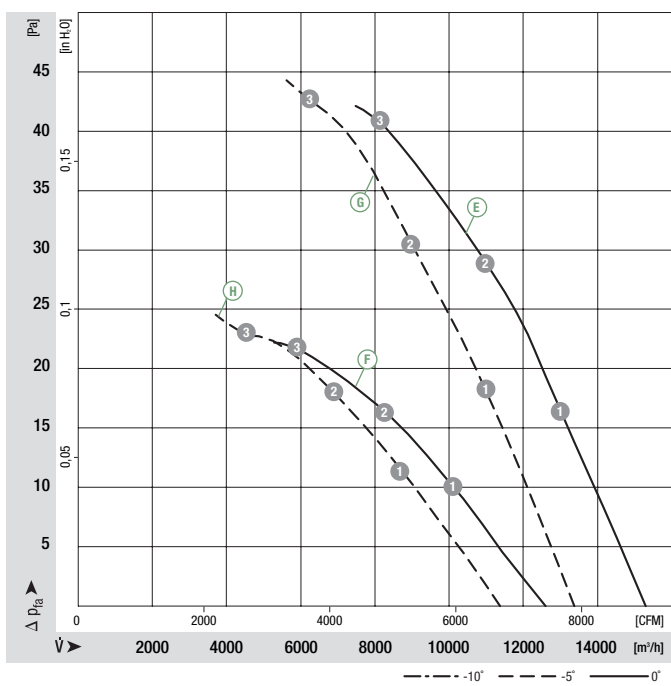


| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] |
|-------|---------|---------------------|-------|-------------------------|
| (A) 1 | 670 | 0.73 | 1.94 | 68 |
| (A) 2 | 655 | 0.80 | 2.03 | 68 |
| (A) 3 | 645 | 0.85 | 2.09 | 69 |
| (B) 1 | 500 | 0.43 | 0.95 | 62 |
| (B) 2 | 460 | 0.44 | 0.99 | 60 |
| (B) 3 | 450 | 0.45 | 1.00 | 60 |
| (C) 1 | 685 | 0.94 | 2.49 | 69 |
| (C) 2 | 675 | 1.03 | 2.57 | 69 |
| (C) 3 | 665 | 1.11 | 2.70 | 71 |
| (D) 1 | 540 | 0.62 | 1.23 | 64 |
| (D) 2 | 515 | 0.65 | 1.30 | 63 |
| (D) 3 | 495 | 0.68 | 1.36 | 64 |

- **Motor protection:** Design with thermal overload protector
- **Cable exit:** Via terminal box
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** VDE (acc. to EN 60034)

| Direction of air flow | < "V"/"A" > | < "V"/"A" > | < "V" > | < "V" > | "A" > | "A" > | < "V" > |
|-----------------------|---------------------|-------------------------|-----------------------------------|------------------------------------|-----------------------------------|------------------------------------|------------------|
| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle | With guard grille for short nozzle | In-line duct fan |
| "V" | A8D 910-AN07 -01 | W8D 910-GN07 -01 | S8D 910-CN07 -01 | S8D 910-AN07 -01 | — | — | — |
| "A" | A8D 910-AN07 -02 | W8D 910-DN07 -02 | — | — | S8D 910-BN07 -02 | — | — |
| "V" | A8D 910-AJ03 -01 | W8D 910-GJ03 -01 | S8D 910-CJ03 -01 | S8D 910-AJ03 -01 | — | — | — |
| "A" | A8D 910-AJ03 -02 | W8D 910-DJ03 -02 | — | — | S8D 910-BJ03 -02 | — | — |
| "V" | AZD 910-AM03 -01 | WZD 910-GM03 -01 | SZD 910-CM03 -01 | SZD 910-AM03 -01 | — | — | — |
| "A" | AZD 910-AM03 -02 | WZD 910-DM03 -02 | — | — | SZD 910-BM03 -02 | — | — |
| "V" | AZD 910-AN05 -01 | WZD 910-GN05 -01 | SZD 910-CN05 -01 | SZD 910-AN05 -01 | — | — | — |
| "A" | AZD 910-AN05 -02 | WZD 910-DN05 -02 | — | — | SZD 910-BN05 -02 | — | — |

Curves



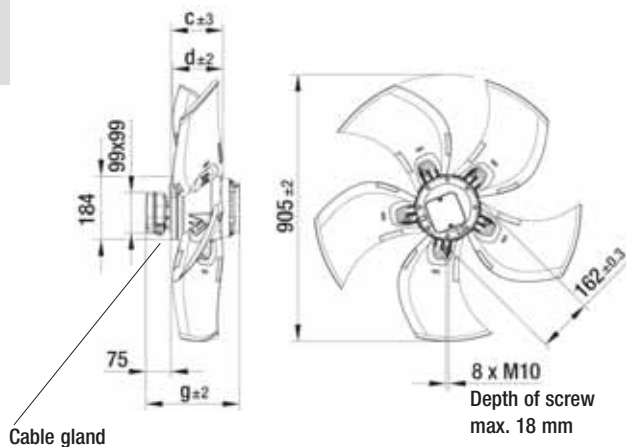
| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] |
|-----|---------|---------------------|-------|-------------------------|
| E 1 | 445 | 0.36 | 1.11 | 61 |
| E 2 | 435 | 0.39 | 1.13 | 59 |
| E 3 | 425 | 0.42 | 1.15 | 61 |
| F 1 | 345 | 0.20 | 0.46 | 54 |
| F 2 | 330 | 0.21 | 0.48 | 53 |
| F 3 | 315 | 0.22 | 0.50 | 53 |
| G 1 | 450 | 0.27 | 0.81 | 60 |
| G 2 | 440 | 0.29 | 0.84 | 59 |
| G 3 | 430 | 0.32 | 0.86 | 61 |
| H 1 | 360 | 0.16 | 0.36 | 54 |
| H 2 | 340 | 0.17 | 0.38 | 53 |
| H 3 | 320 | 0.17 | 0.40 | 53 |

AC axial fans

S series, Ø 910, drawings for direction of air flow "V"



Without attachments

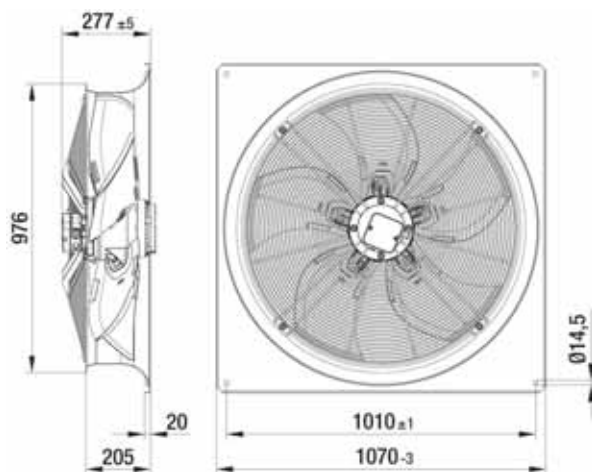


< "V"

| Type | Mass [kg] | c | d | g |
|------------------|-----------|-------|-------|-------|
| A6D 910-A001 -01 | 22.0 | 147.0 | 104.0 | 251.0 |
| A6D 910-AK01 -01 | 27.0 | 152.0 | 115.0 | 276.0 |
| A6D 910-AL01 -01 | 27.0 | 147.0 | 104.0 | 276.0 |
| A6D 910-AP01 -01 | 30.0 | 156.0 | 123.0 | 296.0 |
| A6D 910-AQ01 -01 | 30.0 | 152.0 | 115.0 | 296.0 |
| A6D 910-AR01 -01 | 30.0 | 147.0 | 104.0 | 296.0 |
| A8D 910-AN07 -01 | 22.0 | 152.0 | 115.0 | 251.0 |
| A8D 910-AJ03 -01 | 27.0 | 156.0 | 123.0 | 276.0 |
| AZD 910-AM03 -01 | 22.0 | 157.0 | 123.0 | 251.0 |
| AZD 910-AN05 -01 | 22.0 | 152.0 | 115.0 | 251.0 |



With full square nozzle

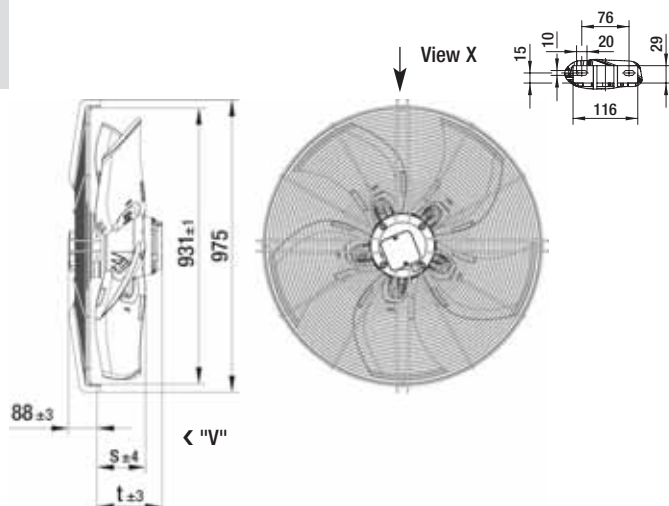


< "V"

| Type | Mass [kg] |
|------------------|-----------|
| W6D 910-G001 -01 | 42.0 |
| W6D 910-GK01 -01 | 47.0 |
| W6D 910-GL01 -01 | 47.0 |
| W6D 910-GP01 -01 | 50.0 |
| W6D 910-GQ01 -01 | 50.0 |
| W6D 910-GR01 -01 | 50.0 |
| W8D 910-GN07 -01 | 42.0 |
| W8D 910-GJ03 -01 | 47.0 |
| WZD 910-GM03 -01 | 42.0 |
| WZD 910-GN05 -01 | 42.0 |



With guard grille for full nozzle

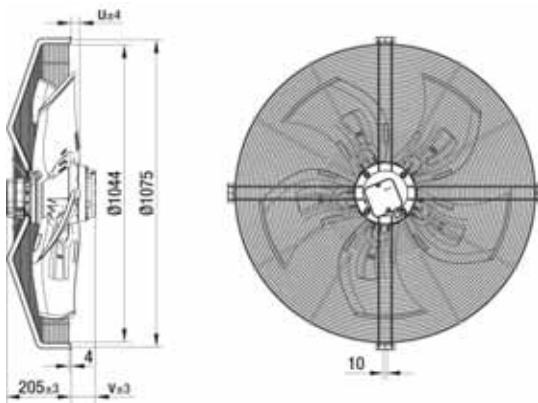


< "V"

| Type | Mass [kg] | s | t |
|------------------|-----------|-------|-------|
| S6D 910-C001 -01 | 33.0 | 134.0 | 163.0 |
| S6D 910-CK01 -01 | 38.0 | 139.0 | 188.0 |
| S6D 910-CL01 -01 | 38.0 | 134.0 | 188.0 |
| S6D 910-CP01 -01 | 41.0 | 143.0 | 208.0 |
| S6D 910-CQ01 -01 | 41.0 | 139.0 | 208.0 |
| S6D 910-CR01 -01 | 41.0 | 134.0 | 208.0 |
| S8D 910-CN07 -01 | 33.0 | 139.0 | 163.0 |
| S8D 910-CJ03 -01 | 38.0 | 143.0 | 188.0 |
| SZD 910-CM03 -01 | 33.0 | 143.0 | 163.0 |
| SZD 910-CN05 -01 | 33.0 | 139.0 | 163.0 |



With guard grille for short nozzle



< "V"

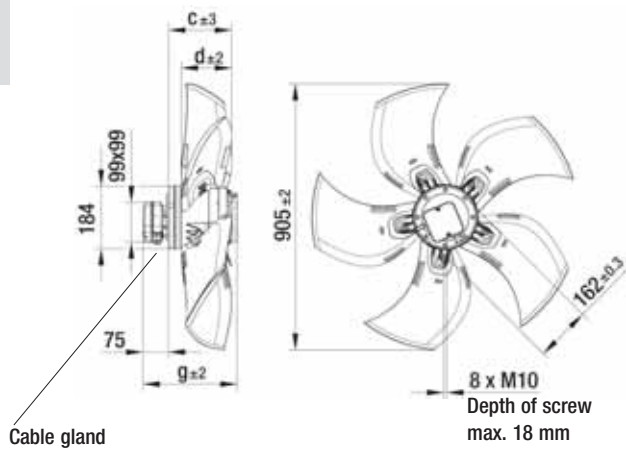
| Type | Mass [kg] | u | v |
|------------------|-----------|------|------|
| S6D 910-A001 -01 | 35.0 | 17.0 | 46.0 |
| S6D 910-AK01 -01 | 40.0 | 22.0 | 71.0 |
| S6D 910-AL01 -01 | 40.0 | 17.0 | 71.0 |
| S6D 910-AP01 -01 | 43.0 | 26.0 | 91.0 |
| S6D 910-AQ01 -01 | 43.0 | 22.0 | 91.0 |
| S6D 910-AR01 -01 | 43.0 | 17.0 | 91.0 |
| S8D 910-AN07 -01 | 35.0 | 22.0 | 46.0 |
| S8D 910-AJ03 -01 | 40.0 | 26.0 | 71.0 |
| SZD 910-CM03 -01 | 35.0 | 26.0 | 46.0 |
| SZD 910-CN05 -01 | 35.0 | 22.0 | 46.0 |

AC axial fans

S series, Ø 910, drawings for direction of air flow "A"



Without attachments

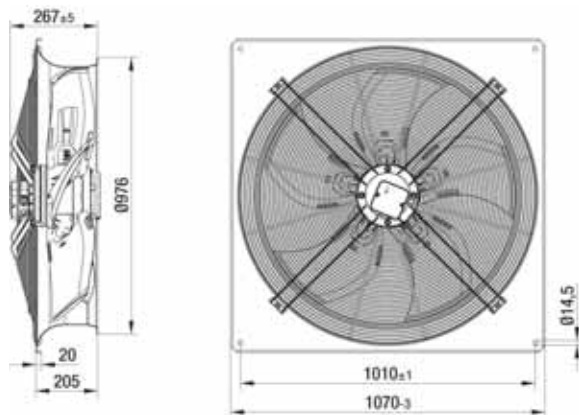


"A" >

| Type | Mass [kg] | c | d | g |
|------------------|-----------|-------|-------|-------|
| A6D 910-A001 -02 | 22.0 | 145.0 | 104.0 | 251.0 |
| A6D 910-AK01 -02 | 27.0 | 154.0 | 115.0 | 276.0 |
| A6D 910-AL01 -02 | 27.0 | 145.0 | 104.0 | 276.0 |
| A6D 910-AP01 -02 | 30.0 | 157.0 | 123.0 | 296.0 |
| A6D 910-AQ01 -02 | 30.0 | 154.0 | 115.0 | 296.0 |
| A6D 910-AR01 -02 | 30.0 | 145.0 | 104.0 | 296.0 |
| A8D 910-AN07 -02 | 22.0 | 154.0 | 115.0 | 251.0 |
| A8D 910-AJ03 -02 | 27.0 | 157.0 | 123.0 | 276.0 |
| AZD 910-AM03 -02 | 22.0 | 157.0 | 123.0 | 251.0 |
| AZD 910-AN05 -02 | 22.0 | 154.0 | 115.0 | 251.0 |



With full square nozzle

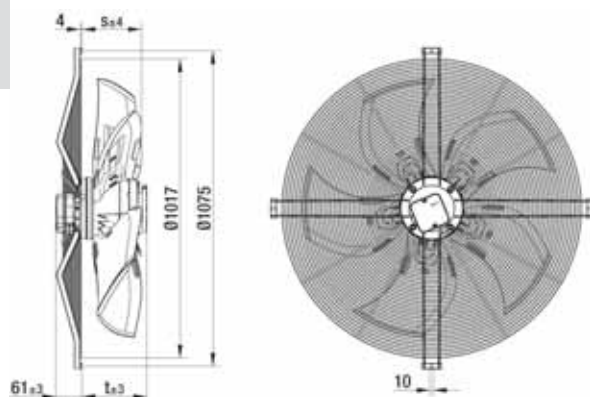


"A" >

| Type | Mass [kg] |
|------------------|-----------|
| W6D 910-D001 -02 | 43.5 |
| W6D 910-DK01 -02 | 48.5 |
| W6D 910-DL01 -02 | 48.5 |
| W6D 910-DP01 -02 | 51.5 |
| W6D 910-DQ01 -02 | 51.5 |
| W6D 910-DR01 -02 | 51.5 |
| W8D 910-DN07 -02 | 43.5 |
| W8D 910-DJ03 -02 | 48.5 |
| WZD 910-DM03 -02 | 43.5 |
| WZD 910-DN05 -02 | 43.5 |



With guard grille for full nozzle



"A" >

| Type | Mass [kg] | s | t |
|------------------|-----------|-------|-------|
| S6D 910-B001 -02 | 34.0 | 159.0 | 195.0 |
| S6D 910-BK01 -02 | 39.0 | 168.0 | 215.0 |
| S6D 910-BL01 -02 | 39.0 | 159.0 | 215.0 |
| S6D 910-BP01 -02 | 42.0 | 171.0 | 235.0 |
| S6D 910-BQ01 -02 | 42.0 | 168.0 | 235.0 |
| S6D 910-BR01 -02 | 42.0 | 159.0 | 235.0 |
| S8D 910-BN07 -02 | 34.0 | 168.0 | 195.0 |
| S8D 910-BJ03 -02 | 39.0 | 171.0 | 215.0 |
| SZD 910-BM03 -02 | 34.0 | 171.0 | 195.0 |
| SZD 910-BN05 -02 | 34.0 | 168.0 | 195.0 |



AC axial fans K series

General information

AC axial fans

AC axial S series

AC axial fans, K series

Ø 250 - Ø 450

132

AC axial K series

AC axial A series

EC axial fans

EC axial S series

Q-motor

ESM

EC-SYSTEMS

Accessories

Technology

Contacts



AC axial fans

K series, Ø 250 / 300

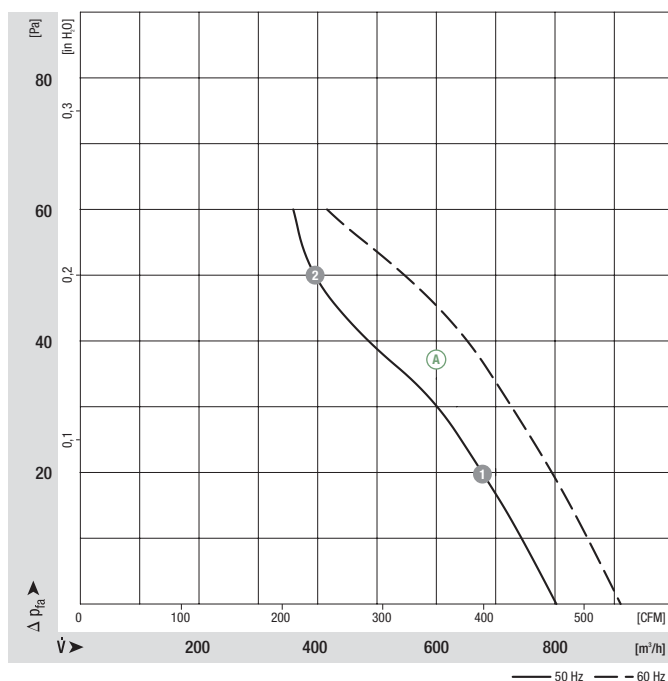


- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Blades: PA plastic, black
Rotor: Coated in black
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "B"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage | Frequency | Air flow | Speed/rpm | Power input | Current draw | Capacitor | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|--------------|------------|-------|-----------------|-------------------|----------|-----------|-------------|--------------|-----------|----------------------|----------------------|------------------|--------------------------|--------------------|
| Type | Motor | VAC | Hz | m ³ /h | rpm | W | A | µF/VDB | dB(A) | Pa | °C | kg | p. 416 f. | |
| *4E 250 | M4E 068-BF | A | 1~ 230 | 50 | 800 | 1350 | 41 | 0.18 | 1.5/400 | 47 | 60 | -25 to +60 | 1.2 | A1) |
| | | | 1~ 230 | 60 | 910 | 1550 | 50 | 0.23 | 1.5/400 | 50 | 60 | -25 to +70 | | |
| *4E 300-*E | M4E 068-BF | B | 1~ 230 | 50 | 1100 | 1100 | 52 | 0.23 | 1.5/400 | 53 | 50 | -25 to +45 | 1.3 | A1) |
| | | | 1~ 230 | 60 | 1150 | 1150 | 60 | 0.27 | 1.5/400 | 54 | 50 | -25 to +40 | | |
| *4E 300-*H | M4E 068-CF | C | 1~ 230 | 50 | 1340 | 1350 | 70 | 0.31 | 1.5/400 | 58 | 80 | -25 to +60 | 1.7 | A1) |
| | | | 1~ 230 | 60 | 1460 | 1480 | 90 | 0.40 | 1.5/400 | 61 | 65 | -25 to +55 | | |

subject to alterations

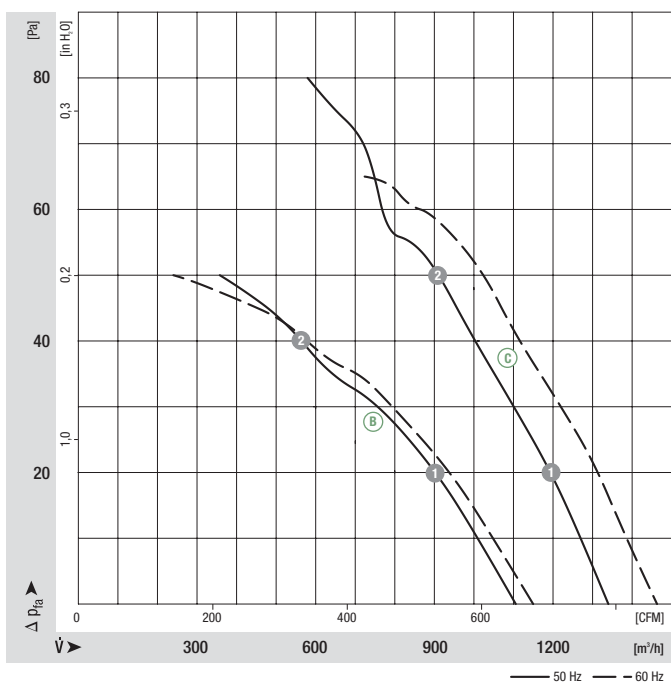
Curves



- **Motor protection:** TOP wired internally
- **Cable exit:** (A) (C) Axial, (B) variable
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, CE

| Direction of air flow | < "V"/"A" > | |
|-----------------------|---------------------|------------------------------------|
| | Without attachments | With guard grille for short nozzle |
| "V" | A4E 250-AE32 -05 | S4E 250-AE32 -01 |
| "A" | A4E 250-AE32 -06 | S4E 250-AE32 -02 |
| "V" | A4E 300-AE20 -05 | S4E 300-EE20 -05 |
| "A" | A4E 300-AE20 -06 | S4E 300-EE20 -06 |
| "V" | A4E 300-AH26 -05 | S4E 300-EH26 -05 |
| "A" | A4E 300-AH26 -06 | S4E 300-EH26 -06 |

Curves



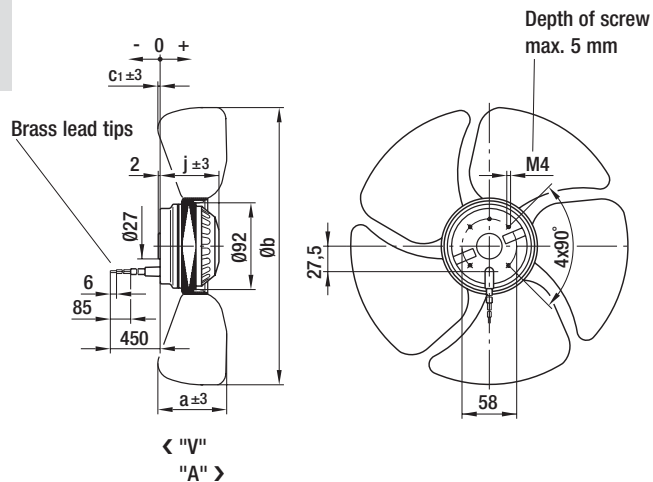
| | n [rpm] | P ₁ [W] | I [A] |
|-------|---------|--------------------|-------|
| (B) 1 | 1060 | 53 | 0.24 |
| (B) 2 | 985 | 55 | 0.24 |
| (C) 1 | 1325 | 71 | 0.32 |
| (C) 2 | 1310 | 73 | 0.33 |

AC axial fans

K series, Ø 250 / 300, drawings of directions of air flow "V" and "A"



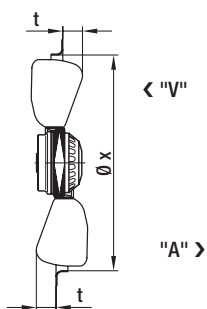
Without attachments



Type

| Type | a | b | c ₁ | j | |
|------------------|-----|------|----------------|------|------|
| A4E 250-AE32 -05 | "V" | 68.0 | 250.0 | -9.0 | 63.0 |
| A4E 250-AE32 -06 | "A" | 68.0 | 250.0 | -2.0 | 63.0 |
| A4E 300-AE20 -05 | "V" | 75.0 | 294.0 | -9.0 | 63.0 |
| A4E 300-AE20 -06 | "A" | 75.0 | 294.0 | -3.0 | 63.0 |
| A4E 300-AH26 -05 | "V" | 75.0 | 294.0 | -4.0 | 73.0 |
| A4E 300-AH26 -06 | "A" | 75.0 | 294.0 | -4.0 | 73.0 |

Installation arrangement

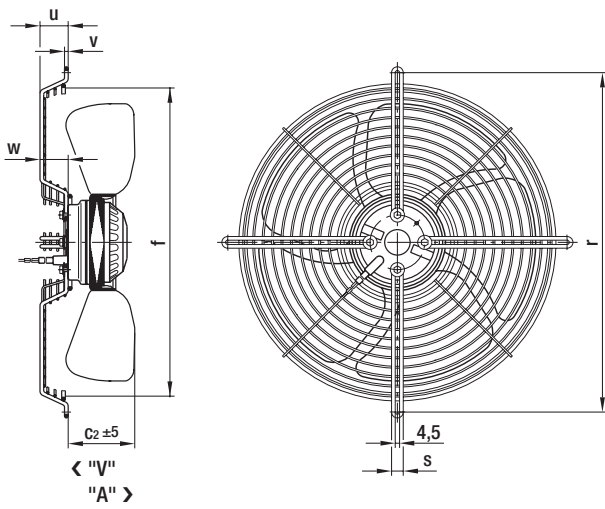


Type

| Type without attachments | Type without guard grille | t | x | |
|--------------------------|---------------------------|-----|------|-------|
| A4E 250-AE32 -05 | S4E 250-AE32 -01 | "V" | 32.0 | 260.0 |
| A4E 250-AE32 -06 | S4E 250-AE32 -02 | "A" | 32.0 | 260.0 |
| A4E 300-AE20 -05 | S4E 300-EE20 -05 | "V" | 38.0 | 306.0 |
| A4E 300-AE20 -06 | S4E 300-EE20 -06 | "A" | 38.0 | 306.0 |
| A4E 300-AH26 -05 | S4E 300-EH26 -05 | "V" | 38.0 | 306.0 |
| A4E 300-AH26 -06 | S4E 300-EH26 -06 | "A" | 38.0 | 306.0 |



With guard grille for short nozzle



Type

| | | c_2 | f | r | s | u | v | w |
|------------------|-----|-------|-------|-------|------|------|-----|------|
| S4E 250-AE32 -01 | "V" | 25.0 | 271.0 | 300.0 | 13.5 | 67.5 | 4.5 | 33.5 |
| S4E 250-AE32 -02 | "A" | 36.0 | 271.0 | 300.0 | 13.5 | 67.5 | 4.5 | 33.5 |
| S4E 300-EE20 -05 | "V" | 66.0 | — | 360.0 | 12.5 | 30.0 | 4.0 | 26.0 |
| S4E 300-EE20 -06 | "A" | 72.0 | — | 360.0 | 12.5 | 30.0 | 4.0 | 26.0 |
| S4E 300-EH26 -05 | "V" | 71.0 | — | 360.0 | 12.5 | 30.0 | 4.0 | 26.0 |
| S4E 300-EH26 -06 | "A" | 71.0 | — | 360.0 | 12.5 | 30.0 | 4.0 | 26.0 |

AC axial fans

K series, Ø 350



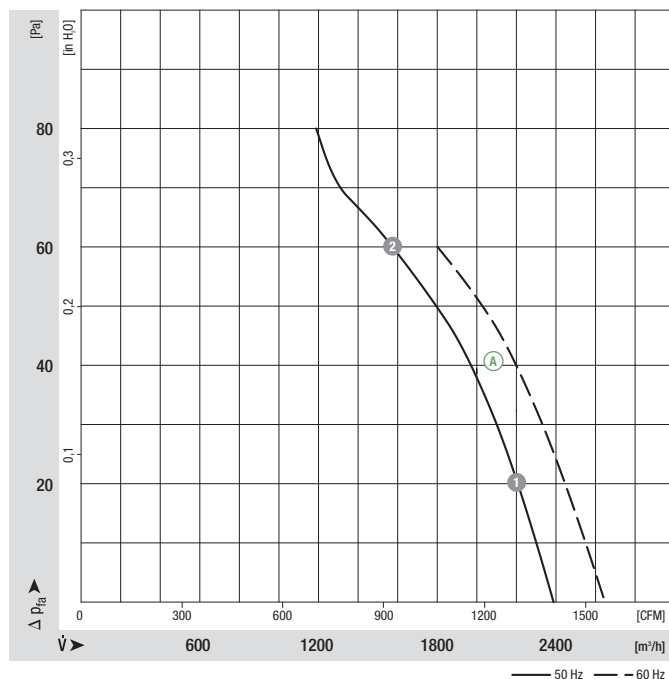
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Blades: PA plastic, black
Rotor: Coated in black
- **Number of blades:** 7
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "B"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

Nominal data

| Type | Motor | Curve | Nominal voltage VAC | Frequency Hz | Air flow m³/h | Speed/rpm | Power input W | Current draw A | Capacitor µF/VDB | Sound pressure level dB(A) | Max. operative range Pa | Perm. amb. temp. °C | Mass without attachments kg | Electr. connection p. 416 f. |
|---------|------------|-------|------------------------|-----------------|------------------|--------------|------------------|-------------------|---------------------|-------------------------------|----------------------------|--------------------------|-----------------------------------|---------------------------------|
| *4E 350 | M4E 068-DC | Ⓐ | 1~ 230 1~ 230 | 50 60 | 2390 2650 | 1350 1500 | 105 135 | 0.50 0.60 | 3.0/400 3.0/400 | 63 66 | 80 60 | -25 to +50 -25 to +40 | 2.0 | A1) |

subject to alterations

Curves



- **Motor protection:** TOP wired internally
- **Cable exit:** Axial
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, CE

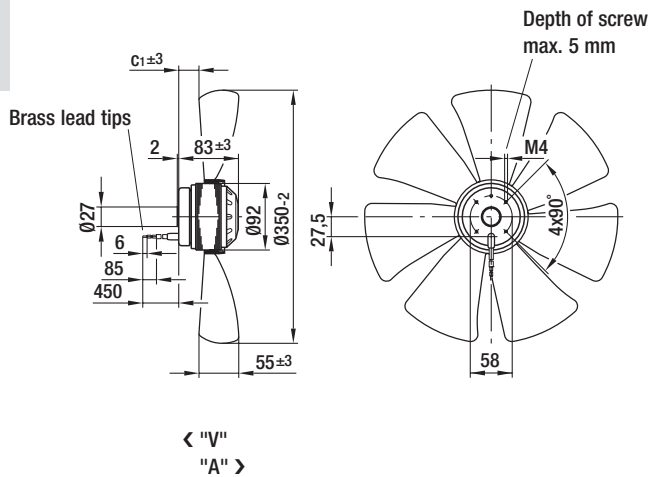
| Direction of air flow | < "V"/"A" > | |
|-----------------------|---------------------|------------------------------------|
| | Without attachments | With guard grille for short nozzle |
| "V" | A4E 350-AF20 -05 | S4E 350-AF20 -01 |
| "A" | A4E 350-AF20 -06 | S4E 350-AF20 -02 |

AC axial fans

K series, Ø 350, drawings of directions of air flow "V" and "A"



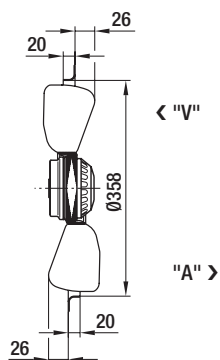
Without attachments



Type

| Type | | c ₁ |
|------------------|-----|----------------|
| A4E 350-AF20 -05 | "V" | 18.0 |
| A4E 350-AF20 -06 | "A" | 28.0 |

Installation arrangement

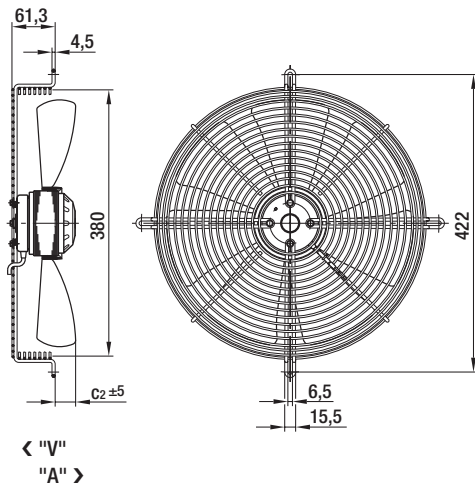


Type

| Type without attachments | Type without guard grille | |
|--------------------------|---------------------------|-----|
| A4E 350-AF20 -05 | S4E 350-AF20 -01 | "V" |
| A4E 350-AF20 -06 | S4E 350-AF20 -02 | "A" |



With guard grille for short nozzle



Type

| Type | | c ₂ |
|------------------|-----|----------------|
| S4E 350-AF20 -01 | "V" | 19.0 |
| S4E 350-AF20 -02 | "A" | 29.0 |

AC axial fans

K series, Ø 360

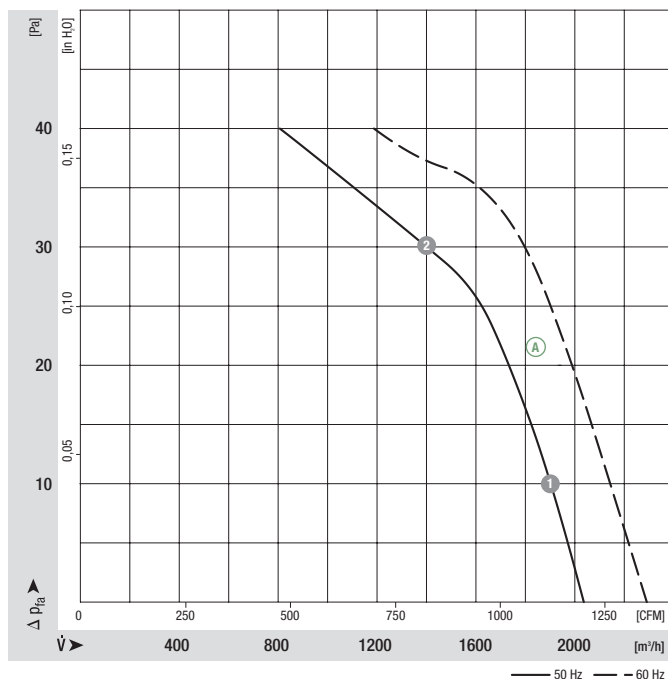


- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Blades: PA plastic, black
Rotor: Coated in black
- **Number of blades:** 3
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "B"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage | Frequency | Air flow | Speed/rpm | Power input | Current draw | Capacitor | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|--------------|------------|--------------------|-----------------|--------------|------------|-----------|--------------|--------------------|-----------|----------------------|--------------------------|------------------|--------------------------|--------------------|
| Type | Motor | VAC | Hz | m³/h | rpm | W | A | µF/VDB | dB(A) | Pa | °C | kg | p. 416 f. | |
| *6E 360 | M6E 068-DF | Ⓐ 1~ 230 1~ 230 | 50 60 | 2030 2290 | 850 960 | 65 85 | 0.29 0.38 | 2.5/400 2.5/400 | 46 51 | 40 40 | -25 to +50 -25 to +40 | 2.0 | A1) | |

subject to alterations

Curves



- **Motor protection:** TOP wired internally
- **Cable exit:** Axial
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, CE

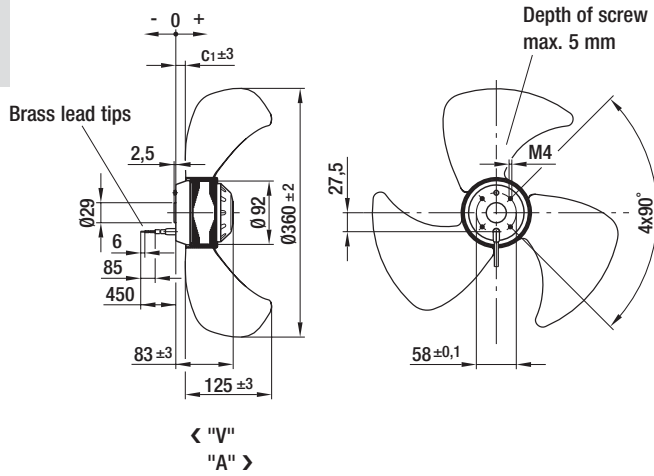
| Direction of air flow | < "V"/"A" > | |
|-----------------------|---------------------|------------------------------------|
| | Without attachments | With guard grille for short nozzle |
| "V" | A6E 360-AE08 -01 | S6E 360-AE08 -01 |
| "A" | A6E 360-AE08 -02 | — |

AC axial fans

K series, Ø 360, drawings of directions of air flow "V" and "A"



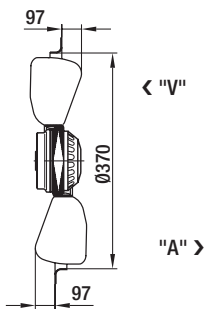
Without attachments



Type

| Type | | c ₁ |
|------------------|-----|----------------|
| A6E 360-AE08 -01 | "V" | 13.0 |
| A6E 360-AE08 -02 | "A" | -42.0 |

Installation arrangement



Type without attachments Type without guard grille

| | | |
|------------------|------------------|-----|
| A6E 360-AE08 -01 | S6E 360-AE08 -01 | "V" |
| A6E 360-AE08 -02 | — | "A" |

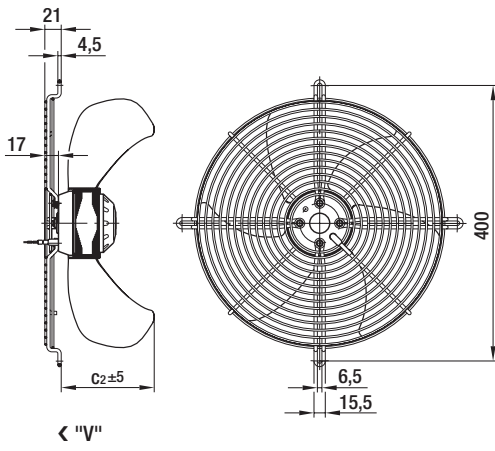


With guard grille for short nozzle

Type

c₂

S6E 360-AE08 -01 "V" 134.0



AC axial fans

K series, Ø 360

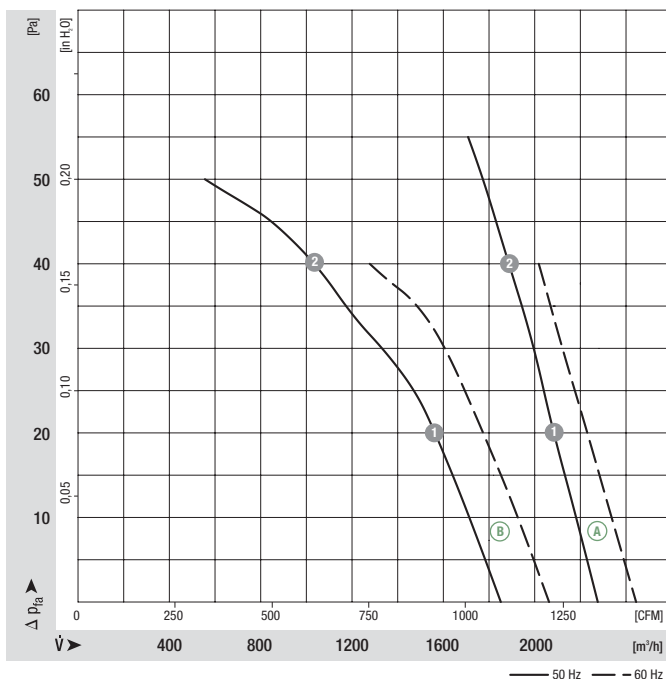


- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Blades: PA plastic, black
Rotor: Coated in black
- **Number of blades:** 4
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "B"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage | Frequency | Air flow | Speed/rpm | Power input | Current draw | Capacitor | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|--------------|------------|-------|-----------------|-----------|----------|-----------|-------------|--------------|-----------|----------------------|----------------------|------------------|--------------------------|--------------------|
| Type | Motor | VAC | Hz | m³/h | rpm | W | A | µF/VDB | dB(A) | Pa | °C | kg | p. 416 f. | |
| *4E 360 | M4E 068-DF | A | 1~ 230 | 50 | 2275 | 1320 | 115 | 0.54 | 3.0/400 | 55 | 55 | -25 to +40 | 2.1 | A1) |
| | | | 1~ 230 | 60 | 2440 | 1430 | 145 | 0.64 | 3.0/400 | 57 | 40 | -25 to +40 | | |
| *6E 360 | M6E 068-DF | B | 1~ 230 | 50 | 1850 | 850 | 65 | 0.29 | 2.5/400 | 49 | 50 | -25 to +55 | 2.2 | A1) |
| | | | 1~ 230 | 60 | 2060 | 960 | 85 | 0.38 | 2.5/400 | 52 | 40 | -25 to +45 | | |

subject to alterations

Curves



| | n [rpm] | P ₁ [W] | I [A] |
|-----|---------|--------------------|-------|
| A 1 | 1310 | 116 | 0.55 |
| A 2 | 1300 | 119 | 0.57 |
| B 1 | 840 | 66 | 0.29 |
| B 2 | 790 | 71 | 0.31 |

- **Motor protection:** TOP wired internally
- **Cable exit:** Axial
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, CE

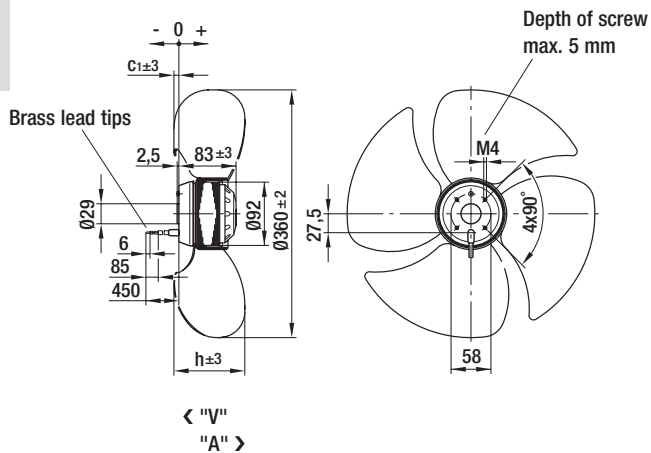
| Direction of air flow | < "V"/"A" > | |
|-----------------------|---------------------|------------------------------------|
| | Without attachments | With guard grille for short nozzle |
| "V" | A4E 360-AC20 -05 | S4E 360-EC20 -05 |
| "A" | A4E 360-AC20 -06 | — |
| "V" | A6E 360-AA08 -05 | S6E 360-EA08 -05 |
| "A" | A6E 360-AA08 -06 | — |

AC axial fans

K series, Ø 360, drawings of directions of air flow "V" and "A"



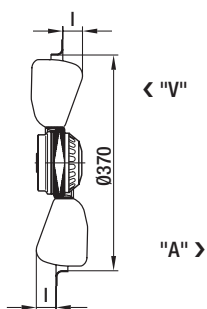
Without attachments



Type

| Type | | c_1 | h |
|------------------|-----|-------|-------|
| A4E 360-AC20 -05 | "V" | 8.0 | 84.0 |
| A4E 360-AC20 -06 | "A" | -8.0 | 84.0 |
| A6E 360-AA08 -05 | "V" | -11.0 | 103.0 |
| A6E 360-AA08 -06 | "A" | -8.0 | 103.0 |

Installation arrangement

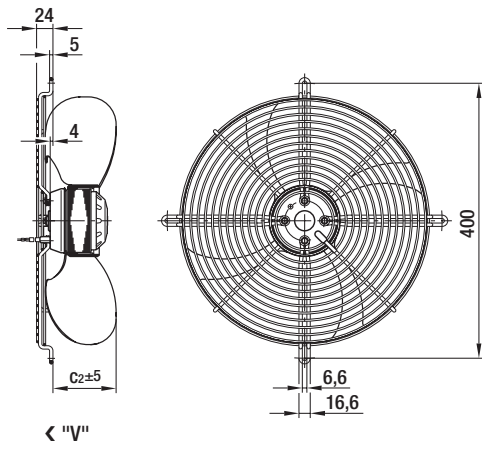


Type

| Type without attachments | Type without guard grille | | l |
|--------------------------|---------------------------|-----|------|
| A4E 360-AC20 -05 | S4E 360-EC20 -05 | "V" | 43.0 |
| A4E 360-AC20 -06 | — | "A" | 43.0 |
| A6E 360-AA08 -05 | S6E 360-EA08 -05 | "V" | 65.0 |
| A6E 360-AA08 -06 | — | "A" | 65.0 |



With guard grille for short nozzle



Type

| Type | | c ₂ |
|------------------|-----|----------------|
| S4E 360-EC20 -05 | "V" | 88.0 |
| S6E 360-EA08 -05 | "V" | 65.0 |

AC axial fans

K series, Ø 450

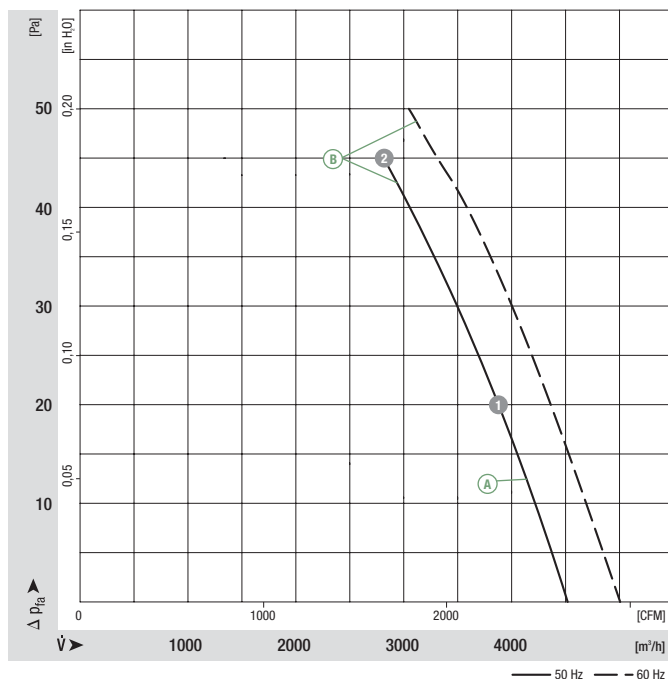


- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Blades: PA plastic, black
Rotor: Coated in black
- **Number of blades:** 3
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage | Frequency | Air flow | Speed/rpm | Power input | Current draw | Capacitor | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|--------------|------------|------------|-----------------|-----------|----------|-----------|-------------|--------------|-----------|----------------------|----------------------|------------------|--------------------------|--------------------|
| Type | Motor | VAC | Hz | m³/h | rpm | W | A | µF/VDB | dB(A) | Pa | °C | kg | p. 416 f. | |
| *6E 450-AF | M6E 074-EI | (A) 1~ 230 | 50 | 4565 | 890 | 140 | 0.62 | 4.0/400 | 57 | 45 | -25 to +45 | 3.7 | A1) | |
| *6E 450-AG | M6E 074-GA | (B) 1~ 230 | 50 | 4550 | 890 | 142 | 0.65 | 4.0/400 | 57 | 45 | -25 to +50 | 4.2 | A1) | |
| | | 1~ 230 | 60 | 5050 | 990 | 190 | 0.84 | 4.0/400 | 61 | 50 | -25 to +40 | | | |

subject to alterations

Curves



| | n [rpm] | P ₁ [W] | I [A] |
|-------|---------|--------------------|-------|
| (A) 1 | 890 | 147 | 0.65 |
| (A) 2 | 870 | 155 | 0.68 |
| (B) 1 | 880 | 151 | 0.68 |
| (B) 2 | 860 | 160 | 0.71 |

- **Motor protection:** TOP wired internally
- **Cable exit:** Variable
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, CE
- **Approvals:** CCC
- **Options:** Terminal box

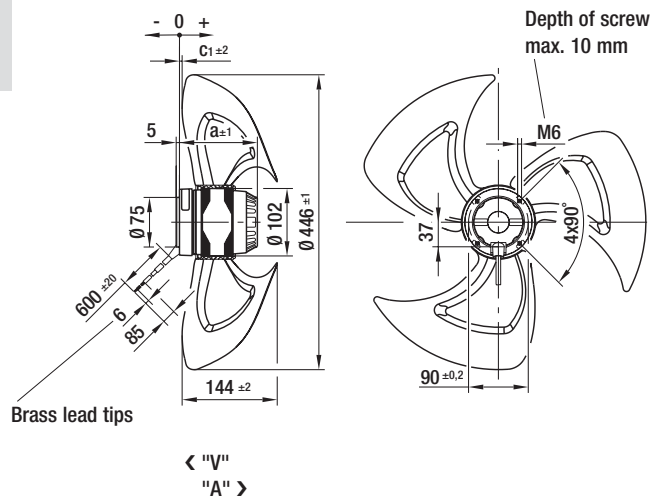
| Direction of air flow | < "V"/"A" > | |
|-----------------------|---------------------|------------------------------------|
| | Without attachments | With guard grille for short nozzle |
| "V" | A6E 450-AF08 -01 | S6E 450-AF08 -01 |
| "A" | A6E 450-AF08 -02 | — |
| "V" | A6E 450-AG05 -01 | S6E 450-AG05 -01 |
| "A" | A6E 450-AG05 -02 | — |

AC axial fans

K series, Ø 450, drawings of directions of air flow "V" and "A"



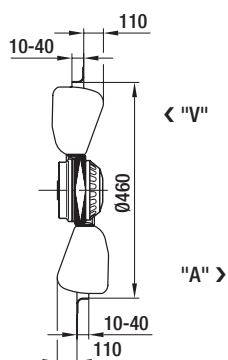
Without attachments



Type

| | | a | c ₁ |
|------------------|-----|-------|----------------|
| A6E 450-AF08 -01 | "V" | 117.0 | 4.0 |
| A6E 450-AF08 -02 | "A" | 117.0 | -18.0 |
| A6E 450-AG05 -01 | "V" | 129.0 | 4.0 |
| A6E 450-AG05 -02 | "A" | 129.0 | -18.0 |

Installation arrangement

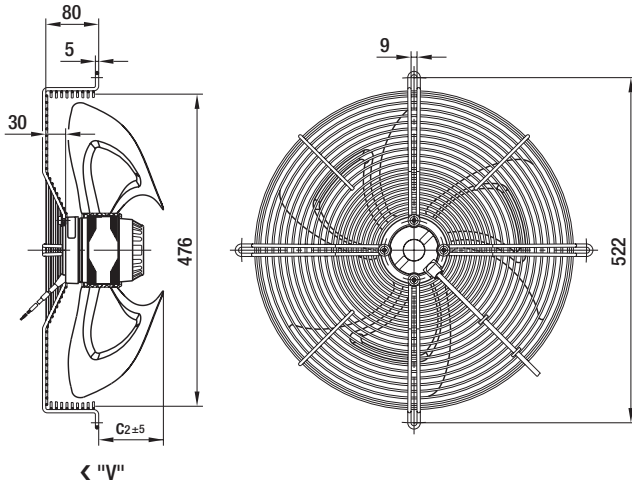


Type without attachments Type without guard grille

| | | |
|------------------|------------------|-----|
| A6E 450-AF08 -01 | S6E 450-AF08 -01 | "V" |
| A6E 450-AF08 -02 | — | "A" |
| A6E 450-AG05 -01 | S6E 450-AG05 -01 | "V" |
| A6E 450-AG05 -02 | — | "A" |



With guard grille for short nozzle



Type

| Type | "V" | c ₂ |
|------------------|-----|----------------|
| S6E 450-AF08 -01 | "V" | 98.0 |
| S6E 450-AG05 -01 | "V" | 98.0 |

AC axial fans

K series, Ø 450



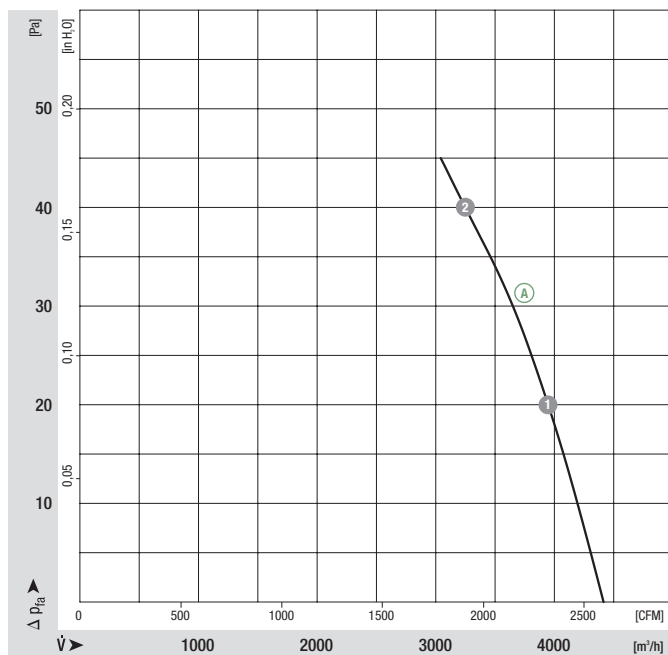
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Blades: PA plastic, black
Rotor: Coated in black
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

Nominal data

| Type | Motor | Curve | Nominal voltage VAC | Frequency Hz | Air flow m³/h | Speed/rpm | Power input W | Current draw A | Capacitor µF/VDB | Sound pressure level dB(A) | Max. operative range Pa | Perm. amb. temp. °C | Mass without attachments kg | Electr. connection p. 416 f. |
|---------|------------|-------|------------------------|-----------------|------------------|-----------|------------------|-------------------|---------------------|-------------------------------|----------------------------|------------------------|-----------------------------------|---------------------------------|
| *6E 450 | M6E 074-EI | Ⓐ | 1~ 230 | 50 | 4415 | 900 | 145 | 0.64 | 4.0/400 | 61 | 45 | -25 to +55 | 3.7 | A1) |

subject to alterations

Curves



| | n [rpm] | P ₁ [W] | I [A] |
|-----|------------|-----------------------|----------|
| Ⓐ 1 | 880 | 151 | 0.66 |
| Ⓐ 2 | 850 | 160 | 0.70 |

- **Motor protection:** TOP wired internally
- **Cable exit:** Lateral
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, CE
- **Options:** Terminal box

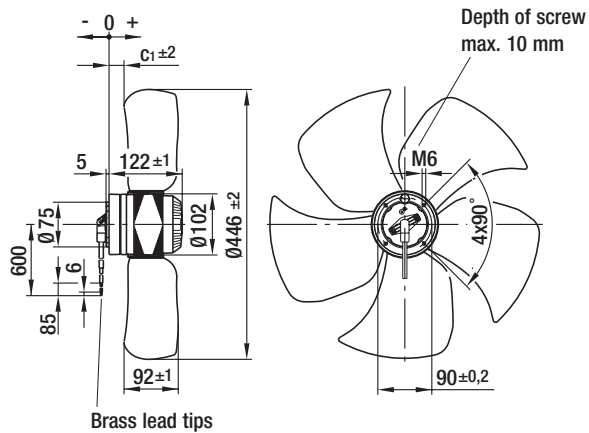
| Direction of air flow | < "V"/"A" > | |
|-----------------------|---------------------|------------------------------------|
| | Without attachments | With guard grille for short nozzle |
| "V" | A6E 450-AN08 -01 | S6E 450-BN08 -01 |
| "A" | A6E 450-AN08 -02 | S6E 450-BN08 -02 |

AC axial fans

K series, Ø 450, drawings of directions of air flow "V" and "A"



Without attachments

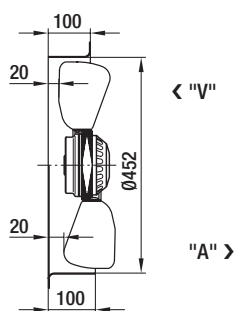


< "V"
"A" >

Type

| Type | | c ₁ |
|------------------|-----|----------------|
| A6E 450-AN08 -01 | "V" | 8.0 |
| A6E 450-AN08 -02 | "A" | 25.0 |

Installation arrangement



Type

without attachments

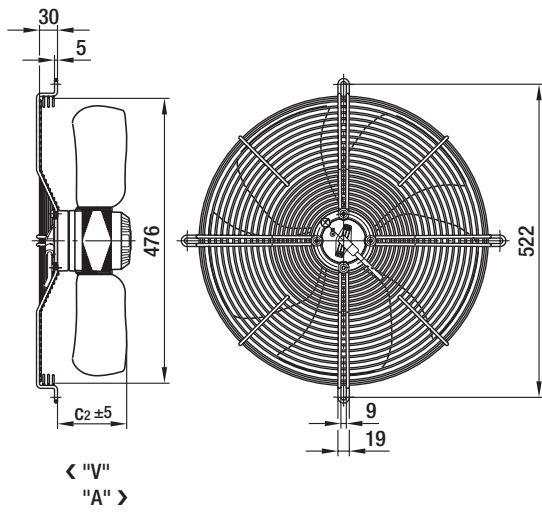
Type

without guard grille

| | | |
|------------------|------------------|-----|
| A6E 450-AN08 -01 | S6E 450-BN08 -01 | "V" |
| A6E 450-AN08 -02 | S6E 450-BN08 -02 | "A" |



With guard grille for short nozzle



Type

| Type | | c ₂ |
|------------------|-----|----------------|
| S6E 450-BN08 -01 | "V" | 100.0 |
| S6E 450-BN08 -02 | "A" | 117.0 |



AC axial fans A series

General information

AC axial fans

AC axial S series

AC axial fans, A series

Ø 200 - Ø 350

158

AC axial K series

AC axial A series

EC axial fans

EC axial S series

Q-motor

ESM

EC-SYSTEMS

Accessories

Technology

Contacts



AC axial fans

A series, Ø 200



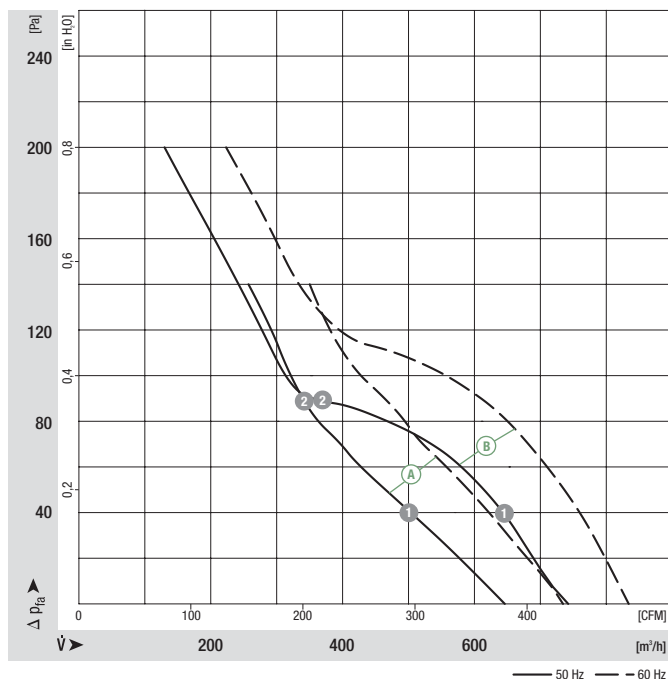
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Sheet steel, coated in black
Rotor: Coated in black
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "B"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage | Frequency | Air flow | Speed/rpm | Power input | Current draw | Capacitor | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|------------------------|------------|----------------------------|-----------------|------------|--------------|-----------|------------------------|--------------------|-----------|----------------------|--------------------------|------------------|--------------------------|--------------------|
| Type | Motor | VAC | Hz | m³/h | rpm | W | A | µF/VDB | dB(A) | Pa | °C | kg | p. 416 f. | |
| *2D 200 ⁽¹⁾ | M2D 068-CF | Ⓐ 3~ 230/400 3~ 230/400 | 50 60 | 830 940 | 2800 3150 | 53 70 | 0.26/0.15 0.24/0.14 | — — | 67 70 | 140 140 | -25 to +75 -25 to +75 | 1.7 | C1)/C2) | |
| *2E 200 | M2E 068-CA | Ⓑ 1~ 230 1~ 230 | 50 60 | 740 830 | 2740 3120 | 50 61 | 0.24 0.28 | 1.5/400 1.5/400 | 65 69 | 200 200 | -25 to +75 -25 to +75 | 1.4 | A1) | |
| *4D 200 ⁽¹⁾ | M4D 068-CF | Ⓒ 3~ 230/400 3~ 230/400 | 50 60 | 390 460 | 1450 1730 | 22 21 | 0.16/0.09 0.12/0.07 | — — | 51 55 | 70 100 | -25 to +60 -25 to +80 | 1.5 | C1)/C2) | |
| *4S 200 | M4S 068-BF | Ⓓ 1~ 230 1~ 230 | 50 60 | 375 445 | 1380 1630 | 40 34 | 0.30 0.24 | — — | 52 53 | 60 80 | -25 to +50 -25 to +65 | 1.2 | B) | |

subject to alterations

(1) 230 VAC Δ / 400 VAC Y

Curves

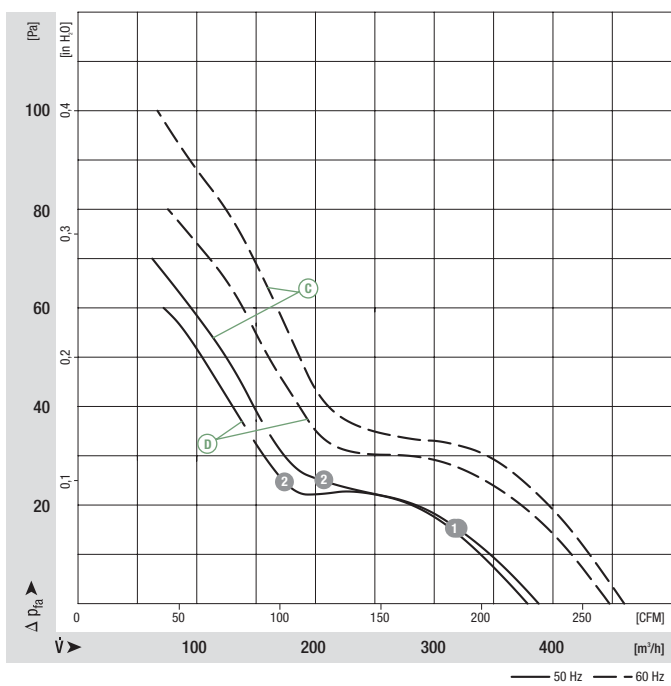


| | n [rpm] | P ₁ [W] | I [A] |
|-----|---------|--------------------|-------|
| Ⓐ 1 | 2785 | 53 | 0.15 |
| Ⓐ 2 | 2770 | 55 | 0.15 |
| Ⓑ 1 | 2670 | 51 | 0.24 |
| Ⓑ 2 | 2670 | 50 | 0.24 |

- **Motor protection:** (A) (C) Without TOP, (B) (D) TOP wired internally
- **Cable exit:** (A) (C) (D) Lateral, (B) variable
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, (B) (D) also CE
- **Approvals:** (B) CCC

| Direction of air flow | < "V"/"A" > | | |
|-----------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| | Without attachments | With full round nozzle | With guard grille for full nozzle |
| "V" "A" | A2D 200-AA02 -01 A2D 200-AA02 -02 | W2D 200-CA02 -01 W2D 200-CA02 -02 | S2D 200-BA02 -01 S2D 200-BA02 -02 |
| "V" "A" | A2E 200-AF02 -01 A2E 200-AF02 -02 | W2E 200-CF02 -01 W2E 200-CF02 -02 | S2E 200-BF02 -01 S2E 200-BF02 -02 |
| "V" "A" | A4D 200-AA04 -01 A4D 200-AA04 -02 | W4D 200-CA04 -01 W4D 200-CA04 -02 | S4D 200-BA04 -01 S4D 200-BA04 -02 |
| "V" "A" | A4S 200-AA02 -01 A4S 200-AA02 -02 | W4S 200-CA02 -01 W4S 200-CA02 -02 | S4S 200-BA02 -01 S4S 200-BA02 -02 |

Curves



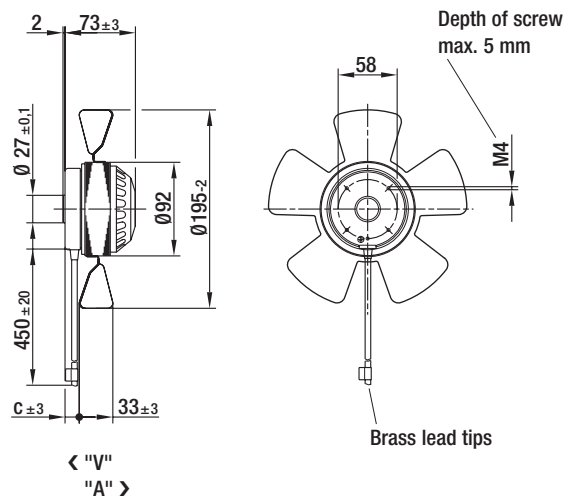
| | n [rpm] | P ₁ [W] | I [A] |
|-------|---------|--------------------|-------|
| (C) 1 | 1460 | 24 | 0.09 |
| (C) 2 | 1460 | 24 | 0.09 |
| (D) 1 | 1375 | 40 | 0.30 |
| (D) 2 | 1380 | 39 | 0.29 |

AC axial fans

A series, Ø 200, drawings of directions of air flow "V" and "A"



Without attachments

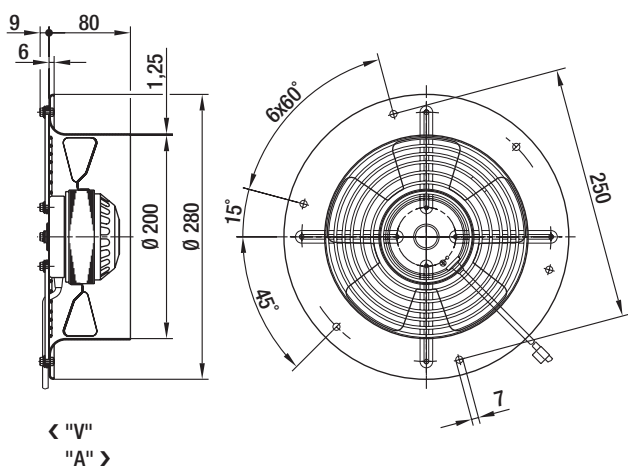


Type

| Type | | c |
|------------------|-----|------|
| A2D 200-AA02 -01 | "V" | 21.0 |
| A2D 200-AA02 -02 | "A" | 21.0 |
| A2E 200-AF02 -01 | "V" | 21.0 |
| A2E 200-AF02 -02 | "A" | 21.0 |
| A4D 200-AA04 -01 | "V" | 20.0 |
| A4D 200-AA04 -02 | "A" | 20.0 |
| A4S 200-AA02 -01 | "V" | 20.0 |
| A4S 200-AA02 -02 | "A" | 20.0 |



With full round nozzle

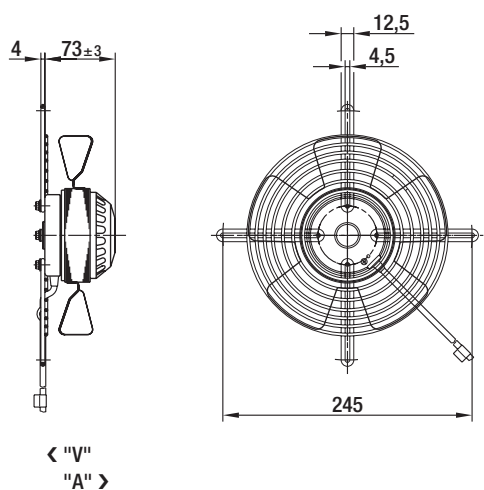


Type

| | |
|------------------|-----|
| W2D 200-CA02 -01 | "V" |
| W2D 200-CA02 -02 | "A" |
| W2E 200-CF02 -01 | "V" |
| W2E 200-CF02 -02 | "A" |
| W4D 200-CA04 -01 | "V" |
| W4D 200-CA04 -02 | "A" |
| W4S 200-CA02 -01 | "V" |
| W4S 200-CA02 -02 | "A" |



With guard grille for full nozzle



Type

| | |
|------------------|-----|
| S2D 200-BA02 -01 | "V" |
| S2D 200-BA02 -02 | "A" |
| S2E 200-BF02 -01 | "V" |
| S2E 200-BF02 -02 | "A" |
| S4D 200-BA04 -01 | "V" |
| S4D 200-BA04 -02 | "A" |
| S4S 200-BA02 -01 | "V" |
| S4S 200-BA02 -02 | "A" |

AC axial fans

A series, Ø 250



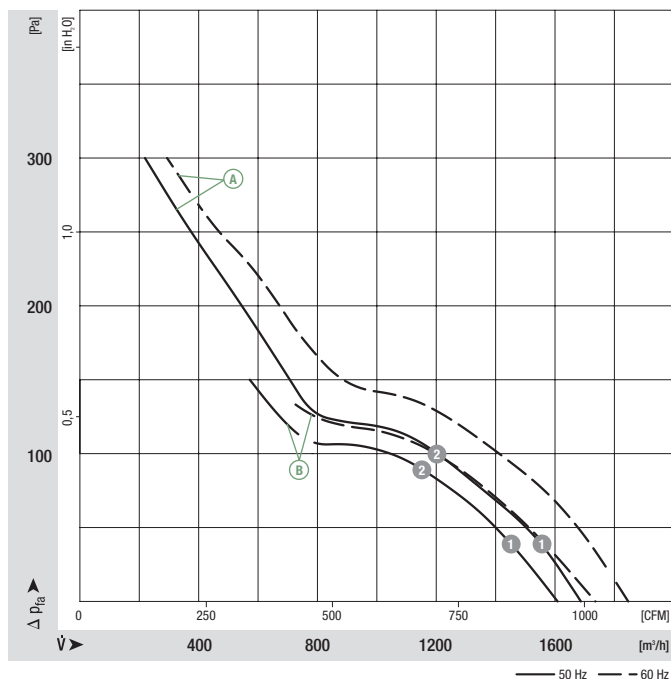
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Sheet steel, coated in black
Rotor: Coated in black
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "B"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage | Frequency | Air flow | Speed/rpm | Power input | Current draw | Capacitor | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|------------------------|------------|--------------|-----------------|-----------|----------|-----------|-------------|--------------|-----------|----------------------|----------------------|------------------|--------------------------|--------------------|
| Type | Motor | VAC | Hz | m³/h | rpm | W | A | µF/VDB | dB(A) | Pa | °C | kg | p. 416 f. | |
| *2D 250 ⁽¹⁾ | M2D 068-DF | Ⓐ 3~ 230/400 | 50 | 1685 | 2650 | 110 | 0.38/0.22 | — | 72 | 300 | -25 to +70 | 2.2 | C1)/C2) | |
| | | Ⓐ 3~ 230/400 | 60 | 1845 | 2950 | 160 | 0.45/0.26 | — | 75 | 300 | -25 to +40 | | | |
| *2E 250 | M2E 068-DF | Ⓑ 1~ 230 | 50 | 1610 | 2550 | 115 | 0.51 | 4.0/400 | 72 | 150 | -25 to +55 | 2.2 | A1) | |
| | | Ⓑ 1~ 230 | 60 | 1740 | 2750 | 165 | 0.74 | 4.0/400 | 73 | 130 | -25 to +50 | | | |
| *4D 250 ⁽¹⁾ | M4D 068-CF | Ⓒ 3~ 230/400 | 50 | 890 | 1420 | 30 | 0.16/0.09 | — | 58 | 90 | -25 to +75 | 1.6 | C1)/C2) | |
| | | Ⓒ 3~ 230/400 | 60 | 1035 | 1650 | 35 | 0.14/0.08 | — | 62 | 100 | -25 to +75 | | | |
| *4S 250 | M4S 068-CF | Ⓓ 1~ 230 | 50 | 870 | 1400 | 72 | 0.53 | — | 58 | 80 | -25 to +40 | 1.7 | B) | |
| | | Ⓓ 1~ 230 | 60 | 1000 | 1620 | 67 | 0.46 | — | 62 | 100 | -25 to +50 | | | |

subject to alterations

(1) 230 VAC Δ / 400 VAC Y

Curves



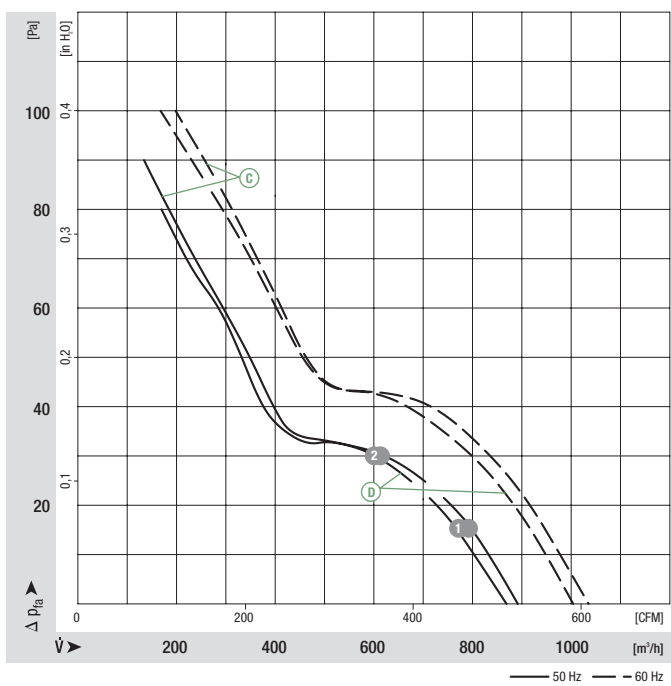
| | n [rpm] | P ₁ [W] | I [A] |
|-----|---------|--------------------|-------|
| Ⓐ 1 | 2645 | 123 | 0.23 |
| Ⓐ 2 | 2615 | 131 | 0.24 |
| Ⓑ 1 | 2520 | 122 | 0.54 |
| Ⓑ 2 | 2480 | 126 | 0.55 |

- **Motor protection:** (A) (C) Without TOP, (B) (D) TOP wired internally
- **Cable exit:** (A) (C) (D) Lateral, (B) variable
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, (B) (D) also CE
- **Approvals:** (A) (B) CCC

Direction of air flow

| | < "V"/"A" > Without attachments | < "V"/"A" > With full round nozzle | < "V"/"A" > With guard grille for full nozzle |
|------------|--------------------------------------|---------------------------------------|--|
| "V" "A" | A2D 250-AA02 -01 A2D 250-AA02 -02 | W2D 250-CA02 -01 W2D 250-CA02 -02 | S2D 250-BA02 -01 S2D 250-BA02 -02 |
| "V" "A" | A2E 250-AE65 -01 A2E 250-AE65 -02 | W2E 250-CE65 -01 W2E 250-CE65 -02 | S2E 250-BE65 -01 S2E 250-BE65 -02 |
| "V" "A" | A4D 250-AA04 -01 A4D 250-AA04 -02 | W4D 250-CA04 -01 W4D 250-CA04 -02 | S4D 250-BA04 -01 S4D 250-BA04 -02 |
| "V" "A" | A4S 250-AA02 -01 A4S 250-AA02 -02 | W4S 250-CA02 -01 W4S 250-CA02 -02 | S4S 250-BA02 -01 S4S 250-BA02 -02 |

Curves

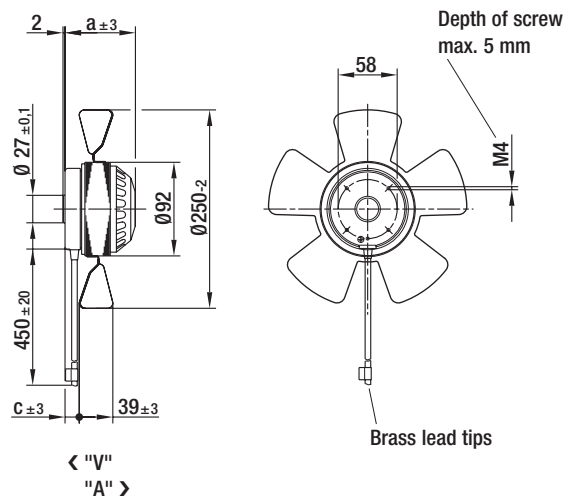


AC axial fans

A series, Ø 250, drawings of directions of air flow "V" and "A"



Without attachments

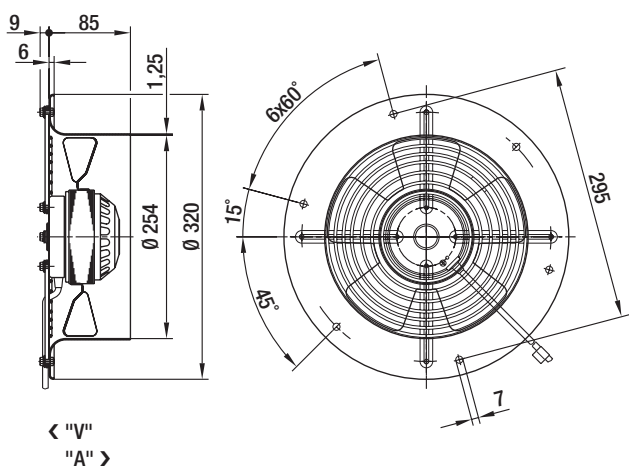


Type

| Type | | a | c |
|------------------|-----|------|------|
| A2D 250-AA02 -01 | "V" | 83.0 | 27.0 |
| A2D 250-AA02 -02 | "A" | 83.0 | 27.0 |
| A2E 250-AE65 -01 | "V" | 83.0 | 27.0 |
| A2E 250-AE65 -02 | "A" | 83.0 | 27.0 |
| A4D 250-AA04 -01 | "V" | 73.0 | 19.0 |
| A4D 250-AA04 -02 | "A" | 73.0 | 19.0 |
| A4S 250-AA02 -01 | "V" | 73.0 | 19.0 |
| A4S 250-AA02 -02 | "A" | 73.0 | 19.0 |



With full round nozzle

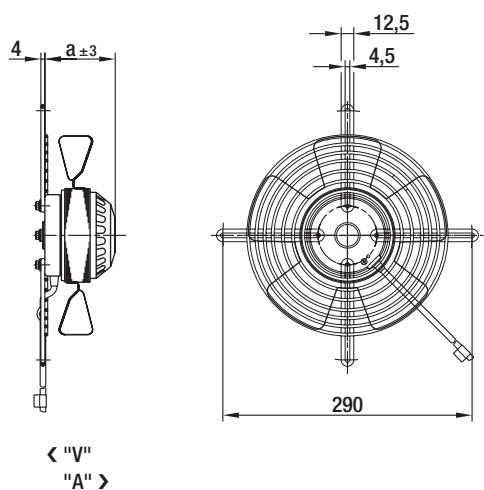


Type

| | |
|------------------|-----|
| W2D 250-CA02 -01 | "V" |
| W2D 250-CA02 -02 | "A" |
| W2E 250-CE65 -01 | "V" |
| W2E 250-CE65 -02 | "A" |
| W4D 250-CA04 -01 | "V" |
| W4D 250-CA04 -02 | "A" |
| W4S 250-CA02 -01 | "V" |
| W4S 250-CA02 -02 | "A" |



With guard grille for full nozzle



Type

| Type | | a |
|------------------|-----|------|
| S2D 250-BA02 -01 | "V" | 83.0 |
| S2D 250-BA02 -02 | "A" | 83.0 |
| S2E 250-BE65 -01 | "V" | 83.0 |
| S2E 250-BE65 -02 | "A" | 83.0 |
| S4D 250-BA04 -01 | "V" | 73.0 |
| S4D 250-BA04 -02 | "A" | 73.0 |
| S4S 250-BA02 -01 | "V" | 73.0 |
| S4S 250-BA02 -02 | "A" | 73.0 |

AC axial fans

A series, Ø 300



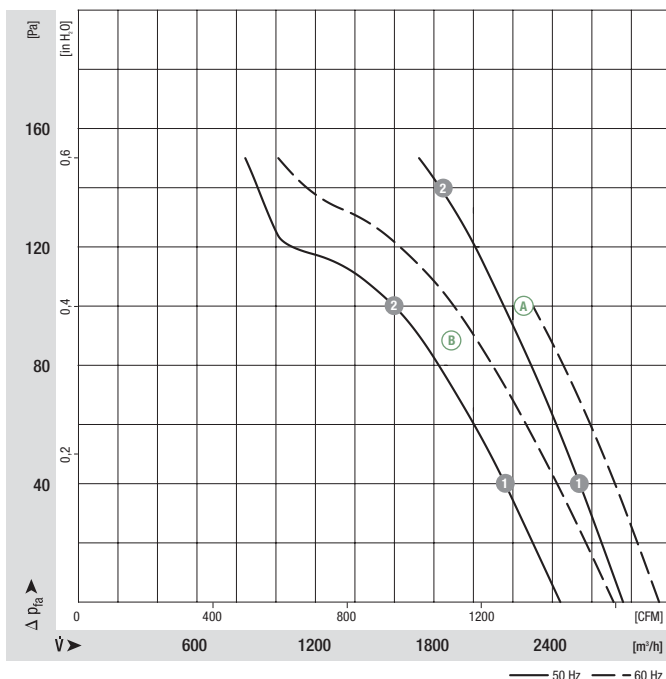
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Sheet steel, coated in black
Rotor: Coated in black
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "B"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage | Frequency | Air flow | Speed/rpm | Power input | Current draw | Capacitor | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|------------------------|------------|--------------|-----------------|-----------|----------|-----------|-------------|--------------|-----------|----------------------|----------------------|------------------|--------------------------|--------------------|
| Type | Motor | VAC | Hz | m³/h | rpm | W | A | µF/VDB | dB(A) | Pa | °C | kg | p. 416 f. | |
| *2D 300 ⁽¹⁾ | M2D 068-EC | Ⓐ 3~ 230/400 | 50 | 2760 | 2650 | 180 | 0.54/0.31 | — | 76 | 150 | -25 to +60 | 2.7 | C1)/C2) | |
| | | Ⓐ 3~ 230/400 | 60 | 2940 | 2800 | 270 | 0.71/0.41 | — | 77 | 100 | -25 to +40 | | | |
| *2E 300 | M2E 068-EC | Ⓑ 1~ 230 | 50 | 2440 | 2650 | 140 | 0.62 | 5.0/400 | 75 | 150 | -25 to +55 | 2.5 | A1) | |
| | | Ⓑ 1~ 230 | 60 | 2700 | 2900 | 190 | 0.83 | 5.0/400 | 78 | 150 | -25 to +50 | | | |
| *4D 300 ⁽¹⁾ | M4D 068-DF | Ⓒ 3~ 230/400 | 50 | 1740 | 1370 | 85 | 0.36/0.21 | — | 66 | 100 | -25 to +55 | 2.3 | C1)/C2) | |
| | | Ⓒ 3~ 230/400 | 60 | 1910 | 1520 | 110 | 0.38/0.22 | — | 69 | 110 | -25 to +40 | | | |
| *4E 300 | M4E 068-DF | Ⓓ 1~ 230 | 50 | 1690 | 1350 | 95 | 0.44 | 3.0/400 | 65 | 120 | -25 to +45 | 2.3 | A1) | |
| | | Ⓓ 1~ 230 | 60 | 1830 | 1450 | 105 | 0.47 | 2.0/400 | 66 | 100 | -25 to +40 | | | |
| *4S 300 | M4S 068-DF | Ⓔ 1~ 230 | 50 | 1440 | 1380 | 94 | 0.67 | — | 62 | 75 | -25 to +30 | 2.1 | B) | |
| | | Ⓔ 1~ 230 | 60 | 1600 | 1550 | 94 | 0.67 | — | 64 | 60 | -25 to +40 | | | |

subject to alterations

(1) 230 VAC Δ / 400 VAC Y

Curves

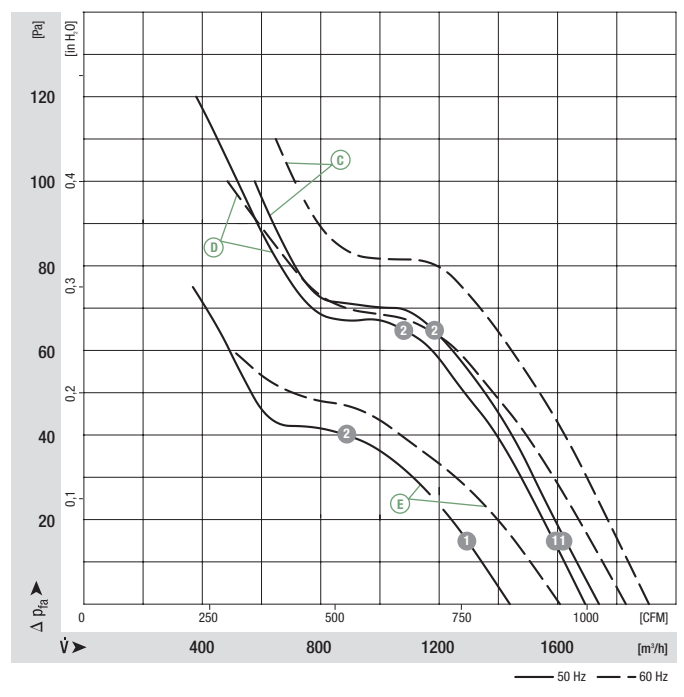


| | n [rpm] | P ₁ [W] | I [A] |
|-----|---------|--------------------|-------|
| Ⓐ 1 | 2610 | 190 | 0.32 |
| Ⓐ 2 | 2535 | 220 | 0.35 |
| Ⓑ 1 | 2600 | 149 | 0.66 |
| Ⓑ 2 | 2530 | 162 | 0.71 |

- **Motor protection:** (A) (C) Without TOP, (B) (D) (E) TOP wired internally
- **Cable exit:** (A) (C) (E) Lateral, (B) (D) variable
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, (B) (D) (E) also CE
- **Approvals:** (A) (C) CCC, (B) GOST

| Direction of air flow | | | |
|-----------------------|---------------------|------------------------|-----------------------------------|
| | Without attachments | With full round nozzle | With guard grille for full nozzle |
| "V" | A2D 300-AD02 -01 | W2D 300-CD02 -01 | S2D 300-BD02 -01 |
| "A" | A2D 300-AD02 -02 | W2D 300-CD02 -02 | S2D 300-BD02 -02 |
| "V" | A2E 300-AC47 -01 | W2E 300-CC47 -01 | S2E 300-BC47 -01 |
| "A" | A2E 300-AC47 -02 | W2E 300-CC47 -02 | S2E 300-BC47 -02 |
| "V" | A4D 300-AA02 -01 | W4D 300-CA02 -01 | S4D 300-BA02 -01 |
| "A" | A4D 300-AA02 -02 | W4D 300-CA02 -02 | S4D 300-BA02 -02 |
| "V" | A4E 300-AA01 -01 | W4E 300-CA01 -01 | S4E 300-BA01 -01 |
| "A" | A4E 300-AA01 -02 | W4E 300-CA01 -02 | S4E 300-BA01 -02 |
| "V" | A4S 300-AA02 -01 | W4S 300-CA02 -01 | S4S 300-BA02 -01 |
| "A" | A4S 300-AA02 -02 | W4S 300-CA02 -02 | S4S 300-BA02 -02 |

Curves

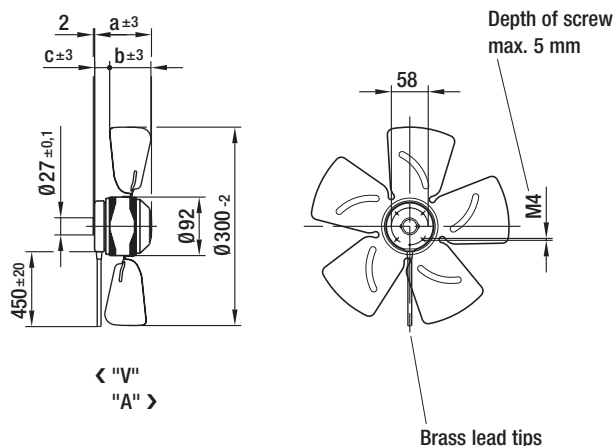


| | n [rpm] | P ₁ [W] | I [A] |
|-------|---------|--------------------|-------|
| (C) 1 | 1360 | 86 | 0.21 |
| (C) 2 | 1345 | 94 | 0.22 |
| (D) 1 | 1345 | 96 | 0.43 |
| (D) 2 | 1315 | 101 | 0.45 |
| (E) 1 | 1375 | 92 | 0.67 |
| (E) 2 | 1360 | 94 | 0.67 |

AC axial fans

A series, Ø 300, drawings of directions of air flow "V" and "A"

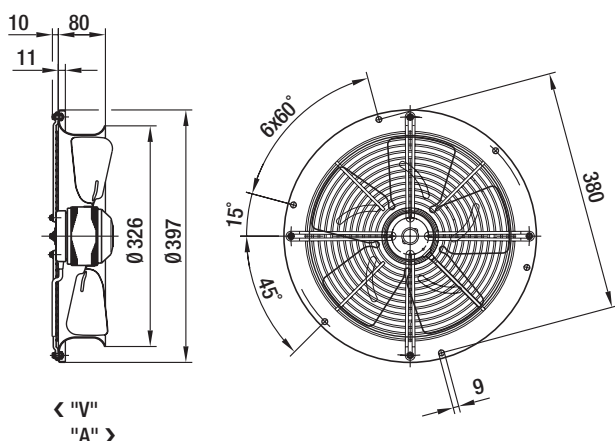
Without attachments



Type

| Type | | a | b | c |
|------------------|-----|-------|------|------|
| A2D 300-AD02 -01 | "V" | 101.0 | 30.0 | 32.0 |
| A2D 300-AD02 -02 | "A" | 101.0 | 30.0 | 32.0 |
| A2E 300-AC47 -01 | "V" | 98.0 | 20.0 | 30.0 |
| A2E 300-AC47 -02 | "A" | 98.0 | 20.0 | 30.0 |
| A4D 300-AA02 -01 | "V" | 83.0 | 56.0 | 20.0 |
| A4D 300-AA02 -02 | "A" | 83.0 | 56.0 | 20.0 |
| A4E 300-AA01 -01 | "V" | 83.0 | 56.0 | 20.0 |
| A4E 300-AA01 -02 | "A" | 83.0 | 56.0 | 20.0 |
| A4S 300-AA02 -01 | "V" | 83.0 | 30.0 | 20.0 |
| A4S 300-AA02 -02 | "A" | 83.0 | 30.0 | 20.0 |

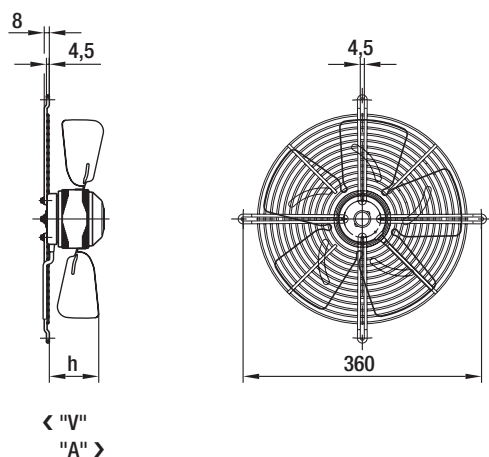
With full round nozzle



Type

| | |
|------------------|-----|
| W2D 300-CD02 -01 | "V" |
| W2D 300-CD02 -02 | "A" |
| W2E 300-CC47 -01 | "V" |
| W2E 300-CC47 -02 | "A" |
| W4D 300-CA02 -01 | "V" |
| W4D 300-CA02 -02 | "A" |
| W4E 300-CA01 -01 | "V" |
| W4E 300-CA01 -02 | "A" |
| W4S 300-CA02 -01 | "V" |
| W4S 300-CA02 -02 | "A" |

With guard grille for full nozzle



Type

| Type | | h |
|------------------|-----|------|
| S2D 300-BD02 -01 | "V" | 64.0 |
| S2D 300-BD02 -02 | "A" | 64.0 |
| S2E 300-BC47 -01 | "V" | 50.0 |
| S2E 300-BC47 -02 | "A" | 37.0 |
| S4D 300-BA02 -01 | "V" | 73.0 |
| S4D 300-BA02 -02 | "A" | 73.0 |
| S4E 300-BA01 -01 | "V" | 73.0 |
| S4E 300-BA01 -02 | "A" | 73.0 |
| S4S 300-BA02 -01 | "V" | 52.0 |
| S4S 300-BA02 -02 | "A" | 52.0 |

AC axial fans

A series, Ø 315



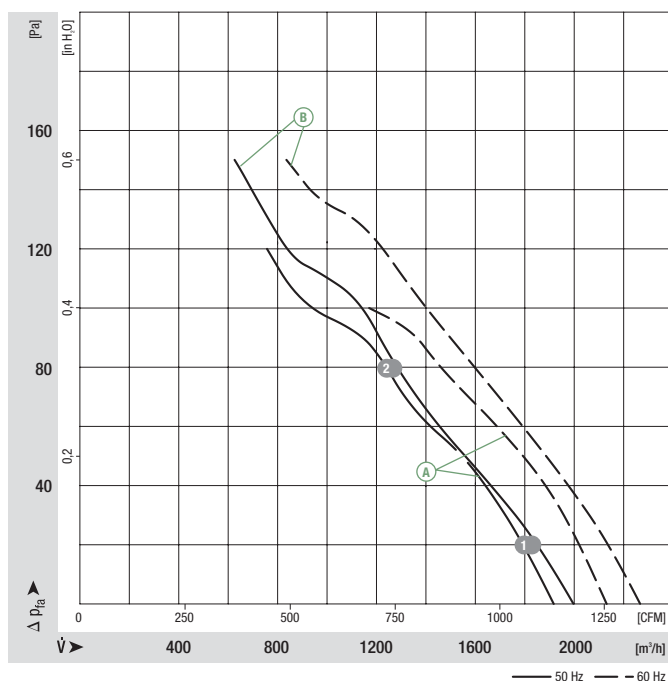
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Sheet steel, coated in black
Rotor: Coated in black
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "B"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage | Frequency | Air flow | Speed/rpm | Power input | Current draw | Capacitor | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|------------------------|------------|-------|-----------------|-----------|----------|-----------|-------------|--------------|-----------|----------------------|----------------------|------------------|--------------------------|--------------------|
| Type | Motor | VAC | Hz | m³/h | rpm | W | A | µF/VDB | dB(A) | Pa | °C | kg | p. 416 f. | |
| *4D 315 ⁽¹⁾ | M4D 068-EC | Ⓐ 3~ | 230/400 | 50 | 1990 | 1400 | 78 | 0.33/0.19 | — | 65 | 150 | -25 to +80 | 2.8 | C1)/C2) |
| | | 3~ | 230/400 | 60 | 2260 | 1590 | 115 | 0.36/0.21 | — | 68 | 150 | -25 to +60 | | |
| *4E 315 | M4E 068-EC | Ⓑ 1~ | 230 | 50 | 1950 | 1400 | 120 | 0.53 | 5.0/400 | 67 | 180 | -25 to +50 | 2.8 | A1) |
| | | 1~ | 230 | 60 | 2230 | 1610 | 135 | 0.60 | 4.0/400 | 70 | 120 | -25 to +45 | | |

subject to alterations




(1) 230 VAC Δ / 400 VAC Y

Curves



| | n [rpm] | P ₁ [W] | I [A] |
|-----|---------|--------------------|-------|
| Ⓐ 1 | 1390 | 82 | 0.19 |
| Ⓐ 2 | 1370 | 95 | 0.20 |
| Ⓑ 1 | 1395 | 123 | 0.55 |
| Ⓑ 2 | 1360 | 136 | 0.60 |

- **Motor protection:** Ⓐ Without TOP, Ⓑ TOP wired internally
- **Cable exit:** Lateral
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, Ⓑ also CE
- **Approvals:** CCC

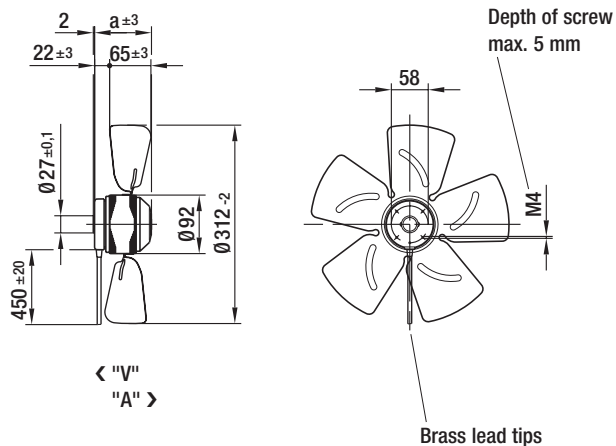
| Direction of air flow |  < "V"/"A" > | | |  < "V"/"A" > | | |  < "V"/"A" > | | |
|-----------------------|--|------------------------|-----------------------------------|--|------------------------|-----------------------------------|--|------------------------|-----------------------------------|
| | Without attachments | With full round nozzle | With guard grille for full nozzle | Without attachments | With full round nozzle | With guard grille for full nozzle | Without attachments | With full round nozzle | With guard grille for full nozzle |
| "V" | A4D 315-AC20 -01 | W4D 315-CC20 -01 | S4D 315-BC20 -01 | A4D 315-AC20 -02 | W4D 315-CC20 -02 | S4D 315-BC20 -02 | A4E 315-AA05 -01 | W4E 315-CA05 -01 | S4E 315-BA05 -01 |
| "A" | A4D 315-AC20 -02 | W4D 315-CC20 -02 | S4D 315-BC20 -02 | A4E 315-AA05 -01 | W4E 315-CA05 -01 | S4E 315-BA05 -01 | A4E 315-AA05 -02 | W4E 315-CA05 -02 | S4E 315-BA05 -02 |

AC axial fans

A series, Ø 315, drawings of directions of air flow "V" and "A"



Without attachments

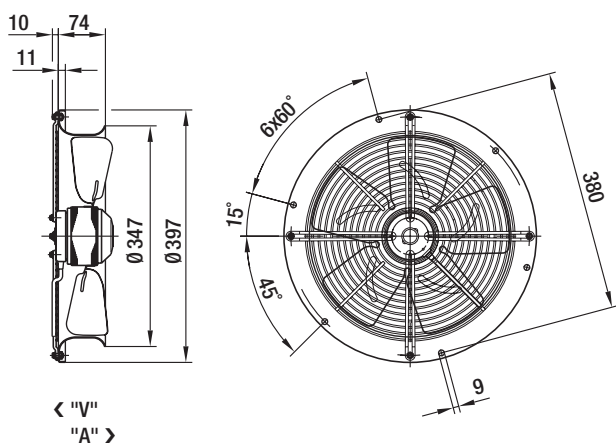


Type

| Type | | a |
|------------------|-----|-------|
| A4D 315-AC20 -01 | "V" | 101.0 |
| A4D 315-AC20 -02 | "A" | 101.0 |
| A4E 315-AA05 -01 | "V" | 92.0 |
| A4E 315-AA05 -02 | "A" | 92.0 |



With full round nozzle

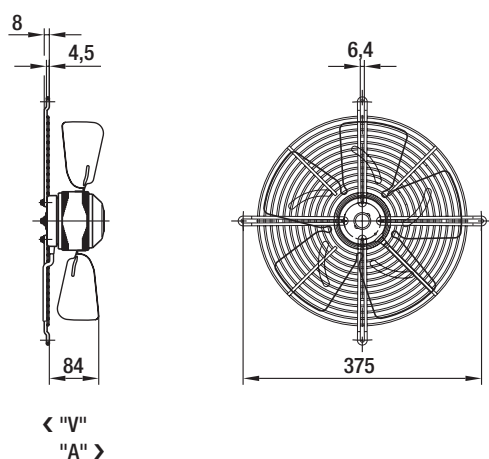


Type

| | |
|------------------|-----|
| W4D 315-CC20 -01 | "V" |
| W4D 315-CC20 -02 | "A" |
| W4E 315-CA05 -01 | "V" |
| W4E 315-CA05 -02 | "A" |



With guard grille for full nozzle



Type

| | |
|------------------|-----|
| S4D 315-BC20 -01 | "V" |
| S4D 315-BC20 -02 | "A" |
| S4E 315-BA05 -01 | "V" |
| S4E 315-BA05 -02 | "A" |

AC axial fans

A series, Ø 350



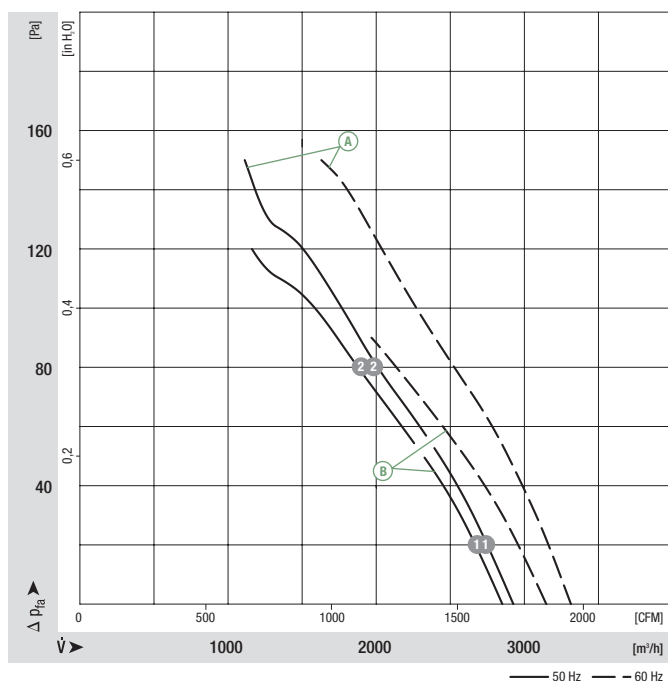
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Sheet steel, coated in black
Rotor: Coated in black
- **Number of blades:** 5
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "B"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage | Frequency | Air flow | Speed/rpm | Power input | Current draw | Capacitor | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|------------------------|------------|--------------|-----------------|-----------|----------|-----------|-------------|--------------|-----------|----------------------|----------------------|------------------|--------------------------|--------------------|
| Type | Motor | VAC | Hz | m³/h | rpm | W | A | µF/VDB | dB(A) | Pa | °C | kg | p. 416 f. | |
| *4D 350 ⁽¹⁾ | M4D 068-EC | Ⓐ 3~ 230/400 | 50 | 2900 | 1420 | 145 | 0.68/0.39 | — | 69 | 150 | -25 to +45 | 3.1 | C1)/C2) | |
| | | Ⓐ 3~ 230/400 | 60 | 3300 | 1620 | 190 | 0.62/0.36 | — | 72 | 150 | -25 to +40 | | | |
| *4E 350 | M4E 068-EC | Ⓑ 1~ 230 | 50 | 2850 | 1390 | 140 | 0.62 | 5.0/400 | 68 | 120 | -25 to +60 | 3.1 | A1) | |
| | | Ⓑ 1~ 230 | 60 | 3190 | 1550 | 195 | 0.86 | 5.0/400 | 70 | 90 | -25 to +40 | | | |

subject to alterations

(1) 230 VAC Δ / 400 VAC Y

Curves



| | n [rpm] | P ₁ [W] | I [A] |
|-----|---------|--------------------|-------|
| Ⓐ 1 | 1405 | 154 | 0.39 |
| Ⓐ 2 | 1390 | 169 | 0.40 |
| Ⓑ 1 | 1375 | 147 | 0.65 |
| Ⓑ 2 | 1345 | 161 | 0.71 |

- **Motor protection:** Ⓐ Without TOP, Ⓑ TOP wired internally
- **Cable exit:** Lateral
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, Ⓑ also CE

Direction of air flow



< "V"/"A" >



< "V"/"A" >



< "V"/"A" >

Without attachments

With full round nozzle

With guard grille for full nozzle

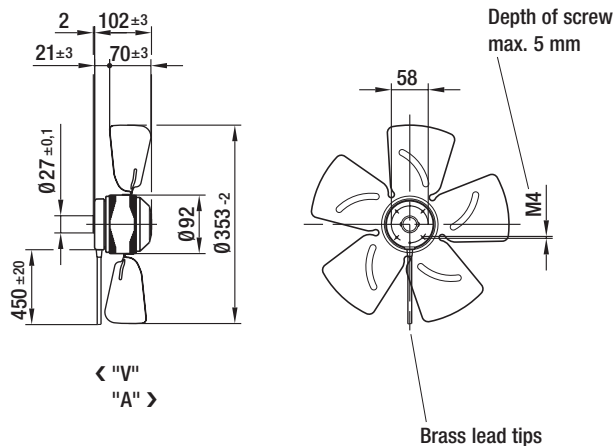
| | | | |
|-----|------------------|------------------|------------------|
| "V" | A4D 350-AA06 -01 | W4D 350-CA06 -01 | S4D 350-BA06 -01 |
| "A" | A4D 350-AA06 -02 | W4D 350-CA06 -02 | S4D 350-BA06 -02 |
| "V" | A4E 350-AA06 -01 | W4E 350-CA06 -01 | S4E 350-BA06 -01 |
| "A" | A4E 350-AA06 -02 | W4E 350-CA06 -02 | S4E 350-BA06 -02 |

AC axial fans

A series, Ø 350, drawings of directions of air flow "V" and "A"



Without attachments

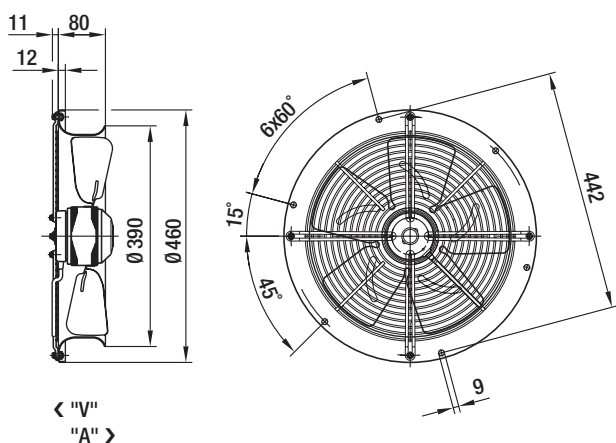


Type

| | |
|------------------|-----|
| A4D 350-AA06 -01 | "V" |
| A4D 350-AA06 -02 | "A" |
| A4E 350-AA06 -01 | "V" |
| A4E 350-AA06 -02 | "A" |



With full round nozzle

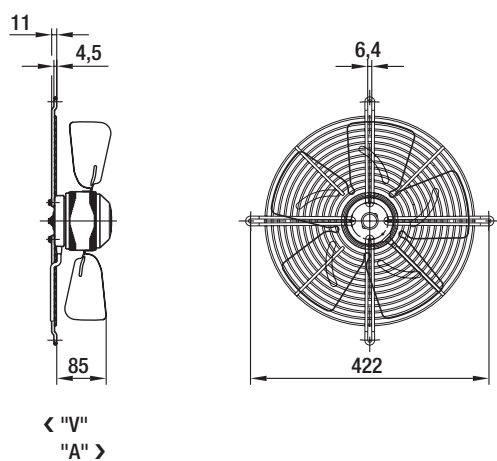


Type

| | |
|------------------|-----|
| W4D 350-CA06 -01 | "V" |
| W4D 350-CA06 -02 | "A" |
| W4E 350-CA06 -01 | "V" |
| W4E 350-CA06 -02 | "A" |



With guard grille for full nozzle



Type

| | |
|------------------|-----|
| S4D 350-BA06 -01 | "V" |
| S4D 350-BA06 -02 | "A" |
| S4E 350-BA06 -01 | "V" |
| S4E 350-BA06 -02 | "A" |



EC axial fans, EC diagonal fans

| | | |
|------------------|---------------|-----|
| EC diagonal fans | Ø 180 - Ø 208 | 180 |
| EC axial fans | Ø 200 - Ø 250 | 181 |



EC diagonal fans

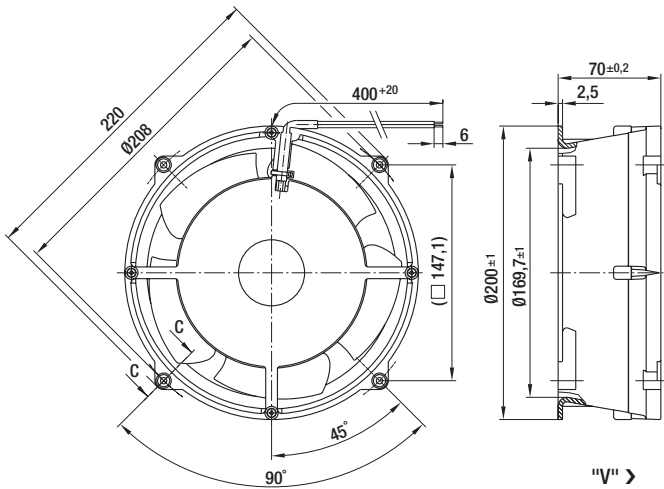
Ø 180



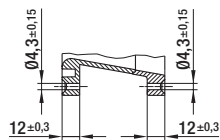
- **Material:**
Wall ring: Die-cast aluminium
Blades: Plastic PA
Rotor: Galvanized
- **Number of blades:** 5
- **Direction of air flow:** "V", exhaust over struts
- **Direction of rotation:** Counter-clockwise, seen on rotor
- **Type of protection:** IP 20
- **Insulation class:** "B"
- **Mounting position:** Any
- **Condensate discharges:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings
- **Technical features:** Control input 0-10 VDC / PWM, tach output, polarity and locked rotor protection, soft start
- **EMC:**
Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
- **Cable exit:** Lateral
- **Protection class:** I
- **Product conforming to standard:** EN 60950-1
- **Approvals:** UL, CSA;
Ⓐ (48 VDC) with CCC

| Nominal data | | Curve | Nominal voltage | Voltage range | Air flow | Speed/rpm | Power input | Current draw | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass |
|-----------------|-----------|-------|-----------------|---------------|----------|-----------|-------------|--------------|----------------------|----------------------|------------------|------|
| Type | Motor | VDC | VDC | m³/h | rpm | W | A | dB(A) | Pa | °C | kg | |
| W1G180-AB31 -01 | M1G074-BF | Ⓐ | 24 | 16-28 | 900 | 4550 | 93 | 4.30 | 68 | — | -25 to +60 | 1.8 |
| W1G180-AB47 -01 | M1G074-BF | Ⓐ | 48 | 36-57 | 925 | 4600 | 100 | 2.30 | 69 | — | -25 to +60 | 1.8 |

subject to alterations



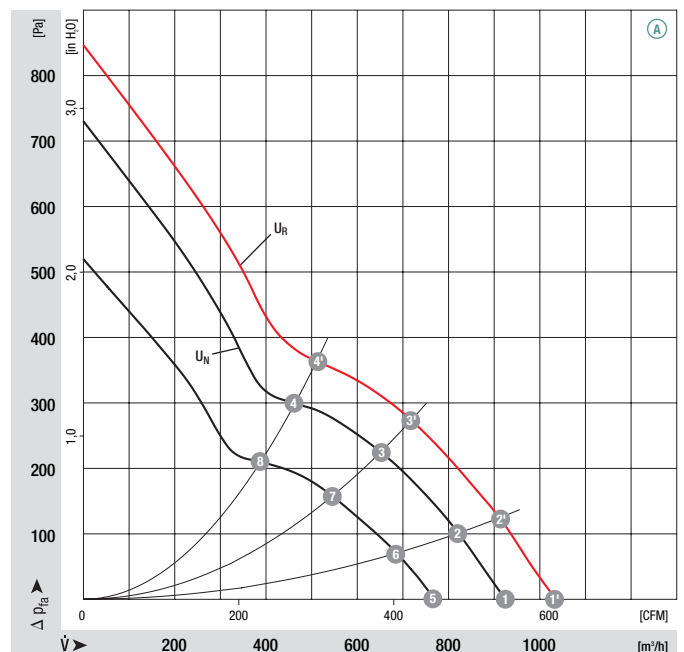
Section C-C



Red = +
Blue = -
Yellow = PWM/Lin control input
White = Tach output

| | n [rpm] | P ₁ [W] | L _{pA} [dB(A)] | η _{HL} [%] | | n [rpm] | P ₁ [W] | L _{pA} [dB(A)] | η _{HL} [%] |
|-----|---------|--------------------|-------------------------|---------------------|-----|---------|--------------------|-------------------------|---------------------|
| Ⓐ 1 | 5180 | 133 | 71 | — | Ⓐ 3 | 4340 | 112 | 66 | 67 |
| Ⓐ 2 | 4970 | 141 | 70 | 70 | Ⓐ 4 | 4550 | 105 | 67 | 55 |
| Ⓐ 3 | 4760 | 146 | 68 | 67 | Ⓐ 5 | 3920 | 60 | 66 | — |
| Ⓐ 4 | 5010 | 140 | 69 | 55 | Ⓐ 6 | 3790 | 64 | 65 | 70 |
| Ⓐ 1 | 4600 | 100 | 69 | — | Ⓐ 7 | 3660 | 68 | 63 | 67 |
| Ⓐ 2 | 4500 | 106 | 68 | 70 | Ⓐ 8 | 3790 | 63 | 63 | 55 |

Curves (established at 48 VDC)



EC axial fans

Ø 200



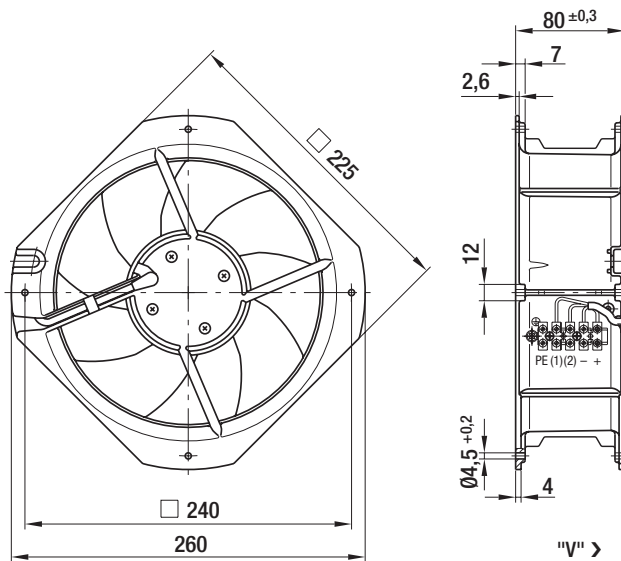
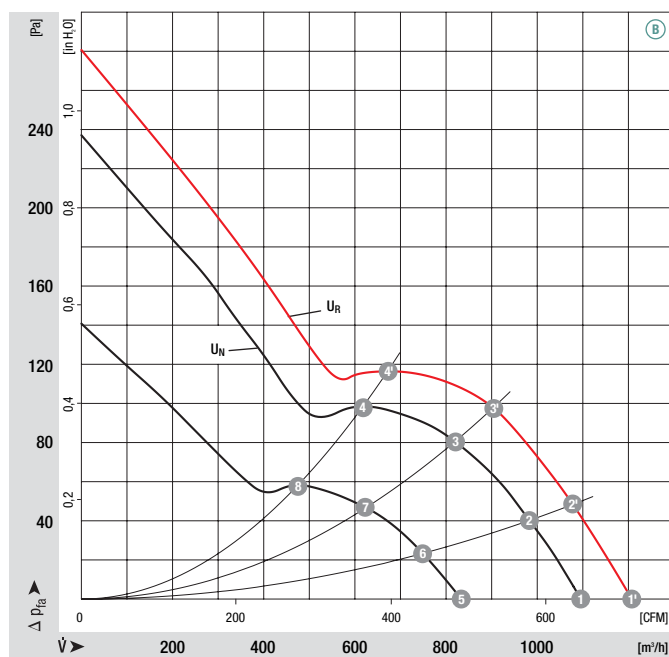
- **Material:**
Wall ring: Die-cast aluminium
Blades: Sheet steel, coated in black
Rotor: Coated in black
- **Number of blades:** 9
- **Direction of air flow:** "V", exhaust over struts
- **Direction of rotation:** Counter-clockwise, seen on rotor
- **Type of protection:** IP 42
- **Insulation class:** "B"
- **Mounting position:** Any
- **Condensate discharges:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings
- **Technical features:** Control input 0-10 VDC / PWM, tach output, polarity and locked rotor protection
- **EMC:**
Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
- **Connection leads:** Terminal strip
- **Protection class:** I
- **Product conforming to standard:** EN 60950-1
- **Approvals:** UL, CSA;
ⓑ (48 VDC) with CCC

| Nominal data | | Curve | Nominal voltage | Voltage range | Air flow | Speed/rpm | Power input | Current draw | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass |
|-----------------|------------|-------|-----------------|---------------|----------|-----------|-------------|--------------|----------------------|----------------------|------------------|------|
| Type | Motor | VDC | VDC | m³/h | rpm | W | A | dB(A) | Pa | °C | kg | |
| W1G200-HH77 -52 | M1G.074-BF | ⓑ | 24 | 16-28 | 1090 | 2950 | 55 | 2.60 | 60 | — | -25 to +60 | 2.1 |
| W1G200-HH01 -52 | M1G.074-BF | ⓑ | 48 | 36-57 | 1005 | 2750 | 45 | 1.10 | 60 | — | -25 to +60 | 2.1 |

subject to alterations

| | n [rpm] | P ₁ [W] | LP _A [dB(A)] | η _{HL} [%] | | n [rpm] | P ₁ [W] | LP _A [dB(A)] | η _{HL} [%] |
|------|---------|--------------------|-------------------------|---------------------|-----|---------|--------------------|-------------------------|---------------------|
| ⓑ 1' | 2300 | 73 | 63 | — | ⓑ 3 | 2800 | 61 | 61 | 64 |
| ⓑ 2' | 2970 | 77 | 62 | 67 | ⓑ 4 | 2780 | 63 | 64 | 54 |
| ⓑ 3' | 3100 | 80 | 63 | 64 | ⓑ 5 | 2270 | 27 | 55 | — |
| ⓑ 4 | 2970 | 80 | 66 | 54 | ⓑ 6 | 2230 | 28 | 54 | 67 |
| ⓑ 1 | 2950 | 55 | 60 | — | ⓑ 7 | 2170 | 29 | 54 | 64 |
| ⓑ 2 | 2890 | 58 | 60 | 67 | ⓑ 8 | 2130 | 30 | 57 | 54 |

Curves (established at 24 VDC)



(1) Control input
(2) Tach output

EC diagonal fans

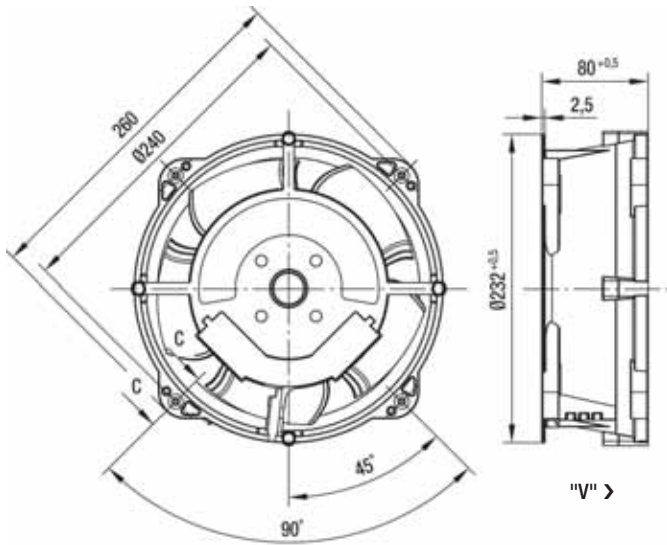
Ø 208



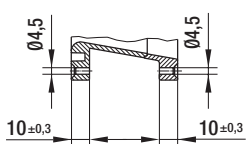
- **Material:**
Wall ring: Die-cast aluminium
Blades: Plastic PA
Rotor: Galvanized
- **Number of blades:** 5
- **Direction of air flow:** "V", exhaust over struts
- **Direction of rotation:** Counter-clockwise, seen on rotor
- **Type of protection:** IP 20
- **Insulation class:** "B"
- **Mounting position:** Any
- **Condensate discharges:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings
- **Technical features:** Control input 0-10 VDC / PWM, tach output, polarity and locked rotor protection
- **EMC:**
Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
- **Connection leads:** Terminal strip
- **Protection class:** I
- **Product conforming to standard:** EN 60950-1
- **Approvals:** VDE, UL, CSA;
Ⓐ (48 VDC) with CCC

| Nominal data | | Curve | Nominal voltage | Voltage range | Air flow | Speed/rpm | Power input | Current draw | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass |
|-----------------|-----------|-------|-----------------|---------------|----------|-----------|-------------|--------------|----------------------|----------------------|------------------|------|
| Type | Motor | VDC | VDC | m³/h | rpm | W | A | dB(A) | Pa | °C | kg | |
| W1G208-BA35 -52 | M1G074-BF | Ⓐ | 24 | 16-28 | 1050 | 3500 | 96 | 4.40 | 74 | — | -25 to +72 | 2.3 |
| W1G208-BA73 -52 | M1G074-BF | Ⓐ | 48 | 36-57 | 1050 | 3500 | 96 | 2.26 | 74 | — | -25 to +72 | 2.3 |

subject to alterations



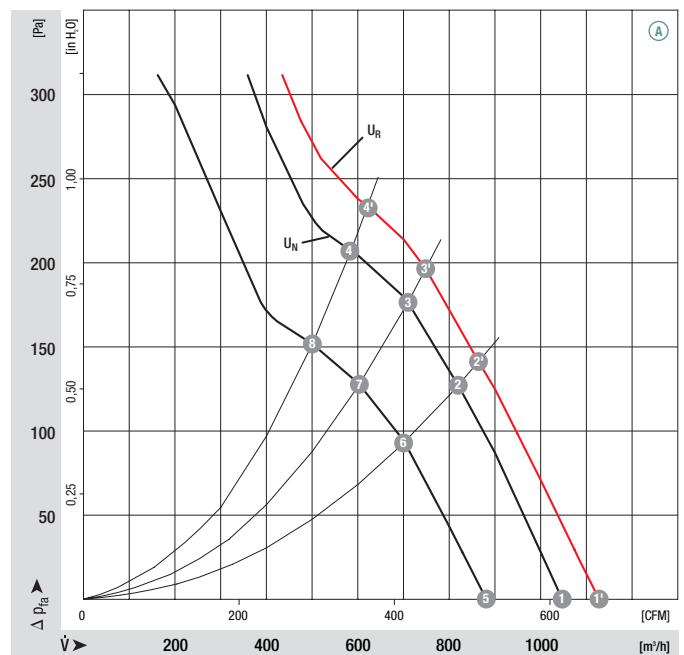
Section C-C



Red = +
Blue = -
Yellow = PWM/Lin control input
White = Tach output

| | n [rpm] | P ₁ [W] | Lp _A [dB(A)] | η _{HL} [%] | | n [rpm] | P ₁ [W] | Lp _A [dB(A)] | η _{HL} [%] |
|-----|---------|--------------------|-------------------------|---------------------|-----|---------|--------------------|-------------------------|---------------------|
| Ⓐ 1 | 3740 | 116 | 75 | — | Ⓐ 3 | 3250 | 100 | 72 | 53 |
| Ⓐ 2 | 3500 | 118 | 74 | 52 | Ⓐ 4 | 3330 | 99 | 73 | 48 |
| Ⓐ 3 | 3450 | 119 | 73 | 53 | Ⓐ 5 | 2960 | 58 | 70 | — |
| Ⓐ 4 | 3530 | 118 | 75 | 48 | Ⓐ 6 | 2830 | 63 | 69 | 52 |
| Ⓐ 1 | 3500 | 96 | 74 | — | Ⓐ 7 | 2780 | 64 | 68 | 53 |
| Ⓐ 2 | 3300 | 99 | 72 | 52 | Ⓐ 8 | 2840 | 62 | 70 | 48 |

Curves



EC axial fans

Ø 250



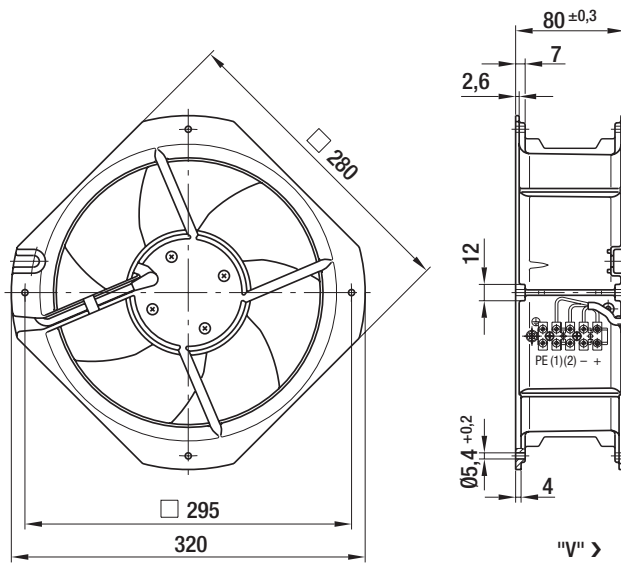
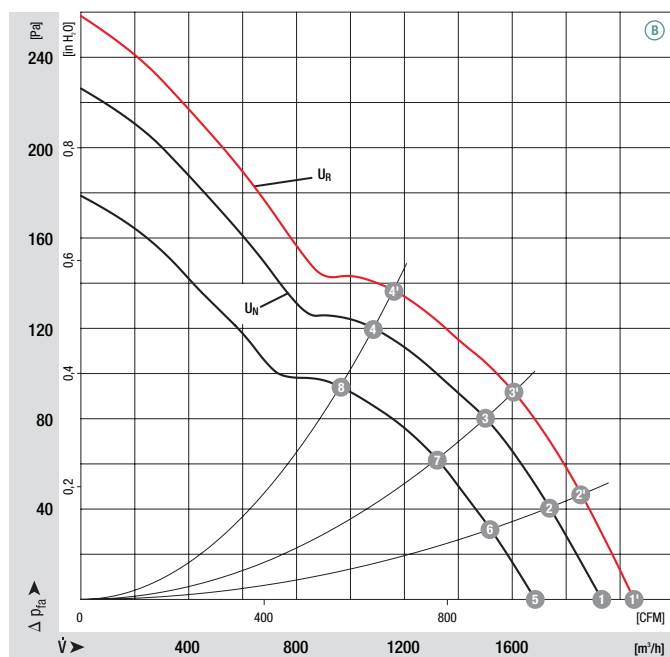
- **Material:**
Wall ring: Die-cast aluminium
Blades: Sheet steel, coated in black
Rotor: Coated in black
- **Number of blades:** 7
- **Direction of air flow:** "V", exhaust over struts
- **Direction of rotation:** Counter-clockwise, seen on rotor
- **Type of protection:** IP 42
- **Insulation class:** "B"
- **Mounting position:** Any
- **Condensate discharges:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings
- **Technical features:** Control input 0-10 VDC / PWM, tach output, polarity and locked rotor protection
- **EMC:**
Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
- **Connection leads:** Terminal strip
- **Protection class:** I
- **Product conforming to standard:** EN 60950-1
- **Approvals:** VDE, UL, CSA;
ⓑ (48 VDC) with CCC

| Nominal data | | Curve | Nominal voltage | Voltage range | Air flow | Speed/rpm | Power input | Current draw | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass |
|-----------------|-----------|-------|-----------------|---------------|----------|-----------|-------------|--------------|----------------------|----------------------|------------------|------|
| Type | Motor | VDC | VDC | m³/h | rpm | W | A | dB(A) | Pa | °C | kg | |
| W1G250-HH37 -52 | M1G074-BF | ⓑ | 24 | 16-28 | 1920 | 2750 | 105 | 5.00 | 70 | — | -25 to +60 | 2.5 |
| W1G250-HH67 -52 | M1G074-BF | ⓑ | 48 | 36-57 | 1920 | 2750 | 105 | 2.60 | 70 | — | -25 to +60 | 2.5 |

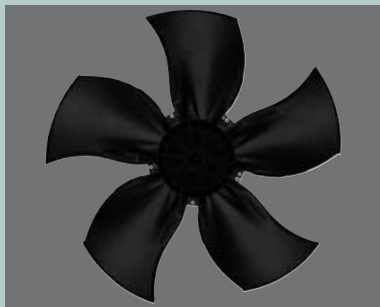
subject to alterations

| | n [rpm] | P ₁ [W] | LP _A [dB(A)] | η _{HL} [%] | | n [rpm] | P ₁ [W] | LP _A [dB(A)] | η _{HL} [%] |
|------|---------|--------------------|-------------------------|---------------------|-----|---------|--------------------|-------------------------|---------------------|
| ⓑ 1' | 2920 | 129 | 71 | — | ⓑ 3 | 2520 | 111 | 69 | 60 |
| ⓑ 2' | 2800 | 132 | 72 | 63 | ⓑ 4 | 2440 | 114 | 70 | 45 |
| ⓑ 3' | 2680 | 135 | 71 | 60 | ⓑ 5 | 2610 | 73 | 66 | — |
| ⓑ 4 | 2600 | 139 | 72 | 45 | ⓑ 6 | 2320 | 75 | 67 | 63 |
| ⓑ 1 | 2750 | 105 | 70 | — | ⓑ 7 | 2230 | 78 | 67 | 60 |
| ⓑ 2 | 2630 | 110 | 69 | 63 | ⓑ 8 | 2170 | 80 | 68 | 45 |

Curves



(1) Control input
(2) Tach output



EC axial fans S series

| | | |
|--|---------------|-----|
| EC axial fans, S series, 24 / 48 VDC | Ø 200 - Ø 300 | 186 |
| EC axial fans, S series, mains-powered | Ø 250 - Ø 990 | 198 |



EC axial fans 24/48 VDC

S series, Ø 200

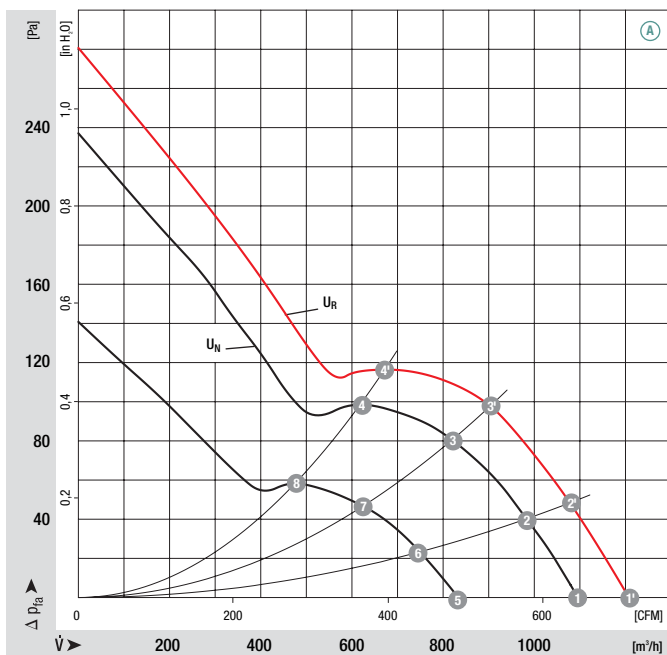


- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Sheet steel, coated in black
Rotor: Coated in black
- **Number of blades:** 9
- **Direction of rotation:** Counter-clockwise, seen on rotor
- **Type of protection:** IP 42
- **Insulation class:** "B"
- **Mounting position:** Any
- **Condensate discharges:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage | Voltage range | Air flow | Speed/rpm | Power input | Current draw | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|--------------|------------|-------|-----------------|---------------|----------|-----------|-------------|--------------|----------------------|----------------------|------------------|--------------------------|--------------------|
| Type | Motor | VDC | VDC | m³/h | rpm | W | A | dB(A) | Pa | °C | kg | p. 420 | |
| *1G 200 | M1G 074-BF | (A) | 24 | 16-28 | 1090 | 2950 | 55 | 2.60 | 60 | — | -25 to +60 | 1.5 | G) |
| *1G 200 | M1G 074-BF | (A) | 48 | 36-57 | 1005 | 2750 | 45 | 1.10 | 60 | — | -25 to +60 | 1.5 | G) |





subject to alterations

Curves (established at 24 VDC)



| | n [rpm] | P ₁ [W] | L _{pA} [dB(A)] | η _{HL} [%] |
|--------|---------|--------------------|-------------------------|---------------------|
| (A) 1' | 2300 | 73 | 63 | — |
| (A) 2' | 2970 | 77 | 62 | 67 |
| (A) 3' | 3100 | 80 | 63 | 64 |
| (A) 4' | 2970 | 80 | 66 | 54 |
| (A) 1 | 2950 | 55 | 60 | — |
| (A) 2 | 2890 | 58 | 60 | 67 |
| (A) 3 | 2800 | 61 | 61 | 64 |
| (A) 4 | 2780 | 63 | 64 | 54 |
| (A) 5 | 2270 | 27 | 55 | — |
| (A) 6 | 2230 | 28 | 54 | 67 |
| (A) 7 | 2170 | 29 | 54 | 64 |
| (A) 8 | 2130 | 30 | 57 | 54 |

- **Technical features:**
 - Control input 0-10 VDC / PWM
 - **EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
 - **Cable exit:** Variable
 - **Protection class:** I
 - **Product conforming to standard:** EN 60950-1
 - **Approvals:** UL, CSA
- Tach output
 - Polarity and locked rotor protection

| Direction of air flow |  < "V"/"A" > | |  < "V"/"A" > | |  < "V"/"A" > | |  < "V"/"A" > | |
|-----------------------|--|-----|--|-----|--|-----|--|-----|
| | Without attachments | | With full round nozzle ⁽¹⁾ | | With guard grille for full nozzle | | With guard grille for short nozzle | |
| "V" | A1G 200-AH77 | -52 | W1G 200-CH77 | -52 | S1G 200-BH77 | -52 | S1G 200-AH77 | -52 |
| "A" | A1G 200-AI77 | -52 | W1G 200-CI77 | -52 | S1G 200-BI77 | -52 | S1G 200-AI77 | -52 |
| "V" | A1G 200-AH01 | -52 | W1G 200-CH01 | -52 | S1G 200-BH01 | -52 | S1G 200-AH01 | -52 |
| "A" | A1G 200-AI01 | -52 | W1G 200-CI01 | -52 | S1G 200-BI01 | -52 | S1G 200-AI01 | -52 |

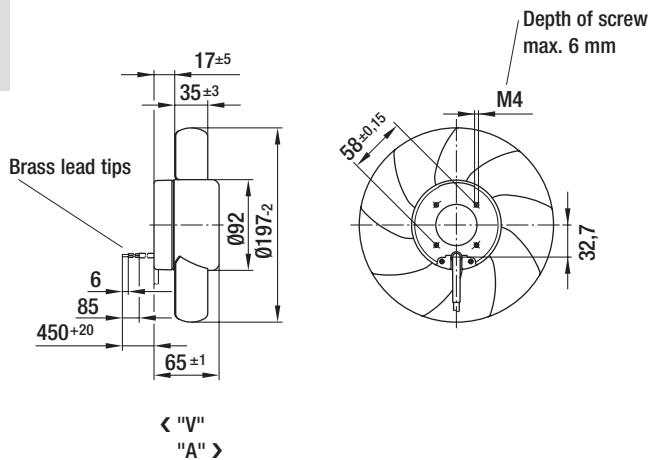
(1) Increased noise levels in "V" direction of air flow

EC axial fans 24/48 VDC

S series, Ø 200, drawings of directions of air flow "V" and "A"



Without attachments

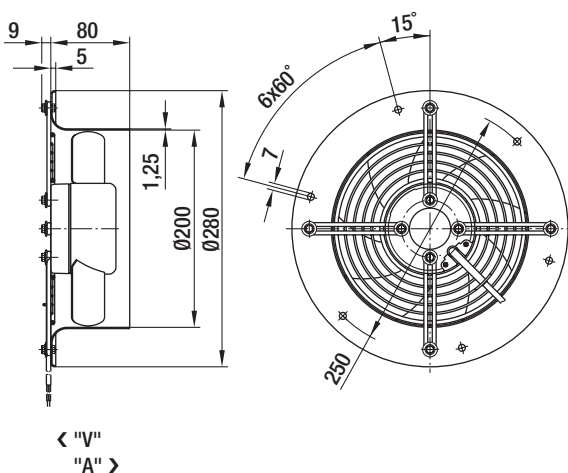


Type

| | |
|------------------|-----|
| A1G 200-AH77 -52 | "V" |
| A1G 200-AI77 -52 | "A" |
| A1G 200-AH01 -52 | "V" |
| A1G 200-AI01 -52 | "A" |



With full round nozzle

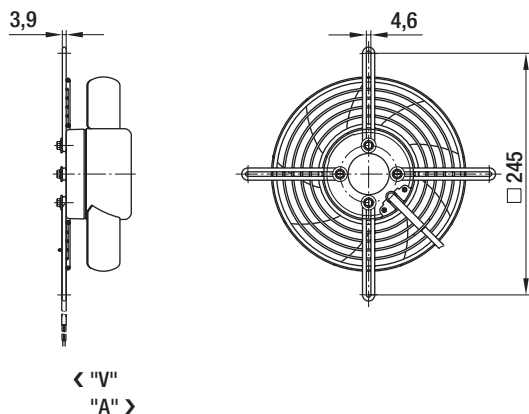


Type

| | |
|------------------|-----|
| W1G 200-CH77 -52 | "V" |
| W1G 200-CI77 -52 | "A" |
| W1G 200-CH01 -52 | "V" |
| W1G 200-CI01 -52 | "A" |



With guard grille for full nozzle

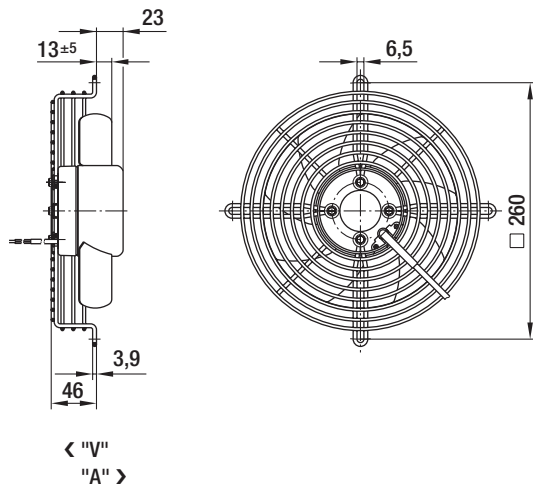


Type

| | |
|------------------|-----|
| S1G 200-BH77 -52 | "V" |
| S1G 200-BI77 -52 | "A" |
| S1G 200-BH01 -52 | "V" |
| S1G 200-BI01 -52 | "A" |



With guard grille for short nozzle

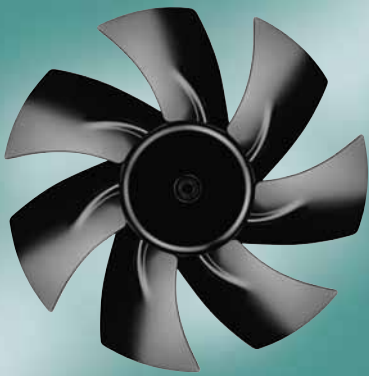


Type

| | |
|------------------|-----|
| S1G 200-AH77 -52 | "V" |
| S1G 200-AI77 -52 | "A" |
| S1G 200-AH01 -52 | "V" |
| S1G 200-AI01 -52 | "A" |

EC axial fans 24/48 VDC

S series, Ø 250

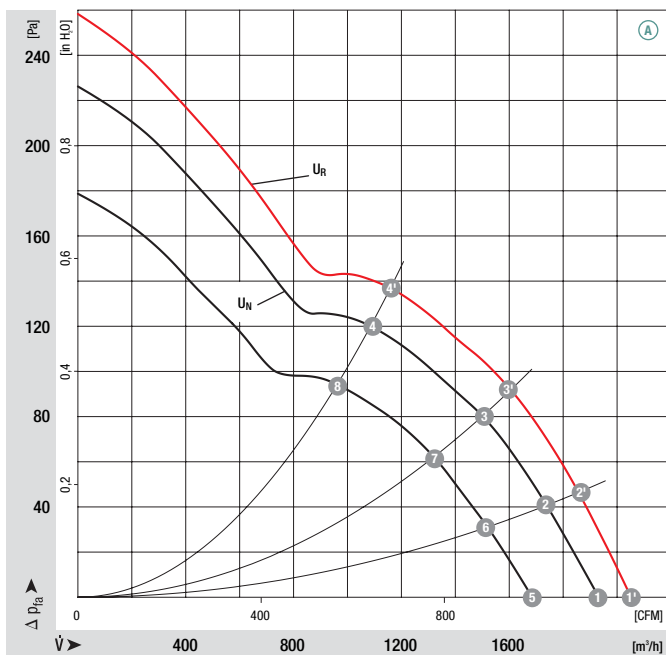


- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Sheet steel, coated in black
Rotor: Coated in black
- **Number of blades:** 7 for direction of air flow "V", 9 for direction of air flow "A"
- **Direction of rotation:** Counter-clockwise, seen on rotor
- **Type of protection:** IP 42
- **Insulation class:** "B"
- **Mounting position:** Any
- **Condensate discharges:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage | Voltage range | Air flow | Speed/rpm | Power input | Current draw | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|--------------|------------|-------|-----------------|---------------|----------|-----------|-------------|--------------|----------------------|----------------------|------------------|--------------------------|--------------------|
| Type | Motor | VDC | VDC | m³/h | rpm | W | A | dB(A) | Pa | °C | kg | p. 420 | |
| *1G 250 | M1G 074-BF | (A) | 24 | 16-28 | 1920 | 2750 | 105 | 5.00 | 70 | — | -25 to +60 | 1.6 | G) |
| *1G 250 | M1G 074-BF | (A) | 48 | 36-57 | 1920 | 2750 | 105 | 2.60 | 70 | — | -25 to +60 | 1.6 | G) |





subject to alterations

Curves



| | n [rpm] | P ₁ [W] | Lp _A [dB(A)] | η _{HL} [%] |
|--------|---------|--------------------|-------------------------|---------------------|
| (A) 1' | 2920 | 129 | 71 | — |
| (A) 2' | 2800 | 132 | 72 | 63 |
| (A) 3' | 2680 | 135 | 71 | 60 |
| (A) 4' | 2600 | 139 | 73 | 45 |
| (A) 1 | 2750 | 105 | 70 | — |
| (A) 2 | 2630 | 110 | 69 | 63 |
| (A) 3 | 2520 | 111 | 69 | 60 |
| (A) 4 | 2440 | 114 | 71 | 45 |
| (A) 5 | 2610 | 73 | 66 | — |
| (A) 6 | 2320 | 75 | 67 | 63 |
| (A) 7 | 2230 | 78 | 67 | 60 |
| (A) 8 | 2170 | 80 | 68 | 45 |

- **Technical features:**
 - Control input 0-10 VDC / PWM
 - Tach output
- **EMC:** Interference emission acc. to EN 61000-6-3
 - Polarity and locked rotor protection
 - Interference immunity acc. to EN 61000-6-2
- **Cable exit:** Variable
- **Protection class:** I
- **Product conforming to standard:** EN 60950-1
- **Approvals:** UL, CSA

| Direction of air flow |  < "V"/"A" > | |  < "V"/"A" > | |  < "V"/"A" > | |  < "V"/"A" > | |
|-----------------------|--|-----|--|-----|--|-----|--|-----|
| | Without attachments | | With full round nozzle ⁽¹⁾ | | With guard grille for full nozzle | | With guard grille for short nozzle | |
| "V" | A1G 250-AH37 | -52 | W1G 250-CH37 | -52 | S1G 250-BH37 | -52 | S1G 250-AH37 | -52 |
| "A" | A1G 250-AI37 | -52 | W1G 250-CI37 | -52 | S1G 250-BI37 | -52 | S1G 250-AI37 | -52 |
| "V" | A1G 250-AH67 | -52 | W1G 250-CH67 | -52 | S1G 250-BH67 | -52 | S1G 250-AH67 | -52 |
| "A" | A1G 250-AI67 | -52 | W1G 250-CI67 | -52 | S1G 250-BI67 | -52 | S1G 250-AI67 | -52 |

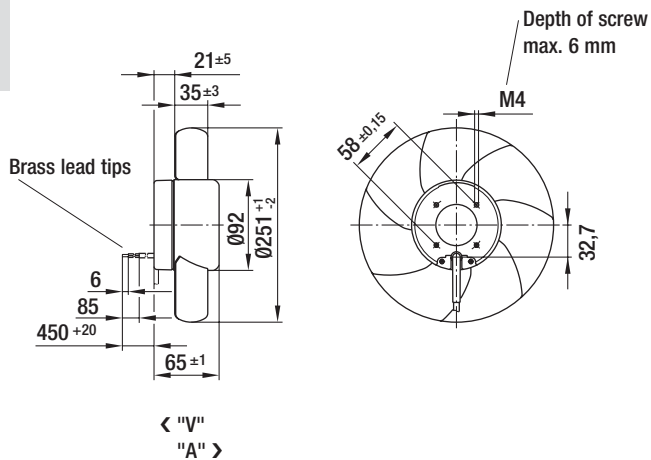
(1) Increased noise levels in "V" direction of air flow

EC axial fans 24/48 VDC

S series, Ø 250, drawings of directions of air flow "V" and "A"



Without attachments

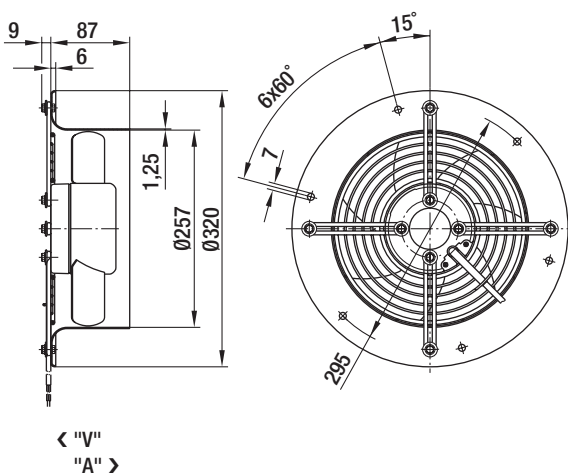


Type

| | |
|------------------|-----|
| A1G 250-AH37 -52 | "V" |
| A1G 250-AI37 -52 | "A" |
| A1G 250-AH67 -52 | "V" |
| A1G 250-AI67 -52 | "A" |



With full round nozzle

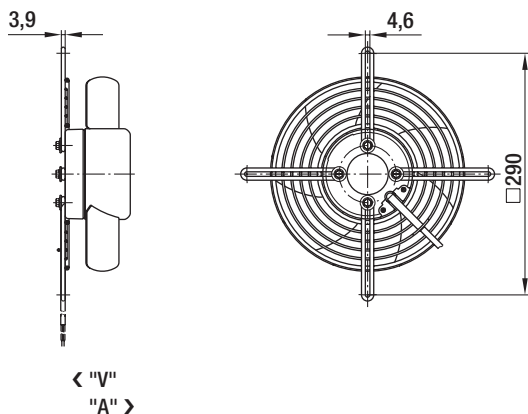


Type

| | |
|------------------|-----|
| W1G 250-CH37 -52 | "V" |
| W1G 250-CI37 -52 | "A" |
| W1G 250-CH67 -52 | "V" |
| W1G 250-CI67 -52 | "A" |



With guard grille for full nozzle

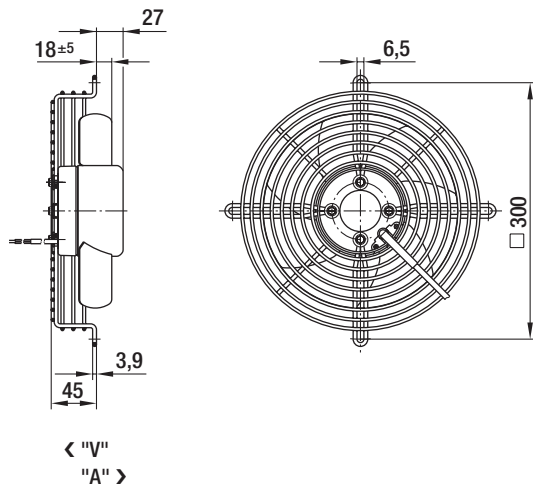


Type

| | |
|------------------|-----|
| S1G 250-BH37 -52 | "V" |
| S1G 250-BI37 -52 | "A" |
| S1G 250-BH67 -52 | "V" |
| S1G 250-BI67 -52 | "A" |



With guard grille for short nozzle



Type

| | |
|------------------|-----|
| S1G 250-AH37 -52 | "V" |
| S1G 250-AI37 -52 | "A" |
| S1G 250-AH67 -52 | "V" |
| S1G 250-AI67 -52 | "A" |

EC axial fans 24/48 VDC

S series, Ø 300

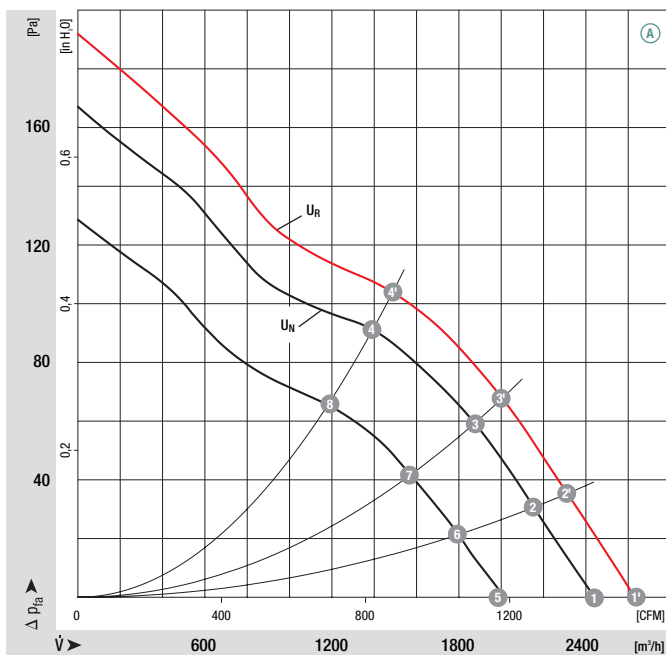


- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Sheet steel, coated in black
Rotor: Coated in black
- **Number of blades:** 7
- **Direction of rotation:** Direction of air flow "V" counter-clockwise, direction of air flow "A" clockwise, seen on rotor
- **Type of protection:** IP 42
- **Insulation class:** "B"
- **Mounting position:** Any
- **Condensate discharges:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage | Voltage range | Air flow | Speed/rpm | Power input | Current draw | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|--------------|------------|-------|-----------------|---------------|----------|-----------|-------------|--------------|----------------------|----------------------|------------------|--------------------------|--------------------|
| Type | Motor | VDC | VDC | m³/h | rpm | W | A | dB(A) | Pa | °C | kg | p. 420 | |
| *1G 300 | M1G 074-CF | (A) | 24 | 16-28 | 2450 | 1800 | 90 | 4.00 | 65 | — | -25 to +60 | 2.2 | G) |
| *1G 300 | M1G 074-CF | (A) | 48 | 36-57 | 2450 | 1800 | 90 | 2.00 | 65 | — | -25 to +60 | 2.2 | G) |





subject to alterations

Curves



| | n [rpm] | P ₁ [W] | Lp _A [dB(A)] | η _{HL} [%] |
|--------|---------|--------------------|-------------------------|---------------------|
| (A) 1' | 1940 | 108 | 67 | — |
| (A) 2' | 1850 | 111 | 66 | 71 |
| (A) 3' | 1790 | 113 | 66 | 71 |
| (A) 4' | 1720 | 116 | 66 | 60 |
| (A) 1 | 1800 | 90 | 65 | — |
| (A) 2 | 1720 | 89 | 65 | 71 |
| (A) 3 | 1670 | 91 | 65 | 71 |
| (A) 4 | 1600 | 93 | 64 | 60 |
| (A) 5 | 1480 | 49 | 61 | — |
| (A) 6 | 1440 | 52 | 62 | 71 |
| (A) 7 | 1400 | 55 | 61 | 71 |
| (A) 8 | 1350 | 58 | 59 | 60 |

- **Technical features:**
 - Control input 0-10 VDC / PWM
 - Tach output
- **EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
- **Cable exit:** Variable
- **Protection class:** I
- **Product conforming to standard:** EN 60950-1
- **Approvals:** UL, CSA
- Polarity and locked rotor protection

| Direction of air flow |  < "V"/"A" > | |  < "V"/"A" > | |  < "V"/"A" > | |  < "V"/"A" > | |
|-----------------------|--|------------------|--|------------------|--|------------------|--|------------------|
| | Without attachments | | With full round nozzle | | With guard grille for full nozzle | | With guard grille for short nozzle | |
| "V" | A1G 300-AE19 -54 | W1G 300-CE19 -54 | S1G 300-BE19 -54 | S1G 300-AE19 -54 | A1G 300-AE19 -52 | W1G 300-CE19 -52 | S1G 300-BE19 -52 | S1G 300-AE19 -52 |
| "A" | A1G 300-AE33 -54 | W1G 300-CE33 -54 | S1G 300-BE33 -54 | S1G 300-AE33 -54 | A1G 300-AE33 -52 | W1G 300-CE33 -52 | S1G 300-BE33 -52 | S1G 300-AE33 -52 |

EC axial fans 24/48 VDC

S series, Ø 300, drawings of directions of air flow "V" and "A"

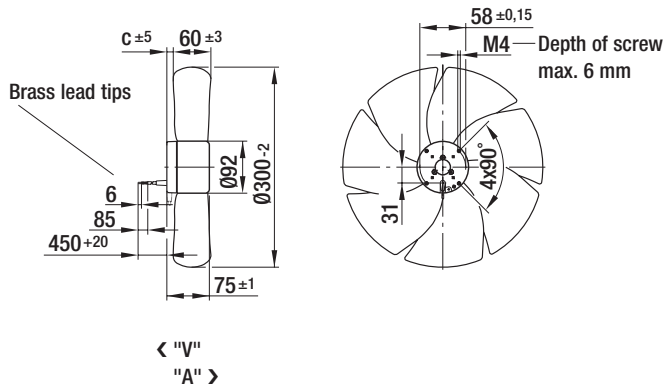


Without attachments

Type

c

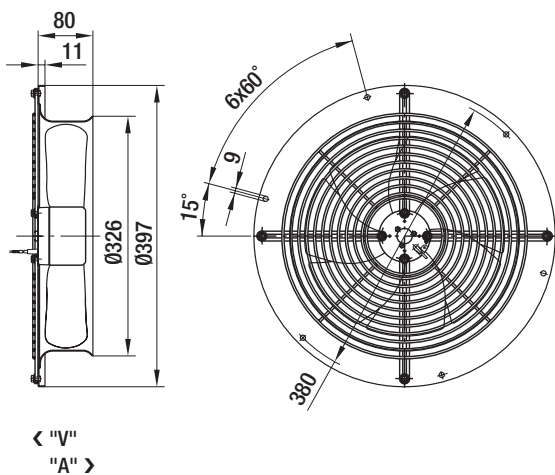
| | | |
|------------------|-----|------|
| A1G 300-AE19 -54 | "V" | 19.7 |
| A1G 300-AE19 -52 | "A" | 19.2 |
| A1G 300-AE33 -54 | "V" | 19.7 |
| A1G 300-AE33 -52 | "A" | 19.2 |



With full round nozzle

Type

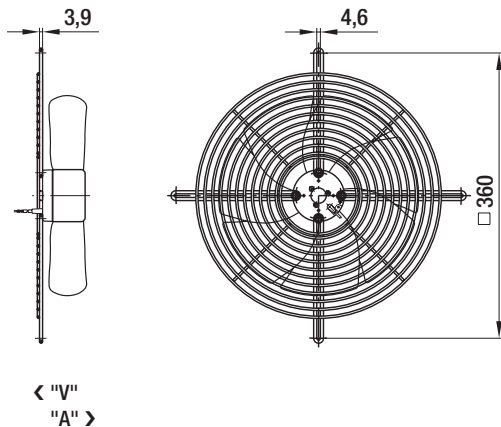
| | |
|------------------|-----|
| W1G 300-CE19 -54 | "V" |
| W1G 300-CE19 -52 | "A" |
| W1G 300-CE33 -54 | "V" |
| W1G 300-CE33 -52 | "A" |



With guard grille for full nozzle

Type

| | |
|------------------|-----|
| S1G 300-BE19 -54 | "V" |
| S1G 300-BE19 -52 | "A" |
| S1G 300-BE33 -54 | "V" |
| S1G 300-BE33 -52 | "A" |

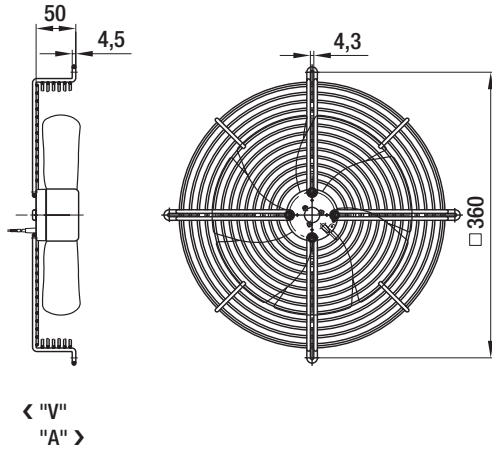




With guard grille for short nozzle

Type

| | |
|------------------|-----|
| S1G 300-AE19 -54 | "V" |
| S1G 300-AE19 -52 | "A" |
| S1G 300-AE33 -54 | "V" |
| S1G 300-AE33 -52 | "A" |



EC axial fans mains-powered

S series, Ø 250



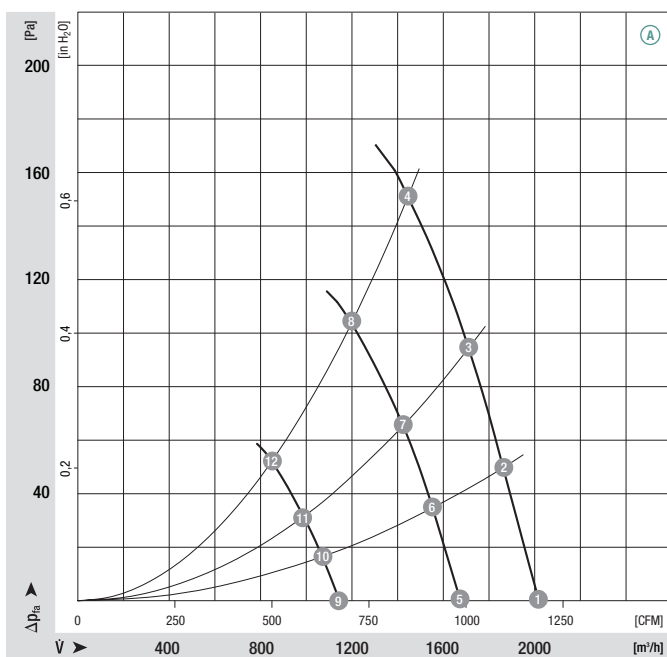
- **Material:** Guard grille: Steel, phosphated and coated in black
Wall ring: Sheet steel, pre-galvanised and coated in black
Blades: Sheet steel, coated in black
Rotor: Coated in black
Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 7 for direction of air flow "V", 9 for direction of air flow "A"
- **Direction of rotation:** Counter-clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "B"
- **Mounting position:** Shaft horizontal or rotor on bottom (rotor on top on request)
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage range | Frequency | Speed/rpm | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|--------------|------------|-------|-----------------------|-----------|-----------|---------------------------------|----------------------------------|----------------------|------------------|--------------------------|--------------------|
| Type | Motor | VAC | Hz | rpm | W | A | Pa | °C | kg | p. 423 | |
| *3G 250 | M3G 074-CF | Ⓐ 1~ | 100-130 | 50/60 | 2850 | 170 | 2.20 | 170 | -25 to +60 | 2.4 | J1) |
| *3G 250 | M3G 074-CF | Ⓑ 1~ | 200-277 | 50/60 | 3050 | 175 | 1.40 | 210 | -25 to +60 | 2.4 | J1) |

subject to alterations

(1) Nominal data in operating point with maximum load and 115 or 230 VAC

Curves



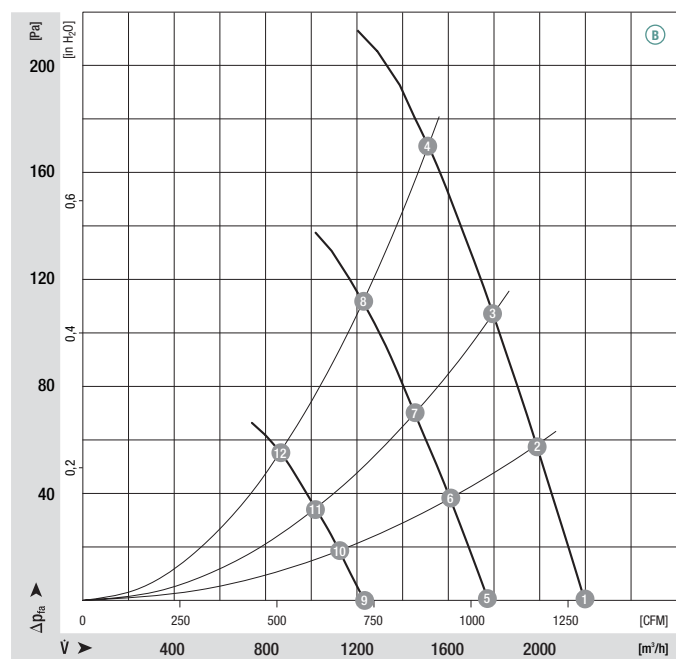
| | n [rpm] | P ₁ [W] | I [A] | Lp _A [dB(A)] | η _{HL} [%] |
|------|---------|--------------------|-------|-------------------------|---------------------|
| Ⓐ 1 | 2850 | 162 | 1.80 | 71 | — |
| Ⓐ 2 | 2820 | 158 | 1.90 | 71 | 84 |
| Ⓐ 3 | 2800 | 153 | 2.00 | 72 | 84 |
| Ⓐ 4 | 2770 | 144 | 2.00 | 74 | 79 |
| Ⓐ 5 | 2360 | 85 | 1.10 | 66 | — |
| Ⓐ 6 | 2360 | 91 | 1.20 | 66 | 77 |
| Ⓐ 7 | 2340 | 94 | 1.20 | 67 | 77 |
| Ⓐ 8 | 2310 | 95 | 1.20 | 68 | 70 |
| Ⓐ 9 | 1650 | 33 | 0.50 | 62 | — |
| Ⓐ 10 | 1650 | 35 | 0.50 | 56 | 68 |
| Ⓐ 11 | 1650 | 36 | 0.50 | 58 | 70 |
| Ⓐ 12 | 1650 | 37 | 0.50 | 59 | 68 |

- **Technical features:**
 - PFC (passive)
 - Control input 0-10 VDC / PWM
 - Output 10 VDC max. 1.1 mA
 - Tach output
 - Over-temperature protected electronics / motor
- **EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
Harmonics acc. to EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 60950-1
- **Cable exit:** Variable
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, EN 61800-5-1, EN 60950-1, CE
- **Approvals:** VDE, UL, CSA, CCC, GOST are applied for

| Direction of air flow | | | | |
|-----------------------|---------------------|---------------------------------------|-----------------------------------|------------------------------------|
| | Without attachments | With full round nozzle ⁽²⁾ | With guard grille for full nozzle | With guard grille for short nozzle |
| "V" | A3G 250-AC71 -01 | W3G 250-CC71 -01 | S3G 250-BC71 -01 | S3G 250-AC71 -01 |
| "A" | A3G 250-AD71 -01 | W3G 250-CD71 -01 | S3G 250-BD71 -01 | S3G 250-AD71 -01 |
| "V" | A3G 250-AC54 -01 | W3G 250-CC54 -01 | S3G 250-BC54 -01 | S3G 250-AC54 -01 |
| "A" | A3G 250-AD54 -01 | W3G 250-CD54 -01 | S3G 250-BD54 -01 | S3G 250-AD54 -01 |

(2) Increased noise levels in "V" direction of air flow

Curves



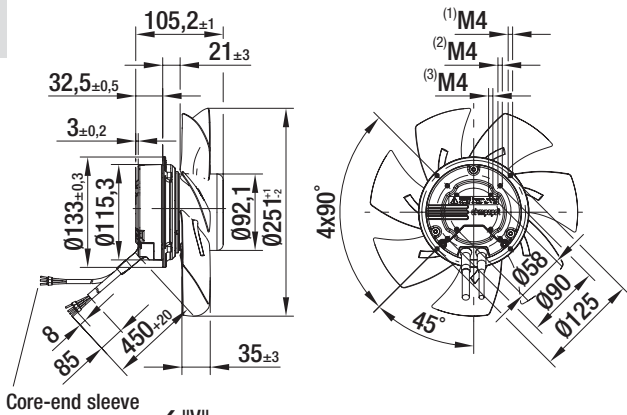
| | n [rpm] | P ₁ [W] | I [A] | Lp _A [dB(A)] | η _{HL} [%] |
|------|---------|--------------------|-------|-------------------------|---------------------|
| ⓑ 1 | 3050 | 170 | 1.30 | 72 | — |
| ⓑ 2 | 2970 | 169 | 1.30 | 73 | 89 |
| ⓑ 3 | 2900 | 169 | 1.30 | 74 | 88 |
| ⓑ 4 | 2820 | 168 | 1.30 | 75 | 86 |
| ⓑ 5 | 2500 | 96 | 0.70 | 68 | — |
| ⓑ 6 | 2410 | 94 | 0.70 | 68 | 86 |
| ⓑ 7 | 2360 | 94 | 0.70 | 69 | 86 |
| ⓑ 8 | 2300 | 94 | 0.70 | 69 | 81 |
| ⓑ 9 | 1740 | 37 | 0.30 | 57 | — |
| ⓑ 10 | 1700 | 37 | 0.30 | 56 | 75 |
| ⓑ 11 | 1660 | 37 | 0.30 | 58 | 75 |
| ⓑ 12 | 1610 | 37 | 0.30 | 59 | 72 |

EC axial fans mains-powered

S series, Ø 250, drawings of directions of air flow "V" and "A"



Without attachments



Core-end sleeve
 < "V"
 "A" >

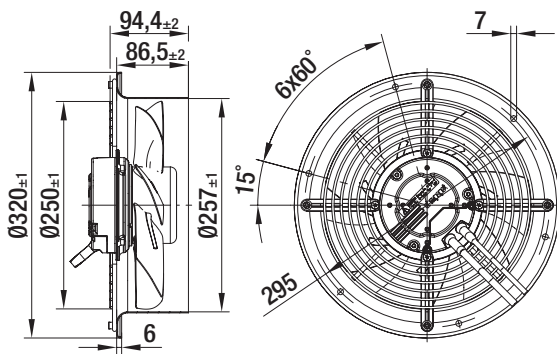
- (1) Depth of screw max. 8 mm (pilot hole for self-tapping thread)
- (2) Depth of screw max. 6 mm (pilot hole for self-tapping thread)
- (3) Depth of screw 8-10 mm

Type

| | |
|------------------|-----|
| A3G 250-AC71 -01 | "V" |
| A3G 250-AD71 -01 | "A" |
| A3G 250-AC54 -01 | "V" |
| A3G 250-AD54 -01 | "A" |



With full round nozzle



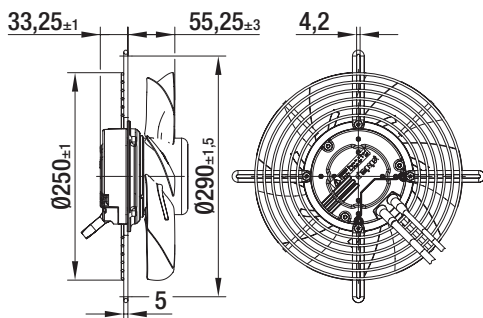
< "V"
 "A" >

Type

| | |
|------------------|-----|
| W3G 250-CC71 -01 | "V" |
| W3G 250-CD71 -01 | "A" |
| W3G 250-CC54 -01 | "V" |
| W3G 250-CD54 -01 | "A" |



With guard grille for full nozzle



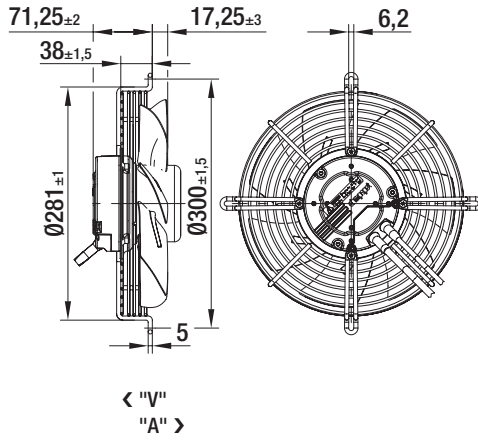
< "V"
 "A" >

Type

| | |
|------------------|-----|
| S3G 250-BC71 -01 | "V" |
| S3G 250-BD71 -01 | "A" |
| S3G 250-BC54 -01 | "V" |
| S3G 250-BD54 -01 | "A" |



With guard grille for short nozzle



Type

| | |
|------------------|-----|
| S3G 250-AC71 -01 | "V" |
| S3G 250-AD71 -01 | "A" |
| S3G 250-AC54 -01 | "V" |
| S3G 250-AD54 -01 | "A" |

EC axial fans mains-powered

S series, Ø 300



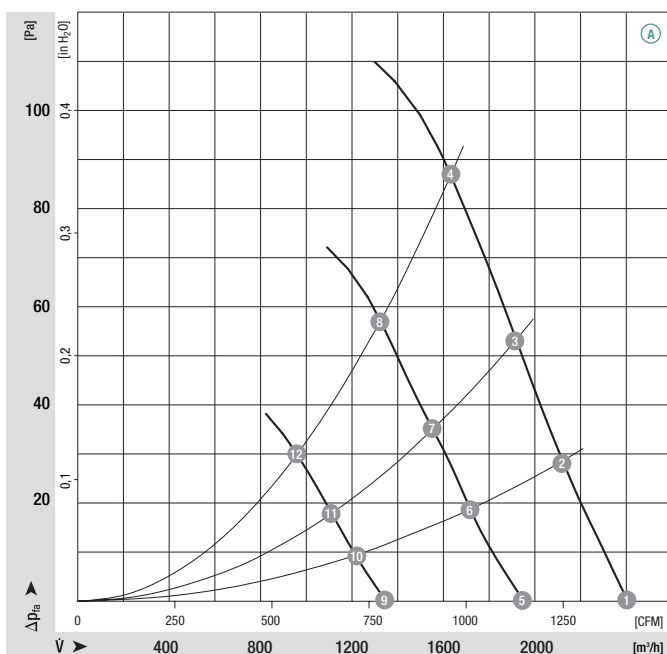
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black
Blades: Sheet steel, coated in black
Rotor: Coated in black
Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 5
- **Direction of rotation:** Dir. of air flow "V" counter-clockwise, "A" clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "B"
- **Mounting position:** Shaft horizontal or rotor on bottom (rotor on top on request)
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage range | Frequency | Speed/rpm | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|--------------|------------|-------|-----------------------|-----------|-----------|---------------------------------|----------------------------------|----------------------|------------------|--------------------------|--------------------|
| Type | Motor | VAC | Hz | rpm | W | A | Pa | °C | kg | p. 423 | |
| *3G 300 | M3G 074-CF | Ⓐ | 1~ 100-130 | 50/60 | 1790 | 125 | 1.70 | 110 | -25 to +60 | 2.7 | J1) |
| *3G 300 | M3G 074-CF | Ⓑ | 1~ 200-277 | 50/60 | 1710 | 110 | 0.70 | 110 | -25 to +60 | 2.7 | J1) |

subject to alterations

(1) Nominal data in operating point with maximum load and 115 or 230 VAC

Curves

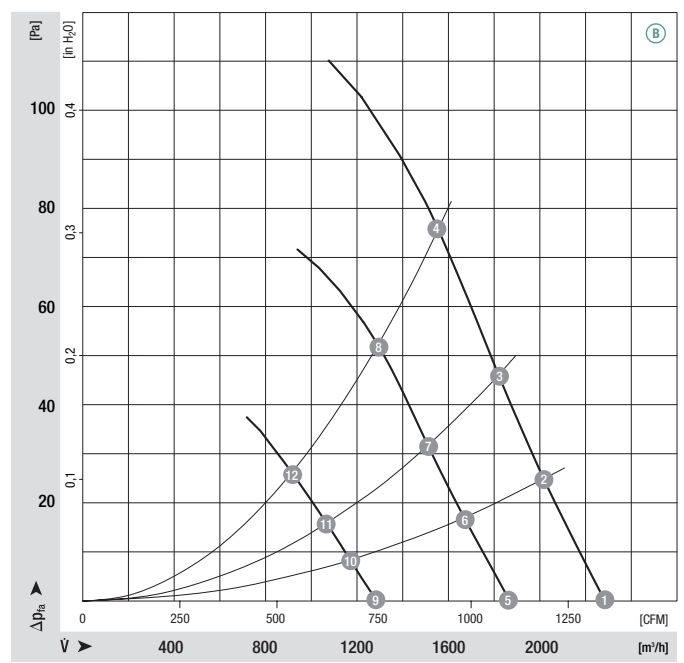


| | n [rpm] | P ₁ [W] | I [A] | Lp _A [dB(A)] | η _{HL} [%] |
|------|---------|--------------------|-------|-------------------------|---------------------|
| Ⓐ 1 | 1790 | 92 | 1.20 | 64 | — |
| Ⓐ 2 | 1770 | 98 | 1.30 | 64 | 62 |
| Ⓐ 3 | 1750 | 101 | 1.30 | 63 | 66 |
| Ⓐ 4 | 1720 | 106 | 1.40 | 62 | 67 |
| Ⓐ 5 | 1460 | 50 | 0.70 | 58 | — |
| Ⓐ 6 | 1430 | 53 | 0.70 | 58 | 61 |
| Ⓐ 7 | 1420 | 55 | 0.80 | 57 | 67 |
| Ⓐ 8 | 1400 | 58 | 0.80 | 56 | 65 |
| Ⓐ 9 | 1030 | 21 | 0.30 | 48 | — |
| Ⓐ 10 | 1030 | 22 | 0.30 | 49 | 52 |
| Ⓐ 11 | 1020 | 23 | 0.40 | 48 | 55 |
| Ⓐ 12 | 1010 | 24 | 0.40 | 46 | 59 |

- **Technical features:**
 - PFC (passive)
 - Control input 0-10 VDC / PWM
 - Output 10 VDC max. 1.1 mA
 - Tach output
 - Over-temperature protected electronics / motor
- **EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
Harmonics acc. to EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 60950-1
- **Cable exit:** Variable
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, EN 61800-5-1, EN 60950-1, CE
- **Approvals:** VDE, UL, CSA, CCC, GOST are applied for

| Direction of air flow | | | | |
|-----------------------|---------------------|------------------------|-----------------------------------|------------------------------------|
| | Without attachments | With full round nozzle | With guard grille for full nozzle | With guard grille for short nozzle |
| "V" | A3G 300-AB77 -01 | W3G 300-CB77 -01 | S3G 300-BB77 -01 | S3G 300-AB77 -01 |
| "A" | A3G 300-AB77 -02 | W3G 300-CB77 -02 | S3G 300-BB77 -02 | S3G 300-AB77 -02 |
| "V" | A3G 300-AB56 -01 | W3G 300-CB56 -01 | S3G 300-BB56 -01 | S3G 300-AB56 -01 |
| "A" | A3G 300-AB56 -02 | W3G 300-CB56 -02 | S3G 300-BB56 -02 | S3G 300-AB56 -02 |

Curves



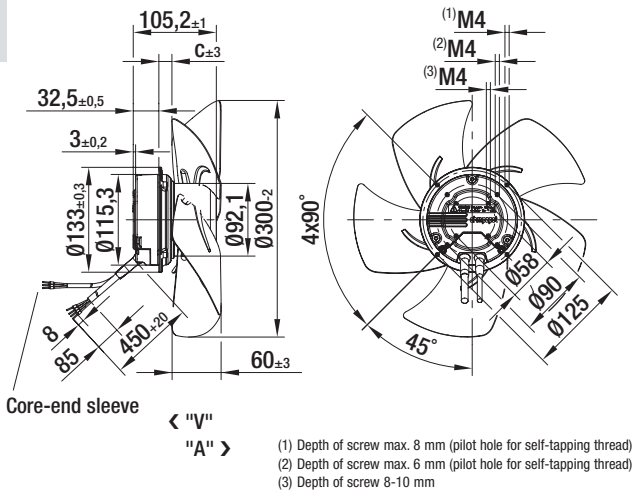
| | n [rpm] | P ₁ [W] | I [A] | Lp _A [dB(A)] | η _{HL} [%] |
|------|---------|--------------------|-------|-------------------------|---------------------|
| ⓑ 1 | 1710 | 76 | 0.60 | 62 | — |
| ⓑ 2 | 1680 | 81 | 0.60 | 62 | 64 |
| ⓑ 3 | 1670 | 85 | 0.60 | 62 | 66 |
| ⓑ 4 | 1650 | 89 | 0.70 | 60 | 69 |
| ⓑ 5 | 1410 | 49 | 0.40 | 56 | — |
| ⓑ 6 | 1390 | 52 | 0.40 | 57 | 57 |
| ⓑ 7 | 1345 | 54 | 0.50 | 56 | 61 |
| ⓑ 8 | 1375 | 57 | 0.50 | 55 | 61 |
| ⓑ 9 | 1000 | 21 | 0.20 | 47 | — |
| ⓑ 10 | 990 | 22 | 0.20 | 48 | 54 |
| ⓑ 11 | 990 | 23 | 0.20 | 46 | 58 |
| ⓑ 12 | 980 | 24 | 0.20 | 45 | 60 |

EC axial fans mains-powered

S series, Ø 300, drawings of directions of air flow "V" and "A"



Without attachments

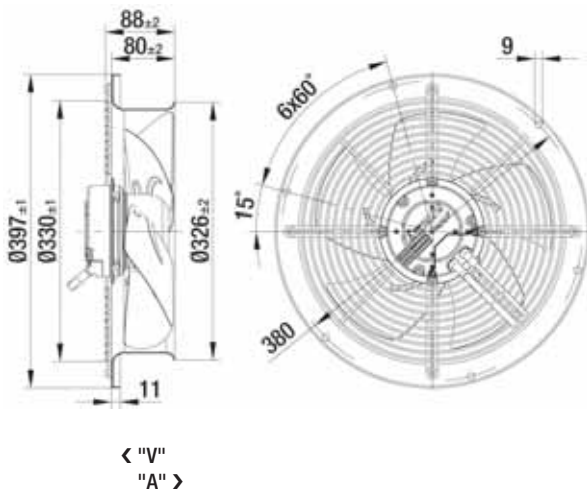


Type

| Type | | c |
|------------------|-----|------|
| A3G 300-AB77 -01 | "V" | 16.5 |
| A3G 300-AB77 -02 | "A" | 16.0 |
| A3G 300-AB56 -01 | "V" | 16.5 |
| A3G 300-AB56 -02 | "A" | 16.0 |



With full round nozzle

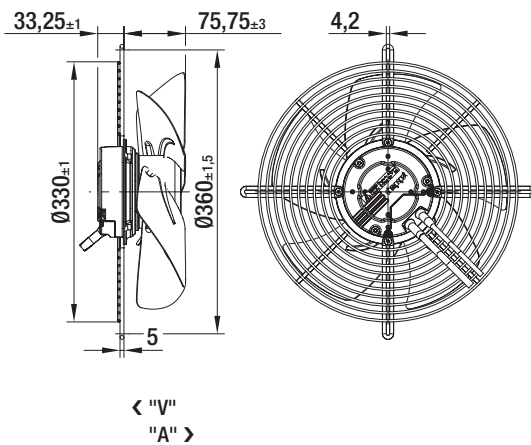


Type

| | |
|------------------|-----|
| W3G 300-CB77 -01 | "V" |
| W3G 300-CB77 -02 | "A" |
| W3G 300-CB56 -01 | "V" |
| W3G 300-CB56 -02 | "A" |



With guard grille for full nozzle



Type

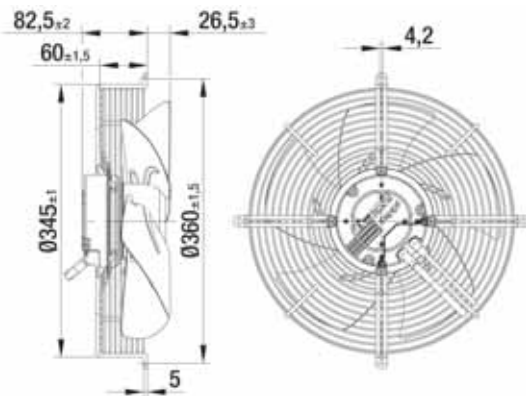
| | |
|------------------|-----|
| S3G 300-BB77 -01 | "V" |
| S3G 300-BB77 -02 | "A" |
| S3G 300-BB56 -01 | "V" |
| S3G 300-BB56 -02 | "A" |



With guard grille for short nozzle

Type

| | |
|------------------|-----|
| S3G 300-AB77 -01 | "V" |
| S3G 300-AB77 -02 | "A" |
| S3G 300-AB56 -01 | "V" |
| S3G 300-AB56 -02 | "A" |



< "V"
"A" >

EC axial fans mains-powered

S series, Ø 315



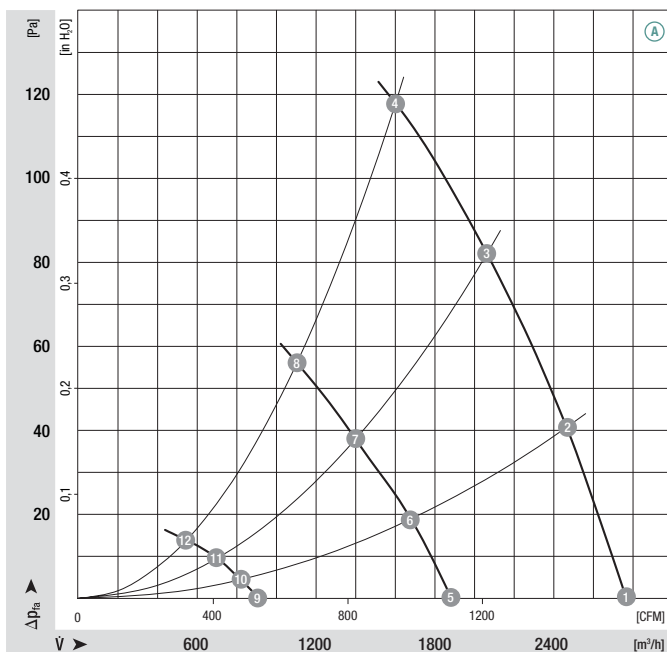
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black
Blades: Sheet steel, coated in black
Rotor: Coated in black
Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 5
- **Direction of rotation:** Dir. of air flow "V" counter-clockwise, "A" clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "B"
- **Mounting position:** Shaft horizontal or rotor on bottom (rotor on top on request)
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage range | Frequency | Speed/rpm | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|--------------|------------|-------|-----------------------|-----------|-----------|---------------------------------|----------------------------------|----------------------|------------------|--------------------------|--------------------|
| Type | Motor | VAC | Hz | rpm | W | A | Pa | °C | kg | p. 423 | |
| *3G 315 | M3G 074-CF | Ⓐ | 1~ 100-130 | 50/60 | 1670 | 160 | 2.10 | 110 | -25 to +60 | 2.9 | J1) |
| *3G 315 | M3G 074-CF | Ⓑ | 1~ 200-277 | 50/60 | 1660 | 170 | 1.30 | 130 | -25 to +60 | 2.9 | J1) |

subject to alterations

(1) Nominal data in operating point with maximum load and 115 or 230 VAC

Curves

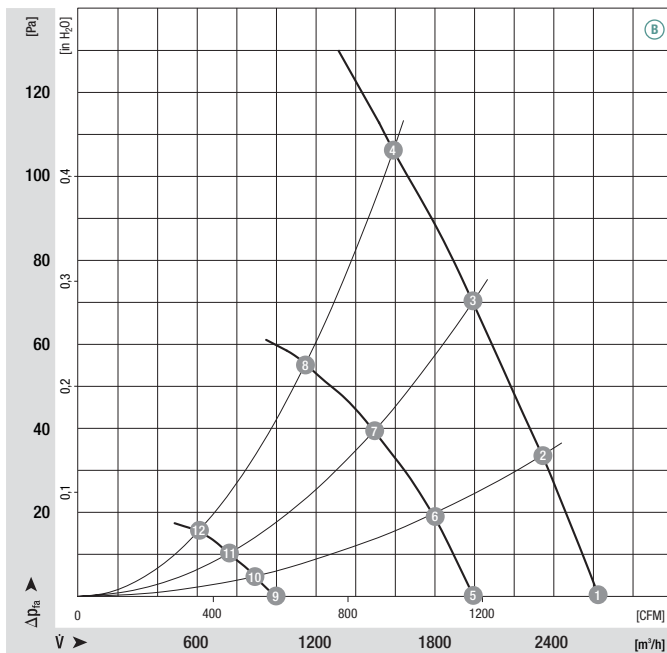


| | n [rpm] | P ₁ [W] | I [A] | Lp _A [dB(A)] | η _{HL} [%] |
|------|---------|--------------------|-------|-------------------------|---------------------|
| Ⓐ 1 | 1670 | 109 | 1.40 | 63 | — |
| Ⓐ 2 | 1660 | 118 | 1.50 | 62 | 53 |
| Ⓐ 3 | 1630 | 126 | 1.60 | 62 | 60 |
| Ⓐ 4 | 1610 | 138 | 1.80 | 60 | 55 |
| Ⓐ 5 | 1130 | 38 | 0.60 | 53 | — |
| Ⓐ 6 | 1120 | 42 | 0.60 | 52 | 48 |
| Ⓐ 7 | 1120 | 45 | 0.60 | 52 | 54 |
| Ⓐ 8 | 1110 | 49 | 0.70 | 50 | 50 |
| Ⓐ 9 | 560 | 8 | 0.10 | 32 | — |
| Ⓐ 10 | 560 | 9 | 0.20 | 31 | 25 |
| Ⓐ 11 | 560 | 9 | 0.20 | 31 | 33 |
| Ⓐ 12 | 560 | 10 | 0.20 | 29 | 30 |

- **Technical features:**
 - PFC (passive)
 - Control input 0-10 VDC / PWM
 - Output 10 VDC max. 1.1 mA
 - Tach output
 - Over-temperature protected electronics / motor
- **EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
Harmonics acc. to EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 60950-1
- **Cable exit:** Variable
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, EN 61800-5-1, EN 60950-1, CE
- **Approvals:** VDE, UL, CSA, CCC, GOST are applied for

| Direction of air flow | Direction of air flow | | | |
|-----------------------|-----------------------|------------------------|-----------------------------------|------------------------------------|
| | < "V"/"A" > | < "V"/"A" > | < "V"/"A" > | < "V"/"A" > |
| | Without attachments | With full round nozzle | With guard grille for full nozzle | With guard grille for short nozzle |
| "V" | A3G 315-AA76 -01 | W3G 315-CA76 -01 | S3G 315-BA76 -01 | S3G 315-AA76 -01 |
| "A" | A3G 315-AA76 -02 | W3G 315-CA76 -02 | S3G 315-BA76 -02 | S3G 315-AA76 -02 |
| "V" | A3G 315-AA58 -01 | W3G 315-CA58 -01 | S3G 315-BA58 -01 | S3G 315-AA58 -01 |
| "A" | A3G 315-AA58 -02 | W3G 315-CA58 -02 | S3G 315-BA58 -02 | S3G 315-AA58 -02 |

Curves



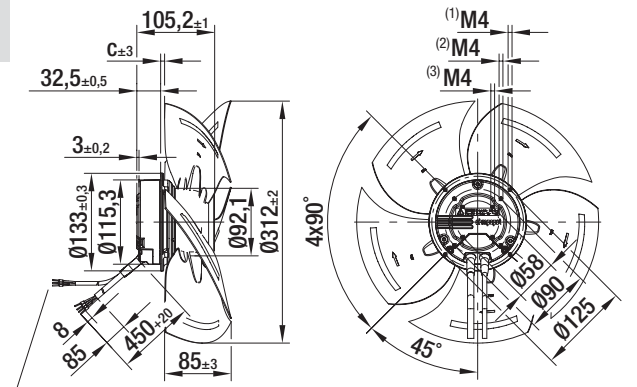
| | n [rpm] | P ₁ [W] | I [A] | Lp _A [dB(A)] | η _{HL} [%] |
|------|---------|--------------------|-------|-------------------------|---------------------|
| ⓑ 1 | 1660 | 110 | 0.80 | 62 | — |
| ⓑ 2 | 1640 | 119 | 0.90 | 61 | 43 |
| ⓑ 3 | 1625 | 125 | 0.90 | 62 | 52 |
| ⓑ 4 | 1610 | 135 | 1.00 | 60 | 50 |
| ⓑ 5 | 1250 | 50 | 1.00 | 55 | — |
| ⓑ 6 | 1250 | 55 | 1.00 | 54 | 24 |
| ⓑ 7 | 1220 | 55 | 1.00 | 54 | 40 |
| ⓑ 8 | 1170 | 57 | 1.00 | 52 | 43 |
| ⓑ 9 | 640 | 11 | 0.40 | 35 | — |
| ⓑ 10 | 630 | 12 | 0.40 | 34 | 17 |
| ⓑ 11 | 630 | 12 | 0.50 | 34 | 31 |
| ⓑ 12 | 620 | 13 | 0.50 | 33 | 37 |

EC axial fans mains-powered

S series, Ø 315, drawings of directions of air flow "V" and "A"



Without attachments



Core-end sleeve
 < "V"
 "A" >

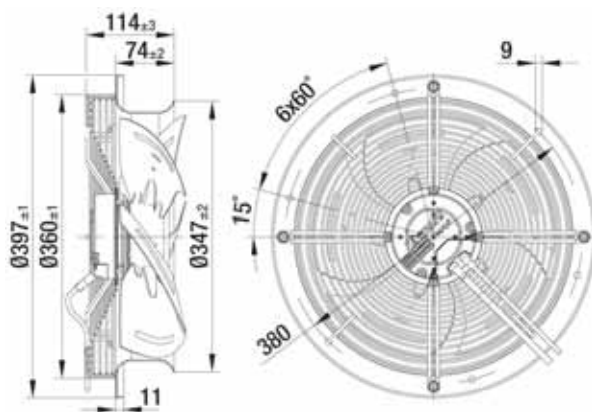
- (1) Depth of screw max. 8 mm (pilot hole for self-tapping thread)
- (2) Depth of screw max. 6 mm (pilot hole for self-tapping thread)
- (3) Depth of screw 8-10 mm

Type

| Type | | c |
|------------------|-----|------|
| A3G 315-AA76 -01 | "V" | 6.0 |
| A3G 315-AA76 -02 | "A" | -6.0 |
| A3G 315-AA58 -01 | "V" | 6.0 |
| A3G 315-AA58 -02 | "A" | -6.0 |



With full round nozzle



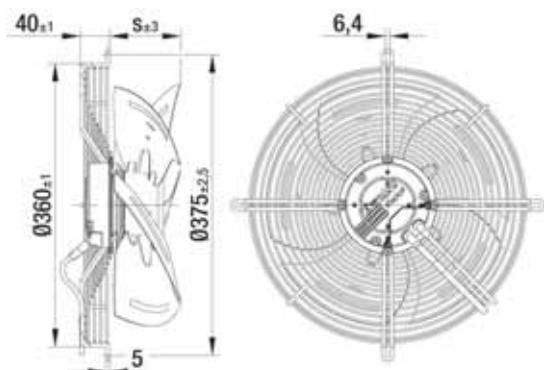
< "V"
 "A" >

Type

| | |
|------------------|-----|
| W3G 315-CA76 -01 | "V" |
| W3G 315-CA76 -02 | "A" |
| W3G 315-CA58 -01 | "V" |
| W3G 315-CA58 -02 | "A" |



With guard grille for full nozzle



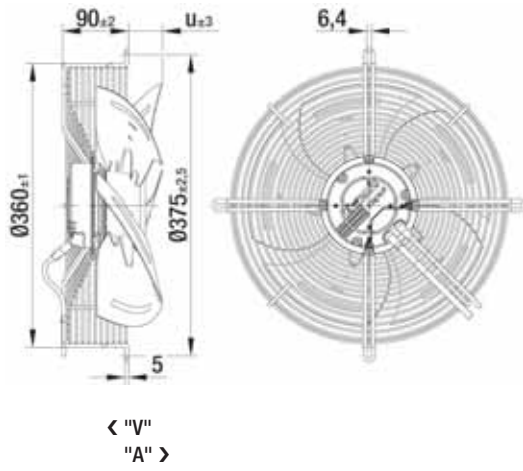
< "V"
 "A" >

Type

| Type | | s |
|------------------|-----|------|
| S3G 315-BA76 -01 | "V" | 91.0 |
| S3G 315-BA76 -02 | "A" | 79.0 |
| S3G 315-BA58 -01 | "V" | 91.0 |
| S3G 315-BA58 -02 | "A" | 79.0 |



With guard grille for short nozzle



Type

| Type | | u |
|------------------|-----|------|
| S3G 315-AA76 -01 | "V" | 41.0 |
| S3G 315-AA76 -02 | "A" | 29.0 |
| S3G 315-AA58 -01 | "V" | 41.0 |
| S3G 315-AA58 -02 | "A" | 29.0 |

EC axial fans mains-powered

S series, Ø 330



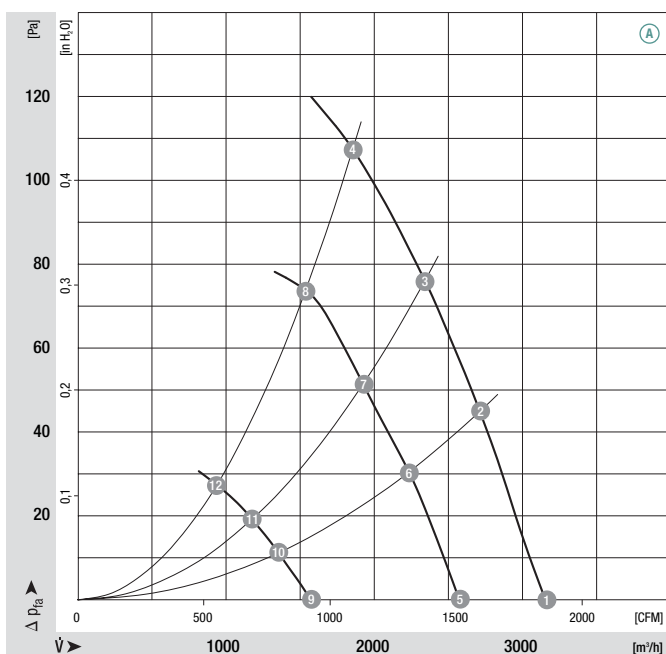
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black
Blades: Sheet steel, coated in black
Rotor: Coated in black
Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 5
- **Direction of rotation:** Dir. of air flow "V" counter-clockwise, "A" clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "B"
- **Mounting position:** Shaft horizontal or rotor on bottom (rotor on top on request)
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage range | Frequency | Speed/rpm | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|--------------|------------|-------|-----------------------|-----------|-----------|---------------------------------|----------------------------------|----------------------|------------------|--------------------------|--------------------|
| Type | Motor | VAC | Hz | rpm | W | A | Pa | °C | kg | p. 423 | |
| *3G 330 | M3G 074-CF | Ⓐ 1~ | 100-130 | 50/60 | 1660 | 170 | 2.20 | 120 | -25 to +60 | 2.9 | J1) |
| *3G 330 | M3G 074-CF | Ⓑ 1~ | 200-277 | 50/60 | 1630 | 170 | 1.30 | 120 | -25 to +60 | 2.9 | J1) |

subject to alterations

(1) Nominal data in operating point with maximum load and 115 or 230 VAC

Curves

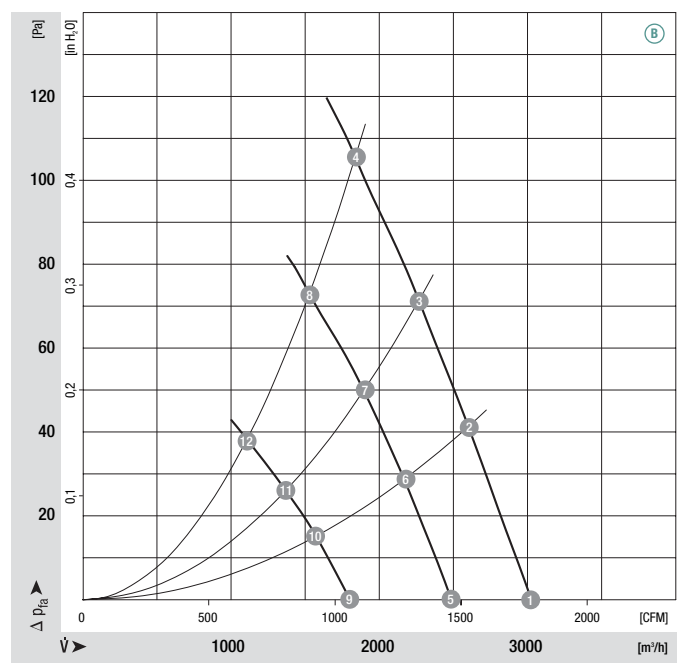


| | n [rpm] | P ₁ [W] | I [A] | Lp _A [dB(A)] | η _{HL} [%] |
|------|---------|--------------------|-------|-------------------------|---------------------|
| Ⓐ 1 | 1660 | 131 | 1.70 | 68 | — |
| Ⓐ 2 | 1630 | 144 | 1.80 | 66 | 81 |
| Ⓐ 3 | 1610 | 147 | 1.90 | 64 | 78 |
| Ⓐ 4 | 1570 | 163 | 2.10 | 63 | 61 |
| Ⓐ 5 | 1350 | 72 | 1.00 | 64 | — |
| Ⓐ 6 | 1340 | 83 | 1.10 | 62 | 80 |
| Ⓐ 7 | 1330 | 87 | 1.20 | 60 | 74 |
| Ⓐ 8 | 1290 | 92 | 1.20 | 58 | 62 |
| Ⓐ 9 | 830 | 20 | 0.30 | 51 | — |
| Ⓐ 10 | 820 | 23 | 0.30 | 48 | 63 |
| Ⓐ 11 | 810 | 25 | 0.40 | 45 | 59 |
| Ⓐ 12 | 800 | 27 | 0.40 | 44 | 48 |

- **Technical features:**
 - PFC (passive)
 - Control input 0-10 VDC / PWM
 - Output 10 VDC max. 1.1 mA
 - Tach output
 - Over-temperature protected electronics / motor
- **EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
Harmonics acc. to EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 60950-1
- **Cable exit:** Variable
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, EN 61800-5-1, EN 60950-1, CE
- **Approvals:** VDE, UL, CSA, CCC, GOST are applied for

| Direction of air flow | | | | |
|-----------------------|---------------------|------------------------|-----------------------------------|------------------------------------|
| | Without attachments | With full round nozzle | With guard grille for full nozzle | With guard grille for short nozzle |
| "V" | A3G 330-AA76 -01 | W3G 330-CA76 -01 | S3G 330-BA76 -01 | S3G 330-AA76 -01 |
| "A" | A3G 330-AA76 -02 | W3G 330-CA76 -02 | S3G 330-BA76 -02 | S3G 330-AA76 -02 |
| "V" | A3G 330-AA58 -01 | W3G 330-CA58 -01 | S3G 330-BA58 -01 | S3G 330-AA58 -01 |
| "A" | A3G 330-AA58 -02 | W3G 330-CA58 -02 | S3G 330-BA58 -02 | S3G 330-AA58 -02 |

Curves



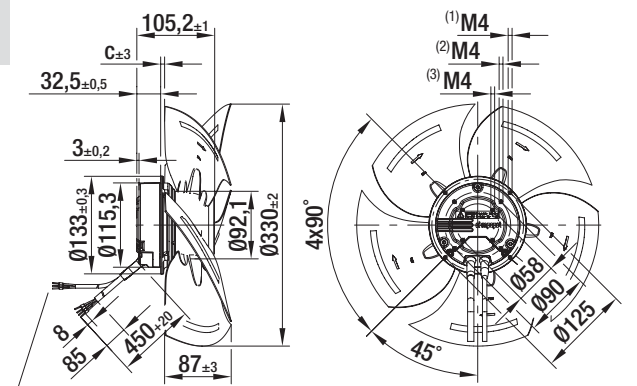
| | n [rpm] | P ₁ [W] | I [A] | Lp _A [dB(A)] | η _{HL} [%] |
|------|---------|--------------------|-------|-------------------------|---------------------|
| ⓑ 1 | 1630 | 130 | 0.95 | 68 | — |
| ⓑ 2 | 1600 | 139 | 1.00 | 65 | 70 |
| ⓑ 3 | 1590 | 146 | 1.10 | 64 | 67 |
| ⓑ 4 | 1580 | 151 | 1.10 | 63 | 60 |
| ⓑ 5 | 1350 | 76 | 0.60 | 63 | — |
| ⓑ 6 | 1330 | 82 | 0.60 | 61 | 72 |
| ⓑ 7 | 1330 | 86 | 0.65 | 60 | 69 |
| ⓑ 8 | 1310 | 93 | 0.70 | 58 | 59 |
| ⓑ 9 | 970 | 33 | 0.30 | 54 | — |
| ⓑ 10 | 960 | 36 | 0.30 | 52 | 74 |
| ⓑ 11 | 960 | 37 | 0.30 | 50 | 70 |
| ⓑ 12 | 950 | 40 | 0.30 | 49 | 60 |

EC axial fans mains-powered

S series, Ø 330, drawings of directions of air flow "V" and "A"



Without attachments



Core-end sleeve

< "V"
"A" >

- (1) Depth of screw max. 8 mm (pilot hole for self-tapping thread)
- (2) Depth of screw max. 6 mm (pilot hole for self-tapping thread)
- (3) Depth of screw 8-10 mm

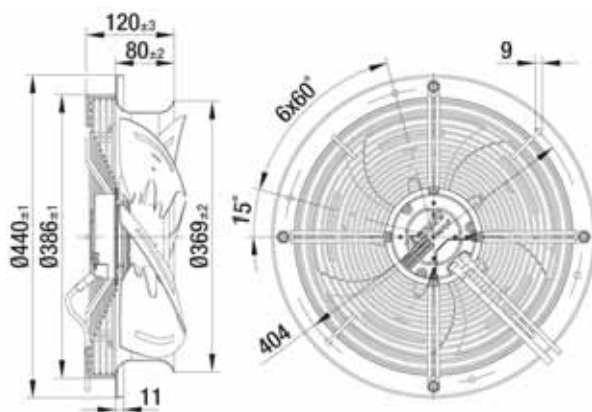
Type

c

| | | |
|------------------|-----|------|
| A3G 330-AA76 -01 | "V" | 6.0 |
| A3G 330-AA76 -02 | "A" | -7.0 |
| A3G 330-AA58 -01 | "V" | 6.0 |
| A3G 330-AA58 -02 | "A" | -7.0 |



With full round nozzle



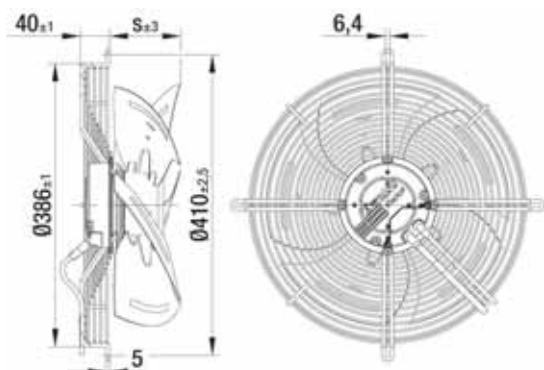
< "V"
"A" >

Type

| | |
|------------------|-----|
| W3G 330-CA76 -01 | "V" |
| W3G 330-CA76 -02 | "A" |
| W3G 330-CA58 -01 | "V" |
| W3G 330-CA58 -02 | "A" |



With guard grille for full nozzle



< "V"
"A" >

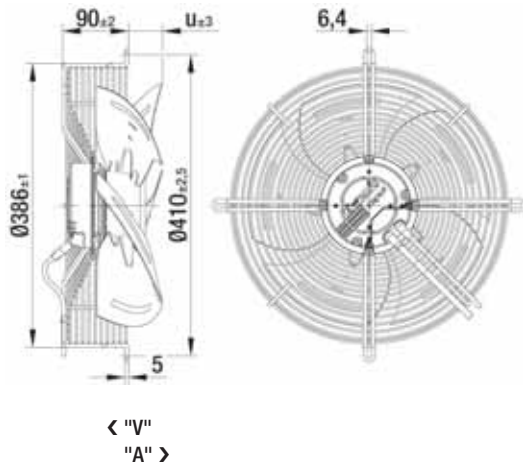
Type

s

| | | |
|------------------|-----|------|
| S3G 330-BA76 -01 | "V" | 93.0 |
| S3G 330-BA76 -02 | "A" | 80.0 |
| S3G 330-BA58 -01 | "V" | 93.0 |
| S3G 330-BA58 -02 | "A" | 80.0 |



With guard grille for short nozzle



Type

| Type | | u |
|------------------|-----|------|
| S3G 330-AA76 -01 | "V" | 43.0 |
| S3G 330-AA76 -02 | "A" | 30.0 |
| S3G 330-AA58 -01 | "V" | 43.0 |
| S3G 330-AA58 -02 | "A" | 30.0 |

EC axial fans mains-powered

S series, Ø 350



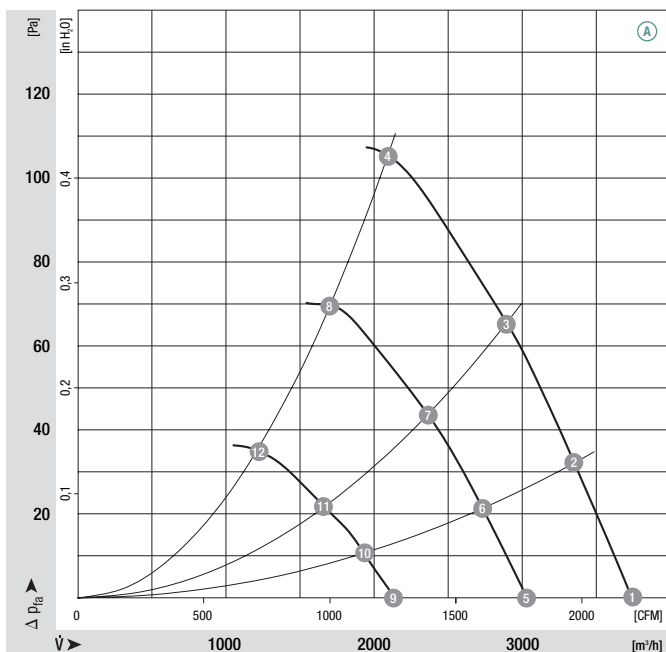
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black
Blades: Sheet steel, coated in black
Rotor: Coated in black
Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 5
- **Direction of rotation:** Dir. of air flow "V" counter-clockwise, "A" clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "B"
- **Mounting position:** Shaft horizontal or rotor on bottom (rotor on top on request)
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage range | Frequency | Speed/rpm | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|--------------|------------|--------------|-----------------------|-----------|-----------|---------------------------------|----------------------------------|----------------------|------------------|--------------------------|--------------------|
| Type | Motor | VAC | Hz | rpm | W | A | Pa | °C | kg | p. 423 | |
| *3G 350 | M3G 074-CF | Ⓐ 1~ 100-130 | 50/60 | 1600 | 170 | 2.20 | 100 | -25 to +60 | 2.9 | J1) | |
| *3G 350 | M3G 074-CF | Ⓑ 1~ 200-277 | 50/60 | 1540 | 170 | 1.30 | 100 | -25 to +60 | 2.9 | J1) | |

subject to alterations

(1) Nominal data in operating point with maximum load and 115 or 230 VAC

Curves

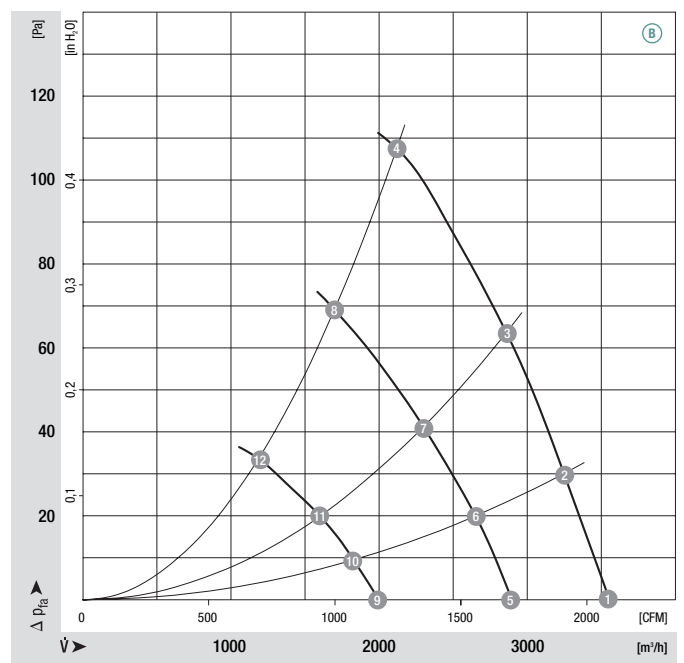


| | n [rpm] | P ₁ [W] | I [A] | Lp _A [dB(A)] | η _{HL} [%] |
|------|---------|--------------------|-------|-------------------------|---------------------|
| Ⓐ 1 | 1600 | 165 | 2.10 | 66 | — |
| Ⓐ 2 | 1540 | 167 | 2.10 | 66 | 68 |
| Ⓐ 3 | 1490 | 167 | 2.10 | 64 | 72 |
| Ⓐ 4 | 1410 | 167 | 2.10 | 61 | 60 |
| Ⓐ 5 | 1300 | 91 | 1.20 | 62 | — |
| Ⓐ 6 | 1250 | 91 | 1.20 | 61 | 68 |
| Ⓐ 7 | 1210 | 92 | 1.20 | 59 | 70 |
| Ⓐ 8 | 1150 | 91 | 1.20 | 55 | 59 |
| Ⓐ 9 | 910 | 36 | 0.50 | 54 | — |
| Ⓐ 10 | 880 | 35 | 0.50 | 52 | 62 |
| Ⓐ 11 | 850 | 35 | 0.50 | 50 | 64 |
| Ⓐ 12 | 820 | 35 | 0.50 | 46 | 55 |

- **Technical features:**
 - PFC (passive)
 - Control input 0-10 VDC / PWM
 - Output 10 VDC max. 1.1 mA
 - Tach output
 - Over-temperature protected electronics / motor
- **EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
Harmonics acc. to EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 60950-1
- **Cable exit:** Variable
- **Protection class:** I
- **Product conforming to standards:** EN 60335-1, EN 61800-5-1, EN 60950-1, CE
- **Approvals:** VDE, UL, CSA, CCC, GOST are applied for

| Direction of air flow | Direction of air flow | | | |
|-----------------------|-----------------------|------------------------|-----------------------------------|------------------------------------|
| | < "V"/"A" > | < "V"/"A" > | < "V"/"A" > | < "V"/"A" > |
| | Without attachments | With full round nozzle | With guard grille for full nozzle | With guard grille for short nozzle |
| "V" | A3G 350-AA76 -01 | W3G 350-CA76 -01 | S3G 350-BA76 -01 | S3G 350-AA76 -01 |
| "A" | A3G 350-AA76 -02 | W3G 350-CA76 -02 | S3G 350-BA76 -02 | S3G 350-AA76 -02 |
| "V" | A3G 350-AA58 -01 | W3G 350-CA58 -01 | S3G 350-BA58 -01 | S3G 350-AA58 -01 |
| "A" | A3G 350-AA58 -02 | W3G 350-CA58 -02 | S3G 350-BA58 -02 | S3G 350-AA58 -02 |

Curves



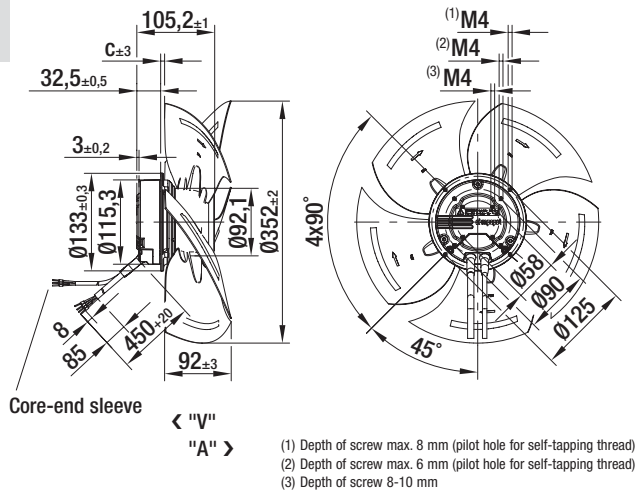
| | n [rpm] | P ₁ [W] | I [A] | Lp _A [dB(A)] | η _{HL} [%] |
|------|---------|--------------------|-------|-------------------------|---------------------|
| ⓑ 1 | 1540 | 150 | 1.20 | 67 | — |
| ⓑ 2 | 1520 | 162 | 1.20 | 66 | 62 |
| ⓑ 3 | 1490 | 168 | 1.30 | 64 | 66 |
| ⓑ 4 | 1430 | 167 | 1.20 | 61 | 61 |
| ⓑ 5 | 1260 | 87 | 0.70 | 61 | — |
| ⓑ 6 | 1240 | 91 | 0.70 | 60 | 60 |
| ⓑ 7 | 1200 | 90 | 0.70 | 58 | 64 |
| ⓑ 8 | 1150 | 91 | 0.70 | 55 | 57 |
| ⓑ 9 | 870 | 33 | 0.30 | 51 | — |
| ⓑ 10 | 850 | 35 | 0.30 | 50 | 58 |
| ⓑ 11 | 840 | 34 | 0.30 | 48 | 63 |
| ⓑ 12 | 810 | 34 | 0.30 | 45 | 57 |

EC axial fans mains-powered

S series, Ø 350, drawings of directions of air flow "V" and "A"



Without attachments

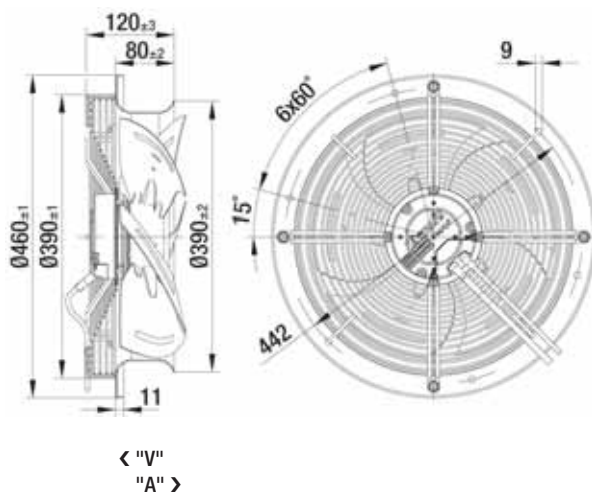


Type

| Type | | c |
|------------------|-----|-------|
| A3G 350-AA76 -01 | "V" | 7.0 |
| A3G 350-AA76 -02 | "A" | -12.0 |
| A3G 350-AA58 -01 | "V" | 7.0 |
| A3G 350-AA58 -02 | "A" | -12.0 |



With full round nozzle

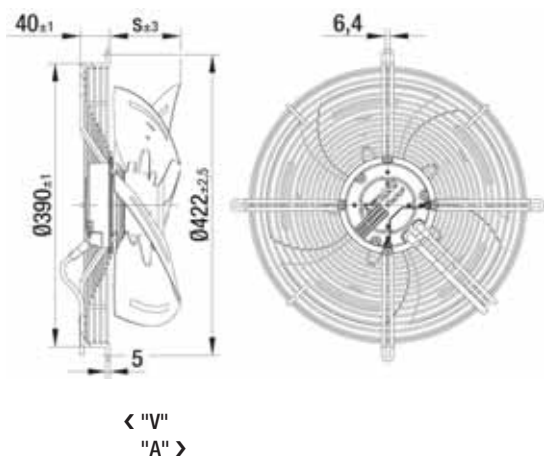


Type

| | |
|------------------|-----|
| W3G 350-CA76 -01 | "V" |
| W3G 350-CA76 -02 | "A" |
| W3G 350-CA58 -01 | "V" |
| W3G 350-CA58 -02 | "A" |



With guard grille for full nozzle

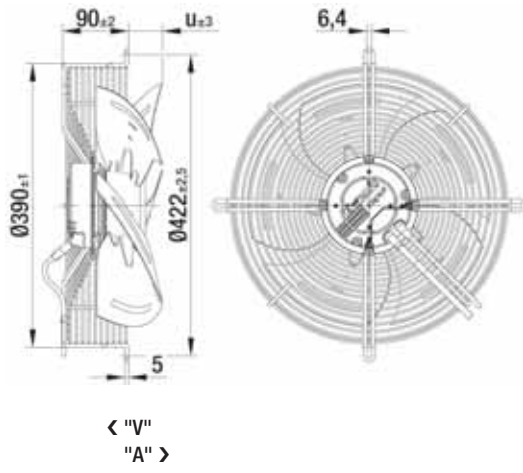


Type

| Type | | s |
|------------------|-----|------|
| S3G 350-BA76 -01 | "V" | 99.0 |
| S3G 350-BA76 -02 | "A" | 80.0 |
| S3G 350-BA58 -01 | "V" | 99.0 |
| S3G 350-BA58 -02 | "A" | 80.0 |



With guard grille for short nozzle



Type

| Type | | u |
|------------------|-----|------|
| S3G 350-AA76 -01 | "V" | 49.0 |
| S3G 350-AA76 -02 | "A" | 30.0 |
| S3G 350-AA58 -01 | "V" | 49.0 |
| S3G 350-AA58 -02 | "A" | 30.0 |

EC axial fans mains-powered

S series, Ø 400



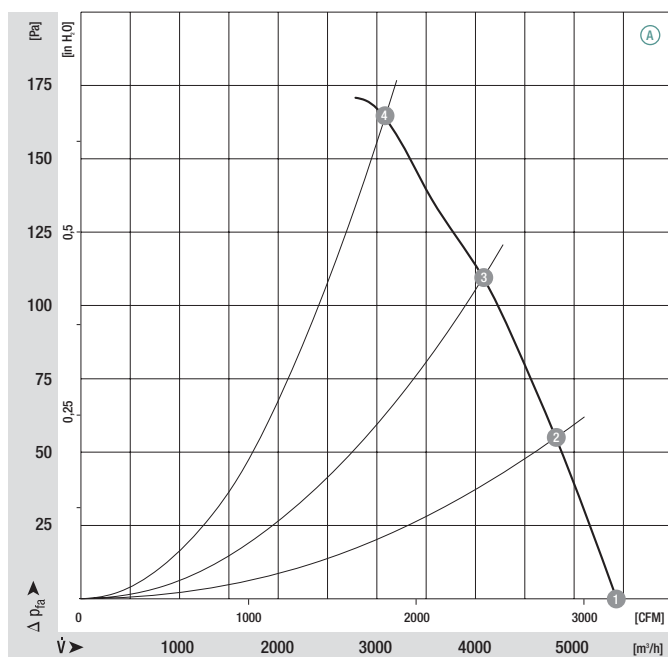
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black
Blades: Sheet steel, coated in black
Rotor: Coated in black
Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 5
- **Direction of rotation:** Dir. of air flow "V" counter-clockwise, "A" clockwise, seen on rotor
- **Type of protection:** IP 54
- **Insulation class:** "B"
- **Mounting position:** Shaft horizontal or rotor on bottom (rotor on top on request)
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage range | Frequency | Speed/rpm | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|--------------|------------|-------|-----------------------|-----------|-----------|---------------------------------|----------------------------------|----------------------|------------------|--------------------------|--------------------|
| Type | Motor | VAC | Hz | rpm | W | A | Pa | °C | kg | p. 425 | |
| *3G 400 | M3G 084-FA | Ⓐ 1~ | 100-130 | 50/60 | 1620 | 350 | 4.20 | 165 | -25 to +60 | 5.2 | K1) |
| *3G 400 | M3G 084-FA | Ⓑ 1~ | 200-277 | 50/60 | 1690 | 390 | 2.50 | 180 | -25 to +60 | 5.2 | K1) |

subject to alterations

(1) Nominal data in operating point with maximum load and 115 or 230 VAC

Curves

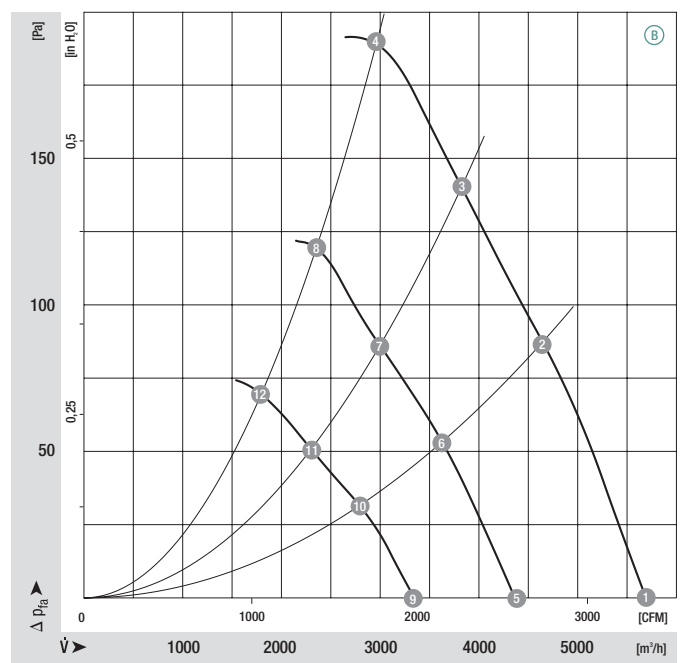


| | n [rpm] | P ₁ [W] | I [A] | Lp _A [dB(A)] | η _{HL} [%] |
|-----|---------|--------------------|-------|-------------------------|---------------------|
| Ⓐ 1 | 1620 | 310 | 3.80 | 69 | — |
| Ⓐ 2 | 1590 | 332 | 4.00 | 68 | 66 |
| Ⓐ 3 | 1565 | 349 | 4.20 | 68 | 62 |
| Ⓐ 4 | 1550 | 350 | 4.20 | 68 | 54 |

- **Technical features:**
 - PFC (passive)
 - Control input 0-10 VDC / PWM
 - Output 10 VDC max. 1.1 mA
 - Alarm relay
 - Over-temperature protected electronics / motor
- **EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
Harmonics acc. to EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 61800-5-1
- **Cable exit:** Variable
- **Protection class:** I
- **Product conforming to standards:** EN 61800-5-1, CE
- **Approvals:** (B) UL, CSA; (A) (B) VDE, CCC, GOST are applied for

| Direction of air flow | | | | |
|-----------------------|--------------------------------------|---------------------------------------|--|---|
| | < "V"/"A" > Without attachments | < "V"/"A" > With full round nozzle | < "V"/"A" > With guard grille for full nozzle | < "V"/"A" > With guard grille for short nozzle |
| "V" "A" | A3G 400-AA37 -81 A3G 400-AA37 -82 | W3G 400-CA37 -81 W3G 400-CA37 -82 | S3G 400-KA37 -81 S3G 400-KA37 -82 | S3G 400-LA37 -81 S3G 400-LA37 -82 |
| "V" "A" | A3G 400-AA22 -71 A3G 400-AA22 -72 | W3G 400-CA22 -71 W3G 400-CA22 -72 | S3G 400-KA22 -71 S3G 400-KA22 -72 | S3G 400-LA22 -71 S3G 400-LA22 -72 |

Curves



| | n [rpm] | P ₁ [W] | I [A] | Lp _A [dB(A)] | η _{HL} [%] |
|--------|---------|--------------------|-------|-------------------------|---------------------|
| (B) 1 | 1690 | 340 | 2.10 | 75 | — |
| (B) 2 | 1660 | 375 | 2.30 | 72 | 64 |
| (B) 3 | 1640 | 380 | 2.40 | 70 | 61 |
| (B) 4 | 1630 | 390 | 2.50 | 68 | 54 |
| (B) 5 | 1300 | 162 | 1.00 | 68 | — |
| (B) 6 | 1300 | 179 | 1.10 | 66 | 64 |
| (B) 7 | 1300 | 192 | 1.20 | 64 | 61 |
| (B) 8 | 1300 | 203 | 1.20 | 63 | 54 |
| (B) 9 | 1000 | 76 | 0.50 | 61 | — |
| (B) 10 | 1000 | 91 | 0.60 | 60 | 64 |
| (B) 11 | 1000 | 93 | 0.60 | 57 | 61 |
| (B) 12 | 1000 | 100 | 0.70 | 56 | 54 |

EC axial fans mains-powered

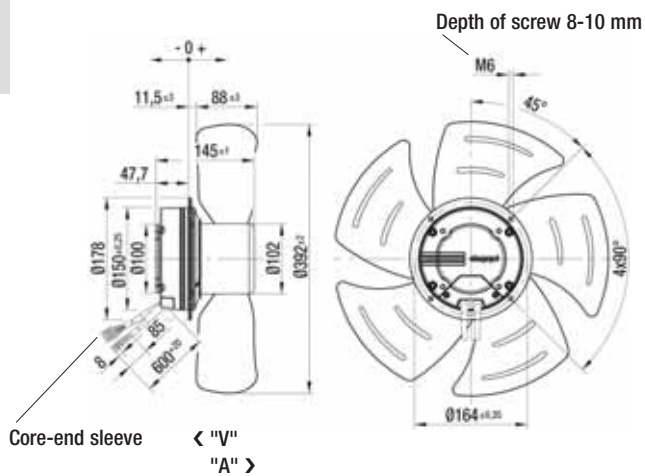
S series, Ø 400, drawings of directions of air flow "V" and "A"



Without attachments

Type

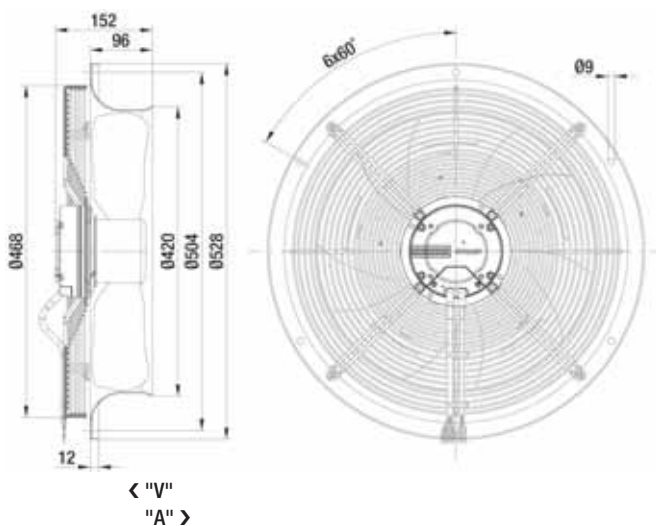
| | |
|------------------|-----|
| A3G 400-AA37 -81 | "V" |
| A3G 400-AA37 -82 | "A" |
| A3G 400-AA22 -71 | "V" |
| A3G 400-AA22 -72 | "A" |



With full round nozzle

Type

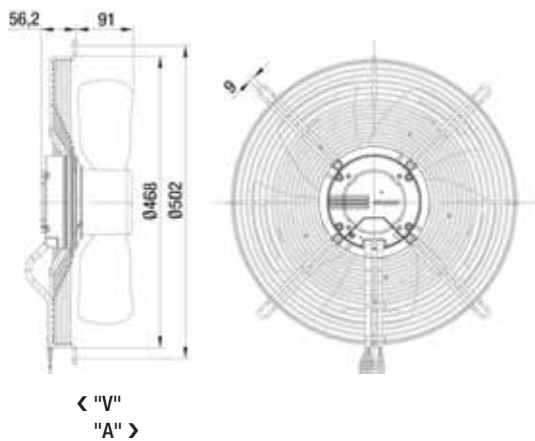
| | |
|------------------|-----|
| W3G 400-CA37 -81 | "V" |
| W3G 400-CA37 -82 | "A" |
| W3G 400-CA22 -71 | "V" |
| W3G 400-CA22 -72 | "A" |



With guard grille for full nozzle

Type

| | |
|------------------|-----|
| S3G 400-KA37 -81 | "V" |
| S3G 400-KA37 -82 | "A" |
| S3G 400-KA22 -71 | "V" |
| S3G 400-KA22 -72 | "A" |

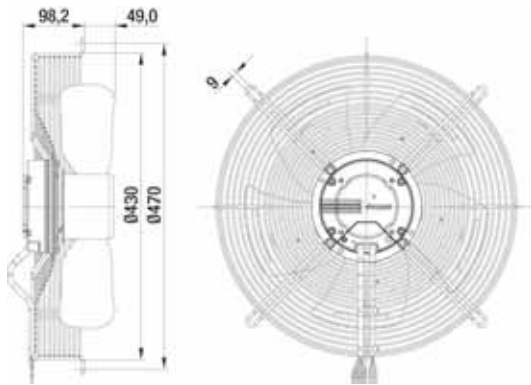




With guard grille for short nozzle

Type

| | |
|------------------|-----|
| S3G 400-LA37 -81 | "V" |
| S3G 400-LA37 -82 | "A" |
| S3G 400-LA22 -71 | "V" |
| S3G 400-LA22 -72 | "A" |



< "V" >
< "A" >

EC axial fans mains-powered

S series, Ø 450



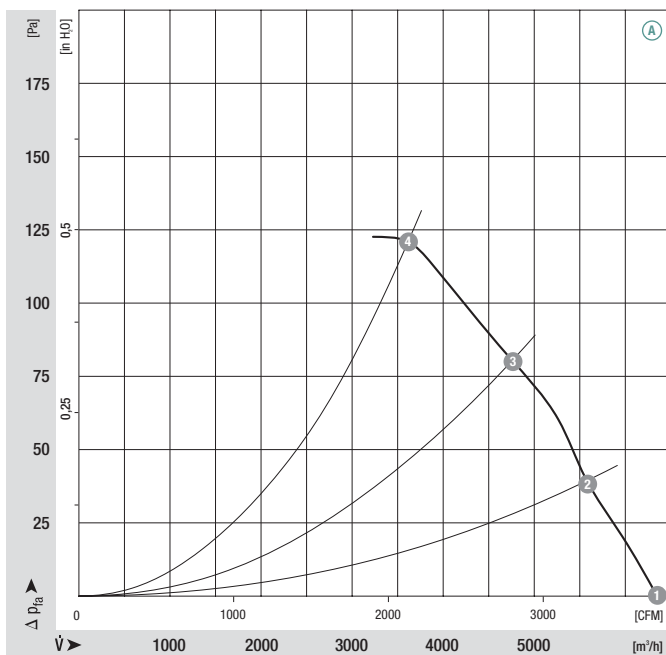
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black
Blades: Sheet steel, coated in black
Rotor: Coated in black
Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 5
- **Direction of rotation:** Dir. of air flow "V" counter-clockwise, "A" clockwise, seen on rotor
- **Type of protection:** IP 54
- **Insulation class:** "B"
- **Mounting position:** Shaft horizontal or rotor on bottom (rotor on top on request)
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage range | Frequency | Speed/rpm | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Max. operative range | Perm. amb. temp. | Mass without attachments | Electr. connection |
|--------------|------------|--------------|-----------------------|-----------|-----------|---------------------------------|----------------------------------|----------------------|------------------|--------------------------|--------------------|
| Type | Motor | VAC | Hz | rpm | W | A | Pa | °C | kg | p. 425 | |
| *3G 450 | M3G 084-FA | Ⓐ 1~ 100-130 | 50/60 | 1270 | 310 | 3.70 | 120 | -25 to +60 | 5.5 | K1) | |
| *3G 450 | M3G 084-FA | Ⓑ 1~ 200-277 | 50/60 | 1310 | 325 | 2.10 | 120 | -25 to +60 | 5.5 | K1) | |

subject to alterations

(1) Nominal data in operating point with maximum load and 115 or 230 VAC

Curves

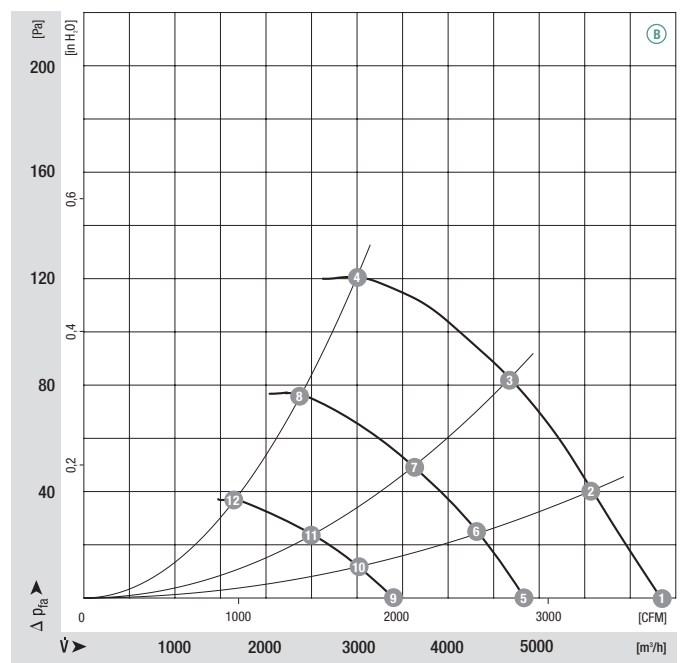


| | n [rpm] | P ₁ [W] | I [A] | Lp _A [dB(A)] | η _{HL} [%] |
|-----|---------|--------------------|-------|-------------------------|---------------------|
| Ⓐ 1 | 1270 | 267 | 3.30 | 69 | — |
| Ⓐ 2 | 1245 | 282 | 3.50 | 69 | 70 |
| Ⓐ 3 | 1230 | 300 | 3.70 | 67 | 66 |
| Ⓐ 4 | 1220 | 308 | 3.70 | 63 | 42 |

- **Technical features:**
 - PFC (passive)
 - Control input 0-10 VDC / PWM
 - Output 10 VDC max. 1.1 mA
 - Alarm relay
 - Over-temperature protected electronics / motor
- **EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
Harmonics acc. to EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 61800-5-1
- **Cable exit:** Variable
- **Protection class:** I
- **Product conforming to standards:** EN 61800-5-1, CE
- **Approvals:** (B) UL, CSA; (A) (B) VDE, CCC, GOST are applied for

| Direction of air flow | < "V"/"A" > | | < "V"/"A" > | | < "V"/"A" > | | < "V"/"A" > | |
|-----------------------|---------------------|------------------|------------------------|------------------|-----------------------------------|------------------|------------------------------------|------------------|
| | Without attachments | | With full round nozzle | | With guard grille for full nozzle | | With guard grille for short nozzle | |
| "V" | A3G 450-AA40 -81 | W3G 450-CA40 -81 | S3G 450-KA40 -81 | S3G 450-LA40 -81 | A3G 450-AA40 -82 | W3G 450-CA40 -82 | S3G 450-KA40 -82 | S3G 450-LA40 -82 |
| "A" | A3G 450-AA14 -71 | W3G 450-CA14 -71 | S3G 450-KA14 -71 | S3G 450-LA14 -71 | A3G 450-AA14 -72 | W3G 450-CA14 -72 | S3G 450-KA14 -72 | S3G 450-LA14 -72 |

Curves



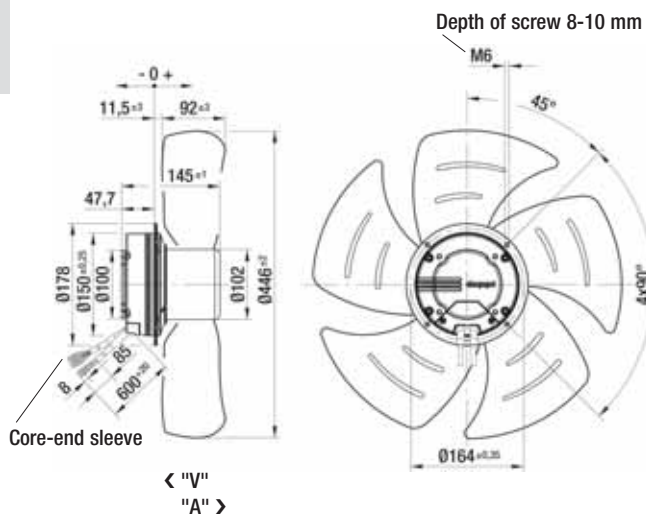
| | n [rpm] | P ₁ [W] | I [A] | Lp _A [dB(A)] | η _{HL} [%] |
|--------|---------|--------------------|-------|-------------------------|---------------------|
| (B) 1 | 1310 | 245 | 1.50 | 73 | — |
| (B) 2 | 1290 | 262 | 1.70 | 72 | 70 |
| (B) 3 | 1270 | 290 | 1.90 | 70 | 66 |
| (B) 4 | 1240 | 325 | 2.10 | 66 | 42 |
| (B) 5 | 1000 | 108 | 0.70 | 68 | — |
| (B) 6 | 1000 | 122 | 0.80 | 67 | 70 |
| (B) 7 | 1000 | 140 | 0.90 | 65 | 66 |
| (B) 8 | 1000 | 174 | 1.10 | 61 | 42 |
| (B) 9 | 700 | 38 | 0.30 | 61 | — |
| (B) 10 | 700 | 42 | 0.30 | 60 | 70 |
| (B) 11 | 700 | 48 | 0.30 | 58 | 66 |
| (B) 12 | 700 | 60 | 0.40 | 56 | 42 |

EC axial fans mains-powered

S series, Ø 450, drawings of directions of air flow "V" and "A"



Without attachments

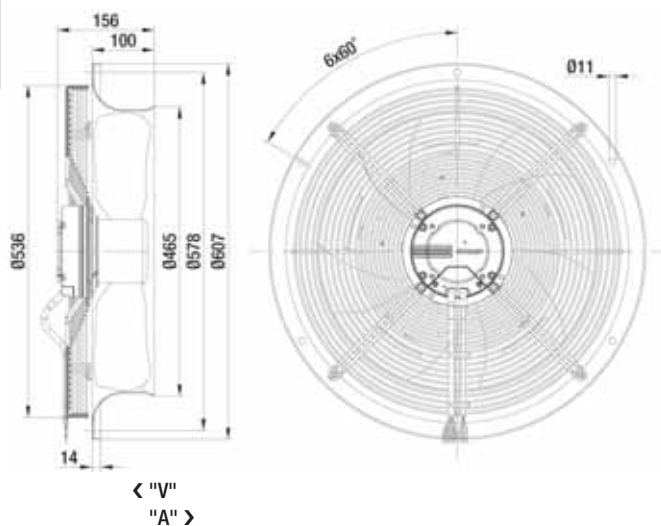


Type

| | |
|------------------|-----|
| A3G 450-AA40 -81 | "V" |
| A3G 450-AA40 -82 | "A" |
| A3G 450-AA14 -71 | "V" |
| A3G 450-AA14 -72 | "A" |



With full round nozzle

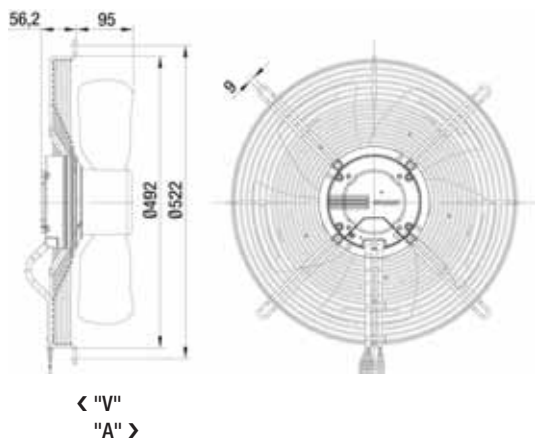


Type

| | |
|------------------|-----|
| W3G 450-CA40 -81 | "V" |
| W3G 450-CA40 -82 | "A" |
| W3G 450-CA14 -71 | "V" |
| W3G 450-CA14 -72 | "A" |



With guard grille for full nozzle

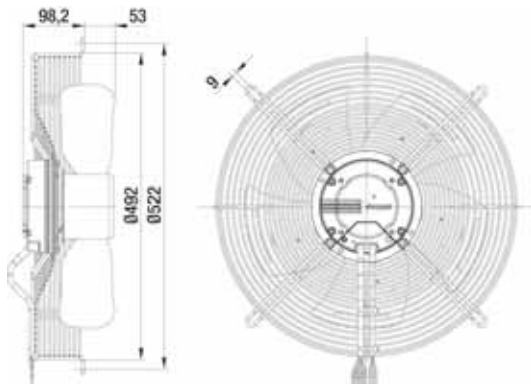


Type

| | |
|------------------|-----|
| S3G 450-KA40 -81 | "V" |
| S3G 450-KA40 -82 | "A" |
| S3G 450-KA14 -71 | "V" |
| S3G 450-KA14 -72 | "A" |



With guard grille for short nozzle



< "V"
 "A" >

Type

| | |
|------------------|-----|
| S3G 450-LA40 -81 | "V" |
| S3G 450-LA40 -82 | "A" |
| S3G 450-LA14 -71 | "V" |
| S3G 450-LA14 -72 | "A" |

EC axial fans mains-powered

S series, Ø 500



- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: PA plastic
Rotor: Cast-in with PA plastic
Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 5
- **Direction of rotation:** Counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

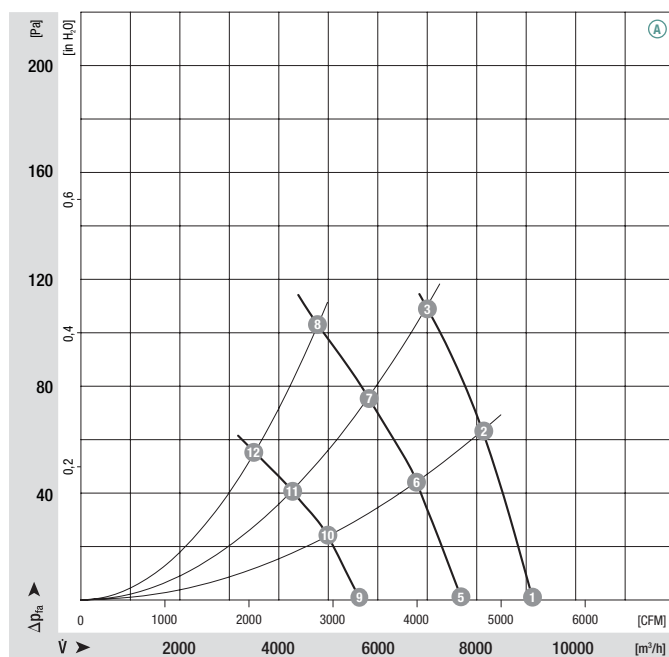
Nominal data

| Type | Motor | Curve | Nominal voltage range | Frequency | Speed/rpm | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Max. operative range | Perm. amb. temp. | Electr. connection |
|---------|------------|-------|-----------------------|-----------|-----------|---------------------------------|----------------------------------|----------------------|------------------|--------------------|
| | | | VAC | Hz | rpm | kW | A | Pa | °C | p. 427 |
| *3G 500 | M3G 112-GA | Ⓐ | 1~ 200-277 | 50/60 | 1250 | 0.69 | 3.10 | 110 | -25 to +60 | L1) |

subject to alterations





(1) Nominal data in operating point with maximum load and 230 VAC

Curves



| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] | η _{HL} [%] |
|------|---------|---------------------|-------|-------------------------|---------------------|
| Ⓐ 1 | 1260 | 0.61 | 2.80 | 74 | — |
| Ⓐ 2 | 1260 | 0.67 | 3.00 | 76 | 62 |
| Ⓐ 3 | 1250 | 0.69 | 3.10 | 77 | 60 |
| Ⓐ 4 | — | — | — | — | — |
| Ⓐ 5 | 1020 | 0.41 | 1.90 | 80 | — |
| Ⓐ 6 | 1030 | 0.36 | 1.70 | 70 | 67 |
| Ⓐ 7 | 1020 | 0.37 | 1.70 | 71 | 67 |
| Ⓐ 8 | 1020 | 0.36 | 1.70 | 73 | 63 |
| Ⓐ 9 | 750 | 0.16 | 0.80 | 70 | — |
| Ⓐ 10 | 740 | 0.15 | 0.70 | 62 | 73 |
| Ⓐ 11 | 740 | 0.15 | 0.70 | 62 | 72 |
| Ⓐ 12 | 740 | 0.15 | 0.70 | 63 | 68 |

- **Technical features:**
 - PFC (active)
 - Integrated PID controller
 - Control input 0-10 VDC / PWM
 - Input for sensor 0-10 V or 4-20 mA
 - Slave output 0-10 V max. 3 mA
 - Output 20 VDC ($\pm 20\%$) max. 50 mA
 - Output 10 VDC ($+10\%$) max. 10 mA
 - RS485 ebmBUS
 - Alarm relay
- **EMC:** Interference emission acc. to EN 61000-6-4 (industrial environment)
 Interference immunity acc. to EN 61000-6-2 (industrial environment)
 Harmonics acc. to DIN EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 61800-5-1
- **Connection leads:** Via terminal strip
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** VDE, UL, CSA, GOST; CCC is applied for
- Line undervoltage detection
- Motor current limitation
- Over-temperature protected electronics / motor
- Locked rotor protection
- Soft start

| | | | | |
|-----------------------|---|---|---|---|
| Direction of air flow |  |  |  |  |
| | < "V" | < "V" | < "V" | < "V" |
| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle |
| "V" | A3G 500-AE33 -11 | W3G 500-CE33 -11 | S3G 500-BE33 -11 | S3G 500-AE33 -11 |

EC axial fans mains-powered

S series, Ø 500



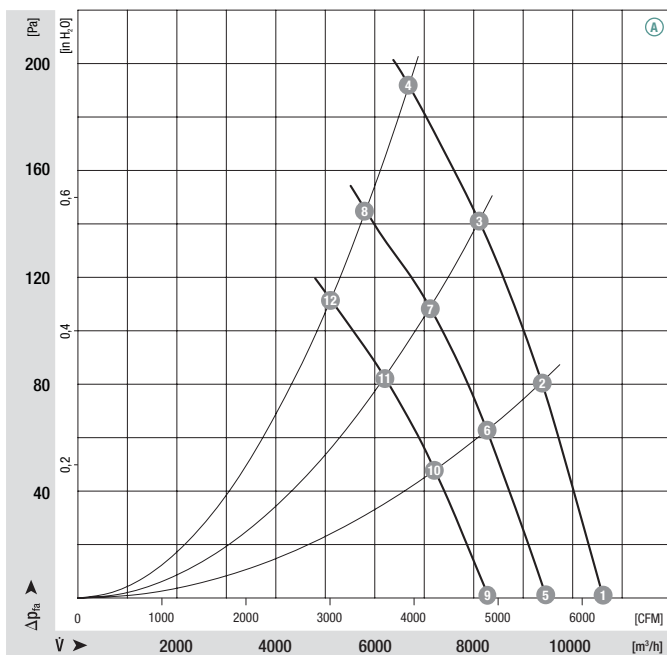
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: PA plastic
Rotor: Cast-in with PA plastic
Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 5
- **Direction of rotation:** Counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage range | Frequency | Speed/rpm | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Max. operative range | Perm. amb. temp. | Electr. connection |
|--------------|------------|-------|-----------------------|-----------|-----------|---------------------------------|----------------------------------|----------------------|------------------|--------------------|
| Type | Motor | VAC | Hz | rpm | kW | A | Pa | °C | p. 427 | |
| *3G 500 | M3G 112-GA | Ⓐ | 3~ 200-240 | 50/60 | 1450 | 1.04 | 3.40 | 195 | -25 to +60 | L2) |
| *3G 500 | M3G 112-GA | Ⓑ | 3~ 380-480 | 50/60 | 1450 | 1.04 | 1.70 | 195 | -25 to +60 | L2) |

subject to alterations

(1) Nominal data in operating point with maximum load and 200 or 400 VAC

Curves

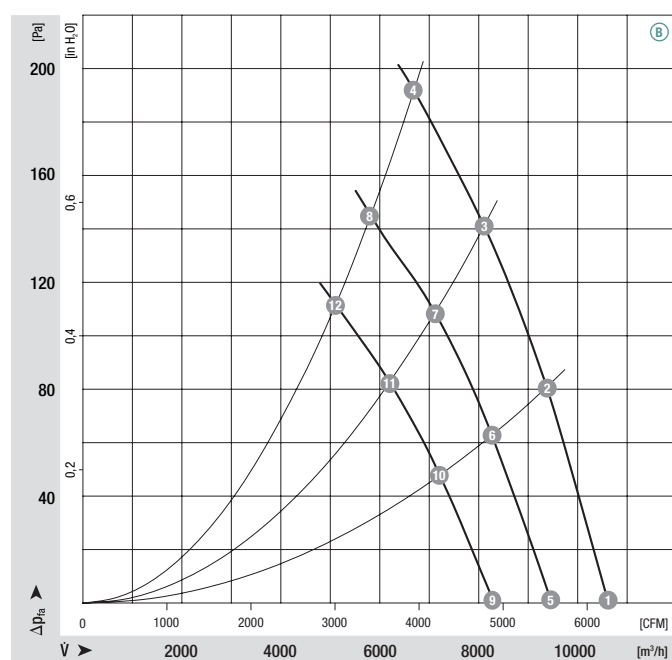


| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] | η _{HL} [%] |
|------|---------|---------------------|-------|-------------------------|---------------------|
| Ⓐ 1 | 1450 | 1.21 | 3.80 | 97 | — |
| Ⓐ 2 | 1450 | 1.00 | 3.20 | 79 | 77 |
| Ⓐ 3 | 1450 | 1.05 | 3.40 | 81 | 68 |
| Ⓐ 4 | 1450 | 1.04 | 3.40 | 82 | 60 |
| Ⓐ 5 | 1220 | 0.70 | 2.40 | 87 | — |
| Ⓐ 6 | 1270 | 0.66 | 2.20 | 76 | 81 |
| Ⓐ 7 | 1260 | 0.67 | 2.40 | 77 | 73 |
| Ⓐ 8 | 1260 | 0.66 | 2.20 | 79 | 62 |
| Ⓐ 9 | 1080 | 0.47 | 1.80 | 83 | — |
| Ⓐ 10 | 1110 | 0.44 | 1.80 | 73 | 81 |
| Ⓐ 11 | 1110 | 0.46 | 1.80 | 74 | 72 |
| Ⓐ 12 | 1100 | 0.45 | 1.80 | 75 | 63 |

- **Technical features:**
 - PFC (passive)
 - Integrated PID controller
 - Control input 0-10 VDC / PWM
 - Input for sensor 0-10 V or 4-20 mA
 - Slave output 0-10 V max. 3 mA
 - Output 20 VDC ($\pm 20\%$) max. 50 mA
 - Output 10 VDC ($+10\%$) max. 10 mA
 - RS485 ebmBUS
 - Alarm relay
- **EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
Harmonics acc. to EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 61800-5-1
- **Connection leads:** Via terminal strip
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** VDE, UL, CSA, GOST; CCC is applied for
- Line undervoltage / phase failure detection
- Motor current limitation
- Over-temperature protected electronics / motor
- Locked rotor protection
- Soft start

| Direction of air flow | Direction of air flow | | | |
|-----------------------|-----------------------|-------------------------|-----------------------------------|------------------------------------|
| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle |
| "V" | A3G 500-AE38 -06 | W3G 500-CE38 -06 | S3G 500-BE38 -06 | S3G 500-AE38 -06 |
| "V" | A3G 500-AE33 -01 | W3G 500-CE33 -01 | S3G 500-BE33 -01 | S3G 500-AE33 -01 |

Curves



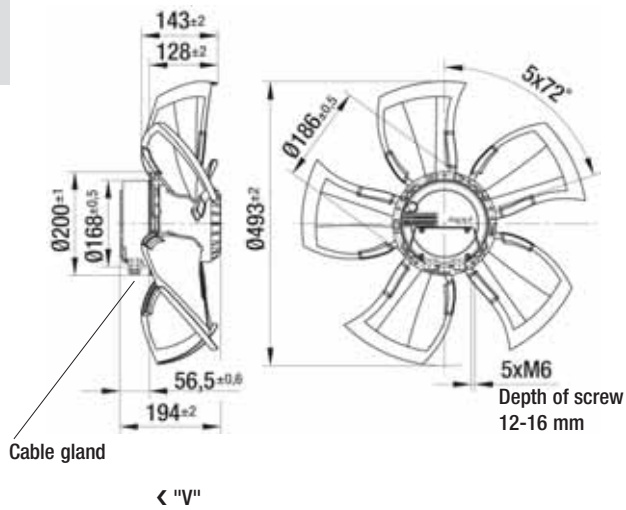
| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] | η _{HL} [%] |
|------|---------|---------------------|-------|-------------------------|---------------------|
| ⓑ 1 | 1450 | 1.21 | 1.90 | 97 | — |
| ⓑ 2 | 1450 | 1.00 | 1.60 | 79 | 77 |
| ⓑ 3 | 1450 | 1.05 | 1.70 | 81 | 68 |
| ⓑ 4 | 1450 | 1.04 | 1.70 | 82 | 60 |
| ⓑ 5 | 1220 | 0.70 | 1.20 | 87 | — |
| ⓑ 6 | 1270 | 0.66 | 1.10 | 76 | 81 |
| ⓑ 7 | 1260 | 0.67 | 1.20 | 77 | 73 |
| ⓑ 8 | 1260 | 0.66 | 1.10 | 79 | 62 |
| ⓑ 9 | 1080 | 0.47 | 0.90 | 83 | — |
| ⓑ 10 | 1110 | 0.44 | 0.90 | 73 | 81 |
| ⓑ 11 | 1110 | 0.46 | 0.90 | 74 | 72 |
| ⓑ 12 | 1100 | 0.45 | 0.90 | 75 | 63 |

EC axial fans mains-powered

S series, Ø 500, drawings for direction of air flow "V"



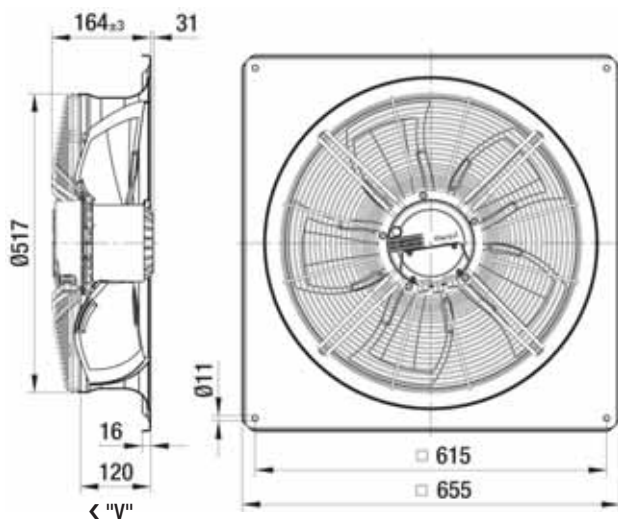
Without attachments



| Type | Mass [kg] |
|------------------|-----------|
| A3G 500-AE33 -11 | 8.7 |
| A3G 500-AE38 -06 | 8.7 |
| A3G 500-AE33 -01 | 8.7 |



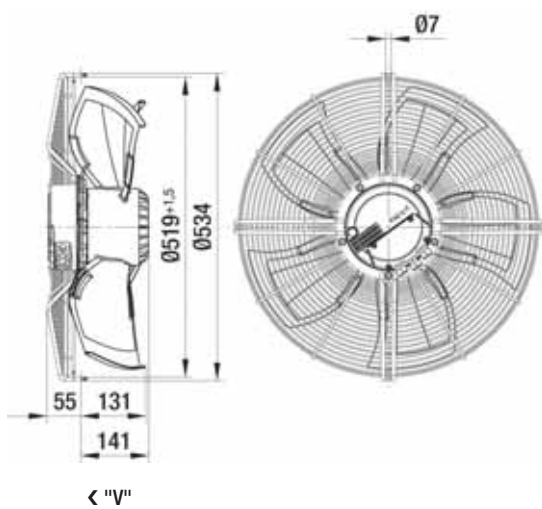
With full square nozzle



| Type | Mass [kg] |
|------------------|-----------|
| W3G 500-CE33 -11 | 16.2 |
| W3G 500-CE38 -06 | 16.2 |
| W3G 500-CE33 -01 | 16.2 |



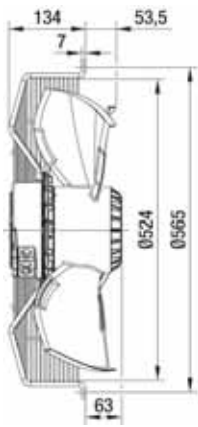
With guard grille for full nozzle



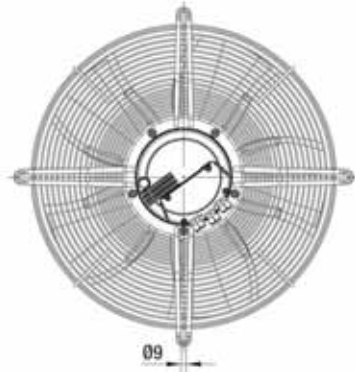
| Type | Mass [kg] |
|------------------|-----------|
| S3G 500-BE33 -11 | 11.2 |
| S3G 500-BE38 -06 | 11.2 |
| S3G 500-BE33 -01 | 11.2 |



With guard grille for short nozzle



< "V"



| Type | Mass [kg] |
|------------------|-----------|
| S3G 500-AE33 -11 | 12.4 |
| S3G 500-AE38 -06 | 12.4 |
| S3G 500-AE33 -01 | 12.4 |

EC axial fans mains-powered

S series, Ø 560



- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: PA plastic
Rotor: Cast-in with PA plastic
Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 5
- **Direction of rotation:** Counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

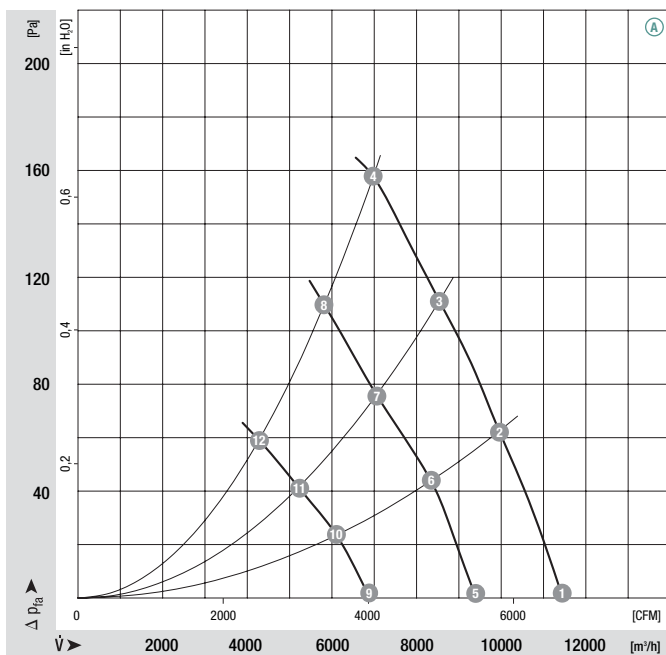
Nominal data

| Type | Motor | Curve | Nominal voltage range VAC | Frequency Hz | Speed/rpm | Max. power input (1) kW | Max. current draw (1) A | Max. operative range Pa | Perm. amb. temp. °C | Electr. connection p. 427 |
|---------|------------|-------|------------------------------|-----------------|-----------|----------------------------|----------------------------|----------------------------|------------------------|------------------------------|
| *3G 560 | M3G 112-GA | Ⓐ | 1~ 200-277 | 50/60 | 1160 | 0.79 | 3.50 | 155 | -25 to +60 | L1) |

subject to alterations





(1) Nominal data in operating point with maximum load and 230 VAC

Curves



| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] | η _{HL} [%] |
|------|------------|------------------------|----------|----------------------------|------------------------|
| Ⓐ 1 | 1160 | 0.66 | 3.00 | 77 | — |
| Ⓐ 2 | 1160 | 0.73 | 3.30 | 80 | 82 |
| Ⓐ 3 | 1150 | 0.77 | 3.40 | 80 | 74 |
| Ⓐ 4 | 1160 | 0.79 | 3.50 | 80 | 65 |
| Ⓐ 5 | 970 | 0.35 | 1.60 | 73 | — |
| Ⓐ 6 | 950 | 0.39 | 1.80 | 75 | 92 |
| Ⓐ 7 | 930 | 0.40 | 1.80 | 74 | 82 |
| Ⓐ 8 | 940 | 0.41 | 1.90 | 74 | 72 |
| Ⓐ 9 | 680 | 0.14 | 0.70 | 67 | — |
| Ⓐ 10 | 690 | 0.16 | 0.80 | 67 | 96 |
| Ⓐ 11 | 680 | 0.17 | 0.80 | 65 | 88 |
| Ⓐ 12 | 680 | 0.17 | 0.80 | 66 | 76 |

- **Technical features:**
 - PFC (active)
 - Integrated PID controller
 - Control input 0-10 VDC / PWM
 - Input for sensor 0-10 V or 4-20 mA
 - Slave output 0-10 V max. 3 mA
 - Output 20 VDC ($\pm 20\%$) max. 50 mA
 - Output 10 VDC ($+10\%$) max. 10 mA
 - RS485 ebmBUS
 - Alarm relay
- **EMC:** Interference emission acc. to EN 61000-6-4 (industrial environment)
Interference immunity acc. to EN 61000-6-2 (industrial environment)
Harmonics acc. to DIN EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 61800-5-1
- **Connection leads:** Via terminal strip
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** VDE, UL, CSA, GOST; CCC is applied for
 - Line undervoltage detection
 - Motor current limitation
 - Over-temperature protected electronics / motor
 - Locked rotor protection
 - Soft start

| | | | | |
|-----------------------|---|---|---|---|
| Direction of air flow |  |  |  |  |
| | < "V" | < "V" | < "V" | < "V" |
| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle |
| "V" | A3G 560-AE41 -11 | W3G 560-CE41 -11 | S3G 560-BE41 -11 | S3G 560-AE41 -11 |

EC axial fans mains-powered

S series, Ø 560



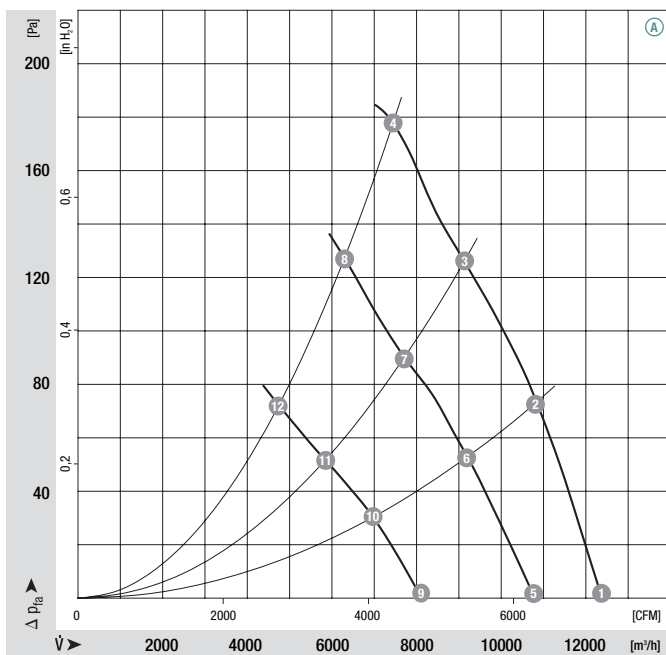
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: PA plastic
Rotor: Cast-in with PA plastic
Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 5
- **Direction of rotation:** Counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage range | Frequency | Speed/rpm | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Max. operative range | Perm. amb. temp. | Electr. connection |
|--------------|------------|-------|-----------------------|-----------|-----------|---------------------------------|----------------------------------|----------------------|------------------|--------------------|
| Type | Motor | VAC | Hz | rpm | kW | A | Pa | °C | p. 427 | |
| *3G 560 | M3G 112-GA | Ⓐ | 3~ 200-240 | 50/60 | 1260 | 0.97 | 3.20 | 180 | -25 to +60 | L2) |
| *3G 560 | M3G 112-GA | Ⓑ | 3~ 380-480 | 50/60 | 1260 | 0.97 | 1.60 | 180 | -25 to +60 | L2) |

subject to alterations

(1) Nominal data in operating point with maximum load and 200 or 400 VAC

Curves

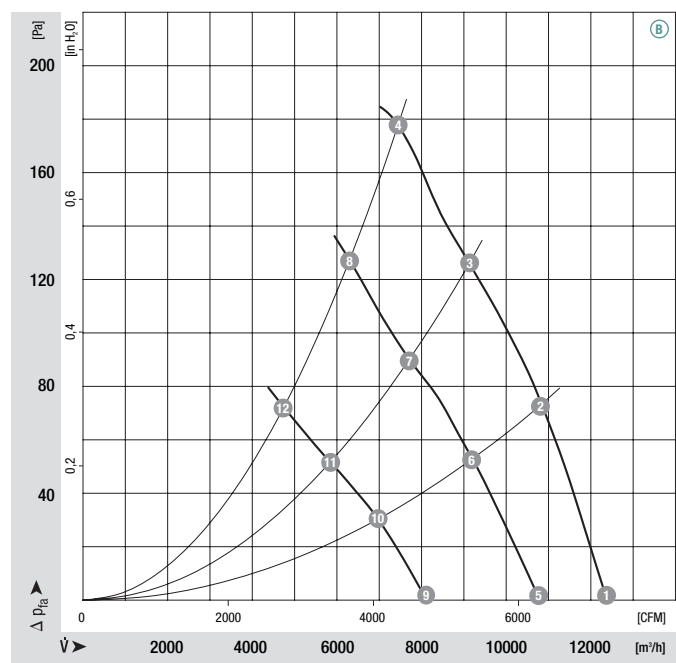


| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] | η _{HL} [%] |
|------|---------|---------------------|-------|-------------------------|---------------------|
| Ⓐ 1 | 1260 | 0.81 | 2.80 | 77 | — |
| Ⓐ 2 | 1260 | 0.92 | 3.20 | 80 | 75 |
| Ⓐ 3 | 1260 | 0.96 | 3.20 | 81 | 65 |
| Ⓐ 4 | 1260 | 0.97 | 3.20 | 83 | 58 |
| Ⓐ 5 | 1080 | 0.50 | 2.00 | 73 | — |
| Ⓐ 6 | 1060 | 0.53 | 2.00 | 75 | 80 |
| Ⓐ 7 | 1050 | 0.54 | 2.00 | 76 | 71 |
| Ⓐ 8 | 1040 | 0.54 | 2.00 | 78 | 63 |
| Ⓐ 9 | 800 | 0.22 | 1.00 | 67 | — |
| Ⓐ 10 | 790 | 0.24 | 1.00 | 68 | 86 |
| Ⓐ 11 | 780 | 0.24 | 1.00 | 69 | 75 |
| Ⓐ 12 | 780 | 0.24 | 1.00 | 69 | 66 |

- **Technical features:**
 - PFC (passive)
 - Integrated PID controller
 - Control input 0-10 VDC / PWM
 - Input for sensor 0-10 V or 4-20 mA
 - Slave output 0-10 V max. 3 mA
 - Output 20 VDC ($\pm 20\%$) max. 50 mA
 - Output 10 VDC ($+10\%$) max. 10 mA
 - RS485 ebmBUS
 - Alarm relay
- **EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
Harmonics acc. to EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 61800-5-1
- **Connection leads:** Via terminal strip
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** VDE, UL, CSA, GOST; CCC is applied for
- Line undervoltage / phase failure detection
- Motor current limitation
- Over-temperature protected electronics / motor
- Locked rotor protection
- Soft start

| Direction of air flow | | | | |
|-----------------------|---------------------|-------------------------|-----------------------------------|------------------------------------|
| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle |
| "V" | A3G 560-AE43 -06 | W3G 560-CE43 -06 | S3G 560-BE43 -06 | S3G 560-AE43 -06 |
| "V" | A3G 560-AE32 -01 | W3G 560-CE32 -01 | S3G 560-BE32 -01 | S3G 560-AE32 -01 |

Curves



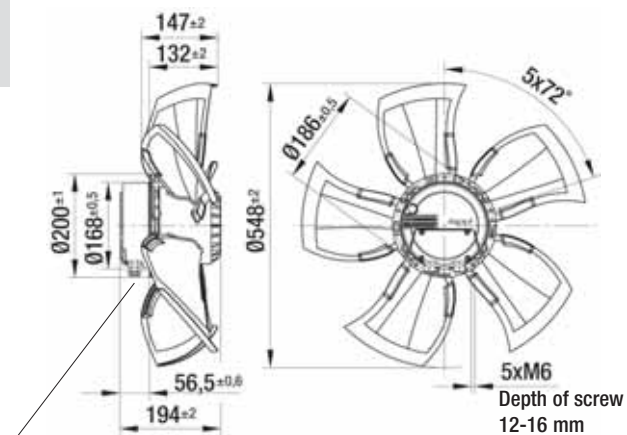
| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] | η _{HL} [%] |
|------|---------|---------------------|-------|-------------------------|---------------------|
| ⓑ 1 | 1260 | 0.81 | 1.40 | 77 | — |
| ⓑ 2 | 1260 | 0.92 | 1.60 | 80 | 75 |
| ⓑ 3 | 1260 | 0.96 | 1.60 | 81 | 65 |
| ⓑ 4 | 1260 | 0.97 | 1.60 | 83 | 58 |
| ⓑ 5 | 1080 | 0.50 | 1.00 | 73 | — |
| ⓑ 6 | 1060 | 0.53 | 1.00 | 75 | 80 |
| ⓑ 7 | 1050 | 0.54 | 1.00 | 76 | 71 |
| ⓑ 8 | 1040 | 0.54 | 1.00 | 78 | 63 |
| ⓑ 9 | 800 | 0.22 | 0.50 | 67 | — |
| ⓑ 10 | 790 | 0.24 | 0.50 | 68 | 86 |
| ⓑ 11 | 780 | 0.24 | 0.50 | 69 | 75 |
| ⓑ 12 | 780 | 0.24 | 0.50 | 69 | 66 |

EC axial fans mains-powered

S series, Ø 560, drawings for direction of air flow "V"



Without attachments



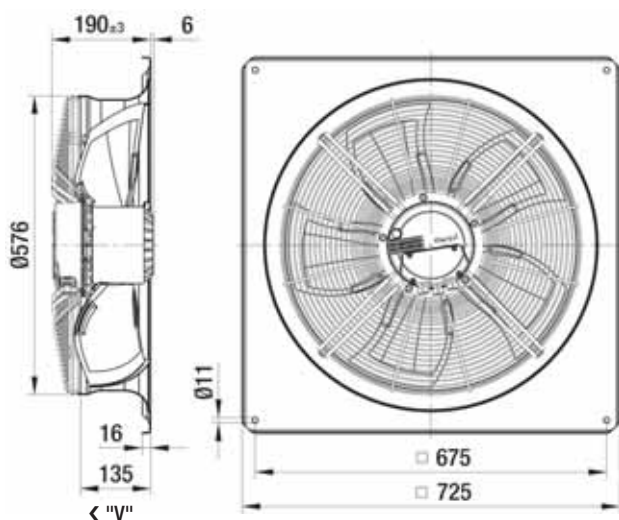
Cable gland

< "V"

| Type | Mass [kg] |
|------------------|-----------|
| A3G 560-AE41 -11 | 8.9 |
| A3G 560-AE43 -06 | 8.9 |
| A3G 560-AE32 -01 | 8.9 |



With full square nozzle

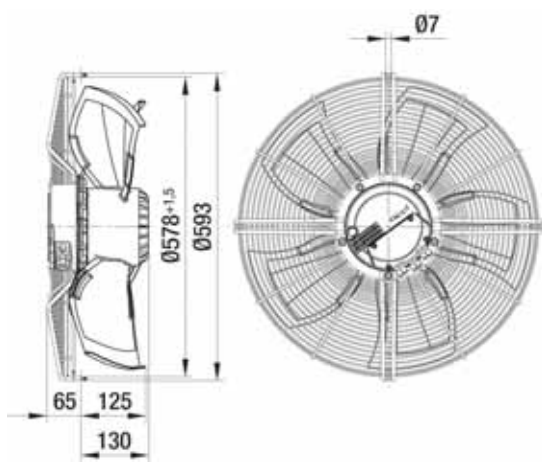


< "V"

| Type | Mass [kg] |
|------------------|-----------|
| W3G 560-CE41 -11 | 18.0 |
| W3G 560-CE43 -06 | 18.0 |
| W3G 560-CE32 -01 | 18.0 |



With guard grille for full nozzle

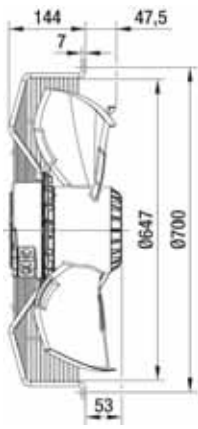


< "V"

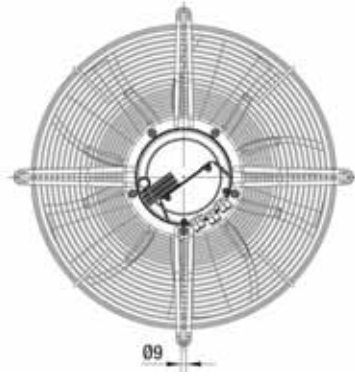
| Type | Mass [kg] |
|------------------|-----------|
| S3G 560-BE41 -11 | 11.9 |
| S3G 560-BE43 -06 | 11.9 |
| S3G 560-BE32 -01 | 11.9 |



With guard grille for short nozzle



< "V"



| Type | Mass [kg] |
|------------------|-----------|
| S3G 560-AE41 -11 | 13.6 |
| S3G 560-AE43 -06 | 13.6 |
| S3G 560-AE32 -01 | 13.6 |

EC axial fans mains-powered

S series, Ø 630



- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: PA plastic
Rotor: Cast-in with PA plastic
Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 5
- **Direction of rotation:** Counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

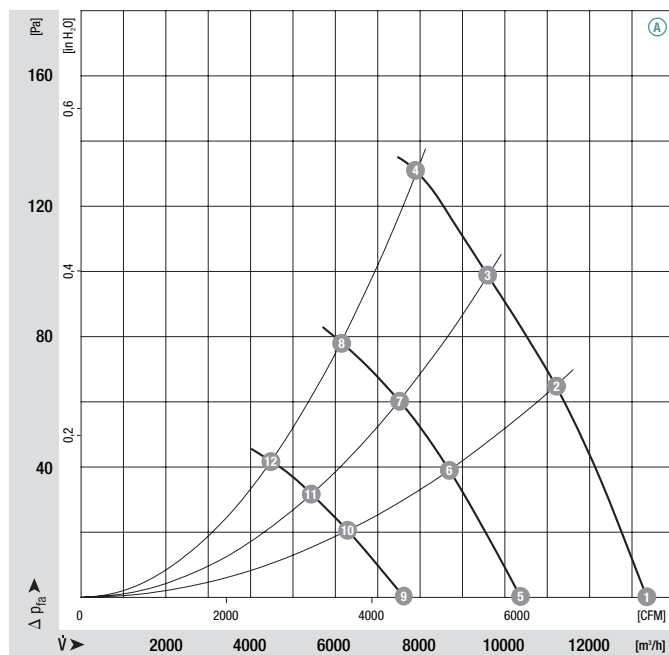
Nominal data

| Type | Motor | Curve | Nominal voltage range VAC | Frequency Hz | Speed/rpm | Max. power input ⁽¹⁾ kW | Max. current draw ⁽¹⁾ A | Max. operative range Pa | Perm. amb. temp. °C | Electr. connection p. 427 |
|---------|------------|-------|------------------------------|-----------------|-----------|---------------------------------------|---------------------------------------|----------------------------|------------------------|------------------------------|
| *3G 630 | M3G 112-GA | Ⓐ | 1~ 200-277 | 50/60 | 970 | 0.73 | 3.30 | 135 | -25 to +60 | L1) |

subject to alterations





(1) Nominal data in operating point with maximum load and 230 VAC

Curves



| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] | η _{HL} [%] |
|------|------------|------------------------|----------|----------------------------|------------------------|
| Ⓐ 1 | 970 | 0.55 | 2.60 | 74 | — |
| Ⓐ 2 | 970 | 0.66 | 3.00 | 76 | 88 |
| Ⓐ 3 | 960 | 0.69 | 3.20 | 77 | 79 |
| Ⓐ 4 | 970 | 0.73 | 3.30 | 79 | 68 |
| Ⓐ 5 | 750 | 0.25 | 1.20 | 68 | — |
| Ⓐ 6 | 750 | 0.30 | 1.40 | 70 | 92 |
| Ⓐ 7 | 750 | 0.32 | 1.50 | 71 | 83 |
| Ⓐ 8 | 750 | 0.33 | 1.60 | 72 | 70 |
| Ⓐ 9 | 540 | 0.11 | 0.70 | 61 | — |
| Ⓐ 10 | 540 | 0.13 | 0.70 | 63 | 92 |
| Ⓐ 11 | 540 | 0.14 | 0.60 | 63 | 85 |
| Ⓐ 12 | 540 | 0.14 | 0.70 | 63 | 71 |

- **Technical features:**
 - PFC (active)
 - Integrated PID controller
 - Control input 0-10 VDC / PWM
 - Input for sensor 0-10 V or 4-20 mA
 - Slave output 0-10 V max. 3 mA
 - Output 20 VDC ($\pm 20\%$) max. 50 mA
 - Output 10 VDC ($+10\%$) max. 10 mA
 - RS485 ebmBUS
 - Alarm relay
- **EMC:** Interference emission acc. to EN 61000-6-4 (industrial environment)
Interference immunity acc. to EN 61000-6-2 (industrial environment)
Harmonics acc. to DIN EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 61800-5-1
- **Connection leads:** Via terminal strip
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** VDE, UL, CSA, GOST; CCC is applied for
 - Line undervoltage detection
 - Motor current limitation
 - Over-temperature protected electronics / motor
 - Locked rotor protection
 - Soft start

| | | | | |
|-----------------------|---|---|---|---|
| Direction of air flow |  |  |  |  |
| | < "V" | < "V" | < "V" | < "V" |
| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle |
| "V" | A3G 630-AE37 -11 | W3G 630-CE37 -11 | S3G 630-BE37 -11 | S3G 630-AE37 -11 |

EC axial fans mains-powered

S series, Ø 630



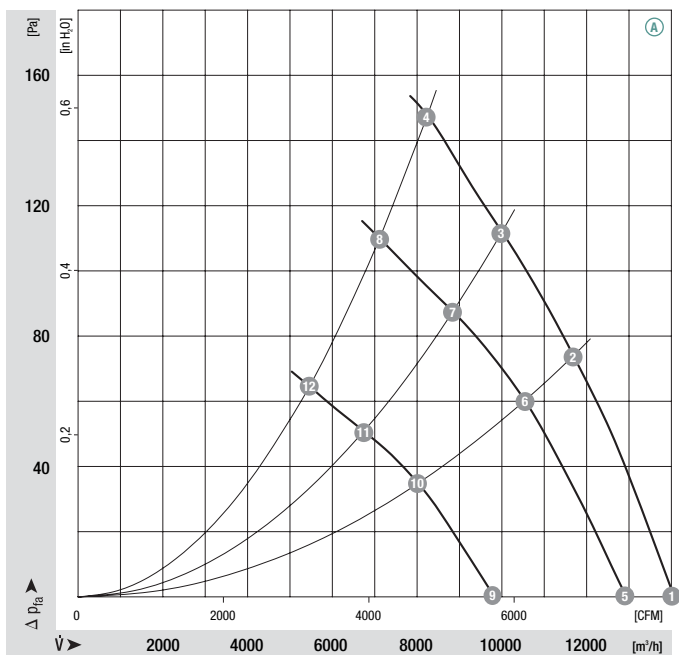
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: PA plastic
Rotor: Cast-in with PA plastic
Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 5
- **Direction of rotation:** Counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage range | Frequency | Speed/rpm | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Max. operative range | Perm. amb. temp. | Electr. connection |
|--------------|------------|-------|-----------------------|-----------|-----------|---------------------------------|----------------------------------|----------------------|------------------|--------------------|
| Type | Motor | VAC | Hz | rpm | kW | A | Pa | °C | p. 427 | |
| *3G 630 | M3G 112-GA | Ⓐ | 3~ 200-240 | 50/60 | 1010 | 0.83 | 3.00 | 150 | -25 to +60 | L2) |
| *3G 630 | M3G 112-GA | Ⓑ | 3~ 380-480 | 50/60 | 1010 | 0.83 | 1.50 | 150 | -25 to +60 | L2) |

subject to alterations

(1) Nominal data in operating point with maximum load and 200 or 400 VAC

Curves



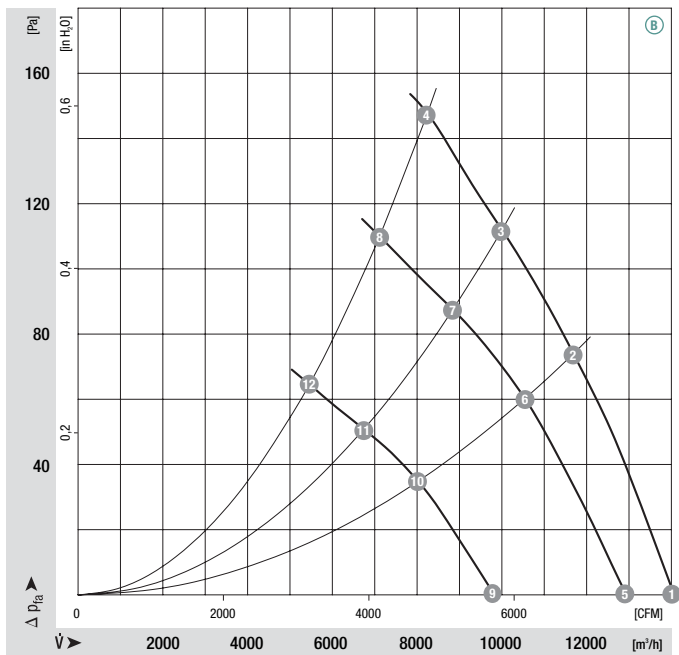
| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] | η _{HL} [%] |
|------|---------|---------------------|-------|-------------------------|---------------------|
| Ⓐ 1 | 1010 | 0.62 | 2.20 | 75 | — |
| Ⓐ 2 | 1010 | 0.74 | 2.60 | 77 | 87 |
| Ⓐ 3 | 1010 | 0.78 | 2.80 | 78 | 77 |
| Ⓐ 4 | 1010 | 0.83 | 3.00 | 79 | 65 |
| Ⓐ 5 | 920 | 0.45 | 1.80 | 73 | — |
| Ⓐ 6 | 900 | 0.51 | 2.00 | 75 | 92 |
| Ⓐ 7 | 880 | 0.49 | 1.80 | 75 | 83 |
| Ⓐ 8 | 860 | 0.51 | 2.00 | 76 | 68 |
| Ⓐ 9 | 680 | 0.20 | 0.80 | 66 | — |
| Ⓐ 10 | 680 | 0.22 | 1.00 | 67 | 49 |
| Ⓐ 11 | 660 | 0.22 | 1.00 | 67 | 91 |
| Ⓐ 12 | 650 | 0.23 | 1.00 | 68 | 74 |

Technical features:

- PFC (passive)
 - Integrated PID controller
 - Control input 0-10 VDC / PWM
 - Input for sensor 0-10 V or 4-20 mA
 - Slave output 0-10 V max. 3 mA
 - Output 20 VDC ($\pm 20\%$) max. 50 mA
 - Output 10 VDC ($+10\%$) max. 10 mA
 - RS485 ebmBUS
 - Alarm relay
 - Line undervoltage / phase failure detection
 - Motor current limitation
 - Over-temperature protected electronics / motor
 - Locked rotor protection
 - Soft start
- EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
Harmonics acc. to EN 61000-3-2/3
- Leakage current:** < 3.5 mA acc. to EN 61800-5-1
- Connection leads:** Via terminal strip
- Protection class:** I (acc. to EN 61800-5-1)
- Product conforming to standard:** CE
- Approvals:** VDE, UL, CSA, GOST; CCC is applied for

| Direction of air flow | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle |
|-----------------------|---------------------|-------------------------|-----------------------------------|------------------------------------|
| "V" | A3G 630-AE42 -06 | W3G 630-CE42 -06 | S3G 630-BE42 -06 | S3G 630-AE42 -06 |
| "V" | A3G 630-AE31 -01 | W3G 630-CE31 -01 | S3G 630-BE31 -01 | S3G 630-AE31 -01 |

Curves



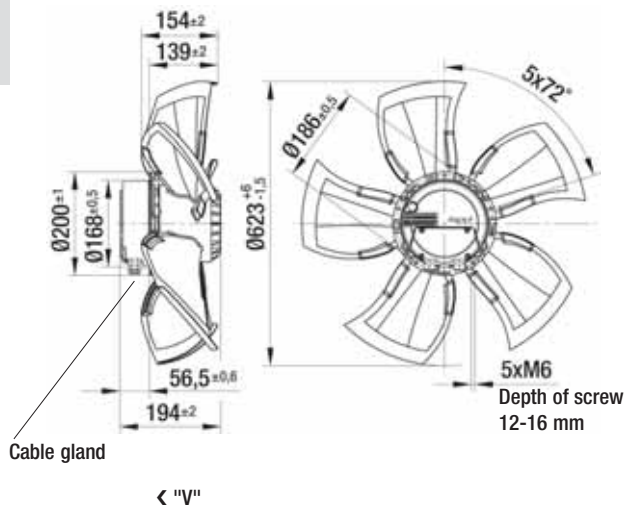
| | n [rpm] | P ₁ [kW] | I [A] | Lw _A [dB(A)] | η_{HL} [%] |
|----|---------|---------------------|-------|-------------------------|------------------------|
| 1 | 1010 | 0.62 | 1.10 | 75 | — |
| 2 | 1010 | 0.74 | 1.30 | 77 | 87 |
| 3 | 1010 | 0.78 | 1.40 | 78 | 77 |
| 4 | 1010 | 0.83 | 1.50 | 79 | 65 |
| 5 | 920 | 0.45 | 0.90 | 73 | — |
| 6 | 900 | 0.51 | 1.00 | 75 | 92 |
| 7 | 880 | 0.49 | 0.90 | 75 | 83 |
| 8 | 860 | 0.51 | 1.00 | 76 | 68 |
| 9 | 680 | 0.20 | 0.40 | 66 | — |
| 10 | 680 | 0.22 | 0.50 | 67 | 49 |
| 11 | 660 | 0.22 | 0.50 | 67 | 91 |
| 12 | 650 | 0.23 | 0.50 | 68 | 74 |

EC axial fans mains-powered

S series, Ø 630, drawings for direction of air flow "V"



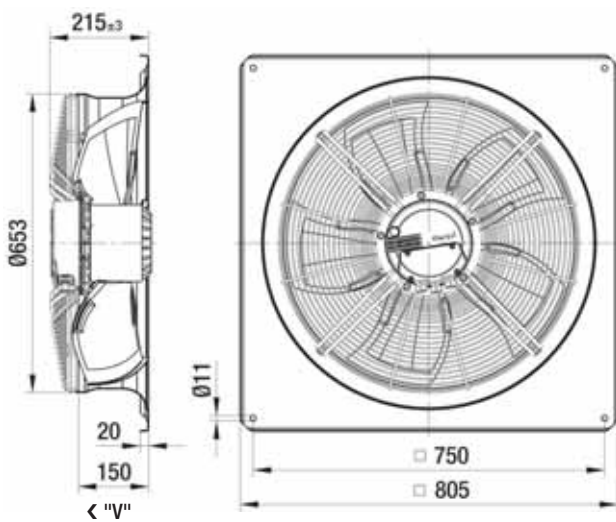
Without attachments



| Type | Mass [kg] |
|------------------|-----------|
| A3G 630-AE37 -11 | 9.1 |
| A3G 630-AE42 -06 | 9.1 |
| A3G 630-AE31 -01 | 9.1 |



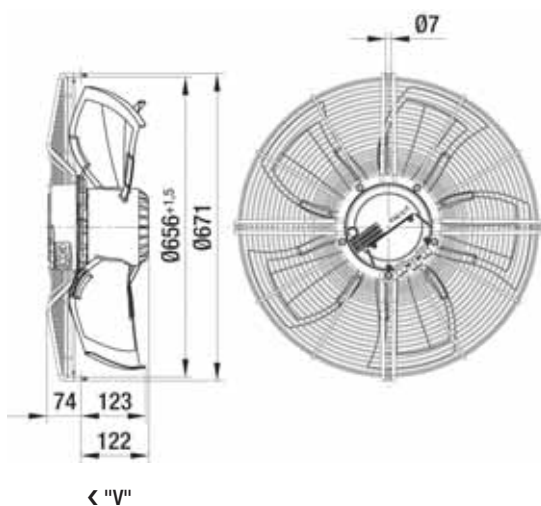
With full square nozzle



| Type | Mass [kg] |
|------------------|-----------|
| W3G 630-CE37 -11 | 20.4 |
| W3G 630-CE42 -06 | 20.4 |
| W3G 630-CE31 -01 | 20.4 |



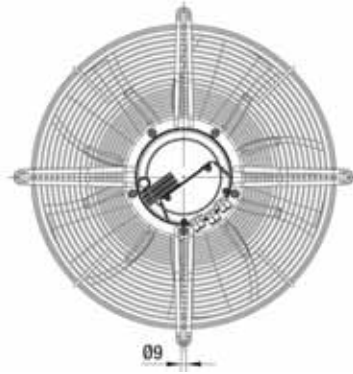
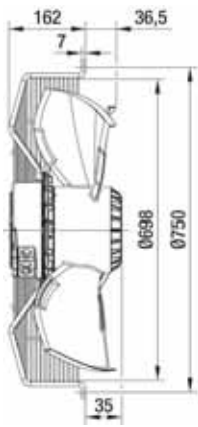
With guard grille for full nozzle



| Type | Mass [kg] |
|------------------|-----------|
| S3G 630-BE37 -11 | 12.8 |
| S3G 630-BE42 -06 | 12.8 |
| S3G 630-BE31 -01 | 12.8 |



With guard grille for short nozzle

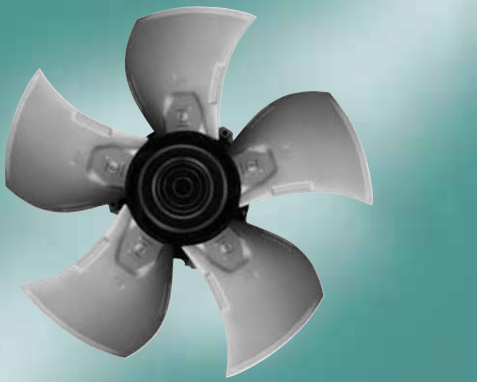


< "V"

| Type | Mass [kg] |
|------------------|-----------|
| S3G 630-AE37 -11 | 14.6 |
| S3G 630-AE42 -06 | 14.6 |
| S3G 630-AE31 -01 | 14.6 |

EC axial fans mains-powered

S series, Ø 630



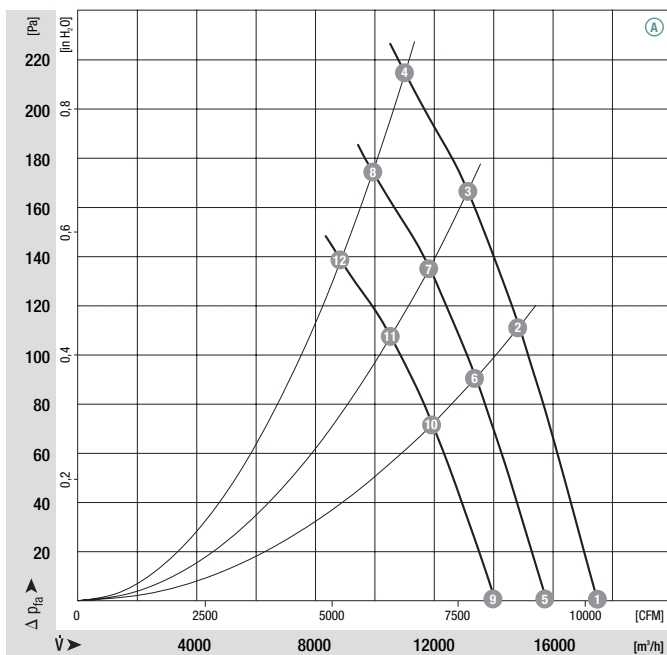
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Die-cast aluminium
Rotor: Cast-in with PA plastic
Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 5
- **Direction of rotation:** Dir. of air flow "V" clockwise, "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Blade angle | Curve | Nominal voltage range | Frequency | Speed/rpm | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Max. operative range | Perm. amb. temp. | Electr. connection |
|--------------|------------|-------------|-------|-----------------------|-----------|-----------|---------------------------------|----------------------------------|----------------------|------------------|--------------------|
| Type | Motor | | | VAC | Hz | rpm | kW | A | Pa | °C | p. 428 |
| *3G 630 | M3G 150-FF | 0° | A | 3~ 200-240 | 50/60 | 1220 | 1.70 | 5.20 | 215 | -25 to +60 | M) |
| *3G 630 | M3G 150-FF | 0° | B | 3~ 380-480 | 50/60 | 1220 | 1.70 | 2.60 | 215 | -25 to +60 | M) |

subject to alterations


(1) Nominal data in operating point with maximum load and 200 or 400 VAC

Curves



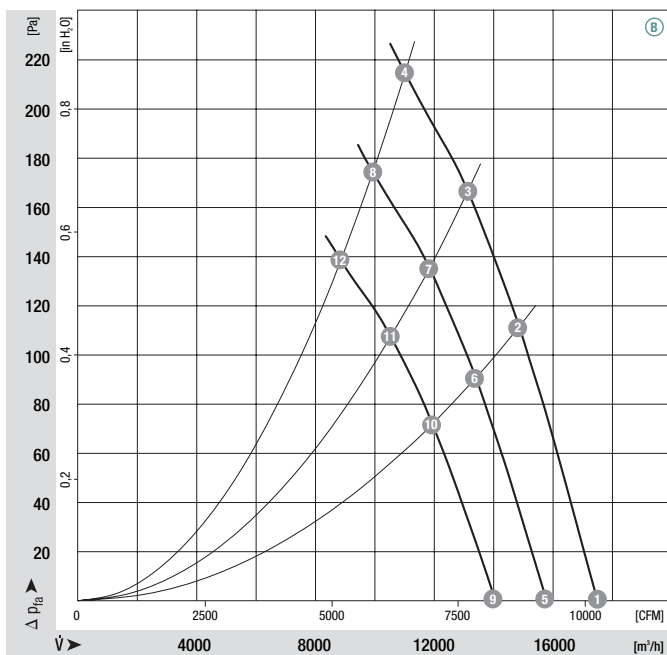
| | n [rpm] | P ₁ [kW] | I [A] | Lw _A [dB(A)] | η _{HL} [%] |
|------|---------|---------------------|-------|-------------------------|---------------------|
| A 1 | 1220 | 1.30 | 4.00 | 77 | — |
| A 2 | 1220 | 1.52 | 4.80 | 76 | 77 |
| A 3 | 1220 | 1.60 | 5.00 | 78 | 70 |
| A 4 | 1220 | 1.70 | 5.20 | 81 | 58 |
| A 5 | 1100 | 0.95 | 3.00 | 75 | — |
| A 6 | 1100 | 1.11 | 3.60 | 74 | 77 |
| A 7 | 1100 | 1.18 | 3.60 | 76 | 70 |
| A 8 | 1100 | 1.24 | 3.80 | 79 | 58 |
| A 9 | 980 | 0.67 | 2.20 | 72 | — |
| A 10 | 980 | 0.79 | 2.40 | 72 | 77 |
| A 11 | 980 | 0.83 | 2.60 | 73 | 70 |
| A 12 | 980 | 0.88 | 2.80 | 76 | 58 |













Technical features:

- PFC (passive)
 - Integrated PID controller
 - Control input 0-10 VDC / PWM
 - Input for sensor 0-10 V or 4-20 mA
 - Slave output 0-10 V max. 3 mA
 - Output 20 VDC ($\pm 20\%$) max. 50 mA
 - Output 10 VDC ($+10\%$) max. 10 mA
 - RS485 ebmBUS
 - Alarm relay
 - Line undervoltage / phase failure detection
 - Motor current limitation
 - Over-temperature protected electronics / motor
 - Locked rotor protection
 - Soft start
- EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
Harmonics acc. to EN 61000-3-2/3
- Leakage current:** < 3.5 mA acc. to EN 61800-5-1
- Connection leads:** Via terminal strip
- Protection class:** I (acc. to EN 61800-5-1)
- Product conforming to standard:** CE
- Approvals:** UL, CSA, GOST;  also VDE

| Direction of air flow | < "V"/"A" > | | < "V" > | | > "A" > | |
|-----------------------|---------------------|-------------------------|-----------------------------------|------------------------------------|-----------------------------------|--|
| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle | |
| "V" | A3G 630-AG12 -13 | W3G 630-CG12 -13 | S3G 630-BG12 -13 | S3G 630-AG12 -13 | — | |
| "A" | A3G 630-AG12 -14 | W3G 630-CG12 -14 | — | — | S3G 630-CG12 -14 | |
| "V" | A3G 630-AG08 -03 | W3G 630-CG08 -03 | S3G 630-BG08 -03 | S3G 630-AG08 -03 | — | |
| "A" | A3G 630-AG08 -04 | W3G 630-CG08 -04 | — | — | S3G 630-CG08 -04 | |

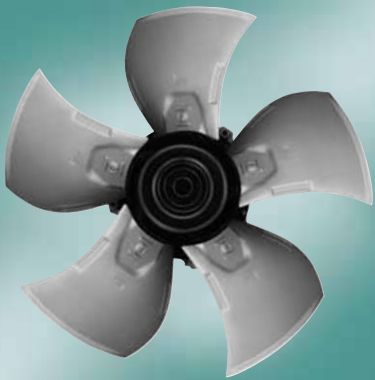
Curves



| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] | η_{HL} [%] |
|--|---------|---------------------|-------|-------------------------|-----------------|
|  1 | 1220 | 1.30 | 2.00 | 77 | — |
|  2 | 1220 | 1.52 | 2.40 | 76 | 77 |
|  3 | 1220 | 1.60 | 2.50 | 78 | 70 |
|  4 | 1220 | 1.70 | 2.60 | 81 | 58 |
|  5 | 1100 | 0.95 | 1.50 | 75 | — |
|  6 | 1100 | 1.11 | 1.80 | 74 | 77 |
|  7 | 1100 | 1.18 | 1.80 | 76 | 70 |
|  8 | 1100 | 1.24 | 1.90 | 79 | 58 |
|  9 | 980 | 0.67 | 1.10 | 72 | — |
|  10 | 980 | 0.79 | 1.20 | 72 | 77 |
|  11 | 980 | 0.83 | 1.30 | 73 | 70 |
|  12 | 980 | 0.88 | 1.40 | 76 | 58 |

EC axial fans mains-powered

S series, Ø 630



- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Die-cast aluminium
Rotor: Cast-in with PA plastic
Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 5
- **Direction of rotation:** Dir. of air flow "V" clockwise, "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

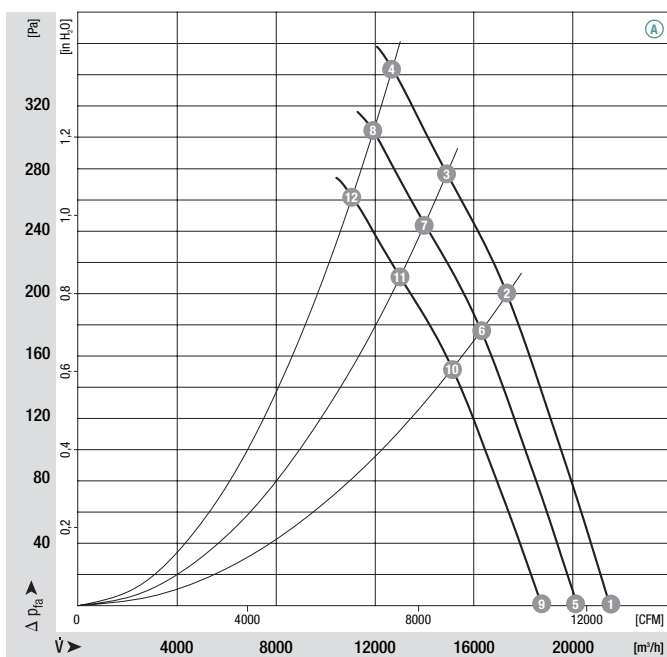
Nominal data

| Type | Motor | Blade angle | Curve | Nominal voltage range | Frequency | Speed/rpm | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Max. operative range | Perm. amb. temp. | Electr. connection |
|---------|------------|-------------|-------|-----------------------|-----------|-----------|---------------------------------|----------------------------------|----------------------|------------------|--------------------|
| | | | | VAC | Hz | rpm | kW | A | Pa | °C | p. 428 |
| *3G 630 | M3G 150-IF | 0° | A | 3~ 200-240 | 50/60 | 1490 | 3.10 | 9.40 | 340 | -25 to +60 | M) |
| *3G 630 | M3G 150-IF | 0° | B | 3~ 380-480 | 50/60 | 1490 | 3.10 | 4.70 | 340 | -25 to +60 | M) |

subject to alterations

(1) Nominal data in operating point with maximum load and 200 or 400 VAC

Curves

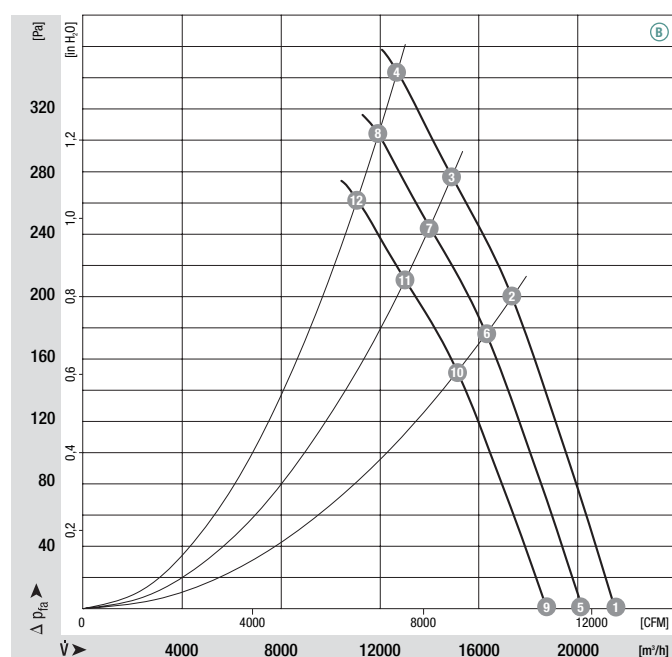


| | n [rpm] | P ₁ [kW] | I [A] | Lw _A [dB(A)] | η _{HL} [%] |
|------|---------|---------------------|-------|-------------------------|---------------------|
| A 1 | 1490 | 2.35 | 7.20 | 82 | — |
| A 2 | 1490 | 2.77 | 8.40 | 82 | 74 |
| A 3 | 1490 | 2.94 | 9.00 | 84 | 64 |
| A 4 | 1490 | 3.10 | 9.40 | 87 | 55 |
| A 5 | 1400 | 1.95 | 6.00 | 80 | — |
| A 6 | 1400 | 2.30 | 7.00 | 80 | 74 |
| A 7 | 1400 | 2.44 | 7.40 | 83 | 64 |
| A 8 | 1400 | 2.55 | 7.80 | 85 | 55 |
| A 9 | 1300 | 1.56 | 4.80 | 79 | — |
| A 10 | 1300 | 1.84 | 5.60 | 79 | 74 |
| A 11 | 1300 | 1.95 | 6.00 | 81 | 64 |
| A 12 | 1300 | 2.04 | 6.20 | 84 | 55 |

- **Technical features:**
 - PFC (passive)
 - Integrated PID controller
 - Control input 0-10 VDC / PWM
 - Input for sensor 0-10 V or 4-20 mA
 - Slave output 0-10 V max. 3 mA
 - Output 20 VDC ($\pm 20\%$) max. 50 mA
 - Output 10 VDC ($+10\%$) max. 10 mA
 - RS485 ebus
 - Alarm relay
- **EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
Harmonics acc. to EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 61800-5-1
- **Connection leads:** Via terminal strip
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** UL, CSA, GOST; also VDE
- Line undervoltage / phase failure detection
- Motor current limitation
- Over-temperature protected electronics / motor
- Locked rotor protection
- Soft start

| Direction of air flow | < "V"/"A" > | | < "V"/"A" > | | < "V" > | | < "V" > | | > "A" > | |
|-----------------------|---------------------|-------------------------|-----------------------------------|------------------------------------|-----------------------------------|------------------------------------|-----------------------------------|------------------------------------|-----------------------------------|------------------------------------|
| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle | With guard grille for short nozzle |
| "V" | A3G 630-AH07 -13 | W3G 630-CH07 -13 | S3G 630-BH07 -13 | S3G 630-AH07 -13 | S3G 630-CH07 -13 | S3G 630-BH07 -13 | S3G 630-AH07 -13 | S3G 630-CH07 -13 | S3G 630-BH07 -13 | S3G 630-AH07 -13 |
| "A" | A3G 630-AH07 -14 | W3G 630-CH07 -14 | — | — | — | — | — | — | — | S3G 630-CH07 -14 |
| "V" | A3G 630-AH02 -03 | W3G 630-CH02 -03 | S3G 630-BH02 -03 | S3G 630-AH02 -03 | S3G 630-CH02 -03 | S3G 630-BH02 -03 | S3G 630-AH02 -03 | S3G 630-CH02 -03 | S3G 630-BH02 -03 | S3G 630-AH02 -03 |
| "A" | A3G 630-AH02 -04 | W3G 630-CH02 -04 | — | — | — | — | — | — | — | S3G 630-CH02 -04 |

Curves



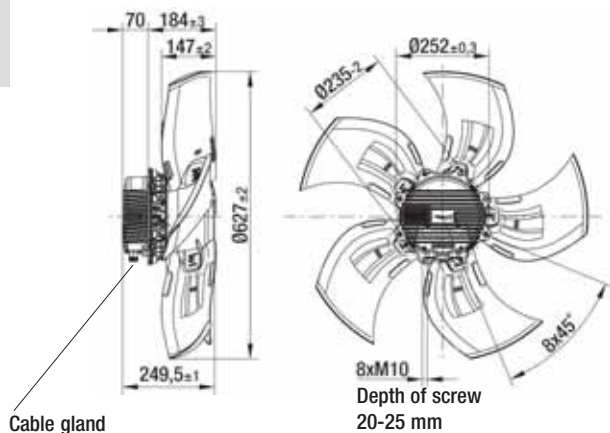
| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] | η _{HL} [%] |
|----|---------|---------------------|-------|-------------------------|---------------------|
| 1 | 1490 | 2.35 | 3.60 | 82 | — |
| 2 | 1490 | 2.77 | 4.20 | 82 | 74 |
| 3 | 1490 | 2.94 | 4.50 | 84 | 64 |
| 4 | 1490 | 3.10 | 4.70 | 87 | 55 |
| 5 | 1400 | 1.95 | 3.00 | 80 | — |
| 6 | 1400 | 2.30 | 3.50 | 80 | 74 |
| 7 | 1400 | 2.44 | 3.70 | 83 | 64 |
| 8 | 1400 | 2.55 | 3.90 | 85 | 55 |
| 9 | 1300 | 1.56 | 2.40 | 79 | — |
| 10 | 1300 | 1.84 | 2.80 | 79 | 74 |
| 11 | 1300 | 1.95 | 3.00 | 81 | 64 |
| 12 | 1300 | 2.04 | 3.10 | 84 | 55 |

EC axial fans mains-powered

S series, Ø 630, drawings for direction of air flow "V"



Without attachments

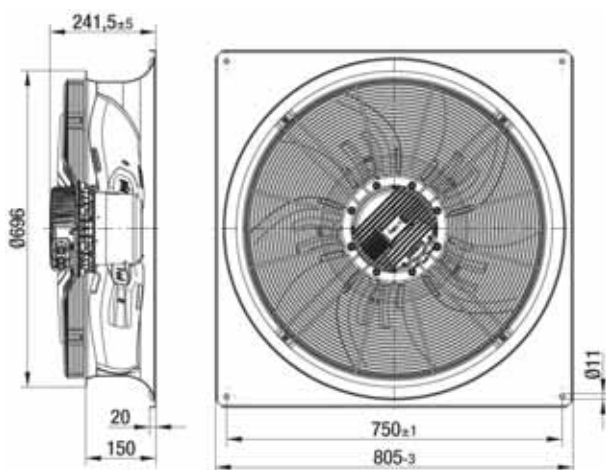


< "V"

| Type | Mass [kg] |
|------------------|-----------|
| A3G 630-AG08 -03 | 23.0 |
| A3G 630-AG12 -13 | 23.0 |
| A3G 630-AH02 -03 | 26.0 |
| A3G 630-AH07 -13 | 26.0 |



With full square nozzle

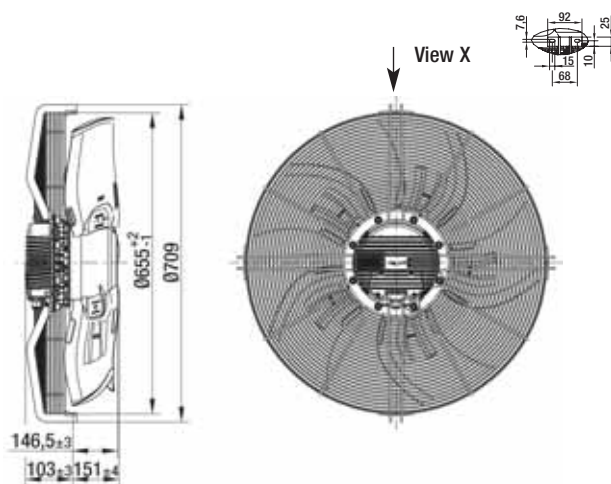


< "V"

| Type | Mass [kg] |
|------------------|-----------|
| W3G 630-CG08 -03 | 38.0 |
| W3G 630-CG12 -13 | 38.0 |
| W3G 630-CH02 -03 | 41.0 |
| W3G 630-CH07 -13 | 41.0 |



With guard grille for full nozzle

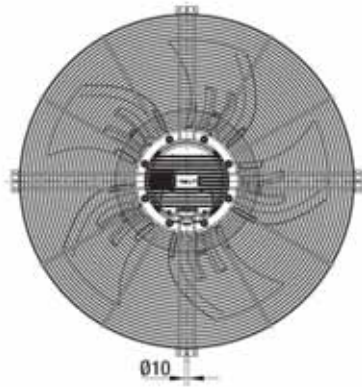
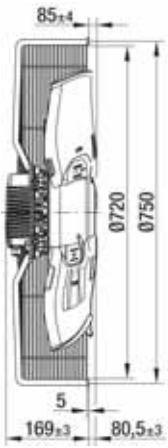


< "V"

| Type | Mass [kg] |
|------------------|-----------|
| S3G 630-BG08 -03 | 27.5 |
| S3G 630-BG12 -13 | 27.5 |
| S3G 630-BH02 -03 | 30.5 |
| S3G 630-BH07 -13 | 30.5 |



With guard grille for short nozzle



< "V"

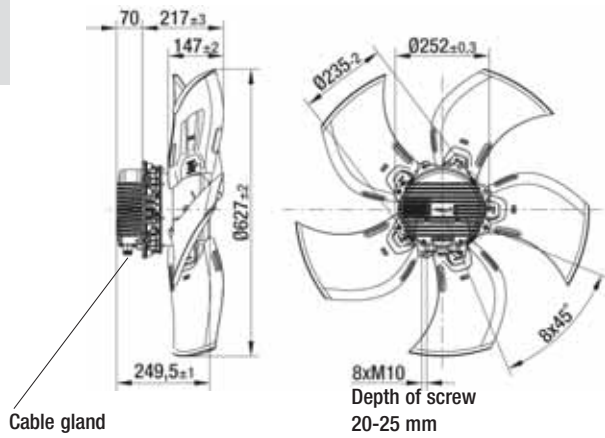
| Type | Mass [kg] |
|------------------|-----------|
| S3G 630-AG08 -03 | 26.5 |
| S3G 630-AG12 -13 | 26.5 |
| S3G 630-AH02 -03 | 29.5 |
| S3G 630-AH07 -13 | 29.5 |

EC axial fans mains-powered

S series, Ø 630, drawings for direction of air flow "A"



Without attachments

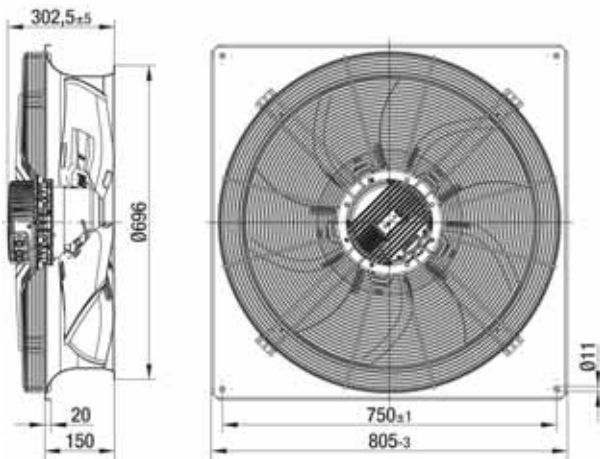


"A" >

| Type | Mass [kg] |
|------------------|-----------|
| A3G 630-AG08 -04 | 23.0 |
| A3G 630-AG12 -14 | 23.0 |
| A3G 630-AH02 -04 | 26.0 |
| A3G 630-AH07 -14 | 26.0 |



With full square nozzle

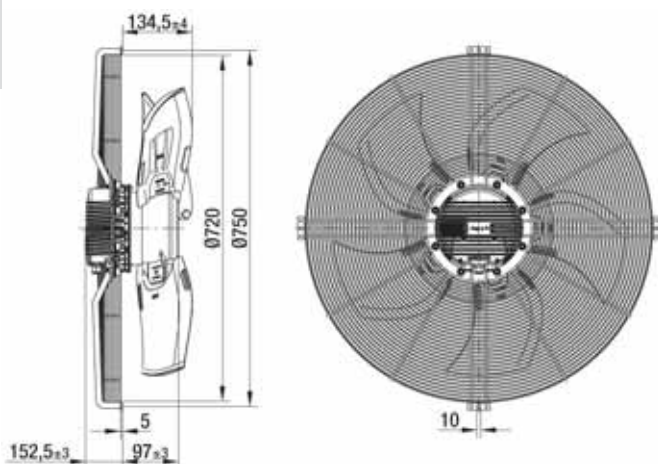


"A" >

| Type | Mass [kg] |
|------------------|-----------|
| W3G 630-CG08 -04 | 39.0 |
| W3G 630-CG12 -14 | 39.0 |
| W3G 630-CH02 -04 | 42.0 |
| W3G 630-CH07 -14 | 42.0 |



With guard grille for full nozzle



"A" >

| Type | Mass [kg] |
|------------------|-----------|
| S3G 630-CG08 -04 | 28.5 |
| S3G 630-CG12 -14 | 28.5 |
| S3G 630-CH02 -04 | 31.5 |
| S3G 630-CH07 -14 | 31.5 |

EC axial fans mains-powered

S series, Ø 650



- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: PA plastic
Rotor: Cast-in with PA plastic
Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 5
- **Direction of rotation:** Counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

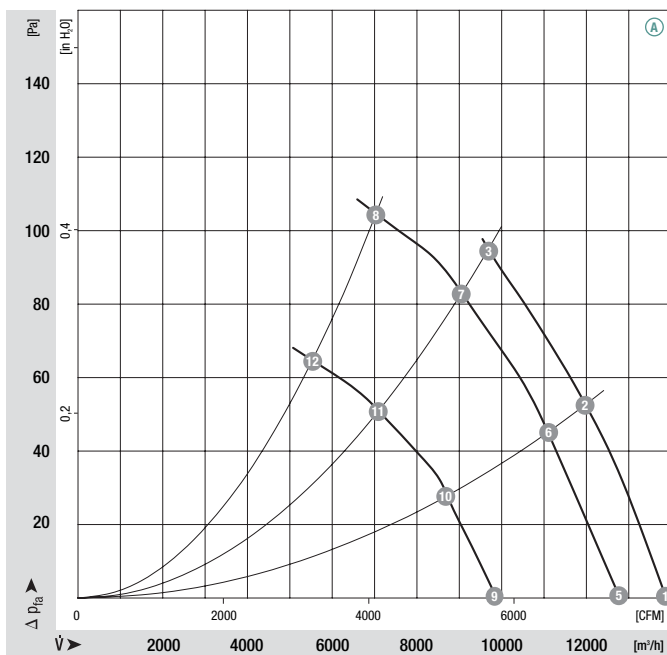
Nominal data

| Type | Motor | Curve | Nominal voltage range VAC | Frequency Hz | Speed/rpm | Max. power input ⁽¹⁾ kW | Max. current draw ⁽¹⁾ A | Max. operative range Pa | Perm. amb. temp. °C | Electr. connection p. 427 |
|---------|------------|-------|------------------------------|-----------------|-----------|---------------------------------------|---------------------------------------|----------------------------|------------------------|------------------------------|
| *3G 650 | M3G 112-GA | Ⓐ | 1~ 200-277 | 50/60 | 890 | 0.66 | 3.00 | 90 | -25 to +60 | L1) |

subject to alterations





(1) Nominal data in operating point with maximum load and 230 VAC

Curves



| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] | η _{HL} [%] |
|------|------------|------------------------|----------|----------------------------|------------------------|
| Ⓐ 1 | 910 | 0.55 | 2.50 | 76 | — |
| Ⓐ 2 | 900 | 0.63 | 2.90 | 77 | 90 |
| Ⓐ 3 | 890 | 0.66 | 3.00 | 79 | 78 |
| Ⓐ 4 | — | — | — | — | — |
| Ⓐ 5 | 830 | 0.41 | 1.90 | 73 | — |
| Ⓐ 6 | 830 | 0.48 | 2.20 | 75 | 91 |
| Ⓐ 7 | 820 | 0.49 | 2.30 | 76 | 84 |
| Ⓐ 8 | 810 | 0.51 | 2.30 | 76 | 65 |
| Ⓐ 9 | 650 | 0.19 | 0.90 | 67 | — |
| Ⓐ 10 | 640 | 0.23 | 1.10 | 68 | 95 |
| Ⓐ 11 | 640 | 0.24 | 1.10 | 69 | 86 |
| Ⓐ 12 | 630 | 0.25 | 1.20 | 70 | 67 |

- **Technical features:**
 - PFC (active)
 - Integrated PID controller
 - Control input 0-10 VDC / PWM
 - Input for sensor 0-10 V or 4-20 mA
 - Slave output 0-10 V max. 3 mA
 - Output 20 VDC ($\pm 20\%$) max. 50 mA
 - Output 10 VDC ($+10\%$) max. 10 mA
 - RS485 ebmBUS
 - Alarm relay
- **EMC:** Interference emission acc. to EN 61000-6-4 (industrial environment)
Interference immunity acc. to EN 61000-6-2 (industrial environment)
Harmonics acc. to DIN EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 61800-5-1
- **Connection leads:** Via terminal strip
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** VDE, UL, CSA, GOST; CCC is applied for
 - Line undervoltage detection
 - Motor current limitation
 - Over-temperature protected electronics / motor
 - Locked rotor protection
 - Soft start

| | | | | |
|-----------------------|---|---|---|---|
| Direction of air flow |  |  |  |  |
| | < "V" | < "V" | < "V" | < "V" |
| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle |
| "V" | A3G 650-AE34 -11 | W3G 650-CE34 -01 | S3G 650-BE34 -11 | S3G 650-AE34 -11 |

EC axial fans mains-powered

S series, Ø 650



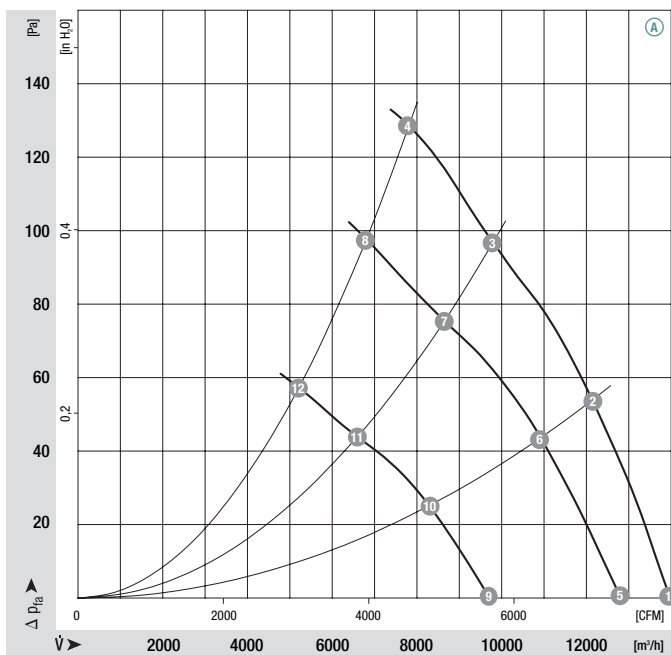
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: PA plastic
Rotor: Cast-in with PA plastic
Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 5
- **Direction of rotation:** Counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Curve | Nominal voltage range | Frequency | Speed/rpm | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Max. operative range | Perm. amb. temp. | Electr. connection |
|--------------|------------|-------|-----------------------|-----------|-----------|---------------------------------|----------------------------------|----------------------|------------------|--------------------|
| Type | Motor | VAC | Hz | rpm | kW | A | Pa | °C | p. 427 | |
| *3G 650 | M3G 112-GA | Ⓐ | 3~ 200-240 | 50/60 | 910 | 0.72 | 2.60 | 125 | -25 to +60 | L2) |
| *3G 650 | M3G 112-GA | Ⓑ | 3~ 380-480 | 50/60 | 910 | 0.72 | 1.30 | 125 | -25 to +60 | L2) |

subject to alterations

(1) Nominal data in operating point with maximum load and 200 or 400 VAC

Curves

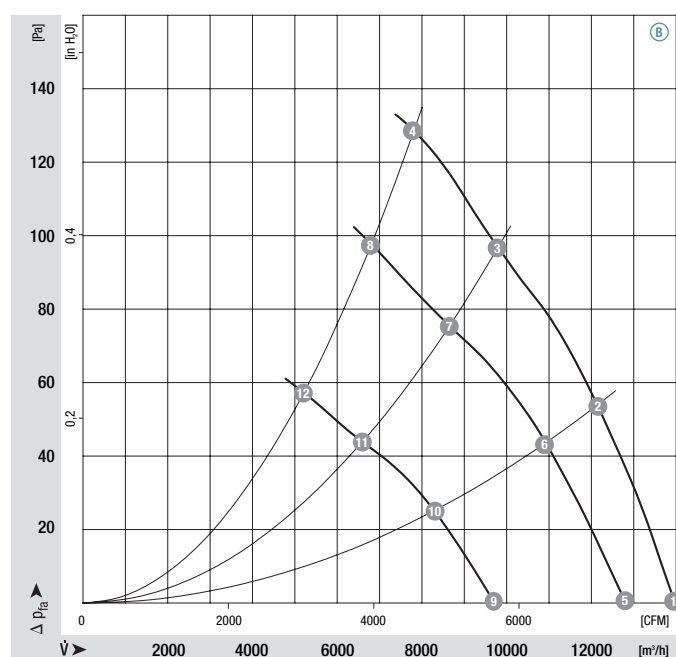


| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] | η _{HL} [%] |
|------|---------|---------------------|-------|-------------------------|---------------------|
| Ⓐ 1 | 910 | 0.53 | 1.80 | 75 | — |
| Ⓐ 2 | 910 | 0.62 | 2.20 | 77 | 87 |
| Ⓐ 3 | 910 | 0.66 | 2.40 | 78 | 74 |
| Ⓐ 4 | 910 | 0.72 | 2.60 | 79 | 60 |
| Ⓐ 5 | 830 | 0.39 | 1.60 | 73 | — |
| Ⓐ 6 | 810 | 0.43 | 1.60 | 74 | 91 |
| Ⓐ 7 | 790 | 0.43 | 1.60 | 74 | 79 |
| Ⓐ 8 | 790 | 0.46 | 1.80 | 75 | 62 |
| Ⓐ 9 | 630 | 0.17 | 0.80 | 66 | — |
| Ⓐ 10 | 620 | 0.19 | 0.80 | 67 | 94 |
| Ⓐ 11 | 600 | 0.19 | 0.80 | 67 | 83 |
| Ⓐ 12 | 610 | 0.21 | 0.80 | 67 | 63 |

- **Technical features:**
 - PFC (passive)
 - Integrated PID controller
 - Control input 0-10 VDC / PWM
 - Input for sensor 0-10 V or 4-20 mA
 - Slave output 0-10 V max. 3 mA
 - Output 20 VDC ($\pm 20\%$) max. 50 mA
 - Output 10 VDC ($+10\%$) max. 10 mA
 - RS485 ebmBUS
 - Alarm relay
- **EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
Harmonics acc. to EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 61800-5-1
- **Connection leads:** Via terminal strip
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** VDE, UL, CSA, GOST; CCC is applied for
- Line undervoltage / phase failure detection
- Motor current limitation
- Over-temperature protected electronics / motor
- Locked rotor protection
- Soft start

| Direction of air flow | Direction of air flow | | | |
|-----------------------|-----------------------|-------------------------|-----------------------------------|------------------------------------|
| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle |
| "V" | A3G 650-AE44 -06 | W3G 650-CE44 -06 | S3G 650-BE44 -06 | S3G 650-AE44 -08 |
| "V" | A3G 650-AE35 -01 | W3G 650-CE35 -01 | S3G 650-BE35 -01 | S3G 650-AE35 -01 |

Curves



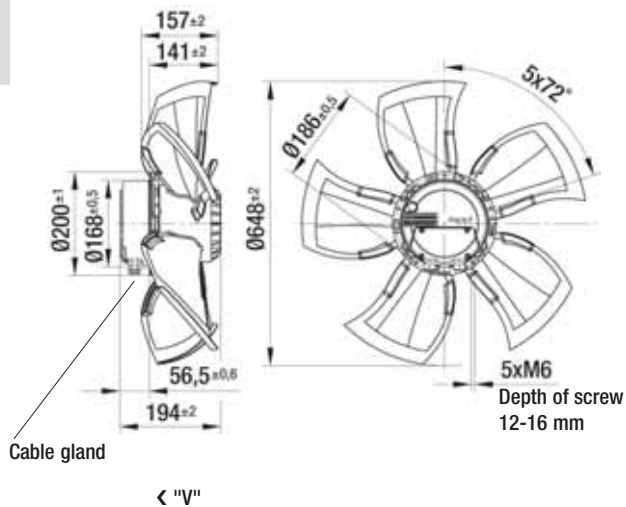
| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] | η _{HL} [%] |
|------|---------|---------------------|-------|-------------------------|---------------------|
| ⓑ 1 | 910 | 0.53 | 0.90 | 75 | — |
| ⓑ 2 | 910 | 0.62 | 1.10 | 77 | 87 |
| ⓑ 3 | 910 | 0.66 | 1.20 | 78 | 74 |
| ⓑ 4 | 910 | 0.72 | 1.30 | 79 | 60 |
| ⓑ 5 | 830 | 0.39 | 0.80 | 73 | — |
| ⓑ 6 | 810 | 0.43 | 0.80 | 74 | 91 |
| ⓑ 7 | 790 | 0.43 | 0.80 | 74 | 79 |
| ⓑ 8 | 790 | 0.46 | 0.90 | 75 | 62 |
| ⓑ 9 | 630 | 0.17 | 0.40 | 66 | — |
| ⓑ 10 | 620 | 0.19 | 0.40 | 67 | 94 |
| ⓑ 11 | 600 | 0.19 | 0.40 | 67 | 83 |
| ⓑ 12 | 610 | 0.21 | 0.40 | 67 | 63 |

EC axial fans mains-powered

S series, Ø 650, drawings for direction of air flow "V"



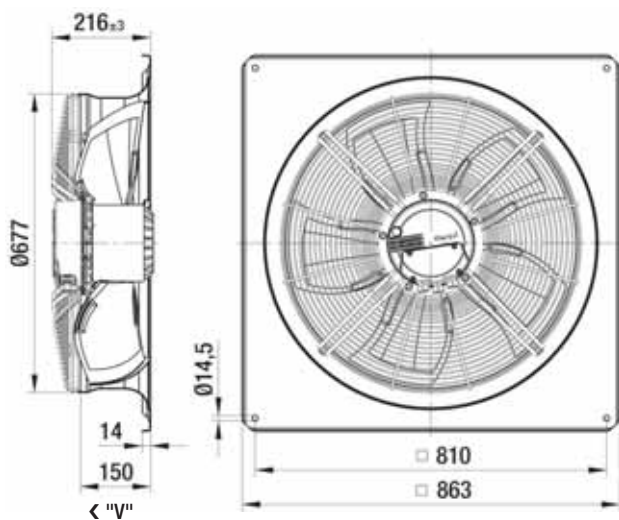
Without attachments



| Type | Mass [kg] |
|------------------|-----------|
| A3G 650-AE34 -11 | 9.2 |
| A3G 650-AE44 -06 | 9.2 |
| A3G 650-AE35 -01 | 9.2 |



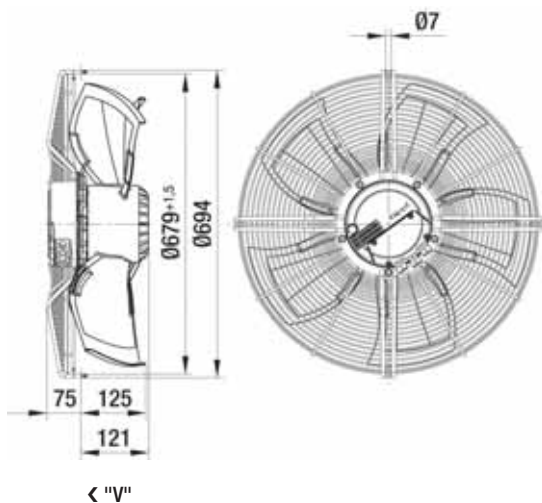
With full square nozzle



| Type | Mass [kg] |
|------------------|-----------|
| W3G 650-CE34 -01 | 21.5 |
| W3G 650-CE44 -06 | 21.5 |
| W3G 650-CE35 -01 | 21.5 |



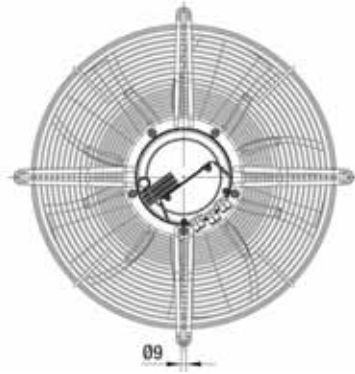
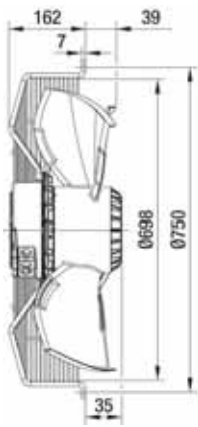
With guard grille for full nozzle



| Type | Mass [kg] |
|------------------|-----------|
| S3G 650-BE34 -11 | 13.1 |
| S3G 650-BE44 -06 | 13.1 |
| S3G 650-BE35 -01 | 13.1 |



With guard grille for short nozzle

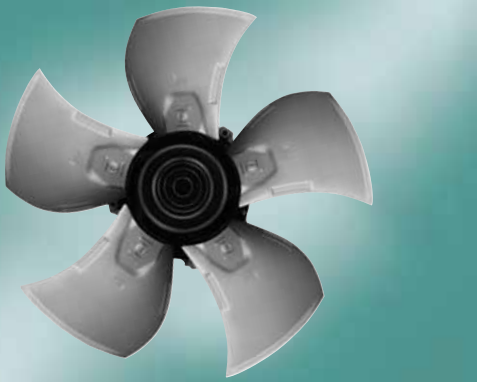


< "V"

| Type | Mass [kg] |
|------------------|-----------|
| S3G 650-AE34 -11 | 14.7 |
| S3G 650-AE44 -08 | 14.7 |
| S3G 650-AE35 -01 | 14.7 |

EC axial fans mains-powered

S series, Ø 650



- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Die-cast aluminium
Rotor: Cast-in with PA plastic
Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 5
- **Direction of rotation:** Dir. of air flow "V" clockwise, "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

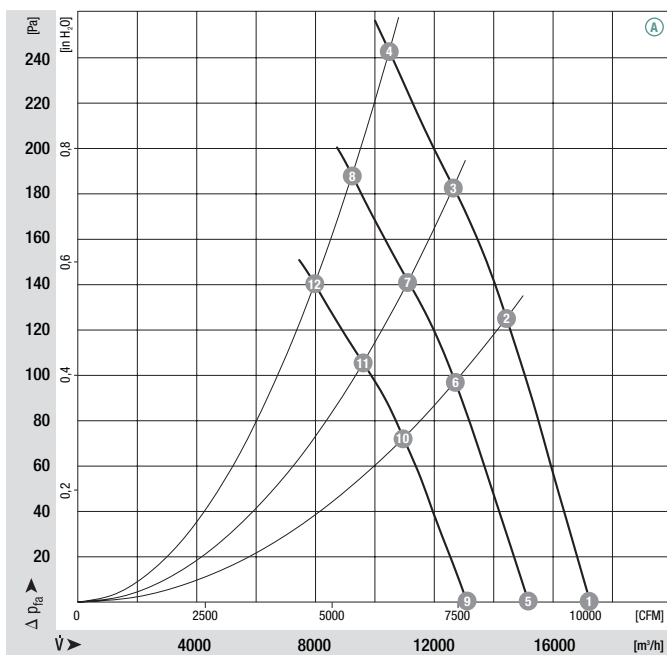
Nominal data

| Type | Motor | Blade angle | Curve | Nominal voltage range | Frequency | Speed/rpm | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Max. operative range | Perm. amb. temp. | Electr. connection |
|---------|------------|-------------|-------|-----------------------|-----------|-----------|---------------------------------|----------------------------------|----------------------|------------------|--------------------|
| Type | Motor | | | VAC | Hz | rpm | kW | A | Pa | °C | p. 428 |
| *3G 650 | M3G 150-FF | -5° | (A) | 3~ 200-240 | 50/60 | 1250 | 1.65 | 5.20 | 240 | -25 to +60 | M) |
| *3G 650 | M3G 150-FF | -5° | (B) | 3~ 380-480 | 50/60 | 1250 | 1.65 | 2.60 | 240 | -25 to +60 | M) |

subject to alterations

(1) Nominal data in operating point with maximum load and 200 or 400 VAC

Curves

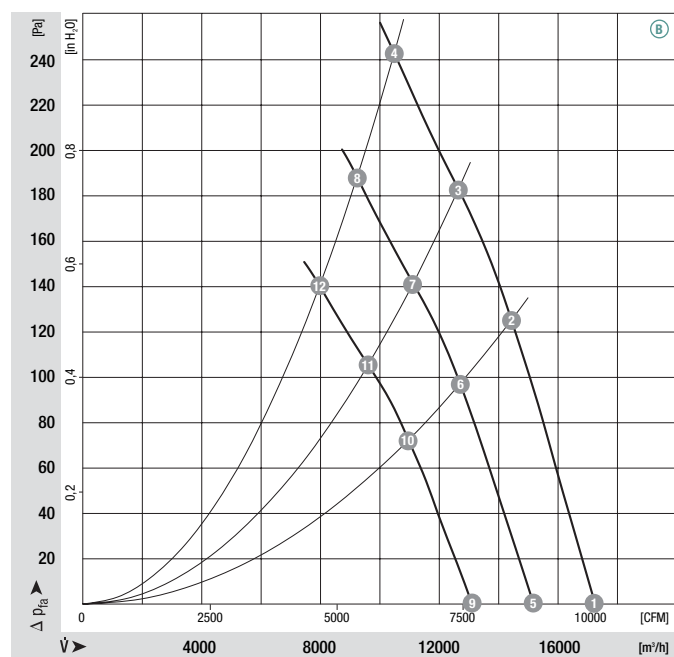


| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] | η _{HL} [%] |
|--------|---------|---------------------|-------|-------------------------|---------------------|
| (A) 1 | 1250 | 1.07 | 3.20 | 78 | — |
| (A) 2 | 1250 | 1.38 | 4.20 | 78 | 82 |
| (A) 3 | 1250 | 1.52 | 4.60 | 80 | 71 |
| (A) 4 | 1250 | 1.65 | 5.20 | 83 | 59 |
| (A) 5 | 1100 | 0.73 | 2.20 | 76 | — |
| (A) 6 | 1100 | 0.94 | 2.80 | 75 | 82 |
| (A) 7 | 1100 | 1.03 | 3.20 | 77 | 71 |
| (A) 8 | 1100 | 1.12 | 3.40 | 80 | 59 |
| (A) 9 | 950 | 0.47 | 1.40 | 72 | — |
| (A) 10 | 950 | 0.60 | 1.80 | 72 | 82 |
| (A) 11 | 950 | 0.67 | 2.00 | 74 | 71 |
| (A) 12 | 950 | 0.72 | 2.20 | 77 | 59 |

- **Technical features:**
 - PFC (passive)
 - Integrated PID controller
 - Control input 0-10 VDC / PWM
 - Input for sensor 0-10 V or 4-20 mA
 - Slave output 0-10 V max. 3 mA
 - Output 20 VDC ($\pm 20\%$) max. 50 mA
 - Output 10 VDC ($+10\%$) max. 10 mA
 - RS485 ebmBUS
 - Alarm relay
- **EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
Harmonics acc. to EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 61800-5-1
- **Connection leads:** Via terminal strip
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** UL, CSA, GOST; also VDE
- Line undervoltage / phase failure detection
- Motor current limitation
- Over-temperature protected electronics / motor
- Locked rotor protection
- Soft start

| Direction of air flow | < "V"/"A" > | | < "V" > | | > "A" > | |
|-----------------------|---------------------|-------------------------|-----------------------------------|------------------------------------|-----------------------------------|---|
| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle | |
| "V" | A3G 650-AJ12 -13 | W3G 650-CJ12 -13 | S3G 650-BJ12 -13 | — | — | — |
| "A" | A3G 650-AJ12 -14 | W3G 650-CJ12 -14 | — | — | S3G 650-CJ12 -14 | — |
| "V" | A3G 650-AJ08 -03 | W3G 650-CJ08 -03 | S3G 650-BJ08 -03 | — | — | — |
| "A" | A3G 650-AJ08 -04 | W3G 650-CJ08 -04 | — | — | S3G 650-CJ08 -04 | — |

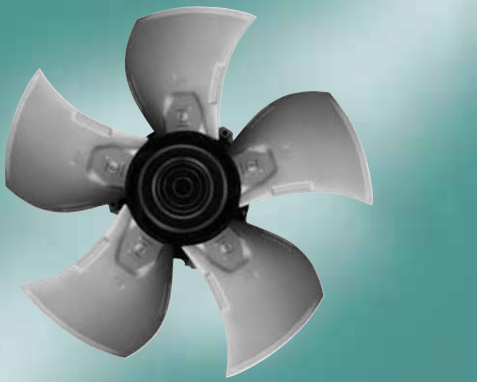
Curves



| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] | η _{HL} [%] |
|----|---------|---------------------|-------|-------------------------|---------------------|
| 1 | 1250 | 1.07 | 1.60 | 78 | — |
| 2 | 1250 | 1.38 | 2.10 | 78 | 82 |
| 3 | 1250 | 1.52 | 2.30 | 80 | 71 |
| 4 | 1250 | 1.65 | 2.60 | 83 | 59 |
| 5 | 1100 | 0.73 | 1.10 | 76 | — |
| 6 | 1100 | 0.94 | 1.40 | 75 | 82 |
| 7 | 1100 | 1.03 | 1.60 | 77 | 71 |
| 8 | 1100 | 1.12 | 1.70 | 80 | 59 |
| 9 | 950 | 0.47 | 0.70 | 72 | — |
| 10 | 950 | 0.60 | 0.90 | 72 | 82 |
| 11 | 950 | 0.67 | 1.00 | 74 | 71 |
| 12 | 950 | 0.72 | 1.10 | 77 | 59 |

EC axial fans mains-powered

S series, Ø 650



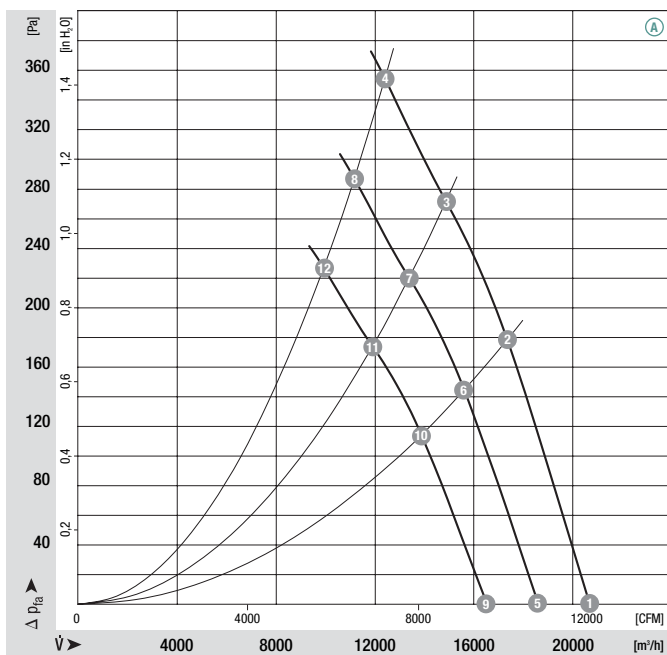
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Die-cast aluminium
Rotor: Cast-in with PA plastic
Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 5
- **Direction of rotation:** Dir. of air flow "V" clockwise, "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Blade angle | Curve | Nominal voltage range | Frequency | Speed/rpm | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Max. operative range | Perm. amb. temp. | Electr. connection |
|--------------|------------|-------------|-------|-----------------------|-----------|-----------|---------------------------------|----------------------------------|----------------------|------------------|--------------------|
| Type | Motor | | | VAC | Hz | rpm | kW | A | Pa | °C | p. 428 |
| *3G 650 | M3G 150-IF | -5° | A | 3~ 200-240 | 50/60 | 1500 | 2.87 | 8.80 | 350 | -25 to +60 | M) |
| *3G 650 | M3G 150-IF | -5° | B | 3~ 380-480 | 50/60 | 1500 | 2.87 | 4.40 | 350 | -25 to +60 | M) |


subject to alterations

(1) Nominal data in operating point with maximum load and 200 or 400 VAC

Curves

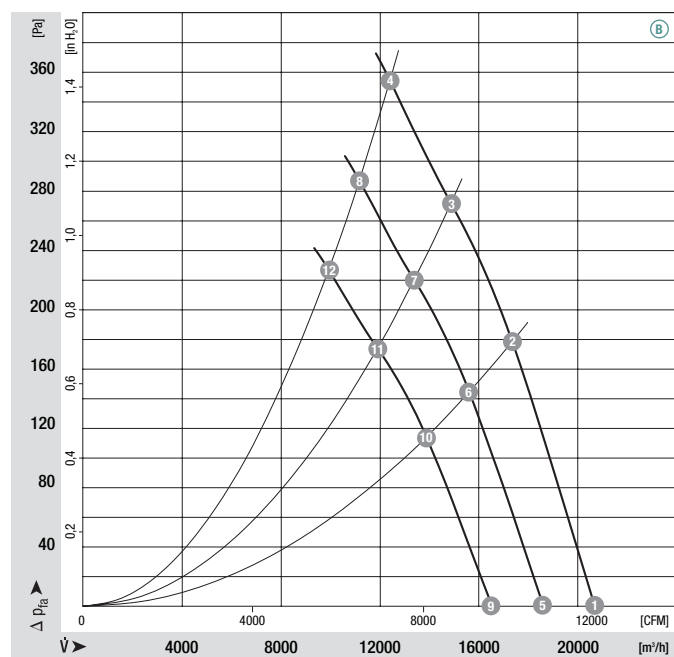














| | n [rpm] | P ₁ [kW] | I [A] | Lw _A [dB(A)] | η _{HL} [%] |
|------|---------|---------------------|-------|-------------------------|---------------------|
| A 1 | 1500 | 1.86 | 5.60 | 82 | — |
| A 2 | 1500 | 2.37 | 7.20 | 82 | 82 |
| A 3 | 1500 | 2.65 | 8.00 | 84 | 70 |
| A 4 | 1500 | 2.87 | 8.80 | 87 | 59 |
| A 5 | 1350 | 1.35 | 4.20 | 80 | — |
| A 6 | 1350 | 1.73 | 5.20 | 80 | 82 |
| A 7 | 1350 | 1.93 | 5.80 | 82 | 70 |
| A 8 | 1350 | 2.09 | 6.40 | 85 | 59 |
| A 9 | 1200 | 0.95 | 3.00 | 78 | — |
| A 10 | 1200 | 1.21 | 3.60 | 77 | 82 |
| A 11 | 1200 | 1.35 | 4.20 | 79 | 70 |
| A 12 | 1200 | 1.47 | 4.40 | 82 | 59 |

- **Technical features:**
 - PFC (passive)
 - Integrated PID controller
 - Control input 0-10 VDC / PWM
 - Input for sensor 0-10 V or 4-20 mA
 - Slave output 0-10 V max. 3 mA
 - Output 20 VDC ($\pm 20\%$) max. 50 mA
 - Output 10 VDC ($+10\%$) max. 10 mA
 - RS485 ebmBUS
 - Alarm relay
- **EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
Harmonics acc. to EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 61800-5-1
- **Connection leads:** Via terminal strip
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** UL, CSA, GOST;  also VDE
- Line undervoltage / phase failure detection
- Motor current limitation
- Over-temperature protected electronics / motor
- Locked rotor protection
- Soft start

| Direction of air flow | < "V"/"A" > | | < "V" > | | "A" > | |
|-----------------------|---------------------|-------------------------|-----------------------------------|------------------------------------|-----------------------------------|--|
| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle | |
| "V" | A3G 650-AK07 -13 | W3G 650-CK07 -13 | S3G 650-BK07 -13 | — | — | |
| "A" | A3G 650-AK07 -14 | W3G 650-CK07 -14 | — | — | S3G 650-CK07 -14 | |
| "V" | A3G 650-AK02 -03 | W3G 650-CK02 -03 | S3G 650-BK02 -03 | — | — | |
| "A" | A3G 650-AK02 -04 | W3G 650-CK02 -04 | — | — | S3G 650-CK02 -04 | |

Curves



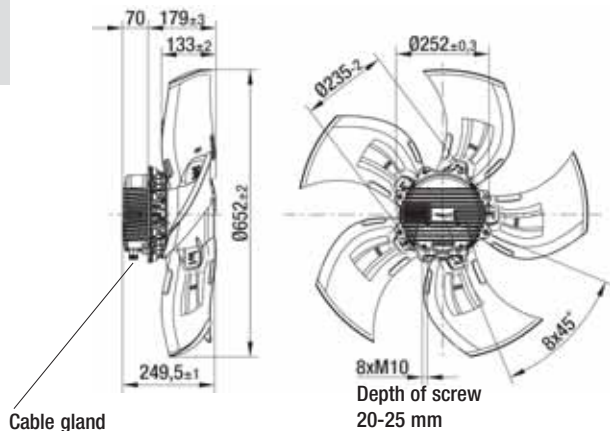
| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] | η_{HL} [%] |
|--|---------|---------------------|-------|-------------------------|-----------------|
|  1 | 1500 | 1.86 | 2.80 | 82 | — |
|  2 | 1500 | 2.37 | 3.60 | 82 | 82 |
|  3 | 1500 | 2.65 | 4.00 | 84 | 70 |
|  4 | 1500 | 2.87 | 4.40 | 87 | 59 |
|  5 | 1350 | 1.35 | 2.10 | 80 | — |
|  6 | 1350 | 1.73 | 2.60 | 80 | 82 |
|  7 | 1350 | 1.93 | 2.90 | 82 | 70 |
|  8 | 1350 | 2.09 | 3.20 | 85 | 59 |
|  9 | 1200 | 0.95 | 1.50 | 78 | — |
|  10 | 1200 | 1.21 | 1.80 | 77 | 82 |
|  11 | 1200 | 1.35 | 2.10 | 79 | 70 |
|  12 | 1200 | 1.47 | 2.20 | 82 | 59 |

EC axial fans mains-powered

S series, Ø 650, drawings for direction of air flow "V"



Without attachments

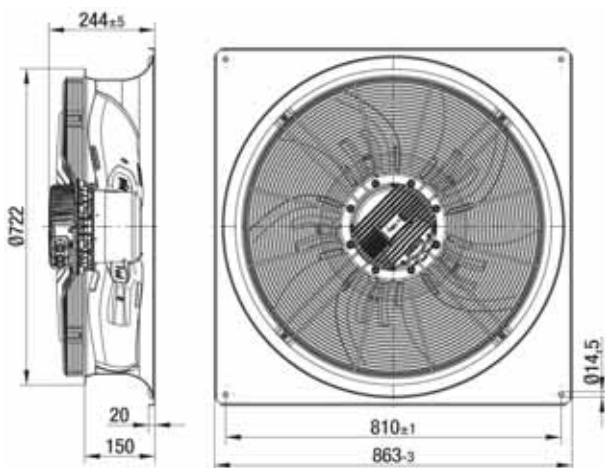


< "V"

| Type | Mass [kg] |
|------------------|-----------|
| A3G 650-AJ12 -13 | 23.5 |
| A3G 650-AJ08 -03 | 23.5 |
| A3G 650-AK07 -13 | 26.5 |
| A3G 650-AK02 -03 | 26.5 |



With full square nozzle

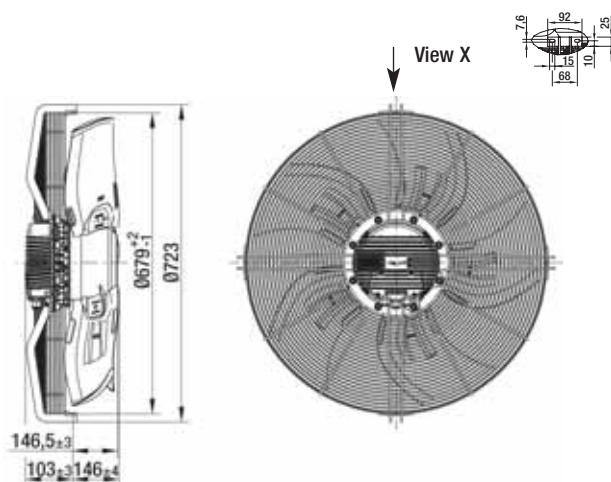


< "V"

| Type | Mass [kg] |
|------------------|-----------|
| W3G 650-CJ12 -13 | 40.0 |
| W3G 650-CJ08 -03 | 40.0 |
| W3G 650-CK07 -13 | 43.0 |
| W3G 650-CK02 -03 | 43.0 |



With guard grille for full nozzle



< "V"

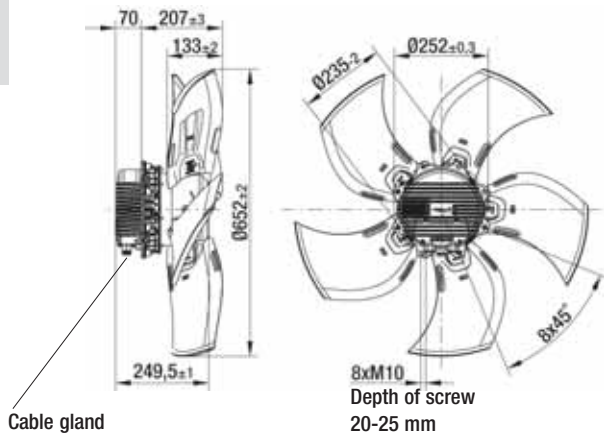
| Type | Mass [kg] |
|------------------|-----------|
| S3G 650-BJ12 -13 | 28.5 |
| S3G 650-BJ08 -03 | 28.5 |
| S3G 650-BK07 -13 | 31.5 |
| S3G 650-BK02 -03 | 31.5 |

EC axial fans mains-powered

S series, Ø 650, drawings for direction of air flow "A"



Without attachments

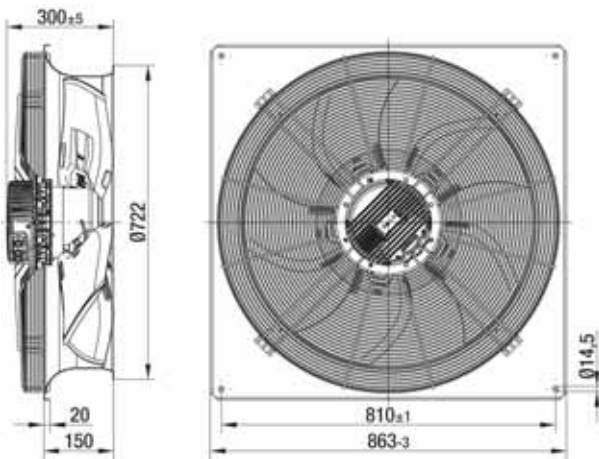


"A" >

| Type | Mass [kg] |
|------------------|-----------|
| A3G 650-AJ12 -14 | 23.5 |
| A3G 650-AJ08 -04 | 23.5 |
| A3G 650-AK07 -14 | 26.5 |
| A3G 650-AK02 -04 | 26.5 |



With full square nozzle

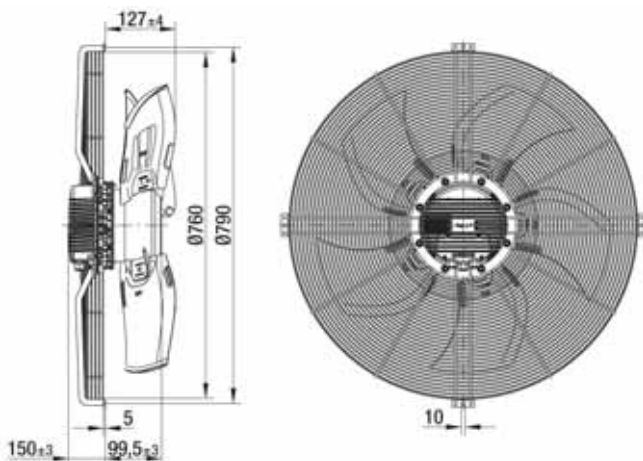


"A" >

| Type | Mass [kg] |
|------------------|-----------|
| W3G 650-CJ12 -14 | 41.0 |
| W3G 650-CJ08 -04 | 41.0 |
| W3G 650-CK07 -14 | 44.0 |
| W3G 650-CK02 -04 | 44.0 |



With guard grille for full nozzle

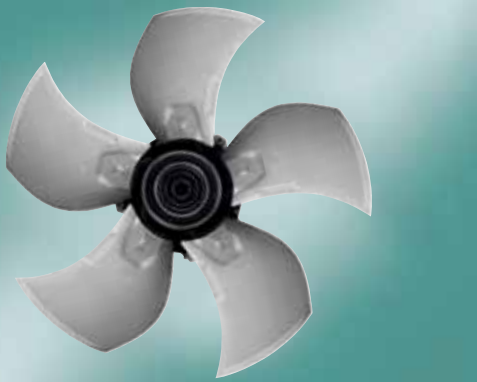


"A" >

| Type | Mass [kg] |
|------------------|-----------|
| S3G 650-CJ12 -14 | 29.5 |
| S3G 650-CJ08 -04 | 29.5 |
| S3G 650-CK07 -14 | 32.5 |
| S3G 650-CK02 -04 | 32.5 |

EC axial fans mains-powered

S series, Ø 710



- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Die-cast aluminium
Rotor: Cast-in with PA plastic
Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 5
- **Direction of rotation:** Dir. of air flow "V" clockwise, "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

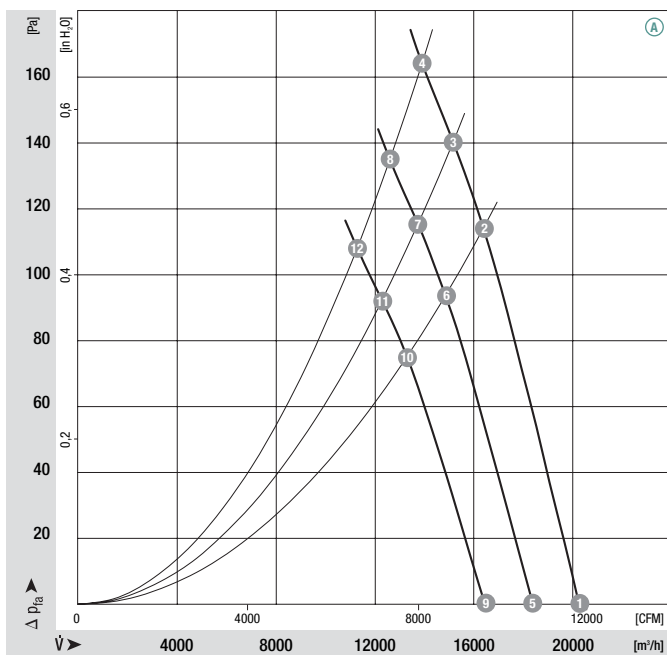
Nominal data

| Type | Motor | Blade angle | Curve | Nominal voltage range VAC | Frequency Hz | Speed/rpm | Max. power input ⁽¹⁾ kW | Max. current draw ⁽¹⁾ A | Max. operative range Pa | Perm. amb. temp. °C | Electr. connection p. 428 |
|---------|------------|-------------|-------|------------------------------|-----------------|-----------|---------------------------------------|---------------------------------------|----------------------------|------------------------|------------------------------|
| *3G 710 | M3G 150-FF | 0° | A | 3~ 200-240 | 50/60 | 1050 | 1.68 | 5.20 | 160 | -25 to +60 | M) |
| *3G 710 | M3G 150-FF | 0° | B | 3~ 380-480 | 50/60 | 1050 | 1.68 | 2.60 | 160 | -25 to +60 | M) |

subject to alterations

(1) Nominal data in operating point with maximum load and 200 or 400 VAC

Curves

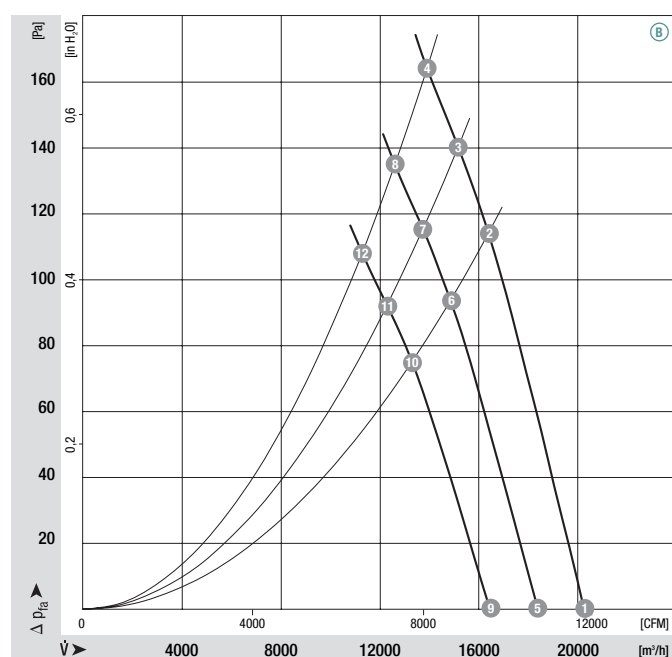


| | n [rpm] | P ₁ [kW] | I [A] | Lw _A [dB(A)] | η _{HL} [%] |
|------|------------|------------------------|----------|----------------------------|------------------------|
| A 1 | 1050 | 1.26 | 3.80 | 76 | — |
| A 2 | 1050 | 1.57 | 4.80 | 76 | 73 |
| A 3 | 1050 | 1.63 | 5.00 | 77 | 68 |
| A 4 | 1050 | 1.68 | 5.20 | 79 | 63 |
| A 5 | 950 | 0.94 | 2.80 | 74 | — |
| A 6 | 950 | 1.17 | 3.60 | 74 | 73 |
| A 7 | 950 | 1.22 | 3.80 | 75 | 68 |
| A 8 | 950 | 1.25 | 3.80 | 77 | 63 |
| A 9 | 850 | 0.67 | 2.00 | 72 | — |
| A 10 | 850 | 0.84 | 2.60 | 72 | 73 |
| A 11 | 850 | 0.87 | 2.60 | 73 | 68 |
| A 12 | 850 | 0.90 | 2.80 | 74 | 63 |

- **Technical features:**
 - PFC (passive)
 - Integrated PID controller
 - Control input 0-10 VDC / PWM
 - Input for sensor 0-10 V or 4-20 mA
 - Slave output 0-10 V max. 3 mA
 - Output 20 VDC ($\pm 20\%$) max. 50 mA
 - Output 10 VDC ($+10\%$) max. 10 mA
 - RS485 ebmBUS
 - Alarm relay
 - Line undervoltage / phase failure detection
 - Motor current limitation
 - Over-temperature protected electronics / motor
 - Locked rotor protection
 - Soft start
- **EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
Harmonics acc. to EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 61800-5-1
- **Connection leads:** Via terminal strip
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** UL, CSA, GOST; also VDE

| Direction of air flow | < "V"/"A" > | | < "V" > | | > "A" > | |
|-----------------------|---------------------|-------------------------|-----------------------------------|------------------------------------|-----------------------------------|--|
| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle | |
| "V" | A3G 710-AG09 -13 | W3G 710-CG09 -13 | S3G 710-BG09 -13 | S3G 710-AG09 -13 | — | |
| "A" | A3G 710-AG09 -14 | W3G 710-CG09 -14 | — | — | S3G 710-CG09 -14 | |
| "V" | A3G 710-AG01 -03 | W3G 710-CG01 -03 | S3G 710-BG01 -03 | S3G 710-AG01 -03 | — | |
| "A" | A3G 710-AG01 -04 | W3G 710-CG01 -04 | — | — | S3G 710-CG01 -04 | |

Curves



| | n [rpm] | P ₁ [kW] | I [A] | Lw _A [dB(A)] | η_{HL} [%] |
|----|---------|---------------------|-------|-------------------------|-----------------|
| 1 | 1050 | 1.26 | 1.90 | 76 | — |
| 2 | 1050 | 1.57 | 2.40 | 76 | 73 |
| 3 | 1050 | 1.63 | 2.50 | 77 | 68 |
| 4 | 1050 | 1.68 | 2.60 | 79 | 63 |
| 5 | 950 | 0.94 | 1.40 | 74 | — |
| 6 | 950 | 1.17 | 1.80 | 74 | 73 |
| 7 | 950 | 1.22 | 1.90 | 75 | 68 |
| 8 | 950 | 1.25 | 1.90 | 77 | 63 |
| 9 | 850 | 0.67 | 1.00 | 72 | — |
| 10 | 850 | 0.84 | 1.30 | 72 | 73 |
| 11 | 850 | 0.87 | 1.30 | 73 | 68 |
| 12 | 850 | 0.90 | 1.40 | 74 | 63 |

EC axial fans mains-powered

S series, Ø 710



- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Die-cast aluminium
Rotor: Cast-in with PA plastic
Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 5
- **Direction of rotation:** Dir. of air flow "V" clockwise, "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

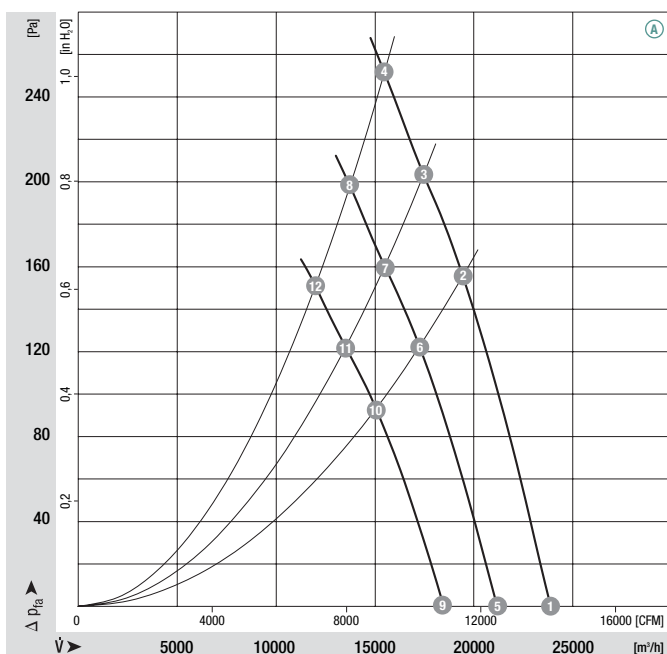
Nominal data

| Type | Motor | Blade angle | Curve | Nominal voltage range VAC | Frequency Hz | Speed/rpm | Max. power input ⁽¹⁾ kW | Max. current draw ⁽¹⁾ A | Max. operative range Pa | Perm. amb. temp. °C | Electr. connection p. 428 |
|---------|------------|-------------|-------|------------------------------|-----------------|-----------|---------------------------------------|---------------------------------------|----------------------------|------------------------|------------------------------|
| *3G 710 | M3G 150-IF | 0° | A | 3~ 200-240 | 50/60 | 1240 | 2.75 | 8.50 | 255 | -25 to +60 | M) |
| *3G 710 | M3G 150-IF | 0° | B | 3~ 380-480 | 50/60 | 1240 | 2.75 | 4.20 | 255 | -25 to +60 | M) |

subject to alterations


(1) Nominal data in operating point with maximum load and 200 or 400 VAC

Curves



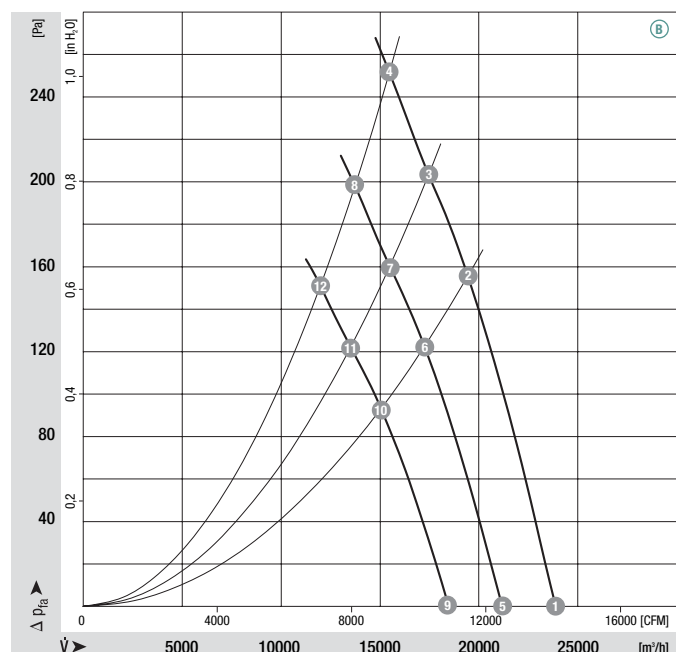
| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] | η _{HL} [%] |
|------|------------|------------------------|----------|----------------------------|------------------------|
| A 1 | 1240 | 1.99 | 6.00 | 80 | — |
| A 2 | 1240 | 2.47 | 7.50 | 80 | 74 |
| A 3 | 1240 | 2.59 | 7.80 | 81 | 67 |
| A 4 | 1240 | 2.70 | 8.40 | 84 | 61 |
| A 5 | 1100 | 1.39 | 4.20 | 77 | — |
| A 6 | 1100 | 1.72 | 5.20 | 77 | 74 |
| A 7 | 1100 | 1.81 | 5.40 | 79 | 67 |
| A 8 | 1100 | 1.89 | 5.60 | 82 | 61 |
| A 9 | 960 | 0.92 | 2.80 | 74 | — |
| A 10 | 960 | 1.15 | 3.40 | 74 | 74 |
| A 11 | 960 | 1.20 | 3.60 | 76 | 67 |
| A 12 | 960 | 1.25 | 3.80 | 79 | 61 |













Technical features:

- PFC (passive)
 - Integrated PID controller
 - Control input 0-10 VDC / PWM
 - Input for sensor 0-10 V or 4-20 mA
 - Slave output 0-10 V max. 3 mA
 - Output 20 VDC ($\pm 20\%$) max. 50 mA
 - Output 10 VDC ($+10\%$) max. 10 mA
 - RS485 ebmBUS
 - Alarm relay
 - Line undervoltage / phase failure detection
 - Motor current limitation
 - Over-temperature protected electronics / motor
 - Locked rotor protection
 - Soft start
- EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
Harmonics acc. to EN 61000-3-2/3
- Leakage current:** < 3.5 mA acc. to EN 61800-5-1
- Connection leads:** Via terminal strip
- Protection class:** I (acc. to EN 61800-5-1)
- Product conforming to standard:** CE
- Approvals:** UL, CSA, GOST;  also VDE

| Direction of air flow | < "V"/"A" > | | < "V" > | | > "A" > | |
|-----------------------|---------------------|-------------------------|-----------------------------------|------------------------------------|-----------------------------------|--|
| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle | |
| "V" | A3G 710-AH10 -13 | W3G 710-CH10 -13 | S3G 710-BH10 -13 | S3G 710-AH10 -13 | — | |
| "A" | A3G 710-AH10 -14 | W3G 710-CH10 -14 | — | — | S3G 710-CH10 -14 | |
| "V" | A3G 710-AH06 -03 | W3G 710-CH06 -03 | S3G 710-BH06 -03 | S3G 710-AH06 -03 | — | |
| "A" | A3G 710-AH06 -04 | W3G 710-CH06 -04 | — | — | S3G 710-CH06 -04 | |

Curves



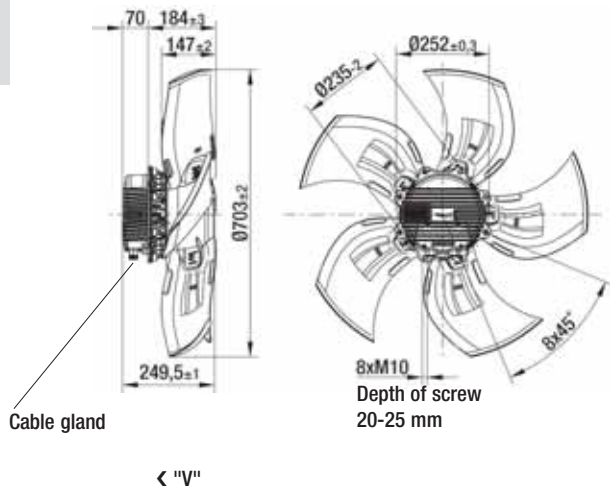
| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] | η_{HL} [%] |
|--|---------|---------------------|-------|-------------------------|-----------------|
|  1 | 1240 | 1.99 | 3.00 | 80 | — |
|  2 | 1240 | 2.47 | 3.70 | 80 | 74 |
|  3 | 1240 | 2.59 | 3.90 | 81 | 67 |
|  4 | 1240 | 2.70 | 4.20 | 84 | 61 |
|  5 | 1100 | 1.39 | 2.10 | 77 | — |
|  6 | 1100 | 1.72 | 2.60 | 77 | 74 |
|  7 | 1100 | 1.81 | 2.70 | 79 | 67 |
|  8 | 1100 | 1.89 | 2.80 | 82 | 61 |
|  9 | 960 | 0.92 | 1.40 | 74 | — |
|  10 | 960 | 1.15 | 1.70 | 74 | 74 |
|  11 | 960 | 1.20 | 1.80 | 76 | 67 |
|  12 | 960 | 1.25 | 1.90 | 79 | 61 |

EC axial fans mains-powered

S series, Ø 710, drawings for direction of air flow "V"



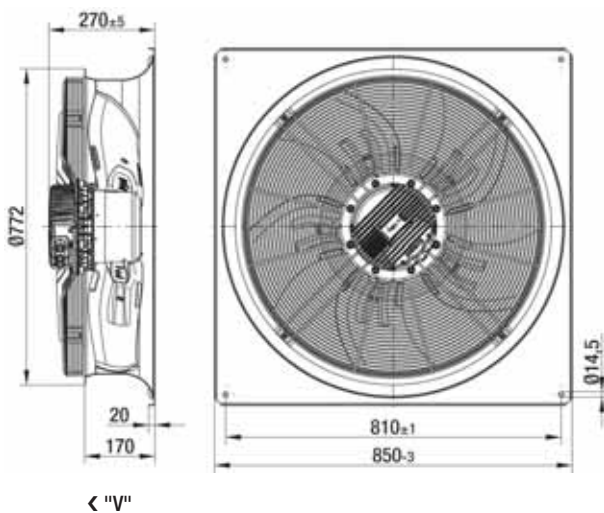
Without attachments



| Type | Mass [kg] |
|------------------|-----------|
| A3G 710-AG09 -13 | 24.0 |
| A3G 710-AG01 -03 | 24.0 |
| A3G 710-AH10 -13 | 27.0 |
| A3G 710-AH06 -03 | 27.0 |



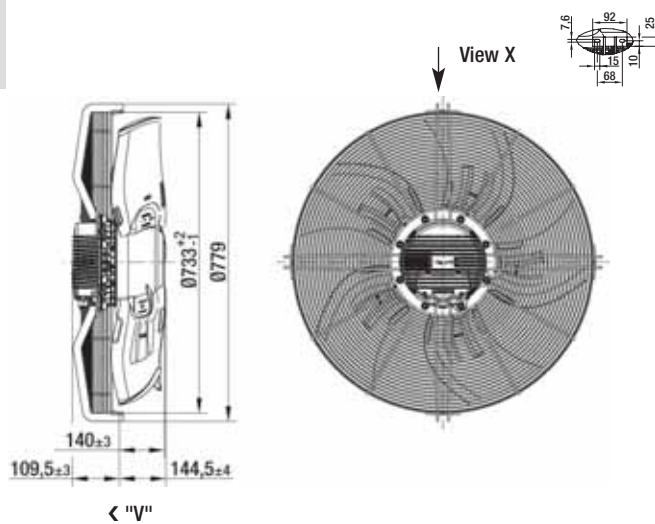
With full square nozzle



| Type | Mass [kg] |
|------------------|-----------|
| W3G 710-CG09 -13 | 43.5 |
| W3G 710-CG01 -03 | 43.5 |
| W3G 710-CH10 -13 | 46.5 |
| W3G 710-CH06 -03 | 46.5 |



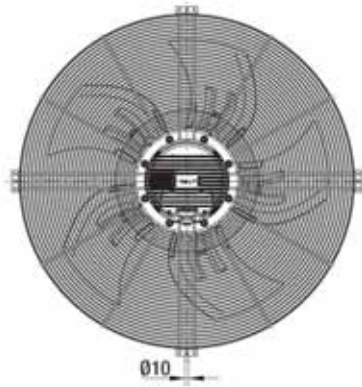
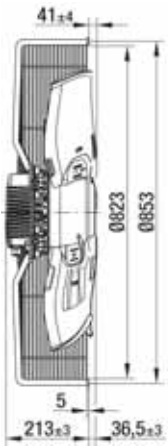
With guard grille for full nozzle



| Type | Mass [kg] |
|------------------|-----------|
| S3G 710-BG09 -13 | 29.5 |
| S3G 710-BG01 -03 | 29.5 |
| S3G 710-BH10 -13 | 32.5 |
| S3G 710-BH06 -03 | 32.5 |



With guard grille for short nozzle



< "V"

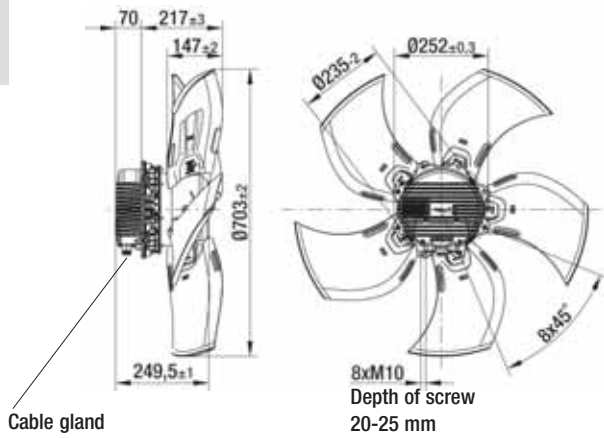
| Type | Mass [kg] |
|------------------|-----------|
| S3G 710-AG09 -13 | 28.0 |
| S3G 710-AG01 -03 | 28.0 |
| S3G 710-AH10 -13 | 31.0 |
| S3G 710-AH06 -03 | 31.0 |

EC axial fans mains-powered

S series, Ø 710, drawings for direction of air flow "A"



Without attachments

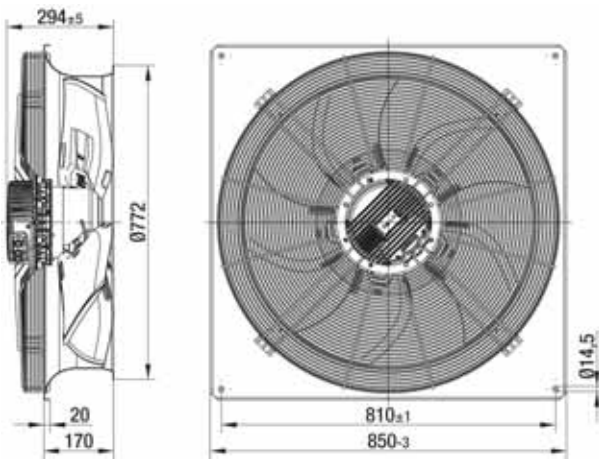


"A" >

| Type | Mass [kg] |
|------------------|-----------|
| A3G 710-AG09 -14 | 24.0 |
| A3G 710-AG01 -04 | 24.0 |
| A3G 710-AH10 -14 | 27.0 |
| A3G 710-AH06 -04 | 27.0 |



With full square nozzle

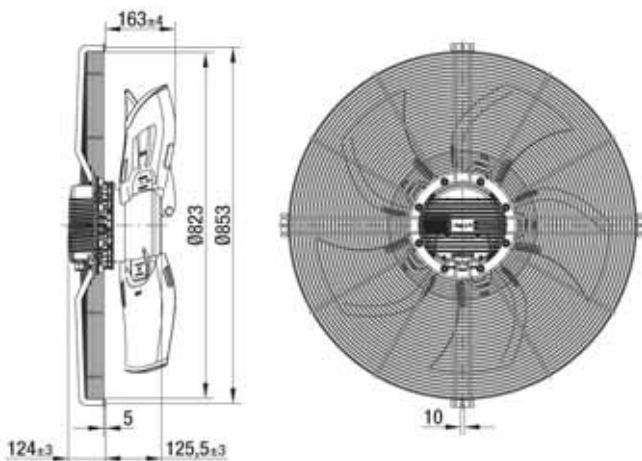


"A" >

| Type | Mass [kg] |
|------------------|-----------|
| W3G 710-CG09 -14 | 44.5 |
| W3G 710-CG01 -04 | 44.5 |
| W3G 710-CH10 -14 | 47.5 |
| W3G 710-CH06 -04 | 47.5 |



With guard grille for full nozzle

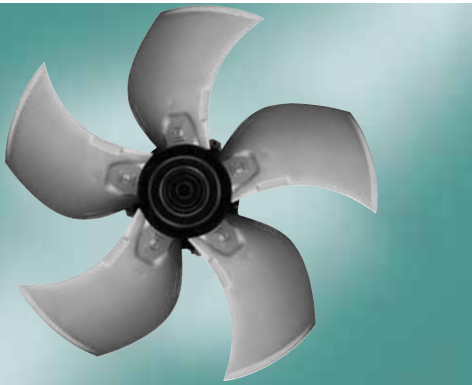


"A" >

| Type | Mass [kg] |
|------------------|-----------|
| S3G 710-CG09 -14 | 30.5 |
| S3G 710-CG01 -04 | 30.5 |
| S3G 710-CH10 -14 | 33.5 |
| S3G 710-CH06 -04 | 33.5 |

EC axial fans mains-powered

S series, Ø 800



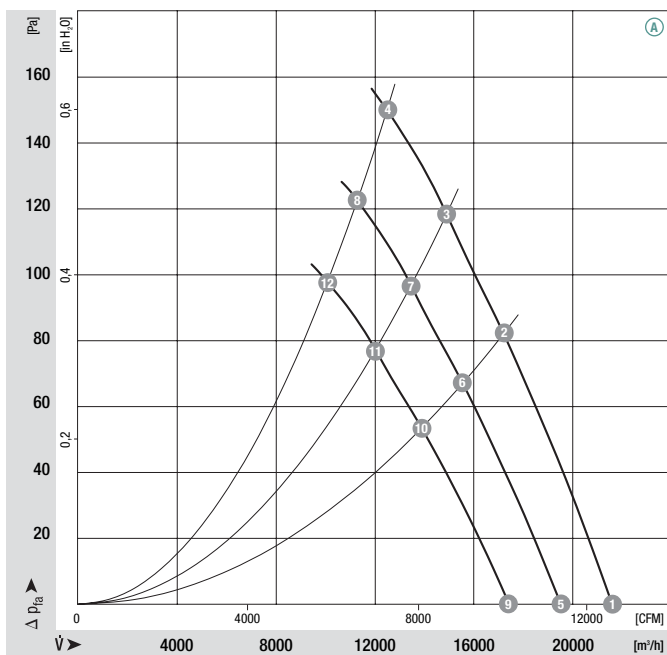
- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Die-cast aluminium
Rotor: Cast-in with PA plastic
Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 5
- **Direction of rotation:** Dir. of air flow "V" clockwise, "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | | Blade angle | Curve | Nominal voltage range | Frequency | Speed/rpm | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Max. operative range | Perm. amb. temp. | Electr. connection |
|--------------|------------|-------------|-------|-----------------------|-----------|-----------|---------------------------------|----------------------------------|----------------------|------------------|--------------------|
| Type | Motor | | | VAC | Hz | rpm | kW | A | Pa | °C | p. 428 |
| *3G 800 | M3G 150-FF | 0° | A | 3~ 200-240 | 50/60 | 830 | 1.35 | 4.40 | 155 | -25 to +60 | M) |
| *3G 800 | M3G 150-FF | 0° | B | 3~ 380-480 | 50/60 | 830 | 1.35 | 2.20 | 155 | -25 to +60 | M) |

subject to alterations

(1) Nominal data in operating point with maximum load and 200 or 400 VAC

Curves

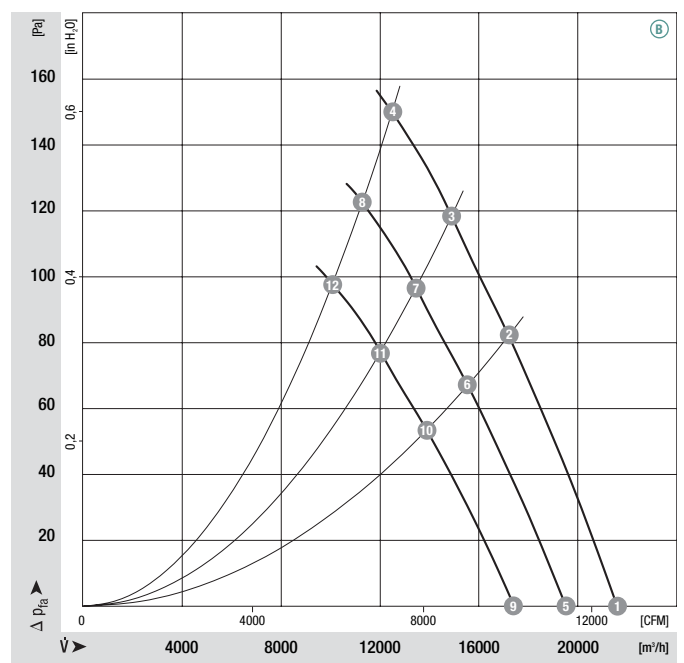


| | n [rpm] | P ₁ [kW] | I [A] | Lw _A [dB(A)] | η _{HL} [%] |
|------|---------|---------------------|-------|-------------------------|---------------------|
| A 1 | 830 | 0.88 | 2.80 | 72 | — |
| A 2 | 830 | 1.13 | 3.40 | 70 | 75 |
| A 3 | 830 | 1.24 | 3.80 | 72 | 67 |
| A 4 | 830 | 1.35 | 4.40 | 77 | 57 |
| A 5 | 750 | 0.65 | 2.00 | 69 | — |
| A 6 | 750 | 0.83 | 2.60 | 68 | 75 |
| A 7 | 750 | 0.91 | 2.80 | 70 | 67 |
| A 8 | 750 | 0.99 | 3.00 | 75 | 57 |
| A 9 | 670 | 0.46 | 1.40 | 67 | — |
| A 10 | 670 | 0.60 | 1.80 | 66 | 75 |
| A 11 | 670 | 0.65 | 2.00 | 68 | 67 |
| A 12 | 670 | 0.71 | 2.20 | 72 | 57 |

- **Technical features:**
 - PFC (passive)
 - Integrated PID controller
 - Control input 0-10 VDC / PWM
 - Input for sensor 0-10 V or 4-20 mA
 - Slave output 0-10 V max. 3 mA
 - Output 20 VDC ($\pm 20\%$) max. 50 mA
 - Output 10 VDC ($+10\%$) max. 10 mA
 - RS485 ebmBUS
 - Alarm relay
 - Line undervoltage / phase failure detection
 - Motor current limitation
 - Over-temperature protected electronics / motor
 - Locked rotor protection
 - Soft start
- **EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
Harmonics acc. to EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 61800-5-1
- **Connection leads:** Via terminal strip
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** UL, CSA, GOST; also VDE

| Direction of air flow | < "V"/"A" > | | < "V" > | | > "A" < | |
|-----------------------|---------------------|-------------------------|-----------------------------------|------------------------------------|-----------------------------------|--|
| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle | |
| "V" | A3G 800-AG10 -13 | W3G 800-CG10 -13 | S3G 800-BG10 -13 | S3G 800-AG10 -13 | — | |
| "A" | A3G 800-AG10 -14 | W3G 800-CG10 -14 | — | — | S3G 800-CG10 -14 | |
| "V" | A3G 800-AG02 -03 | W3G 800-CG02 -03 | S3G 800-BG02 -03 | S3G 800-AG02 -03 | — | |
| "A" | A3G 800-AG02 -04 | W3G 800-CG02 -04 | — | — | S3G 800-CG02 -04 | |

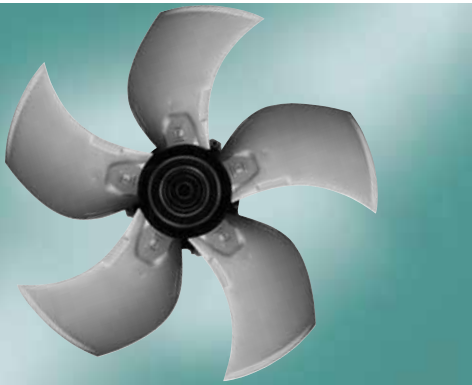
Curves



| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] | η _{HL} [%] |
|----|---------|---------------------|-------|-------------------------|---------------------|
| 1 | 830 | 0.88 | 1.40 | 72 | — |
| 2 | 830 | 1.13 | 1.70 | 70 | 75 |
| 3 | 830 | 1.24 | 1.90 | 72 | 67 |
| 4 | 830 | 1.35 | 2.20 | 77 | 57 |
| 5 | 750 | 0.65 | 1.00 | 69 | — |
| 6 | 750 | 0.83 | 1.30 | 68 | 75 |
| 7 | 750 | 0.91 | 1.40 | 70 | 67 |
| 8 | 750 | 0.99 | 1.50 | 75 | 57 |
| 9 | 670 | 0.46 | 0.70 | 67 | — |
| 10 | 670 | 0.60 | 0.90 | 66 | 75 |
| 11 | 670 | 0.65 | 1.00 | 68 | 67 |
| 12 | 670 | 0.71 | 1.10 | 72 | 57 |

EC axial fans mains-powered

S series, Ø 800



- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Die-cast aluminium
Rotor: Cast-in with PA plastic
Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 5
- **Direction of rotation:** Dir. of air flow "V" clockwise, "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

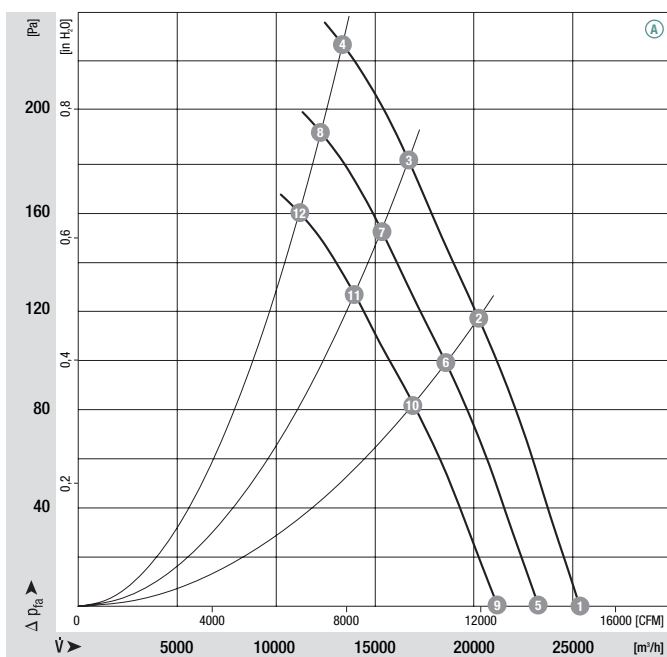
Nominal data

| Type | Motor | Blade angle | Curve | Nominal voltage range | Frequency | Speed/rpm | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Max. operative range | Perm. amb. temp. | Electr. connection |
|---------|------------|-------------|-------|-----------------------|-----------|-----------|---------------------------------|----------------------------------|----------------------|------------------|--------------------|
| | | | | VAC | Hz | rpm | kW | A | Pa | °C | p. 428 |
| *3G 800 | M3G 150-IF | 0° | A | 3~ 200-240 | 50/60 | 980 | 2.20 | 6.80 | 230 | -25 to +60 | M) |
| *3G 800 | M3G 150-IF | 0° | B | 3~ 380-480 | 50/60 | 980 | 2.20 | 3.40 | 230 | -25 to +60 | M) |


subject to alterations

(1) Nominal data in operating point with maximum load and 200 or 400 VAC

Curves

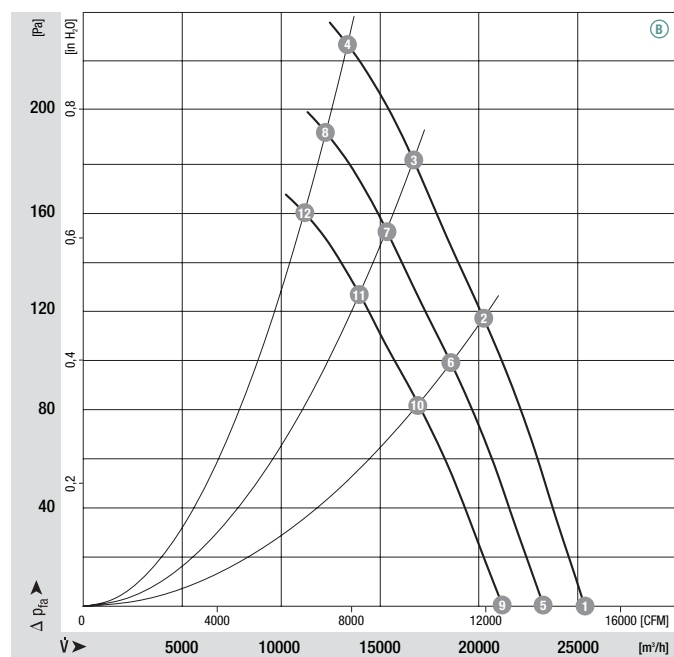














| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] | η _{HL} [%] |
|------|---------|---------------------|-------|-------------------------|---------------------|
| A 1 | 980 | 1.37 | 4.20 | 74 | — |
| A 2 | 980 | 1.76 | 5.40 | 73 | 78 |
| A 3 | 980 | 1.93 | 5.80 | 76 | 67 |
| A 4 | 980 | 2.20 | 6.80 | 82 | 52 |
| A 5 | 900 | 1.06 | 3.20 | 73 | — |
| A 6 | 900 | 1.36 | 4.20 | 72 | 78 |
| A 7 | 900 | 1.50 | 4.30 | 73 | 67 |
| A 8 | 900 | 1.71 | 5.20 | 80 | 52 |
| A 9 | 820 | 0.80 | 2.40 | 71 | — |
| A 10 | 820 | 1.03 | 3.20 | 70 | 78 |
| A 11 | 820 | 1.13 | 3.40 | 73 | 67 |
| A 12 | 820 | 1.30 | 4.00 | 78 | 52 |

- **Technical features:**
 - PFC (passive)
 - Integrated PID controller
 - Control input 0-10 VDC / PWM
 - Input for sensor 0-10 V or 4-20 mA
 - Slave output 0-10 V max. 3 mA
 - Output 20 VDC ($\pm 20\%$) max. 50 mA
 - Output 10 VDC ($+10\%$) max. 10 mA
 - RS485 ebmBUS
 - Alarm relay
- **EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
Harmonics acc. to EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 61800-5-1
- **Connection leads:** Via terminal strip
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** UL, CSA, GOST;  also VDE
- Line undervoltage / phase failure detection
- Motor current limitation
- Over-temperature protected electronics / motor
- Locked rotor protection
- Soft start

| Direction of air flow | < "V"/"A" > | | < "V"/"A" > | | < "V" > | | < "V" > | | > "A" > | |
|-----------------------|---------------------|-------------------------|-----------------------------------|------------------------------------|-----------------------------------|------------------------------------|-----------------------------------|------------------------------------|-----------------------------------|------------------------------------|
| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle | With guard grille for short nozzle |
| "V" | A3G 800-AH12 -13 | W3G 800-CH12 -13 | S3G 800-BH12 -13 | S3G 800-AH12 -13 | S3G 800-CH12 -13 | S3G 800-BH12 -13 | S3G 800-AH12 -13 | S3G 800-CH12 -13 | S3G 800-BH12 -13 | S3G 800-AH12 -13 |
| "A" | A3G 800-AH12 -14 | W3G 800-CH12 -14 | — | — | — | — | — | — | — | S3G 800-CH12 -14 |
| "V" | A3G 800-AH03 -03 | W3G 800-CH03 -03 | S3G 800-BH03 -03 | S3G 800-AH03 -03 | S3G 800-CH03 -03 | S3G 800-BH03 -03 | S3G 800-AH03 -03 | S3G 800-CH03 -03 | S3G 800-BH03 -03 | S3G 800-AH03 -03 |
| "A" | A3G 800-AH03 -04 | W3G 800-CH03 -04 | — | — | — | — | — | — | — | S3G 800-CH03 -04 |

Curves



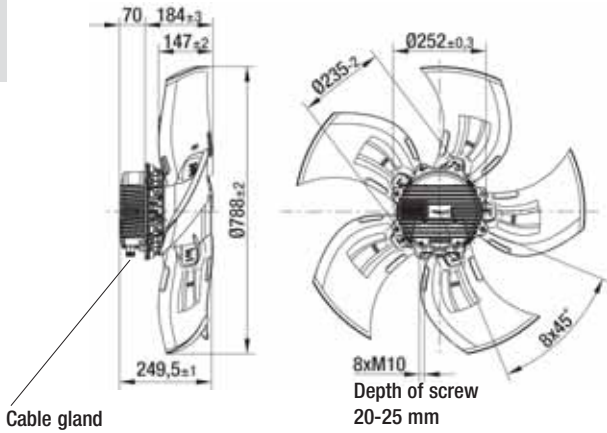
| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] | η _{HL} [%] |
|--|---------|---------------------|-------|-------------------------|---------------------|
|  1 | 980 | 1.37 | 2.10 | 74 | — |
|  2 | 980 | 1.76 | 2.70 | 73 | 78 |
|  3 | 980 | 1.93 | 2.90 | 76 | 67 |
|  4 | 980 | 2.20 | 3.40 | 82 | 52 |
|  5 | 900 | 1.06 | 1.60 | 73 | — |
|  6 | 900 | 1.36 | 2.10 | 72 | 78 |
|  7 | 900 | 1.50 | 2.30 | 73 | 67 |
|  8 | 900 | 1.71 | 2.60 | 80 | 52 |
|  9 | 820 | 0.80 | 1.20 | 71 | — |
|  10 | 820 | 1.03 | 1.60 | 70 | 78 |
|  11 | 820 | 1.13 | 1.70 | 73 | 67 |
|  12 | 820 | 1.30 | 2.00 | 78 | 52 |

EC axial fans mains-powered

S series, Ø 800, drawings for direction of air flow "V"



Without attachments

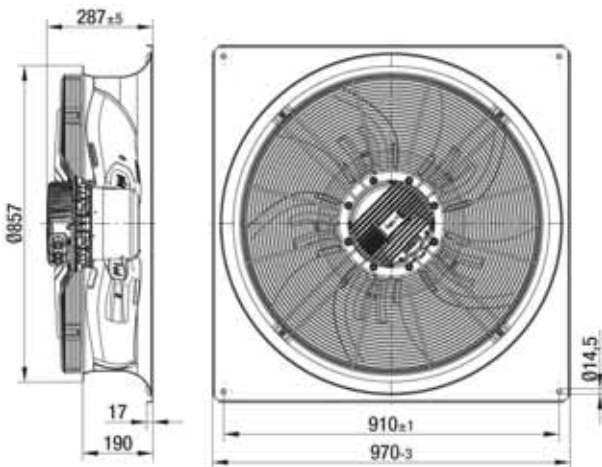


< "V"

| Type | Mass [kg] |
|------------------|-----------|
| A3G 800-AG10 -13 | 25.0 |
| A3G 800-AG02 -03 | 25.0 |
| A3G 800-AH12 -13 | 28.0 |
| A3G 800-AH03 -03 | 28.0 |



With full square nozzle

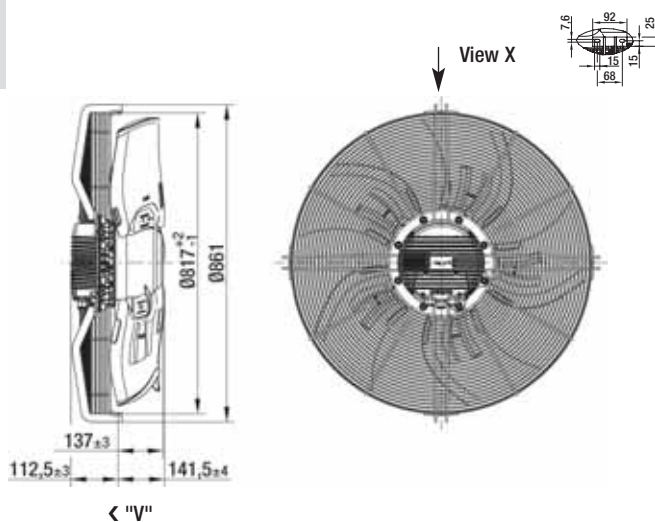


< "V"

| Type | Mass [kg] |
|------------------|-----------|
| W3G 800-CG10 -13 | 46.5 |
| W3G 800-CG02 -03 | 46.5 |
| W3G 800-CH12 -13 | 49.5 |
| W3G 800-CH03 -03 | 49.5 |



With guard grille for full nozzle

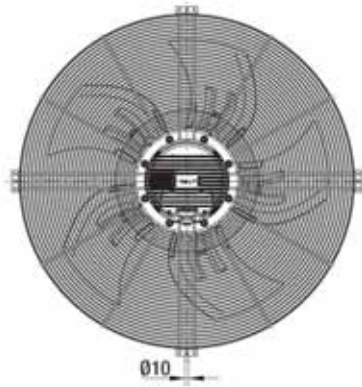
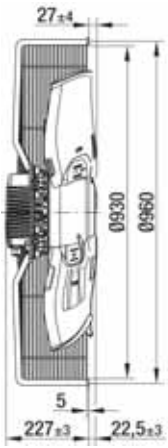


< "V"

| Type | Mass [kg] |
|------------------|-----------|
| S3G 800-BG10 -13 | 31.5 |
| S3G 800-BG02 -03 | 31.5 |
| S3G 800-BH12 -13 | 34.5 |
| S3G 800-BH03 -03 | 34.5 |



With guard grille for short nozzle



< "V"

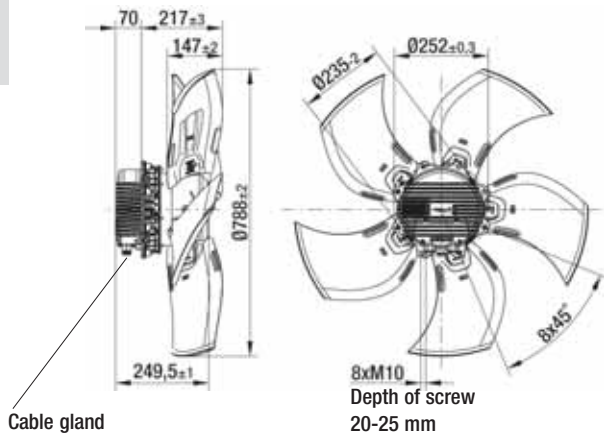
| Type | Mass [kg] |
|------------------|-----------|
| S3G 800-AG10 -13 | 30.0 |
| S3G 800-AG02 -03 | 30.0 |
| S3G 800-AH12 -13 | 33.0 |
| S3G 800-AH03 -03 | 33.0 |

EC axial fans mains-powered

S series, Ø 800, drawings for direction of air flow "A"



Without attachments

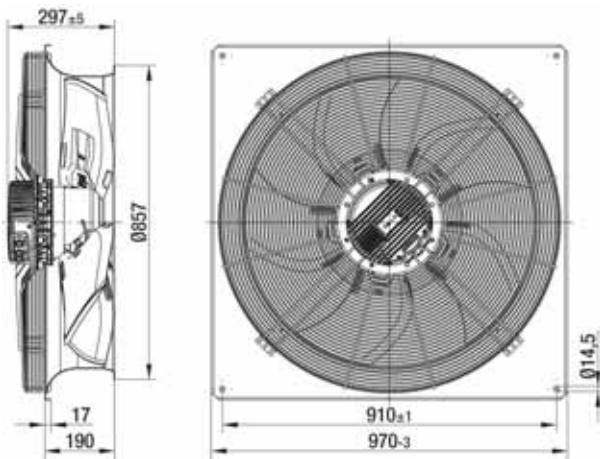


"A" >

| Type | Mass [kg] |
|------------------|-----------|
| A3G 800-AG10 -14 | 25.0 |
| A3G 800-AG02 -04 | 25.0 |
| A3G 800-AH12 -14 | 28.0 |
| A3G 800-AH03 -04 | 28.0 |



With full square nozzle

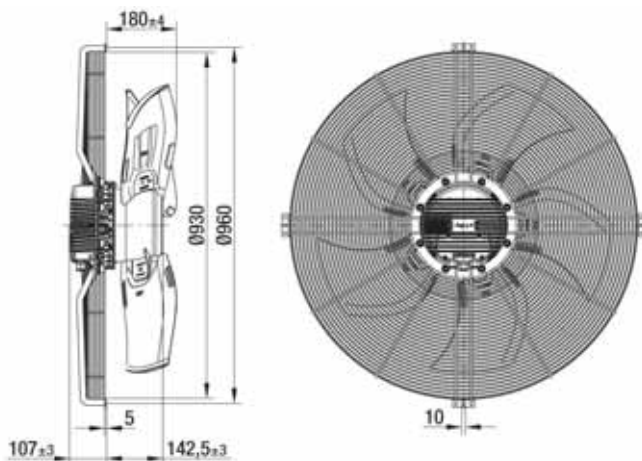


"A" >

| Type | Mass [kg] |
|------------------|-----------|
| W3G 800-CG10 -14 | 47.5 |
| W3G 800-CG02 -04 | 47.5 |
| W3G 800-CH12 -14 | 50.5 |
| W3G 800-CH03 -04 | 50.5 |



With guard grille for full nozzle

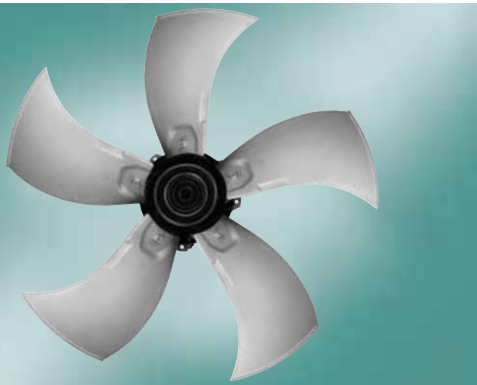


"A" >

| Type | Mass [kg] |
|------------------|-----------|
| S3G 800-CG10 -14 | 32.5 |
| S3G 800-CG02 -04 | 32.5 |
| S3G 800-CH12 -14 | 35.5 |
| S3G 800-CH03 -04 | 35.5 |

EC axial fans mains-powered

S series, Ø 910



- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Die-cast aluminium
Rotor: Cast-in with PA plastic
Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 5
- **Direction of rotation:** Dir. of air flow "V" clockwise, "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

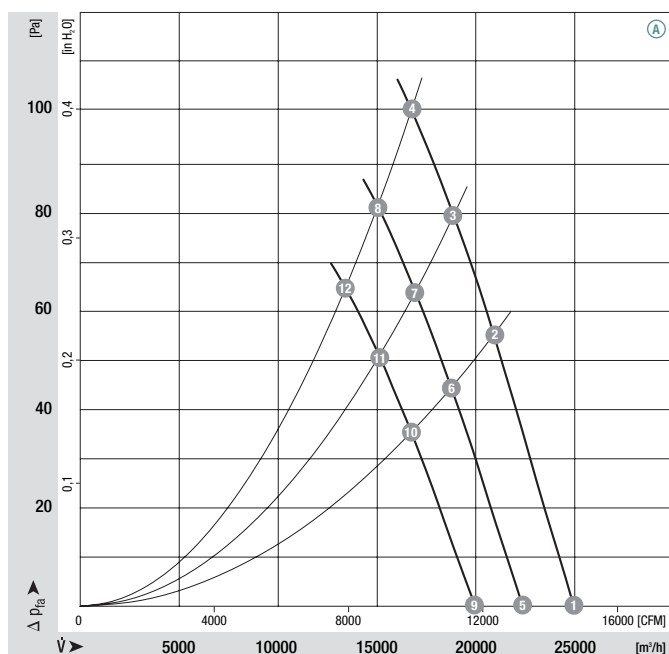
Nominal data

| Type | Motor | Blade angle | Curve | Nominal voltage range | Frequency | Speed/rpm | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Max. operative range | Perm. amb. temp. | Electr. connection |
|---------|------------|-------------|-------|-----------------------|-----------|-----------|---------------------------------|----------------------------------|----------------------|------------------|--------------------|
| | | | | VAC | Hz | rpm | kW | A | Pa | °C | p. 428 |
| *3G 910 | M3G 150-FF | 0° | A | 3~ 200-240 | 50/60 | 720 | 1.15 | 3.60 | 100 | -25 to +60 | M) |
| *3G 910 | M3G 150-FF | 0° | B | 3~ 380-480 | 50/60 | 720 | 1.15 | 1.80 | 100 | -25 to +60 | M) |

subject to alterations

(1) Nominal data in operating point with maximum load and 200 or 400 VAC

Curves

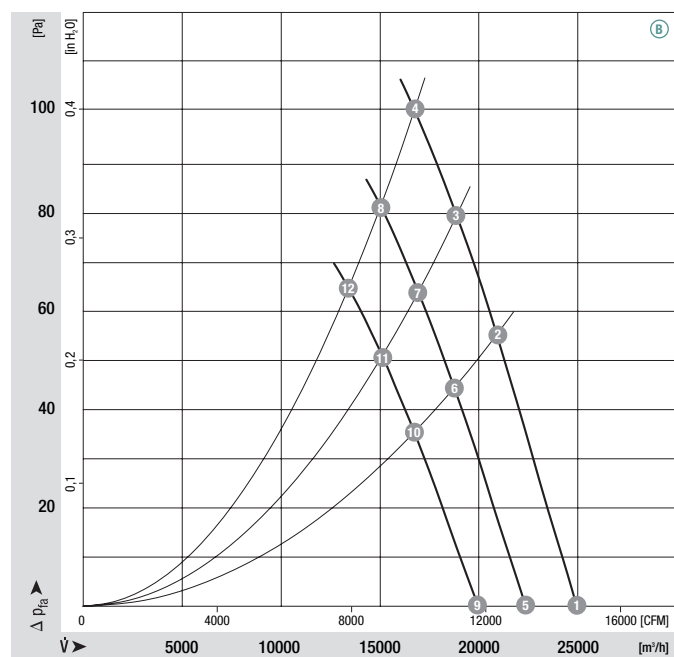


| | n [rpm] | P ₁ [kW] | I [A] | Lw _A [dB(A)] | η _{HL} [%] |
|------|---------|---------------------|-------|-------------------------|---------------------|
| A 1 | 720 | 0.77 | 2.40 | 72 | — |
| A 2 | 720 | 0.99 | 3.00 | 71 | 75 |
| A 3 | 720 | 1.08 | 3.40 | 71 | 70 |
| A 4 | 720 | 1.15 | 3.60 | 72 | 64 |
| A 5 | 650 | 0.56 | 1.80 | 70 | — |
| A 6 | 650 | 0.72 | 2.20 | 68 | 75 |
| A 7 | 650 | 0.78 | 2.40 | 68 | 70 |
| A 8 | 650 | 0.84 | 2.60 | 70 | 64 |
| A 9 | 580 | 0.40 | 1.20 | 67 | — |
| A 10 | 580 | 0.51 | 1.60 | 66 | 75 |
| A 11 | 580 | 0.55 | 1.80 | 66 | 70 |
| A 12 | 580 | 0.60 | 1.80 | 68 | 64 |

- **Technical features:**
 - PFC (passive)
 - Integrated PID controller
 - Control input 0-10 VDC / PWM
 - Input for sensor 0-10 V or 4-20 mA
 - Slave output 0-10 V max. 3 mA
 - Output 20 VDC ($\pm 20\%$) max. 50 mA
 - Output 10 VDC ($+10\%$) max. 10 mA
 - RS485 ebmBUS
 - Alarm relay
- **EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
Harmonics acc. to EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 61800-5-1
- **Connection leads:** Via terminal strip
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** UL, CSA, GOST; also VDE
- Line undervoltage / phase failure detection
- Motor current limitation
- Over-temperature protected electronics / motor
- Locked rotor protection
- Soft start

| Direction of air flow | < "V"/"A" > | | < "V"/"A" > | | < "V" > | | < "V" > | | > "A" > | |
|-----------------------|---------------------|-------------------------|-----------------------------------|------------------------------------|-----------------------------------|------------------------------------|-----------------------------------|------------------------------------|-----------------------------------|------------------------------------|
| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle | With guard grille for short nozzle |
| "V" | A3G 910-AG10 -13 | W3G 910-CG10 -13 | S3G 910-BG10 -13 | S3G 910-AG10 -13 | — | — | — | — | — | — |
| "A" | A3G 910-AG10 -14 | W3G 910-CG10 -14 | — | — | — | — | S3G 910-CG10 -14 | — | — | — |
| "V" | A3G 910-AG02 -03 | W3G 910-CG02 -03 | S3G 910-BG02 -03 | S3G 910-AG02 -03 | — | — | — | — | — | — |
| "A" | A3G 910-AG02 -04 | W3G 910-CG02 -04 | — | — | — | — | S3G 910-CG02 -04 | — | — | — |

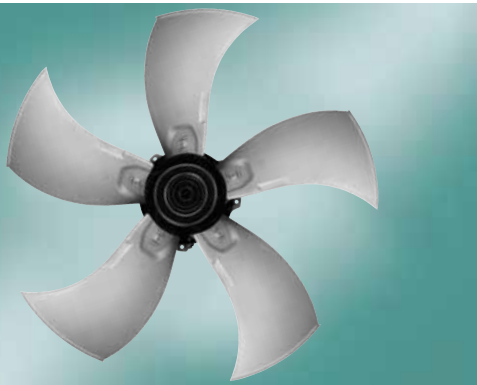
Curves



| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] | η _{HL} [%] |
|----|---------|---------------------|-------|-------------------------|---------------------|
| 1 | 720 | 0.77 | 1.20 | 72 | — |
| 2 | 720 | 0.99 | 1.50 | 71 | 75 |
| 3 | 720 | 1.08 | 1.70 | 71 | 70 |
| 4 | 720 | 1.15 | 1.80 | 72 | 64 |
| 5 | 650 | 0.56 | 0.90 | 70 | — |
| 6 | 650 | 0.72 | 1.10 | 68 | 75 |
| 7 | 650 | 0.78 | 1.20 | 68 | 70 |
| 8 | 650 | 0.84 | 1.30 | 70 | 64 |
| 9 | 580 | 0.40 | 0.60 | 67 | — |
| 10 | 580 | 0.51 | 0.80 | 66 | 75 |
| 11 | 580 | 0.55 | 0.90 | 66 | 70 |
| 12 | 580 | 0.60 | 0.90 | 68 | 64 |

EC axial fans mains-powered

S series, Ø 910



- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Die-cast aluminium
Rotor: Cast-in with PA plastic
Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 5
- **Direction of rotation:** Dir. of air flow "V" clockwise, "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

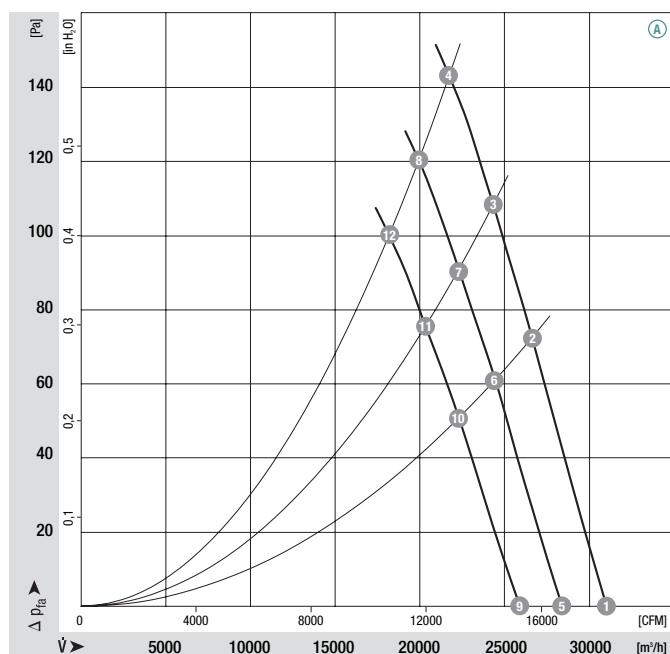
Nominal data

| Type | Motor | Blade angle | Curve | Nominal voltage range | Frequency | Speed/rpm | Max. power input ⁽¹⁾ | Max. current draw ⁽¹⁾ | Max. operative range | Perm. amb. temp. | Electr. connection |
|---------|------------|-------------|-------|-----------------------|-----------|-----------|---------------------------------|----------------------------------|----------------------|------------------|--------------------|
| | | | | VAC | Hz | rpm | kW | A | Pa | °C | p. 428 |
| *3G 910 | M3G 150-IF | 0° | A | 3~ 200-240 | 50/60 | 870 | 1.90 | 5.80 | 140 | -25 to +60 | M) |
| *3G 910 | M3G 150-IF | 0° | B | 3~ 380-480 | 50/60 | 870 | 1.90 | 2.90 | 140 | -25 to +60 | M) |

subject to alterations

(1) Nominal data in operating point with maximum load and 200 or 400 VAC

Curves

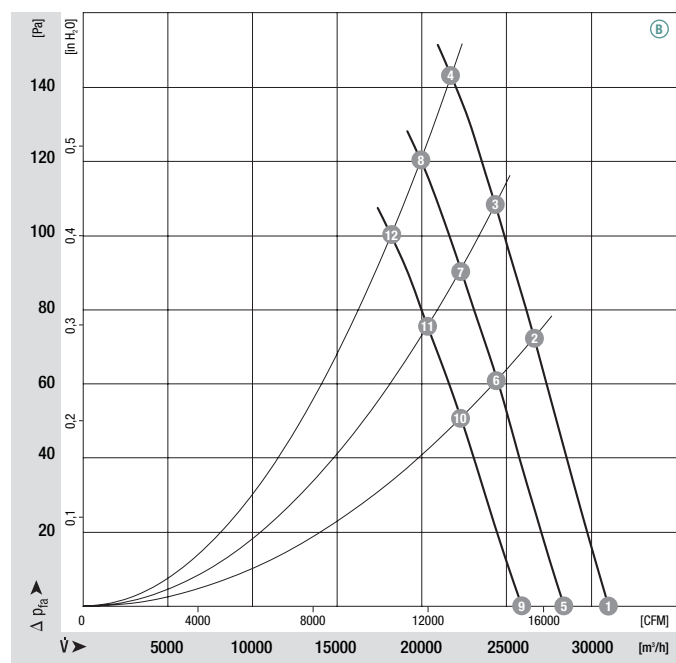


| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] | η _{HL} [%] |
|------|---------|---------------------|-------|-------------------------|---------------------|
| A 1 | 870 | 1.30 | 4.00 | 76 | — |
| A 2 | 870 | 1.62 | 5.00 | 75 | 74 |
| A 3 | 870 | 1.76 | 5.40 | 75 | 71 |
| A 4 | 870 | 1.90 | 5.80 | 77 | 66 |
| A 5 | 800 | 1.01 | 3.20 | 74 | — |
| A 6 | 800 | 1.26 | 3.80 | 73 | 74 |
| A 7 | 800 | 1.35 | 4.20 | 73 | 71 |
| A 8 | 800 | 1.46 | 4.40 | 75 | 66 |
| A 9 | 730 | 0.77 | 2.40 | 72 | — |
| A 10 | 730 | 0.76 | 3.00 | 71 | 74 |
| A 11 | 730 | 1.03 | 3.20 | 71 | 71 |
| A 12 | 730 | 1.11 | 3.40 | 73 | 66 |

- **Technical features:**
 - PFC (passive)
 - Integrated PID controller
 - Control input 0-10 VDC / PWM
 - Input for sensor 0-10 V or 4-20 mA
 - Slave output 0-10 V max. 3 mA
 - Output 20 VDC ($\pm 20\%$) max. 50 mA
 - Output 10 VDC ($+10\%$) max. 10 mA
 - RS485 ebmBUS
 - Alarm relay
- **EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
Harmonics acc. to EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 61800-5-1
- **Connection leads:** Via terminal strip
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** UL, CSA, GOST; also VDE
- Line undervoltage / phase failure detection
- Motor current limitation
- Over-temperature protected electronics / motor
- Locked rotor protection
- Soft start

| Direction of air flow | < "V"/"A" > | | < "V" > | | > "A" > | |
|-----------------------|---------------------|-------------------------|-----------------------------------|------------------------------------|-----------------------------------|--|
| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle | |
| "V" | A3G 910-AH09 -13 | W3G 910-CH09 -13 | S3G 910-BH09 -13 | S3G 910-AH09 -13 | — | |
| "A" | A3G 910-AH09 -14 | W3G 910-CH09 -14 | — | — | S3G 910-CH09 -14 | |
| "V" | A3G 910-AH04 -03 | W3G 910-CH04 -03 | S3G 910-BH04 -03 | S3G 910-AH04 -03 | — | |
| "A" | A3G 910-AH04 -04 | W3G 910-CH04 -04 | — | — | S3G 910-CH04 -04 | |

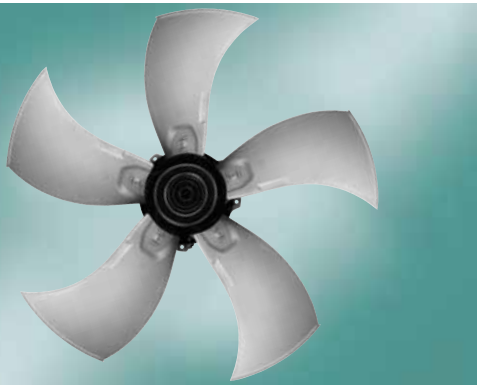
Curves



| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] | η _{HL} [%] |
|----|---------|---------------------|-------|-------------------------|---------------------|
| 1 | 870 | 1.30 | 2.00 | 76 | — |
| 2 | 870 | 1.62 | 2.50 | 75 | 74 |
| 3 | 870 | 1.76 | 2.70 | 75 | 71 |
| 4 | 870 | 1.90 | 2.90 | 77 | 66 |
| 5 | 800 | 1.01 | 1.60 | 74 | — |
| 6 | 800 | 1.26 | 1.90 | 73 | 74 |
| 7 | 800 | 1.35 | 2.10 | 73 | 71 |
| 8 | 800 | 1.46 | 2.20 | 75 | 66 |
| 9 | 730 | 0.77 | 1.20 | 72 | — |
| 10 | 730 | 0.76 | 1.50 | 71 | 74 |
| 11 | 730 | 1.03 | 1.60 | 71 | 71 |
| 12 | 730 | 1.11 | 1.70 | 73 | 66 |

EC axial fans mains-powered

S series, Ø 910



- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Die-cast aluminium
Rotor: Cast-in with PA plastic
Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 5
- **Direction of rotation:** Dir. of air flow "V" clockwise, "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

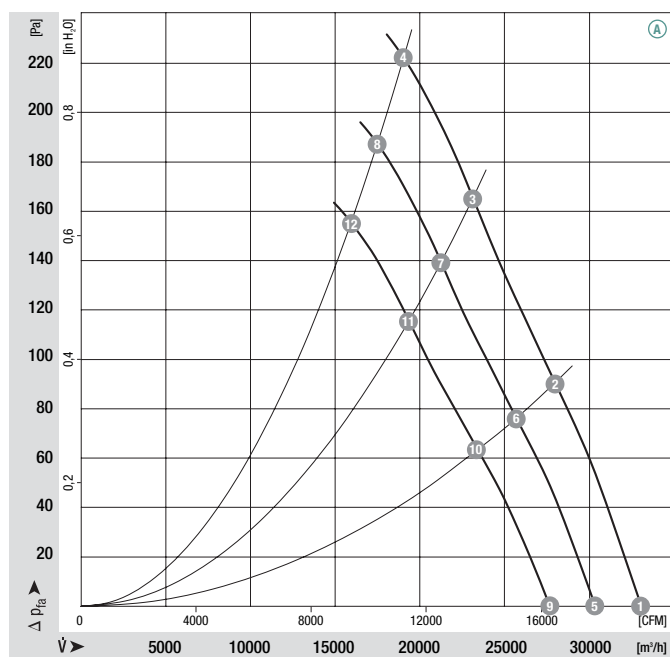
Nominal data

| Type | Motor | Blade angle | Curve | Nominal voltage range VAC | Frequency Hz | Speed/rpm | Max. power input ⁽¹⁾ kW | Max. current draw ⁽¹⁾ A | Max. operative range Pa | Perm. amb. temp. °C | Electr. connection p. 428 |
|---------|------------|-------------|-------|------------------------------|-----------------|-----------|---------------------------------------|---------------------------------------|----------------------------|------------------------|------------------------------|
| *3G 910 | M3G 150-NA | 0° | (A) | 3~ 380-480 | 50/60 | 980 | 2.80 | 4.30 | 220 | -25 to +60 | M) |

subject to alterations


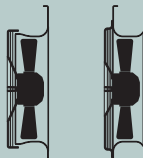



(1) Nominal data in operating point with maximum load and 400 VAC

Curves



| | n [rpm] | P ₁ [kW] | I [A] | L _{wA} [dB(A)] | η _{HL} [%] |
|--------|------------|------------------------|----------|----------------------------|------------------------|
| (A) 1 | 980 | 1.82 | 2.80 | 80 | — |
| (A) 2 | 980 | 2.24 | 3.40 | 80 | 73 |
| (A) 3 | 980 | 2.55 | 3.90 | 83 | 65 |
| (A) 4 | 980 | 2.80 | 4.30 | 86 | 56 |
| (A) 5 | 900 | 1.41 | 2.20 | 78 | — |
| (A) 6 | 900 | 1.76 | 2.60 | 78 | 73 |
| (A) 7 | 900 | 1.97 | 3.00 | 82 | 65 |
| (A) 8 | 900 | 2.15 | 3.30 | 84 | 56 |
| (A) 9 | 820 | 1.07 | 1.60 | 76 | — |
| (A) 10 | 820 | 1.31 | 2.00 | 76 | 73 |
| (A) 11 | 820 | 1.49 | 2.30 | 80 | 65 |
| (A) 12 | 820 | 1.63 | 2.50 | 82 | 56 |

- **Technical features:**
 - PFC (passive)
 - Integrated PID controller
 - Control input 0-10 VDC / PWM
 - Input for sensor 0-10 V or 4-20 mA
 - Slave output 0-10 V max. 3 mA
 - Output 20 VDC ($\pm 20\%$) max. 50 mA
 - Output 10 VDC ($+10\%$) max. 10 mA
 - RS485 ebmBUS
 - Alarm relay
- **EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
Harmonics acc. to EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 61800-5-1
- **Connection leads:** Via terminal strip
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** VDE, UL, CSA, GOST
- Line undervoltage / phase failure detection
- Motor current limitation
- Over-temperature protected electronics / motor
- Locked rotor protection
- Soft start

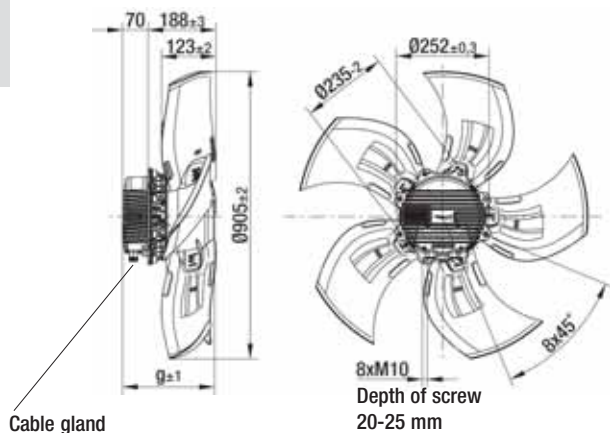
| Direction of air flow |  < "V"/"A" > | |  < "V"/"A" > | |  < "V" > | |  < "V" > | |  "A" > | |
|-----------------------|--|--|--|--|--|--|--|--|---|--|
| | Without attachments | | With full square nozzle | | With guard grille for full nozzle | | With guard grille for short nozzle | | With guard grille for full nozzle | |
| "V" | A3G 910-AI02 -03 | | W3G 910-CI02 -03 | | S3G 910-BI02 -03 | | S3G 910-AI02 -03 | | — | |
| "A" | A3G 910-AI02 -04 | | W3G 910-CI02 -04 | | — | | — | | S3G 910-CI02 -04 | |

EC axial fans mains-powered

S series, Ø 910, drawings for direction of air flow "V"



Without attachments

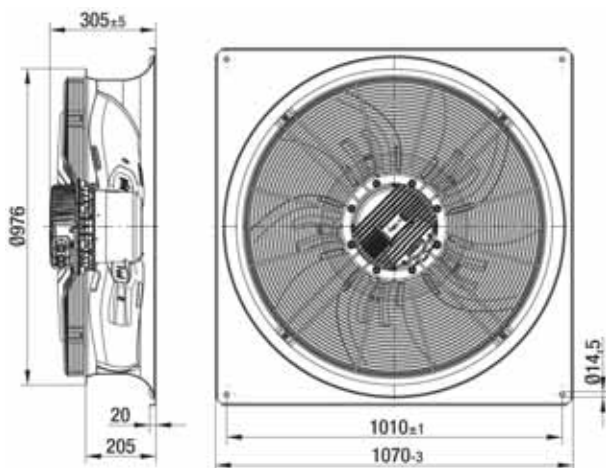


< "V"

| Type | Mass [kg] | g |
|------------------|-----------|-------|
| A3G 910-AG10 -13 | 25.5 | 249.5 |
| A3G 910-AG02 -03 | 25.5 | 249.5 |
| A3G 910-AH09 -13 | 28.5 | 249.5 |
| A3G 910-AH04 -03 | 28.5 | 249.5 |
| A3G 910-AI02 -03 | 33.0 | 284.5 |



With full square nozzle

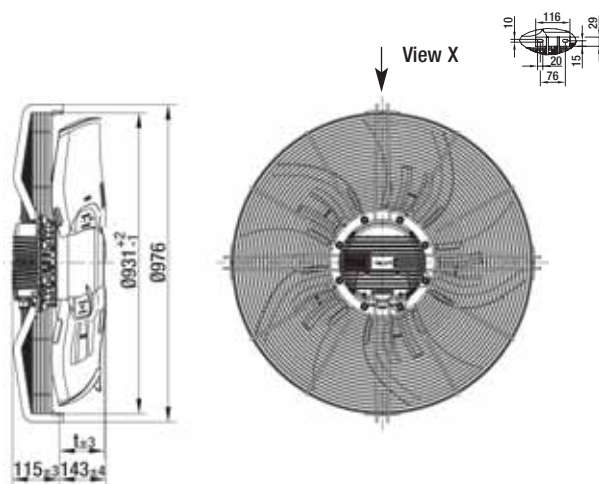


< "V"

| Type | Mass [kg] |
|------------------|-----------|
| W3G 910-CG10 -13 | 51.0 |
| W3G 910-CG02 -03 | 51.0 |
| W3G 910-CH09 -13 | 54.0 |
| W3G 910-CH04 -03 | 54.0 |
| W3G 910-CI02 -03 | 58.5 |



With guard grille for full nozzle

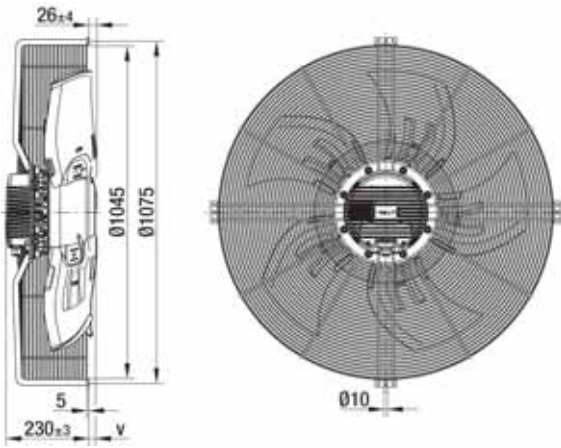


< "V"

| Type | Mass [kg] | t |
|------------------|-----------|-------|
| S3G 910-BG10 -13 | 34.0 | 134.5 |
| S3G 910-BG02 -03 | 34.0 | 134.5 |
| S3G 910-BH09 -13 | 37.0 | 134.5 |
| S3G 910-BH04 -03 | 37.0 | 134.5 |
| S3G 910-BI02 -03 | 41.5 | 169.5 |



With guard grille for short nozzle



< "v"

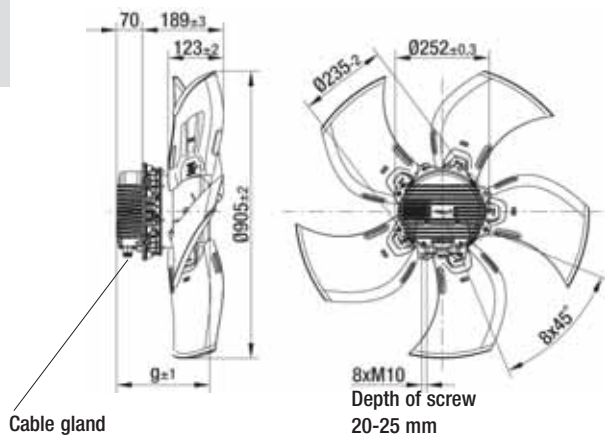
| Type | Mass [kg] | v |
|------------------|-----------|------|
| S3G 910-AG10 -13 | 36.0 | 19.5 |
| S3G 910-AG02 -03 | 36.0 | 19.5 |
| S3G 910-AH09 -13 | 39.0 | 19.5 |
| S3G 910-AH04 -03 | 39.0 | 19.5 |
| S3G 910-AI02 -03 | 43.5 | 54.5 |

EC axial fans mains-powered

S series, Ø 910, drawings for direction of air flow "A"



Without attachments

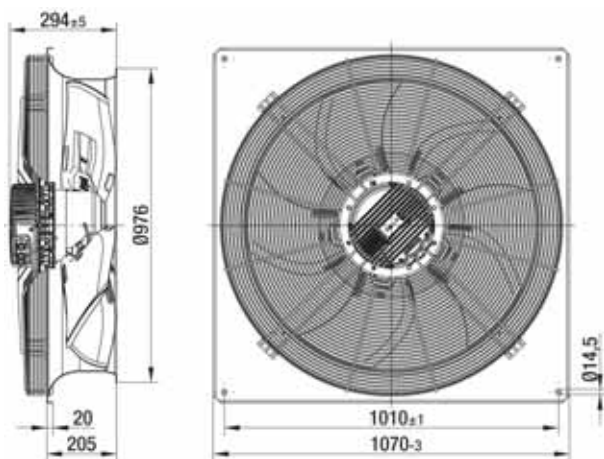


"A" >

| Type | Mass [kg] | g |
|------------------|-----------|-------|
| A3G 910-AG10 -14 | 25.5 | 249.5 |
| A3G 910-AG02 -04 | 25.5 | 249.5 |
| A3G 910-AH09 -14 | 28.5 | 249.5 |
| A3G 910-AH04 -04 | 28.5 | 249.5 |
| A3G 910-AI02 -04 | 33.0 | 284.5 |



With full square nozzle

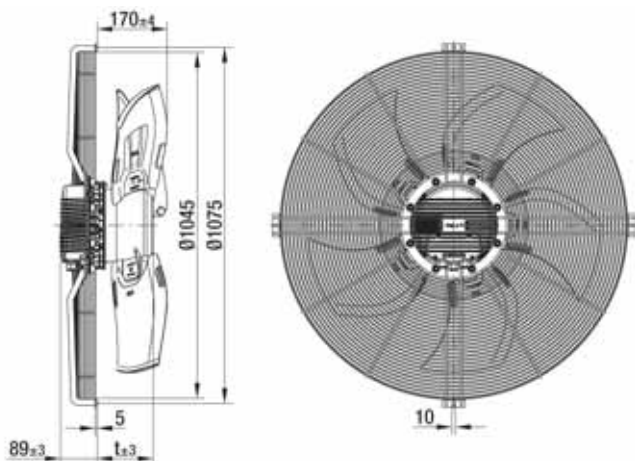


"A" >

| Type | Mass [kg] |
|------------------|-----------|
| W3G 910-CG10 -14 | 52.0 |
| W3G 910-CG02 -04 | 52.0 |
| W3G 910-CH09 -14 | 55.0 |
| W3G 910-CH04 -04 | 55.0 |
| W3G 910-CI02 -04 | 59.5 |



With guard grille for full nozzle

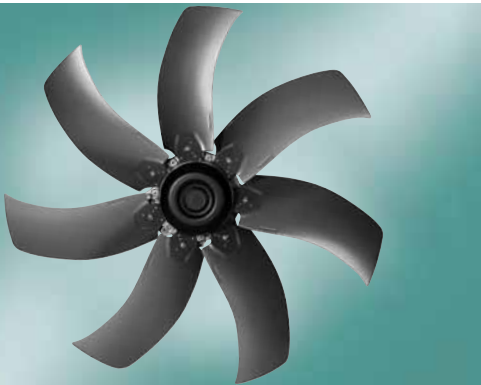


"A" >

| Type | Mass [kg] | t |
|------------------|-----------|-------|
| S3G 910-CG10 -14 | 35.0 | 160.5 |
| S3G 910-CG02 -04 | 35.0 | 160.5 |
| S3G 910-CH09 -14 | 38.0 | 160.5 |
| S3G 910-CH04 -04 | 38.0 | 160.5 |
| S3G 910-CI02 -04 | 42.5 | 195.5 |

EC axial fans mains-powered

S series, Ø 990



- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Die-cast aluminium
Rotor: Cast-in with PA plastic
Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 7
- **Direction of rotation:** Dir. of air flow "V" clockwise, "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

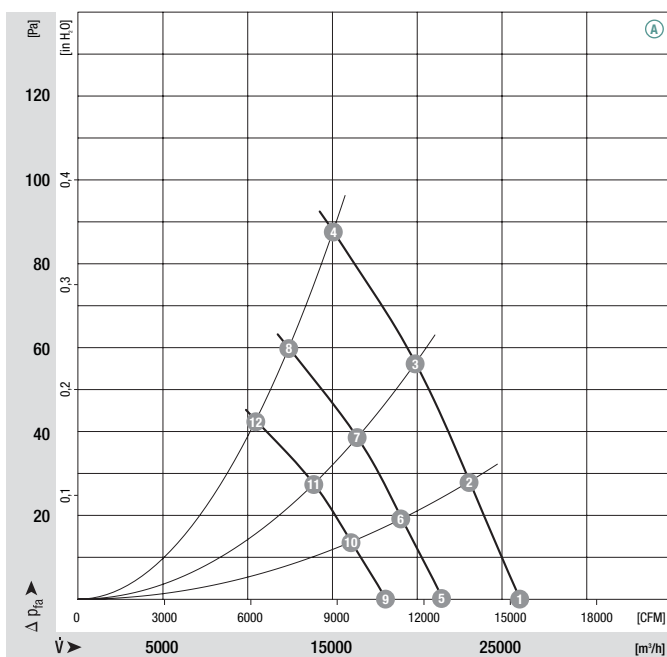
Nominal data

| Type | Motor | Curve | Nominal voltage range VAC | Frequency Hz | Speed/rpm | Max. power input ⁽¹⁾ kW | Max. current draw ⁽¹⁾ A | Max. operative range Pa | Perm. amb. temp. °C | Electr. connection p. 428 |
|---------|------------|-------|------------------------------|-----------------|-----------|---------------------------------------|---------------------------------------|----------------------------|------------------------|------------------------------|
| *3G 990 | M3G 150-FF | A | 3~ 200-240 | 50/60 | 545 | 0.90 | 3.80 | 90 | -25 to +60 | M) |
| *3G 990 | M3G 150-FF | B | 3~ 380-480 | 50/60 | 545 | 0.90 | 1.90 | 90 | -25 to +60 | M) |

subject to alterations

(1) Nominal data in operating point with maximum load and 200 or 400 VAC

Curves

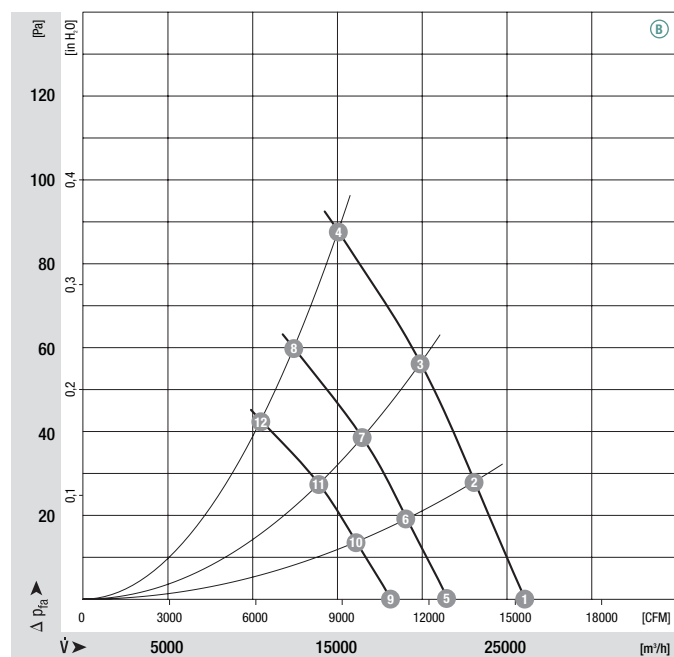


| | n [rpm] | P ₁ [kW] | I [A] | Lp _A [dB(A)] | η _{HL} [%] |
|------|------------|------------------------|----------|----------------------------|------------------------|
| A 1 | 545 | 0.63 | 2.40 | 70 | — |
| A 2 | 545 | 0.74 | 2.60 | 71 | 72 |
| A 3 | 545 | 0.81 | 2.80 | 71 | 70 |
| A 4 | 545 | 0.88 | 3.00 | 70 | 57 |
| A 5 | 450 | 0.36 | 1.40 | 65 | — |
| A 6 | 450 | 0.42 | 1.60 | 66 | 72 |
| A 7 | 450 | 0.46 | 1.80 | 66 | 70 |
| A 8 | 450 | 0.50 | 1.80 | 65 | 57 |
| A 9 | 380 | 0.22 | 0.80 | 61 | — |
| A 10 | 380 | 0.26 | 1.00 | 61 | 72 |
| A 11 | 380 | 0.28 | 1.20 | 61 | 70 |
| A 12 | 380 | 0.31 | 1.20 | 61 | 57 |

- **Technical features:**
 - PFC (passive)
 - Integrated PID controller
 - Control input 0-10 VDC / PWM
 - Input for sensor 0-10 V or 4-20 mA
 - Slave output 0-10 V max. 3 mA
 - Output 20 VDC ($\pm 20\%$) max. 50 mA
 - Output 10 VDC ($+10\%$) max. 10 mA
 - RS485 ebmBUS
 - Alarm relay
- **EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
Harmonics acc. to EN 61000-3-2/3
- **Leakage current:** < 3.5 mA acc. to EN 61800-5-1
- **Connection leads:** Via terminal strip
- **Protection class:** I (acc. to EN 61800-5-1)
- **Product conforming to standard:** CE
- **Approvals:** UL, CSA, CCC, GOST; also VDE
- Line undervoltage / phase failure detection
- Motor current limitation
- Over-temperature protected electronics / motor
- Locked rotor protection
- Soft start

| Direction of air flow | < "V"/"A" > | | < "V" > | | > "A" > | |
|-----------------------|---------------------|-------------------------|-----------------------------------|------------------------------------|-----------------------------------|--|
| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle | |
| "V" | A3G 990-AC04 -13 | W3G 990-CC04 -13 | S3G 990-BC04 -13 | — | — | |
| "A" | A3G 990-AC04 -14 | W3G 990-CC04 -14 | — | — | S3G 990-CC04 -14 | |
| "V" | A3G 990-AC03 -03 | W3G 990-CC03 -03 | S3G 990-BC03 -03 | — | — | |
| "A" | A3G 990-AC03 -04 | W3G 990-CC03 -04 | — | — | S3G 990-CC03 -04 | |

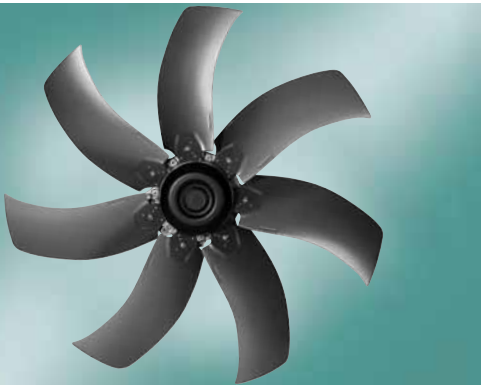
Curves



| | n [rpm] | P ₁ [kW] | I [A] | Lp _A [dB(A)] | η _{HL} [%] |
|----|---------|---------------------|-------|-------------------------|---------------------|
| 1 | 545 | 0.63 | 1.20 | 70 | — |
| 2 | 545 | 0.74 | 1.30 | 71 | 72 |
| 3 | 545 | 0.81 | 1.40 | 71 | 70 |
| 4 | 545 | 0.88 | 1.50 | 70 | 57 |
| 5 | 450 | 0.36 | 0.70 | 65 | — |
| 6 | 450 | 0.42 | 0.80 | 66 | 72 |
| 7 | 450 | 0.46 | 0.90 | 66 | 70 |
| 8 | 450 | 0.50 | 0.90 | 65 | 57 |
| 9 | 380 | 0.22 | 0.40 | 61 | — |
| 10 | 380 | 0.26 | 0.50 | 61 | 72 |
| 11 | 380 | 0.28 | 0.60 | 61 | 70 |
| 12 | 380 | 0.31 | 0.60 | 61 | 57 |

EC axial fans mains-powered

S series, Ø 990



- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Die-cast aluminium
Rotor: Cast-in with PA plastic
Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 7
- **Direction of rotation:** Dir. of air flow "V" clockwise, "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

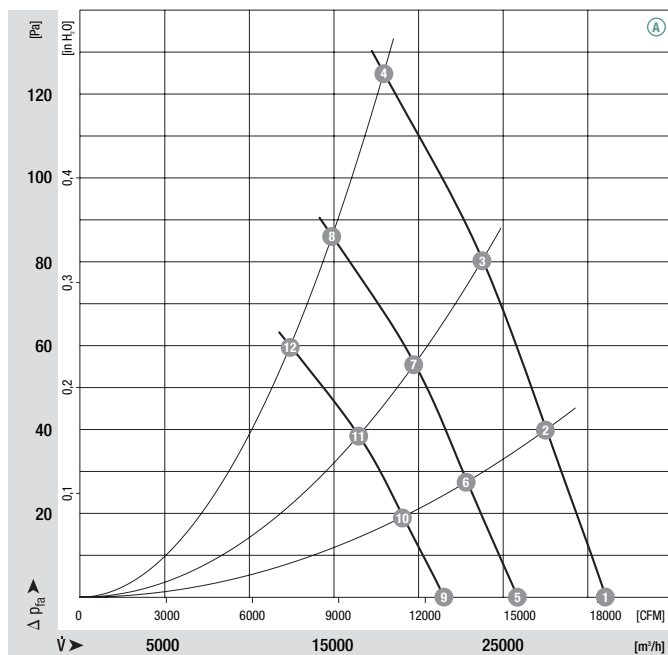
Nominal data

| Type | Motor | Curve | Nominal voltage range VAC | Frequency Hz | Speed/rpm | Max. power input ⁽¹⁾ kW | Max. current draw ⁽¹⁾ A | Max. operative range Pa | Perm. amb. temp. °C | Electr. connection p. 428 |
|---------|------------|-------|------------------------------|-----------------|-----------|---------------------------------------|---------------------------------------|----------------------------|------------------------|------------------------------|
| *3G 990 | M3G 150-IF | A | 3~ 200-240 | 50/60 | 650 | 1.50 | 4.80 | 120 | -25 to +60 | M) |
| *3G 990 | M3G 150-IF | B | 3~ 380-480 | 50/60 | 650 | 1.50 | 2.60 | 120 | -25 to +60 | M) |

subject to alterations

(1) Nominal data in operating point with maximum load and 200 or 400 VAC

Curves



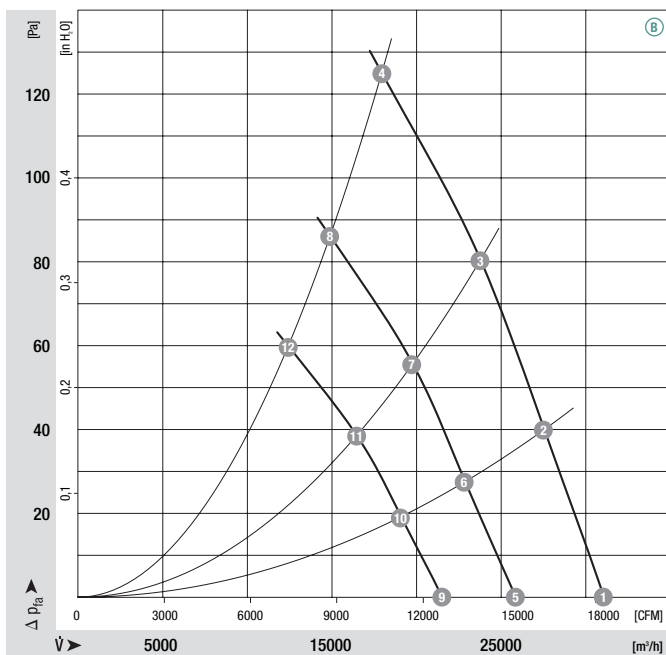
| | n [rpm] | P ₁ [kW] | I [A] | Lp _A [dB(A)] | η _{HL} [%] |
|------|------------|------------------------|----------|----------------------------|------------------------|
| A 1 | 650 | 1.02 | 3.60 | 75 | — |
| A 2 | 650 | 1.21 | 4.00 | 76 | 72 |
| A 3 | 650 | 1.32 | 4.40 | 76 | 70 |
| A 4 | 650 | 1.44 | 4.60 | 75 | 57 |
| A 5 | 540 | 0.60 | 2.20 | 70 | — |
| A 6 | 540 | 0.71 | 2.60 | 71 | 72 |
| A 7 | 540 | 0.78 | 2.80 | 71 | 70 |
| A 8 | 540 | 0.84 | 3.00 | 70 | 57 |
| A 9 | 450 | 0.36 | 1.40 | 65 | — |
| A 10 | 450 | 0.42 | 1.60 | 66 | 72 |
| A 11 | 450 | 0.46 | 1.80 | 66 | 70 |
| A 12 | 450 | 0.50 | 1.80 | 65 | 57 |

Technical features:

- PFC (passive)
 - Integrated PID controller
 - Control input 0-10 VDC / PWM
 - Input for sensor 0-10 V or 4-20 mA
 - Slave output 0-10 V max. 3 mA
 - Output 20 VDC ($\pm 20\%$) max. 50 mA
 - Output 10 VDC ($+10\%$) max. 10 mA
 - RS485 ebmBUS
 - Alarm relay
 - Line undervoltage / phase failure detection
 - Motor current limitation
 - Over-temperature protected electronics / motor
 - Locked rotor protection
 - Soft start
- EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
Harmonics acc. to EN 61000-3-2/3
- Leakage current:** < 3.5 mA acc. to EN 61800-5-1
- Connection leads:** Via terminal strip
- Protection class:** I (acc. to EN 61800-5-1)
- Product conforming to standard:** CE
- Approvals:** UL, CSA, GOST; also VDE

| Direction of air flow | < "V"/"A" > | | < "V" > | | > "A" > | |
|-----------------------|---------------------|-------------------------|-----------------------------------|------------------------------------|-----------------------------------|---|
| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle | |
| "V" | A3G 990-AD11 -13 | W3G 990-CD11 -13 | S3G 990-BD11 -13 | — | — | — |
| "A" | A3G 990-AD11 -14 | W3G 990-CD11 -14 | — | — | S3G 990-CD11 -14 | — |
| "V" | A3G 990-AD05 -03 | W3G 990-CD05 -03 | S3G 990-BD05 -03 | — | — | — |
| "A" | A3G 990-AD05 -04 | W3G 990-CD05 -04 | — | — | S3G 990-CD05 -04 | — |

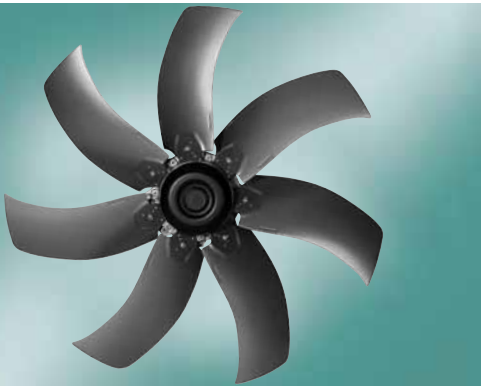
Curves



| | n [rpm] | P ₁ [kW] | I [A] | Lp _A [dB(A)] | η _{HL} [%] |
|----|---------|---------------------|-------|-------------------------|---------------------|
| 1 | 650 | 1.02 | 1.80 | 75 | — |
| 2 | 650 | 1.21 | 2.00 | 76 | 72 |
| 3 | 650 | 1.32 | 2.20 | 76 | 70 |
| 4 | 650 | 1.44 | 2.30 | 75 | 57 |
| 5 | 540 | 0.60 | 1.10 | 70 | — |
| 6 | 540 | 0.71 | 1.30 | 71 | 72 |
| 7 | 540 | 0.78 | 1.40 | 71 | 70 |
| 8 | 540 | 0.84 | 1.50 | 70 | 57 |
| 9 | 450 | 0.36 | 0.70 | 65 | — |
| 10 | 450 | 0.42 | 0.80 | 66 | 72 |
| 11 | 450 | 0.46 | 0.90 | 66 | 70 |
| 12 | 450 | 0.50 | 0.90 | 65 | 57 |

EC axial fans mains-powered

S series, Ø 990



- **Material:** Guard grille: Steel, phosphated and coated in black plastic
Wall ring: Sheet steel, pre-galvanised and coated in black plastic
Blades: Die-cast aluminium
Rotor: Cast-in with PA plastic
Electronics enclosure: Die-cast aluminium, coated in black
- **Number of blades:** 7
- **Direction of rotation:** Dir. of air flow "V" clockwise, "A" counter-clockwise, seen on rotor
- **Type of protection:** IP 54 (acc. to EN 60529)
- **Insulation class:** "F"
- **Mounting position:** Shaft horizontal or rotor on bottom; rotor on top on request
- **Condensate discharges:** Rotor-side
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

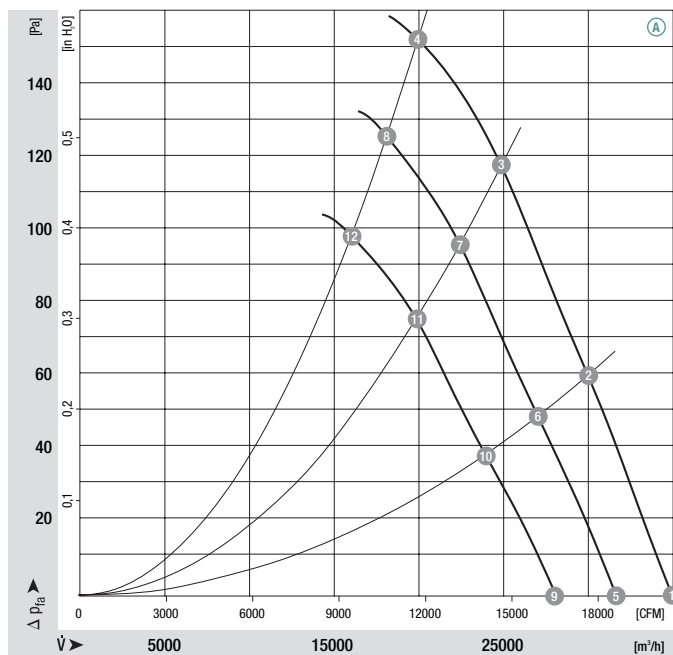
Nominal data

| Type | Motor | Curve | Nominal voltage range VAC | Frequency Hz | Speed/rpm | Max. power input ⁽¹⁾ kW | Max. current draw ⁽¹⁾ A | Max. operative range Pa | Perm. amb. temp. °C | Electr. connection |
|---------|------------|-------|------------------------------|-----------------|-----------|---------------------------------------|---------------------------------------|----------------------------|------------------------|--------------------|
| *3G 990 | M3G 150-NA | A | 3~ 380-480 | 50/60 | 720 | 2.00 | 3.00 | 150 | -25 to +60 | p. 428 M) |

subject to alterations

(1) Nominal data in operating point with maximum load and 400 VAC

Curves



| | n [rpm] | P ₁ [kW] | I [A] | Lp _A [dB(A)] | η _{HL} [%] |
|------|---------|---------------------|-------|-------------------------|---------------------|
| A 1 | 720 | 1.47 | 2.20 | 74 | — |
| A 2 | 720 | 1.72 | 2.60 | 75 | 79 |
| A 3 | 720 | 1.89 | 2.90 | 77 | 73 |
| A 4 | 720 | 1.99 | 3.00 | 78 | 60 |
| A 5 | 655 | 1.10 | 1.70 | 72 | — |
| A 6 | 655 | 1.29 | 2.00 | 73 | 75 |
| A 7 | 655 | 1.40 | 2.10 | 74 | 73 |
| A 8 | 655 | 1.51 | 2.30 | 76 | 60 |
| A 9 | 580 | 0.77 | 1.20 | 73 | — |
| A 10 | 580 | 0.90 | 1.40 | 74 | 75 |
| A 11 | 580 | 0.97 | 1.50 | 75 | 73 |
| A 12 | 580 | 1.05 | 1.60 | 77 | 60 |

- **Technical features:**
 - PFC (passive)
 - Integrated PID controller
 - Control input 0-10 VDC / PWM
 - Input for sensor 0-10 V or 4-20 mA
 - **EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-2
Harmonics acc. to EN 61000-3-2/3
 - **Leakage current:** < 3.5 mA acc. to EN 61800-5-1
 - **Connection leads:** Via terminal strip
 - **Protection class:** I (acc. to EN 61800-5-1)
 - **Product conforming to standard:** CE
 - **Approvals:** VDE, UL, CSA, GOST
- Slave output 0-10 V max. 3 mA
 - Output 20 VDC ($\pm 20\%$) max. 50 mA
 - Output 10 VDC ($+10\%$) max. 10 mA
 - RS485 ebmBUS
 - Alarm relay
- Line undervoltage / phase failure detection
 - Motor current limitation
 - Over-temperature protected electronics / motor
 - Locked rotor protection
 - Soft start

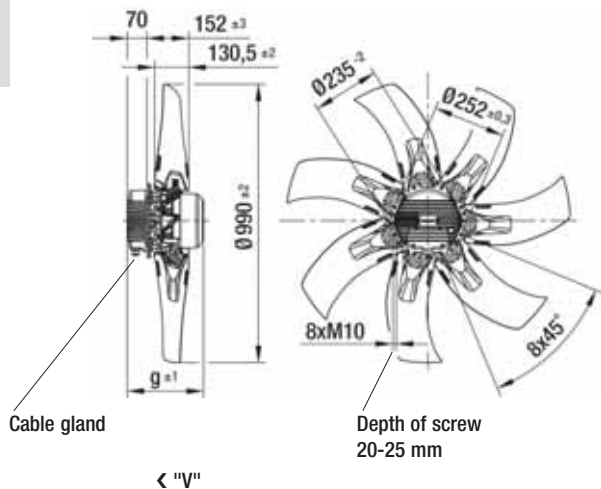
| Direction of air flow | < "V"/"A" > | | < "V"/"A" > | | < "V" | < "V" | "A" > |
|-----------------------|---------------------|-------------------------|-----------------------------------|------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| | Without attachments | With full square nozzle | With guard grille for full nozzle | With guard grille for short nozzle | With guard grille for full nozzle | With guard grille for full nozzle | With guard grille for full nozzle |
| "V" | A3G 990-AE03 -03 | W3G 990-CE03 -03 | S3G 990-BE03 -03 | — | — | — | — |
| "A" | A3G 990-AE03 -04 | W3G 990-CE03 -04 | — | — | S3G 990-CE03 -04 | — | — |

EC axial fans mains-powered

S series, Ø 990, drawings for direction of air flow "V"



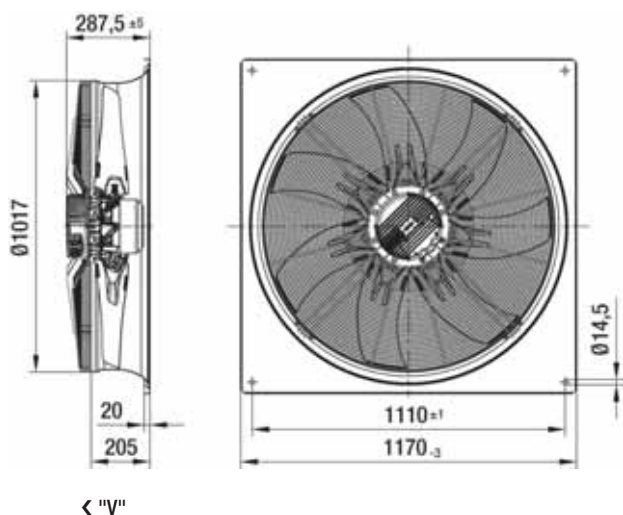
Without attachments



| Type | Mass [kg] | g |
|------------------|-----------|-------|
| A3G 990-AC04 -13 | 26.5 | 219.5 |
| A3G 990-AC03 -03 | 26.5 | 219.5 |
| A3G 990-AD11 -13 | 30.5 | 249.5 |
| A3G 990-AD05 -03 | 30.5 | 249.5 |
| A3G 990-AE03 -03 | 35.0 | 284.5 |



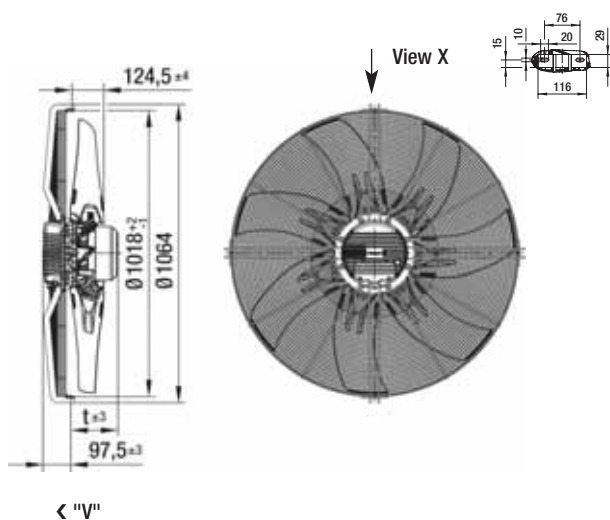
With full square nozzle



| Type | Mass [kg] |
|------------------|-----------|
| W3G 990-CC04 -13 | 55.0 |
| W3G 990-CC03 -03 | 55.0 |
| W3G 990-CD11 -13 | 59.0 |
| W3G 990-CD05 -03 | 59.0 |
| W3G 990-CE03 -03 | 63.5 |



With guard grille for full nozzle



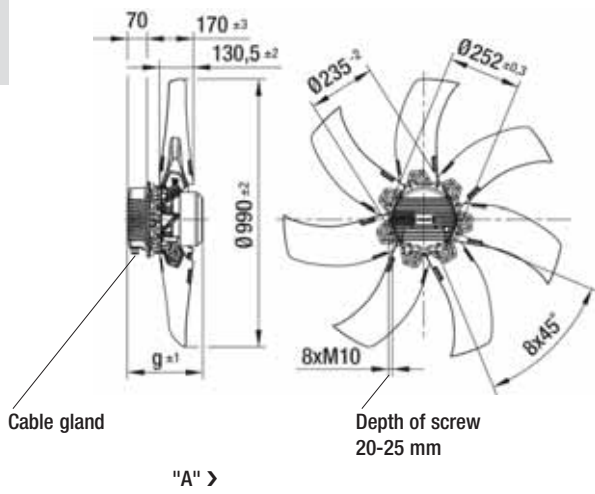
| Type | Mass [kg] | t |
|------------------|-----------|-------|
| S3G 990-BC04 -13 | 36.5 | 122.0 |
| S3G 990-BC03 -03 | 36.5 | 122.0 |
| S3G 990-BD11 -13 | 40.5 | 152.0 |
| S3G 990-BD05 -03 | 40.5 | 152.0 |
| S3G 990-BE03 -03 | 45.0 | 187.0 |

EC axial fans mains-powered

S series, Ø 990, drawings for direction of air flow "A"



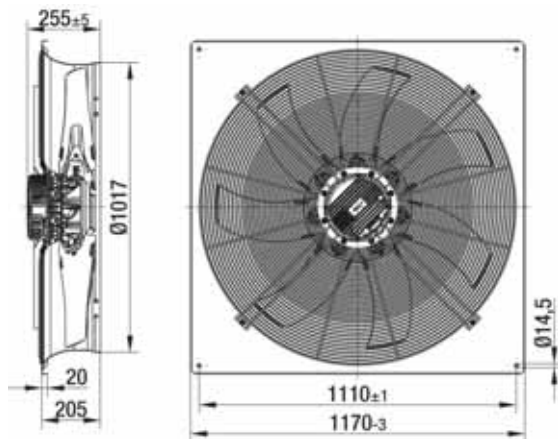
Without attachments



| Type | Mass [kg] | g |
|------------------|-----------|-------|
| A3G 990-AC04 -14 | 26.5 | 219.5 |
| A3G 990-AC03 -04 | 26.5 | 219.5 |
| A3G 990-AD11 -14 | 30.5 | 249.5 |
| A3G 990-AD05 -04 | 30.5 | 249.5 |
| A3G 990-AE03 -04 | 35.0 | 284.5 |



With full square nozzle

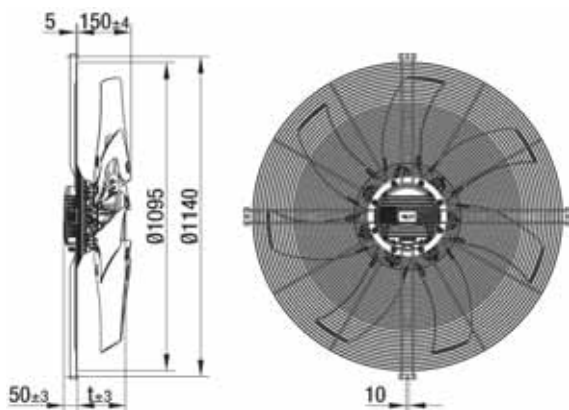


| Type | Mass [kg] |
|------------------|-----------|
| W3G 990-CC04 -14 | 56.0 |
| W3G 990-CC03 -04 | 56.0 |
| W3G 990-CD11 -14 | 60.0 |
| W3G 990-CD05 -04 | 60.0 |
| W3G 990-CE03 -04 | 64.5 |

"A" >



With guard grille for full nozzle



| Type | Mass [kg] | t |
|------------------|-----------|-------|
| S3G 990-CC04 -14 | 37.5 | 169.5 |
| S3G 990-CC03 -04 | 37.5 | 169.5 |
| S3G 990-CD11 -14 | 41.5 | 199.5 |
| S3G 990-CD05 -04 | 41.5 | 199.5 |
| S3G 990-CE03 -04 | 46.0 | 234.5 |

"A" >

| Table of options | | Standard | Multi-function | Frigo | Plug terminal | UL and CSA |
|----------------------|---|----------|----------------|----------|---------------|------------|
| = available ex stock | | Page 302 | Page 304 | Page 305 | Page 306 | Page 307 |
| Foot measure | 18 mm (height 48 mm) | | ● | ● | | |
| | 26 mm (height 51 mm) | ● | ● | | ● | ● |
| Mount | A side (3 x M4, Ø 71.4 mm) | | ● | | | |
| | B side (3 x M4, Ø 71.4 mm) | | ● | ● | | |
| | Thread ends, A side (4 x M4) | ● | ● | ● | ● | ● |
| Electr. terminals | Jacketed cable (3 x 0.5 mm ²) | 450 mm | 1500 mm | 1500 mm | | |
| | Plug terminal (3 x 0.5 mm ²) | | | | ● | |
| | UL jacketed cable (3 x AWG20) | | | | | 450 mm |



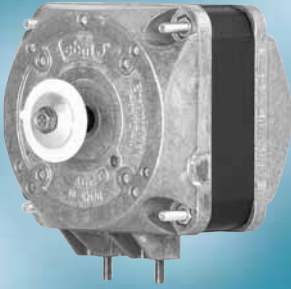
Square shaded-pole motors (Q-motors)

| | |
|------------------------|-----|
| Standard design | 302 |
| Multi-function design | 304 |
| Frigo design | 305 |
| Plug terminal design | 306 |
| UL and CSA design | 307 |
| Air performance curves | 308 |



Square shaded-pole motors

Standard design

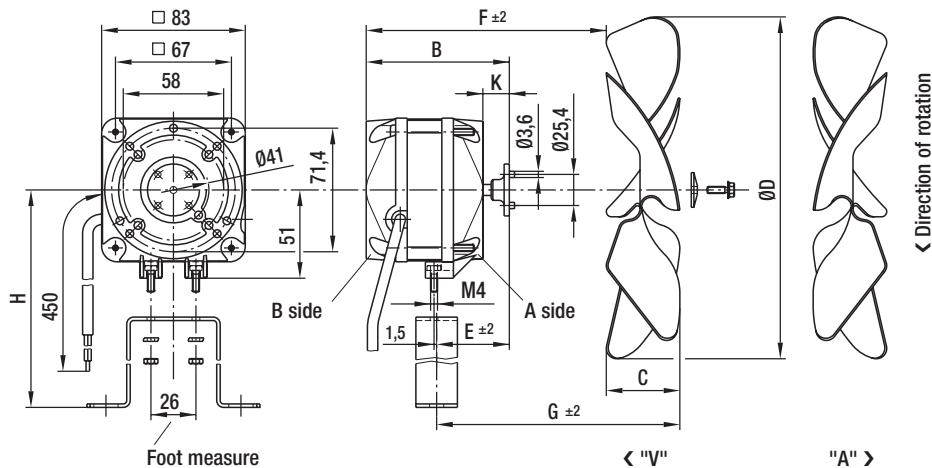


- **Foot mounting:** Track dimension 26 mm (height 51 mm)
- **Type of protection:** IP 42
- **Electrical connection:** Jacketed cable 3 x 0.5 mm² with brass lead tips
- **Product conforming to standard:** CE
- **Approvals:** VDE
- **Curves:** Page 308

| Nominal data | Combination: Motor axial impeller | Curve | Nominal voltage | Frequency | Speed/rpm | Power output | Power input | Current draw | Perm. amb. temp. | Mass | Dimensions | | |
|---------------------|--------------------------------------|-------|-----------------|-----------|-----------|--------------|-------------|--------------|------------------|------|------------|----|----|
| | | | | | | | | | | | B | E | K |
| Type | | | VAC | Hz | rpm | W | W | A | °C | kg | | | |
| M4Q045-BD01 -01 | A | Ⓐ | 1~ 230 | 50 | 1300 | 5 | 29 | 0.19 | -30 to +40 | 0.9 | 76 | 42 | 15 |
| | | Ⓑ | 1~ 230 | 60 | 1550 | 5 | 26 | 0.17 | -30 to +40 | | | | |
| M4Q045-CA01 -01 | B | Ⓒ | 1~ 230 | 50 | 1300 | 7 | 31 | 0.20 | -30 to +40 | 1.1 | 82 | 42 | 15 |
| | | Ⓓ | 1~ 230 | 60 | 1550 | 8 | 30 | 0.20 | -30 to +40 | | | | |
| M4Q045-CA03 -51 | C | Ⓔ | 1~ 230 | 50 | 1300 | 10 | 36 | 0.25 | -30 to +40 | 1.2 | 82 | 42 | 15 |
| | | Ⓕ | 1~ 230 | 60 | 1550 | 9 | 34 | 0.22 | -30 to +40 | | | | |
| M4Q045-CF01 -01 | D | Ⓖ | 1~ 230 | 50 | 1300 | 16 | 60 | 0.42 | -30 to +40 | 1.3 | 87 | 42 | 15 |
| | | Ⓗ | 1~ 230 | 60 | 1550 | 16 | 58 | 0.36 | -30 to +40 | | | | |
| M4Q045-DA01 -01 (1) | E | Ⓙ | 1~ 230 | 50 | 1300 | 18 | 70 | 0.48 | -30 to +40 | 1.6 | 93 | 54 | 15 |
| | | Ⓚ | 1~ 230 | 60 | 1550 | 18 | 62 | 0.42 | -30 to +40 | | | | |
| M4Q045-DA05 -01 (1) | F | Ⓚ | 1~ 230 | 50 | 1300 | 23 | 86 | 0.62 | -30 to +40 | 1.6 | 93 | 54 | 15 |
| | | Ⓛ | 1~ 230 | 60 | 1550 | 25 | 80 | 0.55 | -30 to +40 | | | | |
| M4Q045-EA01 -01 (1) | G | Ⓜ | 1~ 230 | 50 | 1300 | 25 | 90 | 0.62 | -30 to +40 | 2.0 | 103 | 59 | 16 |
| | | Ⓝ | 1~ 230 | 60 | 1550 | 26 | 80 | 0.55 | -30 to +40 | | | | |
| M4Q045-EF01 -01 (1) | H | Ⓞ | 1~ 230 | 50 | 1300 | 34 | 110 | 0.75 | -30 to +40 | 2.2 | 125 | 79 | 33 |
| | | Ⓟ | 1~ 230 | 60 | 1550 | 34 | 100 | 0.65 | -30 to +40 | | | | |

subject to alterations

(1) Foot mounting possible on A or B side



Valid for all designs:

- **Material:** Housing made of die-cast aluminium
Stator pack: Coated in black
- **Direction of air flow:** "V" or "A" (depending on axial impeller used)
- **Direction of rotation:** Counter-clockwise, seen on shaft end
- **Insulation class:** "B"
- **Mounting position:** Any, preferably horizontal
- **Condensate discharges:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearing:** Self-adjusting calotte sleeve bearing (mean service life of 30,000 hours in horizontal installation position)
- **Motor protection:** Impedance protection (combination A-C) or thermal overload protector internally switched (combination D-H)
- **Protection class:** I
- **Mounting:** Guard grille and wall ring are mounted onto the protruding thread ends of the A side. The Q-motor can also be screwed on via the mounting flanges (integrated in the bearing shields).
- **Axial impeller mounting:** Mounted to the motor shaft using a plastic adapter with pulling peg and an M4 screw (combination A-D) or M5 (combination E-H) screw.
- **Power specifications:** At 60 Hz, the blade angle of the axial impellers must be reduced by 6° each.

| Axial impellers | | Blade angle 22° ± 1°30' | | | | Blade angle 28° ± 1°30' | | | | Blade angle 34° ± 1°30' | | | |
|-----------------|-----|-------------------------|-----|------|---------------------|-------------------------|-----|------|---------------------|-------------------------|-----|------|---------------------|
| Ø D | H | F | G | C | m³/h ⁽²⁾ | F | G | C | m³/h ⁽²⁾ | F | G | C | m³/h ⁽²⁾ |
| 154 | 90 | 61 | 56 | 27.5 | 60 | 56 | 59 | 32.0 | 100 | 54 | 62 | 37.0 | 140 |
| 172 | 103 | 58 | 57 | 31.0 | 120 | 55 | 59 | 36.0 | 180 | 53 | 63 | 42.0 | 230 |
| 200 | 123 | 58 | 58 | 32.0 | 190 | 55 | 60 | 37.5 | 300 | — | — | — | — |
| 200 | 123 | 65 | 58 | 32.0 | 190 | 62 | 60 | 37.5 | 300 | 59 | 64 | 45.0 | 400 |
| 230 | 123 | 64 | 62 | 35.0 | 500 | — | — | — | — | — | — | — | — |
| 230 | 123 | 64 | 62 | 35.0 | 500 | 60 | 65 | 43.0 | 630 | 52 | 68 | 50.0 | 820 |
| 254 | 135 | 64 | 62 | 37.0 | 580 | — | — | — | — | — | — | — | — |
| 254 | 135 | 70 | 62 | 37.0 | 580 | 65 | 66 | 45.0 | 840 | — | — | — | — |
| 254 | 135 | 76 | 74 | 37.0 | 580 | 72 | 78 | 45.0 | 840 | 67 | 80 | 52.0 | 1070 |
| 300 | 160 | 75 | 79 | 43.0 | 1000 | — | — | — | — | — | — | — | — |
| 300 | 160 | 75 | 79 | 43.0 | 1000 | 67 | 81 | 53.5 | 1400 | — | — | — | — |
| 300 | 160 | 86 | 84 | 43.0 | 1000 | 77 | 86 | 53.5 | 1400 | — | — | — | — |
| 300 | 160 | 108 | 104 | 43.0 | 1000 | 104 | 106 | 53.5 | 1400 | 95 | 112 | 61.0 | 1700 |

⁽²⁾ established at counterpressure of 20 Pa

Square shaded-pole motors

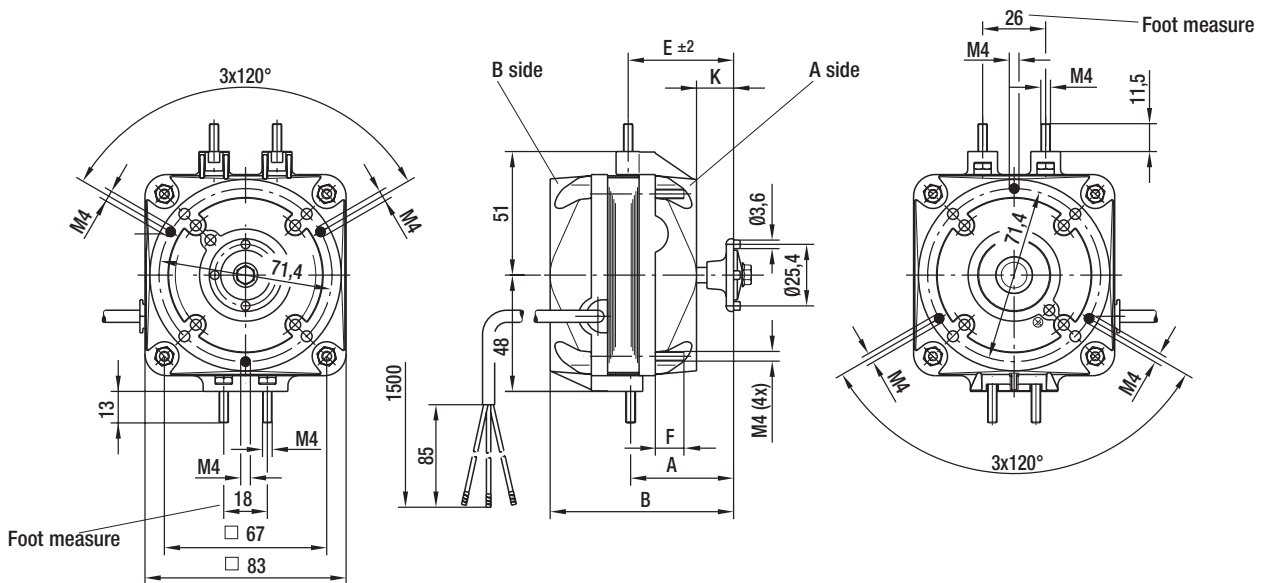
Multi-function design



- **Foot mounting:** Track dimension 26 mm (height 51 mm) or 18 mm (height 48 mm) possible
- **Bearing shields:** A and B-sides, tapped holes 3 x M4, diameter of pitch circle 71.4 mm; mounting of guard grille and wall ring on A-side bearing shield; opposite M4 are securely installed in the feet (knurled hex nuts are not included in delivery scope)
- **Type of protection:** IP 42
- **Electrical connection:** Jacketed cable 3 x 0.5 mm² with brass lead tips
- **Product conforming to standard:** CE
- **Approvals:** VDE
- **Curves:** Page 308

| Nominal data | Combination: Motor axial impeller | Curve | Nominal voltage | Frequency | Speed/rpm | Power output | Power input | Current draw | Perm. amb. temp. | Mass | Dimensions | | | | |
|-----------------|--------------------------------------|-------|-----------------|-----------|-----------|--------------|-------------|--------------|------------------|------|------------|-------|------|----|------|
| | | | | | | | | | | | Type | p.302 | VAC | Hz | rpm |
| M4Q045-BD01 -75 | A | Ⓐ | 1~ 230 | 50 | 1300 | 5 | 29 | 0.19 | -30 to +40 | 0.9 | 43 | 76 | 43.5 | 12 | 15.0 |
| | | Ⓑ | 1~ 230 | 60 | 1550 | 5 | 26 | 0.17 | -30 to +40 | | | | | | |
| M4Q045-CA01 -75 | B | Ⓒ | 1~ 230 | 50 | 1300 | 7 | 31 | 0.20 | -30 to +40 | 1.1 | 49 | 82 | 43.5 | 10 | 15.0 |
| | | Ⓓ | 1~ 230 | 60 | 1550 | 8 | 30 | 0.20 | -30 to +40 | | | | | | |
| M4Q045-CA03 -75 | C | Ⓔ | 1~ 230 | 50 | 1300 | 10 | 36 | 0.25 | -30 to +40 | 1.2 | 49 | 82 | 43.5 | 10 | 15.0 |
| | | Ⓕ | 1~ 230 | 60 | 1550 | 9 | 34 | 0.22 | -30 to +40 | | | | | | |
| M4Q045-CF01 -75 | D | Ⓖ | 1~ 230 | 50 | 1300 | 16 | 60 | 0.42 | -30 to +40 | 1.3 | 54 | 87 | 43.5 | 10 | 15.0 |
| | | Ⓗ | 1~ 230 | 60 | 1550 | 16 | 58 | 0.36 | -30 to +40 | | | | | | |
| M4Q045-DA01 -75 | E | Ⓙ | 1~ 230 | 50 | 1300 | 18 | 70 | 0.48 | -30 to +40 | 1.6 | 59 | 93 | 43.5 | 10 | 15.0 |
| | | Ⓚ | 1~ 230 | 60 | 1550 | 18 | 62 | 0.42 | -30 to +40 | | | | | | |
| M4Q045-DA05 -75 | F | Ⓛ | 1~ 230 | 50 | 1300 | 23 | 86 | 0.62 | -30 to +40 | 1.6 | 59 | 93 | 43.5 | 10 | 15.0 |
| | | Ⓛ | 1~ 230 | 60 | 1550 | 25 | 80 | 0.55 | -30 to +40 | | | | | | |
| M4Q045-EA01 -75 | G | Ⓜ | 1~ 230 | 50 | 1300 | 25 | 90 | 0.62 | -30 to +40 | 2.0 | 69 | 103 | 44.0 | 10 | 15.5 |
| | | Ⓝ | 1~ 230 | 60 | 1550 | 26 | 80 | 0.55 | -30 to +40 | | | | | | |
| M4Q045-EF01 -75 | H | Ⓞ | 1~ 230 | 50 | 1300 | 34 | 110 | 0.75 | -30 to +40 | 2.2 | 92 | 125 | 61.0 | 10 | 33.0 |
| | | Ⓟ | 1~ 230 | 60 | 1550 | 34 | 100 | 0.65 | -30 to +40 | | | | | | |

subject to alterations



Square shaded-pole motors

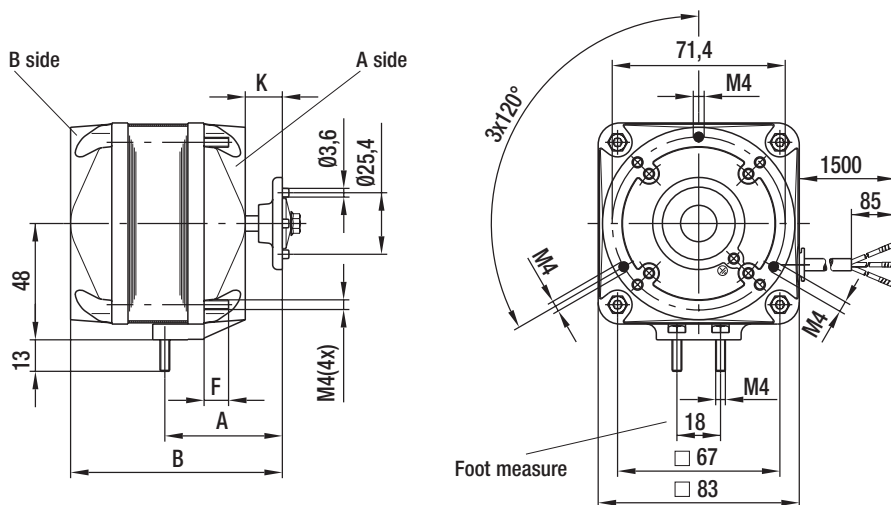
Frigo design (specially for spare parts requirements)



- **Foot mounting:** Track dimension 18 mm (height 48 mm)
- **Bearing shields:** B-side, tapped holes 3 x M4, diameter of pitch circle 71.4 mm; mounting of guard grille and wall ring on A-side bearing shield; M4 knurled hex nuts (2x) are enclosed in loose form
- **Type of protection:** IP 42
- **Electrical connection:** Jacketed cable 3 x 0.5 mm² with brass lead tips
- **Product conforming to standard:** CE
- **Approvals:** VDE
- **Curves:** Page 308

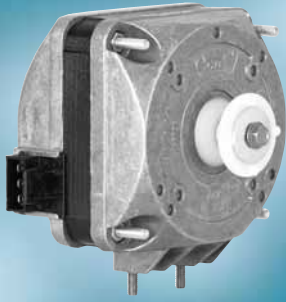
| Nominal data | Combination: Motor axial impeller p.302 | Curve | Nominal voltage | Frequency | Speed/rpm | Power output | Power input | Current draw | Perm. amb. temp. | Mass | Dimensions | | | |
|-----------------|---|------------|------------------|-----------|--------------|--------------|-------------|--------------|--------------------------|------|------------|-----|-----|----|
| | | | | | | | | | | | VAC | Hz | rpm | W |
| M4Q045-BD01 -A4 | A | (A) (B) | 1~ 230 1~ 230 | 50 60 | 1300 1550 | 5 5 | 29 26 | 0.19 0.17 | -30 to +40 -30 to +40 | 0.9 | 48.5 | 76 | 12 | 15 |
| M4Q045-CA01 -N4 | B | (C) (D) | 1~ 230 1~ 230 | 50 60 | 1300 1550 | 7 8 | 31 30 | 0.20 0.20 | -30 to +40 -30 to +40 | 1.1 | 48.5 | 82 | 10 | 15 |
| M4Q045-CA03 -A4 | C | (E) (F) | 1~ 230 1~ 230 | 50 60 | 1300 1550 | 10 9 | 36 34 | 0.25 0.22 | -30 to +40 -30 to +40 | 1.2 | 48.5 | 82 | 10 | 15 |
| M4Q045-CF01 -A4 | D | (G) (H) | 1~ 230 1~ 230 | 50 60 | 1300 1550 | 16 16 | 60 58 | 0.42 0.36 | -30 to +40 -30 to +40 | 1.3 | 48.5 | 87 | 10 | 15 |
| M4Q045-DA01 -A4 | E | (I) (J) | 1~ 230 1~ 230 | 50 60 | 1300 1550 | 18 18 | 70 62 | 0.48 0.42 | -30 to +40 -30 to +40 | 1.6 | 48.5 | 93 | 10 | 15 |
| M4Q045-DA05 -A4 | F | (K) (L) | 1~ 230 1~ 230 | 50 60 | 1300 1550 | 23 25 | 86 80 | 0.62 0.55 | -30 to +40 -30 to +40 | 1.6 | 48.5 | 93 | 10 | 15 |
| M4Q045-EA01 -A4 | G | (M) (N) | 1~ 230 1~ 230 | 50 60 | 1300 1550 | 25 26 | 90 80 | 0.62 0.55 | -30 to +40 -30 to +40 | 2.0 | 49.0 | 103 | 10 | 16 |
| M4Q045-EF01 -A4 | H | (O) (P) | 1~ 230 1~ 230 | 50 60 | 1300 1550 | 34 34 | 110 100 | 0.75 0.65 | -30 to +40 -30 to +40 | 2.2 | 66.0 | 125 | 10 | 33 |

subject to alterations



Square shaded-pole motors

Plug terminal design

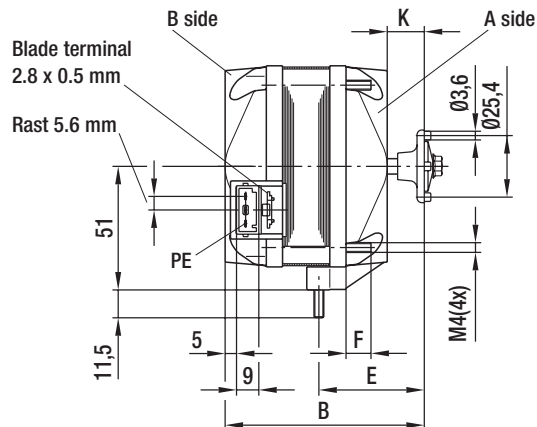
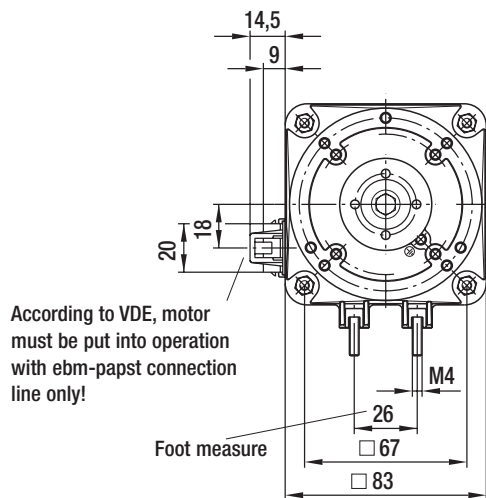


- **Foot mounting:** Track dimension 26 mm (height 51 mm)
- **Type of protection:** IP 42
- **Electrical connection:** Rast 5.6 mm terminal connector, 2.8 x 0.5 mm blade terminal; connection lines available in 420 mm to 4970 mm lengths
- **Product conforming to standard:** CE
- **Approvals:** VDE (put into operation with ebm-papst connection line only!)
- **Curves:** Page 308

| Nominal data | Combination: Motor axial impeller | Curve | Nominal voltage | Frequency | Speed/rpm | Power output | Power input | Current draw | Perm. amb. temp. | Mass | Dimensions | | | |
|---------------------|--------------------------------------|------------|------------------|-----------|--------------|--------------|-------------|--------------|--------------------------|------|------------|-------|-----|----|
| | | | | | | | | | | | Type | p.302 | VAC | Hz |
| M4Q045-BD01 -08 | A | (A) (B) | 1~ 230 1~ 230 | 50 60 | 1300 1550 | 5 5 | 29 26 | 0.19 0.17 | -30 to +40 -30 to +40 | 0.9 | 76 | 43.5 | 12 | 15 |
| M4Q045-CA01 -08 | B | (C) (D) | 1~ 230 1~ 230 | 50 60 | 1300 1550 | 7 8 | 31 30 | 0.20 0.20 | -30 to +40 -30 to +40 | 1.1 | 82 | 43.5 | 10 | 15 |
| M4Q045-CA03 -08 | C | (E) (F) | 1~ 230 1~ 230 | 50 60 | 1300 1550 | 10 9 | 36 34 | 0.25 0.22 | -30 to +40 -30 to +40 | 1.2 | 82 | 43.5 | 10 | 15 |
| M4Q045-CF01 -08 | D | (G) (H) | 1~ 230 1~ 230 | 50 60 | 1300 1550 | 16 16 | 60 58 | 0.42 0.36 | -30 to +40 -30 to +40 | 1.3 | 87 | 43.5 | 10 | 15 |
| M4Q045-DA01 -52 (1) | E | (I) (J) | 1~ 230 1~ 230 | 50 60 | 1300 1550 | 18 18 | 70 62 | 0.48 0.42 | -30 to +40 -30 to +40 | 1.6 | 93 | 43.5 | 10 | 15 |
| M4Q045-DA05 -52 (1) | F | (K) (L) | 1~ 230 1~ 230 | 50 60 | 1300 1550 | 23 25 | 86 80 | 0.62 0.55 | -30 to +40 -30 to +40 | 1.6 | 93 | 43.5 | 10 | 15 |
| M4Q045-EA01 -52 (1) | G | (M) (N) | 1~ 230 1~ 230 | 50 60 | 1300 1550 | 25 26 | 90 80 | 0.62 0.55 | -30 to +40 -30 to +40 | 2.0 | 103 | 44.0 | 10 | 16 |
| M4Q045-EF01 -52 (1) | H | (O) (P) | 1~ 230 1~ 230 | 50 60 | 1300 1550 | 34 34 | 110 100 | 0.75 0.65 | -30 to +40 -30 to +40 | 2.2 | 125 | 61.0 | 10 | 33 |

subject to alterations

(1) Foot mounting possible on A or B side



Square shaded-pole motors

UL and CSA design



- **Description:** Designs with UL/CSA approvals; connection lines, temperature monitor and dynamo wire are UL/CSA-approved components
- **Foot mounting:** Track dimension 26 mm (height 51 mm)
- **Type of protection:** IP 42
- **Electrical connection:** Jacketed cable 3 x AWG20 with brass lead tips
- **Product conforming to standard:** UL547, UL1004, CSA C22.2 No. 100, CSA C22.2 No. 77, CE
- **Approvals:** UL, CSA
- **Curves:** Page 308
- **Drawing:** See standard design on page 302

| Nominal data | | Combination: Motor axial impeller | Curve | Nominal voltage | Frequency | Speed/rpm | Power output | Power input | Current draw | Perm. amb. temp. | Mass | Dimensions | | |
|------------------------|-------|--------------------------------------|------------------|-----------------|--------------|-----------|--------------|--------------|--------------------------|------------------|------|------------|----|-----|
| Type | p.302 | | | | | | | | | | | VAC | Hz | rpm |
| M4Q045-BD03 -04 (2) | A | (A) (B) | 1~ 115 1~ 115 | 50 60 | 1300 1550 | 5 5 | 29 26 | 0.38 0.35 | -30 to +40 -30 to +40 | 0.9 | 76 | 42 | 15 | |
| M4Q045-BD01 -04 (2) | A | (A) (B) | 1~ 230 1~ 230 | 50 60 | 1300 1550 | 5 5 | 29 26 | 0.19 0.17 | -30 to +40 -30 to +40 | 0.9 | 76 | 42 | 15 | |
| M4Q045-CA17 -04 (2) | B | (C) (D) | 1~ 115 1~ 115 | 50 60 | 1300 1550 | 7 8 | 31 30 | 0.40 0.40 | -30 to +40 -30 to +40 | 1.1 | 82 | 42 | 15 | |
| M4Q045-CA01 -04 (2) | B | (C) (D) | 1~ 230 1~ 230 | 50 60 | 1300 1550 | 7 8 | 31 30 | 0.20 0.20 | -30 to +40 -30 to +40 | 1.1 | 82 | 42 | 15 | |
| M4Q045-CA27 -04 (2) | C | (E) (F) | 1~ 115 1~ 115 | 50 60 | 1300 1550 | 10 9 | 36 34 | 0.50 0.45 | -30 to +40 -30 to +40 | 1.2 | 82 | 42 | 15 | |
| M4Q045-CA25 -04 (2) | C | (E) (F) | 1~ 230 1~ 230 | 50 60 | 1300 1550 | 10 9 | 36 34 | 0.25 0.22 | -30 to +40 -30 to +40 | 1.2 | 82 | 42 | 15 | |
| M4Q045-CF07 -04 (2) | D | (G) (H) | 1~ 115 1~ 115 | 50 60 | 1300 1550 | 16 16 | 60 58 | 0.80 0.74 | -30 to +40 -30 to +40 | 1.3 | 87 | 42 | 15 | |
| M4Q045-CF01 -04 (2) | D | (G) (H) | 1~ 230 1~ 230 | 50 60 | 1300 1550 | 16 16 | 60 58 | 0.42 0.36 | -30 to +40 -30 to +40 | 1.3 | 87 | 42 | 15 | |
| M4Q045-DA11 -04 (1)(3) | E | (I) (J) | 1~ 115 1~ 115 | 50 60 | 1300 1550 | 18 18 | 70 62 | 0.98 0.87 | -30 to +40 -30 to +40 | 1.6 | 93 | 54 | 15 | |
| M4Q045-DA01 -04 (1)(3) | E | (I) (J) | 1~ 230 1~ 230 | 50 60 | 1300 1550 | 18 18 | 70 62 | 0.48 0.42 | -30 to +40 -30 to +40 | 1.6 | 93 | 54 | 15 | |
| M4Q045-DA13 -04 (1)(3) | F | (K) (L) | 1~ 115 1~ 115 | 50 60 | 1300 1550 | 23 25 | 86 80 | 1.25 1.10 | -30 to +40 -30 to +40 | 1.6 | 93 | 54 | 15 | |
| M4Q045-DA05 -04 (1)(3) | F | (K) (L) | 1~ 230 1~ 230 | 50 60 | 1300 1550 | 23 25 | 86 80 | 0.62 0.55 | -30 to +40 -30 to +40 | 1.6 | 93 | 54 | 15 | |
| M4Q045-EA03 -04 (1)(3) | G | (M) (N) | 1~ 115 1~ 115 | 50 60 | 1300 1550 | 25 26 | 90 80 | 1.25 1.10 | -30 to +40 -30 to +40 | 2.0 | 103 | 59 | 16 | |
| M4Q045-EA01 -04 (1)(3) | G | (M) (N) | 1~ 230 1~ 230 | 50 60 | 1300 1550 | 25 26 | 90 80 | 0.62 0.55 | -30 to +40 -30 to +40 | 2.0 | 103 | 59 | 16 | |
| M4Q045-EF03 -04 (1)(3) | H | (O) (P) | 1~ 115 1~ 115 | 50 60 | 1300 1550 | 34 34 | 110 100 | 1.50 1.35 | -30 to +40 -30 to +40 | 2.2 | 125 | 79 | 33 | |
| M4Q045-EF01 -04 (1)(3) | H | (O) (P) | 1~ 230 1~ 230 | 50 60 | 1300 1550 | 34 34 | 110 100 | 0.75 0.65 | -30 to +40 -30 to +40 | 2.2 | 125 | 79 | 33 | |

subject to alterations

(1) A and B-side foot mounting possible

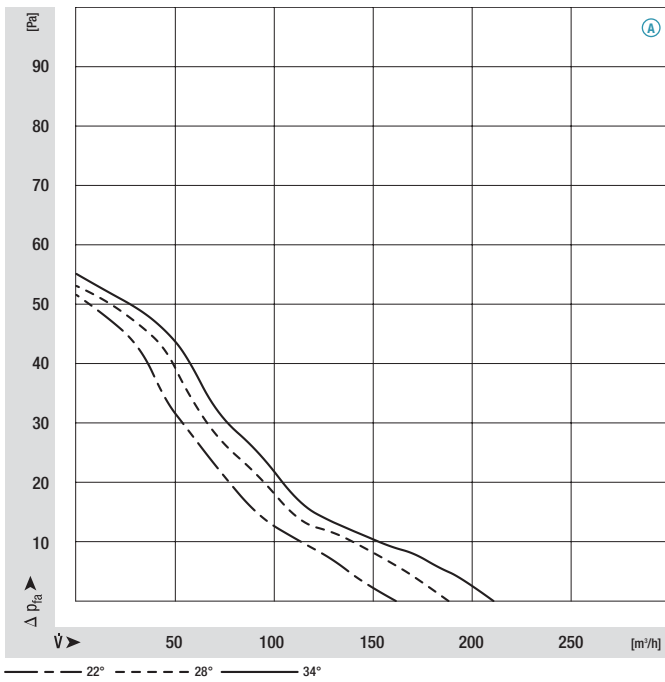
(2) File No. E 171165

(3) File No. E 76226

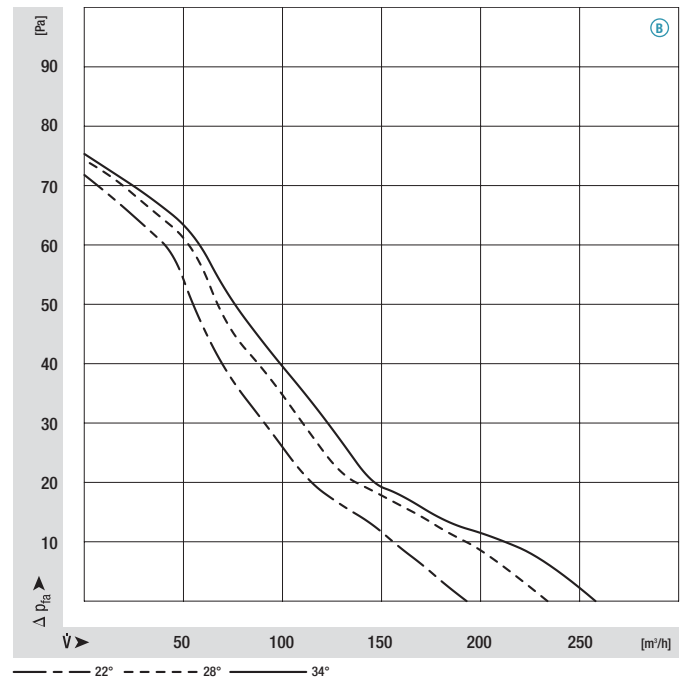
Square shaded-pole motors

Air performance curves (measured in wall ring)

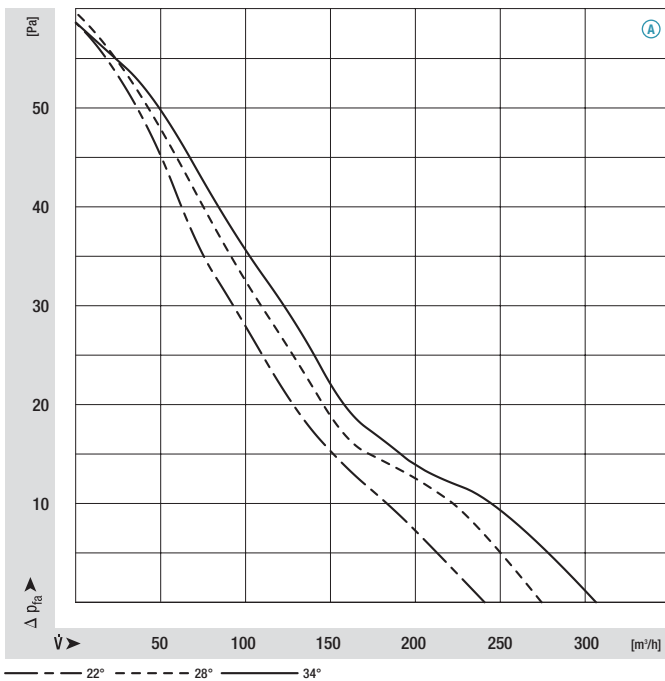
M4Q045-BD01-**, Ø 154, 50 Hz



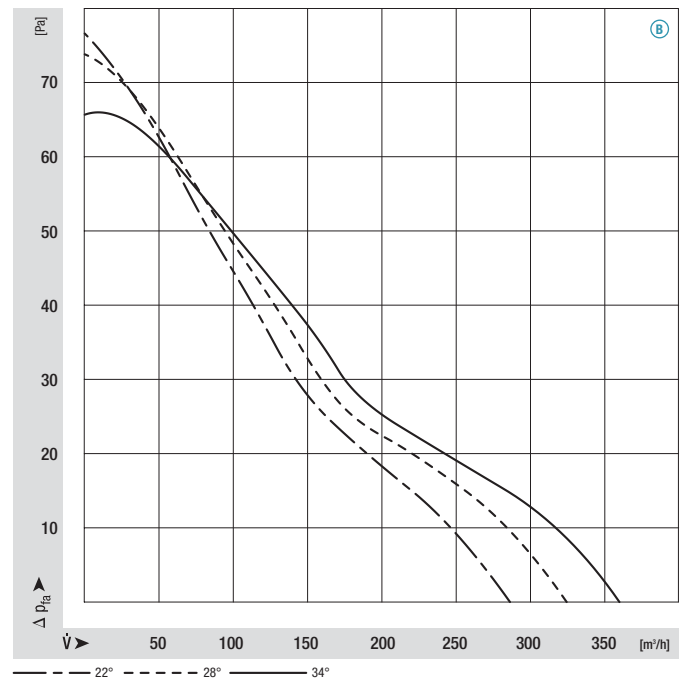
M4Q045-BD01-**, Ø 154, 60 Hz



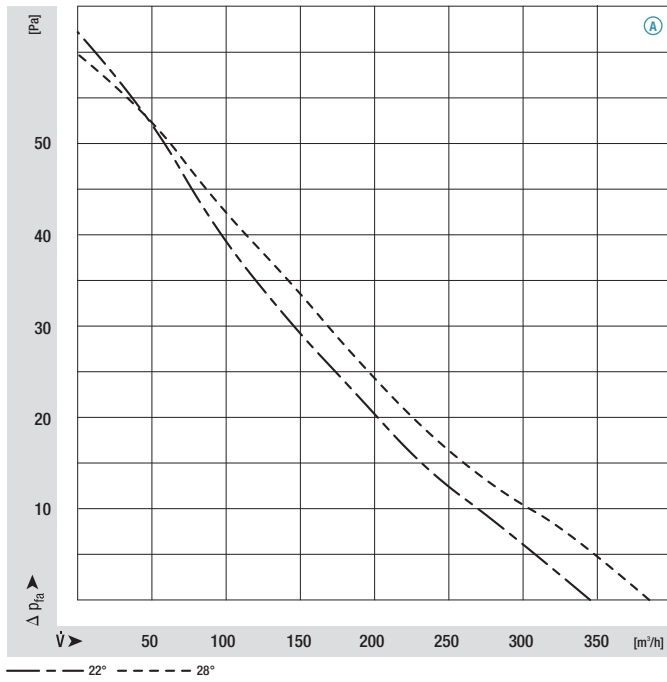
M4Q045-BD01-**, Ø 172, 50 Hz



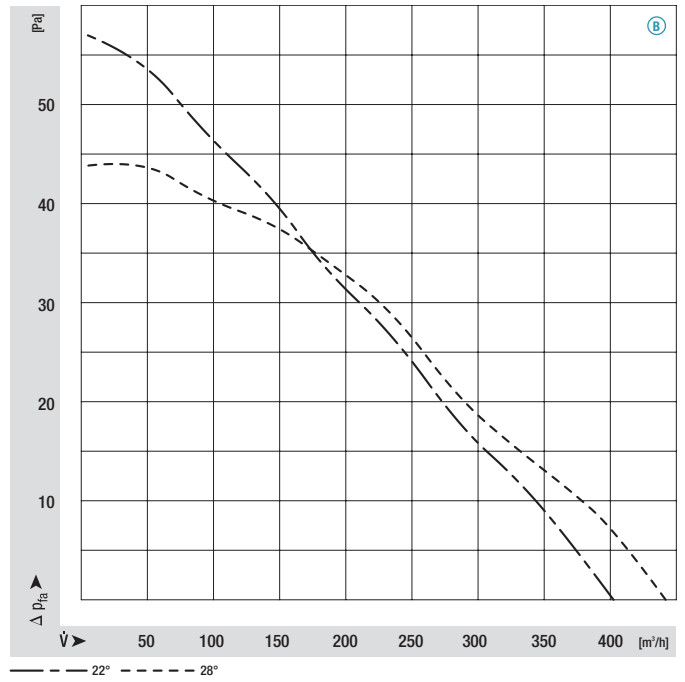
M4Q045-BD01-**, Ø 172, 60 Hz



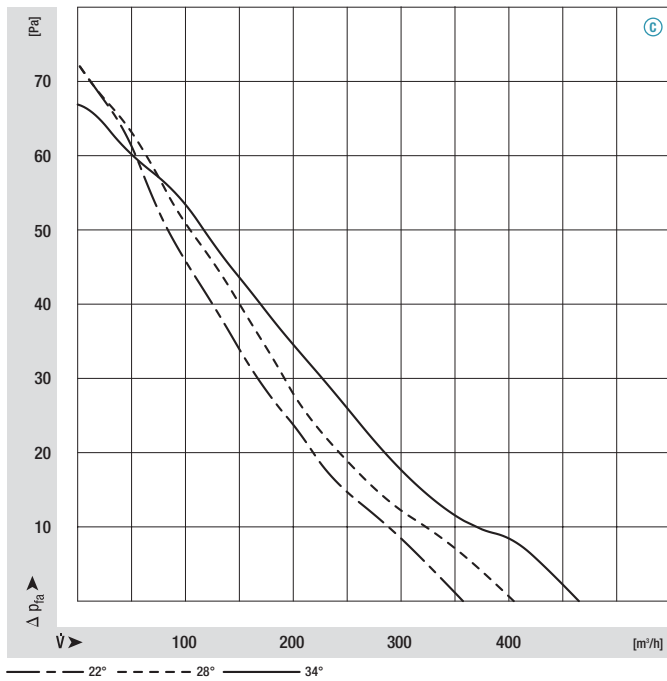
M4Q045-BD01-**, Ø 200, 50 Hz



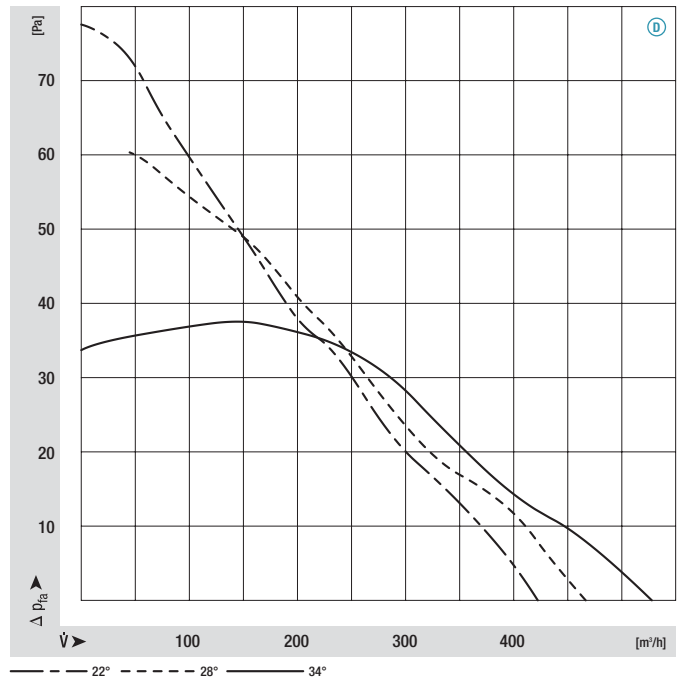
M4Q045-BD01-**, Ø 200, 60 Hz



M4Q045-CA01-**, Ø 200, 50 Hz



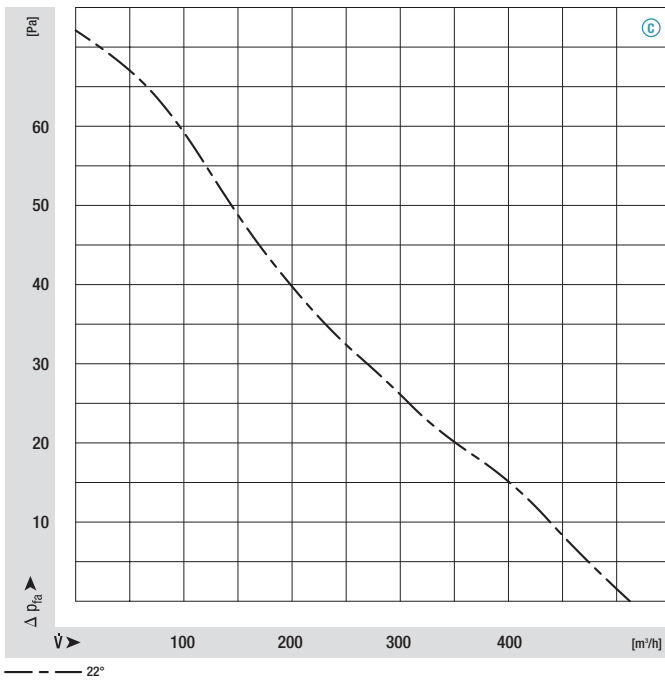
M4Q045-CA01-**, Ø 200, 60 Hz



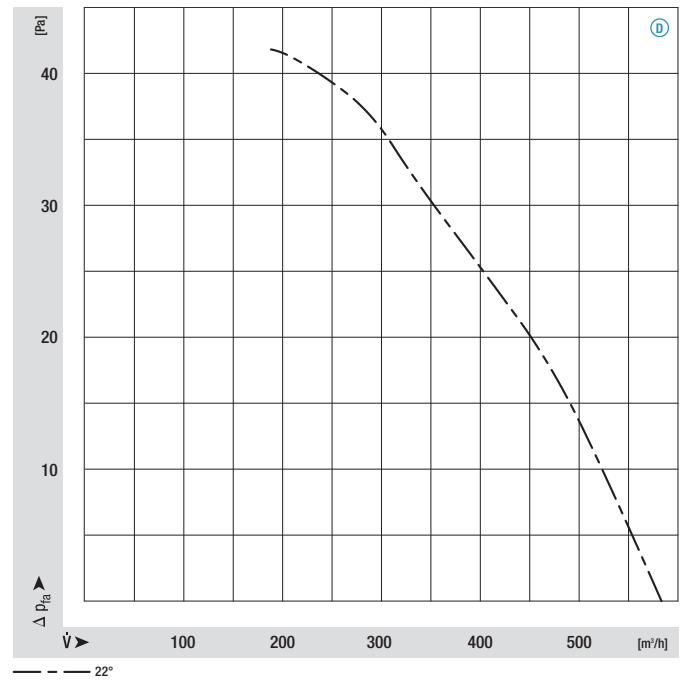
Square shaded-pole motors

Air performance curves (measured in wall ring)

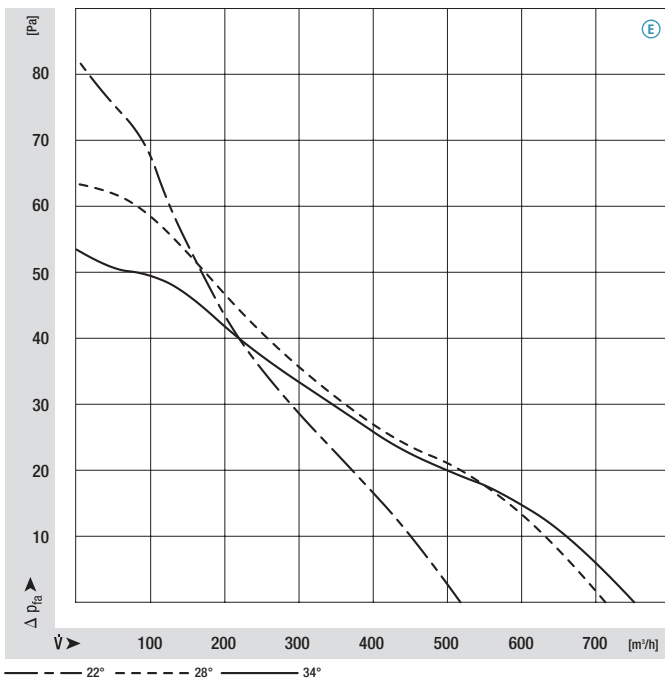
M4Q045-CA01-**, Ø 230, 50 Hz



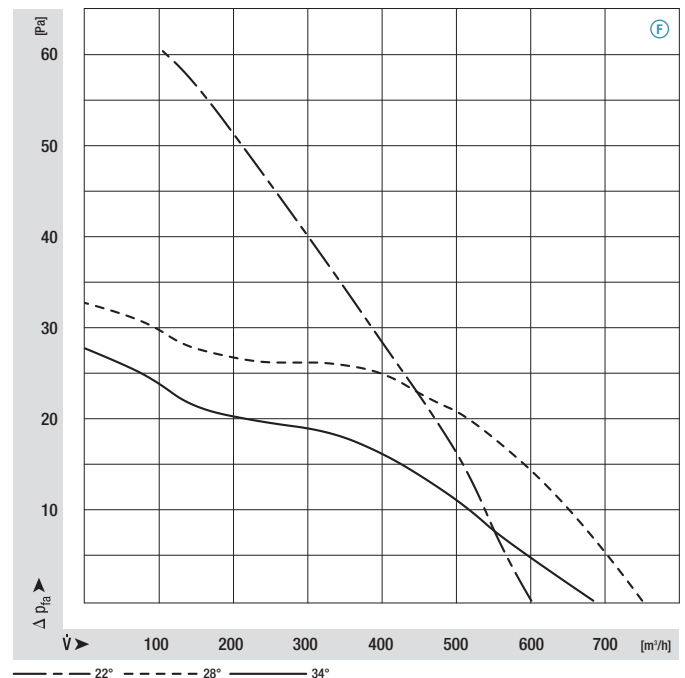
M4Q045-CA01-**, Ø 230, 60 Hz



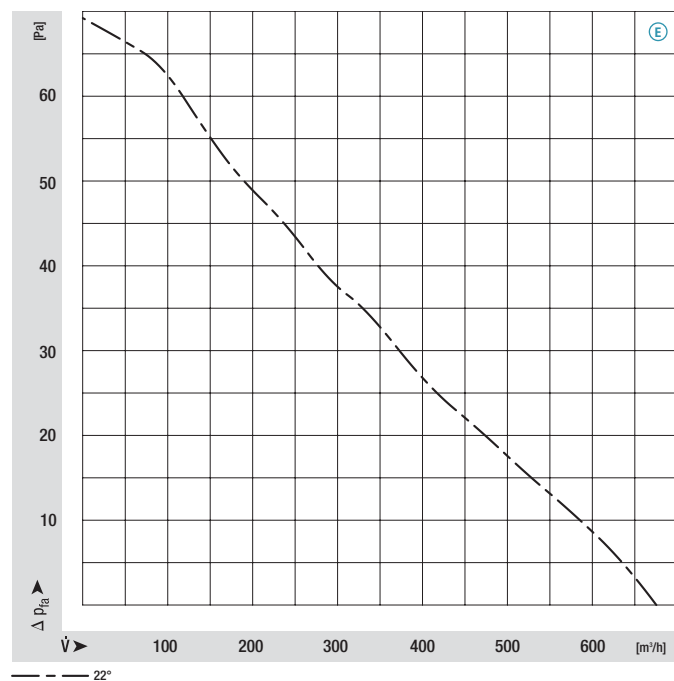
M4Q045-CA03-**, Ø 230, 50 Hz



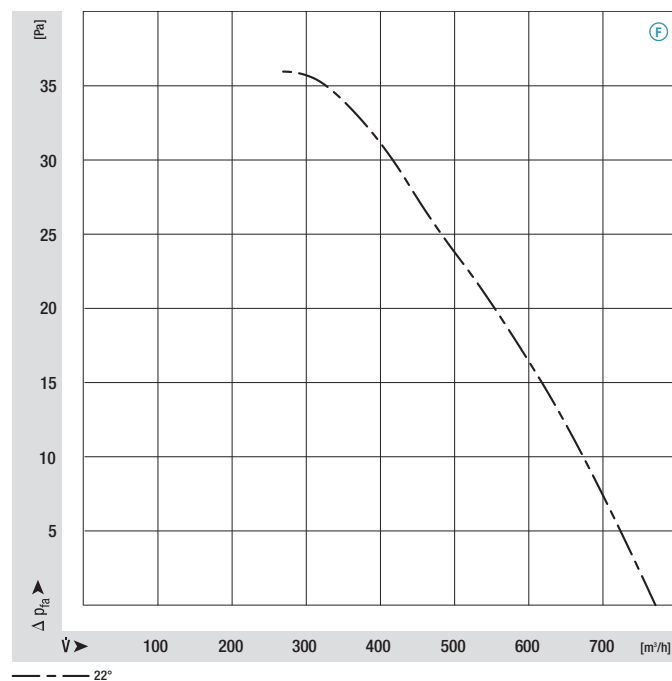
M4Q045-CA03-**, Ø 230, 60 Hz



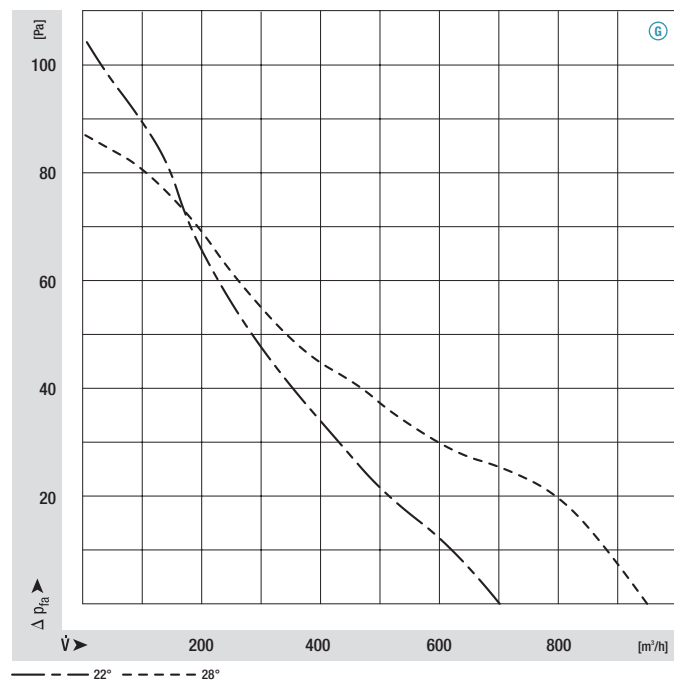
M4Q045-CA03-**, Ø 254, 50 Hz



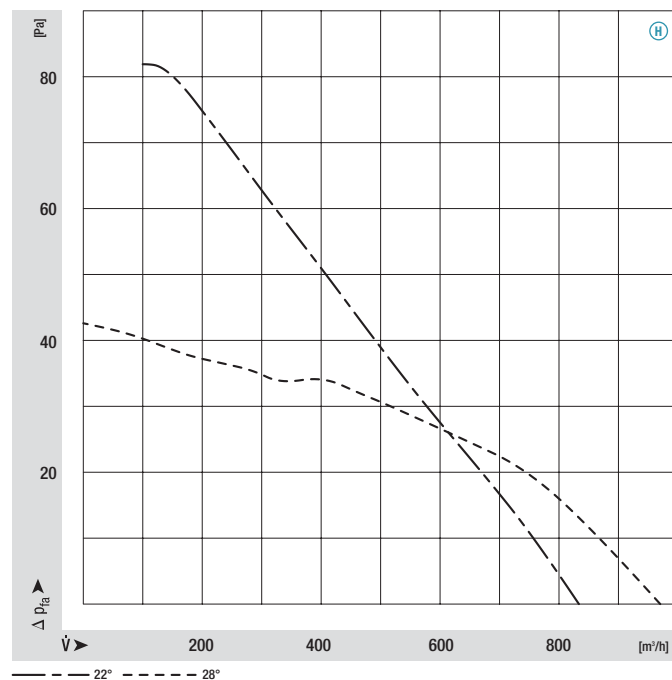
M4Q045-CA03-**, Ø 254, 60 Hz



M4Q045-CF01-**, Ø 254, 50 Hz



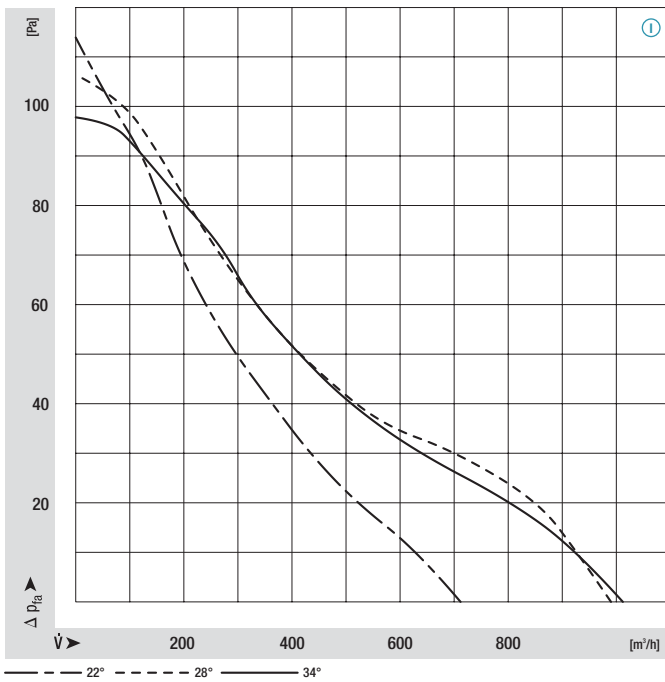
M4Q045-CF01-**, Ø 254, 60 Hz



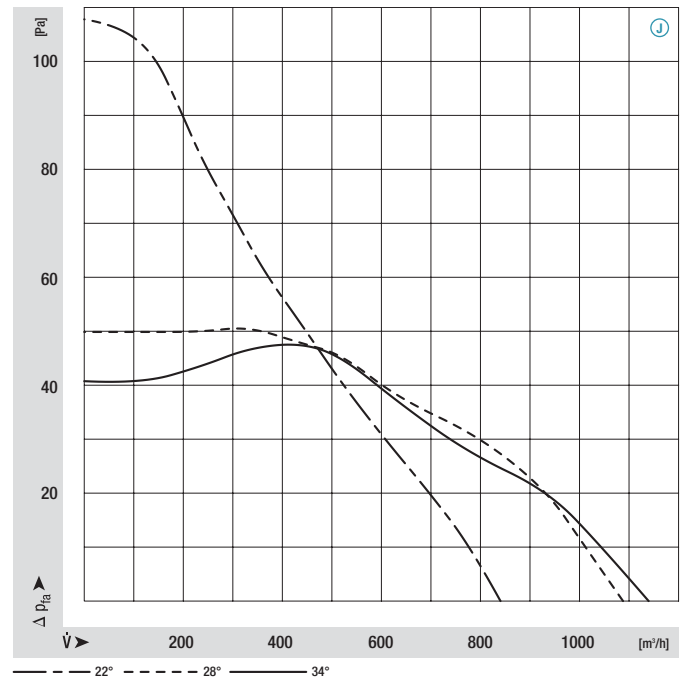
Square shaded-pole motors

Air performance curves (measured in wall ring)

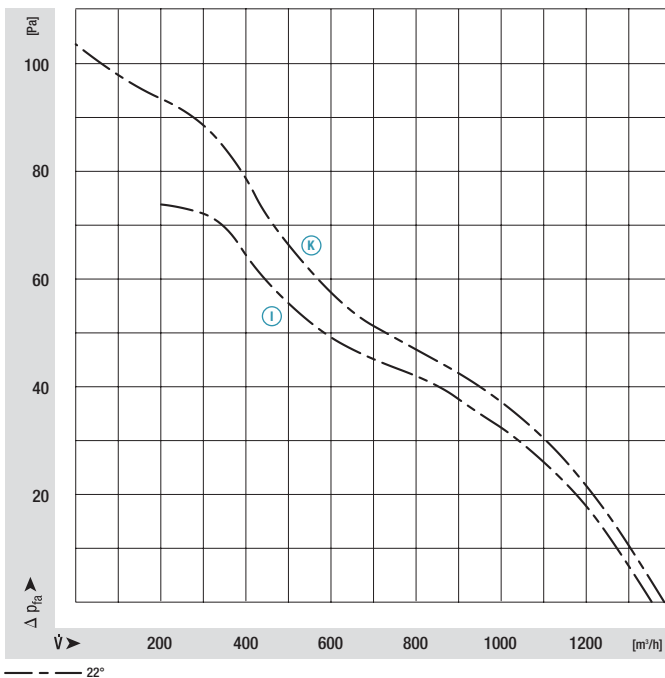
M4Q045-DA01-**, Ø 254, 50 Hz



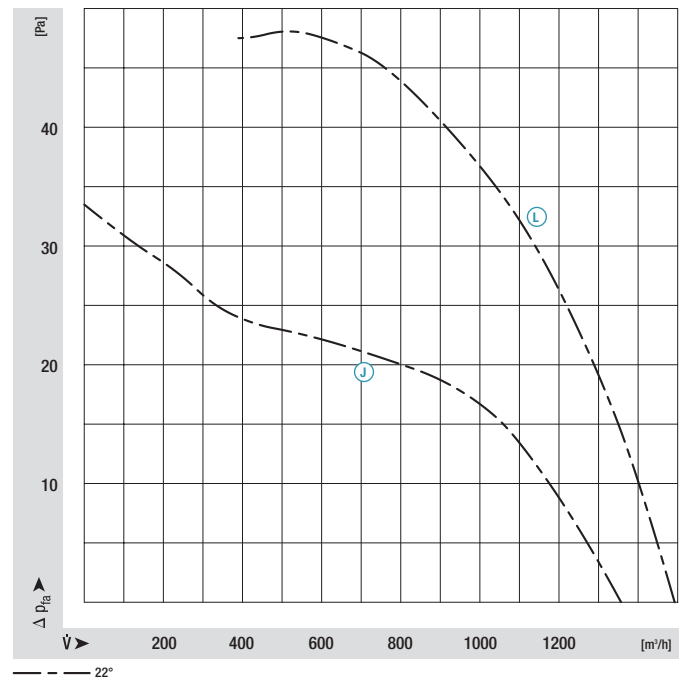
M4Q045-DA01-**, Ø 254, 60 Hz



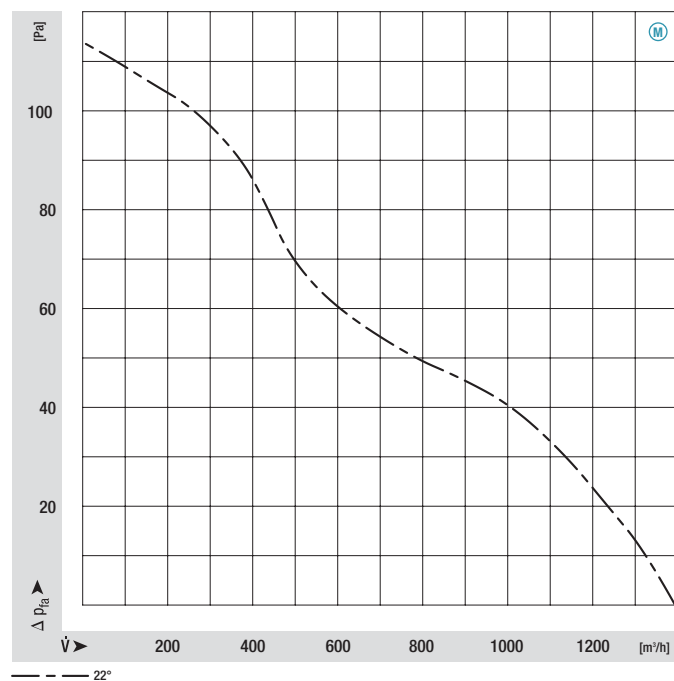
I M4Q045-DA01-** / K -DA05-**, Ø 300, 50 Hz



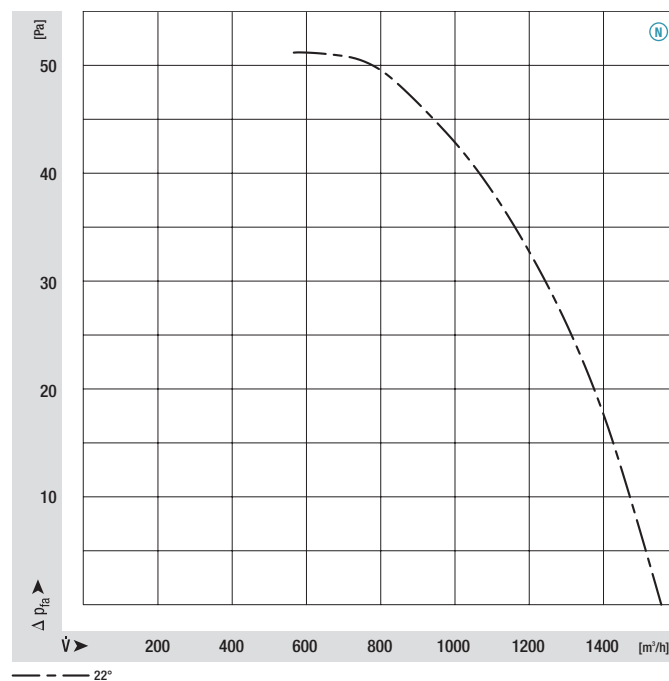
J M4Q045-DA01-** / L -DA05-**, Ø 300, 60 Hz



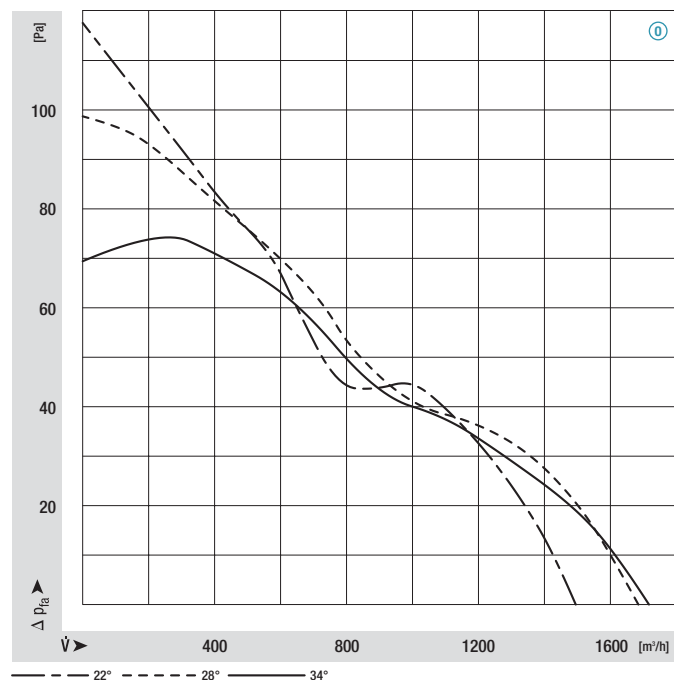
M4Q045-EA01-**, Ø 300, 50 Hz



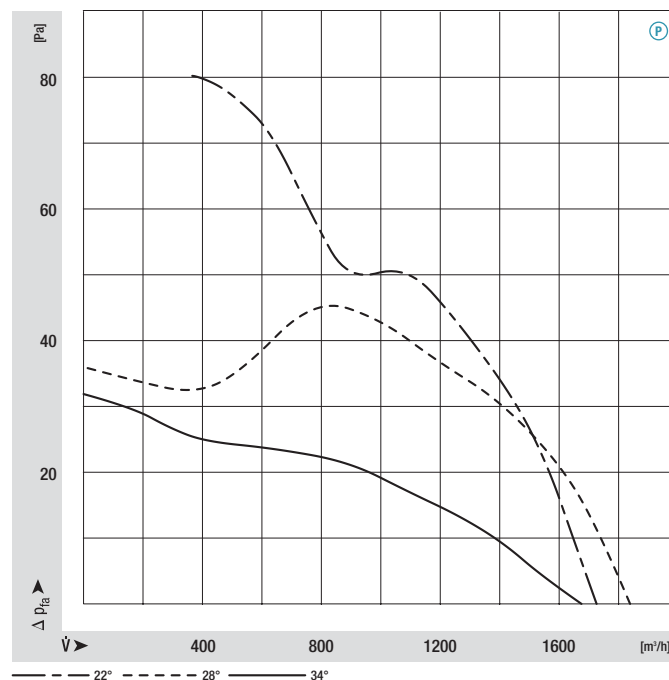
M4Q045-EA01-**, Ø 300, 60 Hz



M4Q045-EF01-**, Ø 300, 50 Hz



M4Q045-EF01-**, Ø 300, 60 Hz





Energy-saving motors (ESM)

| | |
|----------------------------|-----|
| Energy-saving motors (ESM) | 316 |
| Air performance curves | 320 |
| Energy-saving axial fans | 326 |



Energy-saving motors (ESM)



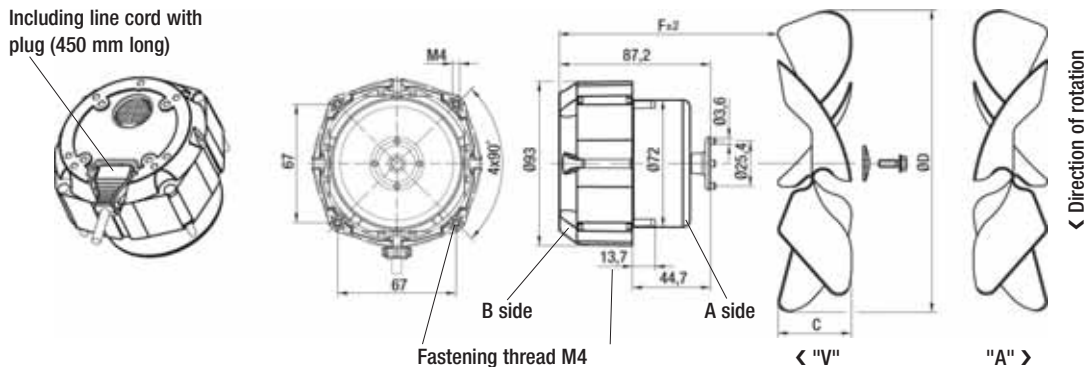
- **Material:** Housing made of die-cast aluminium
Rotor: Coated in black
- **Direction of air flow:** "V" or "A" (depending on axial impeller used)
- **Direction of rotation:** Counter-clockwise, seen on shaft end
- **Type of protection:** IP 44
- **Insulation class:** "B"
- **Mounting position:** Any
- **Condensate discharges:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | Curve | Nominal voltage | Frequency | Upper speed ⁽¹⁾ | Lower speed ⁽¹⁾ | Power input | Power output | Perm. amb. temp. | Mass |
|-----------------|-------|-----------------|-----------|----------------------------|----------------------------|-------------|--------------|------------------|------|
| Type | VAC | Hz | rpm | rpm | W | W | °C | kg | |
| M1G055-BD95 -12 | Ⓐ | 1~ 115 | 50/60 | 2200 | 1500 | 22.0 | 15.0 | -30 to +50 | 0.9 |
| M1G055-BD91 -12 | Ⓐ | 1~ 230 | | | | | | | |
| M1G055-BD95 -16 | Ⓑ | 1~ 115 | 50/60 | 1750 | 1300 | 22.0 | 12.5 | -30 to +50 | 0.9 |
| M1G055-BD91 -16 | Ⓑ | 1~ 230 | | | | | | | |
| M1G055-BD95 -21 | Ⓒ | 1~ 115 | 50/60 | 1550 | 1100 | 21.0 | 10.4 | -30 to +50 | 0.9 |
| M1G055-BD91 -21 | Ⓒ | 1~ 230 | | | | | | | |

subject to alterations

(1) preprogrammed speeds

Including line cord with plug (450 mm long)



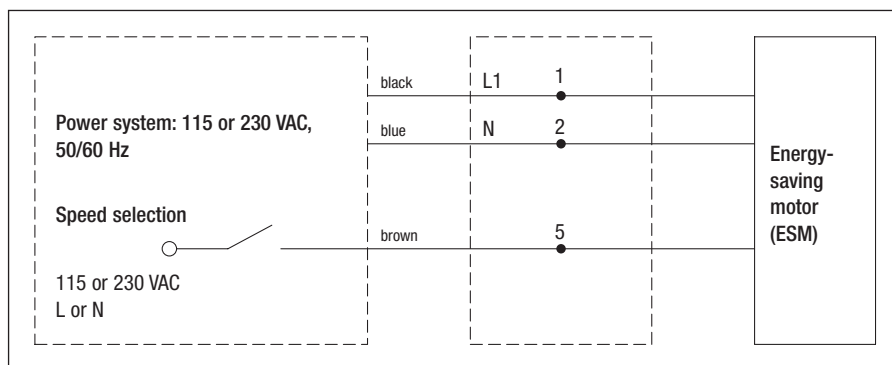
- **Motor protection:** Via electronics
 - **Electrical connection:** Line cord with plug
 - **Protection class:** II
 - **Product conforming to standard:** CE
 - **Approvals:** VDE, UL
 - **Curves:** Page 320
- **Speed settings:** The pre-programmed upper speed is reached with the speed relay open; lower speed is reached when the speed relay is closed.
Speeds from 10% to 100% of the maximum speed can be preset using the programming unit (see page 375). However, we recommend not allowing it to fall below 1000 rpm (A B C).
 - **Mounting:** Guard grille and wall ring are mounted onto the protruding thread ends of the A side.
 - **Axial impeller mounting:** Mounted to the motor shaft using a plastic adapter with pulling peg and an M4 screw.

| Axial impellers | | Blade angle 22° ± 1°30' | | | | Blade angle 28° ± 1°30' | | | | Blade angle 34° ± 1°30' | | | |
|-----------------|------|-------------------------|---------------------|------|------|-------------------------|---------------------|------|------|-------------------------|---------------------|------|------|
| Ø D | rpm | m³/h (2) | W (3) | F | C | m³/h (2) | W (3) | F | C | m³/h (2) | W (3) | F | C |
| 154 | 2200 | 250 | 4.0 | 74.0 | 27.5 | 310 | 5.3 | 71.5 | 32.0 | 350 | 6.7 | 69.0 | 37.0 |
| | 1500 | 170 | 1.3 | | | 210 | 1.7 | | | 240 | 2.1 | | |
| 172 | 2200 | 380 | 7.0 | 72.0 | 31.0 | 440 | 10.0 | 69.5 | 36.0 | 500 | 13.6 | 66.5 | 42.0 |
| | 1500 | 260 | 2.2 | | | 300 | 3.2 | | | 340 | 4.3 | | |
| 200 | 2200 | 560 | 13.4 | 71.5 | 32.0 | 640 | ⁽⁴⁾ 19.5 | 69.0 | 37.5 | | | | |
| | 1500 | 380 | 4.3 | | | 435 | 6.2 | | | | | | |
| 154 | 1750 | 200 | 2.0 | 74.0 | 27.5 | 250 | 2.7 | 71.5 | 32.0 | 280 | 3.4 | 69.0 | 37.0 |
| | 1300 | 150 | 1.3 | | | 215 | 1.7 | | | 240 | 2.1 | | |
| 172 | 1750 | 300 | 3.5 | 72.0 | 31.0 | 350 | 5.0 | 69.5 | 36.0 | 400 | 6.8 | 66.5 | 42.0 |
| | 1300 | 225 | 2.2 | | | 300 | 3.2 | | | 345 | 4.3 | | |
| 200 | 1750 | 450 | 6.7 | 71.5 | 32.0 | 510 | 9.9 | 69.0 | 37.5 | 620 | ⁽⁴⁾ 16.8 | 65.0 | 45.0 |
| | 1300 | 335 | 4.2 | | | 440 | 6.2 | | | 530 | 10.6 | | |
| 154 | 1550 | 180 | 1.4 | 74.0 | 27.5 | 220 | 1.9 | 71.5 | 32.0 | 240 | 2.3 | 69.0 | 37.0 |
| | 1100 | 130 | 0.5 | | | 155 | 0.7 | | | 170 | 0.8 | | |
| 172 | 1550 | 270 | 2.5 | 72.0 | 31.0 | 310 | 3.5 | 69.5 | 36.0 | 350 | 4.8 | 66.5 | 42.0 |
| | 1100 | 190 | 0.9 | | | 220 | 1.3 | | | 250 | 1.7 | | |
| 200 | 1550 | 400 | 4.7 | 71.5 | 32.0 | 450 | 6.9 | 69.0 | 37.5 | 550 | ⁽⁴⁾ 12.7 | 65.0 | 45.0 |
| | 1100 | 285 | 1.7 | | | 320 | 2.5 | | | 390 | 4.5 | | |
| 230 | 1550 | 710 | ⁽⁴⁾ 15.4 | 70.0 | 35.0 | | | | | | | | |
| | 1100 | 505 | 6.0 | | | | | | | | | | |

(2) Running at free air flow

(3) Power requirement of impeller (4) Permitted with corresponding cooling of the motor (shaft power > output power)

- **Electr. connection:**



Energy-saving motors (ESM)



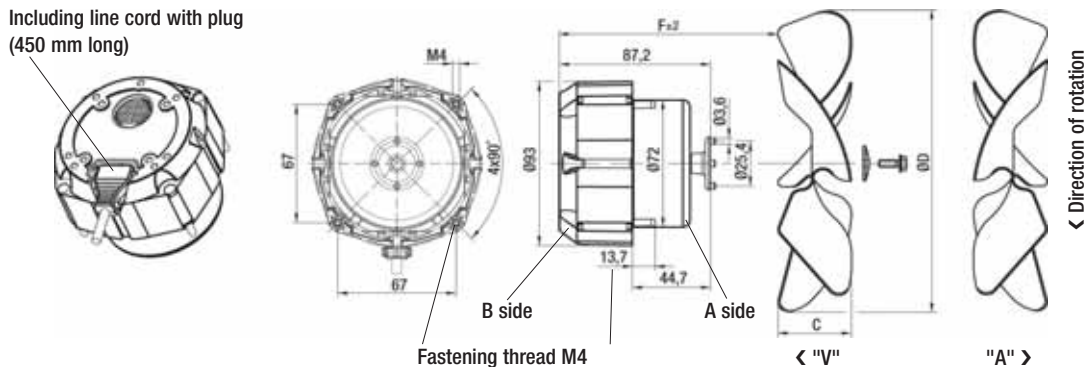
- **Material:** Housing made of die-cast aluminium
Rotor: Coated in black
- **Direction of air flow:** "V" or "A" (depending on axial impeller used)
- **Direction of rotation:** Counter-clockwise, seen on shaft end
- **Type of protection:** IP 44
- **Insulation class:** "B"
- **Mounting position:** Any
- **Condensate discharges:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

| Nominal data | Curve | Nominal voltage | Frequency | Upper speed ⁽¹⁾ | Lower speed ⁽¹⁾ | Power input | Power output | Perm. amb. temp. | Mass |
|-----------------|-------|-----------------|-----------|----------------------------|----------------------------|-------------|--------------|------------------|------|
| Type | VAC | Hz | rpm | rpm | W | W | °C | kg | |
| M1G055-BD91 -45 | Ⓓ | 1~ 115 | 50/60 | 1400 | 1000 | 9.0 | 5.9 | -30 to +50 | 0.9 |
| M1G055-BD87 -25 | Ⓓ | 1~ 230 | | | | | | | |
| M1G055-BD95 -26 | Ⓔ | 1~ 115 | 50/60 | 1400 | 1000 | 27.0 | 12.0 | -30 to +50 | 0.9 |
| M1G055-BD91 -26 | Ⓔ | 1~ 230 | | | | | | | |
| M1G055-BD91 -17 | Ⓕ | 1~ 115 | 50/60 | 1200 | 800 | 12.0 | 7.5 | -30 to +50 | 0.9 |
| M1G055-BD87 -17 | Ⓕ | 1~ 230 | | | | | | | |
| M1G055-BD95 -30 | Ⓖ | 1~ 115 | 50/60 | 1200 | 800 | 15.4 | 6.3 | -30 to +50 | 0.9 |
| M1G055-BD91 -30 | Ⓖ | 1~ 230 | | | | | | | |

subject to alterations

(1) preprogrammed speeds

Including line cord with plug
(450 mm long)



- **Motor protection:** Via electronics
- **Electrical connection:** Line cord with plug
- **Protection class:** II
- **Product conforming to standard:** CE
- **Approvals:** VDE, UL
- **Curves:** Page 320

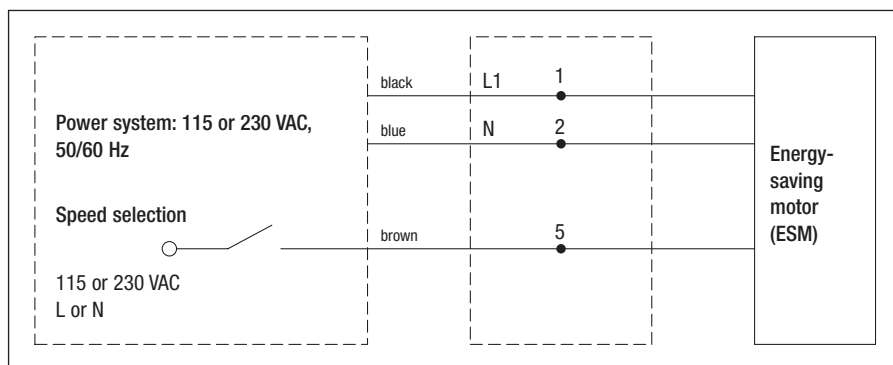
- **Speed settings:** The pre-programmed upper speed is reached with the speed relay open; lower speed is reached when the speed relay is closed.
Speeds from 10% to 100% of the maximum speed can be preset using the programming unit (see page 375). However, we recommend not allowing it to fall below 600 rpm (Ⓧ Ⓧ) or 1000 rpm (Ⓧ Ⓧ).
- **Mounting:** Guard grille and wall ring are mounted onto the protruding thread ends of the A side.
- **Axial impeller mounting:** Mounted to the motor shaft using a plastic adapter with pulling peg and an M4 screw.

| Axial impellers | | Blade angle 22° ± 1°30' | | | | Blade angle 28° ± 1°30' | | | | Blade angle 34° ± 1°30' | | | |
|-----------------|------|-------------------------|---------------------|------|------|-------------------------|---------------------|------|------|-------------------------|---------------------|------|------|
| Ø D | rpm | m³/h (2) | W (3) | F | C | m³/h (2) | W (3) | F | C | m³/h (2) | W (3) | F | C |
| 154 | 1400 | 160 | 1.0 | 74.0 | 27.5 | 200 | 1.3 | 71.5 | 32.0 | 220 | 1.7 | 69.0 | 37.0 |
| | 1000 | 115 | 0.4 | | | 145 | 0.5 | | | 160 | 0.6 | | |
| 172 | 1400 | 240 | 1.8 | 72.0 | 31.0 | 280 | 2.5 | 69.5 | 36.0 | 320 | 3.5 | 66.5 | 42.0 |
| | 1000 | 170 | 0.6 | | | 200 | 1.0 | | | 230 | 1.3 | | |
| 200 | 1400 | 360 | 3.4 | 71.5 | 32.0 | 410 | 5.0 | 69.0 | 37.5 | | | | |
| | 1000 | 260 | 1.3 | | | 295 | 1.8 | | | | | | |
| 200 | 1400 | | | | | | | | | 500 | 8.6 | 65.0 | 45.0 |
| | 1000 | | | | | | | | | 360 | 3.1 | | |
| 230 | 1400 | 640 | 11.0 | 70.0 | 35.0 | 700 | ⁽⁴⁾ 12.5 | 66.0 | 43.0 | 860 | ⁽⁴⁾ 14.7 | 62.5 | 50.0 |
| | 1000 | 460 | 4.0 | | | 500 | 4.6 | | | 615 | 5.3 | | |
| 154 | 1200 | 140 | 0.6 | 74.0 | 27.5 | 170 | 0.8 | 71.5 | 32.0 | 190 | 1.1 | 69.0 | 37.0 |
| | 800 | 95 | 0.2 | | | 110 | 0.2 | | | 130 | 0.3 | | |
| 172 | 1200 | 210 | 1.1 | 72.0 | 31.0 | 240 | 1.6 | 69.5 | 36.0 | 270 | 2.2 | 66.5 | 42.0 |
| | 800 | 140 | 0.3 | | | 160 | 0.5 | | | 180 | 0.7 | | |
| 200 | 1200 | 310 | 2.1 | 71.5 | 32.0 | 350 | 3.2 | 69.0 | 37.5 | 420 | 5.4 | 65.0 | 45.0 |
| | 800 | 210 | 0.6 | | | 235 | 1.0 | | | 290 | 1.6 | | |
| 230 | 1200 | 550 | ⁽⁴⁾ 6.9 | 70.0 | 35.0 | 600 | ⁽⁴⁾ 7.9 | 66.0 | 43.0 | 740 | ⁽⁴⁾ 9.3 | 62.5 | 50.0 |
| | 800 | 365 | 2.0 | | | 400 | 2.3 | | | 495 | 2.7 | | |
| 254 | 1200 | 610 | ⁽⁴⁾ 10.3 | 69.0 | 37.0 | | | | | | | | |
| | 800 | 405 | 3.0 | | | | | | | | | | |

(2) Running at free air flow

(3) Power requirement of impeller (4) Permitted with corresponding cooling of the motor (shaft power > output power)

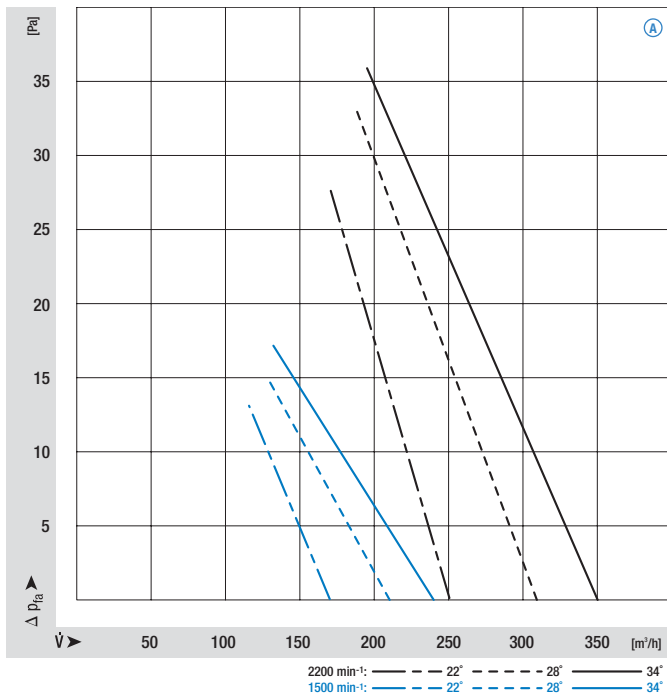
- **Electr. connection:**



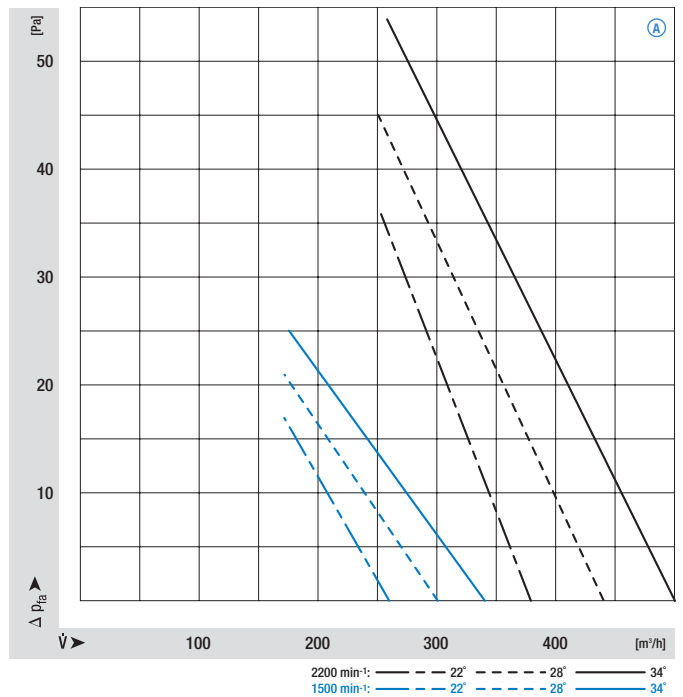
Energy-saving motors (ESM)

Air performance curves

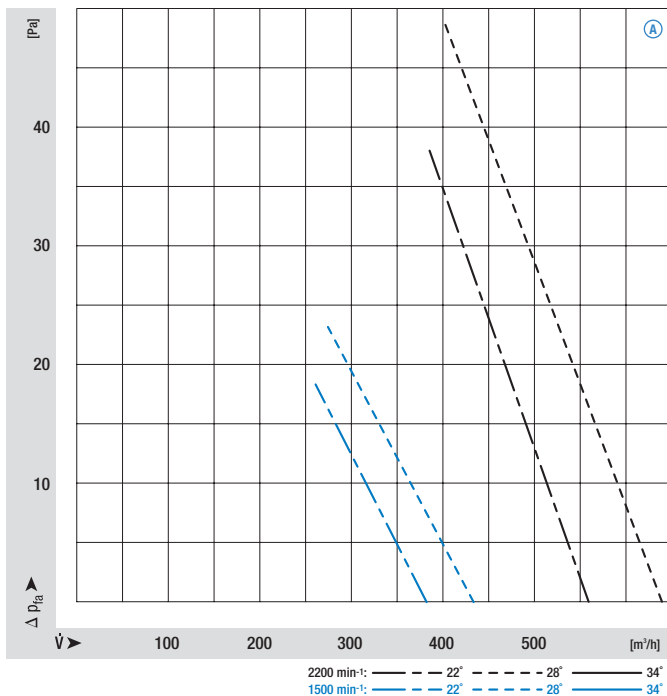
Ø 154, 2200 rpm / 1500 rpm



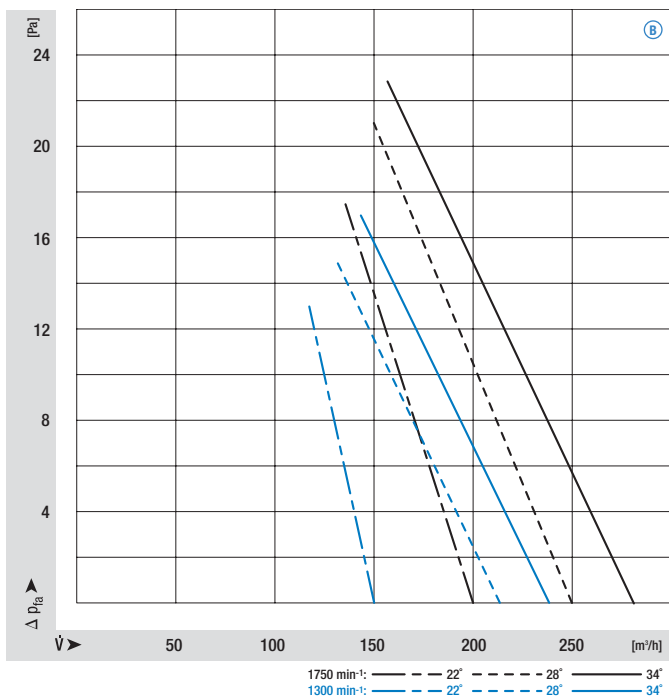
Ø 172, 2200 rpm / 1500 rpm



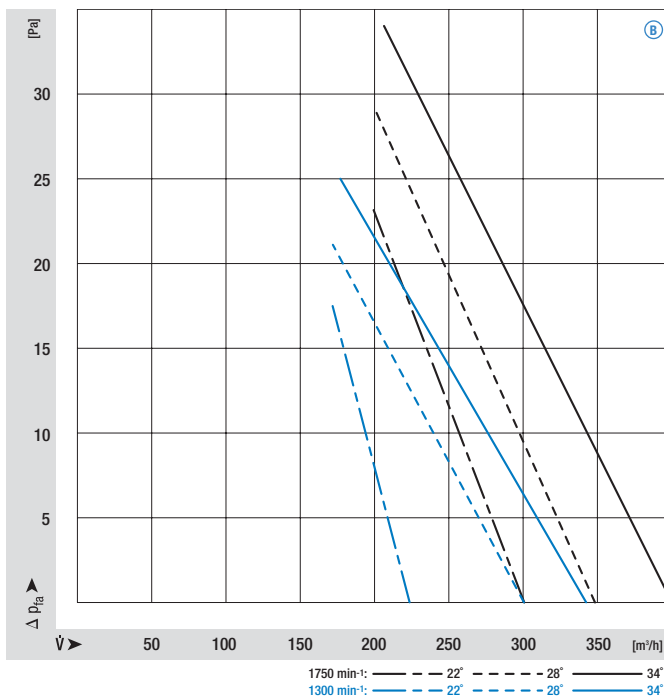
Ø 200, 2200 rpm / 1500 rpm



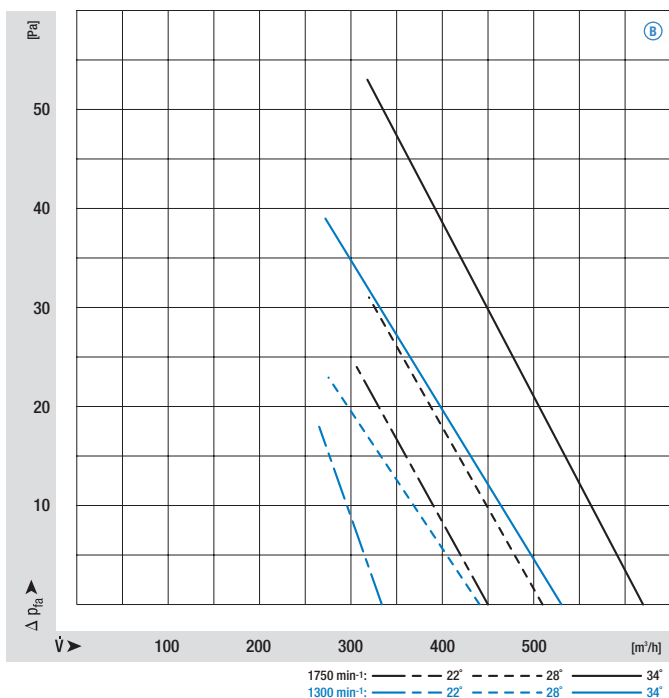
Ø 154, 1750 rpm / 1300 rpm



Ø 172, 1750 rpm / 1300 rpm



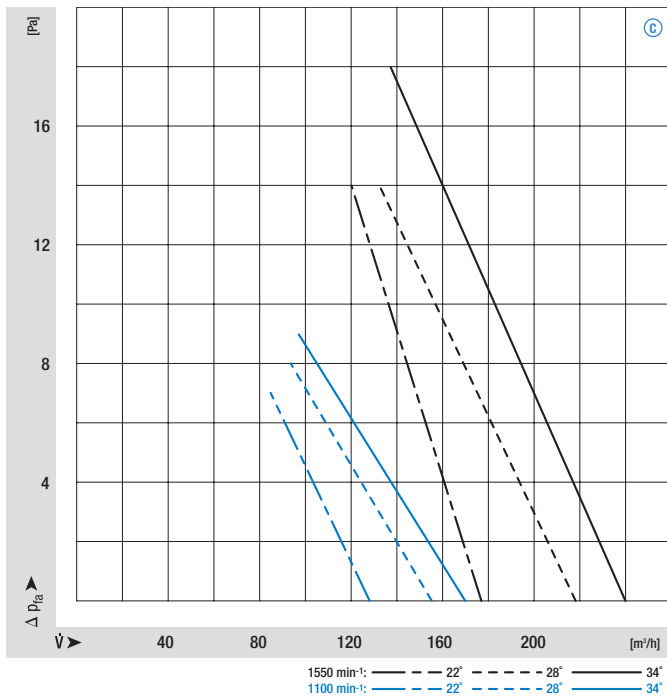
Ø 200, 1750 rpm / 1300 rpm



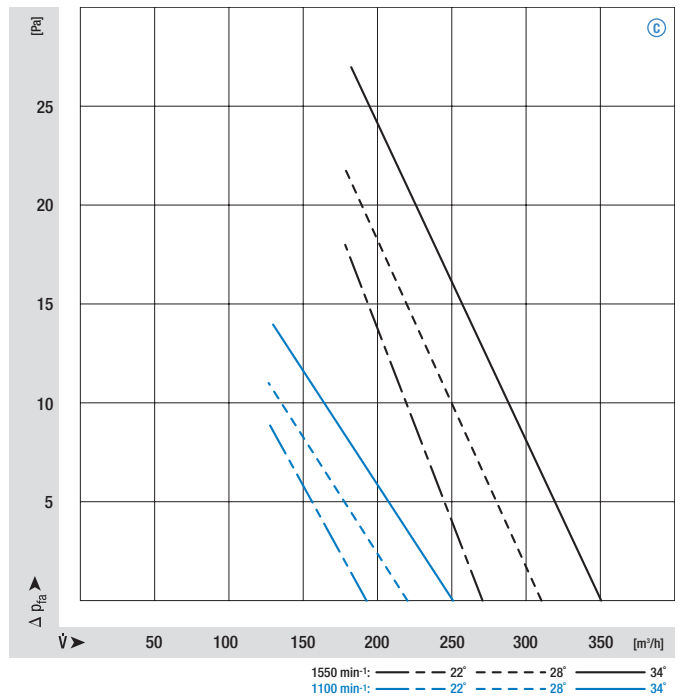
Energy-saving motors (ESM)

Air performance curves

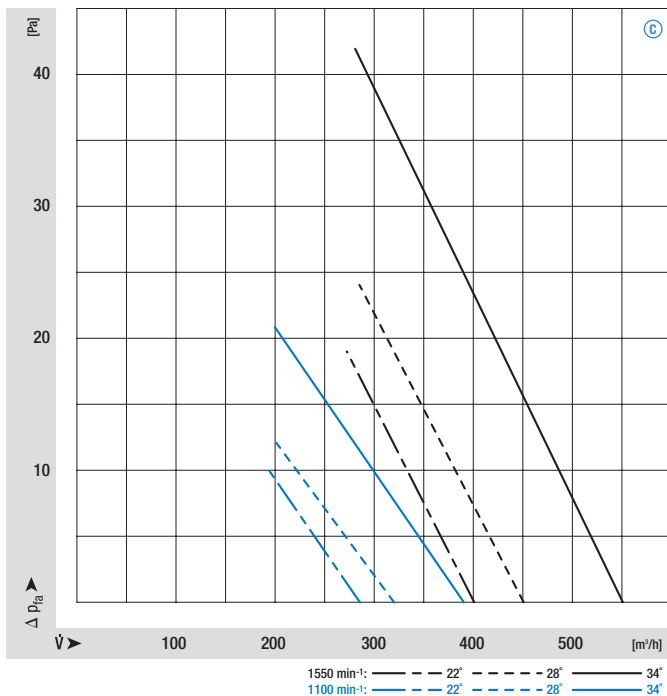
Ø 154, 1550 rpm / 1100 rpm



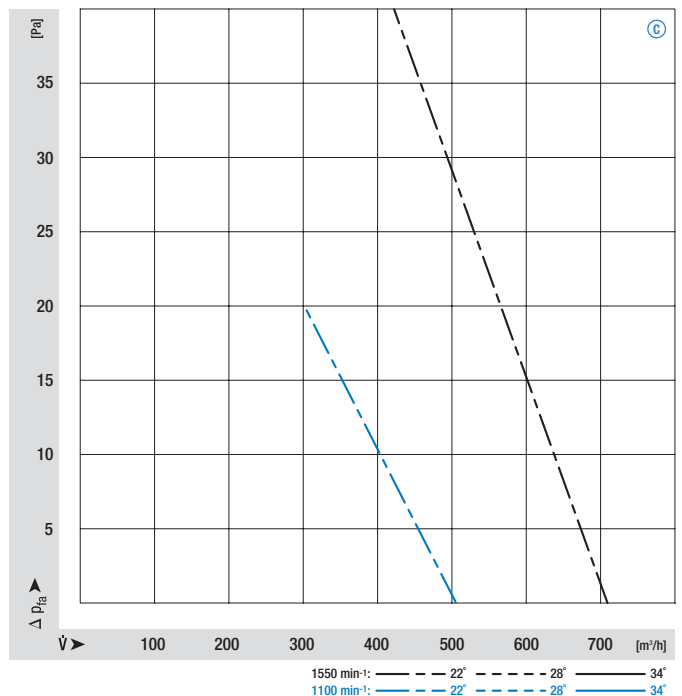
Ø 172, 1550 rpm / 1100 rpm



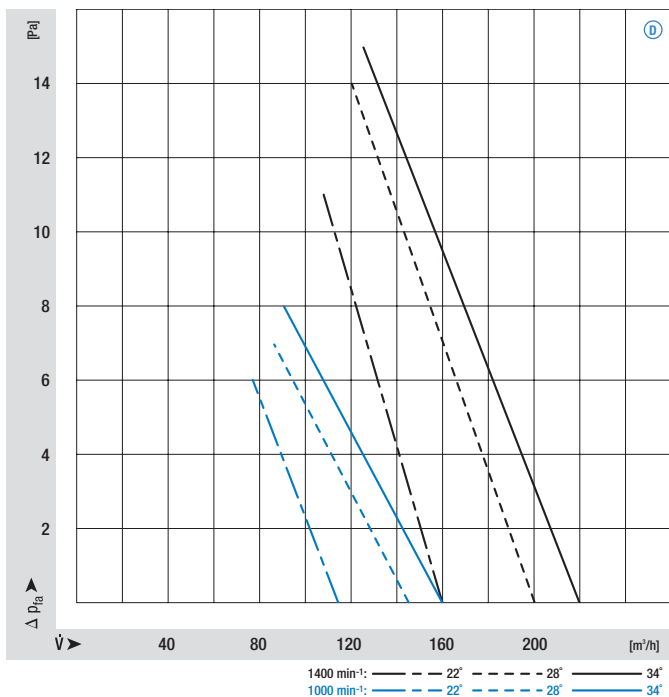
Ø 200, 1550 rpm / 1100 rpm



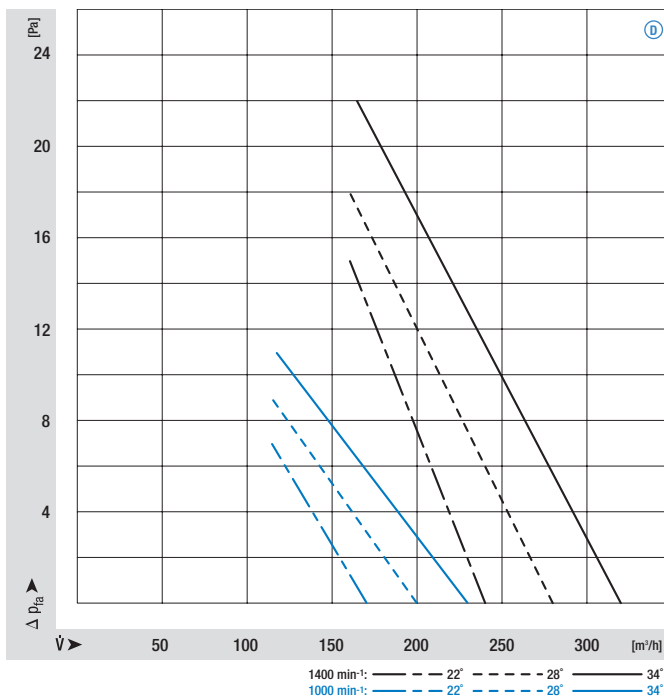
Ø 230, 1550 rpm / 1100 rpm



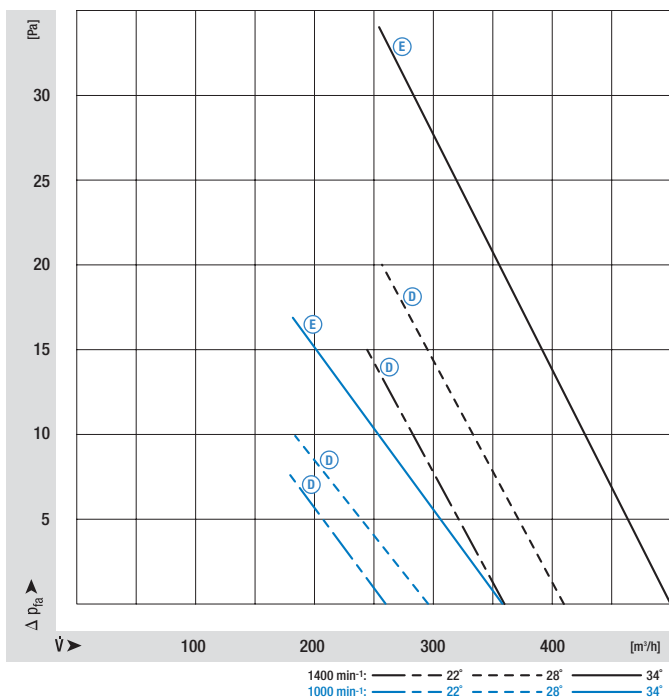
Ø 154, 1400 rpm / 1000 rpm



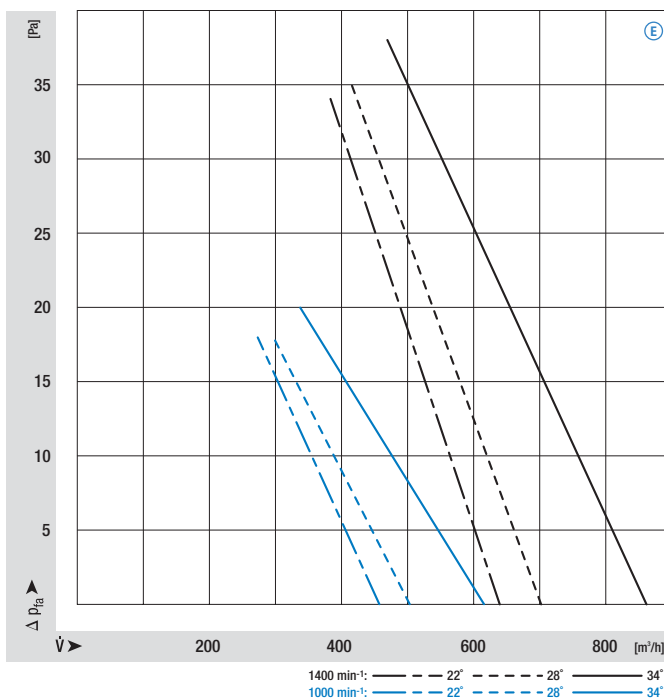
Ø 172, 1400 rpm / 1000 rpm



Ø 200, 1400 rpm / 1000 rpm



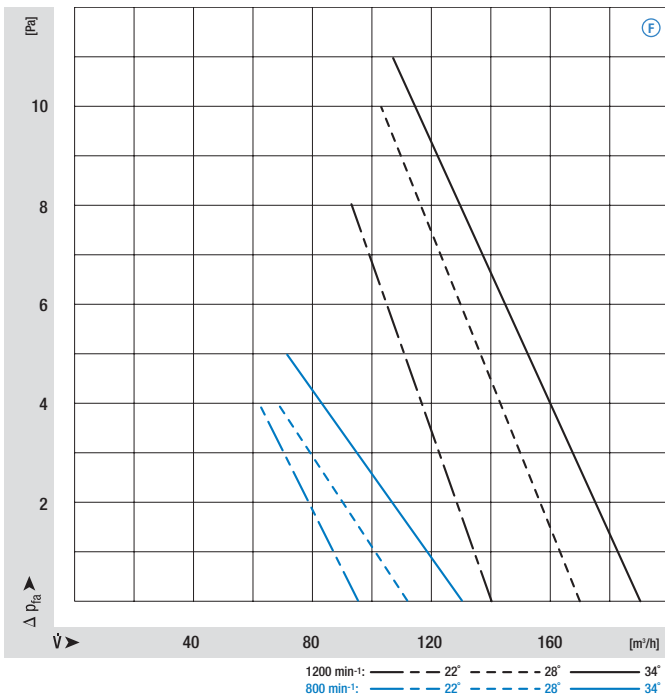
Ø 230, 1400 rpm / 1000 rpm



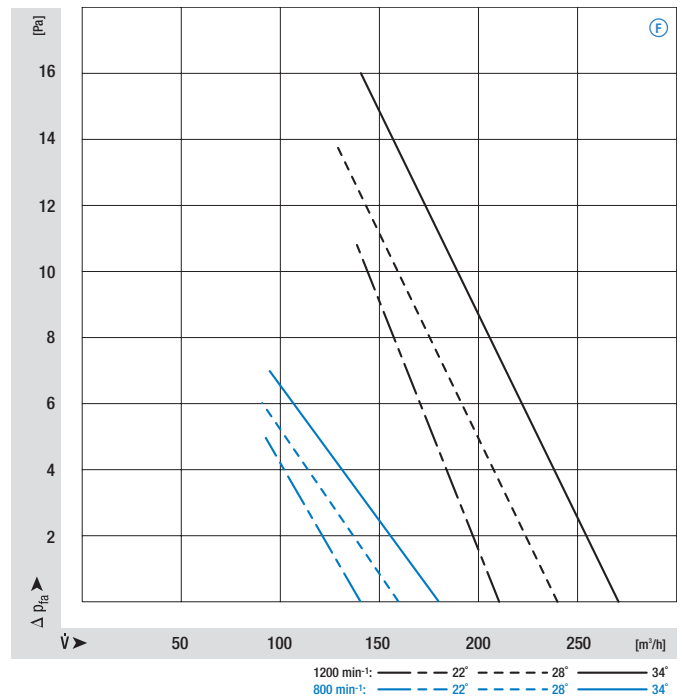
Energy-saving motors (ESM)

Air performance curves

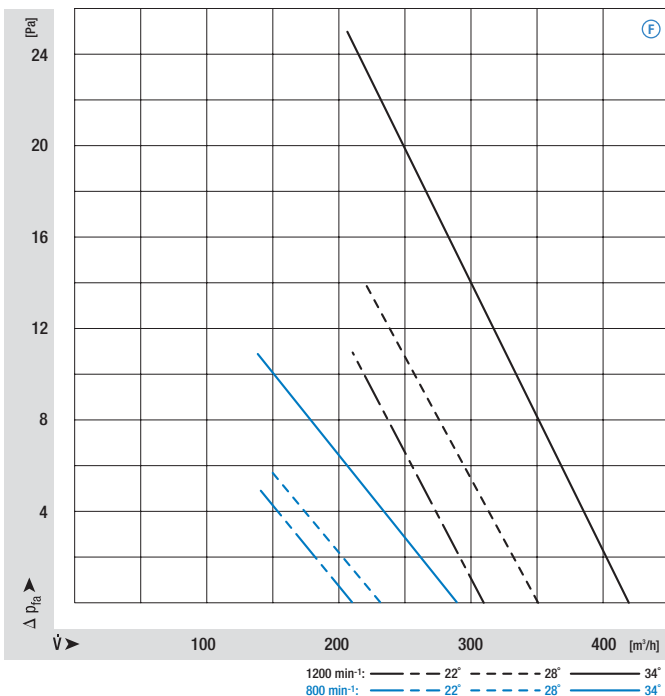
Ø 154, 1200 rpm / 800 rpm



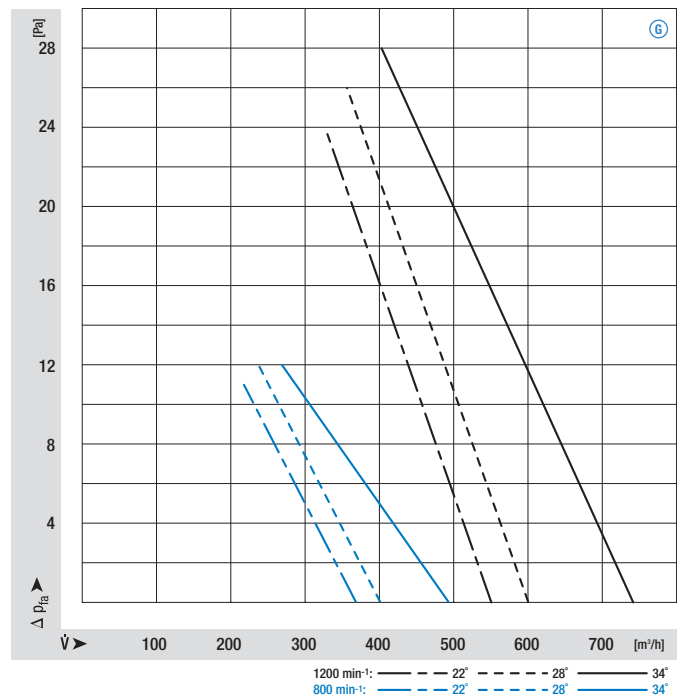
Ø 172, 1200 rpm / 800 rpm



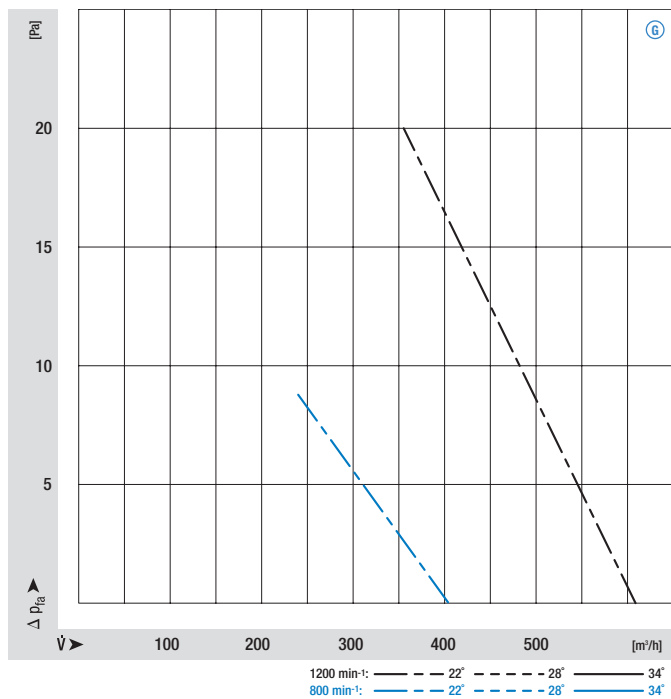
Ø 200, 1200 rpm / 800 rpm



Ø 230, 1200 rpm / 800 rpm



Ø 254, 1200 rpm / 800 rpm



Energy-saving axial fans

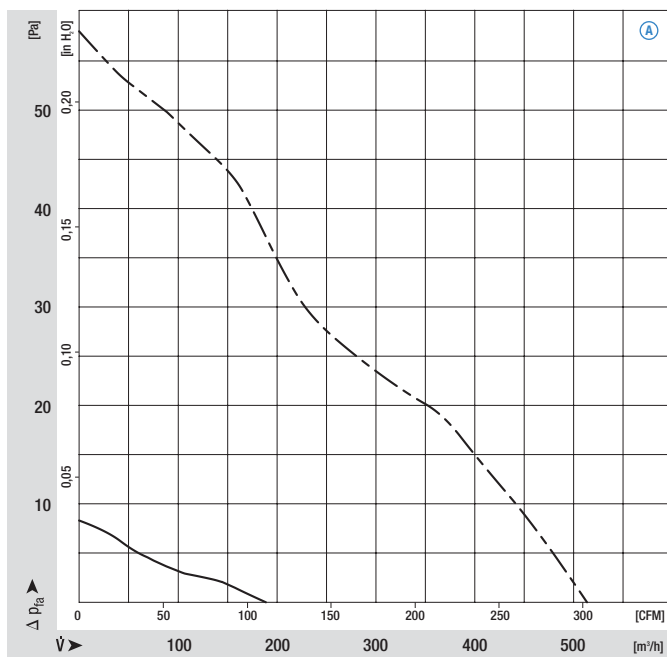


- **Material:** Wall ring: Plastic PP20TV
Blade: Sheet steel, coated in black
Rotor: Coated in black
- **Number of blades:** 5
- **Direction of air flow:** "V", exhaust over struts
- **Direction of rotation:** Counter-clockwise, seen on rotor
- **Type of protection:** IP 44
- **Insulation class:** "B"
- **Mounting position:** Any
- **Condensate discharges:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings
- **Motor protection:** Via electronics
- **Electrical connection:** Line cord with plug
- **Protection class:** II
- **Product conforming to standard:** CE
- **Approvals:** VDE, UL, CSA
- **Speed:** Using the programming unit (see page 375), 2 speeds between n_{min} and n_{max} can be programmed.

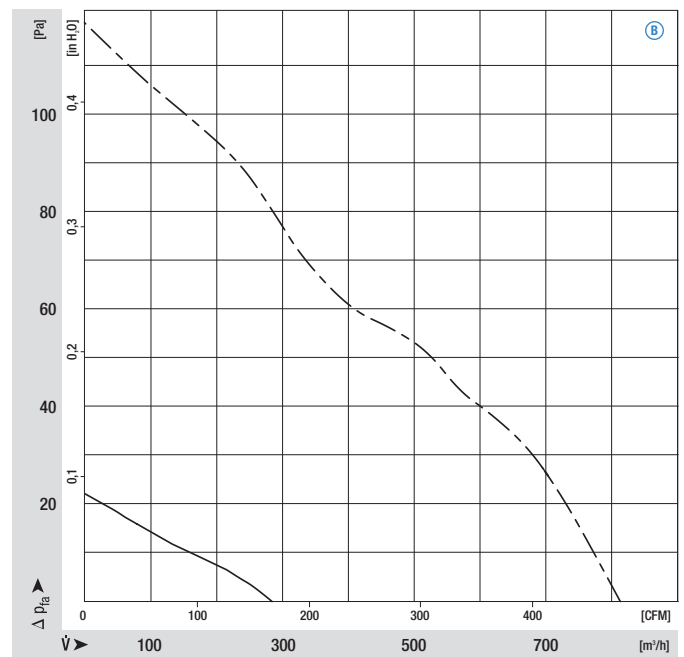
| Nominal data | | Curve | Nominal voltage | Frequency | Air flow | Speed/rpm | Power input | Current draw | Sound pressure level | Max. operative range | Perm. amb. temp. | Mass |
|-----------------|------------|-------|-----------------|-------------------|----------|-----------|-------------|--------------|----------------------|----------------------|------------------|------|
| Type | Motor | VAC | Hz | m ³ /h | rpm | W | A | dB(A) | Pa | °C | kg | |
| W1G200-EA91 -27 | M1G 055-BD | Ⓐ | 115 | 50/60 | 500 | 1400 | 7 | 0.12 | 42 | — | -30 to +50 | 1.0 |
| W1G200-EA95 -47 | M1G 055-BD | Ⓑ | 115 | 50/60 | 800 | 2200 | 27 | 0.42 | 56 | — | -30 to +50 | 1.0 |
| W1G200-EA87 -25 | M1G 055-BD | Ⓐ | 230 | 50/60 | 500 | 1400 | 7 | 0.06 | 42 | — | -30 to +50 | 1.0 |
| W1G200-EA91 -45 | M1G 055-BD | Ⓑ | 230 | 50/60 | 800 | 2200 | 27 | 0.21 | 56 | — | -30 to +50 | 1.0 |

subject to alterations

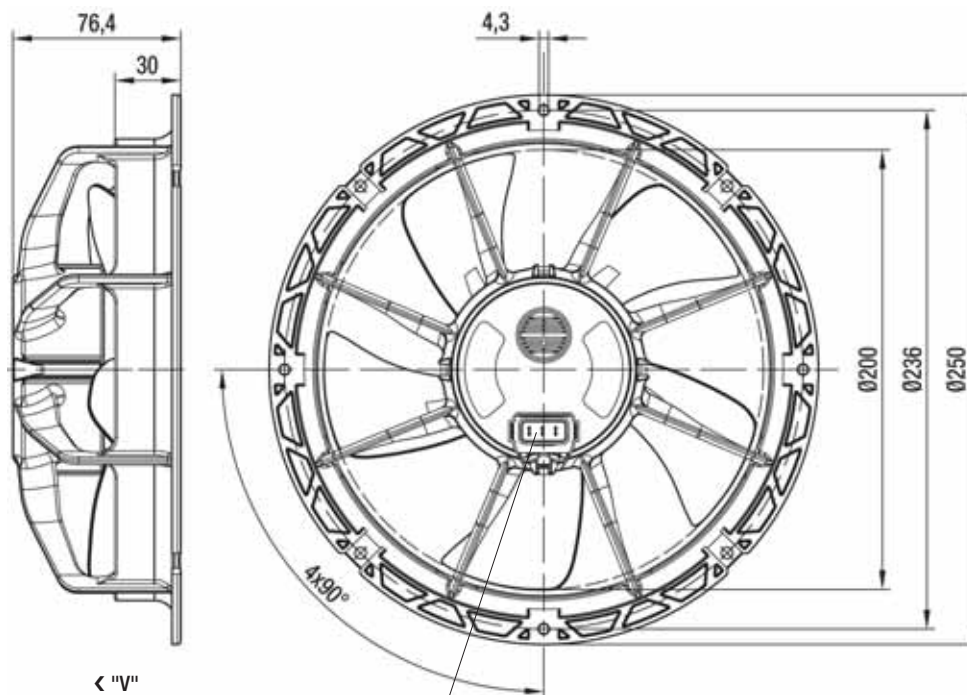
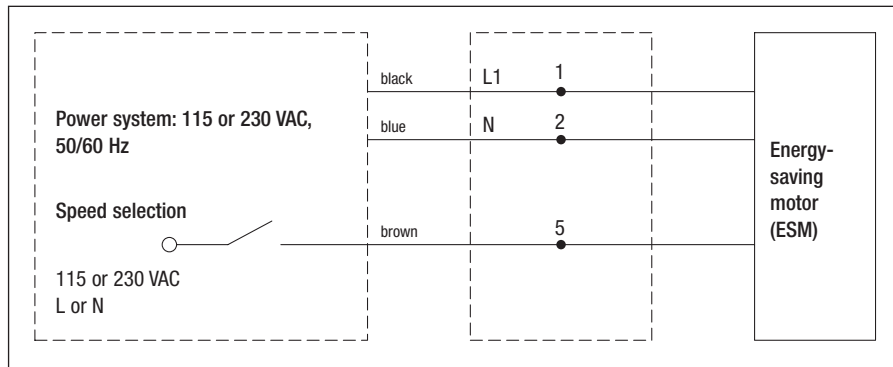
Curves (programmable)



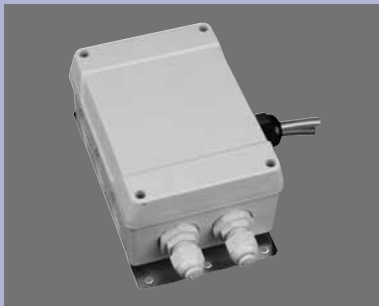
Curves (programmable)



– Electr. connection:

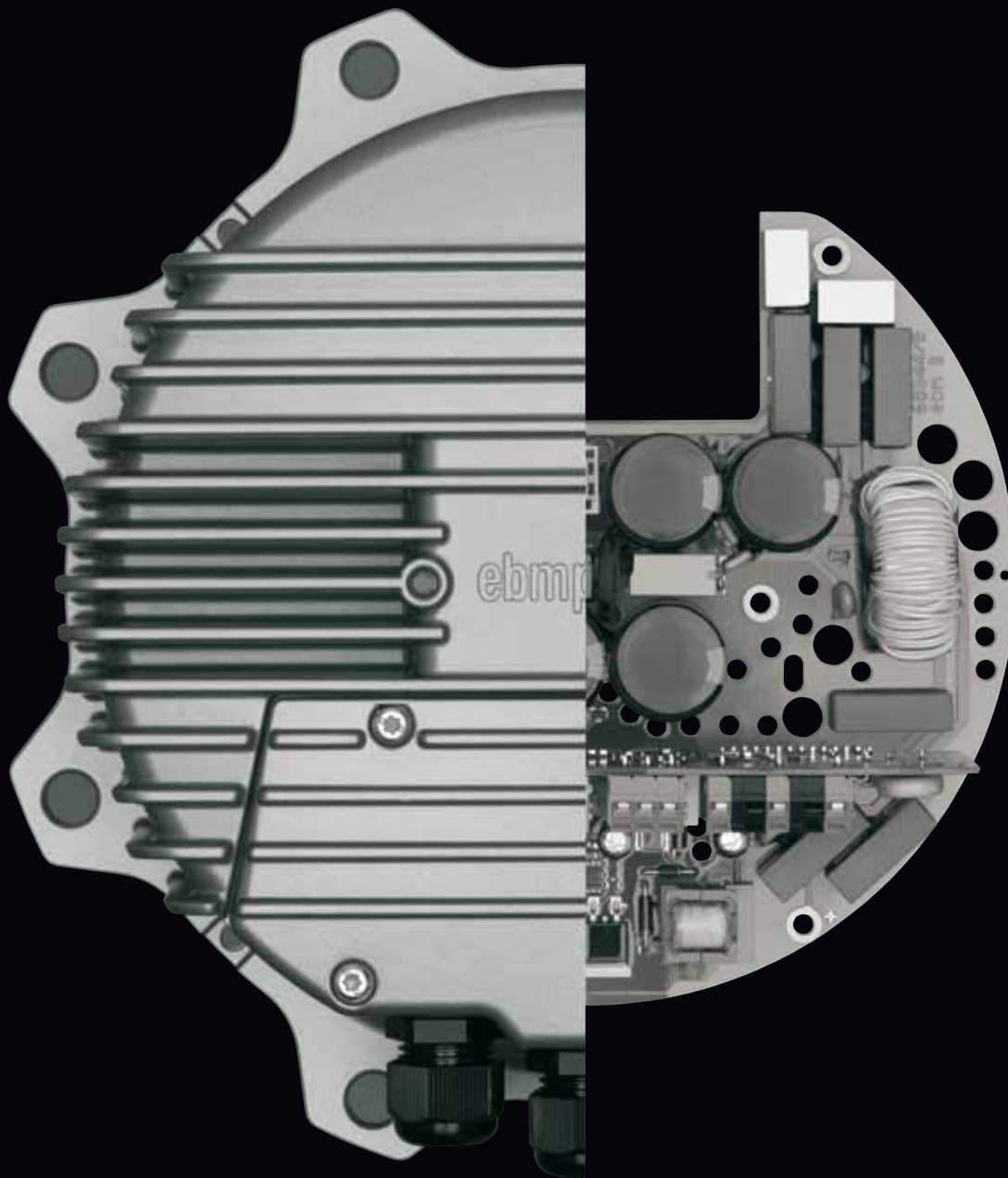


Including line cord with plug (450 mm long)



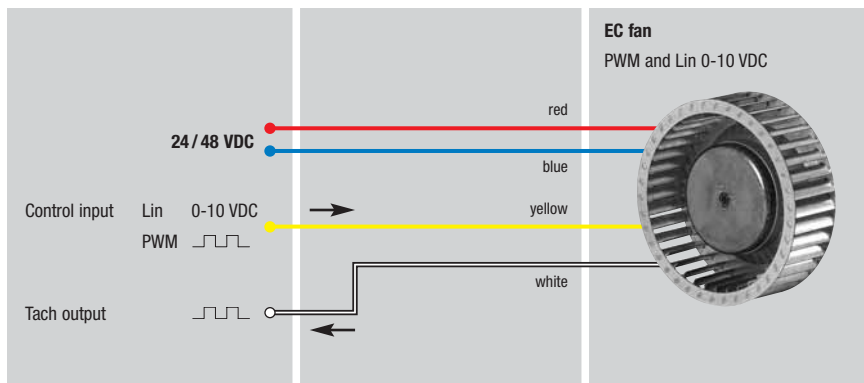
EC-SYSTEMS

| | |
|--|-----|
| Options | 330 |
| Switch power supplies | 334 |
| External commutation electronics for rail technology | 338 |
| Accessories: Temperature sensor / control module, pressure control, selection module, interface converter, ... | 340 |
| HMS controller | 358 |



EC-SYSTEMS

Options



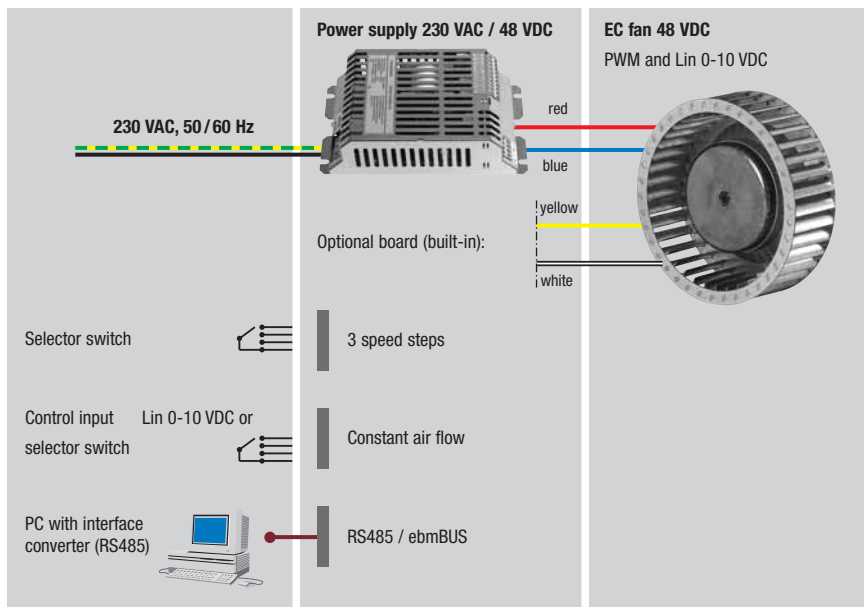
EC fans 24 / 48 VDC with integrated commutation electronics

Linear input:

< 1 VDC -> n=0
1 VDC -> n_{min}
10 VDC -> n_{max}

PWM input:

< 10% PWM -> n=0
10% PWM -> n_{min}
100% PWM -> n_{max}



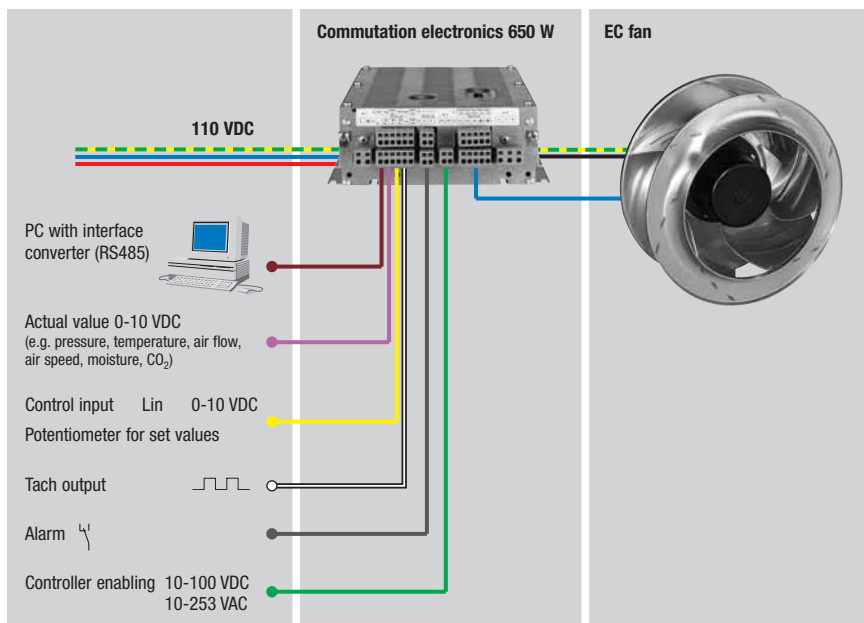
EC fans 48 VDC with integrated commutation electronics

Linear input:

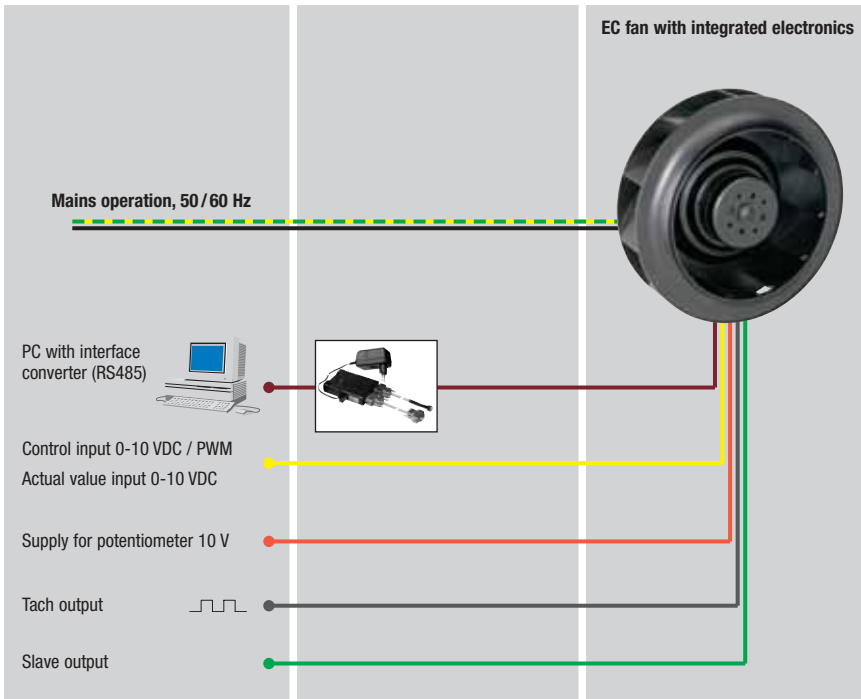
< 1 VDC -> n=0
1 VDC -> n_{min}
10 VDC -> n_{max}

PWM input:

< 10% PWM -> n=0
10% PWM -> n_{min}
100% PWM -> n_{max}

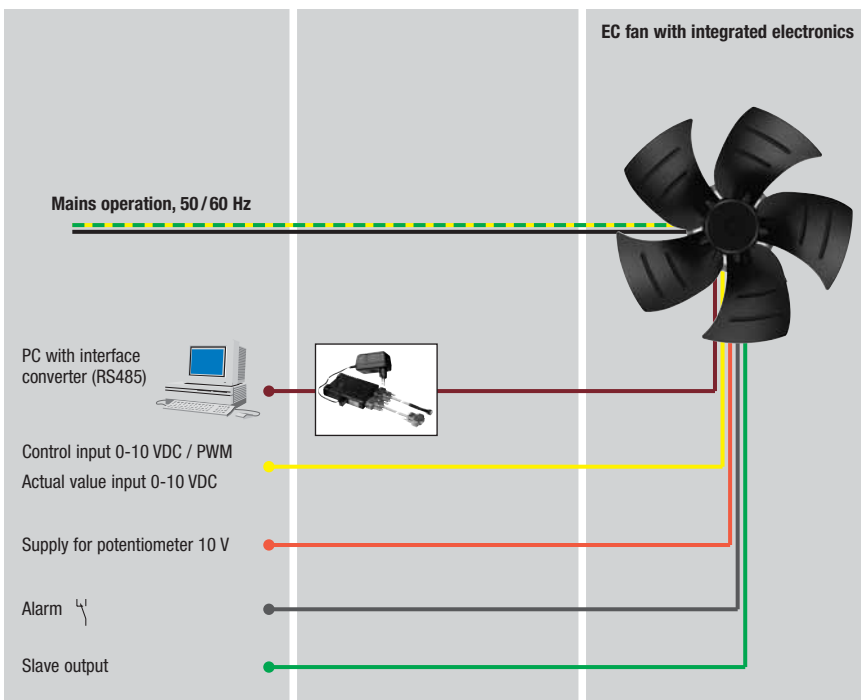


EC fans with external commutation electronics 650 W, 110 VDC (rail technology)



**EC fans (motor size 055)
with integrated commutation electronics**
1~ 115 VAC or 230 VAC
50/60 Hz mains operation

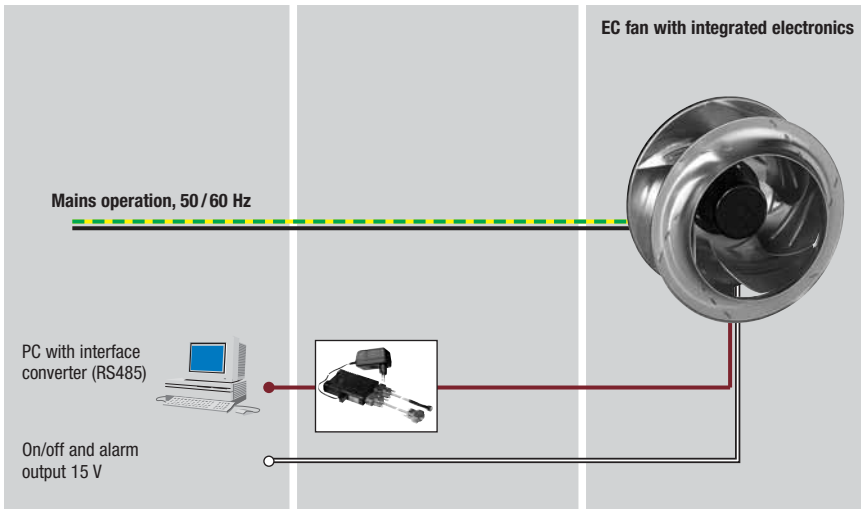
**EC fans (motor size 074)
with integrated commutation electronics**
1~ 100 -130 VAC or 200 -277 VAC
50/60 Hz mains operation



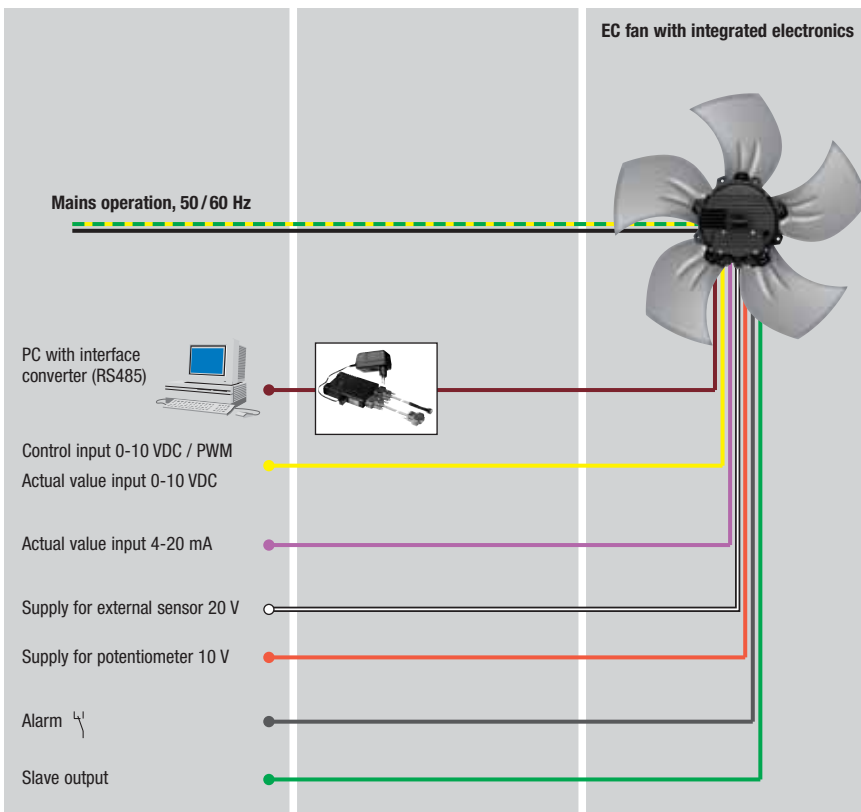
**EC fans (motor size 084)
with integrated commutation electronics**
1~ 100 -130 VAC or 200 -277 VAC
50/60 Hz mains operation

EC-SYSTEMS

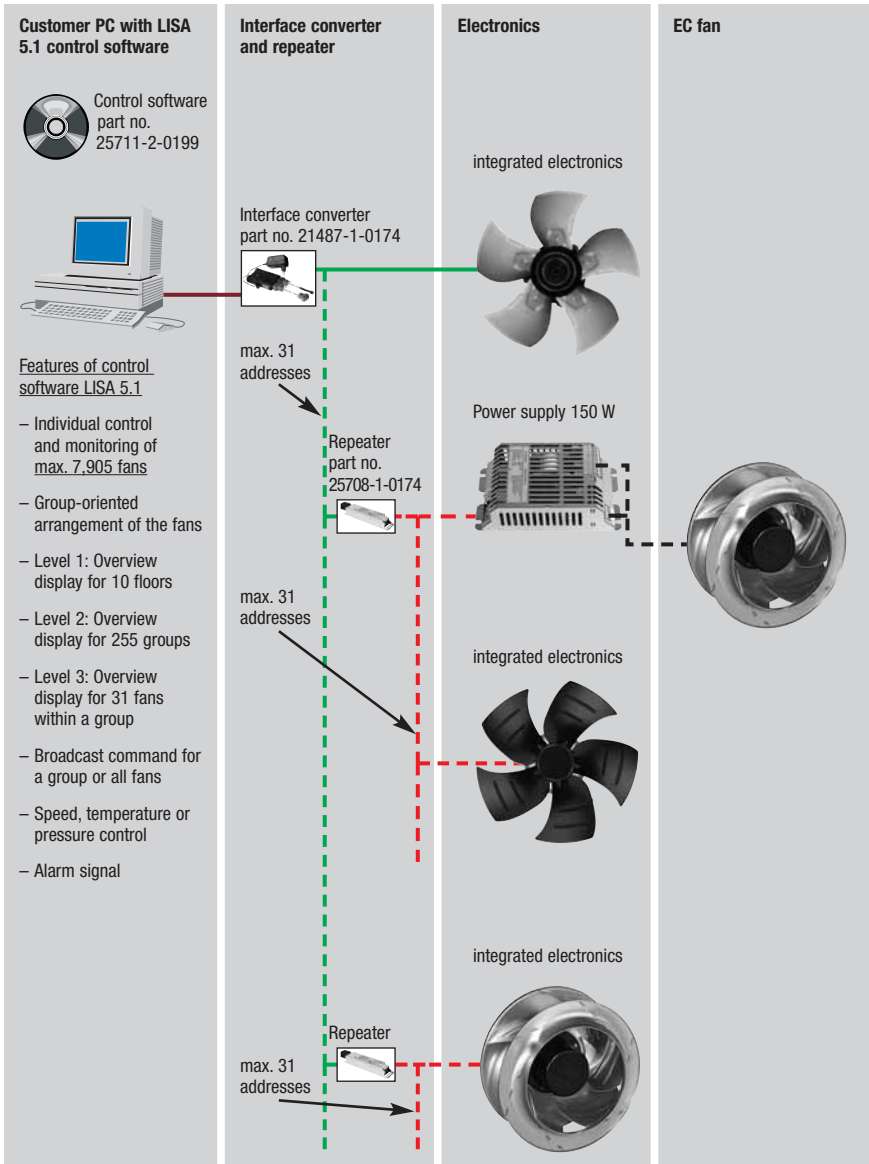
Options



**EC fans (motor size 084, ebmBUS)
with integrated commutation electronics**
1~ 200-277 VAC,
50/60 Hz mains operation



**EC fans (motor size 112/150)
with integrated commutation electronics**
1~ 200-277 VAC or
3~ 200-240 / 380-480 VAC
50/60 Hz mains operation



**EC-SYSTEMS:
Networked EC fans with interface
converter and repeater**

Switch power supply with PFC, basic version

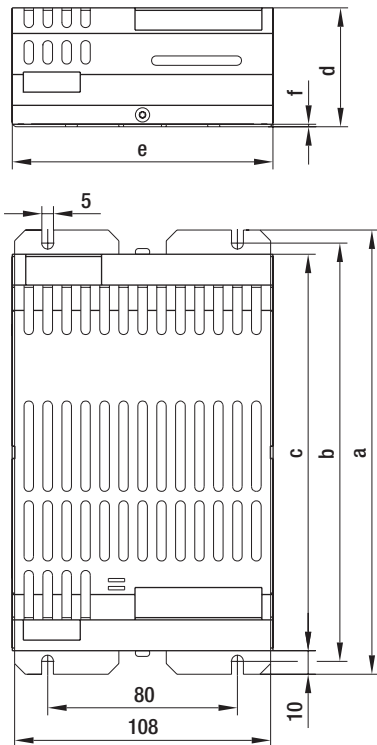
48 VDC, 150 W / 300 W



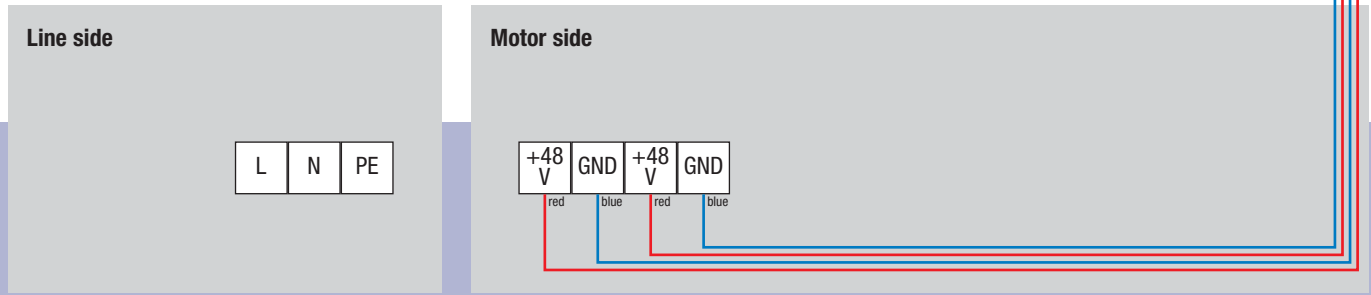
- **General remarks:** Switch power supply with an output power of 150 W / 300 W to supply 48 VDC EC motors from the 115 / 230 VAC mains. It is also possible to run several motors up to an overall power of 150 W / 300 W. Data on the 60 W switching power supply is available on request.
- **Function:** Supply of an electrically insulated direct voltage of 48 VDC at the output when connected to the 115 / 230 V mains. The power supply is sustainably short-circuit proof, open-circuit proof and protected against overheating. An integrated EMC filter guarantees RFI suppression of the unit according to EN 61000-3-2.
- **Material:** Housing made of stainless steel
- **Protection class:** I
- **Type of protection:** IP 20 (acc. to EN 60529)

| Nominal data | Nominal voltage | Frequency | Output voltage | Output P ₁ max. | Rated output current | Mass | Dimensions | | | | | |
|-----------------|-----------------|-----------|----------------|----------------------------|----------------------|------|------------|-----|-----|-----|-----|---|
| | | | | | | | Type | VAC | Hz | VDC | W | A |
| CNW015-AB06 -01 | 1~ 115 | 50/60 | 48 | 150 | 3.10 | 0.7 | 187 | 176 | 167 | 50 | 110 | 1 |
| CNW015-AB02 -01 | 1~ 230 | 50/60 | 48 | 150 | 3.10 | 0.7 | 187 | 176 | 167 | 50 | 110 | 1 |
| CNW030-AC06 -01 | 1~ 100-120 | 50/60 | 48 | 300 | 6.25 | 1.3 | 272 | 260 | 251 | 66 | 112 | 2 |
| CNW030-AC02 -01 | 1~ 200-277 | 50/60 | 48 | 300 | 6.25 | 1.3 | 272 | 260 | 251 | 66 | 112 | 2 |

subject to alterations



- **EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-1
- **Product conforming to standards:** EN 50178, CE
- **Approvals:** UL/CSA (File No. E 181381)



Switch power supply with PFC, RS485 and ebmBUS

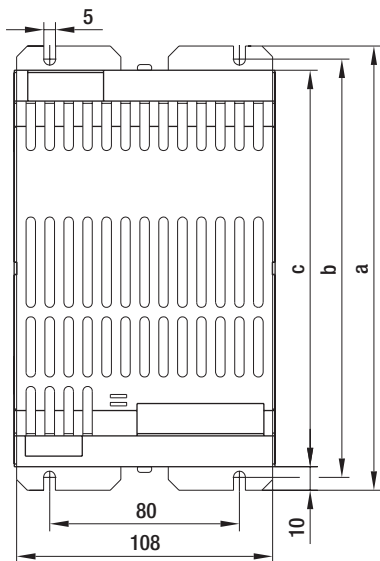
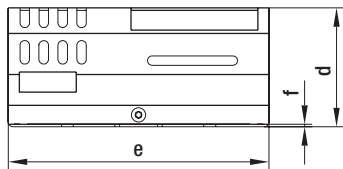
48 VDC, 150 W / 300 W



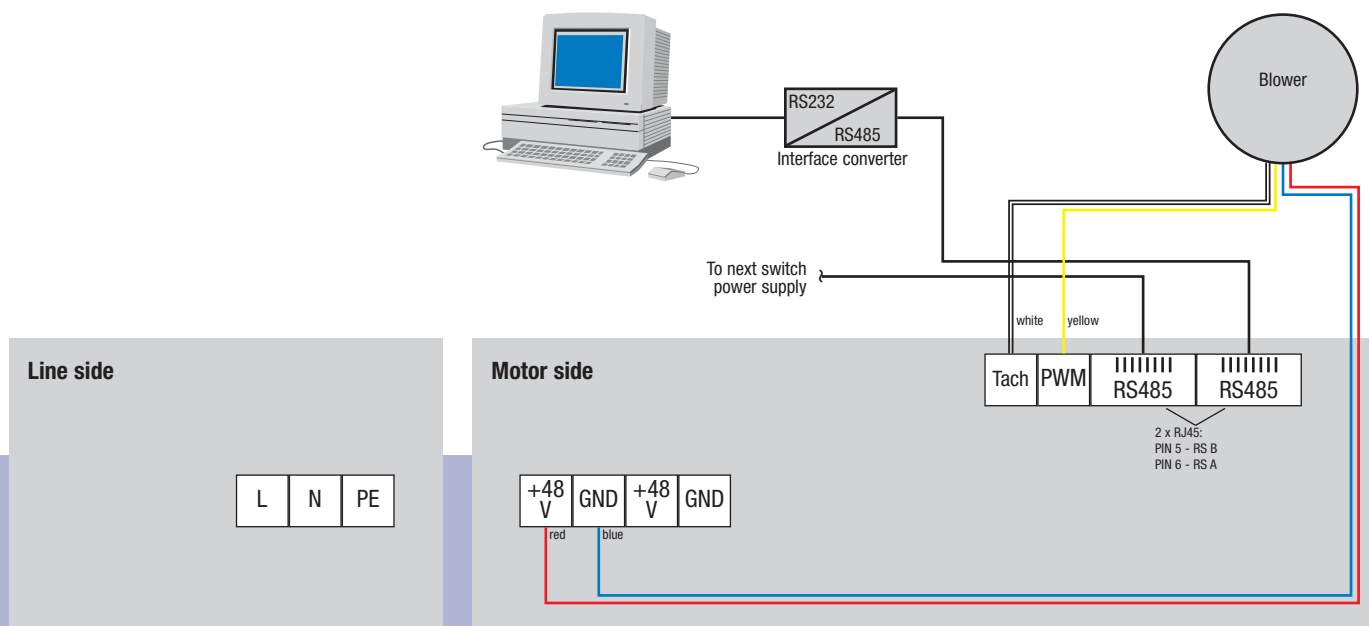
- **General remarks:** Switch power supply with an output power of 150 W / 300 W to supply 48 VDC EC motors from the 115 / 230 VAC mains. It is also possible to run several motors up to an overall power of 150 W / 300 W. Data on the 60 W switching power supply is available on request.
- **Function:** Supply of an electrically insulated direct voltage of 48 VDC at the output when connected to the 115 / 230 V mains. The power supply is sustainably short-circuit proof, open-circuit proof and protected against overheating. An integrated EMC filter guarantees RFI suppression of the unit according to EN 61000-3-2.
- **Material:** Housing made of stainless steel
- **Protection class:** I
- **Type of protection:** IP 20 (acc. to EN 60529)

| Nominal data | Nominal voltage | Frequency | Output voltage | Output P ₁ max. | Rated output current | Mass | Dimensions | | | | | |
|-----------------|-----------------|-----------|----------------|----------------------------|----------------------|------|------------|-----|-----|-----|-----|---|
| | | | | | | | Type | VAC | Hz | VDC | W | A |
| CNW015-AB06 -05 | 1~ 115 | 50/60 | 48 | 150 | 3.10 | 0.7 | 187 | 176 | 167 | 50 | 110 | 1 |
| CNW015-AB02 -05 | 1~ 230 | 50/60 | 48 | 150 | 3.10 | 0.7 | 187 | 176 | 167 | 50 | 110 | 1 |
| CNW030-AC06 -05 | 1~ 100-120 | 50/60 | 48 | 300 | 6.25 | 1.3 | 272 | 260 | 251 | 66 | 112 | 2 |
| CNW030-AC02 -05 | 1~ 200-277 | 50/60 | 48 | 300 | 6.25 | 1.3 | 272 | 260 | 251 | 66 | 112 | 2 |

subject to alterations



- **EMC:** Interference emission acc. to EN 61000-6-3
Interference immunity acc. to EN 61000-6-1
- **Product conforming to standards:** EN 50178, CE
- **Approvals:** UL/CSA (File No. E 181381)
- **Technical features:** Control board for RS485, ebmBUS and LISA functions



External commutation electronics

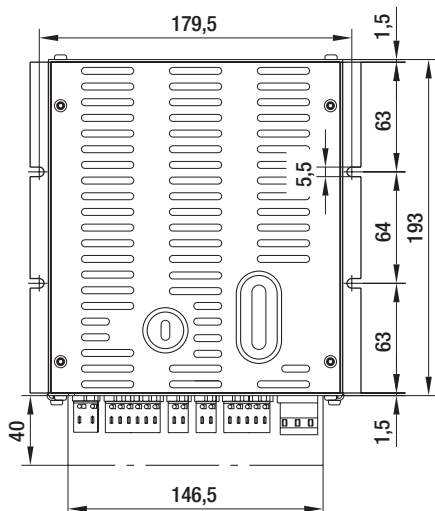
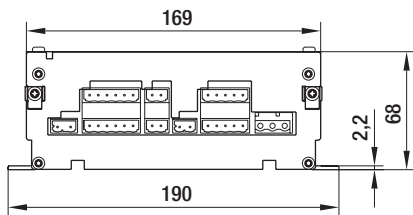
for rail technology, 110 VDC, 650 W



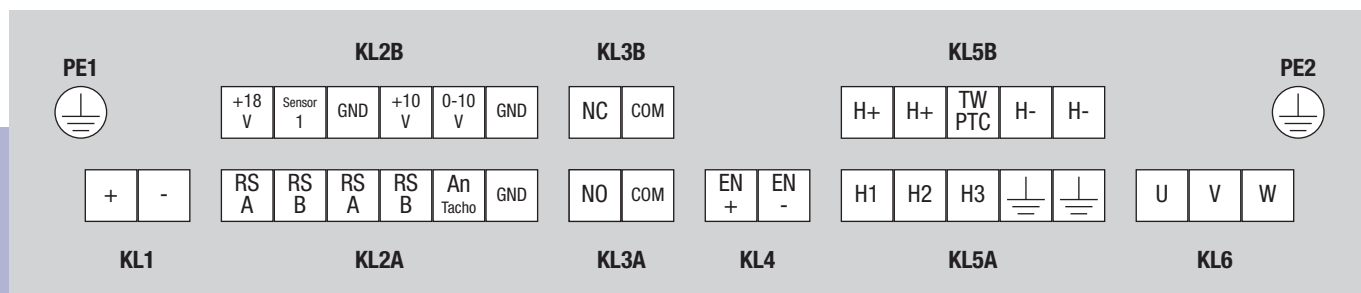
- **General remarks:** For EC motors and fans with 3 cores and without integrated commutation electronics
- **Function:** Commutation unit for three-core EC motors up to a power input of 650 W. Various basic functions are integrated: open loop speed control, closed loop speed control, RS485 interface. In combination with sensors, all control tasks as required in air technology can be executed.
- **Protection class:** I
- **Type of protection:** IP 20 (acc. to DIN EN 60529)
- **NB:** Connected fans have to be designed for a rated voltage of 127 VDC!

| Nominal data | Nominal voltage | Power input P_1 max. | Current draw | Perm. amb. temp. | Mass |
|------------------|-----------------|---------------------------|--------------|------------------|------|
| Type | VDC | W | A | °C | kg |
| CEG 485-HB50 -01 | 110 | 650 | 5.9 | -25 to +40 | 2.0 |

subject to alterations



- **EMC / EMI:** Acc. to EN 50155 and EN 50121
- **Legislation:** Low voltage directive 73/23/EEC, VDE 0160/EN 50178
- **Design:**
 - Motor output protected against short circuit phase to phase and conditionally phase to earth
 - 0-10 V input (R_i : 100 k Ω)
 - 0-10 V input (R_i : 100 k Ω) for connection of external actual value input
 - RS485 interface (ebmBUS)
 - Floating alarm contact 250 VAC / 5A, during alarm, relay is released (low-active)
 - Wide voltage input for external controller enabling via RESET function
 - Tach output
 - LED for operation and alarm mode
green: unit on
red: alarm
 - Setting of minimum and maximum values via potentiometer
 - Operational modes (to be set via DIP switch):
Open loop speed control
Closed loop speed control
Controlling external parameters
 - Direction of motor rotation reversible
- **Connectors for external electronics:**
 - KL1 2-pole connector; centreline 7.5; Co. Wago part no.: 231-202/026-000
 - KL2A 6-pole connector; centreline 5; Co. Wago part no.: 231-106/026-000
 - KL2B 6-pole connector; centreline 5; Co. Wago part no.: 231-106/026-000
 - KL3A 2-pole connector; centreline 5; Co. Wago part no.: 231-102/026-000
 - KL3B 2-pole connector; centreline 5; Co. Wago part no.: 231-102/026-000
 - KL4 2-pole connector; centreline 5; Co. Wago part no.: 231-102/026-000
 - KL5A 5-pole connector; centreline 5; Co. Wago part no.: 231-105/026-000
 - KL5B 5-pole connector; centreline 5; Co. Wago part no.: 231-105/026-000
 - KL6 3-pole connector; centreline 7.5; Co. Wago part no.: 731-603



| Connector | Connection | Assignment / function |
|-----------|------------|--|
| PE1 | | Ground connection |
| PE2 | | Ground connection |
| KL1 | + | 110 VDC |
| | - | 110 VDC |
| KL2A | RS A | Interface connection RS A |
| | RS B | Interface connection RS B |
| | RS A | Interface connection RS A |
| | RS B | Interface connection RS B |
| | An, Tacho | Tach output, open collector |
| | GND | Reference KL2 (for KL2 only) |
| KL2B | +18 V | +18 V (non-stabilised, +20%, 20 mA) for supplying external sensors |
| | Sensor 1 | Input for external sensor, Ri = 100 kΩ |
| | GND | Reference KL2 (for KL2 only) |
| | +10 V | +10 V (stabilised +/- 3 %, 25 mA) |
| | 0-10 V | Input for set value 0 - 10 V, Ri = 100 kΩ |
| | GND | Reference KL2 (for KL2 only) |

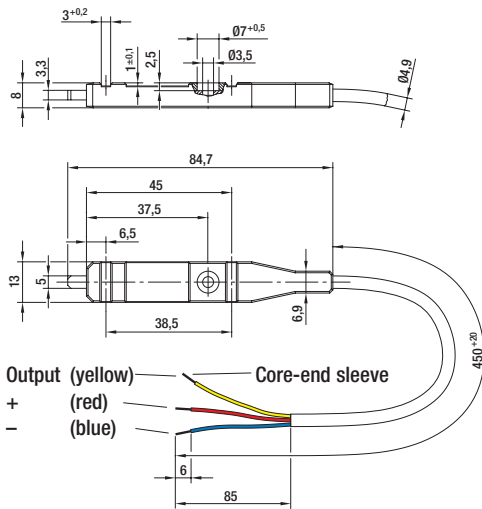
| Connector | Connection | Assignment / function |
|-----------|------------|--|
| KL3A | NO | Relay contact for alarm, make for failure |
| | COM | Relay contact for alarm |
| KL3B | NC | Relay contact for alarm, break for failure |
| | COM | Relay contact for alarm |
| KL4 | EN + | Enable input via RESET function |
| | EN - | Enable input via RESET function |
| KL5A | H1 | Hall-sensor 1 |
| | H2 | Hall-sensor 2 |
| | H3 | Hall-sensor 3 |
| | ⏏ | Shielding connection |
| | ⏏ | Shielding connection |
| KL5B | H+ | Power supply for hall-sensors (+) |
| | H+ | Power supply for hall-sensors (+) |
| | TW / PTC | Thermal switch or PTC connection |
| | H- | Power supply for hall-sensors (-) |
| KL6 | H- | Power supply for hall-sensors (-) |
| | U | Motor winding U |
| | V | Motor winding V |
| | W | Motor winding W |

Temperature sensor

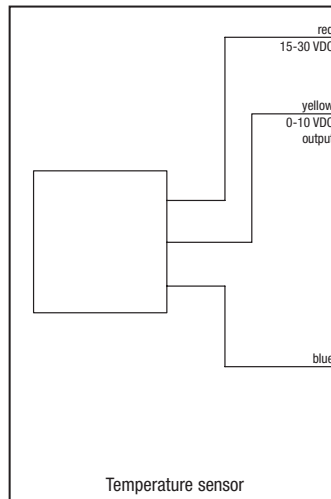


| Nominal data | Nominal voltage | Current draw | Output voltage | Output current | Output impedance | Temperature measuring range | Mass |
|--------------|-----------------|--------------|----------------|----------------|------------------|-----------------------------|------|
| Part no. | VDC | mA | VDC | mA | k Ω | $^{\circ}\text{C}$ | kg |
| 50005-1-0174 | 15-30 | 10 | 0-10 | 1.0 | 1.1 | -20 to +80 | 0.02 |

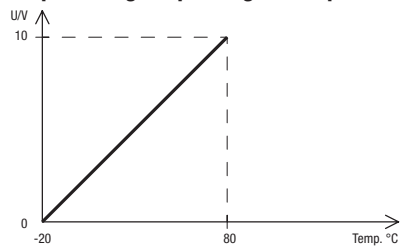
subject to alterations



- Electr. connection:



- Output voltage depending on temperature:



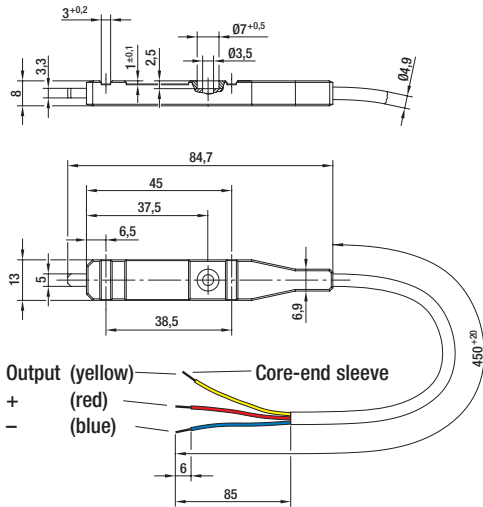
Tolerance ± 3 K

Temperature control module

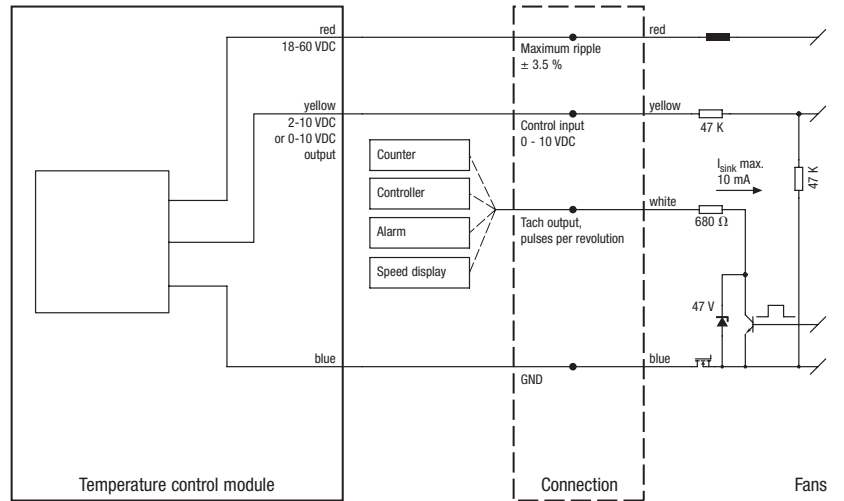


| Nominal data | Nominal voltage | Current draw | Output voltage | Output current | Output impedance | Temperature control range | Mass |
|--------------|-----------------|--------------|----------------|----------------|------------------|---------------------------|------|
| Part no. | VDC | mA | VDC | mA | kΩ | °C | kg |
| 50002-1-0174 | 18-60 | 10 | 2-10 | 0.1 | 6.8 | +30 to +55 | 0.02 |
| 50003-1-0174 | 18-60 | 10 | 0-10 | 0.1 | 6.8 | +10 to +45 | 0.02 |

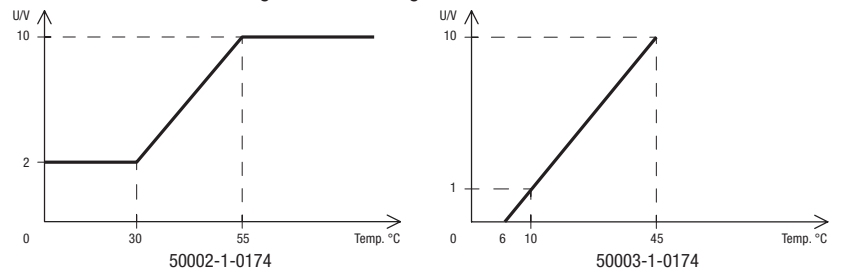
subject to alterations



- Electr. connection:



- Control function: Both designs have "cooling" as control function



Tolerance ±3 K

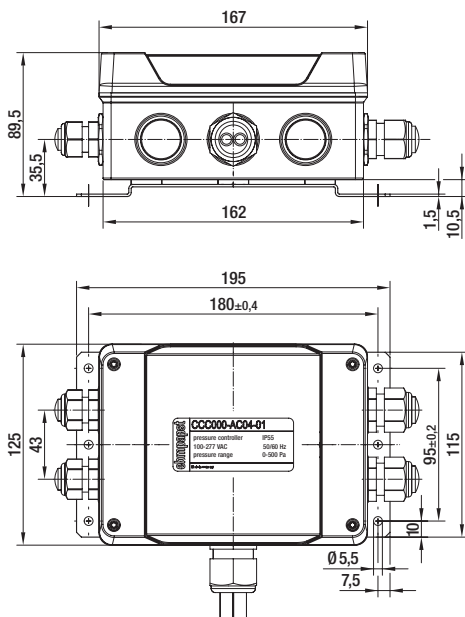
Pressure control with integrated pressure sensor

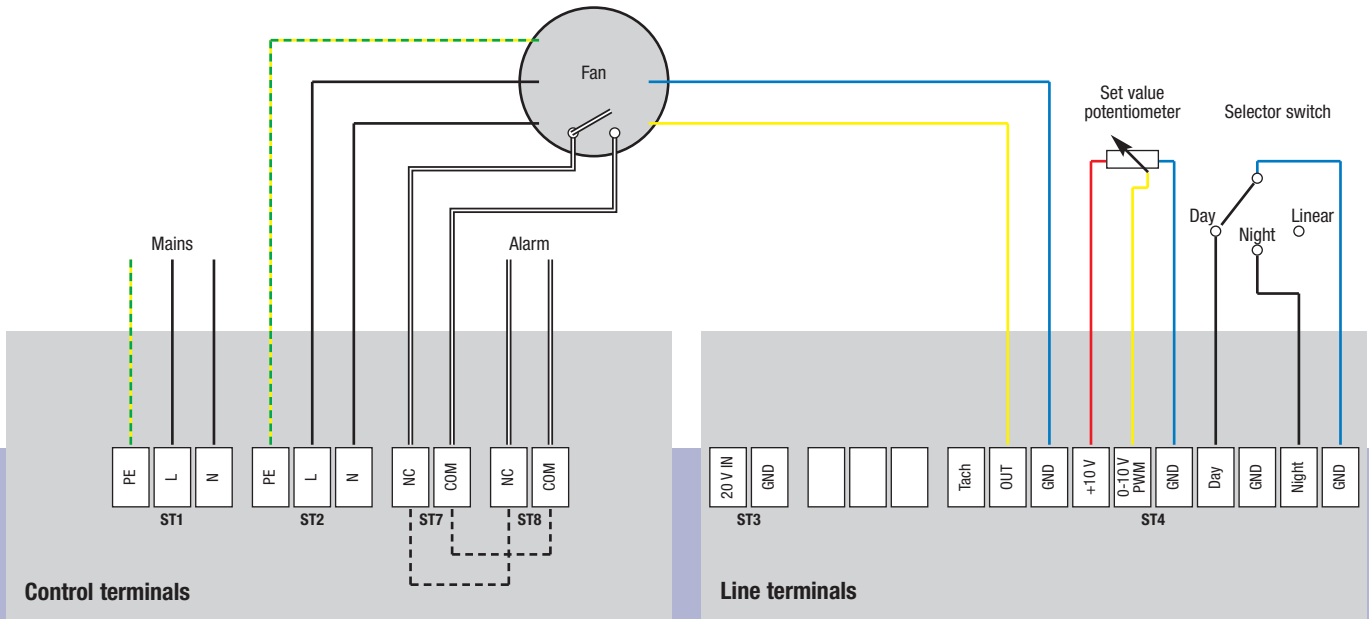


- **Functions:** Integrated PID controller, day/night/linear set point preset, integrated set point potentiometer for day and night, external set point preset via potentiometer
- **Pressure sensor:** 0-500 Pa, bursting strength 200 mbar, for non-aggressive gaseous media
- **Type of protection:** IP 55

| Nominal data | Nominal voltage range | Frequency | Nominal voltage, alternative | Pressure control range | Perm. amb. temp. |
|------------------|-----------------------|-----------|------------------------------|------------------------|------------------|
| Type | VAC | Hz | VDC | Pa | °C |
| CCC 000-AC04 -01 | 1~ 100-277 | 50/60 | 20 @ 50 mA | 50-500 | -25 to +60 |

subject to alterations





| Connector | Connection | Assignment / function |
|-----------|------------|--|
| ST1 | PE | Protective earth |
| | L | Mains 50/60 Hz, phase |
| | N | Mains 50/60 Hz, neutral |
| ST2 | PE | Protective earth |
| | L | Mains 50/60 Hz, phase |
| | N | Mains 50/60 Hz, neutral |
| ST7 | NC | Relay contact for alarm, break for failure |
| | COM | Relay contact for alarm |
| ST8 | NC | Relay contact for alarm, break for failure |
| | COM | Relay contact for alarm |

| Connector | Connection | Assignment / function |
|-----------|--------------------------|--|
| ST3 | 20 V IN | DC voltage supply (optional), with reverse polarity protection |
| | GND | GND |
| ST4 | Tach | Tach output from fan |
| | OUT | Control voltage for fan, 0-10 V |
| | GND | GND |
| | +10 V | Set value potentiometer, supply 10 V (-10 %), 10 mA |
| | 0-10 V PWM | Set value potentiometer |
| | GND | Set value potentiometer |
| | Day | Selector switch terminal |
| | GND | Selector switch terminal |
| | Night | Selector switch terminal |
| GND | Selector switch terminal | |

Selection module for 3 speeds

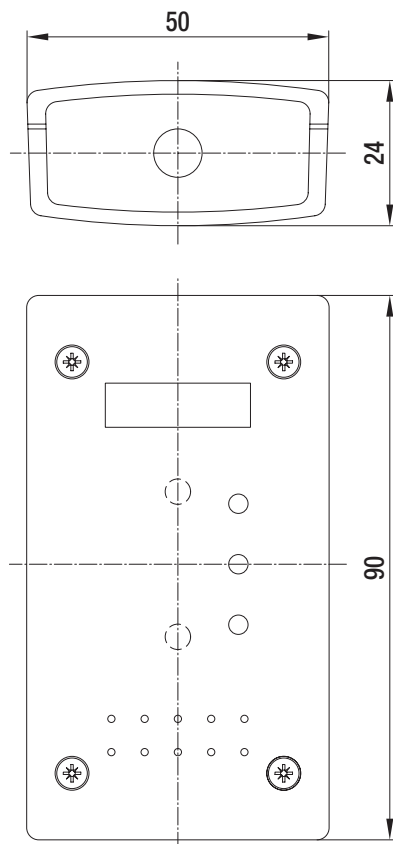


- **General remarks:** Using an external selector switch, one of three preset speeds can be chosen. Presetting is done via one integrated potentiometer each.
- **Material:** Plastics
- **Type of protection:** IP 20

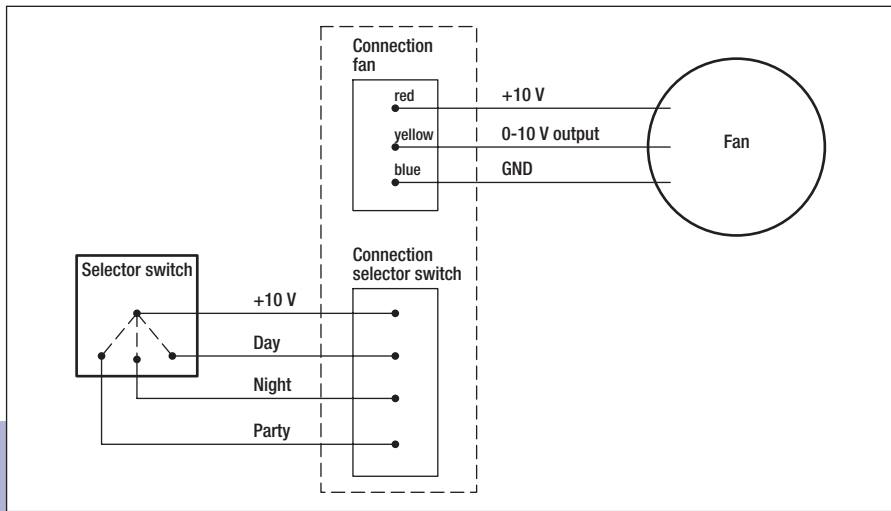
Type

CBC 000-AE04 -01

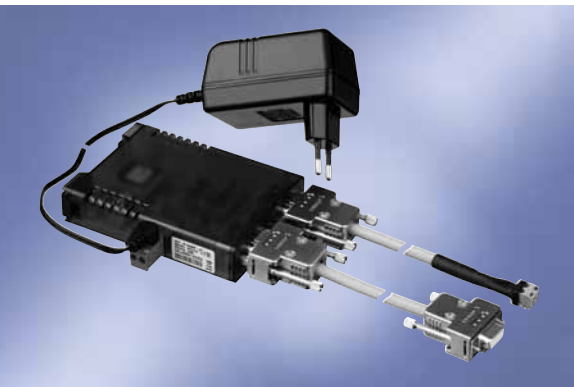
subject to alterations



- Electr. connection:



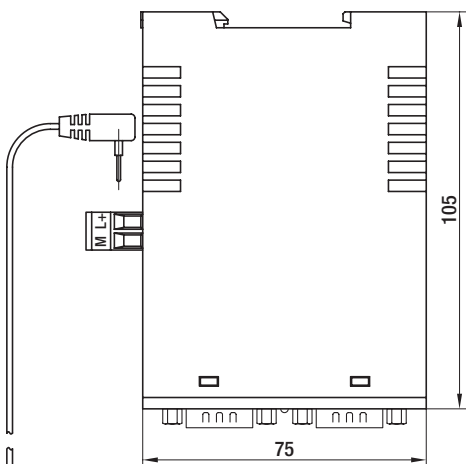
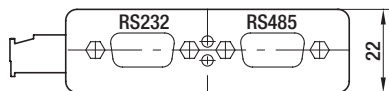
Interface converter RS232 - RS485



- **General remarks:** This interface converter permits bi-directional connection of RS232 devices (laptop or PC) with ebmBUS devices (electronic commutation units with RS485 interface)
- **Safety:** Electrical insulation between the RS232 and RS485 side is provided
- **Material:** Plastic housing for standard rail mounting according to DIN EN 50022-35
- **Status display:** Via LEDs
green: supply voltage OK
red: data exchange

| Nominal data | | Nominal voltage power supply | Supply voltage | Current draw at no-load operation | Mass (incl. PS) |
|--------------|--------|------------------------------|----------------|-----------------------------------|-----------------|
| Part no. | VAC | VAC / VDC | mA | kg | |
| 21487-1-0174 | 1~ 230 | 12-24 | 150 | 0.4 | |

subject to alterations



- **Mode of operation:** RS485 2-wire mode with echo and automatic control
- **Galvanic insulation:** Min. 1kV insulation voltage between RS232 and RS485 interfaces and between power supply and interfaces
- **ESD immunity:** Up to 15 kV (acc. to IEC 801-2, Stage 4)
- **Delivery scope:**
 - Interface converter
 - Supply plug unit (230 VAC / 12 VDC, 500 mA)
 - Adaptor leads with 2 x 9-pole SUB-D sockets
 - Adaptor leads with 9-pole SUB-D socket
 - Screw terminal RS485

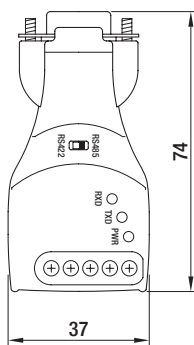
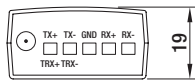
Interface converter RS232 - RS485



- **General remarks:** This interface converter permits bi-directional connection of RS232 devices (laptop / PDA) with ebmBUS devices (electronic commutation units with RS485 interface). Power supplied by RS232 of the laptop / PDA.
- **Material:** Plastic housing
- **Status display:** Via LEDs
 - PWR: Power supply
 - TXD: Data transfer (send)
 - RXD: Data transfer (receive)

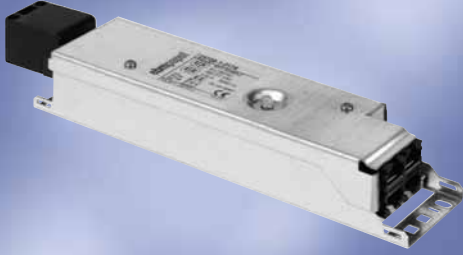
| Nominal data | | Mass |
|--------------|-----|------|
| Part no. | kg | |
| 21495-2-0174 | 0.1 | |

subject to alterations



- **Mode of operation:** RS485 2-wire mode with echo and automatic control
- **Delivery scope:** Interface converter, English-language operating manual
- **Electrical terminals:** Screw terminal, TRX+ = RSA, TRX- = RSB

RS485 repeater

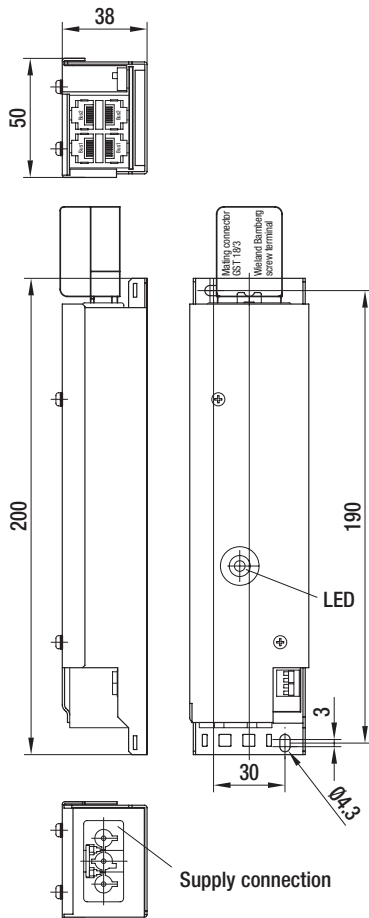


- **General remarks:** The physical RS485 repeater is used for the connection of two segments on an RS485 basis. It can split a segment with network bus wires that are too long, or with too many nodes into two smaller, standardised units. A maximum of 31 nodes can be connected to the repeater.
- **Installation:** The repeater housing is mounted on the wall or in the cable duct with two screws (Ø 4 mm) or with cable ties.
- **Material:** Housing made of galvanised sheet steel
- **Type of protection:** IP 20 according to DIN EN 60529

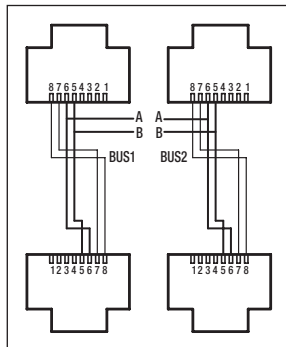
Nominal data

| Part no. | Supply voltage VAC | Frequency Hz | Power input VA | Perm. operating temp. °C | Perm. storage temp. °C | Mass kg |
|--------------|-----------------------|-----------------|-------------------|-----------------------------|---------------------------|------------|
| 25708-1-0174 | 1~ 200-277 | 50/60 | < 3 | 0 to +50 | -20 to +70 | 0.3 |

subject to alterations



- **Type of transceiver:** 2 x ANSI standard RS485 transceiver
- **Galvanic insulation:** Operating insulation 500 V between both channels
- **Network connection:** Screw terminals
- **Mains connection:** Wieland connector GST 18/3 (part of delivery)
- **Pin configuration of network:**



| Pin No. | Assignment / function |
|---------|--|
| 1 - 4 | not assigned |
| 5 | Connection RS485, line B |
| 6 | Connection RS485, line B |
| 7, 8 | not assigned (each looped through within BUS1 and BUS2) |

RS485 terminal box with lead connections

for centrifugal fans with EC motor size 084 (ebmBUS, RS485)

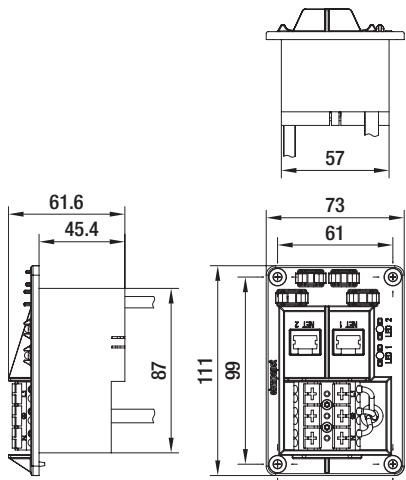


- **General remarks:** RS485 terminal box with
 - 2x RJ45 sockets for ebmBUS
 - ebmBUS line with Molex Mini-Fit female connector for connection to the motor
 - 3-pole 4-pin unit connector with AMP Mate-N-Lock female connector to connect to motor
 - Mode of operation display (LED2 green) and alarm display (LED 1 red)
- **Delivery scope:**
 - Terminal Box
 - Supply line (800 mm)
 - ebmBUS line (800 mm)
- **Material:** ABS (fire rating V0 according to UL)

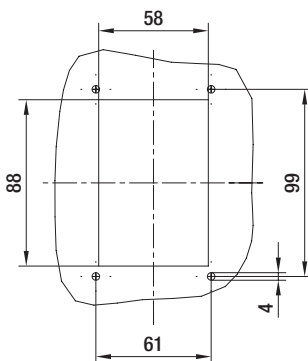
Part no.

54002-4-1040

subject to alterations



Mounting dimensions



Pin configuration of supply lead:

| Colour | Assignment / function |
|--------------|-----------------------|
| green/yellow | PE |
| black 2 | N |
| black 1 | L |

Pin configuration of ebmBUS lead:

| Colour | Assignment / function |
|--------|-----------------------------|
| yellow | RS A |
| white | RS B |
| red | Operation: +15 V Alarm: 0 V |
| blue | Operation: 0 V Alarm: +15 V |

Pin configuration of RJ45 sockets:

| Pin No. | Assignment / function |
|---------|-----------------------|
| 5 | RS B |
| 6 | RS A |

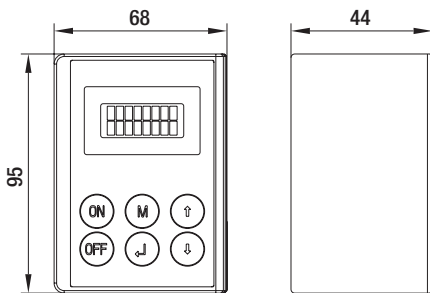
Hand-held control terminal



- **General remarks:** Terminal to control networked fans and to set their parameters; RS485 (ebmBUS)
- **Type of protection:** IP 20 (acc. to DIN EN 60529)
- **Protection class:** III
- **Display:** Plain text LCD, 2x8 characters
- **Accumulator and charging electronics:** 2 x round cell R6 DIN 40863 NiMH 1,500 mAh, operating time approx. 40 hrs, standby time approx. 100 days, charging time max. 4 hrs.
- **Parts included in delivery:** Hand-held control terminal, power supply and accumulator unit, BUS cable, 2 x round cell R6 NiMH 1,500 mAh

| Nominal data | Nominal voltage range power supply | Frequency | Supply voltage | Perm. amb. temp. | Perm. storage temp. | Mass |
|-------------------------|------------------------------------|-----------|----------------|------------------|---------------------|------|
| Type | VAC | Hz | VDC | °C | °C | kg |
| CBC 000-AB06 -01 | 1~ 100-240 | 50/60 | 12 | 0 to +45 | -20 to +65 | 0.4 |

subject to alterations



Speed setting device

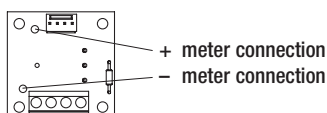
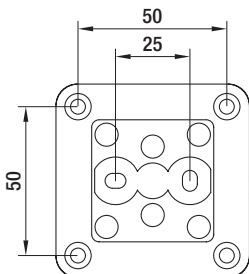
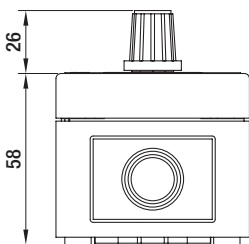
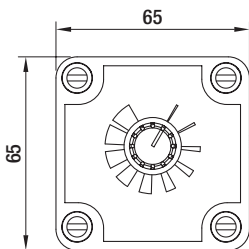
with housing



- **Material:** Housing made of plastic
- **Type of protection:** IP 54
- **Design:** The speed setting device can be operated with the entire range of ebm-papst EC fans. It is supplied with current via the fan's DC output and supplies a 0-10 V signal that allows infinitely variable open loop speed control. The control also permits fan speed measurement using a multimeter equipped with a frequency meter (for which a tach output is given from the fan).
- **Cable inputs:** 4 x M16 or M20
- **Mounting holes:** Suitable for 4 mm mounts

| Nominal data | Supply voltage | Max. current draw | Resistance | Perm. amb. temp. | Mass |
|------------------|----------------|-------------------|------------|------------------|------|
| Type | VDC | mA | kΩ | °C | kg |
| CLC 000-AE04 -01 | 10 | 1.1 | 0-10 Lin | 50 | 0.10 |

subject to alterations

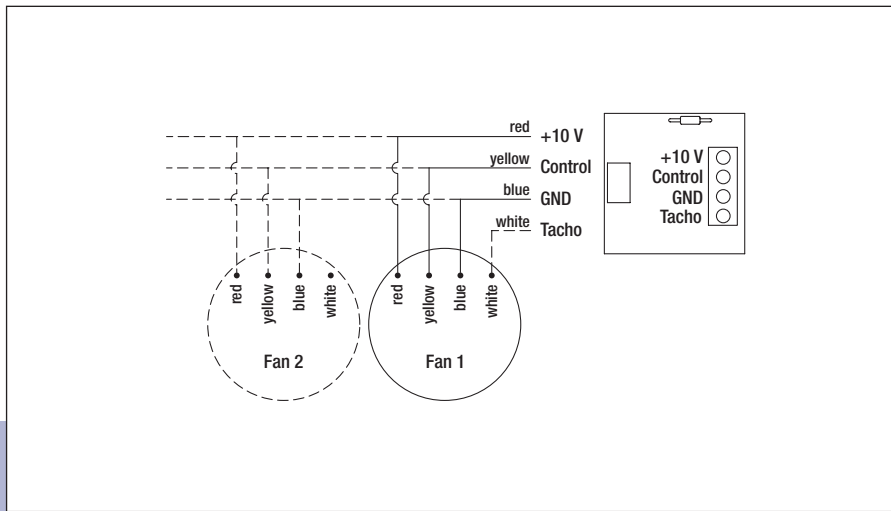


- **Speed measurement:** Connect a frequency meter to the connection points (labelled + and -) on the PCB board. The fan has an output of 1 pulse per revolution, so that the measured frequency can be converted into rpm using the following equation:

$$\text{rpm} = \text{frequency (Hz)} \times 60$$

- **Comment:**
 - A single controller can be used to control multiple fans with the same speed setting.
 - The connection to the controller is made using four screw connections or one Molex connection (adaptor lead available).
 - If the tach cable is required, this device can only be connected to one fan. Note that in rare operating cases, it is possible that permanent connection of the tach cable can cause a slight decrease in the maximum speed.

- Electr. connection:



Speed setting device

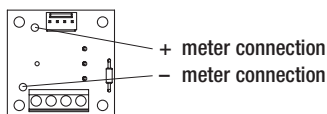
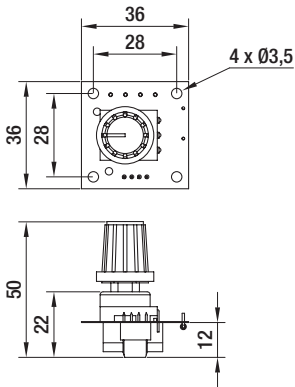
without housing



- **Design:** The speed setting device can be operated with the entire range of ebm-papst EC fans. It is supplied with current via the fan's DC output and supplies a 0-10 V signal that allows infinitely variable open loop speed control. The control also permits fan speed measurement using a multimeter equipped with a frequency meter (for which a tach output is given from the fan).
- **Mounting hole:** 10 mm

| Nominal data | Supply voltage | Max. current draw | Resistance | Perm. amb. temp. | Mass |
|------------------|----------------|-------------------|------------|------------------|------|
| Type | VDC | mA | kΩ | °C | kg |
| CLC 000-AD04 -01 | 10 | 1.1 | 0-10 Lin | 50 | 0.05 |

subject to alterations



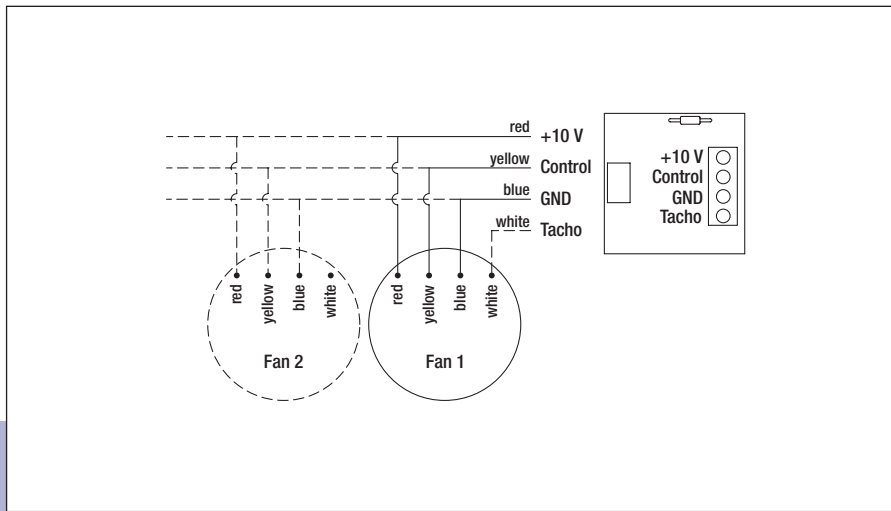
- **Speed measurement:** Connect a frequency meter to the connection points (labelled + and -) on the PCB board. The fan has an output of 1 pulse per revolution, so that the measured frequency can be converted into rpm using the following equation:

$$\text{rpm} = \text{frequency (Hz)} \times 60$$

- **Comment:**

- A single controller can be used to control multiple fans with the same speed setting.
- The connection to the controller is made using four screw connections or one Molex connection (adaptor lead available).
- If the tach cable is required, this device can only be connected to one fan. Note that in rare operating cases, it is possible that permanent connection of the tach cable can cause a slight decrease in the maximum speed.

- Electr. connection:



LISA

Control software for EC-SYSTEMS

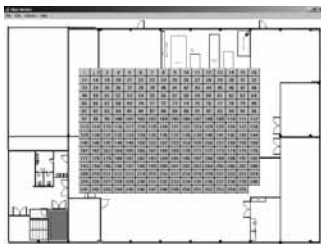
- **Version:** LISA 5.1
- **Features:**
 - Individual control and monitoring of 7,905 fans
 - Group-oriented arrangement of the fans
 - Level 1: Overview display for 10 floors
 - Level 2: Overview display for 255 groups within a floor
 - Level 3: Overview display for 31 fans within a group
 - Broadcast command for one group or all fans
 - Speed, temperature or pressure control
 - Error message



Part no.

25711-2-0199

subject to alterations



- **Suitable for:** EC motors and electronics with ebmBUS
- **System requirements:** Windows 2000 / XP

Fan Control

Control software & accessories for Pocket PCs / PDAs

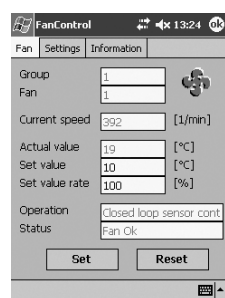


- **Version:** Fan Control 1.00
- **Features:**
 - Managing up to 31 fans
 - Setting pre-set values and indicating actual values
 - Setting parameters for PID control
 - Setting fan address
 - Setting mode of operation (heating/cooling)
 - Alarm diagnosis
 - Language selection for user interface

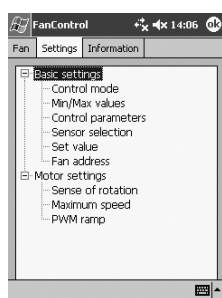
Part no.

21500-1-0174

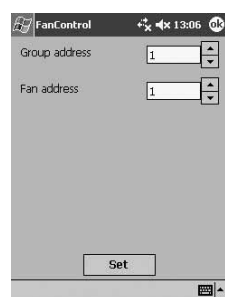
subject to alterations



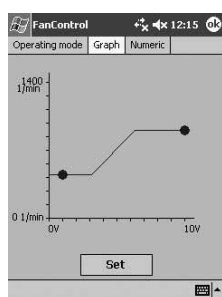
Set and actual values



Mode of operation



Fan address



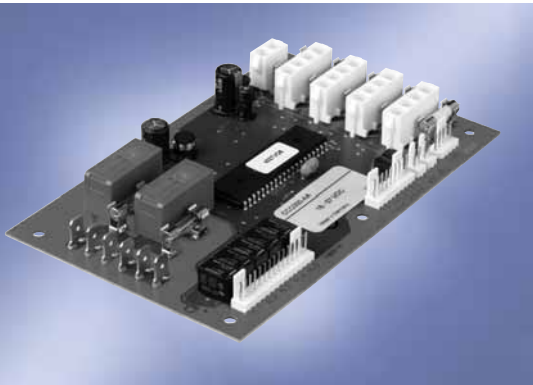
Graphic setting

- **Delivery scope:** Installation-CD, interface converter (RS232-RS485), BUS cable, installation instruction and detailed manual (PDF). The Pocket PC / PDA and compatible serial communication cables are not included in the scope of delivery.
- **Suitable for:** EC motors and electronics with ebmBUS
- **System requirements:** Pocket PC / PDA with Windows Mobile 5.0, RS232 interface, and serial communication cable.
- **Compatible Pocket PCs / PDAs:** (as of 2006-09-14)

- Hewlett-Packard rx1950
- Hewlett-Packard hx2190
- Fujitsu-Siemens Pocket Loox C550
- Dell Axim x51v (624 MHz)

Refer to our website at www.ebmpapst.com/downloads for a continuously updated list of approved Pocket PCs / PDAs along with the suitable serial communication cables.

HMS controller



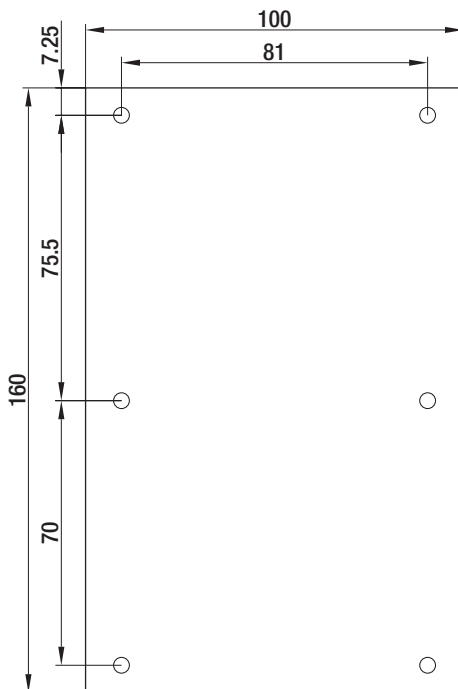
- **General remarks:** The HMS controller is governed by a microprocessor and is specifically designed for Heat Management Systems (= HMS). This controller allows for an almost limitless programming variety as regards customer-specific fan speed / temperature profiles. Moreover, this controller offers a multitude of the most diverse alarm configurations.

Our HMS controller has been specially designed and adjusted to the product range of ebm-papst in Mulfingen. Thus, any size of our fans or blowers can be used. The most diverse of applications needing temperature-dependent control are possible. Among these are applications in telecommunication and the IT industry, in refrigeration and air-conditioning as well as in specific industrial plants and systems.

| Nominal data | Supply voltage | Power input ⁽¹⁾ , max. | Power input ⁽²⁾ , max. | Current draw ⁽¹⁾ max. | Perm. amb. temp. | Mass |
|------------------|----------------|-----------------------------------|-----------------------------------|----------------------------------|------------------|------|
| Type | VDC | W | W | A | °C | kg |
| CCC 000-AA05 -03 | 16-57 | 10 | 130 | 0.175 | -40 to +70 | 0.15 |

subject to alterations

(1) without fans (2) per fan at nominal voltage



Features:

- 4 fan speed / temperature characteristics that can be programmed independently of each other
- 2 programmable no-frost relays for connecting 115 / 230 VAC heating devices
- 5 programmable alarm relays (with time lag):
 - Temperature alarm (over / under-temperature)
 - Fan good / bad alarm programming
 - Temperature sensor alarm
 - Programmable depending on signal inputs
- 4 programmable status outputs (with time lag):
 - With "open collector" design to connect optical or acoustic displays / alarms
 - Each fan speed can be set individually
- 4 signal inputs for external switches / limit switches
- Connection of two independent temperature sensors (NTCs) possible
- RS232 interface galvanic insulated
- Selective protection of each fan
- Programming via Windows software (terminal program version 15 ff.: part no. 25710-2-0199)

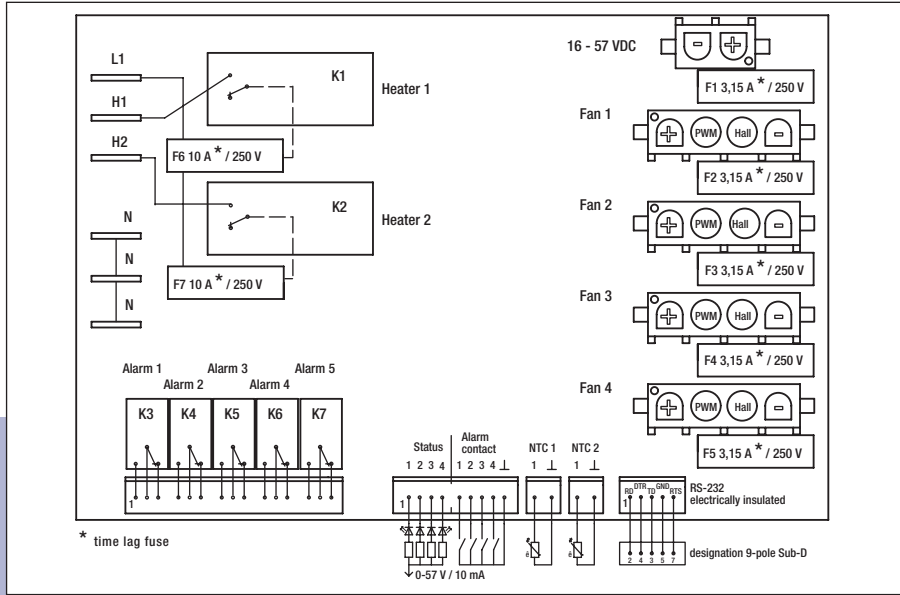
Requirements:

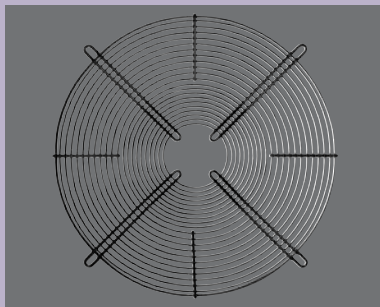
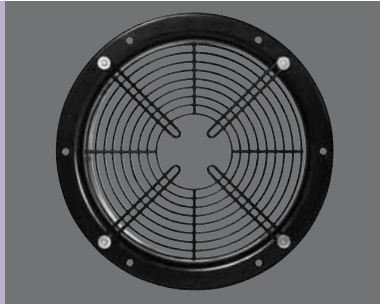
- Supply voltage of HMS controller: 16-57 VDC
- Fans with standard interface
 - 24 / 48 VDC fan voltage
 - PWM / linear control input (0-10 V)
 - Open collector tach output
- NTC with $R_{25} = 33 \text{ k}\Omega$ (EPCOS type M 891/33k/J)
- System requirements: Windows 2000 / XP

Safety:

According to EN 50178

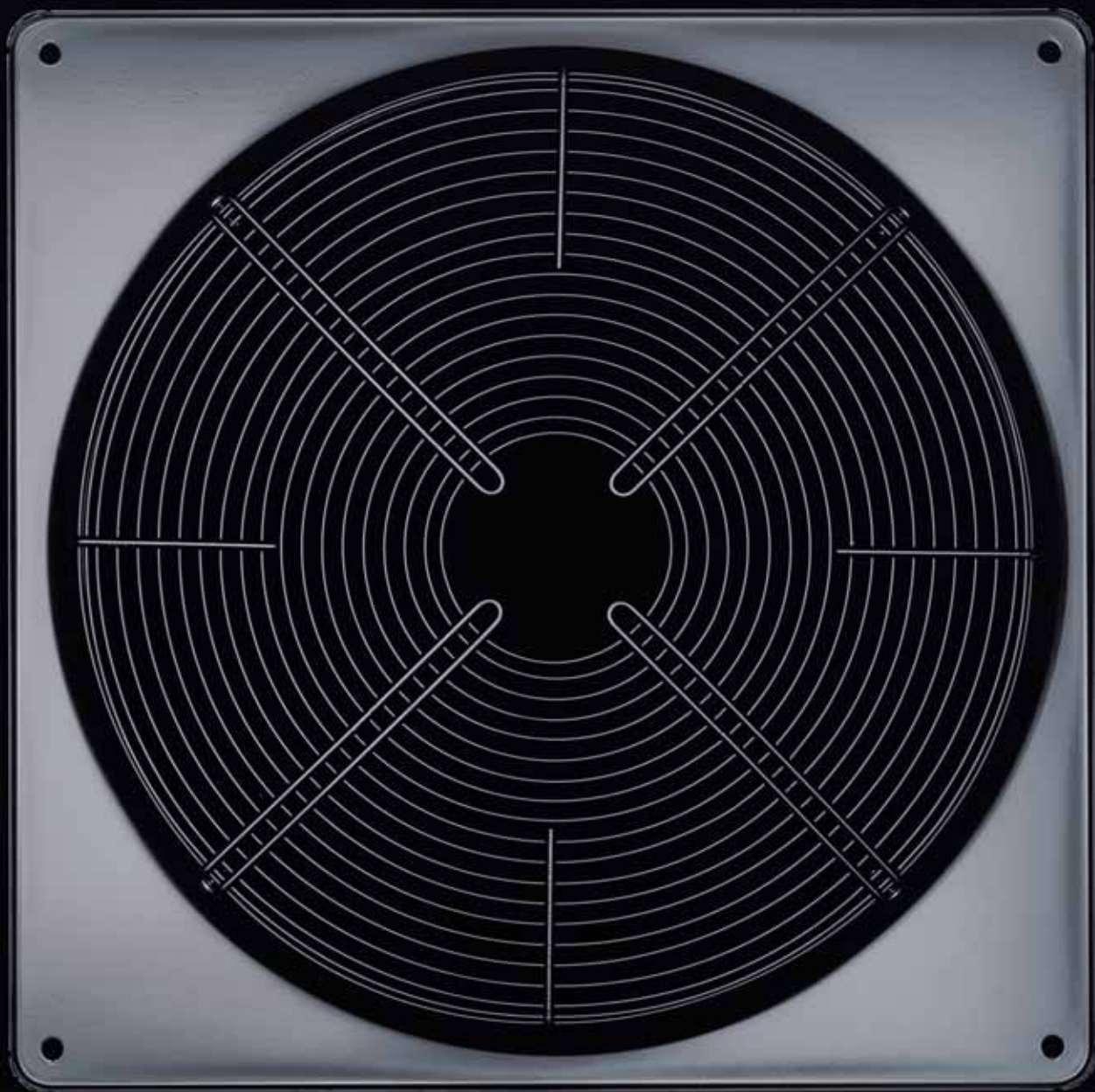
- **EMC / EMI:** Interference immunity EN 61000, interference emission EN 50081-1



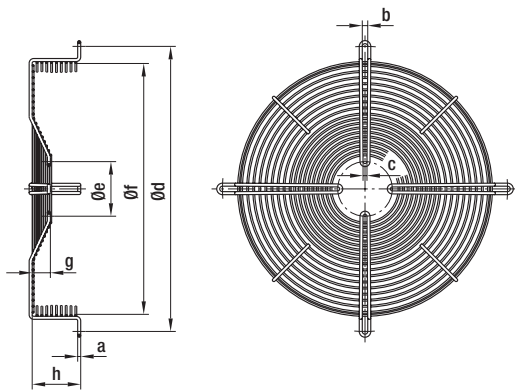


Accessories

| | |
|--|-----|
| Guard grilles, streamers | 362 |
| Wall rings | 372 |
| Connection lines | 374 |
| Accessories for Q-motors and energy-saving motors (ESM) | 374 |
| Terminal boxes, capacitors, speed setting devices, motor protection switches, star-delta switches, repair switches | 381 |



Guard grille



– **Material:** Steel, phosphated and coated in black plastic

Basket guard grille for S series axial fans

| Part no. | Size | AC motor | EC motor | a | b | c | d | e | f | g | h |
|--------------|------|--------------------|--------------------|-----|-----|-----|-------|-------|-------|------|------|
| 19110-2-4039 | 200 | 068 | 074 ⁽¹⁾ | 3.9 | 6.5 | 4.3 | 260.0 | 25.0 | 229.0 | — | 39.0 |
| 19111-2-4039 | 250 | 068 | 074 ⁽¹⁾ | 3.9 | 6.5 | 4.5 | 300.0 | 25.0 | 271.0 | — | 38.0 |
| 19112-2-4039 | 250 | 068 | 074 ⁽¹⁾ | 3.9 | 6.5 | 4.5 | 300.0 | 25.0 | 271.0 | — | 53.0 |
| 74251-2-4039 | 250 | — | 074 ⁽²⁾ | 5.0 | 6.2 | 4.2 | 300.0 | 125.0 | 265.0 | — | 38.0 |
| 64555-2-4039 | 300 | 068 | 074 ⁽¹⁾ | 4.5 | 4.3 | 4.3 | 360.0 | 58.0 | 329.5 | — | 50.0 |
| 64556-2-4039 | 300 | 068 | — | 4.5 | 4.3 | 4.3 | 360.0 | 58.0 | 329.5 | 26.0 | 50.0 |
| 64557-2-4039 | 300 | 074 | — | 5.0 | 6.5 | 6.5 | 360.0 | 90.0 | 324.0 | — | 50.0 |
| 74301-2-4039 | 300 | — | 074 ⁽²⁾ | 5.0 | 4.2 | 4.2 | 360.0 | 125.0 | 331.0 | 10.0 | 60.0 |
| 64558-2-4039 | 315 | 068 | — | 4.5 | 6.5 | 4.5 | 375.0 | 58.0 | 336.5 | 30.0 | 80.0 |
| 74316-2-4039 | 315 | — | 074 ⁽²⁾ | 5.0 | 6.4 | 4.2 | 375.0 | 125.0 | 344.0 | 35.0 | 85.0 |
| 64559-2-4039 | 330 | 068 | — | 4.5 | 6.5 | 4.5 | 410.0 | 58.0 | 354.5 | 30.0 | 80.0 |
| 74331-2-4039 | 330 | — | 074 ⁽²⁾ | 5.0 | 6.4 | 4.2 | 410.0 | 125.0 | 370.0 | 35.0 | 85.0 |
| 64562-2-4039 | 350 | 068 | — | 5.0 | 6.5 | 4.5 | 422.0 | 58.0 | 374.0 | 30.0 | 80.0 |
| 74351-2-4039 | 350 | — | 074 ⁽²⁾ | 5.0 | 6.4 | 4.2 | 422.0 | 125.0 | 378.0 | 35.0 | 85.0 |
| 64379-2-4039 | 400 | 074 | — | 5.0 | 9.0 | 6.5 | 470.0 | 90.0 | 414.0 | 30.0 | 80.0 |
| 74370-2-4039 | 400 | — | 084 ⁽²⁾ | 5.0 | 9.0 | 6.5 | 470.0 | 164.0 | 420.0 | 30.0 | 80.0 |
| 64536-2-4039 | 420 | 074 | — | 5.0 | 9.0 | 6.5 | 502.0 | 90.0 | 452.0 | 30.0 | 80.0 |
| 64570-2-4039 | 420 | 094 | — | 5.0 | 9.0 | 6.5 | 502.0 | 115.0 | 452.0 | 30.0 | 60.0 |
| 64378-2-4039 | 450 | 074 | — | 5.0 | 9.0 | 6.5 | 522.0 | 90.0 | 476.0 | 30.0 | 80.0 |
| 74372-2-4039 | 450 | — | 084 ⁽²⁾ | 5.0 | 9.0 | 6.5 | 522.0 | 164.0 | 482.0 | 30.0 | 80.0 |
| 25943-2-4039 | 450 | 094 ⁽³⁾ | — | 6.0 | 9.0 | 6.5 | 522.0 | 115.0 | 472.0 | 17.5 | 67.5 |
| 25938-2-4039 | 450 | 094 ⁽⁴⁾ | — | 7.0 | 9.0 | 7.0 | 515.0 | 115.0 | 472.0 | 16.5 | 80.0 |

subject to alterations

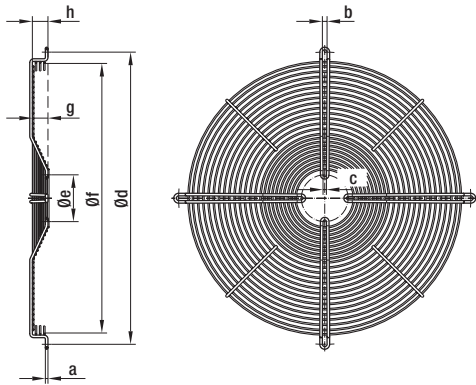
(1) DC-fed

(2) Mains-powered

(3) Blades made of plastic

(4) Blades made of sheet steel

Guard grille



– **Material:** Steel, phosphated and coated in black plastic

Guard grille for S-series axial fans

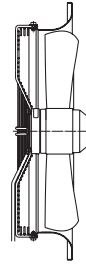
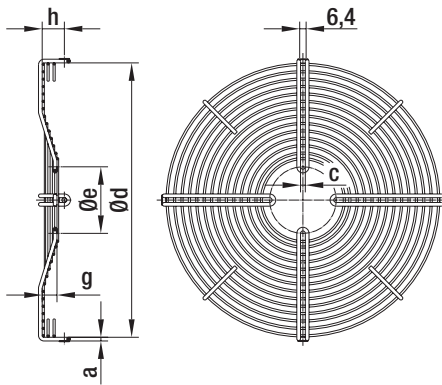
| Part no. | Size | AC motor | EC motor | a | b | c | d | e | f | g | h |
|--------------|-----------|----------|--------------------|-----|-----|-----|-------|-------|-------|------|------|
| 18656-2-4039 | 200 | 068 | — | 3.9 | 4.6 | 4.6 | 245.0 | 58.0 | — | — | — |
| 62622-2-4039 | 200 | — | 074 ⁽¹⁾ | 3.9 | 4.6 | 4.6 | 245.0 | 58.0 | — | — | — |
| 09414-2-4039 | 250 | 068 | — | 3.9 | 4.6 | 4.6 | 290.0 | 58.0 | — | — | — |
| 62623-2-4039 | 250 | — | 074 ⁽¹⁾ | 3.9 | 4.6 | 4.6 | 290.0 | 58.0 | — | — | — |
| 74250-2-4039 | 250 | — | 074 ⁽²⁾ | 5.0 | 4.2 | 4.2 | 290.0 | 125.0 | — | — | — |
| 09415-2-4039 | 300 | 068 | — | 3.9 | 4.6 | 4.6 | 360.0 | 58.0 | — | — | — |
| 62624-2-4039 | 300 | — | 074 ⁽¹⁾ | 3.9 | 4.6 | 4.6 | 360.0 | 58.0 | — | — | — |
| 72320-2-4039 | 300 | 068 | — | 4.5 | 4.3 | 4.3 | 360.0 | 58.0 | 329.0 | 26.0 | 26.0 |
| 64052-2-4039 | 300 | 074 | — | 5.0 | 6.5 | 6.5 | 360.0 | 90.0 | — | — | — |
| 74300-2-4039 | 300 | — | 074 ⁽²⁾ | 5.0 | 4.2 | 4.2 | 360.0 | 125.0 | — | — | — |
| 64491-2-4039 | 315 | 068 | — | 4.5 | 6.4 | 4.3 | 375.0 | 58.0 | 336.0 | 33.0 | 30.0 |
| 74315-2-4039 | 315 | — | 074 ⁽²⁾ | 5.0 | 6.4 | 4.2 | 375.0 | 125.0 | 344.0 | 35.0 | 35.0 |
| 64490-2-4039 | 330 | 068 | — | 4.5 | 6.4 | 4.3 | 410.0 | 58.0 | 371.0 | 30.0 | 30.0 |
| 74330-2-4039 | 330 | — | 074 ⁽²⁾ | 5.0 | 6.4 | 4.2 | 410.0 | 125.0 | 370.0 | 35.0 | 35.0 |
| 64563-2-4039 | 350 | 068 | — | 5.0 | 6.5 | 4.5 | 422.0 | 58.0 | 374.0 | 30.0 | 30.0 |
| 74350-2-4039 | 350 | — | 074 ⁽²⁾ | 5.0 | 6.4 | 4.2 | 422.0 | 125.0 | 378.0 | 35.0 | 35.0 |
| 64538-2-4039 | 400 / 420 | 074 | — | 5.0 | 9.0 | 6.5 | 502.0 | 90.0 | 452.0 | 30.0 | 30.0 |
| 74373-2-4039 | 400 | — | 084 ⁽²⁾ | 5.0 | 9.0 | 6.5 | 502.0 | 164.0 | 458.0 | 30.0 | 38.0 |
| 64539-2-4039 | 450 | 074 | — | 5.0 | 9.0 | 6.5 | 522.0 | 90.0 | 476.0 | 30.0 | 30.0 |
| 74374-2-4039 | 450 | — | 084 ⁽²⁾ | 5.0 | 9.0 | 6.5 | 522.0 | 164.0 | 482.0 | 30.0 | 38.0 |
| 25950-2-4039 | 450 | 094 | — | 7.0 | 9.0 | 7.0 | 560.0 | 115.0 | 517.0 | 16.5 | 38.0 |

subject to alterations

(1) DC-powered

(2) Mains-powered

Guard grille



Typical installation

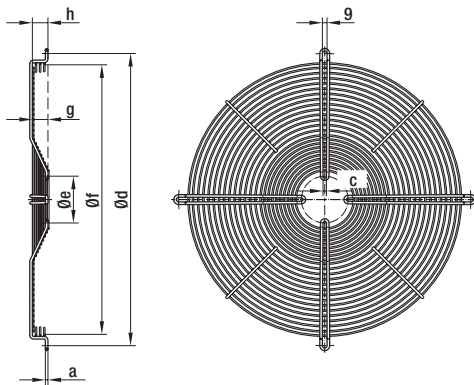
- **Material:** Steel, phosphated and coated in black plastic
- **Wall rings:** See p. 373
- **Comment:** Contact us for article numbers for complete fans.

Guard grille for S series fans (for nozzle-side mounting to square wall ring with long nozzle)

| Part no. | Size | AC motor | EC motor | a | c | d | e | g | h |
|--------------|------|---------------|--------------------|-----|-----|-------|-------|------|------|
| 35803-2-4039 | 400 | 074 (4 poles) | — | 5.0 | 6.5 | 413.0 | 90.0 | — | 16.0 |
| 35804-2-4039 | 400 | 074 (6 poles) | — | 5.0 | 6.5 | 413.0 | 90.0 | 30.0 | 28.0 |
| 74377-2-4039 | 400 | — | 084 ⁽²⁾ | 5.0 | 6.5 | 413.0 | 164.0 | 30.0 | 48.0 |
| 35805-2-4039 | 450 | 074 (4 poles) | — | 5.0 | 6.5 | 466.0 | 90.0 | — | 25.0 |
| 35806-2-4039 | 450 | 074 (6 poles) | — | 5.0 | 6.5 | 466.0 | 90.0 | 20.0 | 30.0 |
| 74376-2-4039 | 450 | — | 084 ⁽²⁾ | 5.0 | 6.5 | 467.0 | 164.0 | 30.0 | 48.0 |
| 26510-2-4039 | 450 | 094 | — | 7.0 | 7.0 | 466.0 | 115.0 | 16.5 | 41.0 |

subject to alterations

(2) mains-powered



- **Material:** Steel, phosphated and coated in black plastic

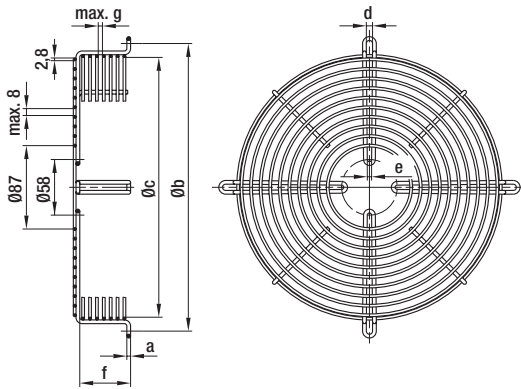
Basket guard grille for S series fans (for mounting to square wall ring with long nozzle)

| Part no. | Size | AC motor | EC motor | a | c | d | e | f | g | h |
|--------------|-----------|----------|--------------------|-----|-----|-------|-------|-------|------|------|
| 63978-2-4039 | 420 / 450 | 074 | — | 5.0 | 6.5 | 562.0 | 90.0 | 526.0 | 30.0 | 30.0 |
| 74375-2-4039 | 450 | — | 084 ⁽²⁾ | 5.0 | 6.5 | 562.0 | 164.0 | 526.0 | 30.0 | 38.0 |
| 25950-2-4039 | 450 | 094 | — | 7.0 | 7.0 | 560.0 | 115.0 | 523.0 | 16.5 | 38.0 |

subject to alterations

(2) mains-powered

Guard grille

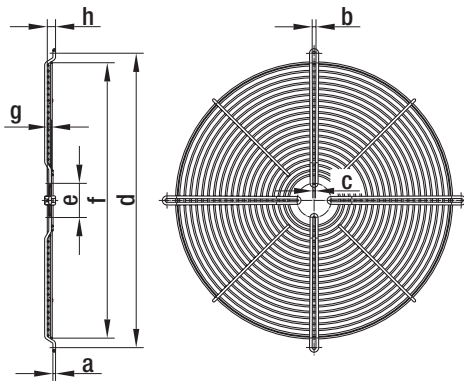


– **Material:** Steel, phosphated and coated in black plastic

Basket guard grille for A series axial fans

| Part no. | Size | a | b | c | d | e | f | g |
|--------------|------|-----|-------|-------|-----|-----|------|-----|
| 19110-2-4039 | 200 | 3.9 | 260.0 | 229.0 | 6.5 | 4.3 | 39.0 | 6.0 |
| 19111-2-4039 | 250 | 3.9 | 300.0 | 271.0 | 6.5 | 4.5 | 38.0 | 6.0 |
| 19112-2-4039 | 250 | 3.9 | 300.0 | 271.0 | 6.5 | 4.5 | 53.0 | 6.0 |
| 19113-2-4039 | 300 | 3.9 | 360.0 | 327.0 | 6.5 | 4.5 | 35.0 | 6.0 |
| 19114-2-4039 | 350 | 4.5 | 422.0 | 375.0 | 6.5 | 4.5 | 72.0 | 6.0 |
| 19115-2-4039 | 350 | 4.5 | 422.0 | 380.0 | 6.5 | 4.5 | 54.0 | 6.0 |
| 63406-2-4039 | 400 | 4.5 | 470.0 | 428.0 | 9.0 | 4.5 | 67.0 | 8.0 |

subject to alterations



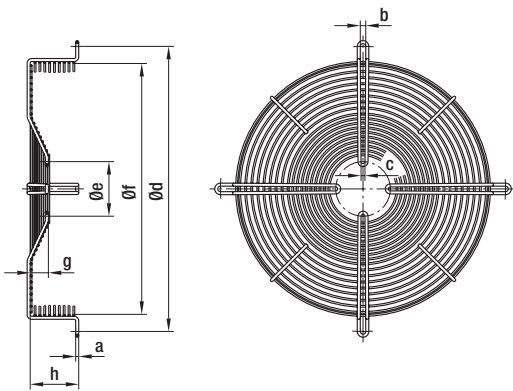
– **Material:** Steel, phosphated and coated in black plastic

Guard grille for A series axial fans

| Part no. | Size | a | b | c | d | e | f | g | h |
|--------------|------|-----|-----|-----|-------|------|-------|-----|------|
| 18656-2-4039 | 200 | 3.9 | 4.6 | 4.6 | 245.0 | 58.0 | 195.0 | — | — |
| 09414-2-4039 | 250 | 3.9 | 4.6 | 4.6 | 290.0 | 58.0 | 247.0 | — | — |
| 09415-2-4039 | 300 | 3.9 | 4.6 | 4.6 | 360.0 | 58.0 | 300.0 | — | — |
| 19699-2-4039 | 315 | 4.5 | 6.3 | 4.3 | 375.0 | 58.0 | 327.0 | — | 3.5 |
| 69667-2-4039 | 350 | 4.5 | 6.5 | 4.5 | 422.0 | 58.0 | 387.0 | — | 6.5 |
| 19117-2-4039 | 400 | 4.5 | 6.3 | 4.3 | 500.0 | 58.0 | 467.5 | 7.0 | 14.0 |

subject to alterations

Guard grille

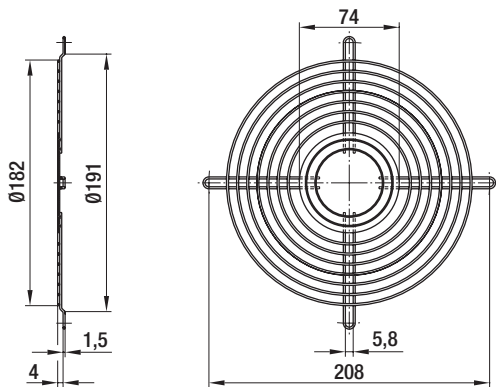


– **Material:** Steel, phosphated and coated in black plastic

Basket guard grille for K series axial fans

| Part no. | Size | a | b | c | d | e | f | g | h |
|--------------|------|-----|-----|-----|-------|------|-------|------|------|
| 66024-2-4039 | 250 | 4.5 | 4.3 | 4.3 | 300.0 | 58.0 | 271.0 | 26.0 | 60.0 |
| 77709-2-4039 | 300 | 3.9 | 4.5 | 4.5 | 360.0 | 58.0 | 340.0 | 26.0 | 26.0 |
| 19115-2-4039 | 350 | 4.5 | 6.5 | 4.5 | 422.0 | 58.0 | 380.0 | — | 54.0 |
| 62229-2-4039 | 360 | 4.5 | 6.3 | 4.3 | 400.0 | 58.0 | 357.0 | 12.0 | 16.0 |
| 64378-2-4039 | 450 | 5.0 | 9.0 | 6.5 | 522.0 | 90.0 | 476.0 | 30.0 | 80.0 |
| 64539-2-4039 | 450 | 5.0 | 9.0 | 6.5 | 522.0 | 90.0 | 476.0 | 30.0 | 30.0 |

subject to alterations



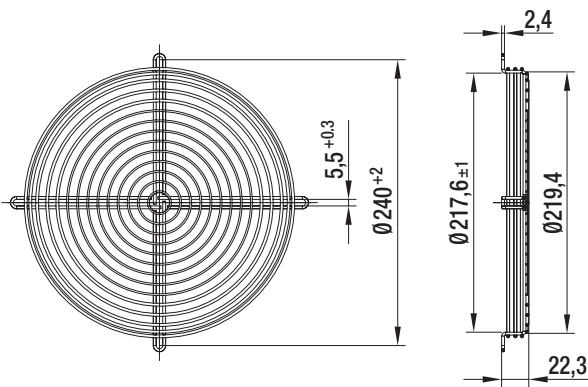
– **Material:** Steel, galvanized and blue chromated (alternative: nickel-plated)

Guard grille for diagonal fan

| Part no. | Size |
|--------------|------|
| 26388-2-4039 | 180 |

subject to alterations

Guard grille

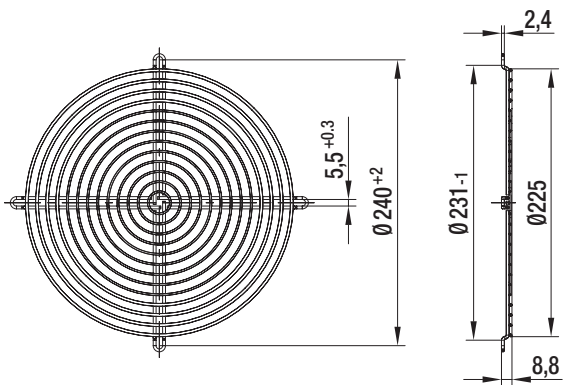


– **Material:** Steel, plastic-coated (silver-metallic gloss)

Guard grille for diagonal fan (inlet side mounting)

| Part no. | Size |
|--------------|------|
| 35139-2-4039 | 208 |

subject to alterations



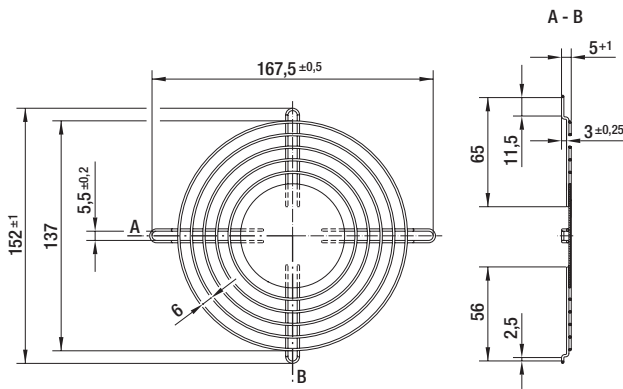
– **Material:** Steel, plastic-coated (silver-metallic gloss)

Guard grille for diagonal fan (outlet side mounting)

| Part no. | Size |
|--------------|------|
| 35138-2-4039 | 208 |

subject to alterations

Guard grille



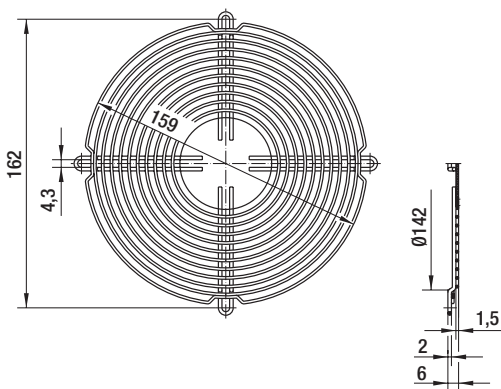
– **Material:** Steel, galvanized and blue passivated

Guard grille for diagonal fan

| Part no. | Size |
|----------|------|
|----------|------|

| | |
|--------------|-----|
| 51019-2-4039 | 130 |
|--------------|-----|

subject to alterations



– **Material:** Steel, galvanized and blue chromated (alternative: nickel-plated)

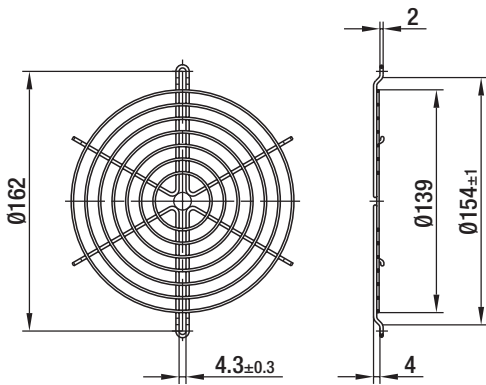
Guard grille for axial fan (according to EN 294)

| Part no. | Size |
|----------|------|
|----------|------|

| | |
|--------------|-----------------|
| 50952-2-4039 | 130 / 142 / 143 |
|--------------|-----------------|

subject to alterations

Guard grille

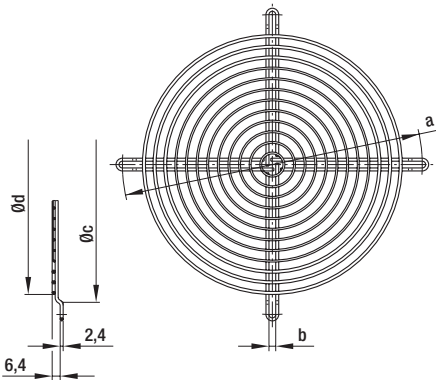


- **Material:** Steel, plastic-coated (silver-metallic gloss)

Guard grille for diagonal fan

| Part no. | Size |
|--------------|------|
| 03749-2-4039 | 142 |
| 04013-2-4039 | 143 |

subject to alterations



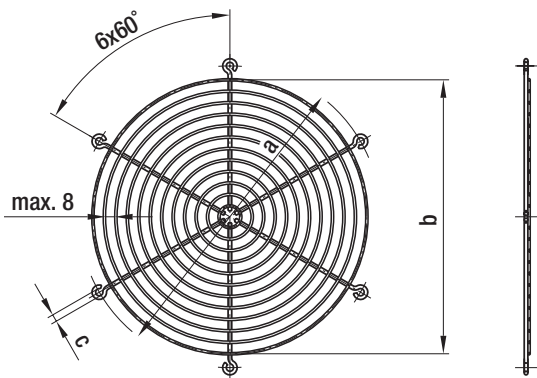
- **Material:** Steel, plastic-coated (silver-metallic gloss)

Guard grille for diagonal fan

| Part no. | Size | a | b | c | d |
|--------------|------|-------|-----|-------|-------|
| 78128-2-4039 | 200 | 240.0 | 5.4 | 221.5 | 208.0 |
| 09418-2-4039 | 250 | 295.0 | 6.4 | 278.5 | 270.0 |

subject to alterations

Guard grille



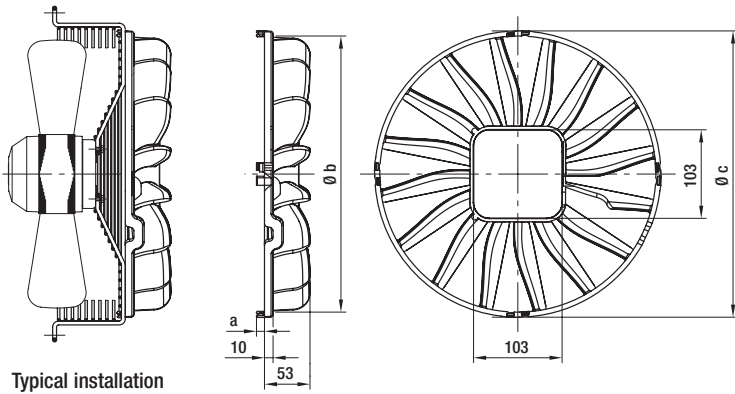
– **Material:** Steel, phosphated and coated in black plastic

Guard grilles (e.g. for axial fans)

| Part no. | Size | a | b | c |
|--------------|------|-------|-------|-----|
| 09513-2-4039 | 200 | 250.0 | 227.0 | 6.0 |
| 09518-2-4039 | 250 | 295.0 | 265.0 | 7.0 |
| 09532-2-4039 | 300 | 380.0 | 323.0 | 9.0 |

subject to alterations

Streamers



- **Material:** Plastic PA6, 30GV, black
(in accordance with UL 94 HB)

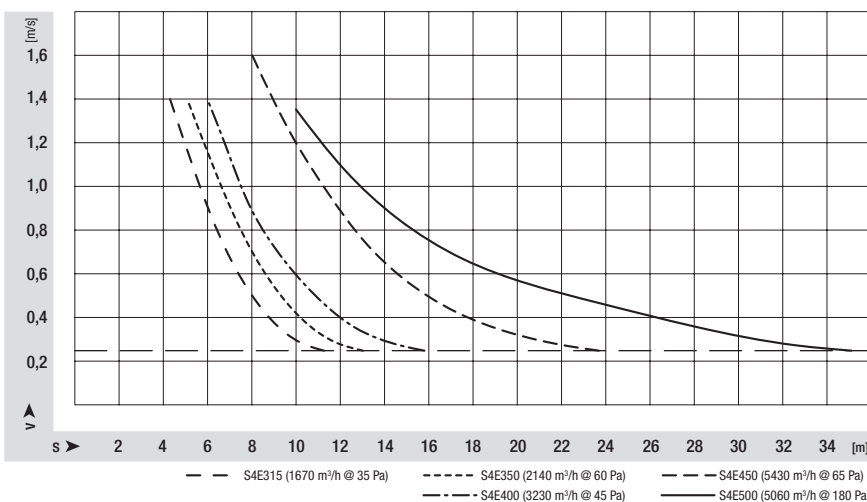
Streamers for axial fans

| Part no. | Size | a | b | c | Standard types ⁽¹⁾ |
|--------------|------|------|-------|-------|---|
| 29550-2-2955 | 315 | 10.0 | 321.0 | 333.0 | S4D 315-AP10 -30 S4E 315-AP18 -30 S6E 315-AP02 -30 |
| 29551-2-2955 | 350 | 10.0 | 361.0 | 373.0 | S4D 350-BR06 -30 S4E 350-AR06 -30 S4D 350-AR06 -30 S6E 350-BR08 -30 S4E 350-BR06 -30 S6E 350-AR08 -30 |
| 29552-2-2955 | 400 | 10.0 | 401.0 | 413.0 | S4D 400-AP12 -03 S4E 400-AP02 -03 S6E 400-AP10 -30 |
| 29553-2-2955 | 450 | 12.0 | 466.0 | 478.0 | S4E 450-GA09 -01 |
| 29554-2-2955 | 500 | 13.0 | 496.0 | 508.0 | S4E 500-CY09 -01 S6E 500-AS05 -01 S4E 500-AY09 -01 S6E 500-CT05 -01 S6E 500-CS05 -01 S6E 500-AT05 -01 |

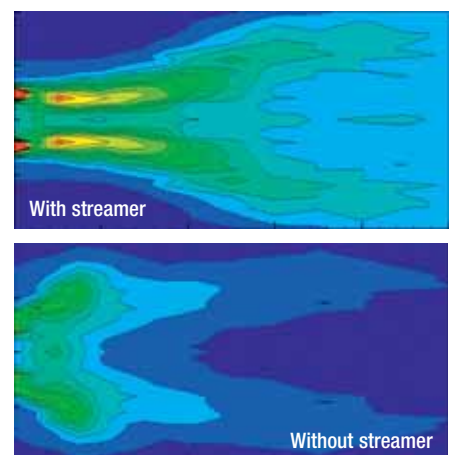
subject to alterations

(1) Mounting options for other axial fans respectively basket guard grilles upon request.

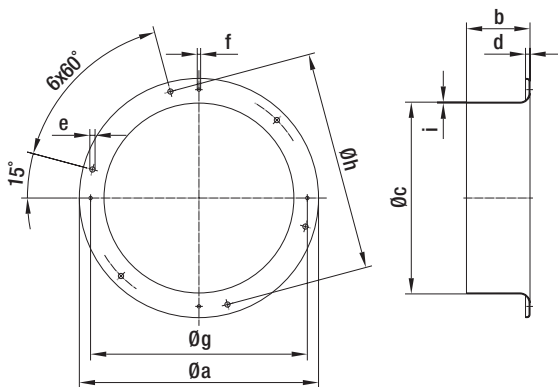
Thrust ranges (measured in a typical heat exchanger)



Comparison



Wall rings



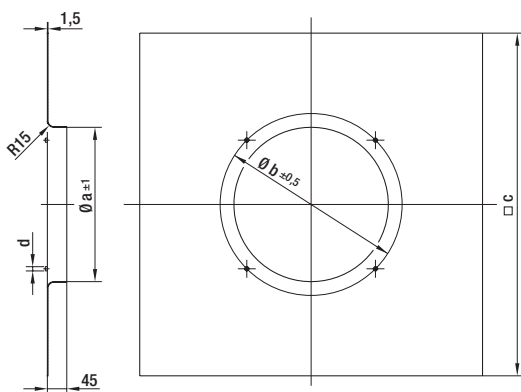
- **Material:** Sheet steel, pre-galvanised and coated in black plastic

Wall rings with long nozzle for axial fans

| Part no. | Size | a | b | c | d | e | f | g | h | i |
|--------------|--------------------|-------|-------|-------|------|------|-----|-------|-------|------|
| 18912-2-4037 | 200 | 280.0 | 80.0 | 202.5 | 5.0 | 7.0 | 4.5 | 245.0 | 250.0 | 1.25 |
| 64009-2-4037 | 250 (S series) | 320.0 | 86.5 | 259.5 | 6.0 | 7.0 | 4.5 | 290.0 | 295.0 | 1.25 |
| 18910-2-4037 | 250 (A series) | 320.0 | 85.0 | 256.5 | 6.0 | 7.0 | 4.5 | 290.0 | 295.0 | 1.25 |
| 18908-2-4037 | 300 | 397.0 | 80.0 | 326.0 | 11.0 | 9.0 | M4 | 360.0 | 380.0 | 1.50 |
| 18902-2-4037 | 315 | 397.0 | 74.0 | 347.0 | 11.0 | 9.0 | M6 | 374.0 | 380.0 | 1.50 |
| 18892-2-4037 | 330 | 440.0 | 80.0 | 369.0 | 11.0 | 9.0 | M6 | 408.0 | 404.0 | 1.50 |
| 18900-2-4037 | 350 | 460.0 | 80.0 | 390.0 | 12.0 | 9.0 | M6 | 422.0 | 442.0 | 1.50 |
| 18930-2-4037 | 400 | 528.0 | 96.0 | 419.0 | 12.0 | 9.0 | M8 | 500.0 | 504.0 | 1.50 |
| 18929-2-4037 | 420 | 544.0 | 96.0 | 447.0 | 12.0 | 9.0 | M8 | 500.0 | 520.0 | 1.50 |
| 64000-2-4037 | 450 ⁽¹⁾ | 607.0 | 100.0 | 465.0 | 14.0 | 11.0 | M8 | 560.0 | 578.0 | 1.50 |

subject to alterations

(1) For mounting the axial fan, use guard grille 63978-2-4039



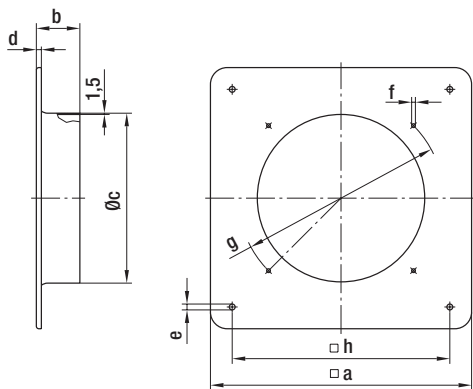
- **Material:** Sheet steel, pre-galvanised

Square wall rings with short nozzle for S series axial fans

| Part no. | Size | a | b | c | d |
|--------------|------|-------|-------|-------|----|
| 35222-2-4037 | 350 | 358.0 | 422.0 | 795.0 | M6 |
| 35223-2-4037 | 400 | 400.0 | 468.0 | 840.0 | M8 |
| 35224-2-4037 | 420 | 426.0 | 500.0 | 850.0 | M8 |
| 35225-2-4037 | 450 | 452.0 | 515.0 | 850.0 | M8 |

subject to alterations

Wall rings



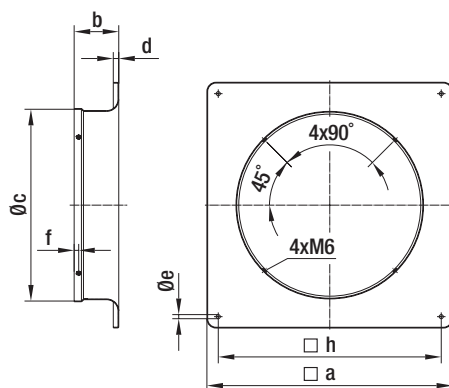
- **Material:** Sheet steel, pre-galvanised and coated in black plastic

Square wall rings with long nozzle for axial fans

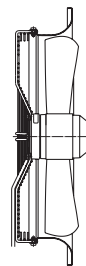
| Part no. | Size | a | b | c | d | e | f | g | h |
|--------------|--------------------|-------|-------|-------|------|------|-----|-------|-------|
| 18918-2-4037 | 200 | 312.0 | 52.0 | 203.0 | 6.0 | 7.0 | 4.5 | 245.0 | 260.0 |
| 37701-2-4037 | 250 (S series) | 370.0 | 56.0 | 260.0 | 6.0 | 7.0 | 4.5 | 290.0 | 320.0 |
| 18933-2-4037 | 250 (A series) | 370.0 | 55.0 | 257.0 | 6.0 | 7.0 | 4.5 | 290.0 | 320.0 |
| 18924-2-4037 | 300 | 430.0 | 80.0 | 326.0 | 11.0 | 9.0 | 4.5 | 360.0 | 380.0 |
| 18903-2-4037 | 315 | 430.0 | 72.5 | 345.0 | 11.0 | 9.0 | M6 | 375.0 | 380.0 |
| 18901-2-4037 | 350 | 485.0 | 80.0 | 388.0 | 12.0 | 9.0 | M6 | 422.0 | 435.0 |
| 64005-2-4037 | 400 | 540.0 | 98.0 | 417.0 | 12.0 | 9.0 | M8 | 500.0 | 490.0 |
| 64006-2-4037 | 420 ⁽¹⁾ | 576.0 | 94.0 | 439.0 | 14.0 | 11.0 | M8 | 560.0 | 535.0 |
| 64007-2-4037 | 450 ⁽¹⁾ | 576.0 | 100.0 | 465.0 | 14.0 | 11.0 | M8 | 560.0 | 535.0 |

subject to alterations

(1) For mounting the axial fan, use guard grille 63978-2-4039



- **Material:** Sheet steel, pre-galvanised and coated in black plastic
- **Guard grilles:** See p. 364
- **Comment:** Contact us for article numbers for complete fans.



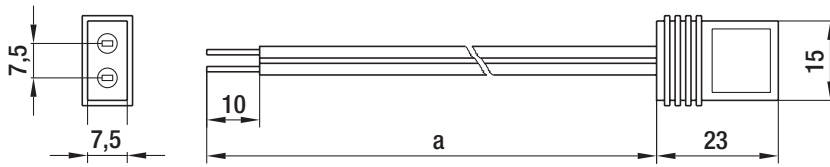
Typical installation

Square wall rings with long nozzle for S series axial fans (for nozzle-side mounting)

| Part no. | Size | a | b | c | d | e | f | h |
|--------------|------|-------|-------|-------|------|------|------|-------|
| 64020-2-4037 | 400 | 540.0 | 98.0 | 409.0 | 12.0 | 9.0 | 10.0 | 490.0 |
| 64001-2-4037 | 450 | 576.0 | 100.0 | 463.0 | 14.0 | 11.0 | 10.0 | 535.0 |

subject to alterations

Connection leads

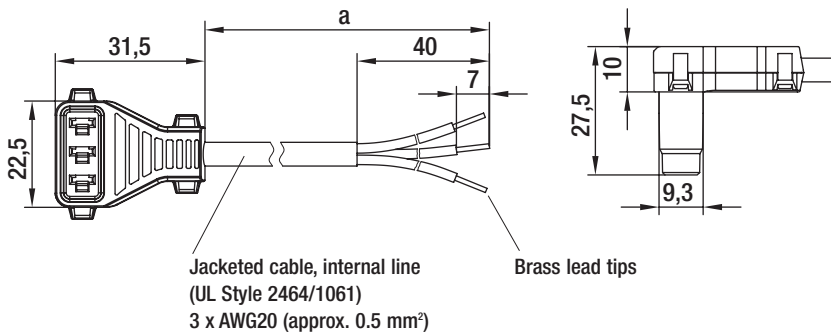


- Plug terminal: 2.8 x 0.5 mm

Connection lines for axial compact fan (with plug terminal)

| Part no. | Size | a |
|--------------|-----------|------|
| 01434-4-6711 | 142 / 143 | 610 |
| 01477-4-6711 | 142 / 143 | 1000 |
| 01505-4-6711 | 142 / 143 | 2000 |

subject to alterations



- Design: Cable conforms to UL standards, sealed plug

Connection lines for energy-saving motors (ESM)

| Part no. | a |
|--------------|-------|
| 10637-4-1040 | 450 |
| 10640-4-1040 | 600 |
| 10638-4-1040 | 1500 |
| 10639-4-1040 | 32000 |

subject to alterations

Programming device

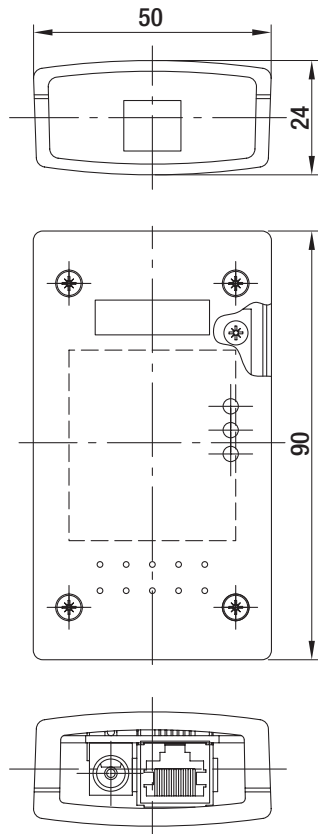
for energy-saving motors (ESM)



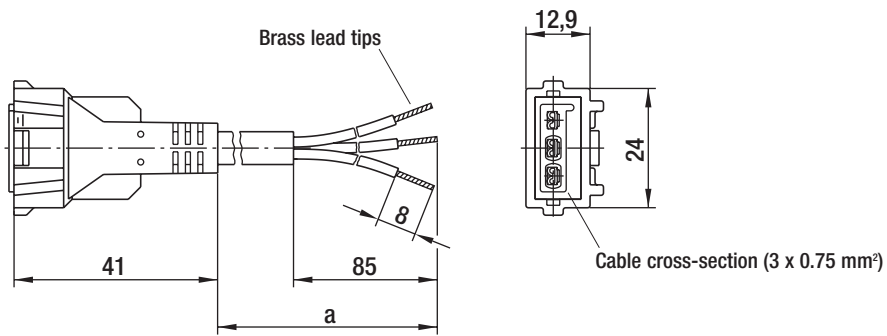
- **Description:** Programming unit for setting 2 possible speeds via the USB port of a PC.
- **System requirements:** Windows 2000 / XP
- **Delivery scope:** Programming unit
 Supply plug unit
 USB connection line
 Motor connecting cable
 Programming software
- **Type of protection:** IP 20
- **Protection class:** III

| Nominal data | Perm. amb. temp. | Perm. storage temp. |
|-------------------------|------------------|---------------------|
| Type | °C | °C |
| CBC 000-AC02 -02 | 0 to +45 | -20 to +65 |

subject to alterations



Connection leads

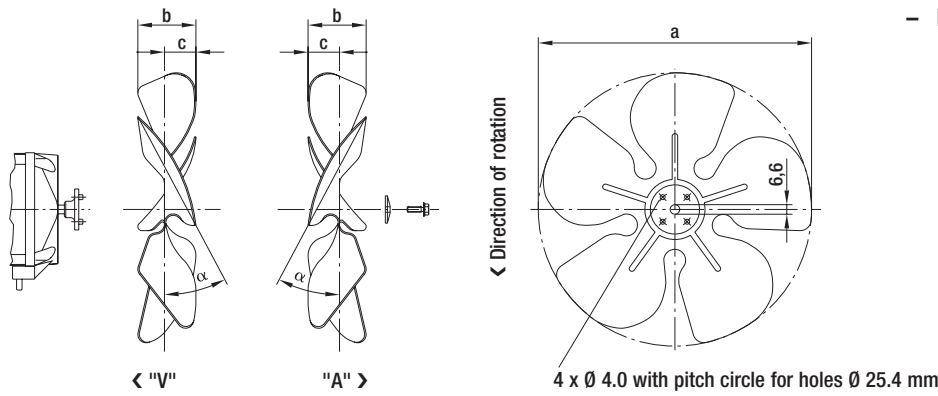


Connection lines for Q-motors (plug terminal design)

| Part no. | a |
|--------------|------|
| 79572-4-6711 | 420 |
| 79573-4-6711 | 970 |
| 79574-4-6711 | 1470 |
| 79575-4-6711 | 1970 |
| 79576-4-6711 | 2470 |
| 79577-4-6711 | 2970 |
| 79578-4-6711 | 3470 |
| 79579-4-6711 | 3970 |
| 79580-4-6711 | 4470 |
| 62402-4-6711 | 4970 |

subject to alterations

Axial impellers



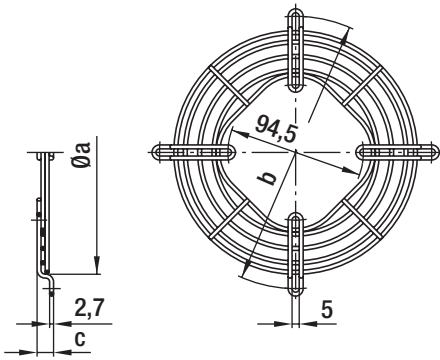
– Material: Sheet aluminium

Axial impeller for Q-motors and energy-saving motors (ESM)

| Part no. for direction of air flow "V" | Part no. for direction of air flow "A" | Blade angle α | a | b | c |
|--|--|----------------------------|-------|------|------|
| 73801-2-3634 | 73761-2-3634 | $22^\circ \pm 1^\circ 30'$ | 154.0 | 27.5 | 14.0 |
| 73802-2-3634 | 73762-2-3634 | $28^\circ \pm 1^\circ 30'$ | 154.0 | 32.0 | 16.0 |
| 73803-2-3634 | 73763-2-3634 | $34^\circ \pm 1^\circ 30'$ | 154.0 | 37.0 | 18.0 |
| 73804-2-3634 | 73764-2-3634 | $22^\circ \pm 1^\circ 30'$ | 172.0 | 31.0 | 14.5 |
| 73805-2-3634 | 73765-2-3634 | $28^\circ \pm 1^\circ 30'$ | 172.0 | 36.0 | 17.0 |
| 73806-2-3634 | 73766-2-3634 | $34^\circ \pm 1^\circ 30'$ | 172.0 | 42.0 | 21.0 |
| 73807-2-3634 | 73767-2-3634 | $22^\circ \pm 1^\circ 30'$ | 200.0 | 32.0 | 15.5 |
| 73808-2-3634 | 73768-2-3634 | $28^\circ \pm 1^\circ 30'$ | 200.0 | 37.5 | 18.0 |
| 73809-2-3634 | 73769-2-3634 | $34^\circ \pm 1^\circ 30'$ | 200.0 | 45.0 | 22.0 |
| 73810-2-3634 | 73770-2-3634 | $22^\circ \pm 1^\circ 30'$ | 230.0 | 35.0 | 17.5 |
| 73811-2-3634 | 73771-2-3634 | $28^\circ \pm 1^\circ 30'$ | 230.0 | 43.0 | 21.5 |
| 73812-2-3634 | 73772-2-3634 | $34^\circ \pm 1^\circ 30'$ | 230.0 | 50.0 | 24.0 |
| 73813-2-3634 | 73773-2-3634 | $22^\circ \pm 1^\circ 30'$ | 254.0 | 37.0 | 19.0 |
| 73814-2-3634 | 73774-2-3634 | $28^\circ \pm 1^\circ 30'$ | 254.0 | 45.0 | 23.5 |
| 73815-2-3634 | 73775-2-3634 | $34^\circ \pm 1^\circ 30'$ | 254.0 | 52.0 | 26.0 |
| 73816-2-3634 | 73776-2-3634 | $22^\circ \pm 1^\circ 30'$ | 300.0 | 43.0 | 21.5 |
| 73817-2-3634 | 73777-2-3634 | $28^\circ \pm 1^\circ 30'$ | 300.0 | 53.5 | 26.5 |
| 73818-2-3634 | 73778-2-3634 | $34^\circ \pm 1^\circ 30'$ | 300.0 | 61.0 | 30.0 |

subject to alterations

Guard grille



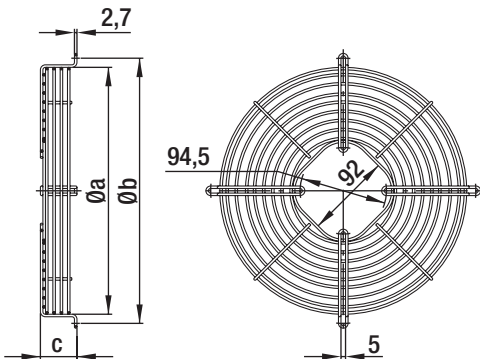
– **Material:** Steel, galvanized and blue chromated

Guard grille for Q-motors and energy-saving motors (ESM)

| Part no. | Size | Max. blade angle α at "V" | Max. blade angle α at "A" | a | b | c |
|-----------------------------|------|----------------------------------|----------------------------------|-------|-------|------|
| 50967-2-4039 | 154 | 34° | 34° | 170.0 | 190.0 | 11.5 |
| 50968-2-4039 | 172 | 34° | 34° | 188.0 | 208.0 | 11.5 |
| 50969-2-4039 | 200 | 34° | 28° | 214.0 | 236.0 | 11.5 |
| 50970-2-4039 | 230 | 28° | 28° | 246.0 | 266.0 | 17.5 |
| 50971-2-4039 | 254 | 28° | 28° | 270.0 | 290.0 | 17.5 |
| 50972-2-4039 ⁽¹⁾ | 300 | — | 22° | 324.0 | 344.0 | 17.5 |

subject to alterations

(1) When used with M40045-EF, blade angles up to 34° are possible



– **Material:** Steel, galvanized and blue chromated

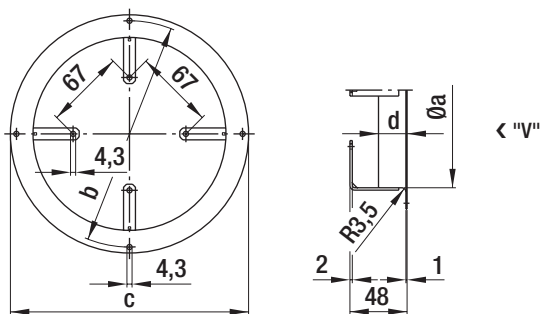
Basket guard grille for Q-motors and energy-saving motors (ESM)

| Part no. | Size | Max. blade angle α at "V" | Max. blade angle α at "A" | a | b | c |
|-----------------------------|------|----------------------------------|----------------------------------|-------|-------|------|
| 66309-2-4039 | 172 | 34° | 34° | 188.0 | 208.0 | 37.5 |
| 66310-2-4039 | 200 | 34° | 28° | 212.0 | 236.0 | 37.5 |
| 66311-2-4039 | 230 | 28° | 28° | 246.0 | 266.0 | 40.0 |
| 66312-2-4039 | 254 | 28° | 28° | 270.0 | 290.0 | 40.0 |
| 66313-2-4039 ⁽¹⁾ | 300 | — | 22° | 324.0 | 344.0 | 46.8 |

subject to alterations

(1) When used with M40045-EF, blade angles up to 34° are possible

Wall rings



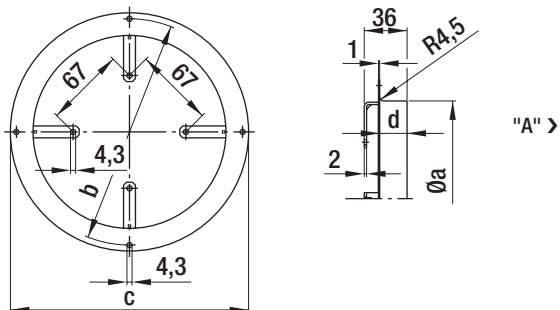
– Material: Sheet steel, coated in grey plastic

Wall rings for Q-motors and energy-saving motors (ESM), direction of air flow "V"

| Part no. | Size | Max. blade angle α | a | b | c | d |
|-----------------------------|------|---------------------------|-------|-------|-------|------|
| 52542-2-4037 | 154 | 34° | 164.0 | 190.0 | 200.0 | 24.0 |
| 52543-2-4037 | 172 | 34° | 182.0 | 208.0 | 223.0 | 24.0 |
| 52544-2-4037 | 200 | 34° | 210.0 | 236.0 | 246.0 | 24.0 |
| 52545-2-4037 | 230 | 28° | 240.0 | 266.0 | 276.0 | 24.0 |
| 52546-2-4037 | 254 | 28° | 264.0 | 290.0 | 300.0 | 24.0 |
| 52547-2-4037 ⁽¹⁾ | 300 | 22° | 308.0 | 344.0 | 356.0 | 24.0 |

subject to alterations

(1) When used with M4Q045-EF, blade angles up to 34° are possible



– Material: Sheet steel, coated in grey plastic

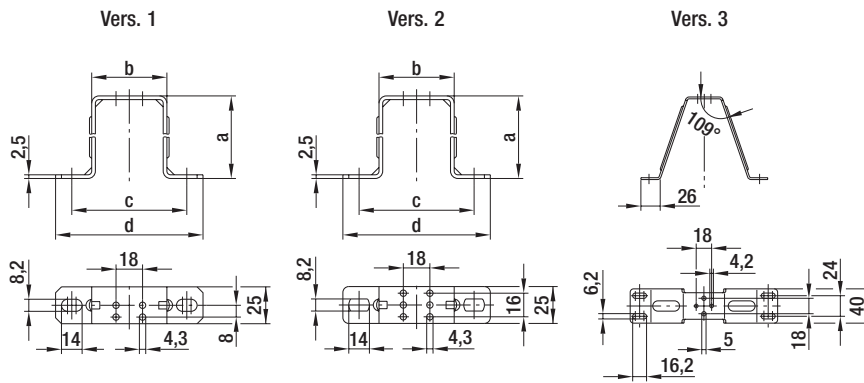
Wall rings for Q-motors and energy-saving motors (ESM), direction of air flow "A"

| Part no. | Size | Max. blade angle α | a | b | c | d |
|-----------------------------|------|---------------------------|-------|-------|-------|------|
| 52550-2-4037 | 154 | 34° | 162.0 | 190.0 | 200.0 | 24.0 |
| 52551-2-4037 | 172 | 34° | 180.0 | 208.0 | 223.0 | 24.0 |
| 52552-2-4037 | 200 | 28° | 208.0 | 236.0 | 246.0 | 24.0 |
| 52553-2-4037 | 230 | 28° | 238.0 | 266.0 | 276.0 | 24.0 |
| 52554-2-4037 | 254 | 28° | 262.0 | 290.0 | 300.0 | 24.0 |
| 52555-2-4037 ⁽¹⁾ | 300 | 22° | 308.0 | 344.0 | 356.0 | 24.0 |

subject to alterations

(1) When used with M4Q045-EF, blade angles up to 34° are possible

Mounting bracket

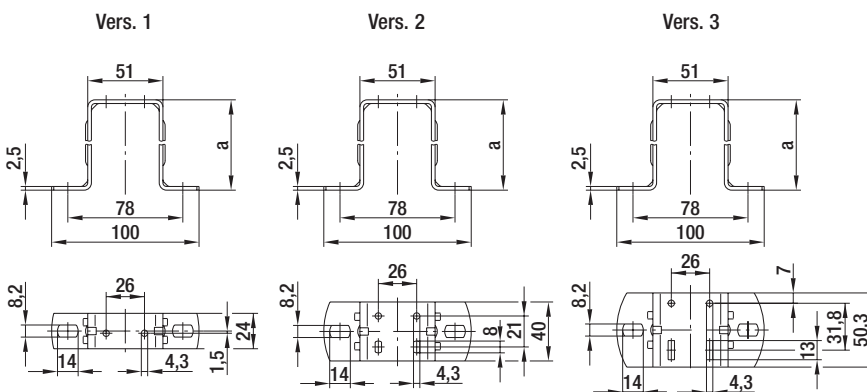


– **Material:** Sheet steel, galvanized and blue chromated

Mounting bracket for Q-motors (foot measure 18 mm)

| Part no. | Size | Vers. | a | b | c | d | Suitable Q-motor |
|--------------|------|-------|-------|------|-------|-------|--|
| 51025-2-4053 | 172 | 1 | 56.0 | 51.0 | 78.0 | 100.0 | M4Q045-BD01-** |
| 51028-2-4053 | 200 | 1 | 67.0 | 51.0 | 78.0 | 100.0 | M4Q045-BD01-**, M4Q045-CA01-** |
| 51026-2-4053 | 230 | 1 | 74.5 | 51.0 | 78.0 | 100.0 | M4Q045-CA01-**, M4Q045-CA03-** |
| 51027-2-4053 | 254 | 2 | 85.5 | 51.0 | 78.0 | 100.0 | M4Q045-CA03-**, M4Q045-CF01-**, M4Q045-DA01-** |
| 51014-2-4053 | 300 | 3 | 112.0 | — | 150.0 | 172.0 | M4Q045-DA01-**, M4Q045-DA05-**, M4Q045-EA01-**, M4Q045-EF01-** |

subject to alterations



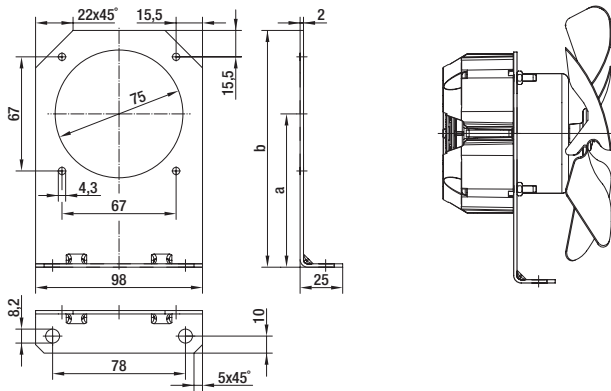
– **Material:** Sheet steel, galvanized and blue chromated

Mounting bracket for Q-motors (foot measure 26 mm)

| Part no. | Size | Vers. | a | Suitable Q-motor |
|--------------|------|-------|-------|--------------------------------|
| 71881-2-4053 | 154 | 1 | 39.0 | M4Q045-BD01-** |
| 71882-2-4053 | 172 | 1 | 52.0 | M4Q045-BD01-** |
| 71883-2-4053 | 200 | 1 | 72.0 | M4Q045-BD01-**, M4Q045-CA01-** |
| | 230 | 1 | 72.0 | M4Q045-CA01-**, M4Q045-CA03-** |
| 71884-2-4053 | 254 | 1 | 84.0 | M4Q045-CA03-**, M4Q045-CF01-** |
| 71885-2-4053 | 254 | 2 | 84.0 | M4Q045-DA01-** |
| 71886-2-4053 | 300 | 2 | 109.0 | M4Q045-DA01-**, M4Q045-DA05-** |
| 71887-2-4053 | 300 | 3 | 109.0 | M4Q045-EA01-**, M4Q045-EF01-** |

subject to alterations

Mounting angles, terminal boxes

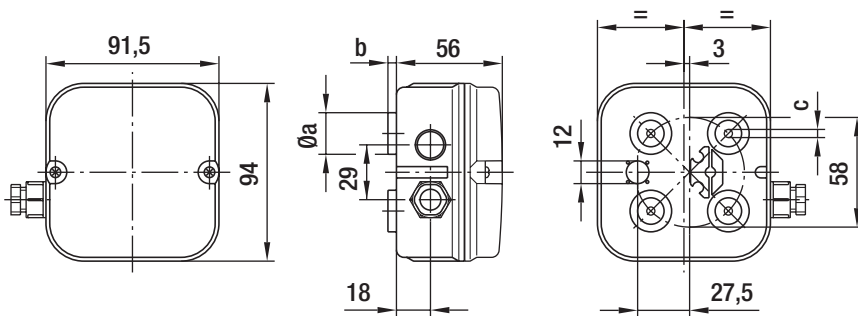


- **Material:** Sheet steel, hot-galvanised

Mounting angle for energy-saving motors (ESM)

| Part no. | Size | Max. blade angle α at "V" | Max. blade angle α at "A" | a | b |
|--------------|-----------|----------------------------------|----------------------------------|-------|-------|
| 63500-2-4060 | 154 / 172 | 34° | 34° | 103.0 | 152.0 |
| 63501-2-4060 | 200 | 34° | 28° | 123.0 | 172.0 |
| 63502-2-4060 | 230 / 254 | 28° | 28° | 135.0 | 184.0 |

subject to alterations



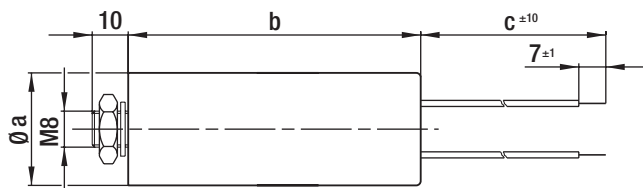
- **Material:** ABS
- **Description:** Two-piece terminal box for AC motors of size 068 or 074, terminal strip with 4- or 7-pole. Suitable for installation of capacitor with 10 μ F max.
- **Type of protection:** IP 54

Terminal box

| Part no. | AC motor | a | b | c |
|--------------|---------------|---------|------|-----|
| 64442-1-7612 | 068 (4 poles) | 22.0 | 5.0 | 4.3 |
| 64444-1-7612 | 068 (7 poles) | 22.0 | 5.0 | 4.3 |
| 64443-1-7612 | 074 (4 poles) | 12x14.5 | 10.5 | 5.5 |
| 64445-1-7612 | 074 (7 poles) | 12x14.5 | 10.5 | 5.5 |

subject to alterations

Capacitors



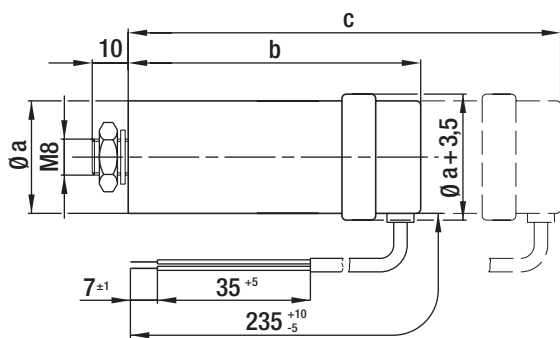
- **Material:** Housing made of thermoplastic resin
- **Connection line:** Multi-lead
PVC cable 0.5 mm² with brass lead tips
- **Approval:** VDE according to DIN EN 60252 (VDE 0560/8)
- **Calculated life time:**
400 V; -25 to +85°C; 30,000 hrs; class A
450 V; -25 to +85°C; 10,000 hrs; class B

MKP motor capacitors (without fuse)

| Part no. | Capacity | a | b (max.) | c |
|--------------|----------|-------|----------|-------|
| 02100-4-7320 | 1.0 µF | 25-28 | 58.0 | 235.0 |
| 99282-4-7320 | 1.5 µF | 25-28 | 58.0 | 235.0 |
| 99283-4-7320 | 2.0 µF | 25-28 | 58.0 | 235.0 |
| 02103-4-7320 | 2.5 µF | 25-28 | 70.0 | 235.0 |
| 68462-4-7320 | 3.0 µF | 25-28 | 70.0 | 235.0 |
| 99284-4-7320 | 4.0 µF | 28-32 | 58.0 | 235.0 |
| 02101-4-7320 | 5.0 µF | 30-36 | 70.0 | 235.0 |
| 99285-4-7320 | 6.0 µF | 30-36 | 70.0 | 235.0 |
| 66788-4-7320 | 7.0 µF | 30-36 | 72.0 | 100.0 |
| 99286-4-7320 | 8.0 µF | 35-40 | 72.0 | 235.0 |
| 99287-4-7320 | 10.0 µF | 35-40 | 72.0 | 200.0 |
| 66786-4-7320 | 12.0 µF | 40.0 | 72.0 | 100.0 |
| 30457-4-7320 | 14.0 µF | 40-45 | 92.0 | 150.0 |
| 50090-4-7320 | 16.0 µF | 35-40 | 95.0 | 100.0 |
| 90034-4-7320 | 20.0 µF | 40.0 | 95.0 | 235.0 |
| 90025-4-7320 | 25.0 µF | 40.0 | 120.0 | 235.0 |

subject to alterations

Capacitors

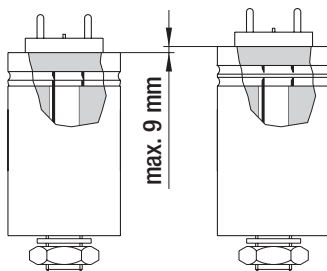


- **Material:** Plastic cap, aluminium cup
- **Designation:** FPU or P2 according to IEC 252 (non-flammable, non-explosive, circuit-breaking)
- **Approval:** VDE according to DIN EN 60252 (VDE 0560/8)
- **Calculated life time:**
420 V; -25 to +85°C; 30,000 hrs; class A
470 V; -25 to +85°C; 10,000 hrs; class B
500 V; -25 to +85°C; 3,000 hrs; class C

MKP motor capacitors FPU or P2 (with fuse)

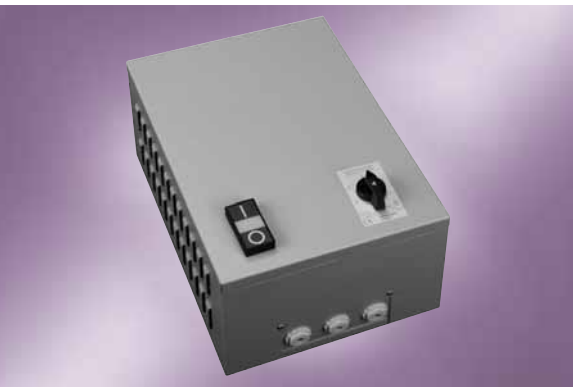
| Part no. | Capacity | a | b (max.) | c (max.) |
|--------------|--------------|-------|----------|----------|
| 02151-4-7320 | 1.0 μ F | 25-30 | 77.0 | 92.0 |
| 02155-4-7320 | 1.5 μ F | 25.0 | 77.0 | 92.0 |
| 02156-4-7320 | 2.0 μ F | 25.0 | 77.0 | 92.0 |
| 02159-4-7320 | 2.5 μ F | 30.0 | 71.0 | 92.0 |
| 02160-4-7320 | 3.0 μ F | 30.0 | 71.0 | 92.0 |
| 02161-4-7320 | 4.0 μ F | 25-30 | 104.0 | 135.0 |
| 02162-4-7320 | 5.0 μ F | 25-30 | 104.0 | 113.0 |
| 02163-4-7320 | 6.0 μ F | 30.0 | 101.0 | 110.0 |
| 02164-4-7320 | 7.0 μ F | 30-35 | 101.0 | 110.0 |
| 02165-4-7320 | 8.0 μ F | 30-35 | 102.0 | 111.0 |
| 02166-4-7320 | 10.0 μ F | 35.0 | 96.0 | 110.0 |
| 02167-4-7320 | 12.0 μ F | 35.0 | 96.0 | 110.0 |
| 90026-4-7320 | 14.0 μ F | 40.0 | 130.0 | 139.0 |
| 02168-4-7320 | 16.0 μ F | 40.0 | 96.0 | 130.0 |
| 02169-4-7320 | 20.0 μ F | 40.0 | 116.0 | 130.0 |
| 02170-4-7320 | 25.0 μ F | 40-45 | 116.0 | 130.0 |

subject to alterations



- **Pull-off protector:** The housing expands by max. 9 mm. The protector responds to overload by the generated excess pressure snapping off the internal lead in a predetermined breaking point.
- **Mounting:** c is the overall dimension of the capacitor which has to be taken into account when mounting the part. The capacitor design, however, depends on the manufacturer. The expansion (9 mm) is either added to dimension b, or it is already integrated in the capacitor.

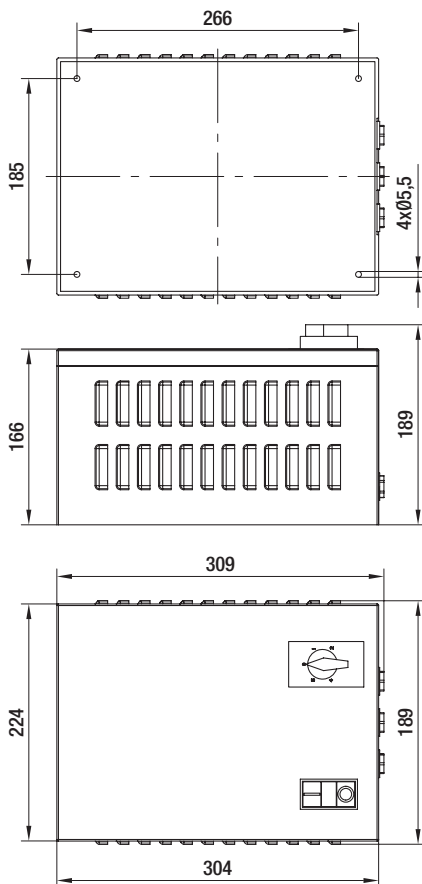
Speed setting device, 3-phase (with 5 steps) for wall assembly



- **Technical features:** Input for TOP
- **Voltage steps:** 3~ 400 / 280 / 230 / 180 / 140 VAC
- **Type of protection:** IP 20 (with vertical installation)

| Nominal data | Nominal voltage | | Frequency | Current draw | Mass |
|------------------|-----------------|-----|-----------|--------------|------|
| | Type | VAC | | | |
| TCD 020-AA01 -05 | 3~ | 400 | 50/60 | 2.0 | 9.5 |
| TCD 040-AA01 -05 | 3~ | 400 | 50/60 | 4.0 | 13.9 |
| TCD 070-AA01 -05 | 3~ | 400 | 50/60 | 7.0 | 19.7 |

subject to alterations



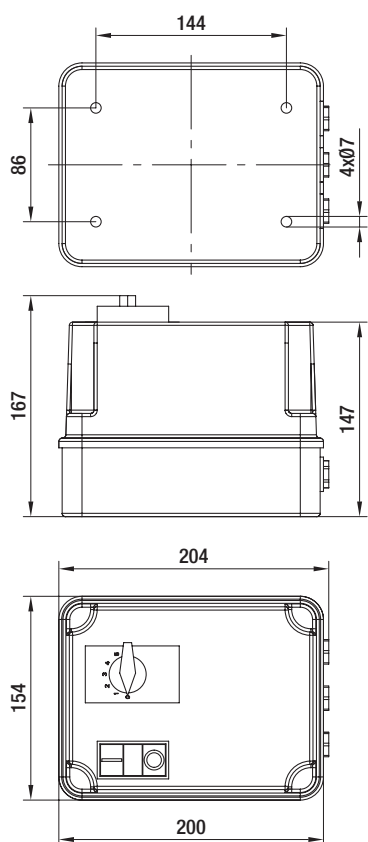
Speed setting device, single-phase (with 5 steps) for wall assembly



- **Technical features:** Input for TOP
- **Voltage steps:** 1~ 230 / 160 / 145 / 130 / 105 VAC
- **Type of protection:** IP 40

| Nominal data | Nominal voltage | | Frequency | Current draw | Mass |
|------------------|-----------------|-----|-----------|--------------|------|
| | Type | VAC | | | |
| TCE 021-AA01 -05 | 1~ | 230 | 50/60 | 2.1 | 3.6 |
| TCE 040-AA01 -05 | 1~ | 230 | 50/60 | 4.0 | 4.8 |
| TCE 075-AA01 -05 | 1~ | 230 | 50/60 | 7.5 | 6.5 |

subject to alterations



Motor protection switch, 3-phase for assembly inside a cabinet

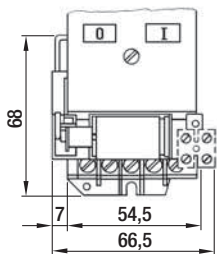
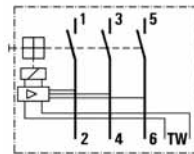


– **Technical features:** Input for TOP

| Nominal data | Nominal voltage | Frequency | Current draw | Mass | Auxiliary contactor |
|------------------|-----------------|-----------|--------------|------|-----------------------------|
| Type | VAC | Hz | A | kg | |
| TPD 250-AB01 -01 | 3~ 400 | 50/60 | 25.0 | 0.3 | Without auxiliary contactor |
| TPD 250-AB01 -02 | 3~ 400 | 50/60 | 25.0 | 0.3 | With break contact |
| TPD 250-AB01 -03 | 3~ 400 | 50/60 | 25.0 | 0.3 | With make contact |

subject to alterations

– **Electr. connection:**



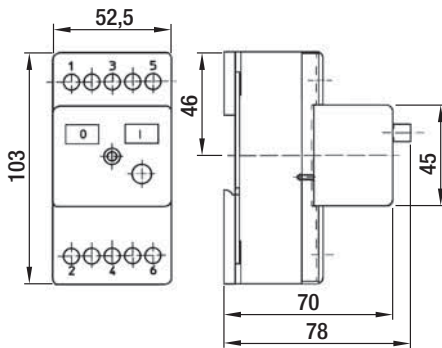
Motor protection switch, single-phase for assembly inside a cabinet

– **Technical features:** Input for TOP

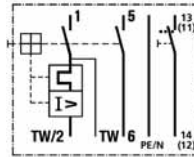


| Nominal data | Nominal voltage | Frequency | Current draw | Mass | Auxiliary contactor |
|------------------|-----------------|-----------|--------------|------|-----------------------------|
| Type | VAC | Hz | A | kg | |
| TPE 100-AB01 -01 | 3~ 230 | 50/60 | 10.0 | 0.3 | Without auxiliary contactor |
| TPE 100-AB01 -02 | 3~ 230 | 50/60 | 10.0 | 0.3 | With break contact |
| TPE 100-AB01 -03 | 3~ 230 | 50/60 | 10.0 | 0.3 | With make contact |

subject to alterations



– **Electr. connection:**



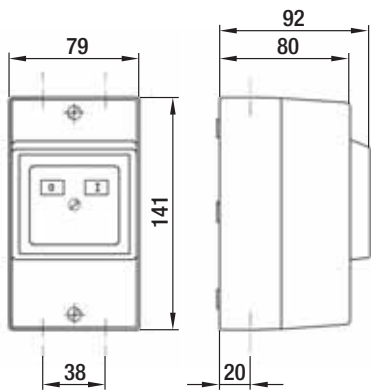
Motor-protection switch, single phase and three-phase for wall assembly



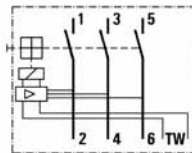
- **Technical features:** Input for TOP
- **Type of protection:** IP 55

| Nominal data | Nominal voltage | Frequency | Current draw | Mass | Auxiliary contactor |
|------------------|-----------------|-----------|--------------|------|-----------------------------|
| Type | VAC | Hz | A | kg | |
| TPD 250-AA01 -01 | 3~ 400 | 50/60 | 25.0 | 0.6 | Without auxiliary contactor |
| TPD 250-AA01 -02 | 3~ 400 | 50/60 | 25.0 | 0.6 | With break contact |
| TPD 250-AA01 -03 | 3~ 400 | 50/60 | 25.0 | 0.6 | With make contact |
| TPE 100-AA01 -01 | 1~ 230 | 50/60 | 10.0 | 0.6 | Without auxiliary contactor |
| TPE 100-AA01 -02 | 1~ 230 | 50/60 | 10.0 | 0.6 | With break contact |
| TPE 100-AA01 -03 | 1~ 230 | 50/60 | 10.0 | 0.6 | With make contact |

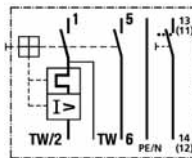
subject to alterations



- Electr. connection, three-phase:



- Electr. connection, single-phase:



Star-delta switch / repair switch

Third-party accessories from Möller Electric GmbH



for wall installation

For more information: www.moeller.net

Star-delta switch (available from Möller Electric GmbH)

| Designation | Installation |
|--------------|----------------------|
| T0-4-8410/I1 | Wall installation |
| T0-4-8410/E | Cabinet installation |

subject to alterations



for wall installation

For more information: www.moeller.net

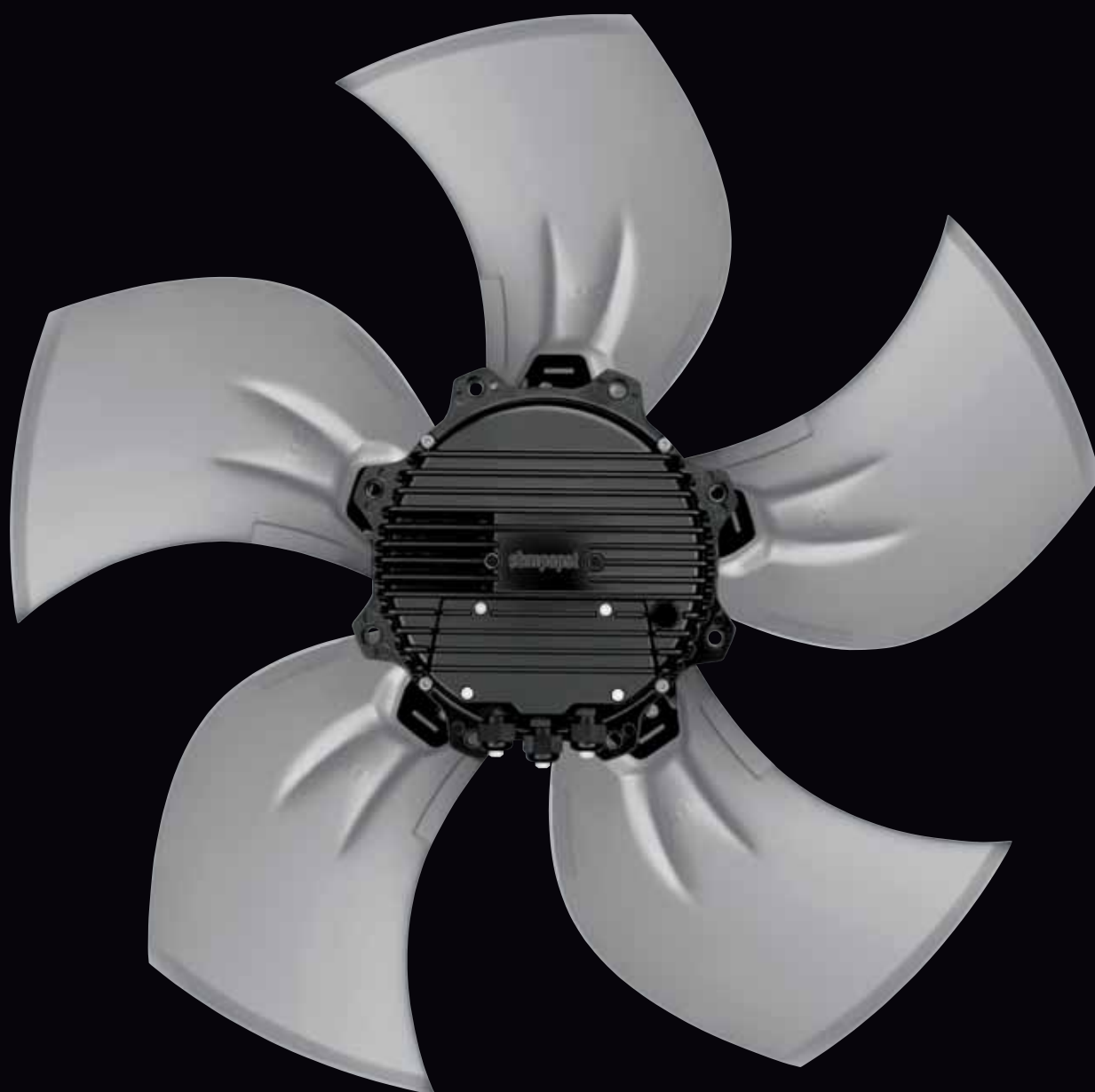
Repair switch, lockable (available from Möller Electric GmbH)

| Designation | Installation |
|---------------------|----------------------|
| T0-2-8900/I1/SVB-SW | Wall installation |
| T0-2-8900/EA/SVB-SW | Cabinet installation |

subject to alterations



| | |
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Technical parameters & scope



High standards for all ebm-papst products

Here at ebm-papst, we constantly strive to further improve our products in order to be able to offer you the best possible product for your application. Careful monitoring of the market ensures that technical innovations are reflected in the improvements of our products.

Based on the technical parameters listed below and the ambience you want our product to operate in, we here at ebm-papst can always work out the best solution for your specific application.

■ General performance parameters

Any deviations from the technical data and parameters described here are listed on the product-specific data sheet.

Type of protection

The type of protection is specified in the product-specific data sheets.

Insulation class

The insulation class is specified in the product-specific data sheets.

Mounting position

The mounting position is specified in the product-specific data sheets.

Condensate discharge holes

Information on the condensate discharge holes is provided in the product-specific data sheets.

Mode of operation

The mode of operation is specified in the product-specific data sheets.

Protection class

The protection class is specified in the product-specific data sheets.

Service life

The service life of ebm-papst products depends on two major factors:

- The service life of the insulation system
- The service life of the bearing system

The service life of the insulation system mainly depends on voltage level, temperature and ambient conditions, such as humidity and condensation. The service life of the bearing system depends mainly on the thermal load on the bearing.

The majority of our products use maintenance-free ball bearings for any mounting position possible. As an option, sleeve bearings can be used, which is indicated on the product-specific data sheet wherever applicable.

The service life L10 of the ball bearings can be taken as approx. 40,000 operating hours at an ambient temperature of 40 °C, yet this estimate can vary according to the actual ambient conditions.

We will gladly provide you with a lifetime calculation taking into account your specific operating conditions.

Motor protection / thermal protection

Information on motor protection and thermal protection is provided in the product-specific data sheets.

Depending on motor type and field of application, the following protective features are realised:

- Thermal overload protection (TOP), either in-circuit or external
- PTC with electronic diagnostics
- Impedance protection
- Thermal overload protection (TOP) with electronic diagnostics
- Current limitation via electronics

If an external TOP is connected, the customer has to make sure to connect a conventional trigger device for switching it off.

All fans with 1~ AC voltage are equipped with a TOP that is connected in the winding circuit.

Products without fitted TOP and without protection against improper use, a motor protection complying with the valid standards has to be installed.

Left: Endurance test room
 Middle: Shock test
 Right: Chamber test rig



■ Mechanical strain / performance parameters

All ebm-papst products are subjected to comprehensive tests complying with the normative specifications. In addition to this, the tests also reflect the vast experience and expertise of ebm-papst.

Vibration test

Vibration tests are carried out in compliance with

- Vibration test in operation according to DIN IEC 68, parts 2-4
- Vibration test at standstill according to DIN IEC 68, parts 2-4

Shock load

Shock load tests are carried out in compliance with

- Shock load according to DIN IEC 68, parts 2-27

Balancing quality

Testing the balancing quality is carried out in compliance with

- Residual imbalance according to DIN ISO 1940
- Standard balancing quality level G 6.3

Should you require a higher balancing quality level for your specific application, please let us know and specify this when ordering your product.

■ Chemo-physical strain / performance parameters

Should you have questions about chemo-physical strain, please direct them to your ebm-papst contact.

■ Fields of application, industries and applications

Our products are used in various industries and applications:

Ventilation, air-conditioning and refrigeration technology, clean room technology, automotive and rail technology, medical and laboratory technology, electronics, computer and office technology, telecommunications, household appliances, heating, machines and plants, drive engineering. Our products are not designed for use in the aviation and aerospace industry!

■ Legal and normative directives

The products described in this catalogue are designed, developed and produced in keeping with the standards in place for the relevant product and, if known, the conditions governing the relevant fields of application.

Standards

Information on standards is provided in the product-specific data sheets.

EMC

Information on EMC standards is provided in the product-specific data sheets.

Complying with the EMC standards has to be established on the final appliance, as different mounting situations can result in changed EMC properties.

Leakage current

Information on the leakage current is provided in the product-specific data sheets.

The measurement takes place according to Fig. D.1 according to IEC 60990, Fig. 4.

Approvals

In case you require a specific approval for your ebm-papst product (VDE, UL, GOST, CCC, CSA, etc.) please let us know.

Most of our products can be supplied with the relevant approval. Information on existing approvals is provided in the product-specific data sheets.

■ Air performance measurements

All air performance measurements are carried out on inlet-side chamber test rigs in conformity with the requirements of DIN 24163 and ISO 5801. The fans being tested are installed on the measuring chamber at free air intake and discharge (installation type A according to DIN 24163 Part 1) and are operated at nominal voltage (for AC, also at nominal frequency) without additional attachments such as the guard grille.

As required by the standard, the air performance curves correspond to an air density of 1.2 kg/m³.

Room for precision noise measuring



Measurement conditions for air and noise measurement

ebm-papst products are measured under the following conditions:

- Axial and centrifugal fans with direction of air flow "V", without guard grille and in the wall ring
- Backward curved centrifugal fans, free-running and with inlet nozzle
- Forward curved single and dual inlet centrifugal fans with housing

Noise measurements

All noise measurements are carried out in low-reflective test rooms with reverberant floor. Thus the ebm-papst acoustic test chambers meet the requirements of precision class 1 according to DIN EN ISO 3745. For noise measurement, the fans being tested are placed in a reverberant wall and operated at nominal voltage (for AC, also at nominal frequency) without additional attachments such as the guard grille.

Sound pressure level and sound level

All noise levels are measured in conformity to DIN 45635 and ISO 3744/3745 according to precision class 2 and specified A-weighted. When the sound pressure level (L_p) is measured, the microphone is on the intake side of the fan being tested, usually at a distance of 1 m on the fan axis.

To measure the sound level (L_w), 10 microphones are distributed over an enveloping surface on the intake side of the fan being tested (see graphic). The sound level measured can be roughly calculated from the sound pressure level by adding 7 dB.

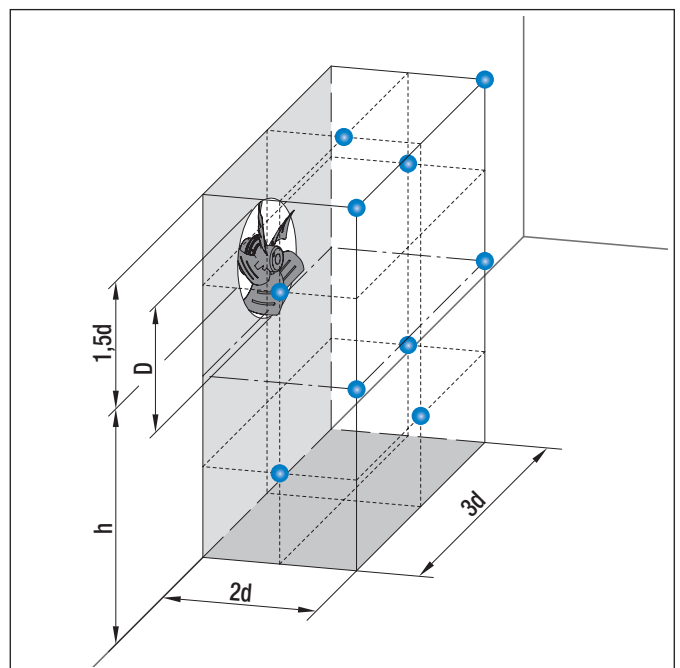
Measurement configuration according to DIN 45635 T38:

- 10 measuring points

$$d \geq D$$

$$h = 1.5d \text{ to } 4.5d$$

$$\text{Measurement area } S = 6d^2 + 7d(h + 1.5d)$$

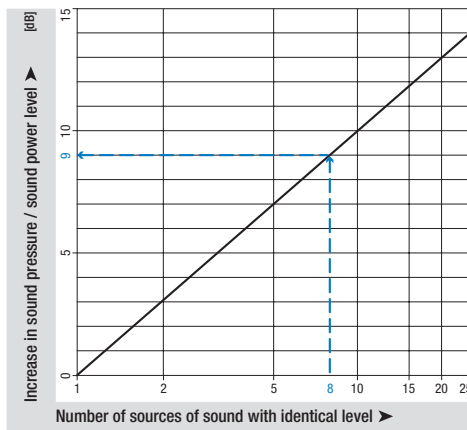


Adding multiple noise sources with the same level

Adding 2 noise sources with the same volume results in a level increase of approx. 3 dB. The noise characteristics of multiple identical fans can be determined in advance based on the noise values specified in the data sheet. This is shown in the diagram opposite.

Example: 8 A3G800 axial fans are on a condenser. According to the data sheet, the sound pressure level of a fan is approximately 75 dB(A). The level increase measured from the diagram is 9 dB. Thus the overall sound level of the installation can be expected to be 84 dB(A).

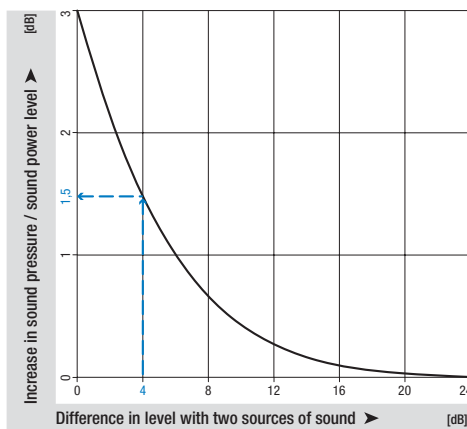
Curves



Adding two noise sources with different levels

The acoustic performance of two different fans can be predetermined based on the sound levels given in the data sheet. This is shown in the diagram opposite.

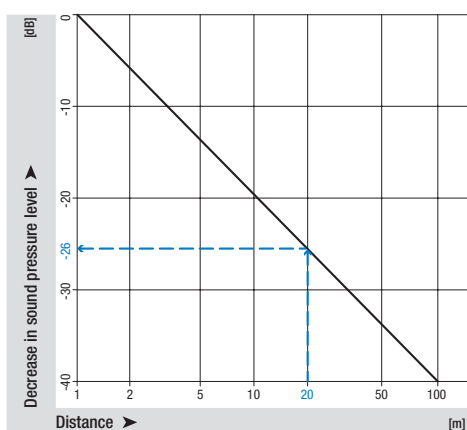
Example: There is an axial fan A3G800 with a sound pressure level of 75 dB(A) at the operating point and an axial fan A3G710 with 71 dB(A) in a ventilation unit. The level difference is 4 dB. The level increase can now be read in the diagram as approx. 1.5 dB. This means that the overall sound level of the unit can be expected to be 76.5 dB(A).



Inverse square laws

The sound level is independent of the distance from the noise source. Conversely, the sound pressure level decreases as distance from the noise source increases. The diagram to the right shows the level decrease expressed in terms of an output measurement at a distance of 1 m from the noise source under far-field conditions.

Example: An axial fan A3G800 has a sound pressure level of 75 dB(A) at the operating point. Now, you want to measure the noise characteristics at a distance of 20 m. In the diagram to the right, you can now read a reduction of 26 dB for the 20 m distance.



Impellers



Impellers made by ebm-papst

Like pumps and compressors, fans and blowers belong to the category of aerodynamic and fluid work machines. A fan consists of an impeller, a drive motor and a housing for suspension and for guiding the air flow. The blades spaced along the circumference of the impeller are designed in such a way as to cause the flowing work medium to change direction, thus passing on pressure and speed energy.

■ ebm-papst construction designs

Depending on the geometrical shape of the impeller, there are different construction designs, with their names taken from the main flow direction in the impeller.

The most important designs are:

- Axial fans
- Centrifugal fans with backward curved blades
- Single or dual inlet centrifugal blowers with forward curved blades
- Diagonal (mixed flow) fans (a cross between axial and centrifugal fans)

Relevant fields of application of the various construction designs

The different ebm-papst fan and blower designs correspond to the different fields of application:

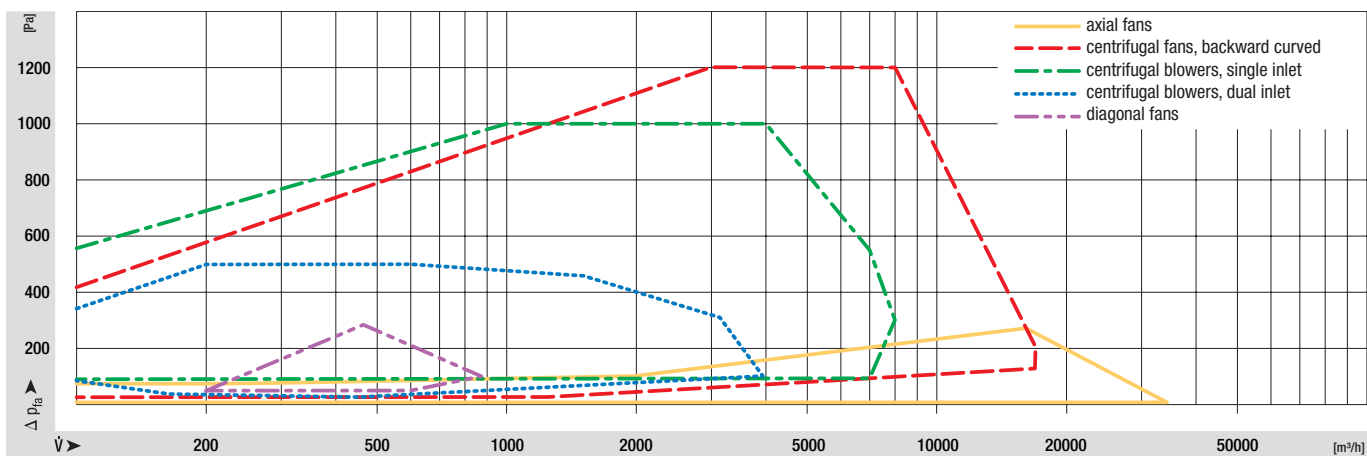
- Small back pressures: Axial fans
- High back pressures: Centrifugal fans with backward curved blades and single or dual inlet centrifugal blowers
- Threshold between axial and centrifugal fans: Diagonal fans

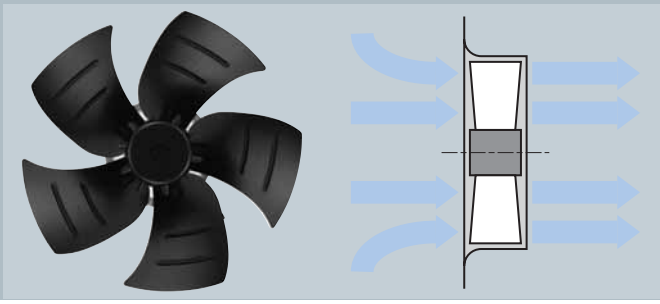
■ Application-specific selection parameters

When selecting an application-specific fan or blower, the main parameters to be taken into account are these:

- Air flow at given back pressure
- Constructional design
- Speed/rpm
- Impeller diameter
- Ambient conditions governing suction and exhaust side

Characteristic curves of the various designs





Axial fans

Operating range

To the right of the "saddle" (right part of the air performance curve):

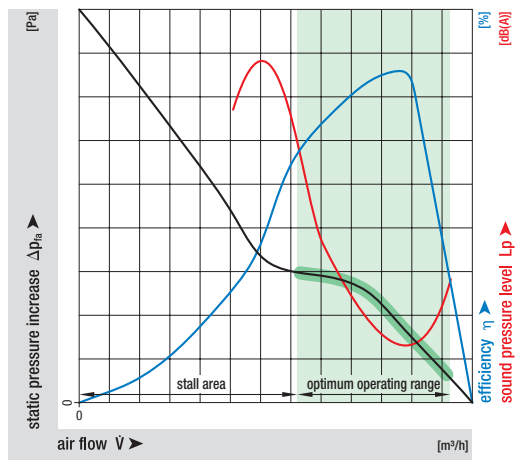
- Maximum efficiency
- Minimal noise

To the left of the "saddle" (left part of the air performance curve):

- Stall area
- Drop in efficiency
- Soaring noise

The optimum operating range of the fan is shaded in green in the curve given here.

Noise / efficiency curve

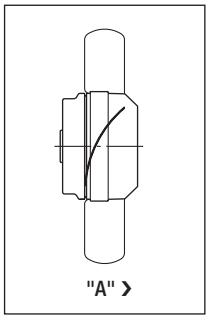
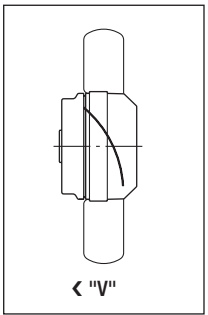


Direction of air flow

The direction of air flow is given as follows:

Direction of air flow "V"

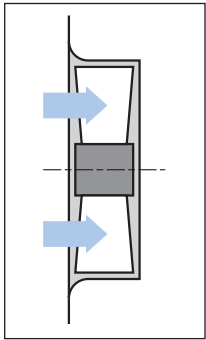
Direction of air flow "A"



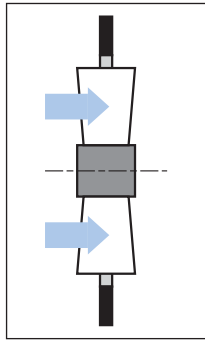
Effects when mounted in wall ring or in the aperture

Mounting the fan in a wall ring can significantly increase the air performance in the operating range.

① Wall ring



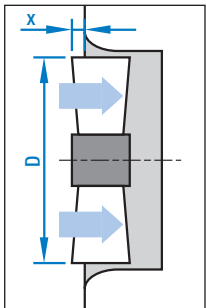
② Aperture



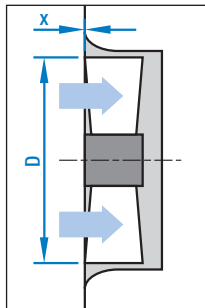
Effects with axial position in the wall ring

Axial position in the wall ring influences air performance and efficiency.

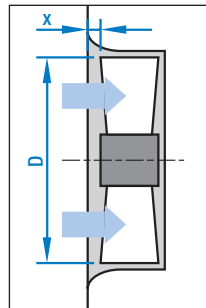
① Projecting on inlet side
 $x / D = 7 \%$



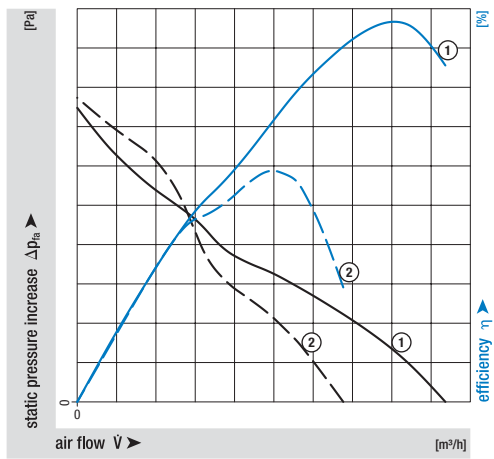
② Flush on inlet side
 $x / D = 0 \%$



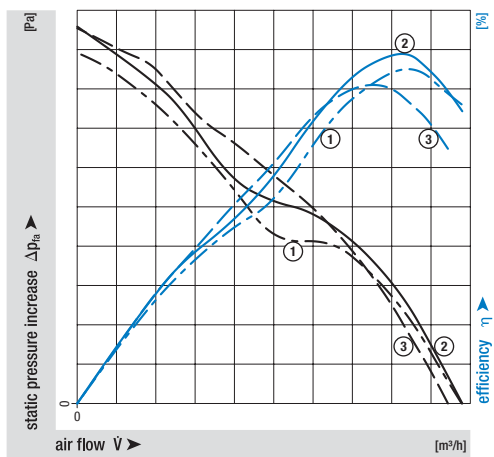
③ Immersed on inlet side
 $x / D = -7 \%$



Curve



Curve

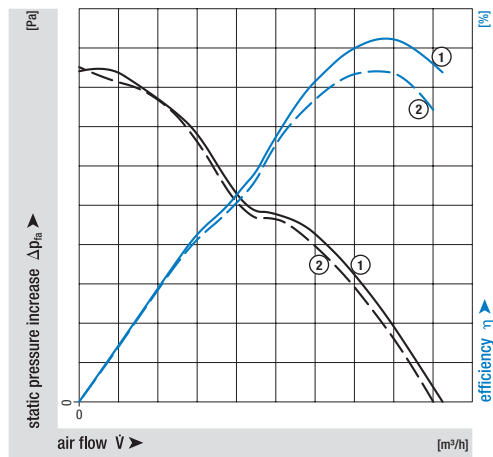


Effects with guard grilles

Mounting a guard grille reduces the air performance of the axial fan.

- ① Without guard grille
- ② With guard grille

Curve



The pressure drop in Pa can be roughly calculated according to the following equation:

$$\Delta p_{GG} = \epsilon_{GG} \cdot 10^{-8} \cdot \dot{V}^2 \quad \dot{V} \text{ in [m}^3/\text{h]}$$

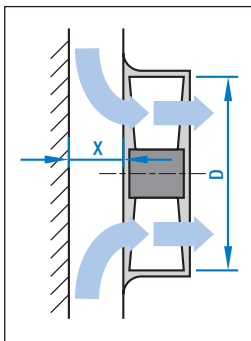
For the guard grilles used at ebm-papst, the correction factor ϵ_{GG} can be used depending on the impeller diameter D from the table to the right.

| Diameter D | Correction factor ϵ_{GG} |
|------------|-----------------------------------|
| 130 | 10000 |
| 143 | 6600 |
| 180 | 2550 |
| 200 | 1650 |
| 250 | 650 |
| 300 | 300 |
| 315 | 240 |
| 350 | 150 |
| 400 | 90 |
| 450 | 55 |
| 500 | 35 |
| 560 | 20 |
| 630 | 11 |
| 710 | 6 |
| 800 | 3 |
| 910 | 1.5 |
| 990 | 0.9 |

Effects of obstructions on the suction or exhaust side

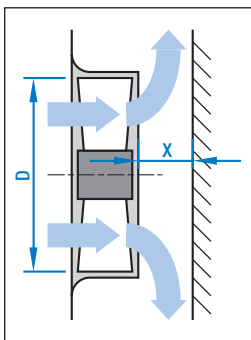
Disturbances or obstructions on the suction or pressure side reduce the air performance of the axial fan.

Obstructions on the inlet side



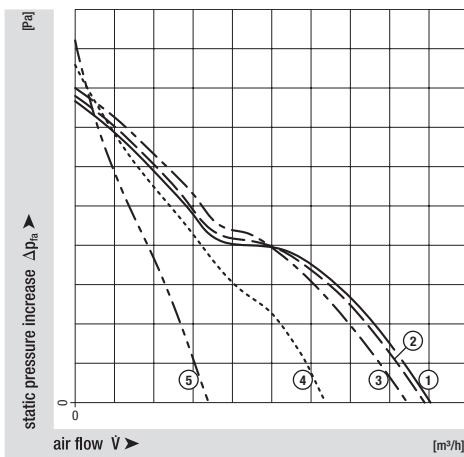
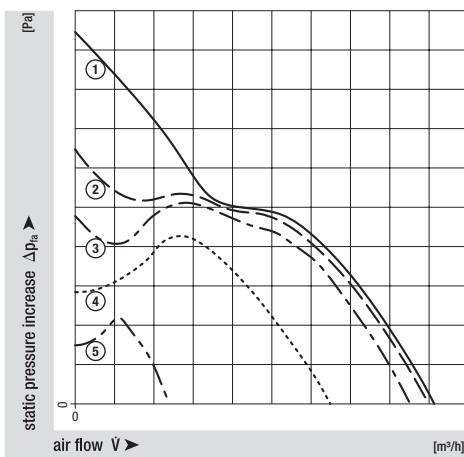
- ① $x / D = \infty$
- ② $x / D = 35 \%$
- ③ $x / D = 18 \%$
- ④ $x / D = 9 \%$
- ⑤ $x / D = 5 \%$

Obstructions on the exhaust side



- ① $x / D = \infty$
- ② $x / D = 35 \%$
- ③ $x / D = 18 \%$
- ④ $x / D = 9 \%$
- ⑤ $x / D = 5 \%$

Curve





Centrifugal fans with backward curved blades

Operating range

Middle part of air performance curve:

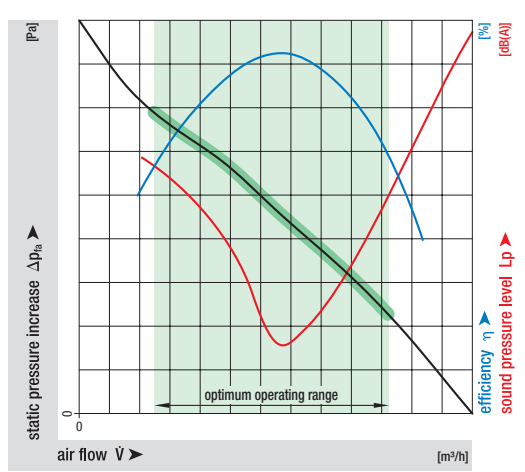
- Maximum efficiency
- Minimal noise

To the right and the left of the middle part of the air performance curve:

- Reduced efficiency
- Increasing noise

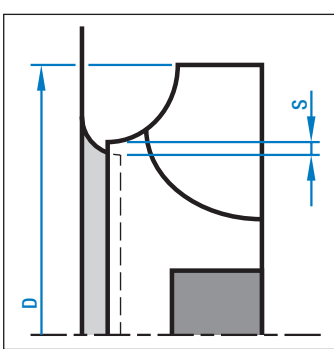
The optimum operating range of the fan is shaded in green in the curve given here.

Noise / efficiency curve



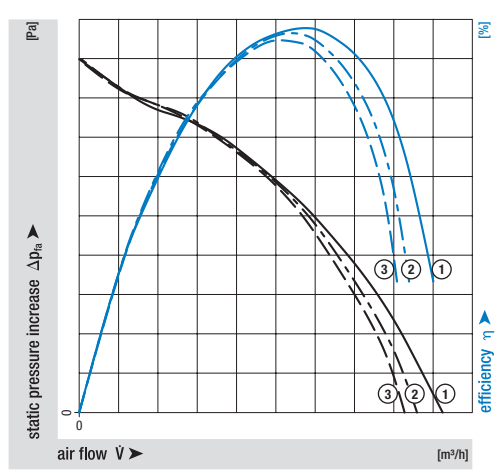
Effects of nozzle gap dimension

The centrifugal air gap between the inlet nozzle and impeller cover plate influences the air performance and efficiency of the centrifugal fan.



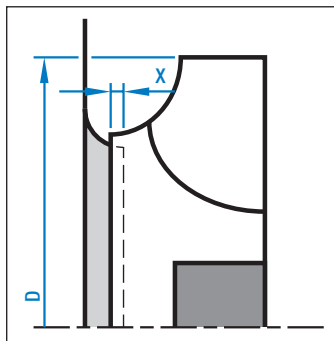
- ① $s / D = 0.4 \%$
- ② $s / D = 1.0 \%$
- ③ $s / D = 1.4 \%$

Curve



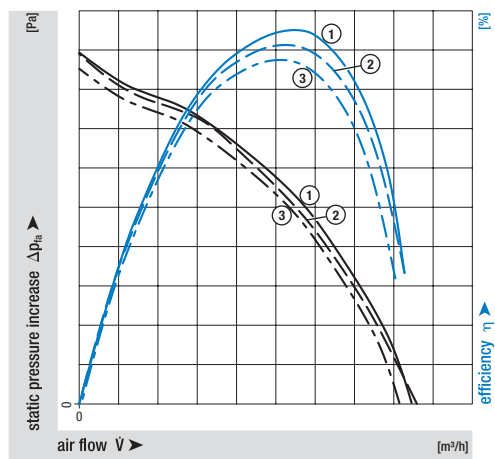
Effects of overlapping dimension

The axial overlap between the inlet nozzle and impeller cover plate influences the air performance and efficiency of a centrifugal fan.



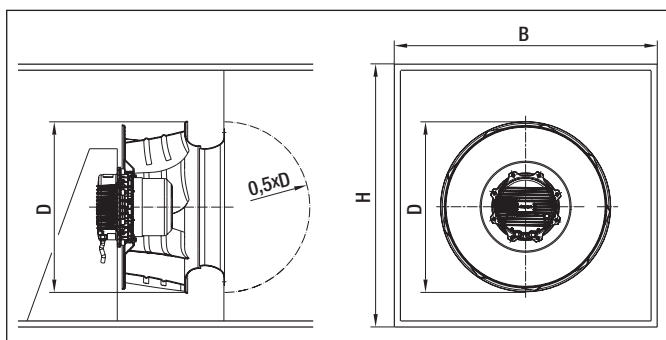
- ① $x / D = 0.6 \%$
- ② $x / D = 0 \%$
- ③ $x / D = -0.8 \%$

Curve

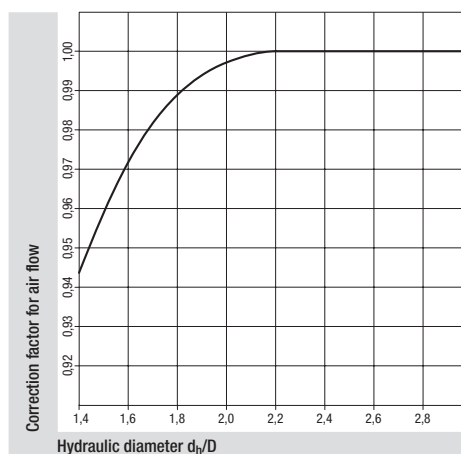


Effects of installation space

When mounting our product in a rectangular box, air performance might be reduced.



Curve



d_h = Hydraulic diameter

Formula: $d_h = 2 \times B \times H / (B + H)$

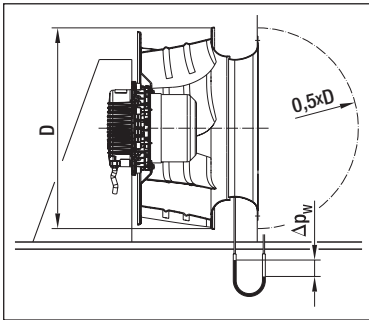
B = Width of box

H = Height of box

D = Outer diameter of the fan

■ Air flow measurement for inlet nozzles with pressure-measuring point

The differential pressure approach compares the static pressure before the inlet nozzle with the static pressure inside the inlet nozzle.



Air flow can be calculated on the basis of the differential pressure (difference in pressure of the static pressures) in keeping with the following equation:

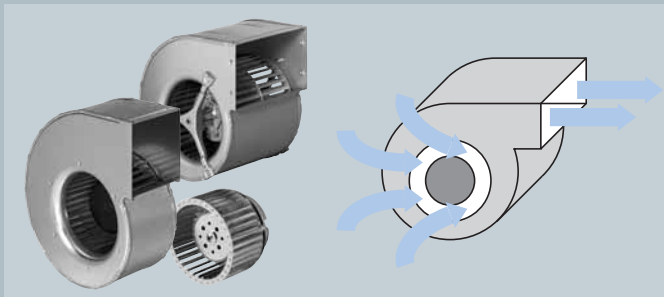
$$\dot{V} = k \cdot \sqrt{\Delta p_W} \quad \dot{V} \text{ in [m}^3/\text{h]} \text{ and } \Delta p_W \text{ in [Pa]}$$

If constant air flow control is used, then the nozzle pressure has to be kept constant:

$$\Delta p_W = \dot{V}^2 : k^2$$

k takes into account the specific nozzle characteristics.

One or four pressure measuring points are spaced along the circumference of the inlet nozzle. Connection on the customer side is accomplished via a premounted T tube connector. This tube connector is suited for pneumatic hoses with an internal diameter of 4 mm.



Single and dual inlet centrifugal blowers with forward curved blades

The forward curved centrifugal impeller must always be operated inside a scroll housing.

A dual inlet centrifugal blower shows the same behaviour as two single inlet blowers operated in parallel: with size, speed and pressure being identical, double the air flow is achieved.

Operating range

Middle part of air performance curve:

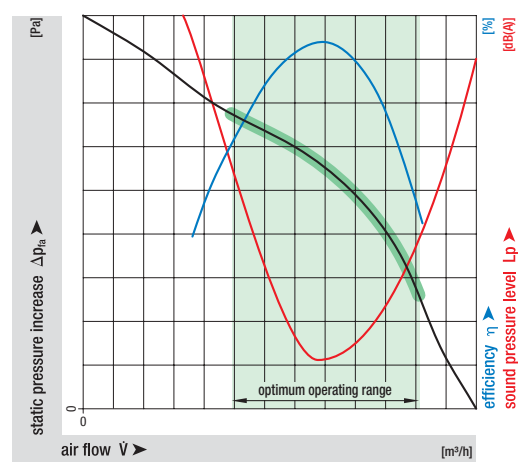
- Maximum efficiency
- Minimal noise
- Higher performance density than with the backward curved centrifugal fan

To the right and the left of the middle part of the air performance curve:

- Reduced efficiency
- Increasing noise

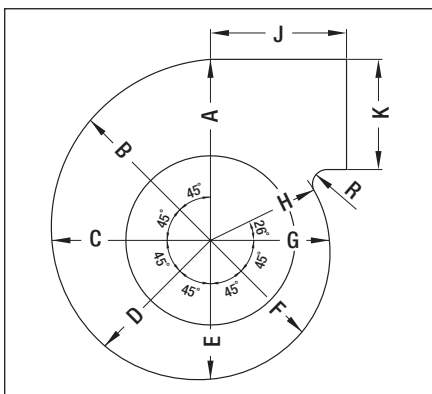
The optimum operating range of the fan is shaded in green in the curve given here.

Noise / efficiency curve



Dimensioning of the scroll

The dimensions of a typical scroll can be calculated with the following formulae, subject to the impeller diameter D:



- $A = 1.062 \cdot D$
- $B = 0.992 \cdot D$
- $C = 0.922 \cdot D$
- $D = 0.853 \cdot D$
- $E = 0.784 \cdot D$
- $F = 0.715 \cdot D$
- $G = 0.646 \cdot D$
- $H = 0.612 \cdot D$
- $J = 0.720 \cdot D$
- $K = 0.689 \cdot D$
- $R = 0.073 \cdot D$

Adjusting the dimensions to diminished mounting spaces is possible.

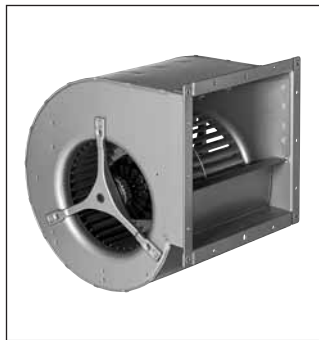
Effects of step diffusers

A diffuser mounted on the exhaust side with connected exhaust tunnel increases air performance and efficiency of the centrifugal blower.

① without step diffuser

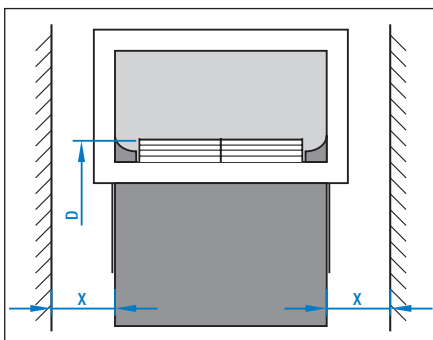


② with step diffuser



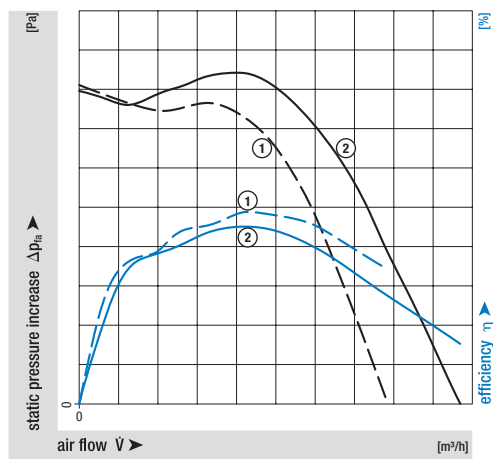
Effects of obstructions on the intake side

Obstructions on the air intake side reduce the air performance of the centrifugal blower.

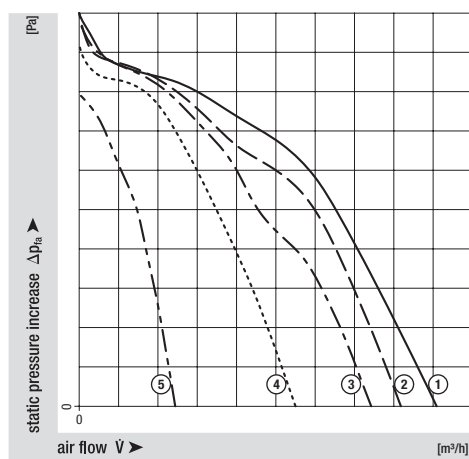


- ① $x / D = \infty$
- ② $x / D = 30 \%$
- ③ $x / D = 23 \%$
- ④ $x / D = 15 \%$
- ⑤ $x / D = 7.5 \%$

Curve



Curve

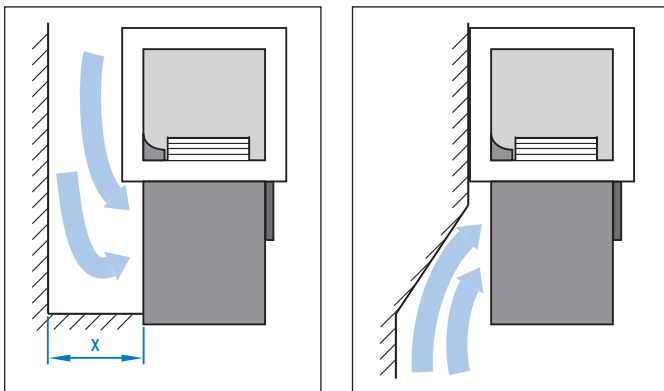


Effects caused by obstructions on the inlet side for constant air flow EC centrifugal blowers

Constant air flow is attained with unimpaired inflow only.

An obstructed (e. g. asymmetrical or partially blocked) air flow can have a significant effect on the curve behaviour and cause large deviations from a constant air flow curve.

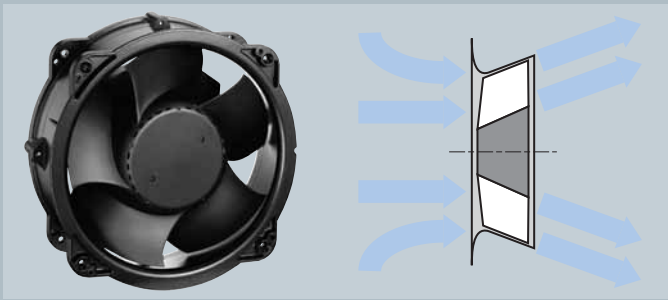
Examples of obstructed inflows



Instructions for designing a sufficiently unobstructed inflow:

- The distance x between the blower intake and neighbouring walls or obstructions should be at least 25 % of the impeller diameter.
- Inflows with angular momentum or asymmetrical rotation should be avoided.
- The inflow can be made more uniform using resistances such as those from filters or grilles.

On request, we offer calibrated blower designs that incorporate a specific installation situation.



Diagonal fans (axial design)

Operating range

Directly to the right of the "saddle" (right part of the air performance curve):

- Maximum efficiency
- Minimal noise

To the left of the "saddle" (left part of the air performance curve):

- Stall area
- Drop in efficiency
- Soaring noise

The saddle of the diagonal/mixed flow fan is slightly higher than that of the axial fan. This means that the technical ratings in the optimal operating range are better than those of the axial fan.

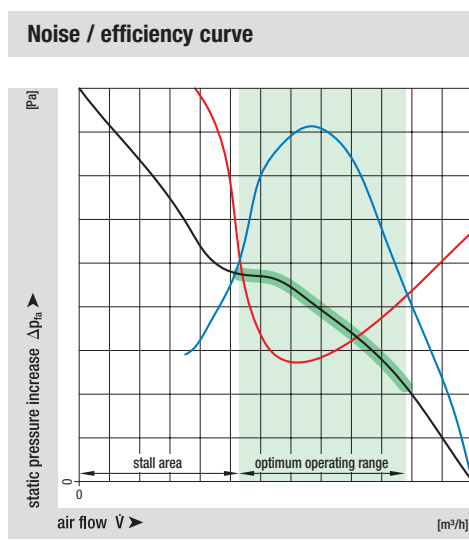
The optimum operating range of the fan is shaded in green in the curve given here.

Mounting information

The conical housing (part of delivery) makes sure the necessary gap dimension is kept.

Effects

The effects of the diagonal/mixed flow fan are similar to those listed for the axial fan (p. 397-400).



Dimensioning / change in speed

Influence of speed n

A change in speed influences:

- Air flow \dot{V}

$$\dot{V} \sim n$$

- Static pressure increase Δp_{fa}

$$\Delta p_{\text{fa}} \sim n^2$$

- Requirement of energy P_1

$$P_1 \sim n^3$$

Influence of the speed n on the sound level L_w

When the speed changes, the approximate sound level can be determined using the diagram to the right and the following formula:

$$L_{w_2} - L_{w_1} = 50 \text{ dB} \cdot \log(n_2 : n_1)$$

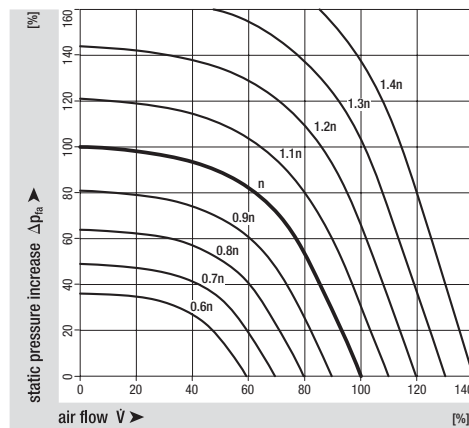
L_{w_1} = Sound level after speed change

L_{w_2} = Sound level before speed change

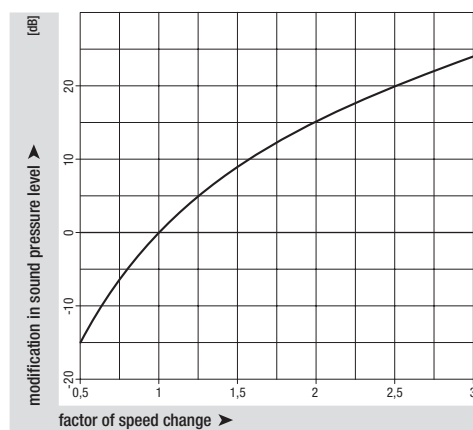
n_1 = Changed speed

n_2 = Starting speed

Curve



Curve

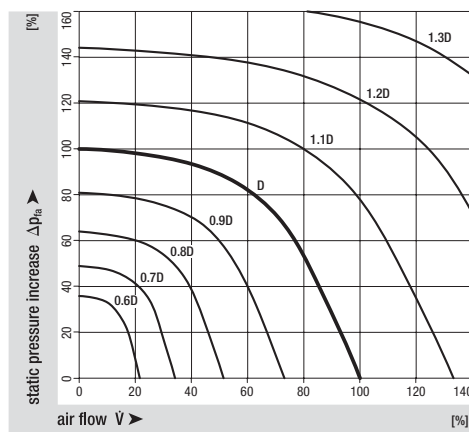


Influence of impeller diameter D

A change in impeller diameter influences:

- Air flow \dot{V}
 $\dot{V} \sim D^3$
- Static pressure increase Δp_{fa}
 $\Delta p_{fa} \sim D^2$
- Requirement of energy P_1
 $P_1 \sim D^5$

Curve

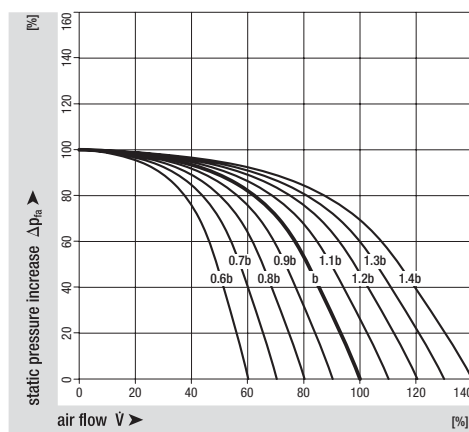


Influence of width of air discharge b (only for centrifugal impellers)

A change in width of the air discharge influences, in approximation:

- Air flow \dot{V}
 $\dot{V} \sim b$
- Static pressure increase Δp_{fa}
 $\Delta p_{fa} = \text{const}$
- Requirement of energy P_1
 $P_1 \sim b$

Curve



Motors



Motors made by ebm-papst

In AC and EC technology, ebm-papst relies on the proven external-rotor motor principle, with the rotor turning around the stator within. Advantages of the ebm-papst external-rotor principle are:

- Space saving design due to integrated bearings and direct installation inside the impeller
- Lower load and more precise balancing of the bearing due to the fixed connection of all rotating elements
- Prolonged service life due to the motor-impeller unit placed right within the air flow

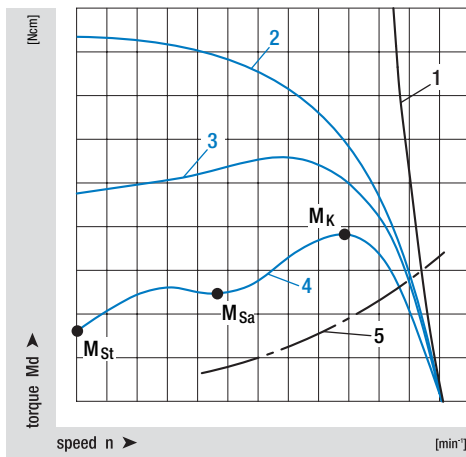
The ebm-papst motors achieve very good results in efficiency and acoustic behaviour when used in EC technology.

| Features | AC motors | | | EC motors | |
|---|-------------------|------------------------------|------------------------------------|-------------------|----------------|
| | Shaded-pole motor | Single-phase capacitor motor | 3-phase motor | Single-core motor | 3-core motor |
| 1 ~ AC voltage connector | Yes | Yes | Limited use (Steinmetz circuit) | Yes | Yes |
| 3 ~ AC voltage connector | No | No | Yes | No | Yes |
| DC voltage connector | No | No | No | Yes | Yes |
| Design of circuit diagram - Stator - | | | | | |
| Rotor principle | Squirrel cage | Squirrel cage | Squirrel cage | Magnetic rotor | Magnetic rotor |
| Efficiency | Low | Medium | Good | Excellent | Excellent |
| Continuous speed setting integrated | No | No | No | Yes | Yes |
| Noise behaviour | Medium | Good | Excellent | Medium | Excellent |

AC motors

AC motors (induction motors) are based in their function on the principle of the asynchronous rotation of the stator rotating field and rotor.

Torque curves of the motor types



Key:

- | | |
|------------------------|----------------------------|
| 1 - EC motor | 5 - System characteristic |
| 2 - 3-phase motor | M_{St} - Starting torque |
| 3 - Single-phase motor | M_{Sa} - Saddle torque |
| 4 - Shaded-pole motor | M_K - Breakdown torque |

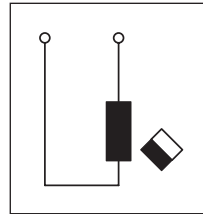
Start-up current

The start-up current of our AC motors is maximally 4x higher than the nominal current given.

Shaded-pole motor

Each pole of the motor is divided electro-magnetically into a main and auxiliary pole (split) via a cage winding in order to generate a starting torque.

At ebm-papst, shaded-pole motors are available as 2 or 4-pole symmetrical external or internal rotor designs.

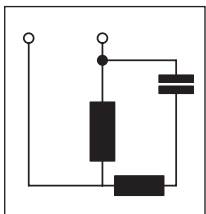


Advantages:

- Extremely robust motor design due to cast squirrel cage rotor and stable bearing system
- Cost-efficient motor
- Extremely easy to connect
- Long service life

Single-phase capacitor motor

Two cores (main winding MW and auxiliary winding AW) generate the rotating field of the single-phase capacitor motor via a capacitor connected in series to form an auxiliary winding.

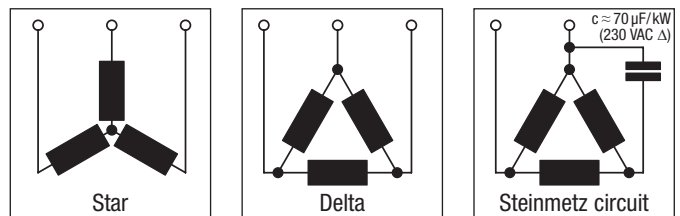


Advantages:

- Extremely robust motor design due to cast squirrel cage rotor and stable bearing system
- Diverse options for setting speed
- Efficiency between 30 % and 75 % (depending on motor size)
- Long service life
- Good vibration and noise behaviour

3-phase motor

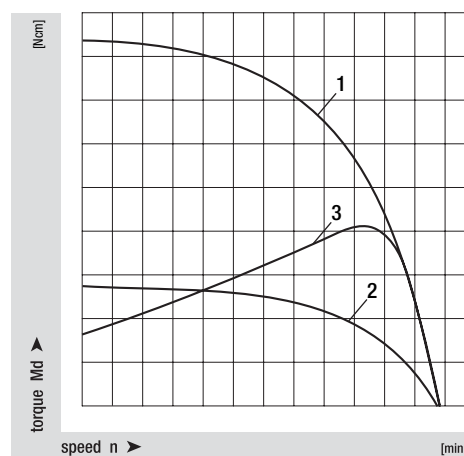
The three motor cores are offset by 120° and generate a circular rotating field when connected to the 3-phase mains.



Advantages:

- Extremely robust motor design due to cast squirrel cage rotor and stable bearing system
- Very good vibration and noise behaviour
- Efficiency between 40 % and 80 % (depending on the motor size)
- Long service life

Torque curves of 3-phase motors



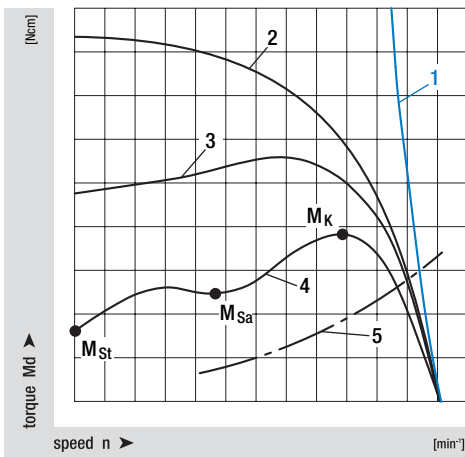
Key:

- 1 - Delta
- 2 - Star
- 3 - Steinmetz circuit

EC motors

EC motors are based in their function on the principle of the synchronous rotation of stator rotating field and rotor.

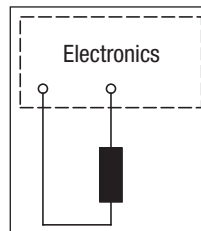
Torque curves of the motor types



Key:

- 1 - EC motor
- 2 - 3-phase motor
- 3 - Single-phase motor
- 4 - Shaded-pole motor
- 5 - System characteristic
- M_{St} - Starting torque
- M_{Sa} - Saddle torque
- M_K - Breakdown torque

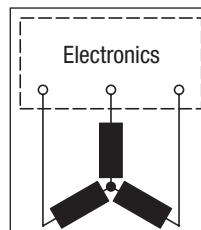
Single-core motor



Advantages:

- Integrated speed setting
- Efficiency between 50 % and 80 % (depending on the motor size)
- Long service life

3-core motor



Advantages:

- Integrated speed setting
- Good efficiency between 60 % and 90 % (depending on the motor size)
- Long service life
- Very good vibration and noise behaviour even in controlled operation
- Can be used as drive motor

Control technology



Open and closed loop control using ebm-papst technology

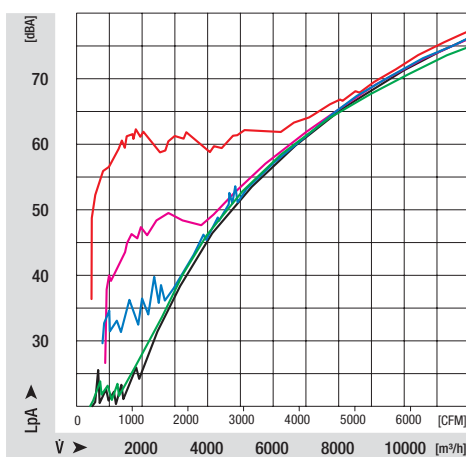
Depending on the field of application, fan speed has to be adjusted. In AC technology, the speed setting option can result in an increase in installation expenditure and, typically, a less favourable noise performance and an increase in power input.

Here, ebm-papst EC technology is a more eco-friendly and cost-efficient alternative. The EC motor with integrated commutation electronics offers high efficiency across the entire speed range and optimal acoustic performance at minimal installation expenditure.

| Features | AC | | | | | | | EC commutating electronics | | |
|-----------------|-------------------|-------------|----------------|---------------------|--------------------------------------|--------------------|-------------------------------------|----------------------------|-------------------------------------|----------|
| | Series resistance | Transformer | Speed stepping | Phase-angle control | Phase-angle control with sine filter | Frequency inverter | Frequency inverter with sine filter | Integrated | Integrated with switch power supply | External |
| Installation | + | - | + | - | - | - | - | ++ | - | - |
| Noise behaviour | + | ++ | - | -- | - | - | + | ++ | + | + |
| Power input | -- | - | - | - | - | + | + | ++ | + | + |
| Service life | + | + | - | - | + | - | + | + | + | + |

+ = positive ++ = very positive - = negative -- = very negative

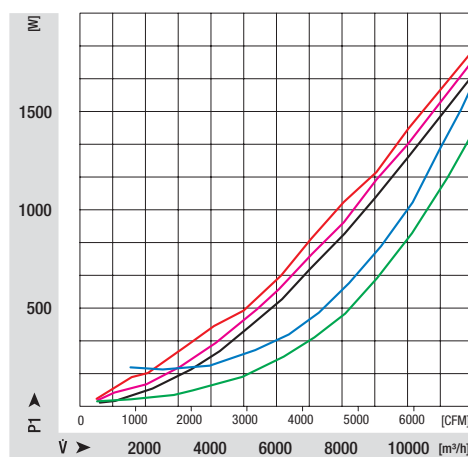
Acoustic performance of controlled motors



Key:

- ebm-papst EC controls
- Frequency inverter with sine filter
- Phase-angle control without sine filter
- Phase-angle control with sine filter
- Transformer

Power input of controlled motors



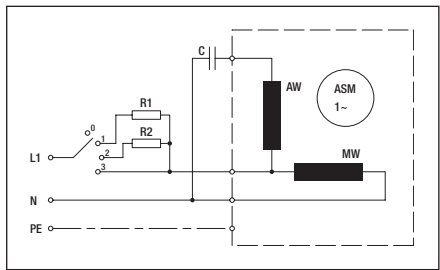
Key:

- ebm-papst EC controls
- Frequency inverter with sine filter
- Phase-angle control without sine filter
- Phase-angle control with sine filter
- Transformer

Speed setting with AC motors

Speed setting helps to optimise power input and the flow noise as requested.

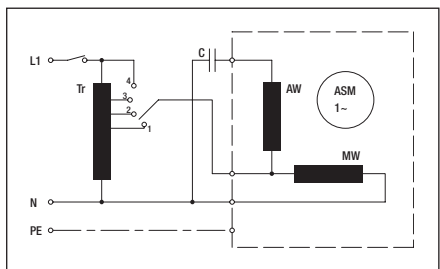
When selecting a voltage controller, note that the nominal current in the partial load range can be up to 20 % (depending on the controller) above the specified maximum current.



Series resistance

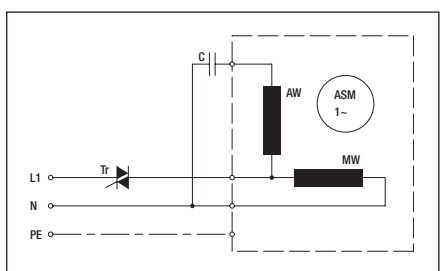
- Fixed speed steps
- Speed setting via change in motor voltage
- Cost-efficient
- Small capacities

Note: Capacitors or chokes reduce the loss capacity.



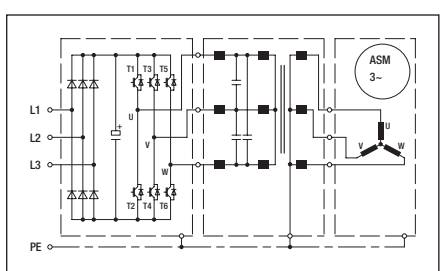
Transformer

- Fixed speed steps
- Speed setting via change in motor voltage



Phase-angle control

- Continuous speed setting
- Speed setting via change in motor voltage
- Cost-efficient
- Acoustic performance and warming has to be reviewed in the application



Frequency inverter with sine filter

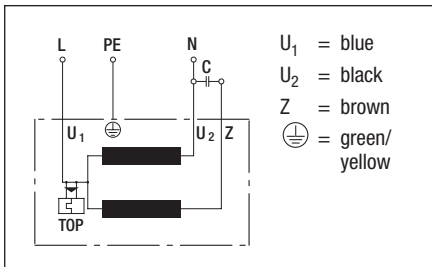
- Continuous speed setting
- Speed setting via change in frequency of rotating field
- High efficiency

Note: An all-pole sine filter (phase-phase and phase-earth) has to be used.

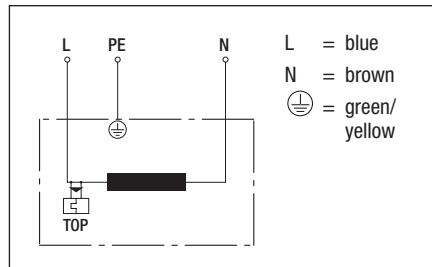
Electrical connections AC

Fans (1~ 230 VAC power line)

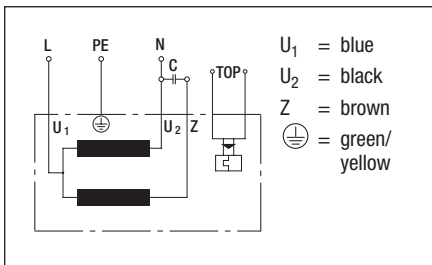
A1) Single-phase capacitor motor with TOP wired internally



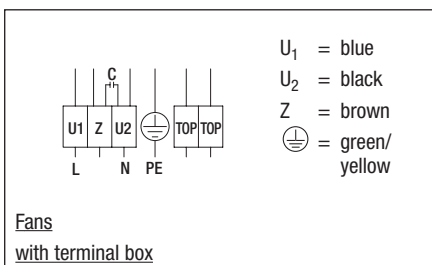
B) Shaded pole motor with TOP wired internally



A2a) Single-phase capacitor motor with connection for external TOP

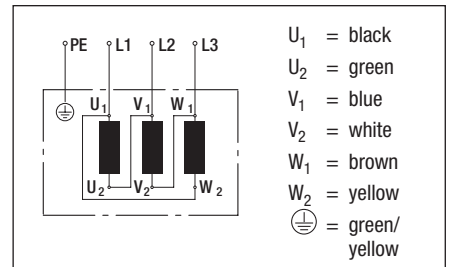


A2b) Single-phase capacitor motor with connection for external TOP

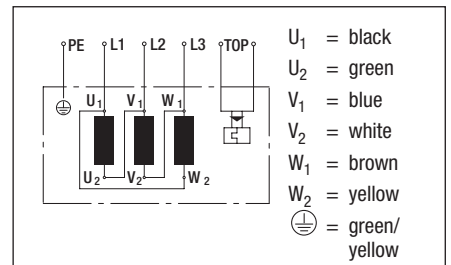


Fans, 1 speed (3~ 230 VAC power line)

C1) Delta connection (3~ 230 VAC power system) without TOP



D1) Delta connection (3~ 230 VAC power line) with TOP

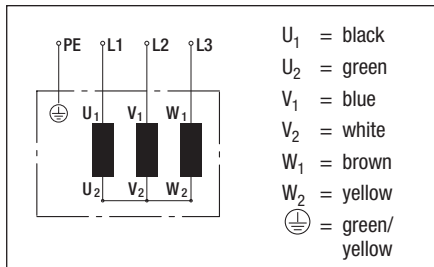


Direction of rotation is reversed by swapping two line phases.

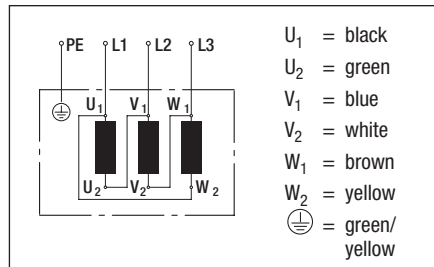
Fans, 1 speed (3~ 400 VAC power line)

Fans, 2 speeds via Δ/Y-switch (3~ 400 VAC power line)

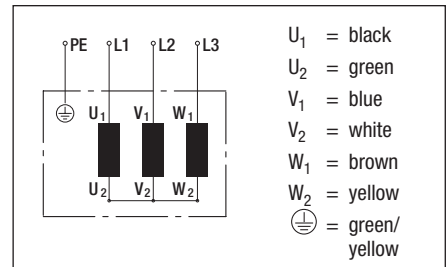
C2) Star connection (3~ 400 VAC power system) without TOP



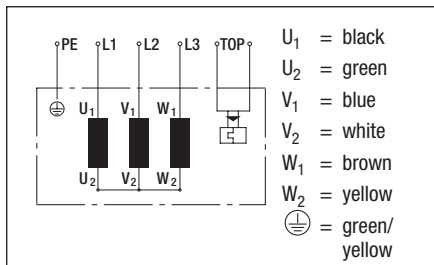
E1) Delta connection (high speed) without TOP



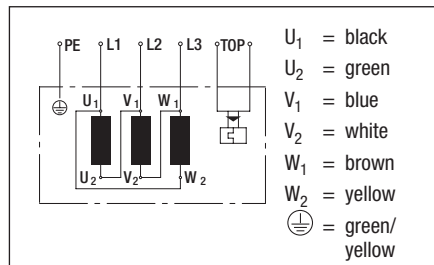
E2) Star connection (low speed) without TOP



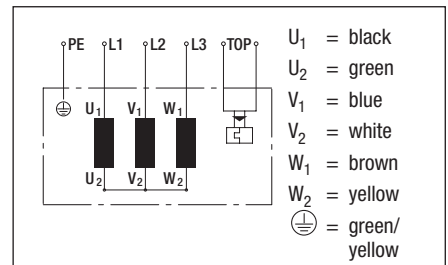
D2) Star connection (3~ 400 VAC power line) with TOP



F1a) Delta connection (high speed) with TOP

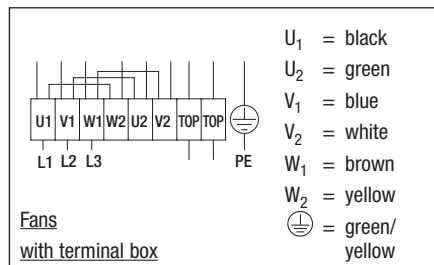


F2a) Star connection (low speed) with TOP

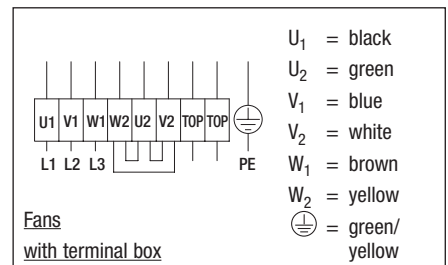


Direction of rotation is reversed by swapping two line phases.

F1b) Delta connection (high speed) with TOP



F2b) Star connection (low speed) with TOP

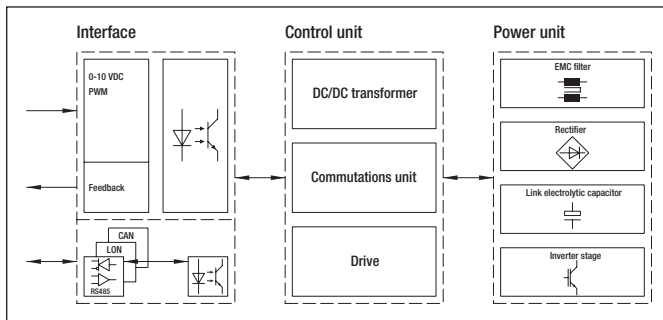


Direction of rotation is reversed by swapping two line phases.

Speed setting with EC motors

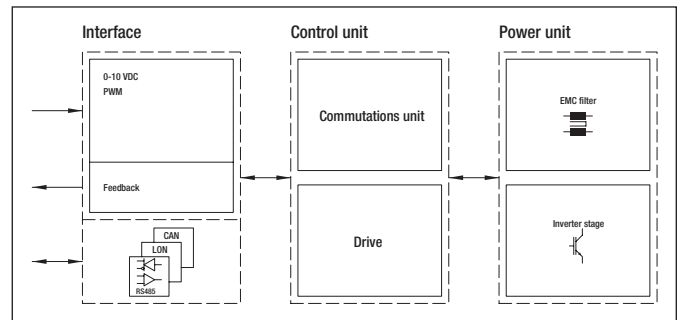
- The speed of EC motors is set via commutation electronics. Via electronic circuits and depending on the rotor position, this commutation switches the motor currents on and off.

Principle of AC-fed commutation electronics



(with electrically isolated interface)

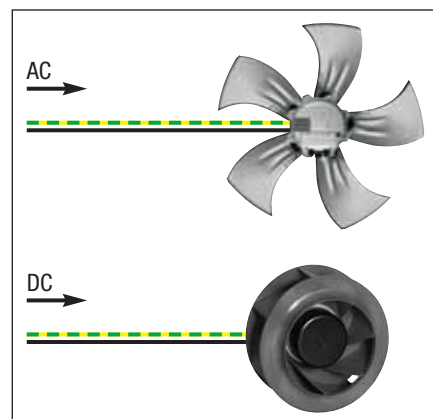
Principle of DC-fed commutation electronics



Integrated commutation electronics

- Compact unit
- Easy to install
- Low installation expenditure
- Can be operated all over the world

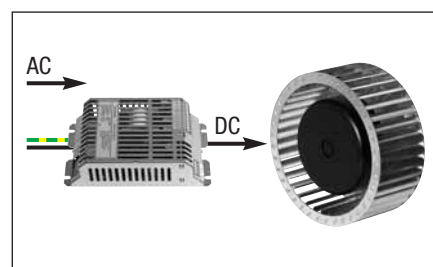
Note: Motors with 12-72 VDC supply voltage have to be fed via electrically isolated supply unit.



Integrated commutation electronics with switch power supply

- Protective extra-low voltage 24 / 48 VDC

Note: Switch power supply is not included but has to be ordered as accessory.



Typical features of the ebm-papst commutation electronics:

- Input for analogue and digital signals
- Open and closed loop control as well as monitoring of the motor
- Integrated EMC filter
- High efficiency throughout the entire speed range
- Speed setting via linear set value (0-10 VDC) or PWM signal
- Low-noise operation across the entire speed range
- Minimal extra costs for additional functions (open/closed loop control)
- Optional BUS interface

Types of alarms and reactions with EC motors

With DC-fed EC motors, certain faults in modes of operation are recognised by the electronics, and the motor is automatically restarted.

With AC-fed EC motors, certain faults in modes of operation are recognised by the electronics, and the motor is switched off.

The motor restarts automatically after the following failures have been diagnosed:

- Line failure
- Phase failure
- Line under-voltage
- DC link voltage too high or too low
- Locked rotor

With the following types of failures, there is no automatic restart.

Here, hardware or software reset is required:

- Motor temperature too high
- Temperature of cooling element or ambient temperature of electronics too high
- Hall failure

Hardware reset

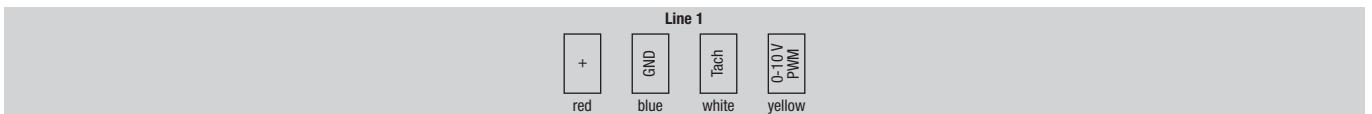
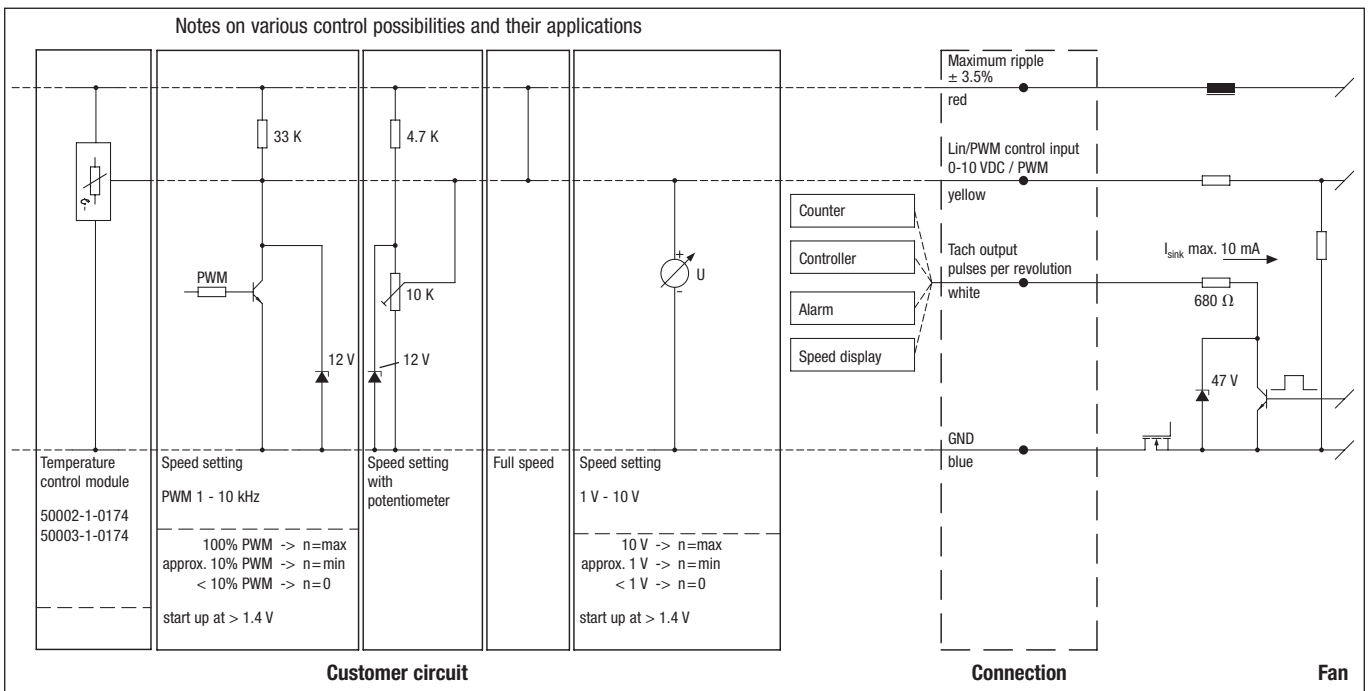
Switching off the fan and restarting it after one minute results in hardware reset.

Software reset

Software reset is via ebmBUS and LISA software, hand-held control terminal, or PDA with Fan Control Software.

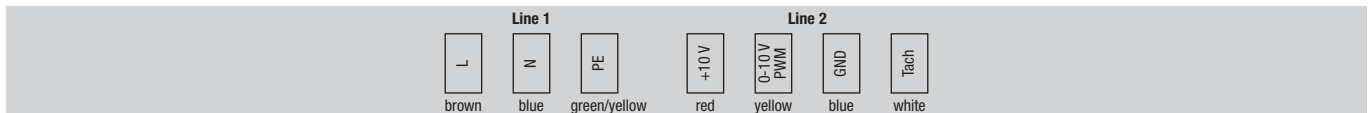
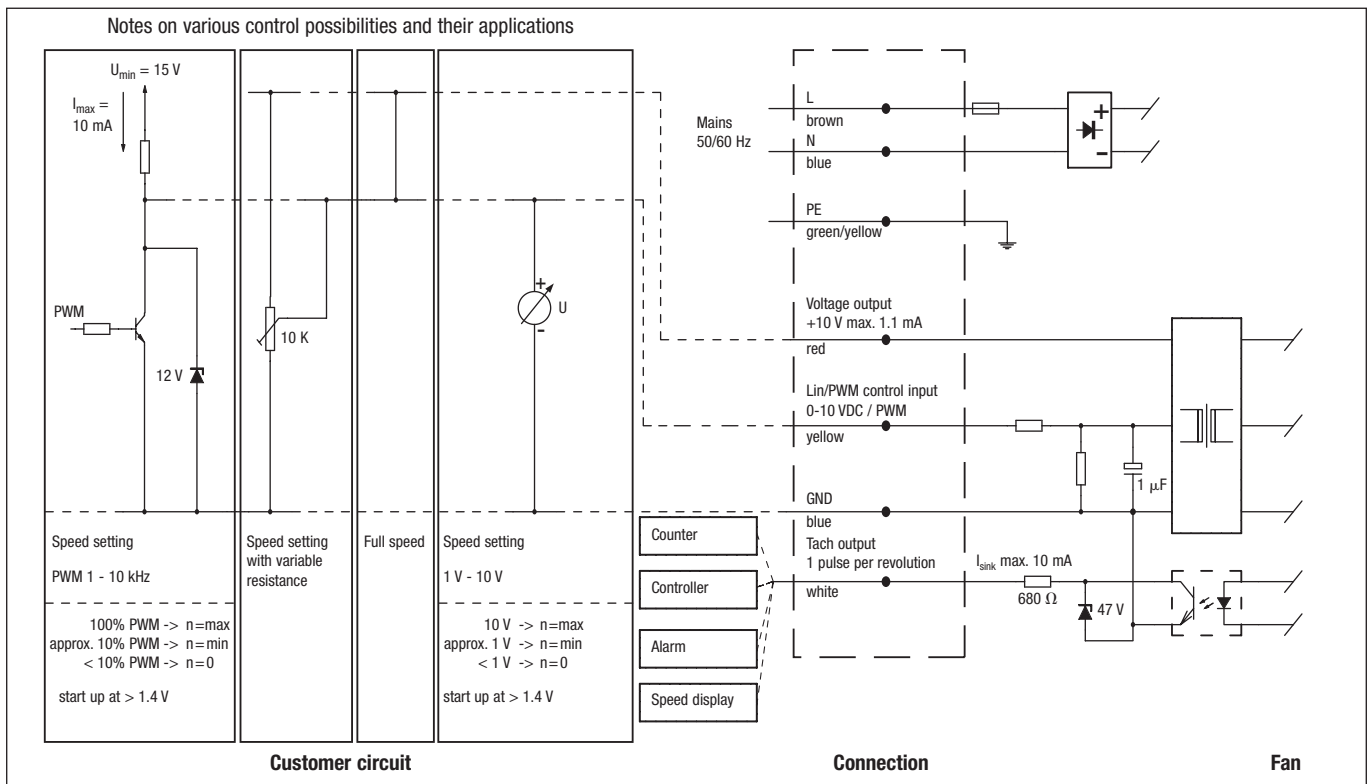
Electrical connections EC

G) EC motors (nominal voltage 24 / 48 VDC)



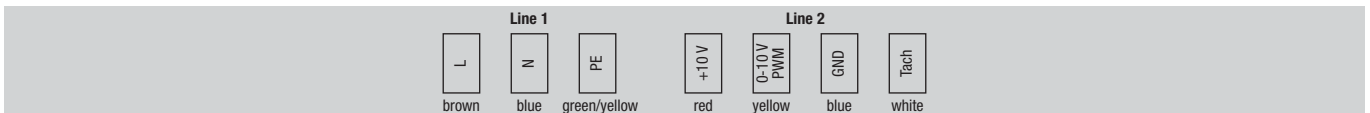
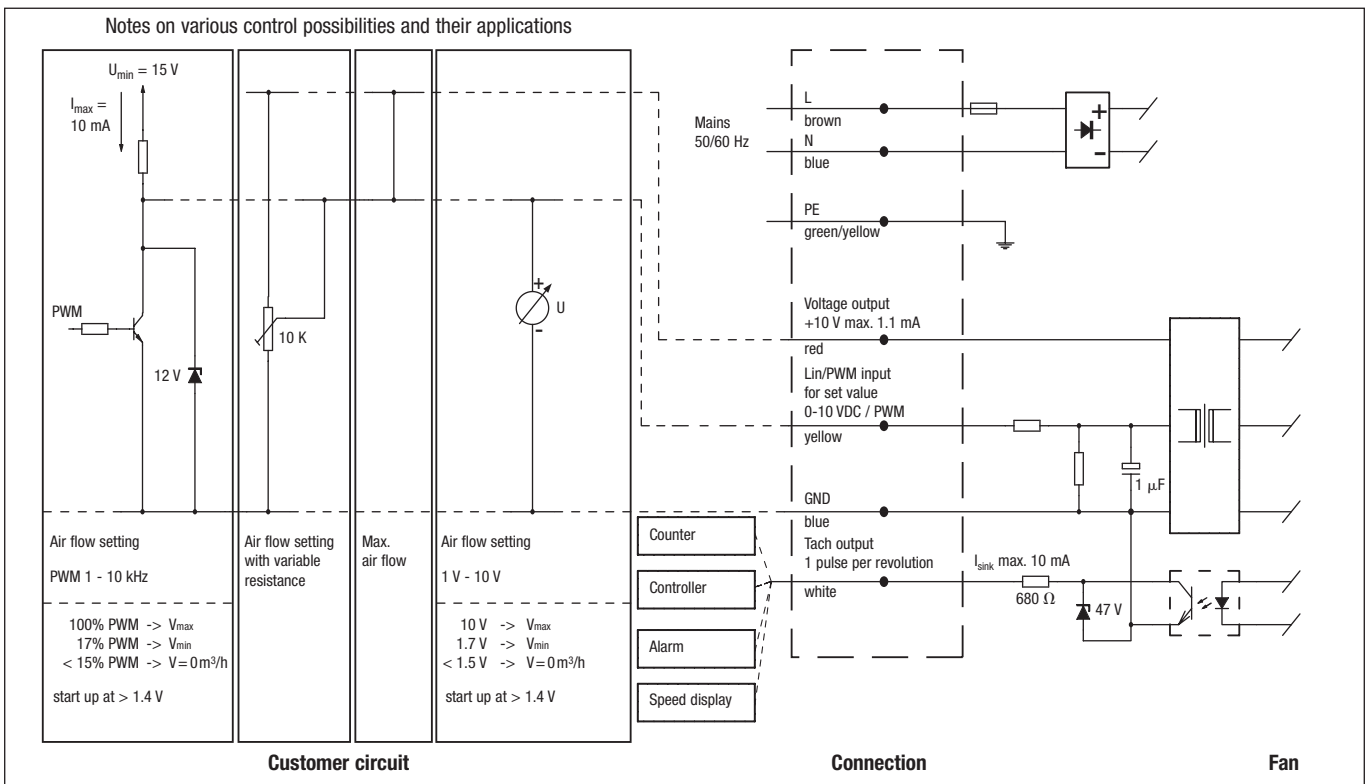
| Line | Connection | Colour | Assignment / function | Line | Connection | Colour | Assignment / function |
|------|------------|--------|------------------------|------|--------------|--------|--|
| 1 | + | red | Maximum ripple ± 3.5 % | 1 | Tach | white | Tach output: 2 pulses / revolution (M1G045/M1G055) 3 pulses / revolution (M1G074/M3G084) |
| | GND | blue | GND | | 0-10 V / PWM | yellow | Control input (Impedance 100 kΩ) |

H1) EC motors (size 055, line-fed)



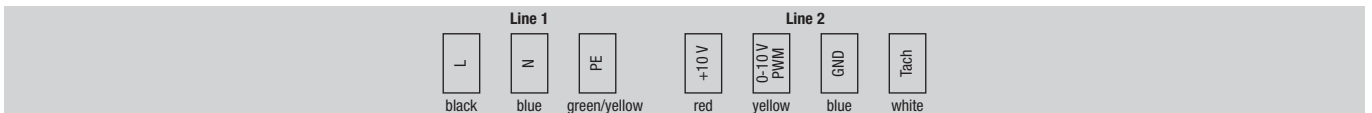
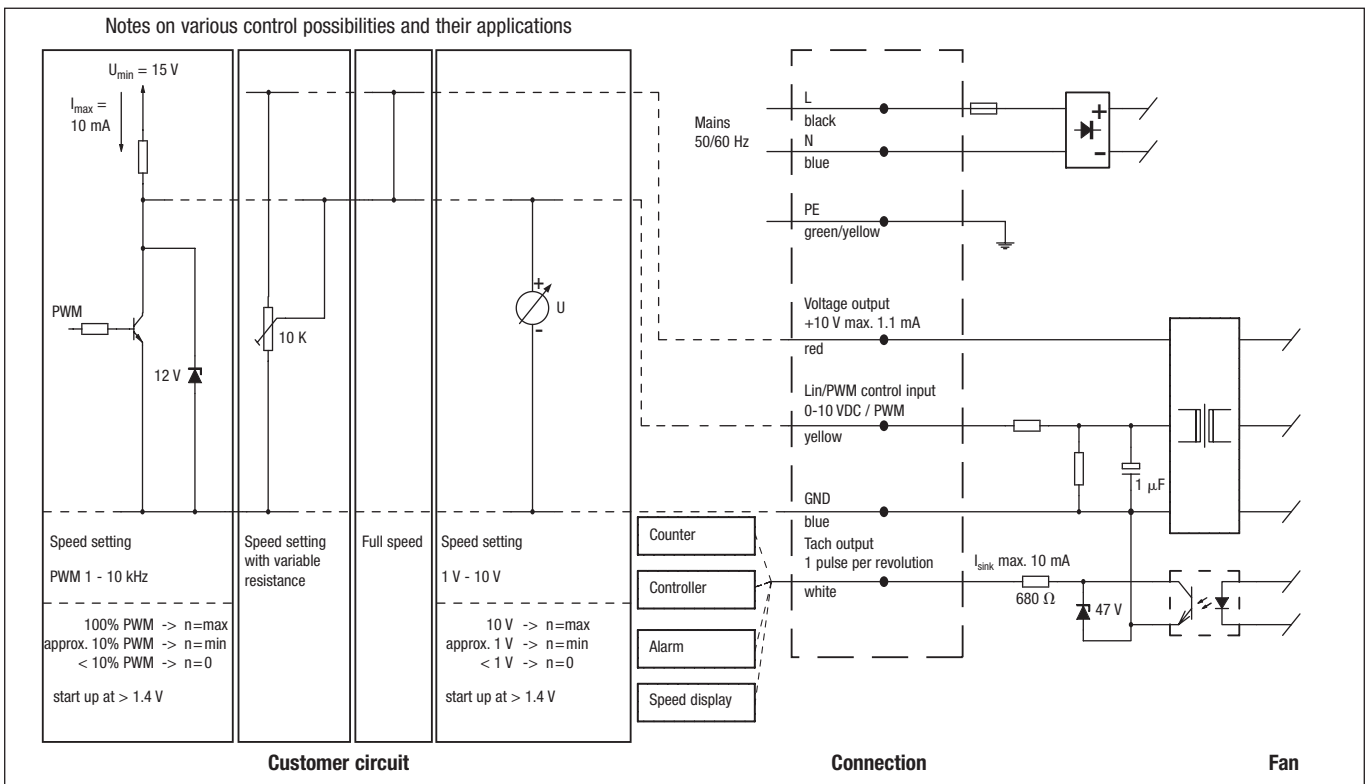
| Line | Connection | Colour | Assignment / function | Line | Connection | Colour | Assignment / function |
|------|------------|-----------|-------------------------|------|--------------|--------|-------------------------------------|
| 1 | L | brown | Mains 50/60 Hz, phase | 2 | +10 V | red | Voltage output +10 V max. 1.1 mA |
| | N | blue | Mains 50/60 Hz, neutral | | 0-10 V / PWM | yellow | Control input (Impedance 100 kΩ) |
| | PE | green/yel | Protective earth | | GND | blue | GND |
| | | | | | Tach | white | Tach output: 1 pulse per revolution |

H2) EC motors (size 055, line-fed and constant air flow)



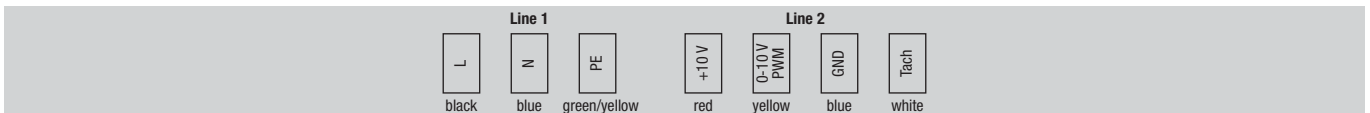
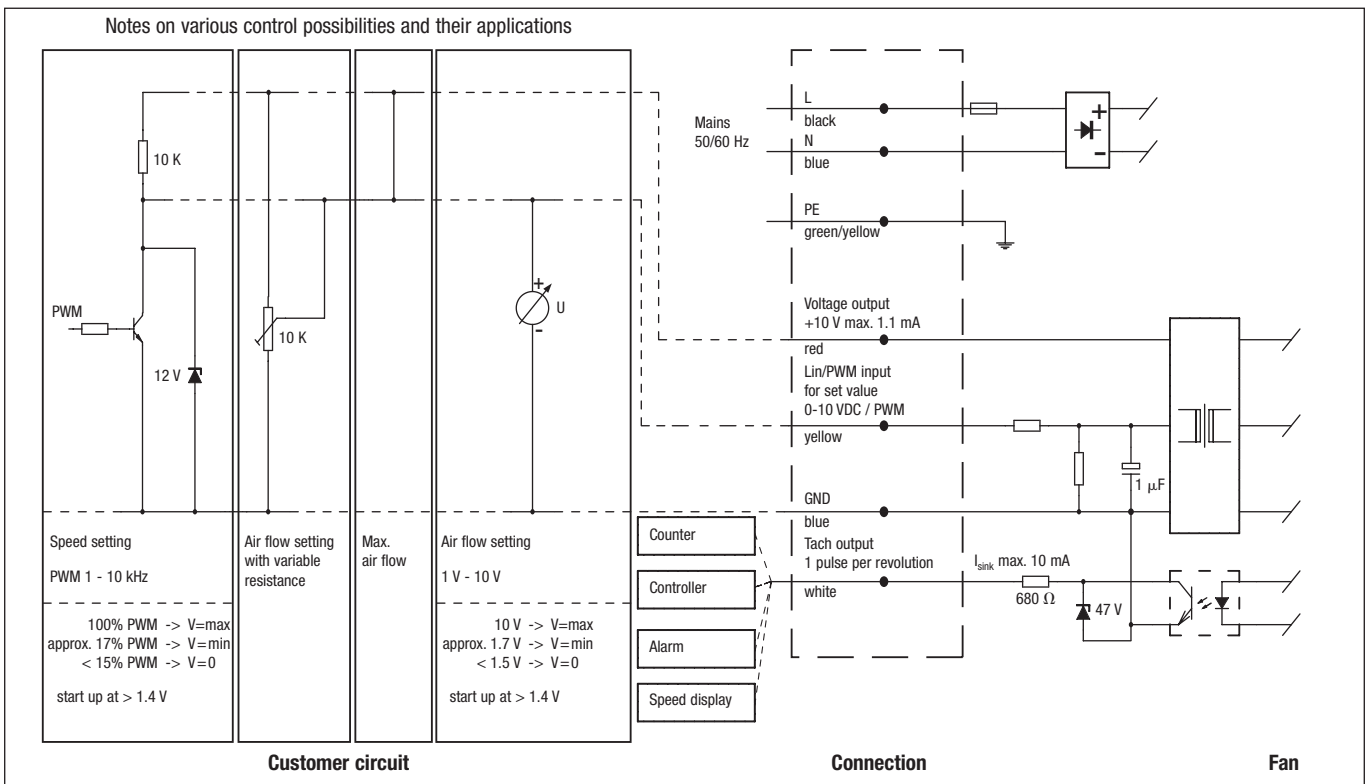
| Line | Connection | Colour | Assignment / function | Line | Connection | Colour | Assignment / function |
|------|------------|-----------|-------------------------|------|--------------|--------|--|
| 1 | L | brown | Mains 50/60 Hz, phase | 2 | +10 V | red | Voltage output +10 V max. 1.1 mA |
| | N | blue | Mains 50/60 Hz, neutral | | 0-10 V / PWM | yellow | Input for set value (impedance 100 kΩ) |
| | PE | green/yel | Protective earth | | GND | blue | GND |
| | | | | | Tach | white | Tach output: 1 pulse per revolution |

J1) EC motors (size 074, line-fed)



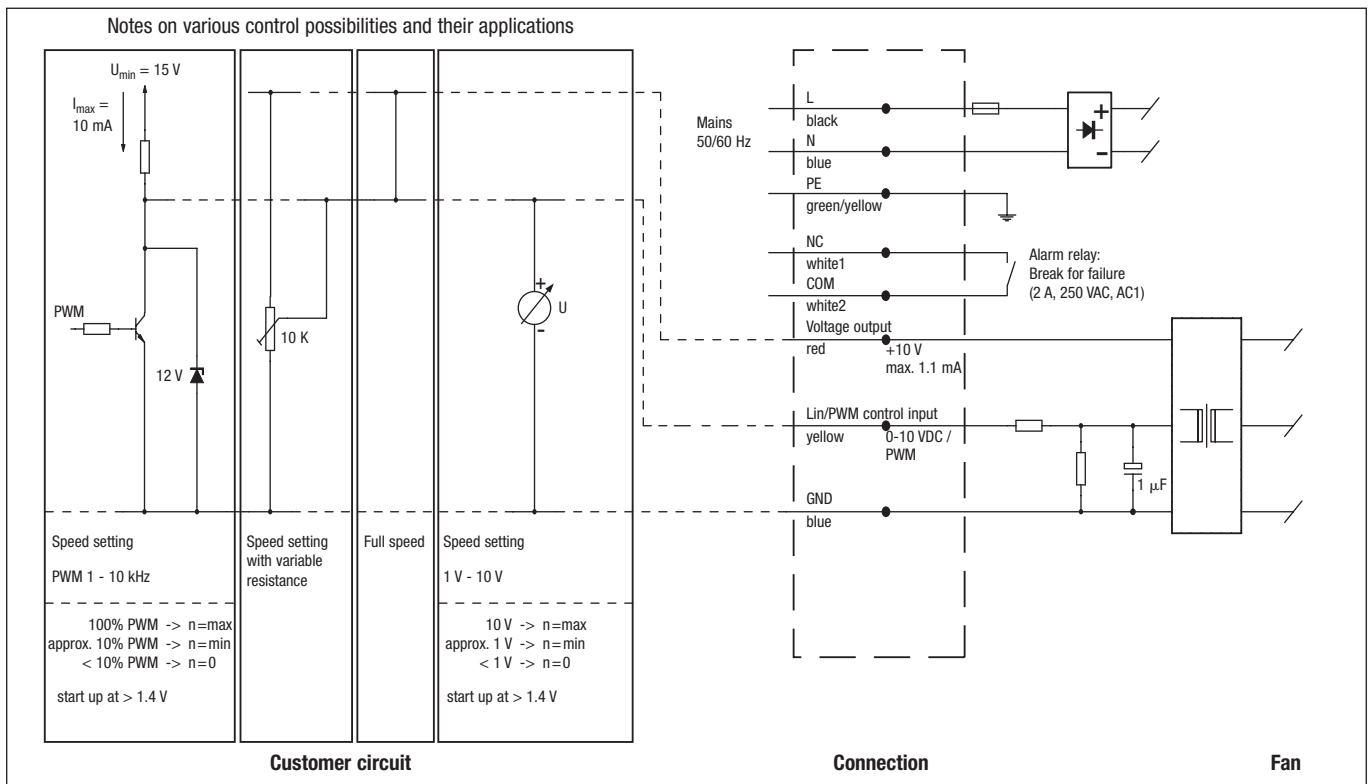
| Line | Connection | Colour | Assignment / function | Line | Connection | Colour | Assignment / function |
|------|------------|-----------|-------------------------|------|--------------|--------|-------------------------------------|
| 1 | L | black | Mains 50/60 Hz, phase | 2 | +10 V | red | Voltage output +10 V max. 1.1 mA |
| | N | blue | Mains 50/60 Hz, neutral | | 0-10 V / PWM | yellow | Control input (Impedance 100 kΩ) |
| | PE | green/yel | Protective earth | | GND | blue | GND |
| | | | | | Tach | white | Tach output: 1 pulse per revolution |

J2) EC motors (size 074, line-fed and constant air flow)



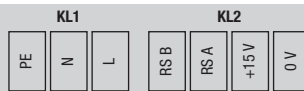
| Line | Connection | Colour | Assignment / function | Line | Connection | Colour | Assignment / function |
|------|------------|-----------|-------------------------|------|--------------|--------|--|
| 1 | L | black | Mains 50/60 Hz, phase | 2 | +10 V | red | Voltage output +10 V max. 1.1 mA |
| | N | blue | Mains 50/60 Hz, neutral | | 0-10 V / PWM | yellow | Input for set value (impedance 100 kΩ) |
| | PE | green/yel | Protective earth | | GND | blue | GND |
| | | | | | Tach | white | Tach output: 1 pulse per revolution |

K1) EC motors (size 084, line-fed)



| Line | Connection | Colour | Assignment / function | Line | Connection | Colour | Assignment / function |
|------|------------|-----------|--------------------------------|------|--------------|--------|---|
| 1 | L | black | Mains 50/60 Hz, phase | 2 | +10 V | red | Voltage output +10 V max. 1.1 mA |
| | N | blue | Mains 50/60 Hz, neutral | | 0-10 V / PWM | yellow | Control input (Impedance 100 k Ω) |
| | PE | green/yel | Protective earth | | GND | blue | GND |
| | NC | white1 | Alarm relay, break for failure | | | | |
| | COM | white2 | Alarm relay, COMMON | | | | |

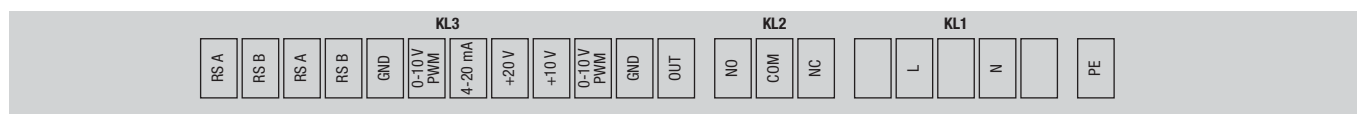
K2) EC motors (size 084/112 with ebmBUS, mains-powered)



| Connector | Connection | Assignment / function |
|-----------|------------|-------------------------|
| KL1 | PE | Protective earth |
| | N | Mains 50/60 Hz, neutral |
| | L | Mains 50/60 Hz, phase |

| Connector | Connection | Assignment / function |
|-----------|------------|--------------------------------------|
| KL2 | RS B | RS485 interface for ebmBUS; RS B |
| | RS A | RS485 interface for ebmBUS; RS A |
| | +15 V | Operation: +15 V (50 mA); Alarm: 0 V |
| | 0 V | Operation: 0 V; Alarm: +15 V (50 mA) |

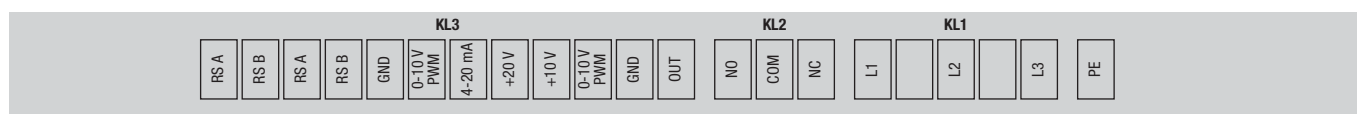
L1) EC motors (size 112, single-phase mains-powered)



| Connector | Connection | Assignment / function |
|-----------|------------|--|
| PE | PE | Protective earth |
| KL1 | N | Mains 50/60 Hz, neutral |
| | L | Mains 50/60 Hz, phase |
| KL2 | NC | Alarm relay, break for failure |
| | COM | Alarm relay, COMMON (2A, 250 VAC, AC1) |
| | NO | Alarm relay, make for failure |

| Connector | Connection | Assignment / function |
|-----------|--------------|---|
| KL3 | OUT | Master output 0-10 V max. 3 mA |
| | GND | GND |
| | 0-10 V / PWM | Control / Actual value input (Impedance 100 kΩ) |
| | +10 V | Supply for external potentiometer, 10 VDC (+10 %) @ 10 mA |
| | +20 V | Supply for external sensor, 20 VDC (±20 %) @ 50 mA |
| | 4-20 mA | Control / Actual value input |
| | 0-10 V / PWM | Control / Actual value input |
| | GND | GND |
| | RSB | RS485 interface for ebmBUS; RS B |
| | RSA | RS485 interface for ebmBUS; RS A |
| | RSB | RS485 interface for ebmBUS; RS B |
| | RSA | RS485 interface for ebmBUS; RS A |

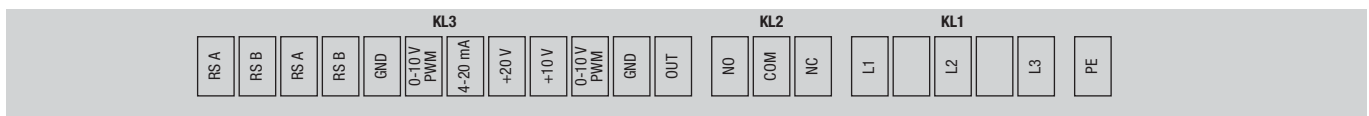
L2) EC motors (size 112, three-phase mains-powered)



| Connector | Connection | Assignment / function |
|-----------|------------|--|
| PE | PE | Protective earth |
| KL1 | L3 | Mains; L3 |
| | L2 | Mains; L2 |
| | L1 | Mains; L1 |
| KL2 | NC | Alarm relay, break for failure |
| | COM | Alarm relay, COMMON (2A, 250 VAC, AC1) |
| | NO | Alarm relay, make for failure |

| Connector | Connection | Assignment / function |
|-----------|--------------|---|
| KL3 | OUT | Master output 0-10 V max. 3 mA |
| | GND | GND |
| | 0-10 V / PWM | Control / Actual value input (Impedance 100 kΩ) |
| | +10 V | Supply for external potentiometer, 10 VDC (+10 %) @ 10 mA |
| | +20 V | Supply for external sensor, 20 VDC (±20 %) @ 50 mA |
| | 4-20 mA | Control / Actual value input |
| | 0-10 V / PWM | Control / Actual value input |
| | GND | GND |
| | RSB | RS485 interface for ebmBUS; RS B |
| | RSA | RS485 interface for ebmBUS; RS A |
| | RSB | RS485 interface for ebmBUS; RS B |
| | RSA | RS485 interface for ebmBUS; RS A |

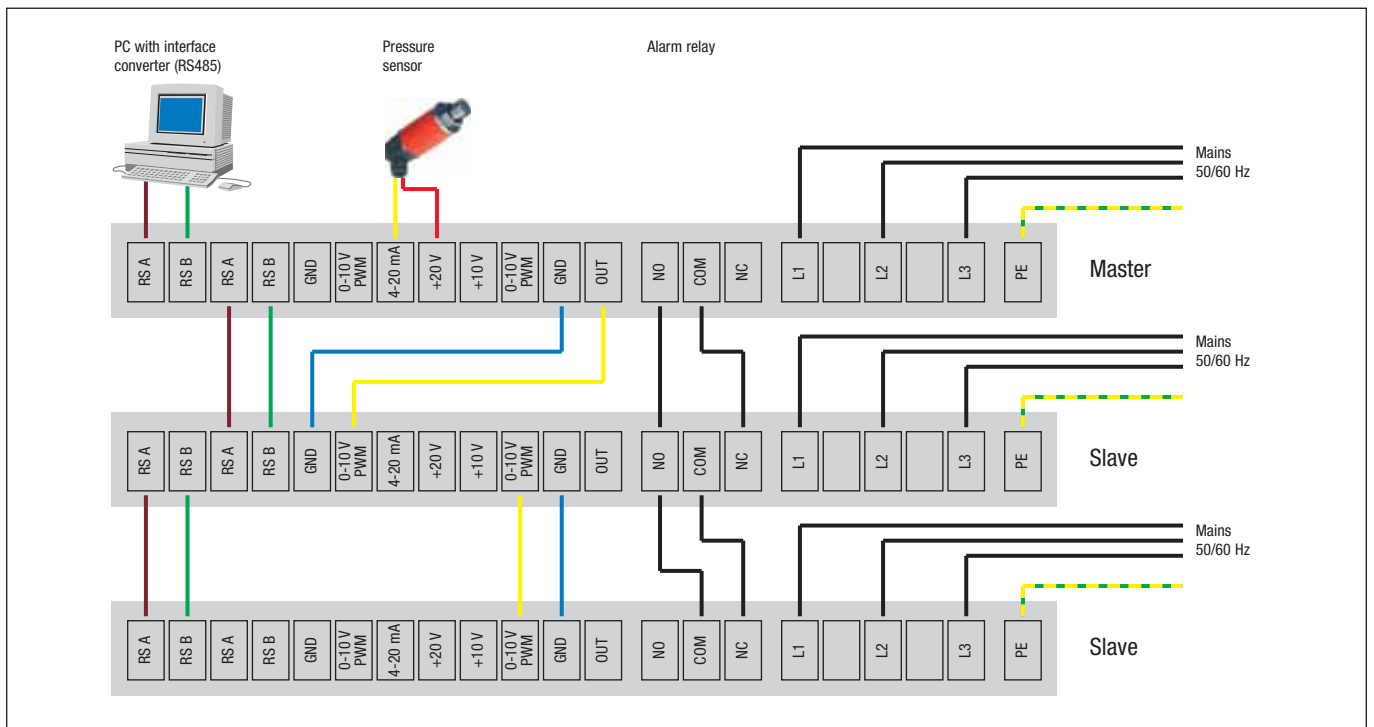
M) EC motors (size 150, three-phase mains-powered)







| Connector | Connection | Assignment / function |
|-----------|------------|--|
| PE | PE | Protective earth |
| KL1 | L3 | Mains; L3 |
| | L2 | Mains; L2 |
| | L1 | Mains; L1 |
| KL2 | NC | Alarm relay, break for failure |
| | COM | Alarm relay, COMMON (2A, 250 VAC, AC1) |
| | NO | Alarm relay, make for failure |

| Connector | Connection | Assignment / function |
|-----------|--------------|---|
| KL3 | OUT | Master output 0-10 V max. 3 mA |
| | GND | GND |
| | 0-10 V / PWM | Control / Actual value input (Impedance 100 kΩ) |
| | +10 V | Supply for external potentiometer, 10 VDC (+10 %) @ 10 mA |
| | +20 V | Supply for external sensor, 20 VDC (±20 %) @ 50 mA |
| | 4-20 mA | Control / Actual value input |
| | 0-10 V / PWM | Control / Actual value input |
| | GND | GND |
| | RSB | RS485 interface for ebmBUS; RS B |
| | RSA | RS485 interface for ebmBUS; RS A |
| | RSB | RS485 interface for ebmBUS; RS B |
| | RSA | RS485 interface for ebmBUS; RS A |

Connection diagram: Condensing pressure control with master-slave fans



-  fan agent
-  compact fan agent
-  motor specialist
-  motor agent

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-  motor specialist
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
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