EC axial fans – HyBlade®

Edition 2015-09

ebmpapst

The engineer's choice

GREEN TECH

The HyBlade®
- an ongoing success story ...

The overall efficiency of a fan can only ever be as good as the efficiency of each of the fan components.

Our successful HyBlade fan blades and impellers are major contributory factors, setting market standards in terms of both aerodynamics and aeroacoustics with their optimized blade geometries.

The HyBlade series is now complete, offering a full range of fan sizes from 200 to 990.

In combination with the GreenTech EC motors featuring integrated control electronics, these provide an ideal basis for maximum efficiency and optimum system incorporation.

Making it possible to combine a variety of EC motors and electronics options, the intelligent modular system leaves nothing to be desired.
The outcome is the new standard range in this catalog!

Adaptations have been made to satisfy market and application requirements. The lower end of the 200 to 450 fan size range has been extended and is now available with GreenTech EC motors with both 2-speed and analog 0-10 V interface and different power outputs.

The new size 84 and 112 EC motor generation has been introduced for fan sizes 400 to 910 and can now be supplied as standard with a 0-10 V and an RS485 MODBUS RTU serial interface.

The modular design of this new EC motor generation also permits single-phase and 3-phase versions for lower output ranges.
The increased IP protection level provided by IP55 rounds off this range from a technical point of view and allows a broad spectrum of applications.

The catalog now also includes AxiTop versions of fan sizes 800 and 910, thus considerably raising the output range in both cases.

At the top end, fan size 1250 has been added to the standard range and an AxiTop version is also available.

This has further extended the output range, opening up yet more and new potential areas of application for our products.

Our “Product selector” design program now also contains the corresponding collections for this new standard range to help customers choose the ideal fan best suited to their application.

All the axial fans presented in the catalog surpass the higher minimum efficiency requirements stipulated in the ecodesign directive for fans which came into force in 2015.

The advantages at a glance:

- High efficiency thanks to HyBlade axial impellers and the new GreenTech EC motors
- Perfectly matched components (motor/electronics/impeller/peripherals)
- Minimal noise level thanks to HyBlade technology and optimized peripherals
- High power density
- Compact design
- EC fans with 2 speeds or infinitely variable control (fan size 200-450 mm)
- RS485 MODBUS serial interface throughout (fan size 400-1250 mm)
- Robust design and maintenance-free operation
- Extremely simple commissioning

Contents

Sustainable thought processes and actions. As a matter of principle!

Environmental compatibility and sustainability have always formed the basis for all our thought processes and actions. Which is why we have been dedicated for decades to the simple but firm principle of one of our company founders, Gerhard Sturm: “Every new product we develop must be economically and ecologically superior to its predecessor.” We use the name GreenTech to express our company philosophy.

GreenTech means looking ahead.

We optimize the materials and processes we employ right from the design stage to ensure optimum environmental compatibility, the best possible energy balance and – where feasible – maximum recyclability. We are constantly improving materials, performance and the flow and noise characteristics of our products, while at the same time significantly reducing energy consumption.

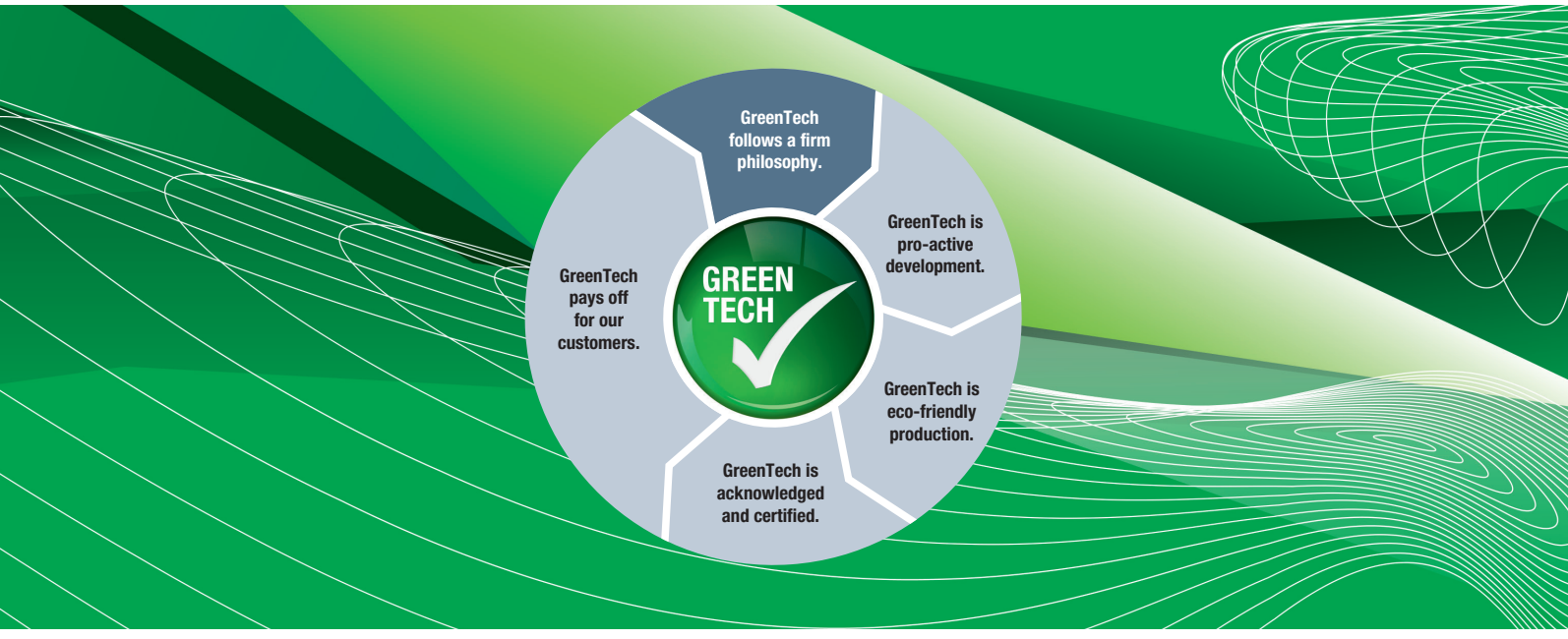
Close ties with universities and scientific institutes as well as a sponsored professorship in the field of power engineering and regenerative energies also allow us to benefit from the latest research results in these areas – as well as providing us with a reservoir of highly qualified young talent for the future.

GreenTech means environmentally compatible production.

GreenTech also stands for maximum energy efficiency in our production processes. Photovoltaics, the intelligent use of waste heat and groundwater cooling and of course our own cooling and ventilation technology all play a major role.

Energy consumption at our most modern plant is 91% lower than demanded by the applicable regulations for example.

In this way, our products make their contribution to environmental protection from the development stage right through to recycling of the packaging.



GreenTech is a recognized, award-winning concept.
Our entire production chain can stand up to critical scrutiny by environmental specialists and the public.
Confirmation of this came in the form of an award as Germany's most sustainable company in 2013 and the 2012 DEKRA Award in the category "Environment – The Challenge of Energy Transition" – to name just a few examples.
The ecological prowess of our products based on GreenTech principles is also verified by their compliance with even the most stringent energy and environmental standards.
In many cases they already more than satisfy limit values which will only come into force in a few years time.

GreenTech is a good investment for our customers.
At the heart of GreenTech is innovative EC technology from ebm-papst, which enables our best motors and fans to attain efficiency levels of up to 90%, achieves maximum energy savings, ensures a far longer service life and makes our products completely maintenance-free.
Figures that are not just good for the environment but also of 100% benefit to users! Because all ebm-papst products – even those for which GreenTech EC technology is not (yet) of relevance to the particular application – offer an ideal combination of economic and ecological advantages.

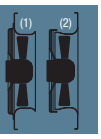
Product overview EC-HyBlade®

Ø	Motor	Nominal voltage range VAC	without attachments	with round full nozzle	Compact fan	with guard grille for short nozzle	with guard grille for short nozzle and top-mounted terminal box	Page ff.
200	M3G 055-BD	1~200-240	A3G 200-AD01 -01	W3G 200-CD01 -30	---	S3G 200-AD01 -30	S3G 200-AD01 -50	12
	M3G 055-BD	1~200-240	---	---	W3G 200-HD01 -01	---	---	
	M3G 055-BD	1~200-240	A3G 200-AD01 -03	W3G 200-CD01 -32	---	S3G 200-AD01 -32	S3G 200-AD01 -52	
	M3G 055-BD	1~200-240	---	---	W3G 200-HD01 -03	---	---	
250	M3G 055-CF	1~200-240	A3G 250-AH07 -01	W3G 250-CH07 -30	---	S3G 250-AH07 -30	S3G 250-AH07 -50	18
	M3G 055-CF	1~200-240	---	---	W3G 250-HH07 -01	---	---	
	M3G 055-CF	1~200-240	A3G 250-AH07 -03	W3G 250-CH07 -32	---	S3G 250-AH07 -32	S3G 250-AH07 -52	
	M3G 055-CF	1~200-240	---	---	W3G 250-HH07 -03	---	---	

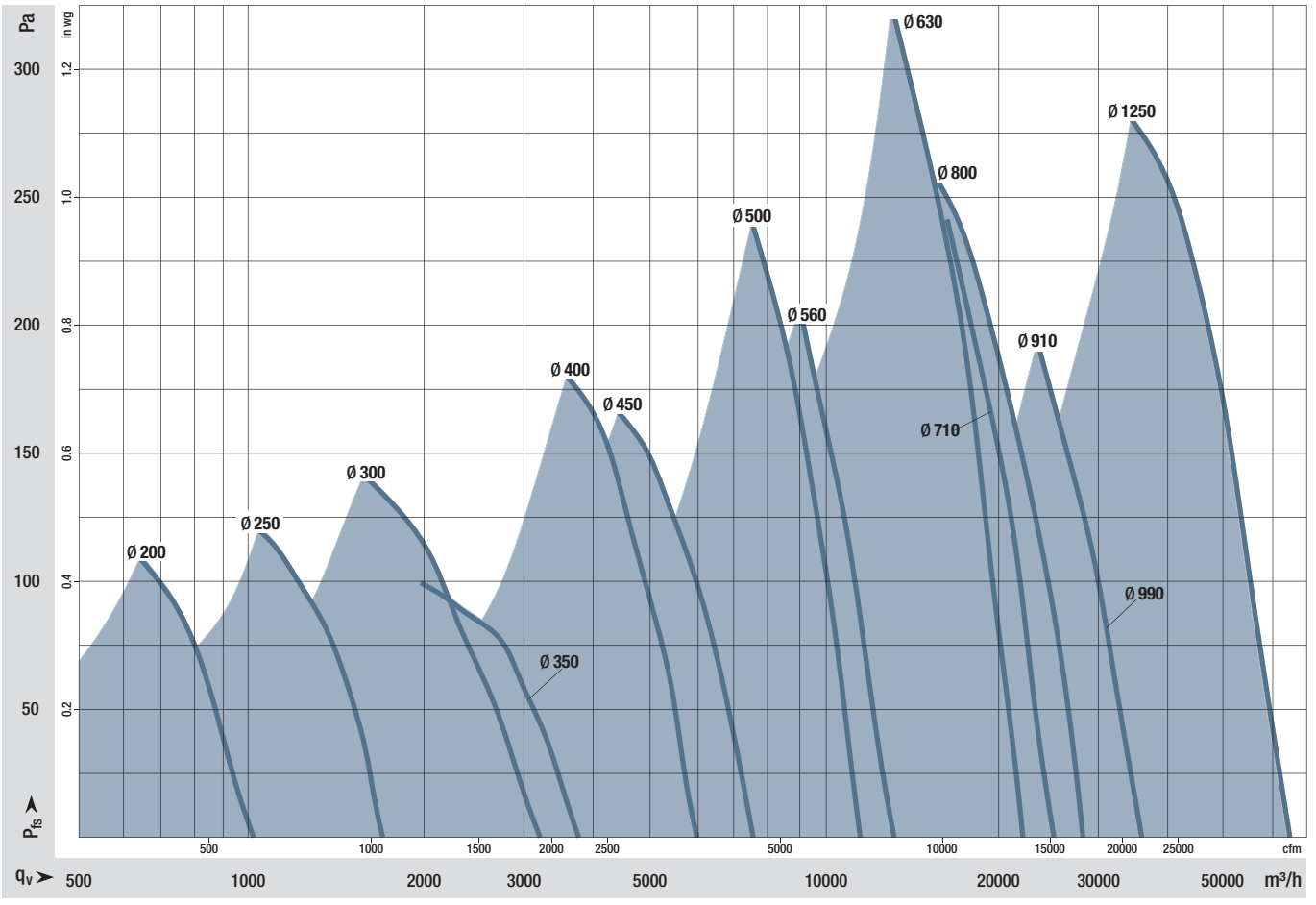
Ø	Motor	Nominal voltage range VAC	without attachments	with round full nozzle	with guard grille for short nozzle	with guard grille for short nozzle and top-mounted terminal box	Page ff.
300	M3G 055-CF	1~200-240	A3G 300-AK13 -01	W3G 300-CK13 -30	S3G 300-AK13 -30	S3G 300-AK13 -50	24
	M3G 055-DF	1~200-240	A3G 300-AL11 -01	W3G 300-CL11 -30	S3G 300-AL11 -30	S3G 300-AL11 -50	
	M3G 074-CF	1~200-240	A3G 300-AN02 -01	W3G 300-CN02 -30	S3G 300-AN02 -30	S3G 300-AN02 -50	
	M3G 055-CF	1~200-240	A3G 300-AK13 -03	W3G 300-CK13 -32	S3G 300-AK13 -32	S3G 300-AK13 -52	
	M3G 055-DF	1~200-240	A3G 300-AL11 -03	W3G 300-CL11 -32	S3G 300-AL11 -32	S3G 300-AL11 -52	
	M3G 074-CF	1~200-240	A3G 300-AN02 -03	W3G 300-CN02 -32	S3G 300-AN02 -32	S3G 300-AN02 -52	
350	M3G 055-DF	1~200-240	A3G 350-AG03 -01	W3G 350-CG03 -30	S3G 350-AG03 -30	S3G 350-AG03 -50	32
	M3G 074-CF	1~200-240	A3G 350-AN01 -01	W3G 350-CN01 -30	S3G 350-AN01 -30	S3G 350-AN01 -50	
	M3G 055-DF	1~200-240	A3G 350-AG03 -03	W3G 350-CG03 -32	S3G 350-AG03 -32	S3G 350-AG03 -52	
	M3G 074-CF	1~200-240	A3G 350-AN01 -03	W3G 350-CN01 -32	S3G 350-AN01 -32	S3G 350-AN01 -52	
400	M3G 074-CF	1~200-240	A3G 400-AN04 -01	W3G 400-CN04 -30	S3G 400-AN04 -30	S3G 400-AN04 -50	38
	M3G 074-CF	1~200-240	A3G 400-AN04 -03	W3G 400-CN04 -32	S3G 400-AN04 -32	S3G 400-AN04 -52	
450	M3G 074-DF	1~200-240	A3G 450-AO02 -01	W3G 450-CO02 -30	S3G 450-AO02 -30	S3G 450-AO02 -50	44
	M3G 074-DF	1~200-240	A3G 450-AO02 -03	W3G 450-CO02 -32	S3G 450-AO02 -32	S3G 450-AO02 -52	

Ø	Motor	Nominal voltage range VAC	without attachments	with square full nozzle	with guard grille for short nozzle	Page ff.
400	M3G 084-DF	1~200-277	A3G 400-BK08 -H1	W3G 400-FK08 -H1	S3G 400-LK08 -H1	38
	M3G 084-DF	3~380-480	A3G 400-BK11 -M1	W3G 400-FK11 -M1	S3G 400-LK11 -M1	
450	M3G 084-FA	1~200-277	A3G 450-BL03 -H1	W3G 450-FL03 -H1	S3G 450-LL03 -H1	44
	M3G 084-FA	3~380-480	A3G 450-BL07 -M1	W3G 450-FL07 -M1	S3G 450-LL07 -M1	

Data is subject to change without notice at ebm-papst discretion.

Ø	Motor	Nominal voltage range VAC	without attachments 	with round [1] / square [2] full nozzle 	with guard grille for short nozzle [3] / full nozzle [4] 	with round [1] / square [2] full nozzle and diffuser (AxiTop) 	Page ff.
500	M3G 084-DF	1~200-277	A3G 500-BK07 -G1	W3G 500-GK07 -G1 [2]	S3G 500-AK07 -G1 [3]	---	50
	M3G 084-GF	1~200-277	A3G 500-BM06 -H1	W3G 500-GM06 -H1 [2]	S3G 500-AM06 -H1 [3]	---	
	M3G 084-GF	3~380-480	A3G 500-BM03 -M1	W3G 500-GM03 -M1 [2]	S3G 500-AM03 -M1 [3]	---	
	M3G 112-EA	1~200-277	A3G 500-BA74 -21	W3G 500-GA74 -21 [2]	S3G 500-AA74 -21 [3]	---	
	M3G 112-GA	3~380-480	A3G 500-BD59 -01	W3G 500-GD59 -01 [2]	S3G 500-AD59 -01 [3]	---	
560	M3G 112-EA	1~200-277	A3G 560-BB78 -21	W3G 560-GB78 -21 [2]	S3G 560-AB78 -21 [3]	---	58
	M3G 112-IA	3~380-480	A3G 560-BH99 -01	W3G 560-GH99 -01 [2]	S3G 560-AH99 -01 [3]	---	
630	M3G 084-FA	1~200-277	A3G 630-BL06 -G1	W3G 630-GL06 -G1 [2]	S3G 630-AL06 -G1 [3]	---	62
	M3G 084-GF	1~200-277	A3G 630-BM07 -H1	W3G 630-GM07 -H1 [2]	S3G 630-AM07 -H1 [3]	---	
	M3G 112-GA	3~380-480	A3G 630-BE55 -51	W3G 630-GE55 -51 [2]	S3G 630-AE55 -51 [3]	---	
	M3G 112-GA	1~200-277	A3G 630-BE55 -21	W3G 630-GE55 -21 [2]	S3G 630-AE55 -21 [3]	---	
	M3G 112-IA	3~380-480	A3G 630-BG97 -01	W3G 630-GG97 -01 [2]	S3G 630-AG97 -01 [3]	---	
	M3G 150-IF	3~380-480	A3G 630-AU31 -71	W3G 630-GU31 -71 [2]	S3G 630-AU31 -71 [3]	---	
710	M3G 112-EA	1~200-277	A3G 710-BB77 -41	W3G 710-GB77 -41 [2]	S3G 710-AB77 -41 [3]	---	70
	M3G 112-EA	3~380-480	A3G 710-BB80 -51	W3G 710-GB80 -51 [2]	S3G 710-AB80 -51 [3]	---	
	M3G 112-GA	1~200-277	A3G 710-BD60 -31	W3G 710-GD60 -31 [2]	S3G 710-AD60 -31 [3]	---	
	M3G 112-IA	1~200-277	A3G 710-BG95 -21	W3G 710-GG95 -21 [2]	S3G 710-AG95 -21 [3]	---	
	M3G 112-IA	3~380-480	A3G 710-BG98 -01	W3G 710-GG98 -01 [2]	S3G 710-AG98 -01 [3]	---	
	M3G 150-IF	3~380-480	A3G 710-AU32 -71	W3G 710-GU32 -71 [2]	S3G 710-AU32 -71 [3]	---	
800	M3G 112-EA	1~200-277	A3G 800-BA77 -41	W3G 800-GA77 -41 [2]	S3G 800-BA77 -41 [4]	---	78
	M3G 112-GA	3~380-480	A3G 800-BA77 -51	W3G 800-GA77 -51 [2]	S3G 800-BA77 -51 [4]	---	
	M3G 112-EA	1~200-277	A3G 800-BD57 -31	W3G 800-GD57 -31 [2]	S3G 800-BD57 -31 [4]	---	
	M3G 112-IA	3~380-480	A3G 800-BG01 -51	W3G 800-GG01 -51 [2]	S3G 800-BG01 -51 [4]	---	
	M3G 112-IA	1~200-277	A3G 800-BG95 -21	W3G 800-GG95 -21 [2]	S3G 800-BG95 -21 [4]	---	
	M3G 112-IA	3~380-480	A3G 800-BG95 -01	W3G 800-GG95 -01 [2]	S3G 800-BG95 -01 [4]	W3G 800-HG95 -01 [2]	
	M3G 150-FF	3~380-480	A3G 800-AS26 -71	W3G 800-GS26 -71 [2]	S3G 800-BS26 -71 [4]	---	
	M3G 150-IF	3~380-480	A3G 800-AU23 -71	W3G 800-GU23 -71 [2]	S3G 800-BU23 -71 [4]	W3G 800-HU23 -71 [2]	
	M3G 150-NA	3~380-480	A3G 800-AV05 -71	W3G 800-GV05 -71 [2]	S3G 800-BV05 -71 [4]	W3G 800-HV05 -71 [2]	
910	M3G 112-EA	1~200-277	A3G 910-BA79 -41	W3G 910-GA79 -41 [2]	S3G 910-BA79 -41 [4]	---	94
	M3G 112-GA	1~200-277	A3G 910-BD61 -31	W3G 910-GD61 -31 [2]	S3G 910-BD61 -31 [4]	---	
	M3G 112-IA	1~200-277	A3G 910-BG02 -21	W3G 910-GG02 -21 [2]	S3G 910-BG02 -21 [4]	---	
	M3G 112-IA	3~380-480	A3G 910-BG02 -51	W3G 910-GG02 -51 [2]	S3G 910-BG02 -51 [4]	W3G 910-HG02 -51 [2]	
	M3G 150-FF	3~380-480	A3G 910-AS39 -71	W3G 910-GS39 -71 [2]	S3G 910-BS39 -71 [4]	---	
	M3G 150-IF	3~380-480	A3G 910-AU27 -71	W3G 910-GU27 -71 [2]	S3G 910-BU27 -71 [4]	W3G 910-HU27 -71 [2]	
	M3G 150-NA	3~380-480	A3G 910-AV12 -71	W3G 910-GV12 -71 [2]	S3G 910-BV12 -71 [4]	W3G 910-HV12 -71 [2]	
990	M3G 150-IF	3~380-480	A3G 990-AY22 -71	W3G 990-GY22 -71 [2]	S3G 990-BY22 -71 [4]	---	108
	M3G 150-NA	3~380-480	A3G 990-AZ01 -71	W3G 990-GZ01 -71 [2]	S3G 990-BZ01 -71 [4]	---	
1250	M3G 200-QA	3~380-480	---	W3G Z50-FF02 -01 [1]	---	W3G Z50-EF02 -01 [1]	112

Overview of curves EC-HyBlade®



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EC-HyBlade® in the Product Selector

To aid in selection of the right fan, ebm-papst provides the "Product Selector" software.

With this new program, you can use the operating point as a selection criterion for HyBlade fans.

If there is more than one fan in the specified power range, the displayed aerodynamic and acoustic data can be used to select and document the most suitable fan.

You can also have the life cycle costs calculated for the selected fans.

You can make your selection based on point of operation or type designation

Data sheets can be created in PDF format and show not only a fan's nominal data but also its performance data at the specified operating point together with the intake and outlet sound power levels over the octave band.

Just ask your contact at ebm-papst !

EC axial fans – HyBlade®

ErP2015 EXCEEDS THE NORM

EC axial fans – HyBlade®

Ø 200, including compact fan

- **Material:** Guard grille: Steel, coated with black plastic (RAL 9005)
  Fan housing: Sheet steel, galvanized and coated with black plastic (RAL 9005)
  Compact fan housing: Die-cast aluminum
  Blades: PP plastic
  Rotor: Thick-film passivated
  Electronics housing: Die-cast aluminum
- **Number of blades:** 7
- **Direction of rotation:** Counterclockwise viewed toward rotor
- **Degree of protection:** IP54(2)
- **Insulation class:** "B"
- **Installation position:** Any
- **Condensation drain holes:** None, open rotor
- **Mode:** Continuous operation (S1)
- **Mounting:** Maintenance-free ball bearings

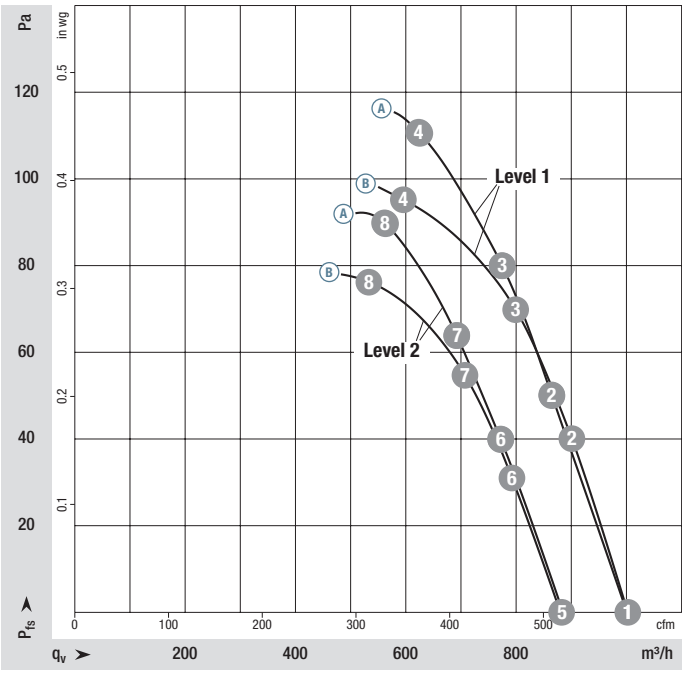
Nominal data

Type	Motor	Curve	Nominal voltage range	Frequency	Speed(1)	Max. input power(1)	Max. input current(1)	Max. back pressure	Perm. ambient temp.	2-speed / 0-10 V	Techn. features and connection diagram
			VAC	Hz	rpm	W	A	Pa	°C		
*3G 200 (2)	M3G 055-BD	A	1~200-240	50/60	2820	60	0,53	110	-25..+60	2 speed levels	P. 128 / H3)
*3G 200 (2)	M3G 055-BD	B	1~200-240	50/60	2900	54	0,55	96	-25..+60	2 speed levels	P. 128 / H3)
*3G 200 (2)	M3G 055-BD	C	1~200-240	50/60	2820	60	0,53	110	-25..+60	Open-loop speed control	P. 129 / H4)
*3G 200 (2)	M3G 055-BD	D	1~200-240	50/60	2900	54	0,55	96	-25..+60	Open-loop speed control	P. 129 / H4)

Subject to change

(1) Nominal data at operating point with maximum load and 230 VAC (2) Not suitable for constant outdoor use, special version available on request.

Curves:
2 speed levels



		n rpm	P_{ed} W	I A	L_{WA} dB(A)
A 1	Level 1	2985	50	0,46	64
A 2	Level 1	2875	55	0,50	64
A 3	Level 1	2830	57	0,52	66
A 4	Level 1	2820	60	0,53	72
A 5	Level 2	2650	36	0,37	61
A 6	Level 2	2575	40	0,40	61
A 7	Level 2	2540	41	0,42	63
A 8	Level 2	2535	42	0,42	68
B 1	Level 1	2970	50	0,49	65
B 2	Level 1	2885	55	0,53	64
B 3	Level 1	2825	58	0,56	65
B 4	Level 1	2900	54	0,55	71
B 5	Level 2	2645	36	0,37	62
B 6	Level 2	2575	39	0,40	61
B 7	Level 2	2525	42	0,42	62
B 8	Level 2	2510	42	0,43	68

Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection. Intake-side sound level: L_{WA} according to ISO 13347, L_{pA} measured at 1 m distance from fan axis. The values given are only applicable under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked in installed condition. See Page 136 ff for detailed information.

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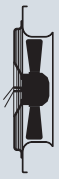
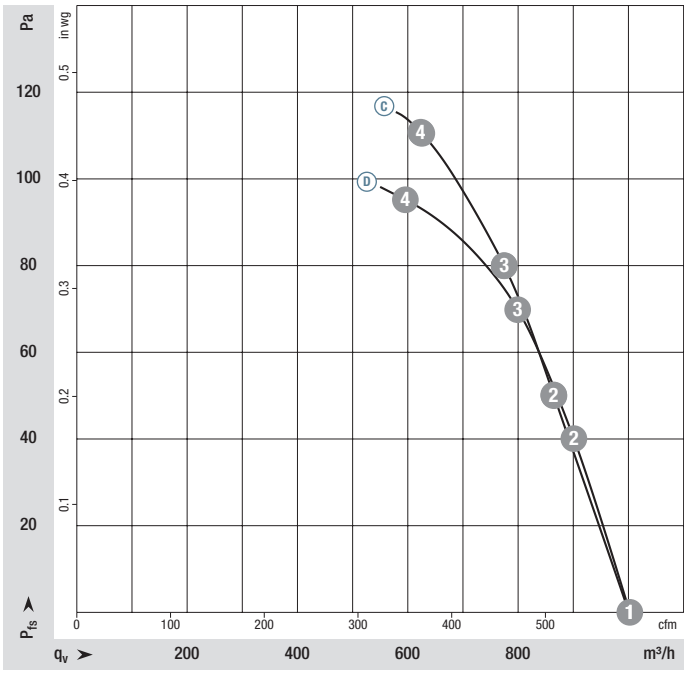
- **Technical features:** See connection diagram P. 128 f.
- **EMC:** Immunity to interference according to EN 61000-6-2 (industrial environment)
  Circuit feedback according to EN 61000-3-2/3
  Interference emission according to EN 61000-6-3 (household environment)
  Radio interference is to be checked in the complete unit.
- **Touch current:** <= 3,5 mA according to IEC 60990 (measuring circuit Fig. 4)
- **Cable exit:** Variable
- **Terminal box design:** electrical connection via terminal strip
- **Protection class:** I (with customer connection of protective earth)
- **Conformity with standards:** EN 60335-1, CE
- **Approvals:** VDE; cURus[3]

Airflow direction		Weight without attachments		Weight with round full nozzle		Weight with full nozzle		Weight with guard grille for short nozzle		Weight with guard grille for short nozzle and top-mounted terminal box
	❮ "V" without attach-ments-	kg	❮ "V" with round full nozzle	kg	❮ "V" Compact fan [4]	kg	❮ "V" with guard grille for short nozzle	kg	❮ "V" w. guard grille f. short noz-zle a. top-mount. term. box	kg
"V"	A3G 200-AD01 -01[3]	1,0	W3G 200-CD01 -30[3]	2,0	---	---	S3G 200-AD01 -30[3]	1,5	S3G 200-AD01 -50	1,6
"V"	---	---	---	---	W3G 200-HD01 -01	1,6	---	---	---	---
"V"	A3G 200-AD01 -03[3]	1,0	W3G 200-CD01 -32[3]	2,0	---	---	S3G 200-AD01 -32[3]	1,5	S3G 200-AD01 -52	1,6
"V"	---	---	---	---	W3G 200-HD01 -03[3]	1,6	---	---	---	---

Airflow direction "A" on request

(4) depending on installation and position

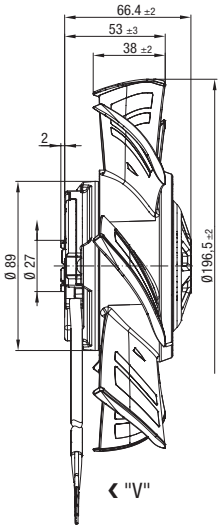
Curves: Open-loop speed control

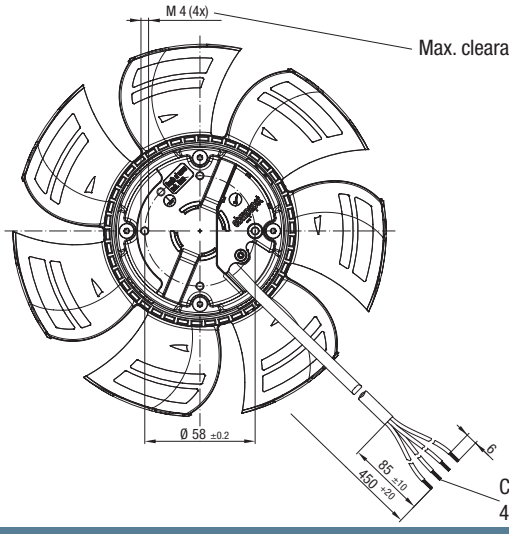


		n rpm	P_{ed} W	I A	L_{WA} dB(A)
C	1	2985	50	0,46	64
C	2	2875	55	0,50	64
C	3	2830	57	0,52	66
C	4	2820	60	0,53	72
D	1	2970	50	0,49	65
D	2	2885	55	0,53	64
D	3	2825	58	0,56	65
D	4	2900	54	0,55	71

Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection. Intake-side sound level: Lw_A according to ISO 13347, Lp_A measured at 1 m distance from fan axis. The values given are only applicable under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked in installed condition. See Page 136 ff for detailed information.

A3G 200-AD01-01 (without attachments, airflow direction "V")

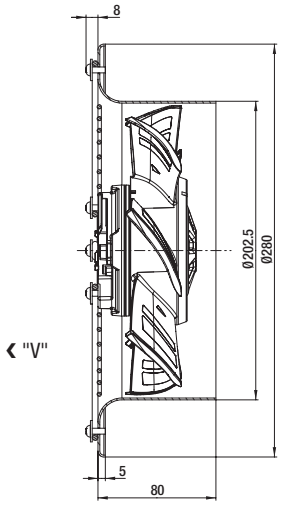


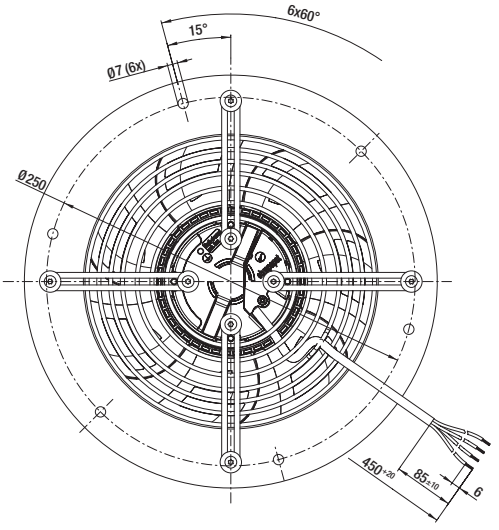


Inside diameter of fan housing min. 200 mm

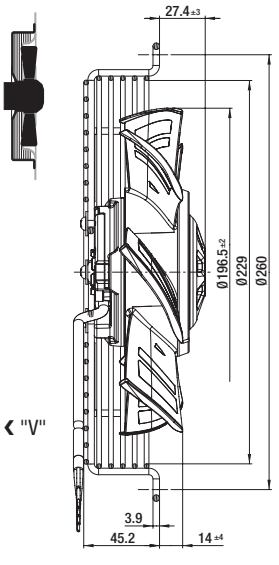
Cable PVC 4G 0.5 mm^2, 4x crimped splices

W3G 200-CD01-30 (with round full nozzle, airflow direction "V")

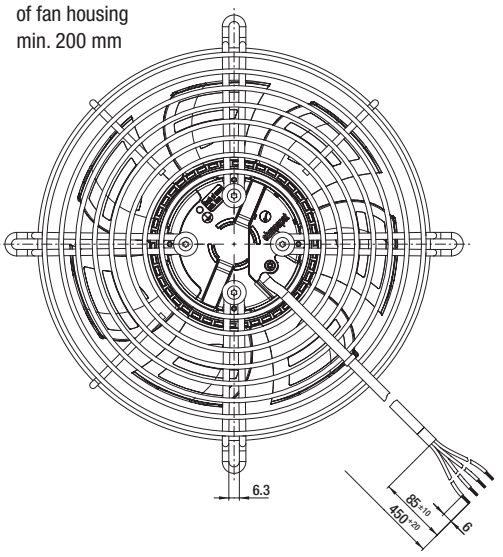




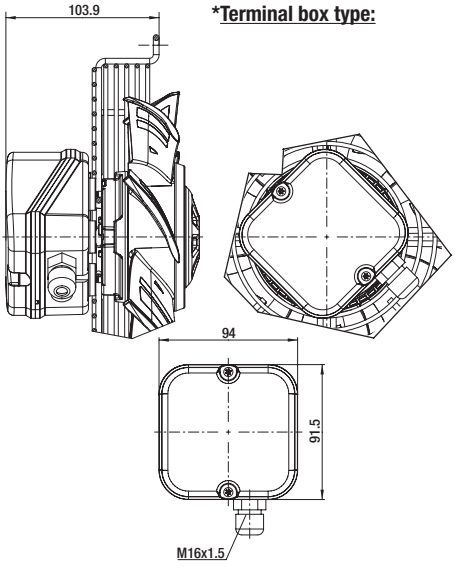
S3G 200-AD01-30 / S3G 200-AD01-50* (with guard grille for short nozzle, airflow direction "V")



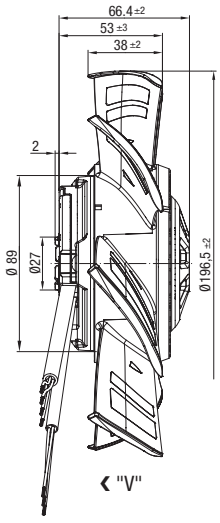
Inside diameter of fan housing min. 200 mm

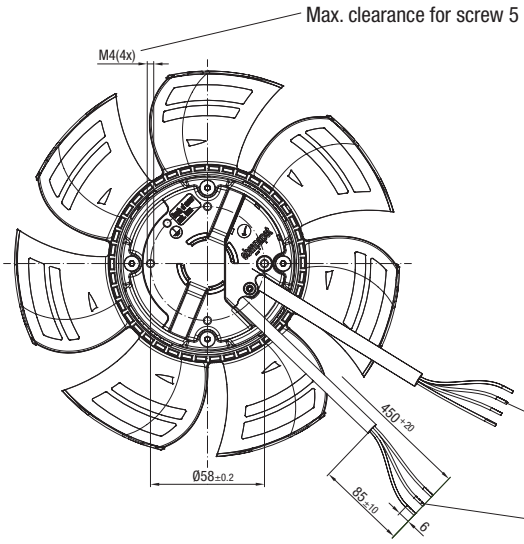


***Terminal box type:**



A3G 200-AD01-03 (without attachments, airflow direction "V")



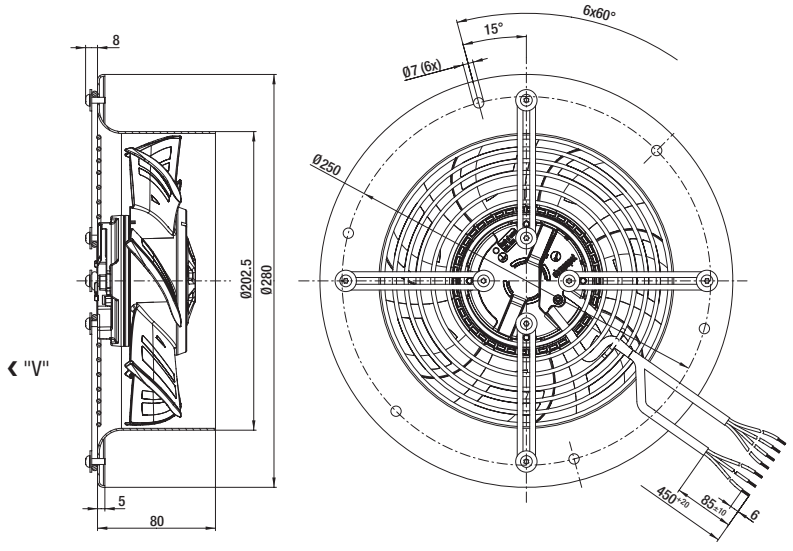


Inside diameter of fan housing min. 200 mm

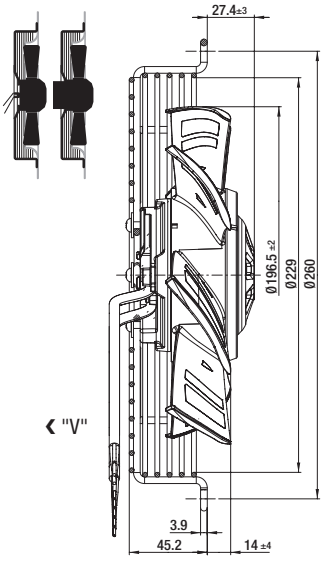
Cable PVC 4X AWG22, 4x crimped splices

Cable PVC 3G AWG20, 3x crimped splices

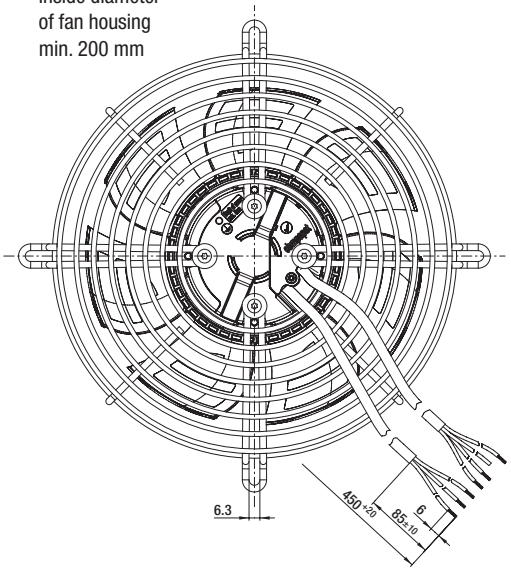
W3G 200-CD01-32 (with round full nozzle, airflow direction "V")



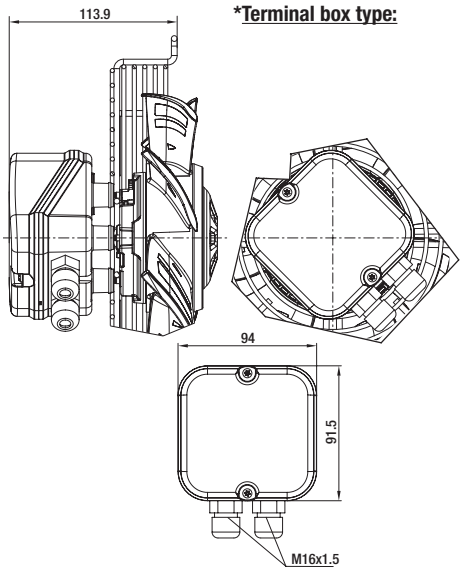
S3G 200-AD01-32 / S3G 200-AD01-52* (with guard grille for short nozzle, airflow direction "V")



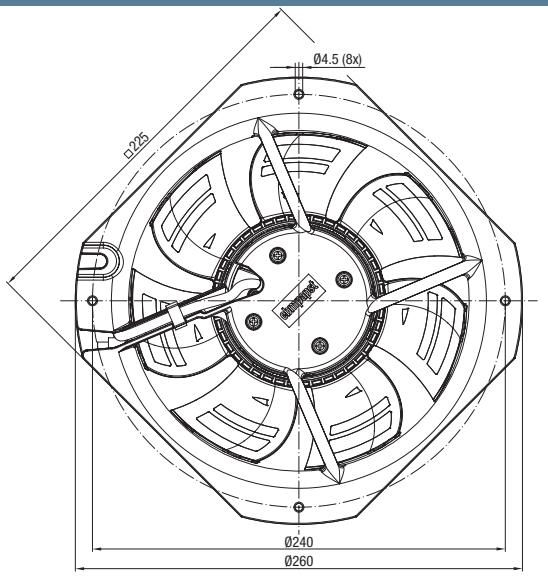
Inside diameter of fan housing min. 200 mm

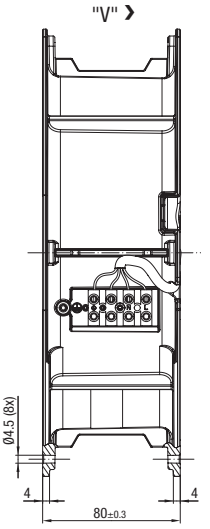


***Terminal box type:**

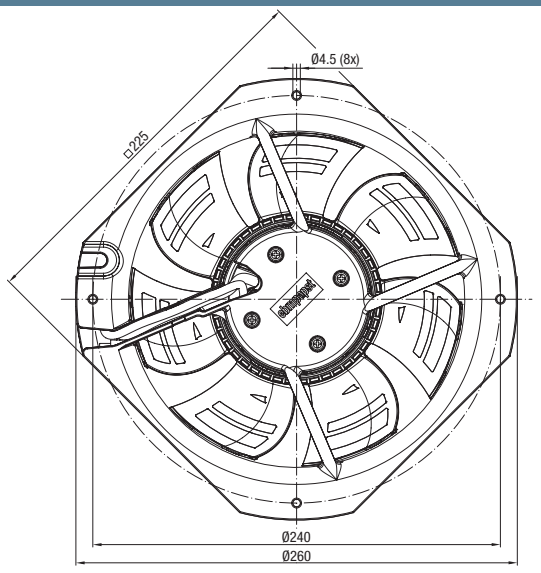


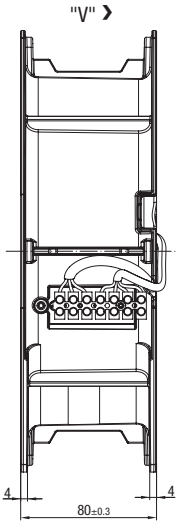
W3G 200-HD01-01 Compact fan (with full nozzle, airflow direction "V")





W3G 200-HD01-03 Compact fan (with full nozzle, airflow direction "V")





ErP2015 EXCEEDS THE NORM

EC axial fans – HyBlade®

Ø 250, including compact fan

- **Material:** Guard grille: Steel, coated with black plastic (RAL 9005)
  Fan housing: Sheet steel, galvanized and coated with black plastic (RAL 9005)
  Compact fan housing: Die-cast aluminum
  Blades: PP plastic
  Rotor: Thick-film passivated
  Electronics housing: Die-cast aluminum
- **Number of blades:** 7
- **Direction of rotation:** Counterclockwise viewed toward rotor
- **Degree of protection:** IP54(2)
- **Insulation class:** "B"
- **Installation position:** Any
- **Condensation drain holes:** None, open rotor
- **Mode:** Continuous operation (S1)
- **Mounting:** Maintenance-free ball bearings

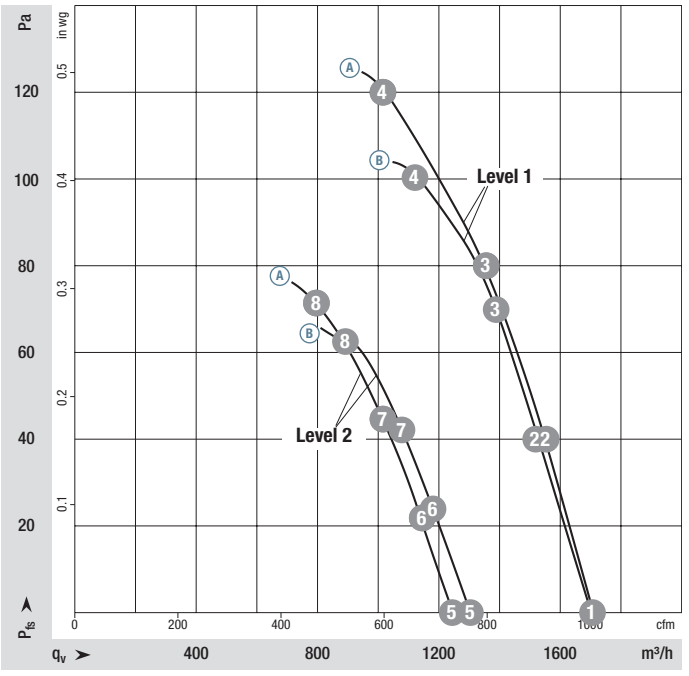
Nominal data

Type	Motor	Curve	Nominal voltage range	Frequency	Speed(1)	Max. input power(1)	Max. input current(1)	Max. back pressure	Perm. ambient temp.	2-speed / 0-10 V	Techn. features and connection diagram
			VAC	Hz	rpm	W	A	Pa	°C		
*3G 250 (2)	M3G 055-CF	A	1~200-240	50/60	2330	83	0,72	120	-25..+60	2 speed levels	P. 128 / H3)
*3G 250 (2)	M3G 055-CF	B	1~200-240	50/60	2330	83	0,72	100	-25..+60	2 speed levels	P. 128 / H3)
*3G 250 (2)	M3G 055-CF	C	1~200-240	50/60	2330	83	0,72	120	-25..+60	Open-loop speed control	P. 129 / H4)
*3G 250 (2)	M3G 055-CF	D	1~200-240	50/60	2330	83	0,72	100	-25..+60	Open-loop speed control	P. 129 / H4)

Subject to change

(1) Nominal data at operating point with maximum load and 230 VAC (2) Not suitable for constant outdoor use, special version available on request.

Curves: 2 speed levels



	n rpm	Ped W	I A	LWA dB(A)
A 1 Level 1	2480	70	0,63	71
A 2 Level 1	2425	79	0,67	70
A 3 Level 1	2385	84	0,71	71
A 4 Level 1	2330	83	0,72	74
A 5 Level 2	1860	30	0,30	62
A 6 Level 2	1840	33	0,32	63
A 7 Level 2	1820	36	0,35	63
A 8 Level 2	1805	39	0,37	67
B 1 Level 1	2465	67	0,59	69
B 2 Level 1	2410	75	0,65	69
B 3 Level 1	2375	81	0,68	68
B 4 Level 1	2330	83	0,72	69
B 5 Level 2	1930	32	0,32	61
B 6 Level 2	1910	36	0,34	61
B 7 Level 2	1890	39	0,37	61
B 8 Level 2	1865	41	0,41	63

Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection. Intake-side sound level: Lw_A according to ISO 13347, Lp_A measured at 1 m distance from fan axis. The values given are only applicable under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked in installed condition. See Page 136 ff for detailed information.

ebmpapst

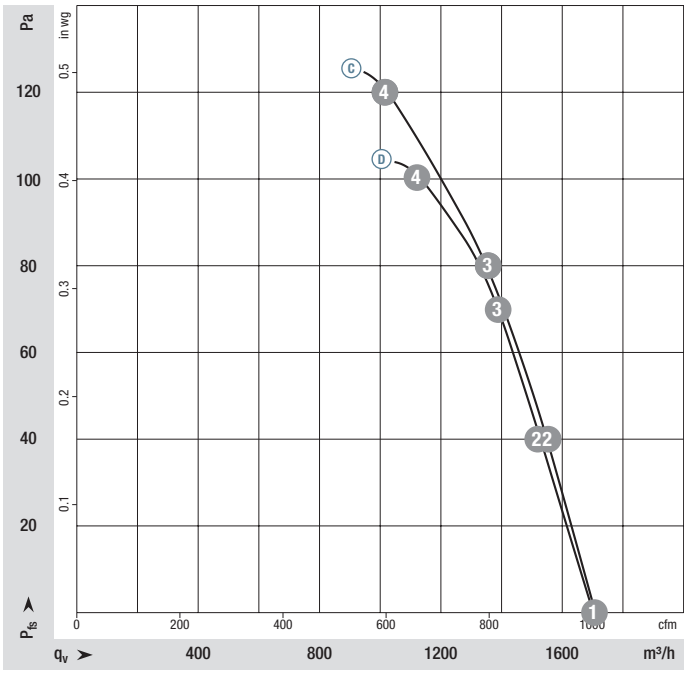
- **Technical features:** See connection diagram P. 128 f.
- **EMC:** Immunity to interference according to EN 61000-6-2 (industrial environment)
  Circuit feedback according to EN 61000-3-2/3
  Interference emission according to EN 61000-6-4 (industrial environment)
  Radio interference is to be checked in the complete unit.
- **Touch current:** <= 3,5 mA according to IEC 60990 (measuring circuit Fig. 4)
- **Cable exit:** Variable
- **Terminal box design:** electrical connection via terminal strip
- **Protection class:** I (with customer connection of protective earth)
- **Conformity with standards:** EN 60335-1, CE
- **Approvals:** VDE; cURus[3]

Airflow direction	❮ "V" without attachments	kg	❮ "V" with round full nozzle	kg	❮ "V" Compact fan [4]	kg	❮ "V" with guard grille for short nozzle	kg	❮ "V" w. guard grille f. short nozzle a. top-mount. term. box	kg
"V"	A3G 250-AH07 -01[3]	1,3	W3G 250-CH07 -30[3]	2,6	---	---	S3G 250-AH07 -30[3]	2,0	S3G 250-AH07 -50	2,1
"V"	---	---	---	---	W3G 250-HH07 -01	2,1	---	---	---	---
"V"	A3G 250-AH07 -03[3]	1,3	W3G 250-CH07 -32[3]	2,6	---	---	S3G 250-AH07 -32[3]	2,0	S3G 250-AH07 -52	2,1
"V"	---	---	---	---	W3G 250-HH07 -03[3]	2,1	---	---	---	---

Airflow direction "A" on request

(4) depending on installation and position

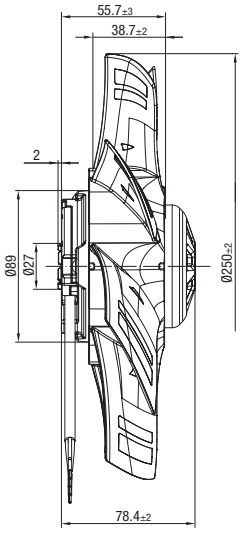
Curves: Open-loop speed control

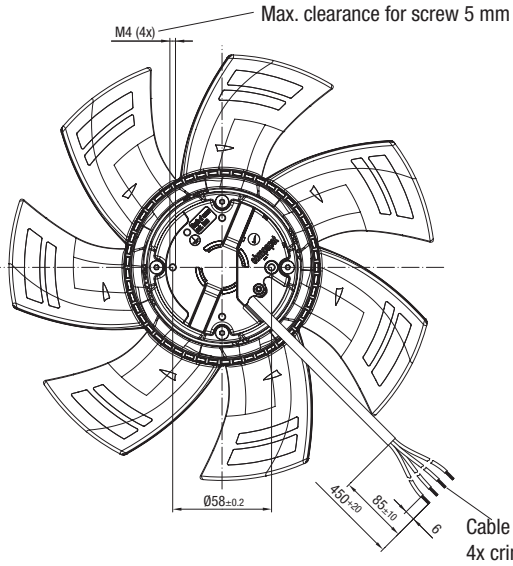


		n rpm	P_{ed} W	I A	L_{WA} dB(A)
C	1	2480	70	0,63	71
C	2	2425	79	0,67	70
C	3	2385	84	0,71	71
C	4	2330	83	0,72	74
D	1	2465	67	0,59	69
D	2	2410	75	0,65	69
D	3	2375	81	0,68	68
D	4	2330	83	0,72	69

Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection. Intake-side sound level: Lw_A according to ISO 13347, Lp_A measured at 1 m distance from fan axis. The values given are only applicable under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked in installed condition. See Page 136 ff for detailed information.

A3G 250-AH07-01 (without attachments, airflow direction "V")

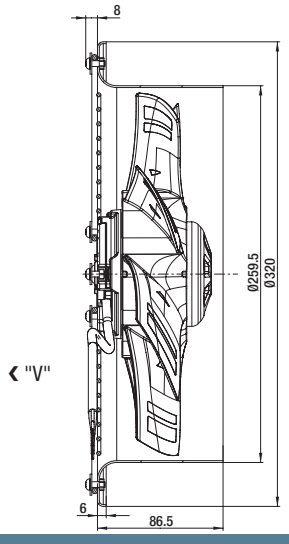


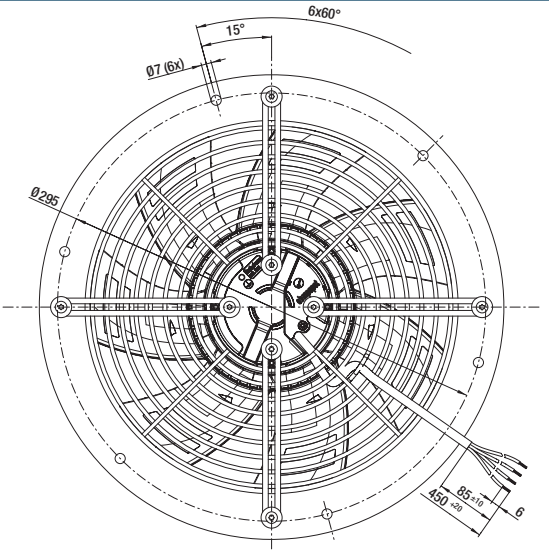


Inside diameter of fan housing min. 257 mm

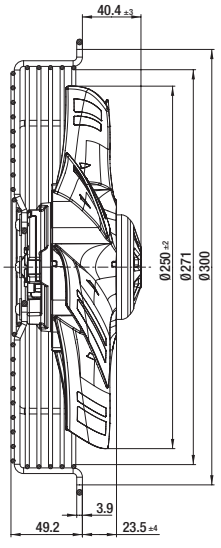
Cable PVC 4G 0.5 mm², 4x crimped splices

W3G 250-CH07-30 (with round full nozzle, airflow direction "V")

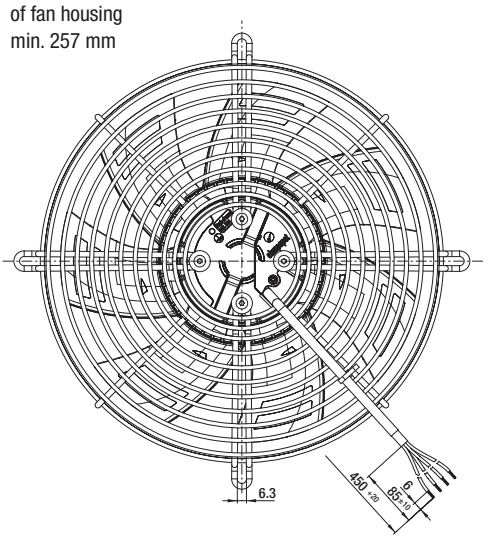




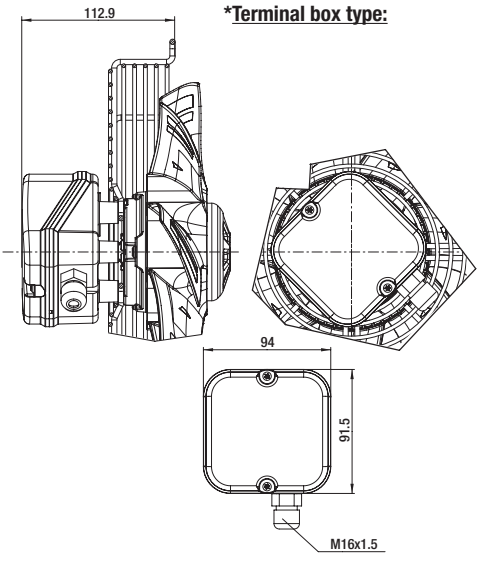
S3G 250-AH07-30 / S3G 250-AH07-50* (with guard grille for short nozzle, airflow direction "V")



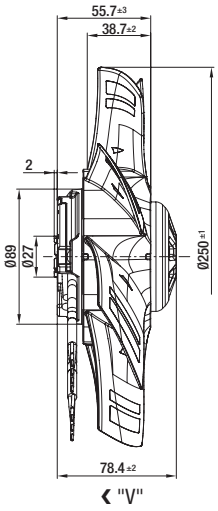
Inside diameter of fan housing min. 257 mm

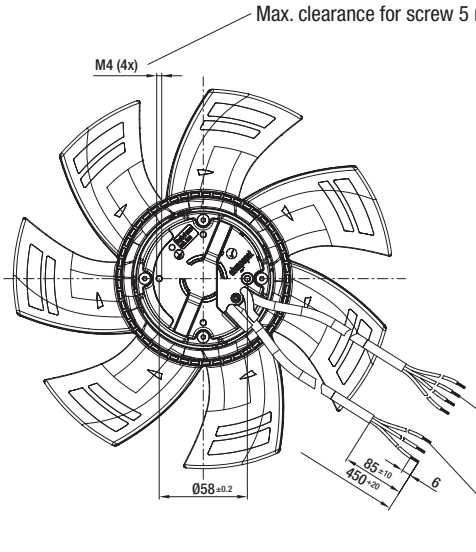


***Terminal box type:**



A3G 250-AH07-03 (without attachments, airflow direction "V")



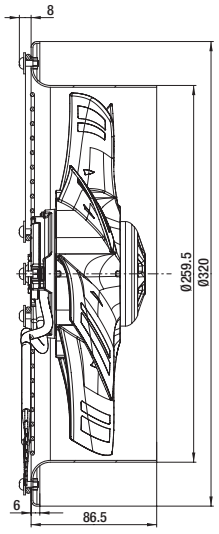


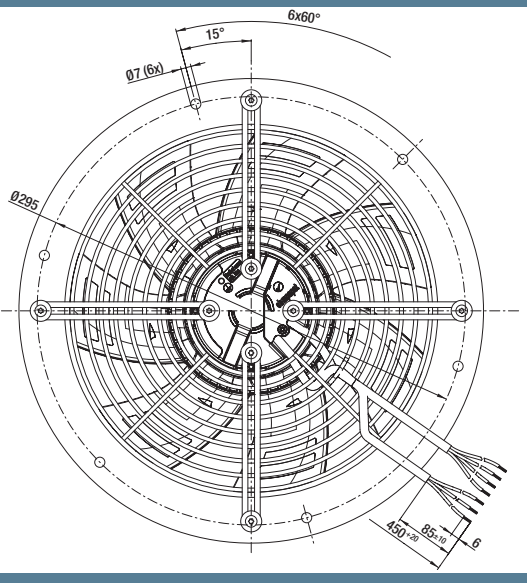
Inside diameter of fan housing min. 257 mm

Cable PVC 4X AWG22, 4x crimped splices

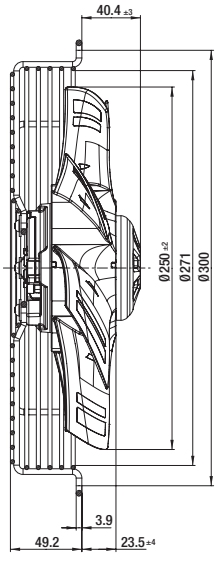
Cable PVC 3G AWG20, 3x crimped splices

W3G 250-CH07-32 (with round full nozzle, airflow direction "V")

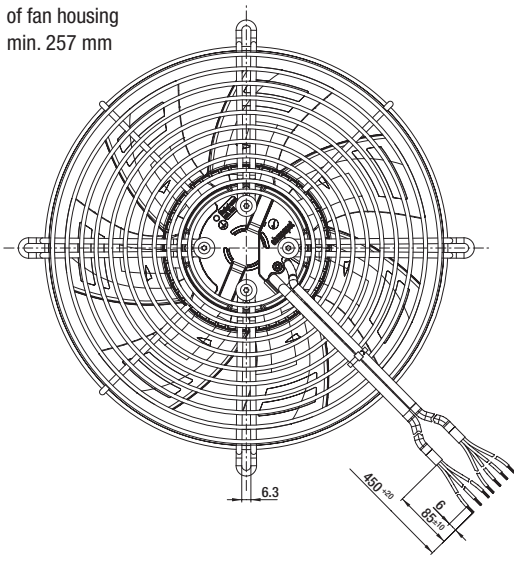


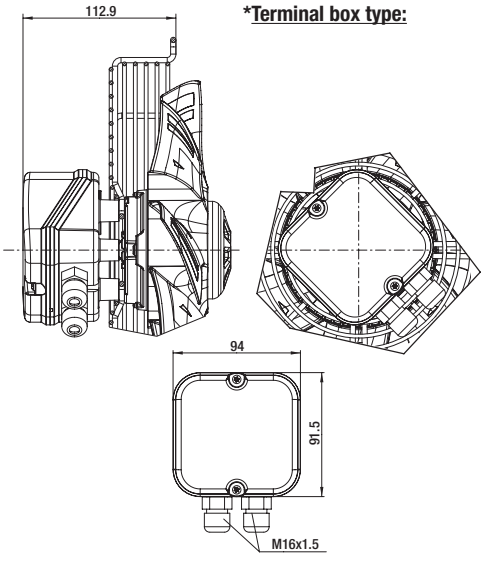


S3G 250-AH07-32 / S3G 250-AH07-52* (with guard grille for short nozzle, airflow direction "V")



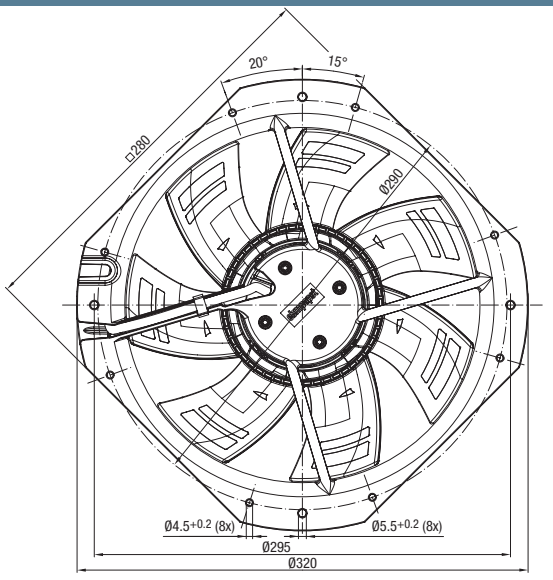
Inside diameter of fan housing min. 257 mm

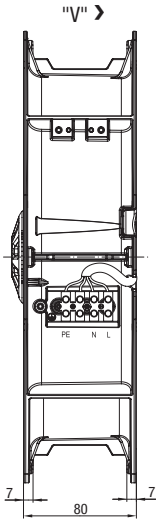




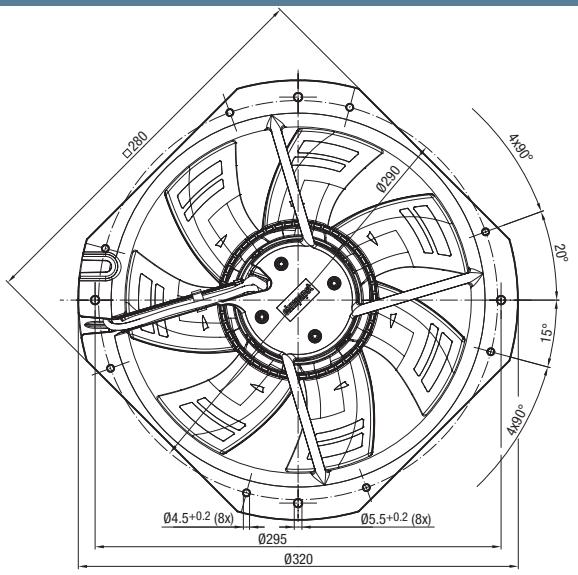
***Terminal box type:**

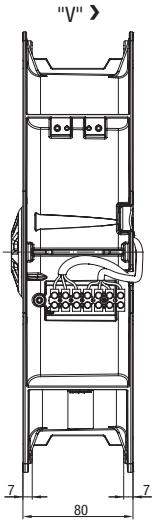
W3G 250-HH07-01 Compact fan (with full nozzle, airflow direction "V")





W3G 250-HH07-03 Compact fan (with full nozzle, airflow direction "V")





ErP2015 EXCEEDS THE NORM

EC axial fans – HyBlade®

Ø 300

- **Material:** Guard grille: Steel, coated with black plastic (RAL 9005)
  Fan housing: Sheet steel, galvanized and coated with black plastic (RAL 9005)
  Blades: PP plastic
  Rotor: Thick-film passivated
  Electronics housing: Die-cast aluminum
- **Number of blades:** 5
- **Direction of rotation:** Counterclockwise viewed toward rotor
- **Degree of protection:** IP54(2)
- **Insulation class:** "B"
- **Installation position:** Any
- **Condensation drain holes:** None, open rotor
- **Mode:** Continuous operation (S1)
- **Mounting:** Maintenance-free ball bearings

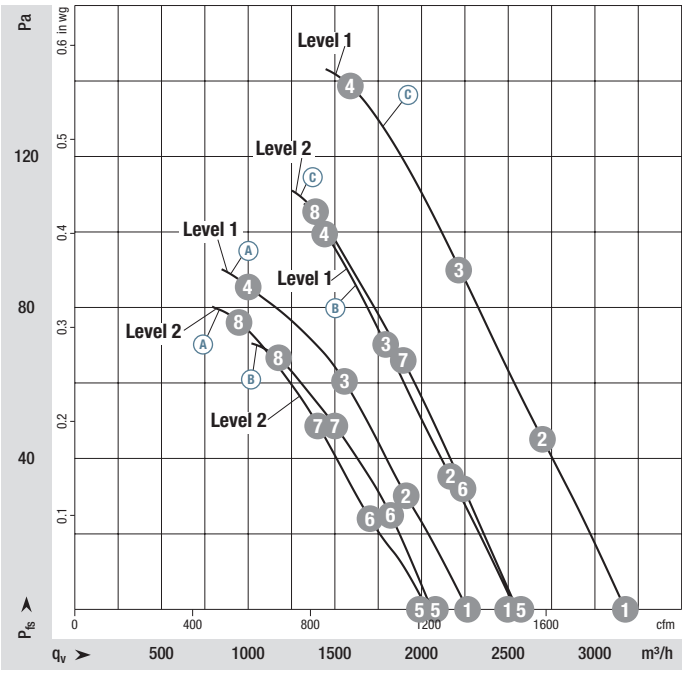
Nominal data

Type	Motor	Curve	Nominal voltage range	Frequency	Speed(1)	Max. input power(1)	Max. input current(1)	Max. back pressure	Perm. ambient temp.	2-speed / 0-10 V	Techn. features and connection diagram
			VAC	Hz	rpm	W	A	Pa	°C		
*3G 300 (2)	M3G 055-CF	A	1~200-240	50/60	1500	85	0,80	85	-25..+60	2 speed levels	P. 128 / H3)
*3G 300 (2)	M3G 055-DF	B	1~200-240	50/60	1750	120	1,00	100	-25..+40	2 speed levels	P. 128 / H3)
*3G 300 (2)	M3G 074-CF	C	1~200-240	50/60	2020	170	1,35	140	-25..+60	2 speed levels	P. 128 / H3)
*3G 300 (2)	M3G 055-CF	D	1~200-240	50/60	1500	85	0,80	85	-25..+60	Open-loop speed control	P. 129 / H4)
*3G 300 (2)	M3G 055-DF	E	1~200-240	50/60	1560	97	0,80	89	-25..+60	Open-loop speed control	P. 129 / H4)
*3G 300 (2)	M3G 074-CF	F	1~200-240	50/60	2020	170	1,35	140	-25..+60	Open-loop speed control	P. 129 / H4)

Subject to change

(1) Nominal data at operating point with maximum load and 230 VAC (2) Not suitable for constant outdoor use, special version available on request.

Curves:
2 speed levels



		n rpm	P_{ed} W	I A	L_{WA} dB(A)
A 1	Level 1	1650	72	0,63	63
A 2	Level 1	1595	79	0,67	63
A 3	Level 1	1560	85	0,80	62
A 4	Level 1	1500	85	0,80	67
A 5	Level 2	1485	52	0,48	60
A 6	Level 2	1435	57	0,52	60
A 7	Level 2	1405	60	0,54	60
A 8	Level 2	1350	66	0,60	65
B 1	Level 1	1820	96	0,86	68
B 2	Level 1	1775	105	0,94	67
B 3	Level 1	1745	112	0,98	67
B 4	Level 1	1750	120	1,00	68
B 5	Level 2	1430	45	0,44	62
B 6	Level 2	1415	51	0,51	63
B 7	Level 2	1395	57	0,55	63
B 8	Level 2	1370	60	0,57	63
C 1	Level 1	2390	170	1,30	71
C 2	Level 1	2245	170	1,35	71
C 3	Level 1	2135	170	1,35	69
C 4	Level 1	2020	170	1,35	69
C 5	Level 2	1910	88	0,75	66
C 6	Level 2	1865	98	0,81	66
C 7	Level 2	1830	105	0,86	65
C 8	Level 2	1780	114	0,93	66

Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection. Intake-side sound level: L_{WA} according to ISO 13347, L_{pA} measured at 1 m distance from fan axis. The values given are only applicable under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked in installed condition. See Page 136 ff for detailed information.

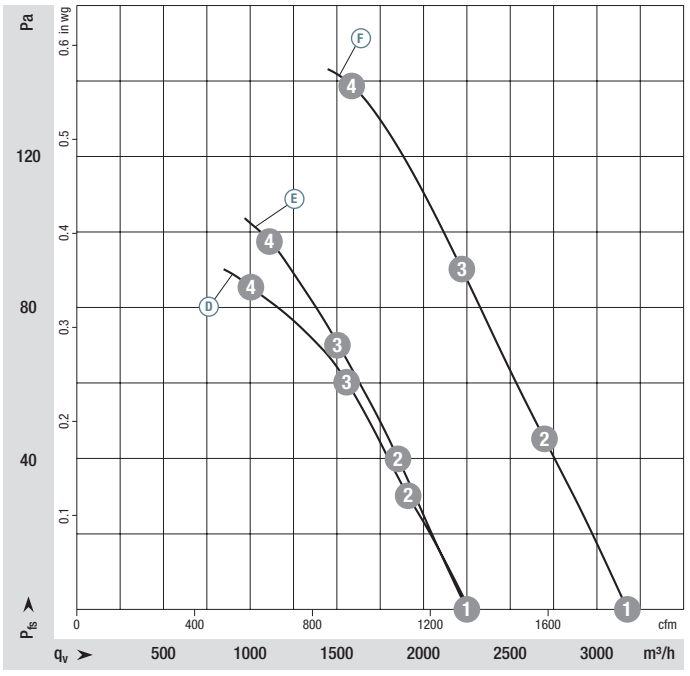
ebmpapst

- **Technical features:** See connection diagram P. 128 f.
- **EMC:** Immunity to interference according to EN 61000-6-2 (industrial environment)
  Circuit feedback up to total power ≤ 130 W according to EN 61000-3-2/3
  Interference emission according to EN 61000-6-4 (industrial environment)
  Radio interference is to be checked in the complete unit.
- **Touch current:** <= 3,5 mA according to IEC 60990 (measuring circuit Fig. 4)
- **Cable exit:** Variable
- **Terminal box design:** electrical connection via terminal strip
- **Protection class:** I (with customer connection of protective earth)
- **Conformity with standards:** EN 60335-1, CE
- **Approvals:** VDE; cURus[3]

Airflow direction	❮ "V" without attach-ments-	Weight without attachments kg	❮ "V" with round full nozzle	Weight with round full nozzle kg	❮ "V" with guard grille for short nozzle	Weight with guard grille for short nozzle kg	❮ "V" with guard grille for short nozzle and top-mounted terminal box	Weight with guard grille for short nozzle and top-mounted terminal box kg
"V"	A3G 300-AK13 -01[3]	1,40	W3G 300-CK13 -30[3]	3,40	S3G 300-AK13 -30[3]	2,40	S3G 300-AK13 -50	2,50
"V"	A3G 300-AL11 -01[3]	1,60	W3G 300-CL11 -30[3]	3,60	S3G 300-AL11 -30[3]	2,70	S3G 300-AL11 -50	2,80
"V"	A3G 300-AN02 -01	2,00	W3G 300-CN02 -30	4,00	S3G 300-AN02 -30	2,95	S3G 300-AN02 -50	3,10
"V"	A3G 300-AK13 -03[3]	1,40	W3G 300-CK13 -32[3]	3,40	S3G 300-AK13 -32[3]	2,40	S3G 300-AK13 -52	2,50
"V"	A3G 300-AL11 -03[3]	1,60	W3G 300-CL11 -32[3]	3,60	S3G 300-AL11 -32[3]	2,70	S3G 300-AL11 -52	2,80
"V"	A3G 300-AN02 -03[3]	2,00	W3G 300-CN02 -32[3]	4,00	S3G 300-AN02 -32[3]	2,95	S3G 300-AN02 -52	3,10

Airflow direction "A" on request

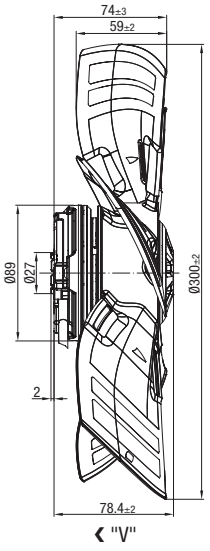
Curves: Open-loop speed control

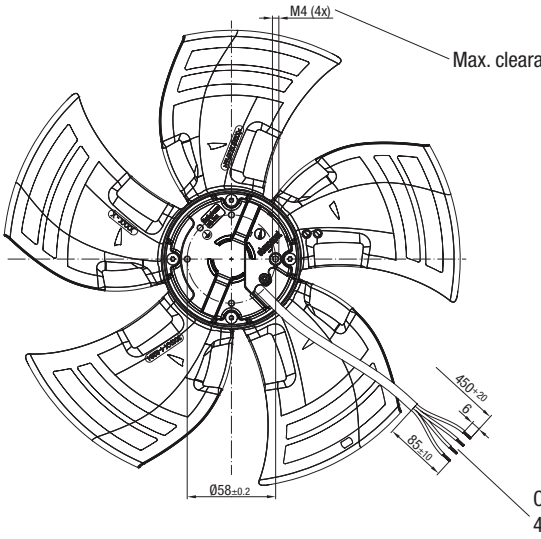


		n rpm	P_{ed} W	I A	L_WA dB(A)
D	1	1650	72	0,63	63
D	2	1595	79	0,67	63
D	3	1560	85	0,80	62
D	4	1500	85	0,80	67
E	1	1665	73	0,64	68
E	2	1630	82	0,71	67
E	3	1605	87	0,75	67
E	4	1560	97	0,80	68
F	1	2390	170	1,30	71
F	2	2245	170	1,35	71
F	3	2135	170	1,35	69
F	4	2020	170	1,35	69

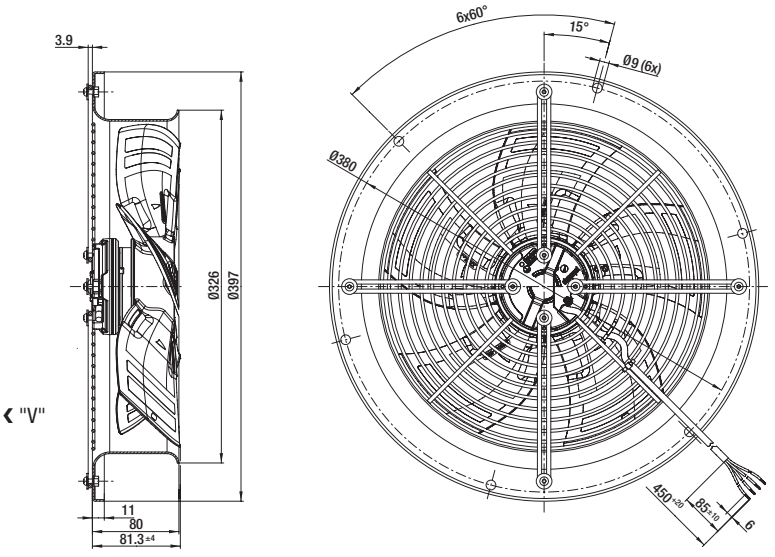
Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection. Intake-side sound level: Lw_A according to ISO 13347, Lp_A measured at 1 m distance from fan axis. The values given are only applicable under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked in installed condition. See Page 136 ff for detailed information.

A3G 300-AK13-01 (without attachments, airflow direction "V")

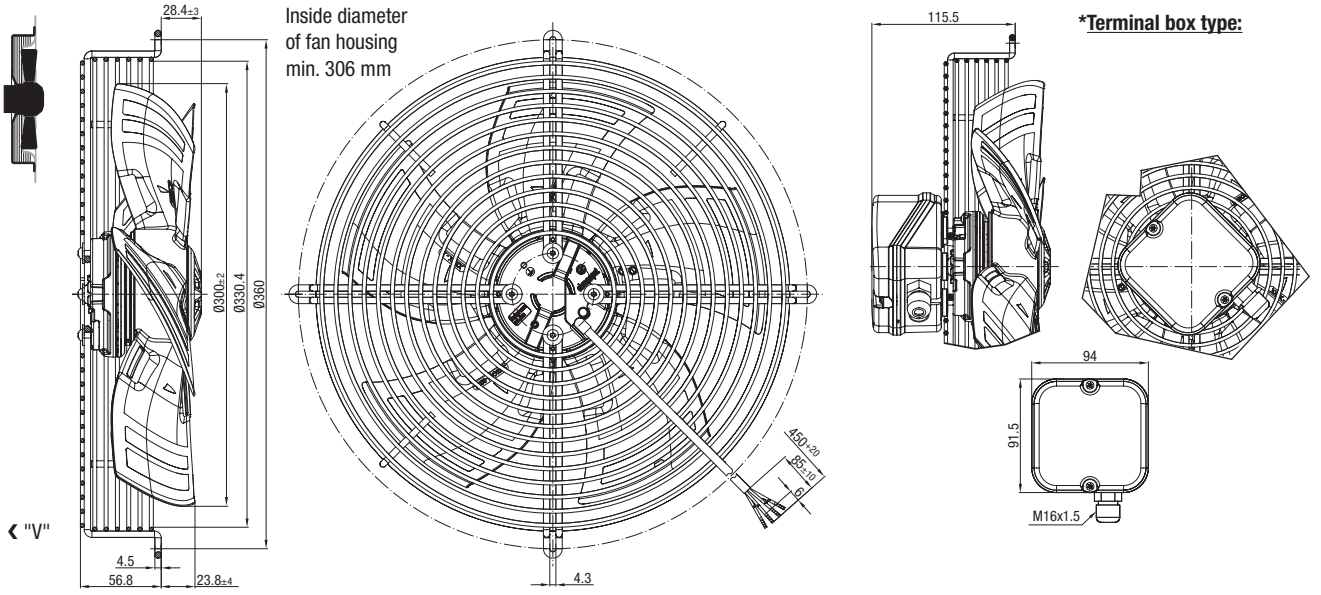




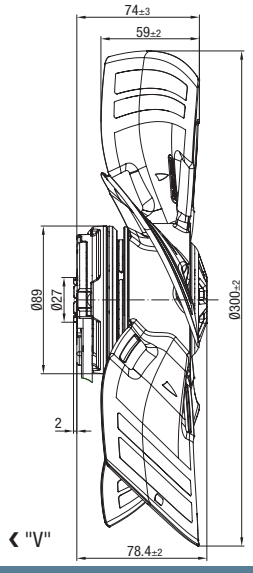
W3G 300-CK13-30 (with round full nozzle, airflow direction "V")

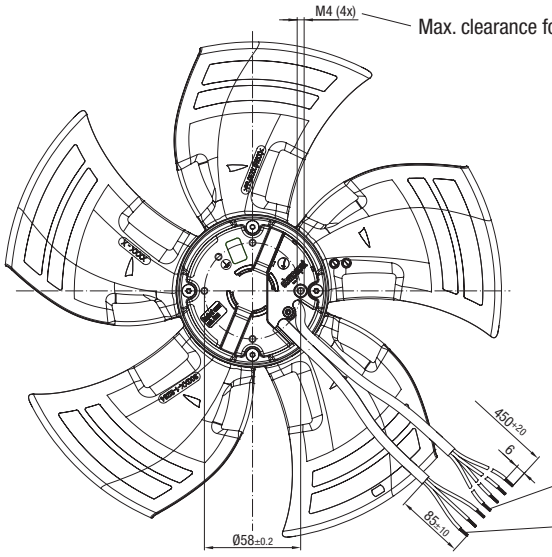


S3G 300-AK13-30 / S3G 300-AK13-50* (with guard grille for short nozzle, airflow direction "V")

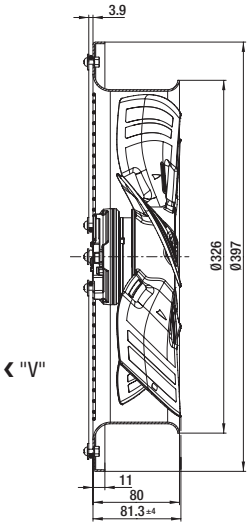


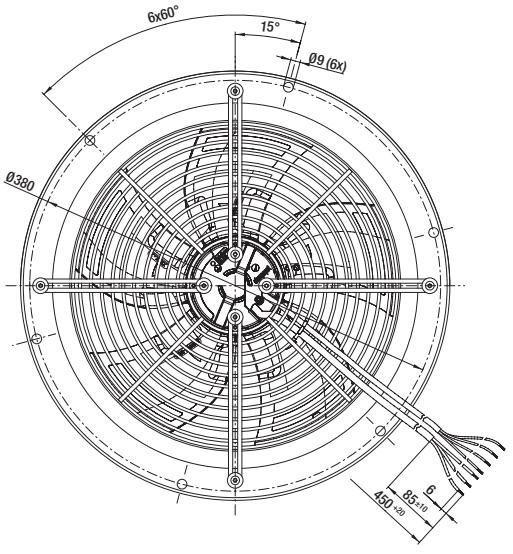
A3G 300-AK13-03 (without attachments, airflow direction "V")



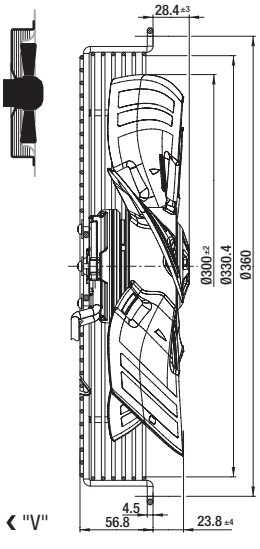


W3G 300-CK13-32 (with round full nozzle, airflow direction "V")

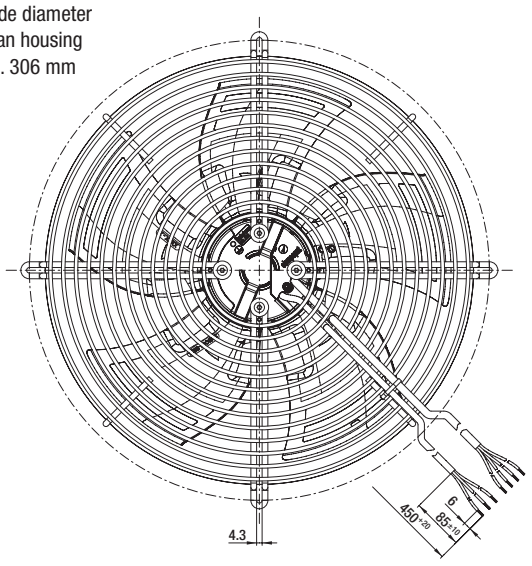




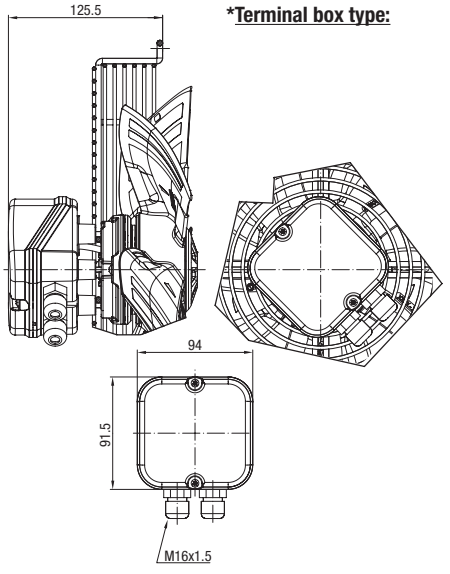
S3G 300-AK13-32 / S3G 300-AK13-52* (with guard grille for short nozzle, airflow direction "V")



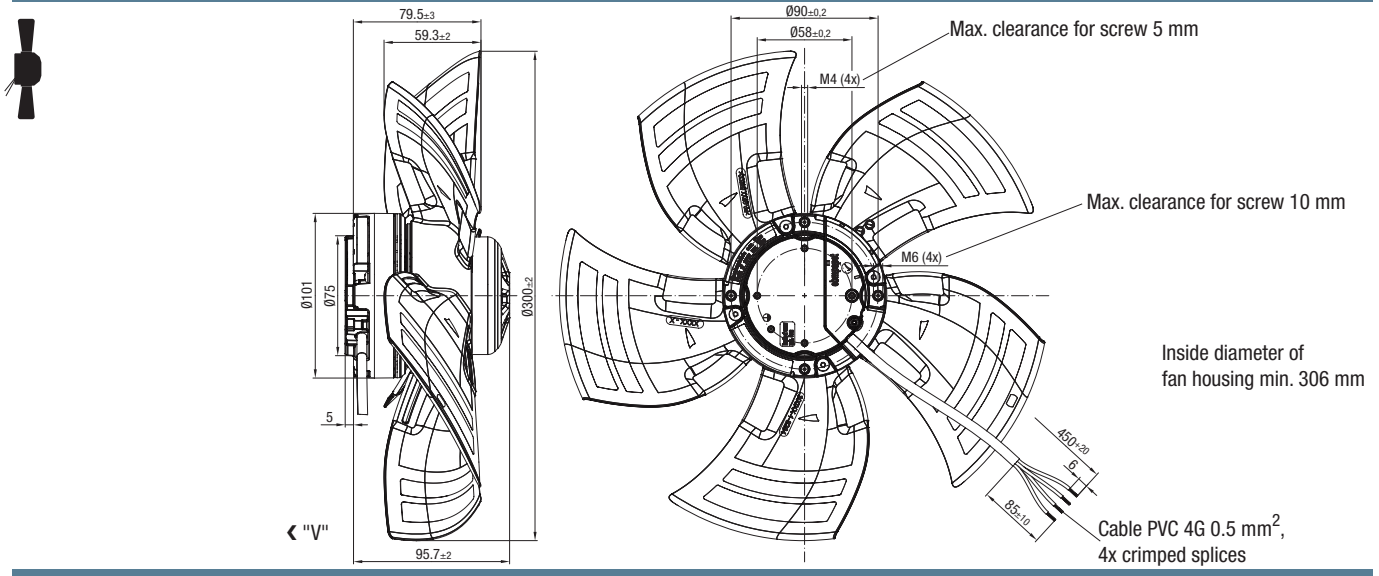
Inside diameter of fan housing min. 306 mm



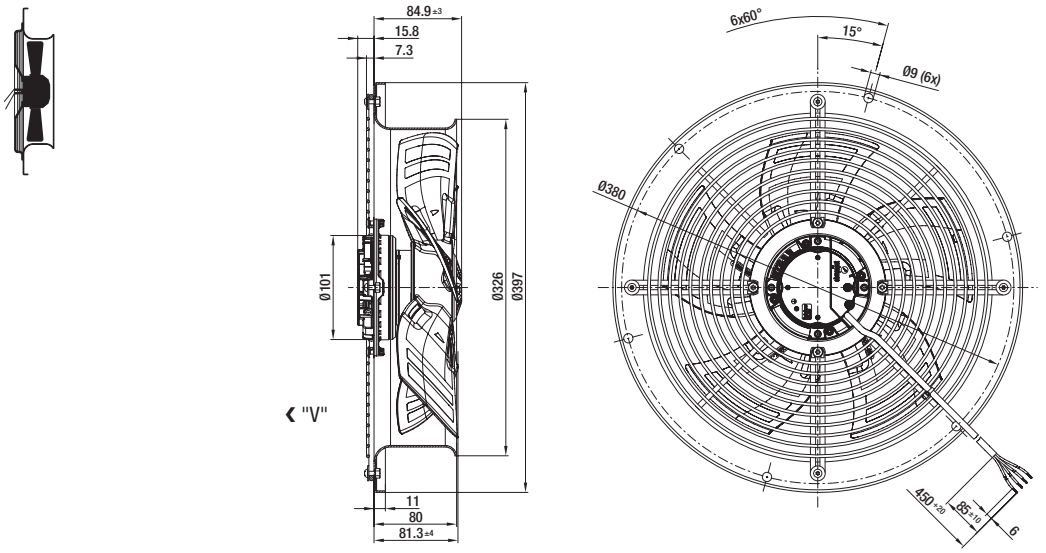
***Terminal box type:**



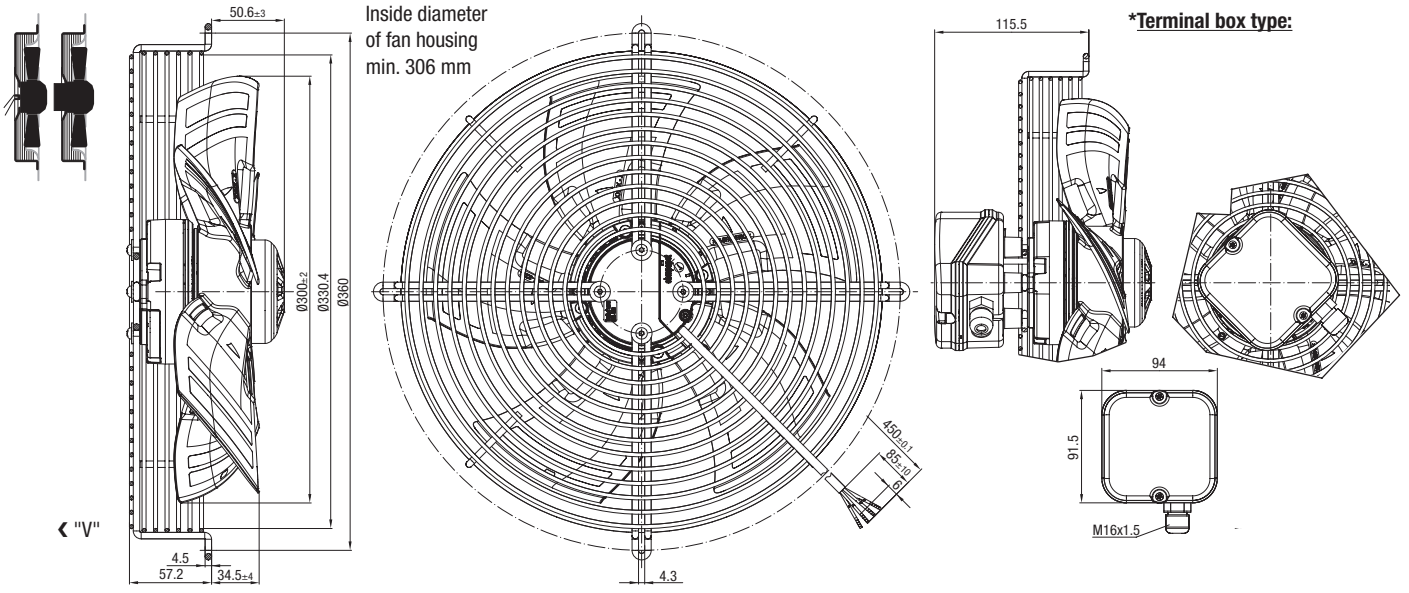
A3G 300-AL11-01 (without attachments, airflow direction "V")



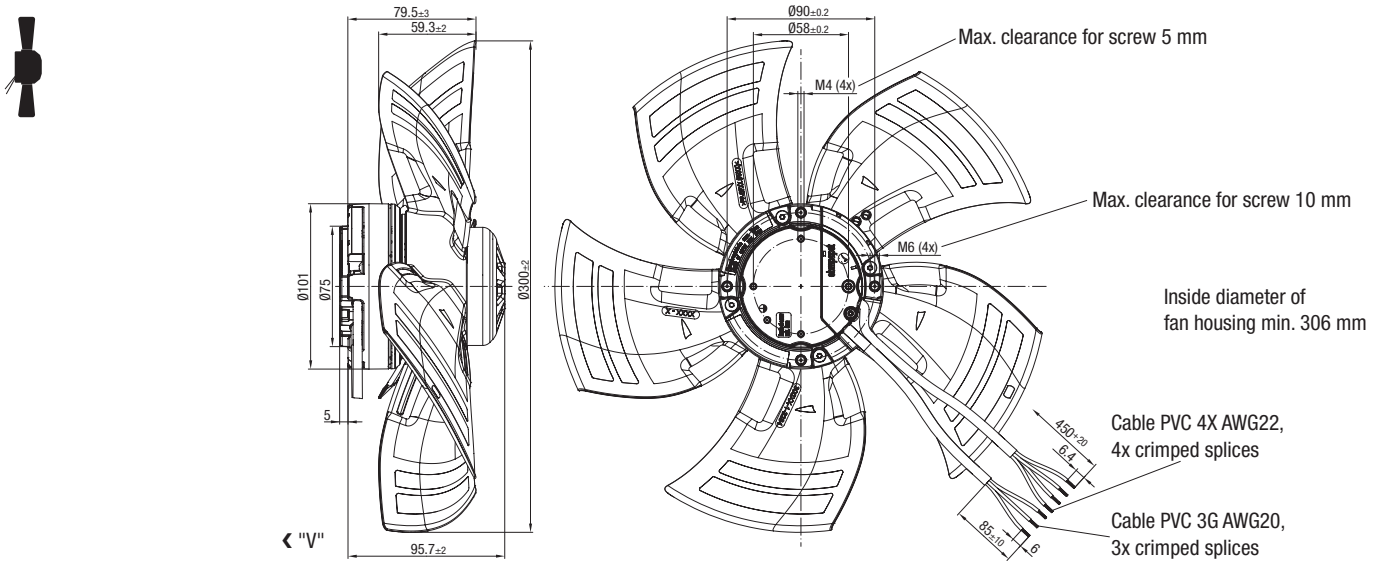
W3G 300-CL11-30 (with round full nozzle, airflow direction "V")



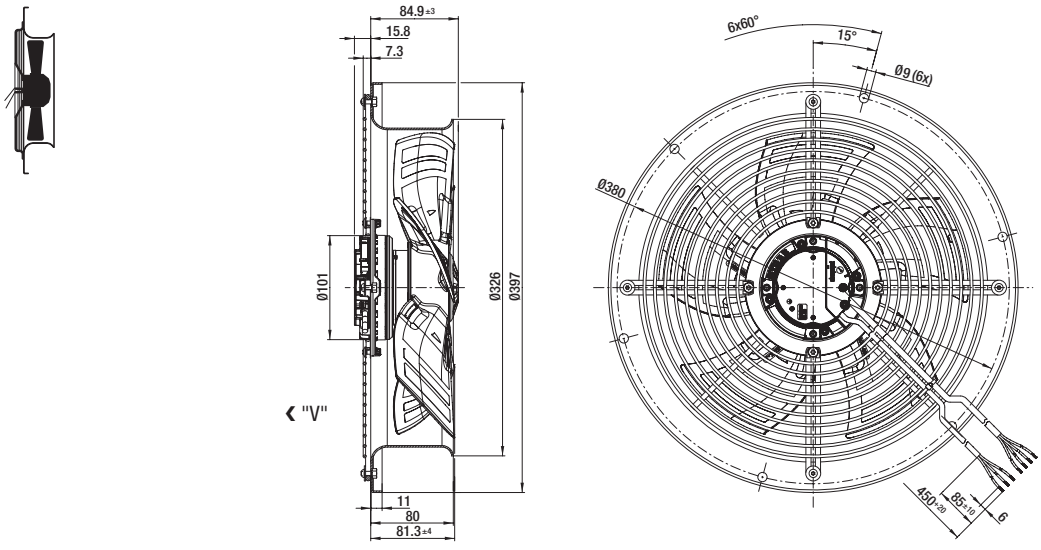
S3G 300-AL11-30 / S3G 300-AL11-50* (with guard grille for short nozzle, airflow direction "V")



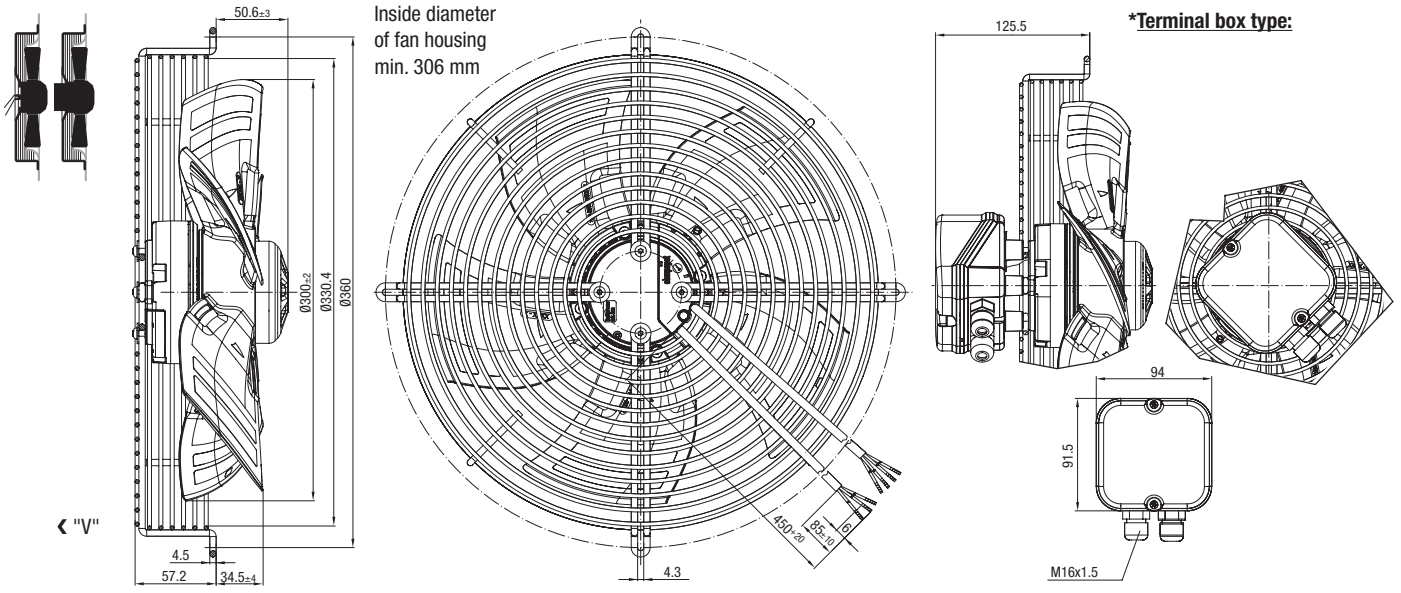
A3G 300-AL11-03 (without attachments, airflow direction "V")



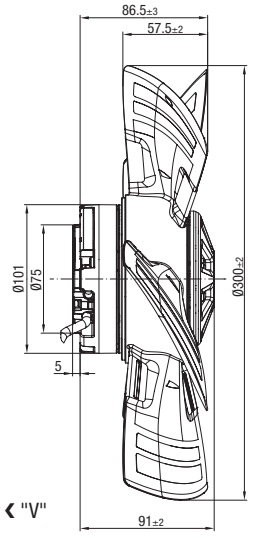
W3G 300-CL11-32 (with round full nozzle, airflow direction "V")

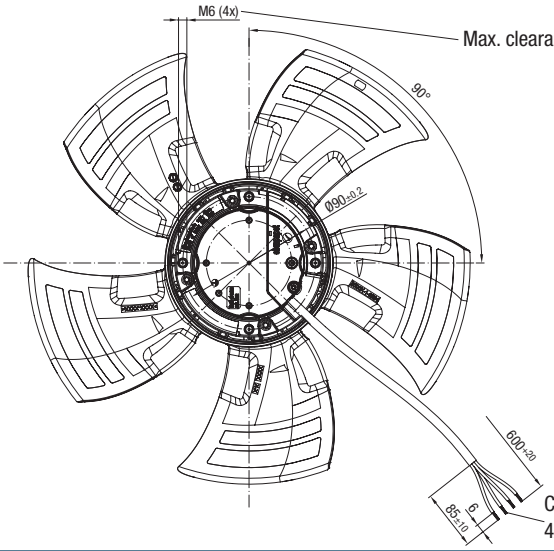


S3G 300-AL11-32 / S3G 300-AL11-52* (with guard grille for short nozzle, airflow direction "V")



A3G 300-AN02-01 (without attachments, airflow direction "V")

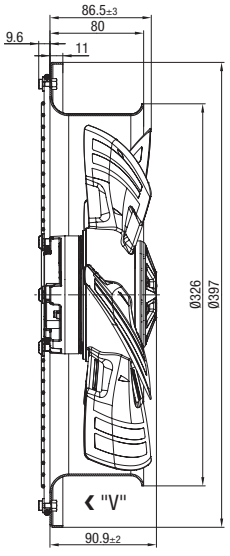


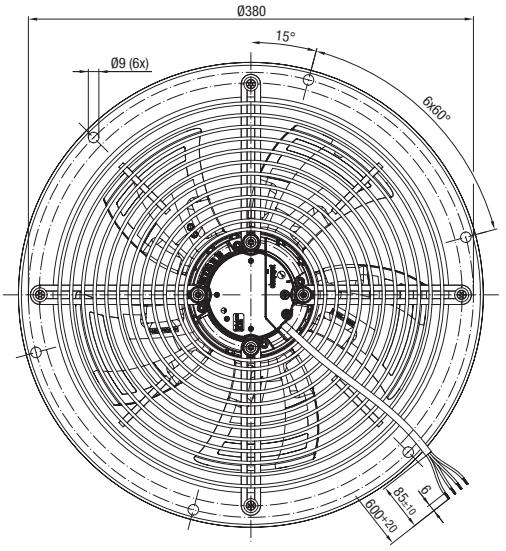


Inside diameter of fan housing min. 306 mm

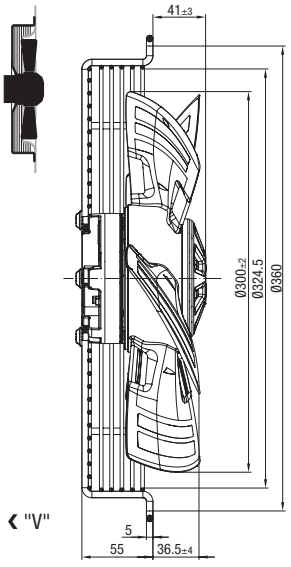
Cable PVC 4G AWG20, 4x crimped splices

W3G 300-CN02-30 (with round full nozzle, airflow direction "V")

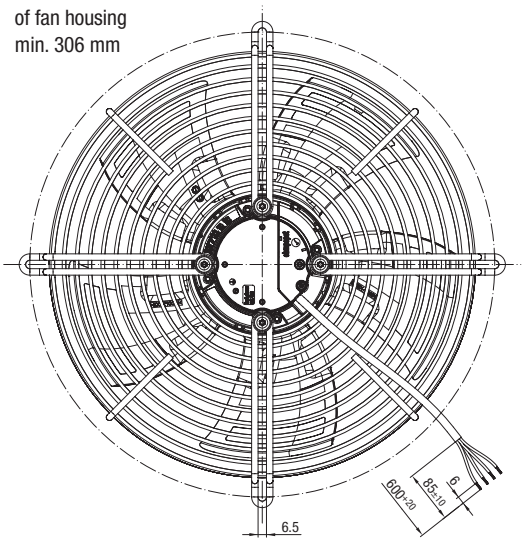




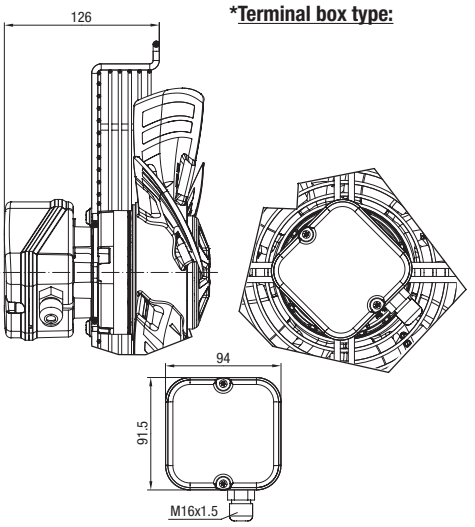
S3G 300-AN02-30 / S3G 300-AN02-50* (with guard grille for short nozzle, airflow direction "V")



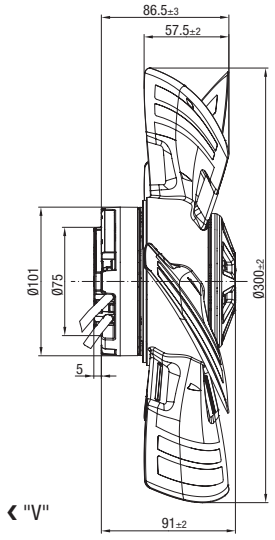
Inside diameter of fan housing min. 306 mm

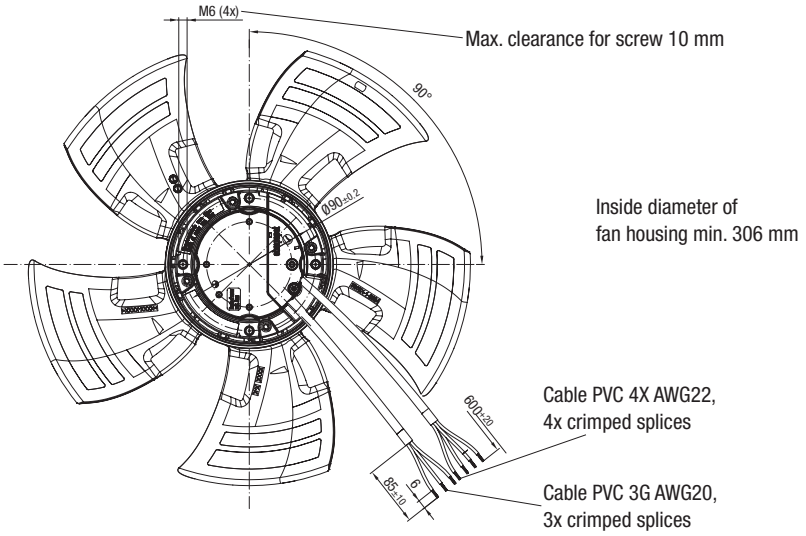


***Terminal box type:**

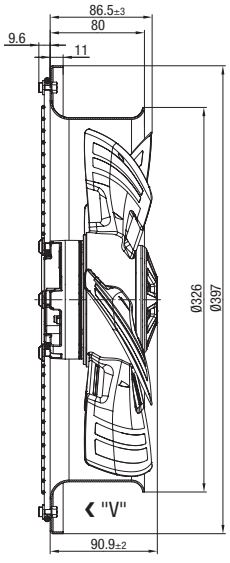


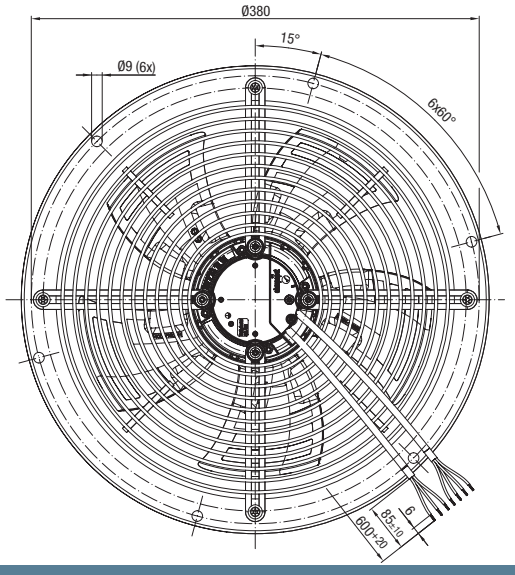
A3G 300-AN02-03 (without attachments, airflow direction "V")



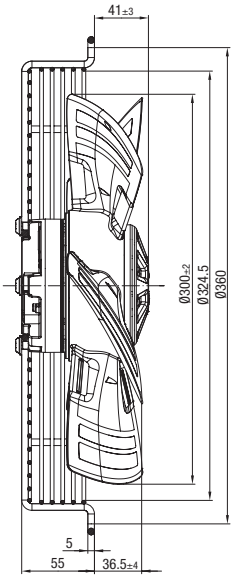


W3G 300-CN02-32 (with round full nozzle, airflow direction "V")

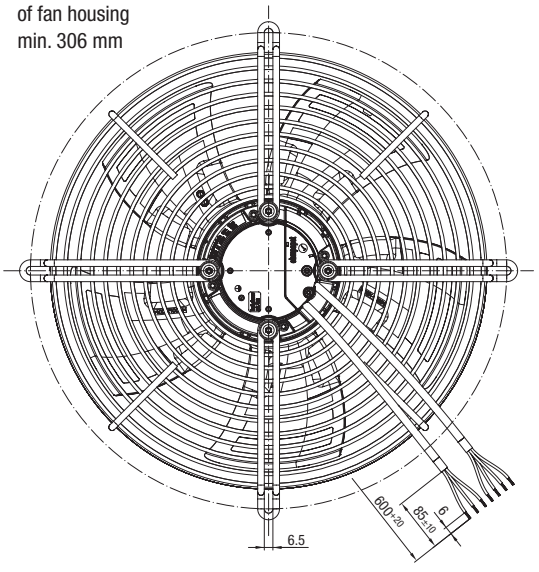




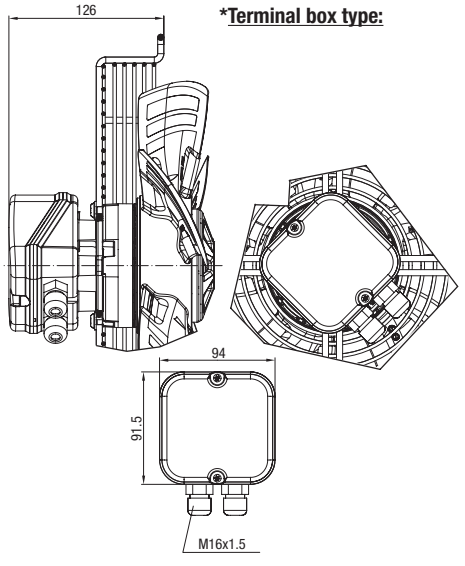
S3G 300-AN02-32 / S3G 300-AN02-52* (with guard grille for short nozzle, airflow direction "V")



Inside diameter of fan housing min. 306 mm



***Terminal box type:**



ErP2015 EXCEEDS THE NORM

EC axial fans – HyBlade®

Ø 350

- **Material:** Guard grille: Steel, coated with black plastic (RAL 9005)
  Fan housing: Sheet steel, galvanized and coated with black plastic (RAL 9005)
  Blades: PP plastic
  Rotor: Thick-film passivated
  Electronics housing: Die-cast aluminum
- **Number of blades:** 5
- **Direction of rotation:** Counterclockwise viewed toward rotor
- **Degree of protection:** IP54(2)
- **Insulation class:** "B"
- **Installation position:** Any
- **Condensation drain holes:** None, open rotor
- **Mode:** Continuous operation (S1)
- **Mounting:** Maintenance-free ball bearings

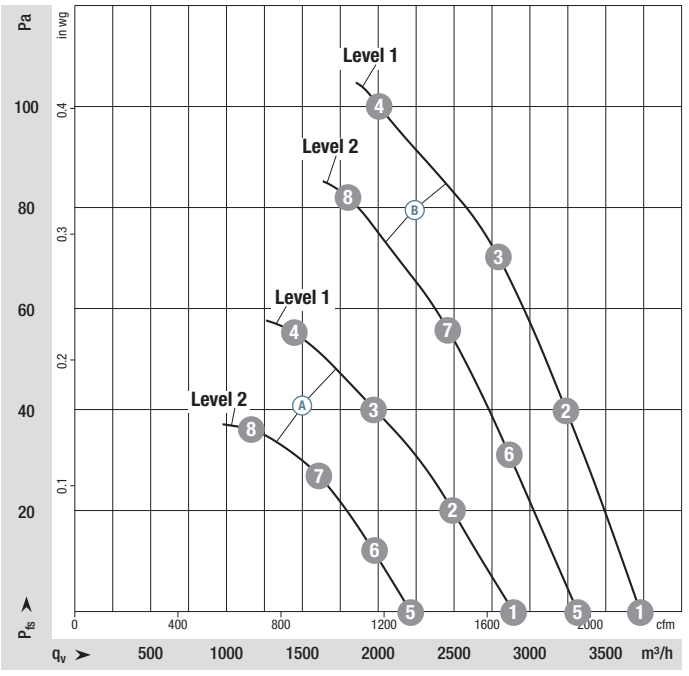
Nominal data

Type	Motor	Curve	Nominal voltage range	Frequency	Speed(1)	Max. input power(1)	Max. input current(1)	Max. back pressure	Perm. ambient temp.	2-speed / 0-10 V	Techn. features and connection diagram
			VAC	Hz	rpm	W	A	Pa	°C		
*3G 350 (2)	M3G 055-DF	A	1~200-240	50/60	1040	73	0,65	55	-25..+60	2 speed levels	P. 128 / H3)
*3G 350 (2)	M3G 074-CF	B	1~200-240	50/60	1475	165	1,35	100	-25..+60	2 speed levels	P. 128 / H3)
*3G 350 (2)	M3G 055-DF	C	1~200-240	50/60	1040	73	0,65	55	-25..+60	Open-loop speed control	P. 129 / H4)
*3G 350 (2)	M3G 074-CF	D	1~200-240	50/60	1475	165	1,35	100	-25..+60	Open-loop speed control	P. 129 / H4)

Subject to change

(1) Nominal data at operating point with maximum load and 230 VAC (2) Not suitable for constant outdoor use, special version available on request.

Curves:
2 speed levels



		n rpm	P_{ed} W	I A	L_{WA} dB(A)
A 1	Level 1	1210	73	0,65	65
A 2	Level 1	1150	73	0,65	62
A 3	Level 1	1095	73	0,65	59
A 4	Level 1	1040	73	0,65	56
A 5	Level 2	915	34	0,33	59
A 6	Level 2	895	37	0,35	56
A 7	Level 2	875	40	0,38	54
A 8	Level 2	855	42	0,40	52
B 1	Level 1	1575	141	1,15	71
B 2	Level 1	1545	155	1,24	68
B 3	Level 1	1525	164	1,32	66
B 4	Level 1	1475	165	1,35	67
B 5	Level 2	1395	98	0,82	68
B 6	Level 2	1370	108	0,90	65
B 7	Level 2	1350	115	0,99	63
B 8	Level 2	1335	123	1,06	64

Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection. Intake-side sound level: L_{WA} according to ISO 13347, L_{pA} measured at 1 m distance from fan axis. The values given are only applicable under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked in installed condition. See Page 136 ff for detailed information.

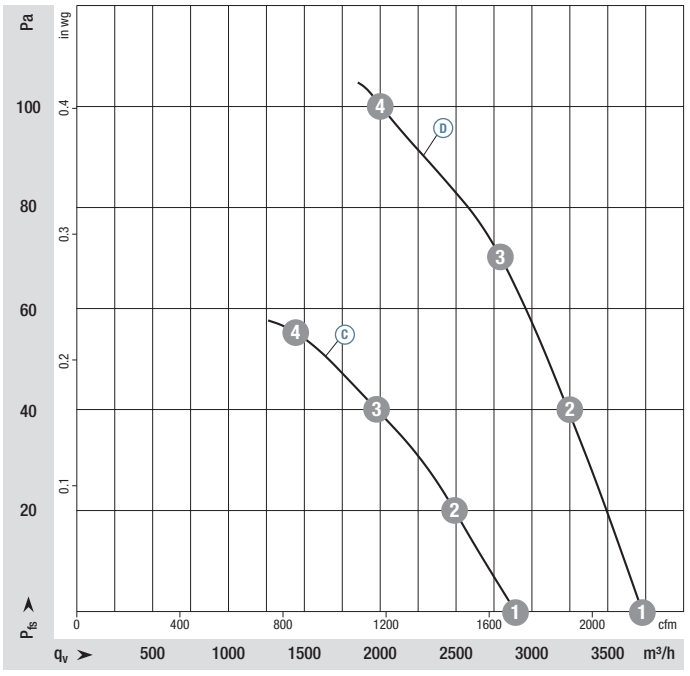
ebmpapst

- **Technical features:** See connection diagram P. 128 f.
- **EMC:** Immunity to interference according to EN 61000-6-2 (industrial environment)
  Circuit feedback up to total power ≤ 130 W according to EN 61000-3-2/3
  Interference emission according to EN 61000-6-4 (industrial environment)
  Radio interference is to be checked in the complete unit.
- **Touch current:** <= 3,5 mA according to IEC 60990 (measuring circuit Fig. 4)
- **Cable exit:** Variable
- **Terminal box design:** electrical connection via terminal strip
- **Protection class:** I (with customer connection of protective earth)
- **Conformity with standards:** EN 60335-1, CE
- **Approvals:** VDE; cURus[3]

Airflow direction	❮ "V" without attachments	Weight without attachments kg	❮ "V" with round full nozzle	Weight with round full nozzle kg	❮ "V" with guard grille for short nozzle	Weight with guard grille for short nozzle kg	❮ "V" with guard grille for short nozzle and top-mounted terminal box	Weight with guard grille for short nozzle and top-mounted terminal box kg
"V"	A3G 350-AG03 -01[3]	1,70	W3G 350-CG03 -30[3]	4,60	S3G 350-AG03 -30[3]	3,20	S3G 350-AG03 -50	3,30
"V"	A3G 350-AN01 -01	2,10	W3G 350-CN01 -30	5,20	S3G 350-AN01 -30	3,60	S3G 350-AN01 -50	3,80
"V"	A3G 350-AG03 -03[3]	1,70	W3G 350-CG03 -32[3]	4,60	S3G 350-AG03 -32[3]	3,20	S3G 350-AG03 -52	3,30
"V"	A3G 350-AN01 -03[3]	2,10	W3G 350-CN01 -32[3]	5,20	S3G 350-AN01 -32[3]	3,60	S3G 350-AN01 -52	3,80

Airflow direction "A" on request

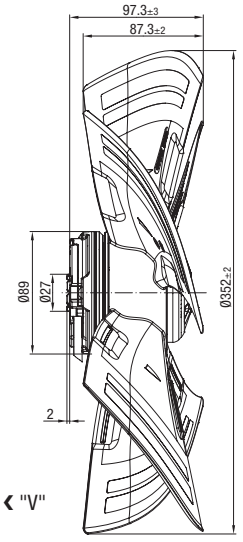
Curves: Open-loop speed control

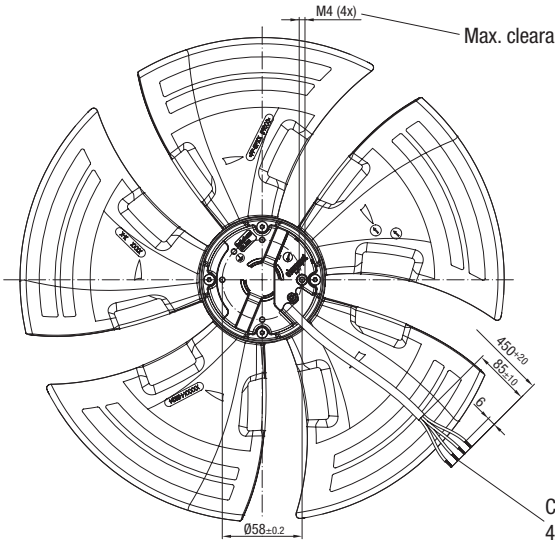


		n rpm	P_{ed} W	I A	L_{WA} dB(A)
C	1	1210	73	0,65	65
C	2	1150	73	0,65	62
C	3	1095	73	0,65	59
C	4	1040	73	0,65	56
D	1	1575	141	1,15	71
D	2	1545	155	1,24	68
D	3	1525	164	1,32	66
D	4	1475	165	1,35	67

Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection. Intake-side sound level: Lw_A according to ISO 13347, Lp_A measured at 1 m distance from fan axis. The values given are only applicable under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked in installed condition. See Page 136 ff for detailed information.

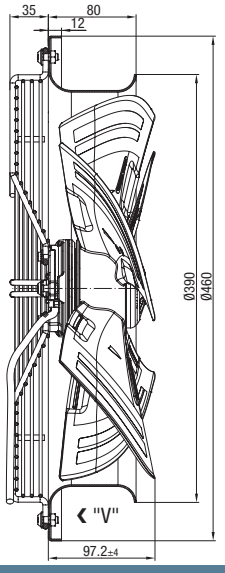
A3G 350-AG03-01 (without attachments, airflow direction "V")

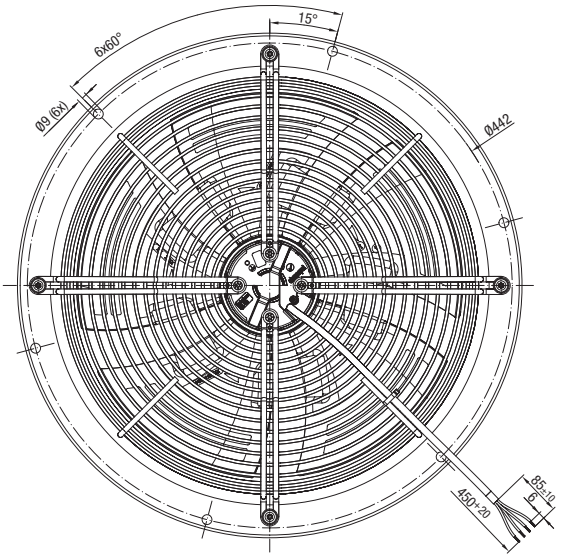




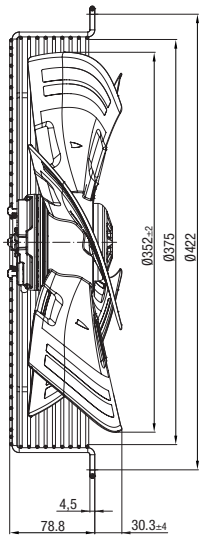
Inside diameter of fan housing min. 358 mm

W3G 350-CG03-30 (with round full nozzle, airflow direction "V")

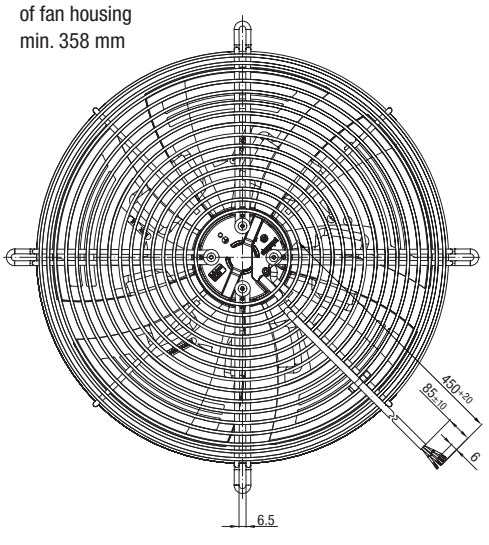




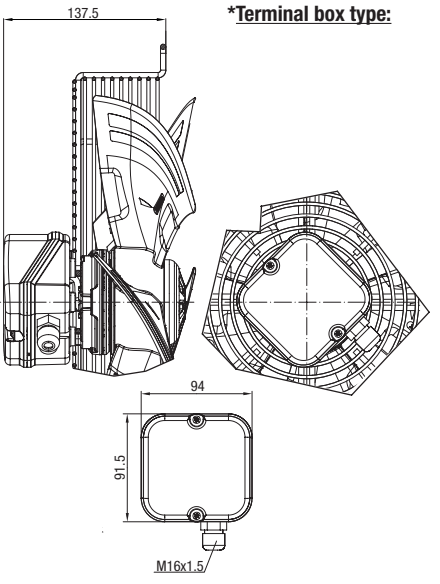
S3G 350-AG03-30 / S3G 350-AG03-50* (with guard grille for short nozzle, airflow direction "V")



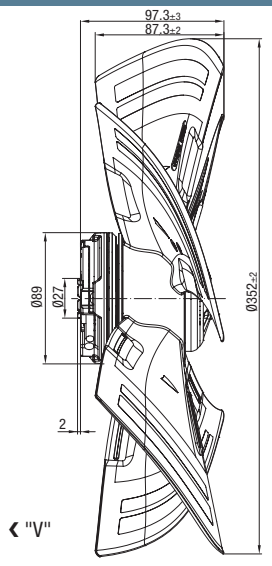
Inside diameter of fan housing min. 358 mm

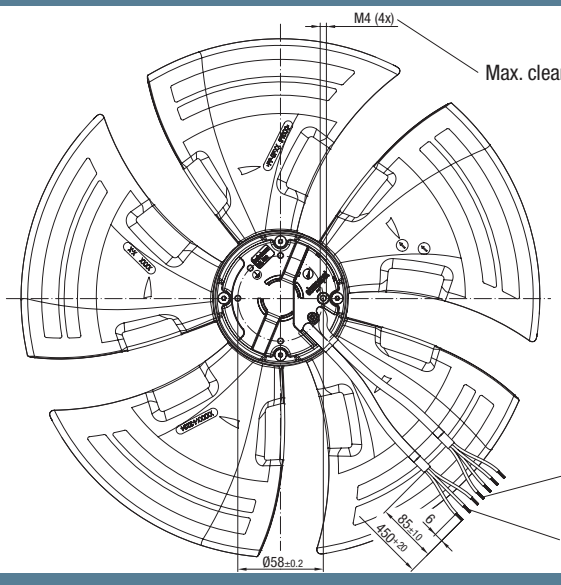


***Terminal box type:**

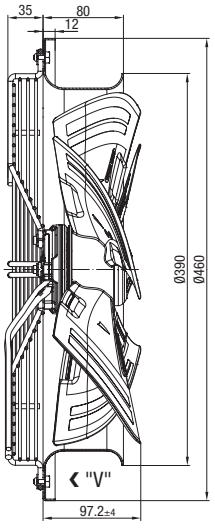


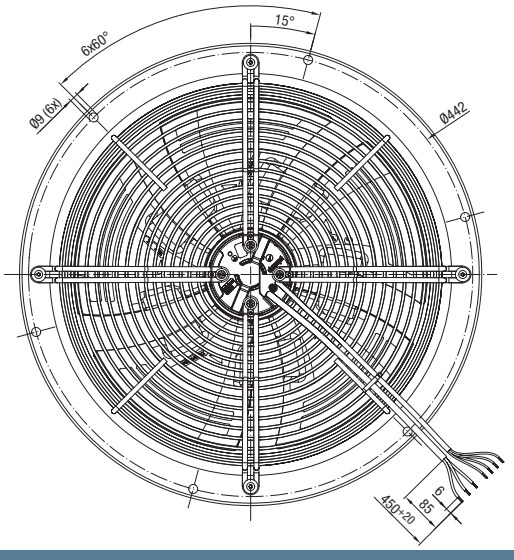
A3G 350-AG03-03 (without attachments, airflow direction "V")



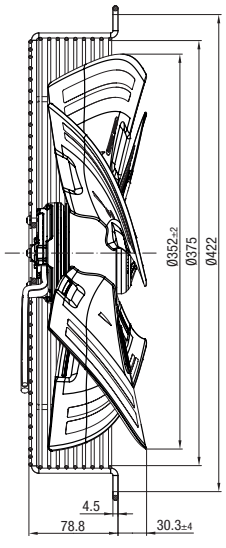


W3G 350-CG03-32 (with round full nozzle, airflow direction "V")

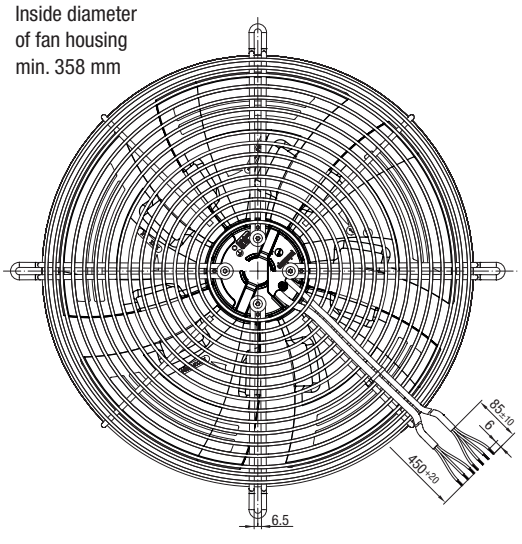


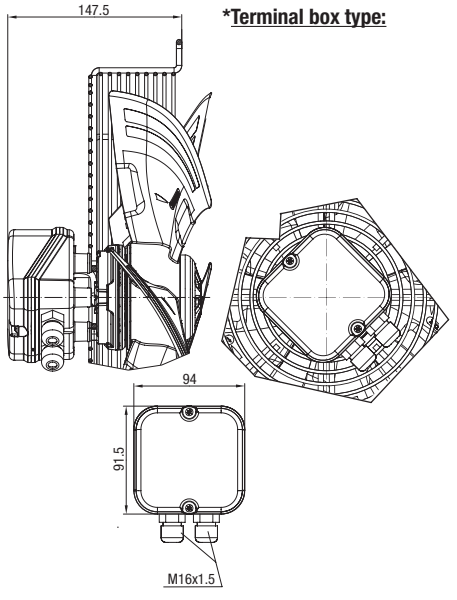


S3G 350-AG03-32 / S3G 350-AG03-52* (with guard grille for short nozzle, airflow direction "V")

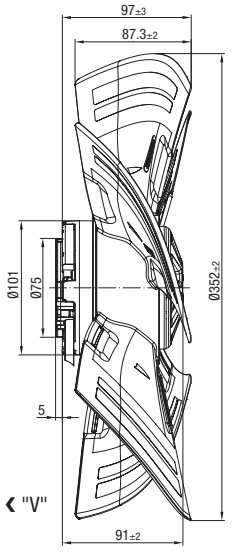


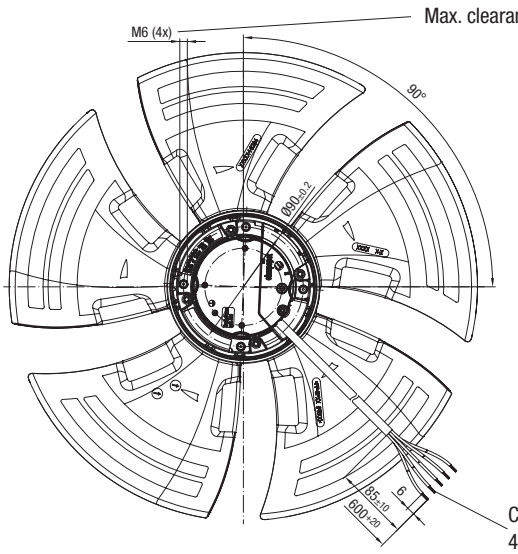
Inside diameter of fan housing min. 358 mm





A3G 350-AN01-01 (without attachments, airflow direction "V")

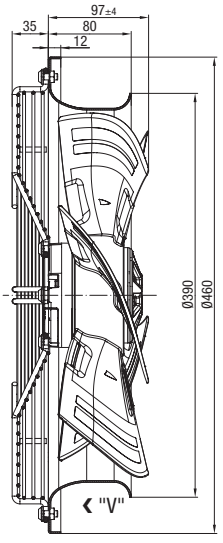


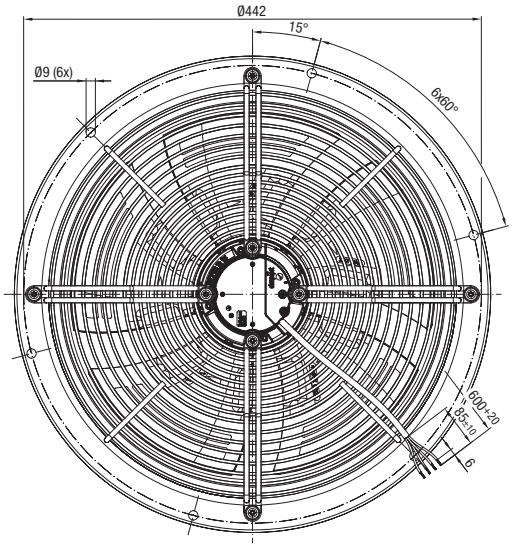


Inside diameter of fan housing min. 358 mm

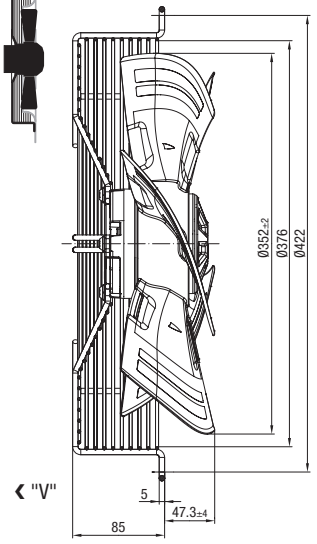
Cable PVC 4G AWG20, 4x crimped splices

W3G 350-CN01-30 (with round full nozzle, airflow direction "V")

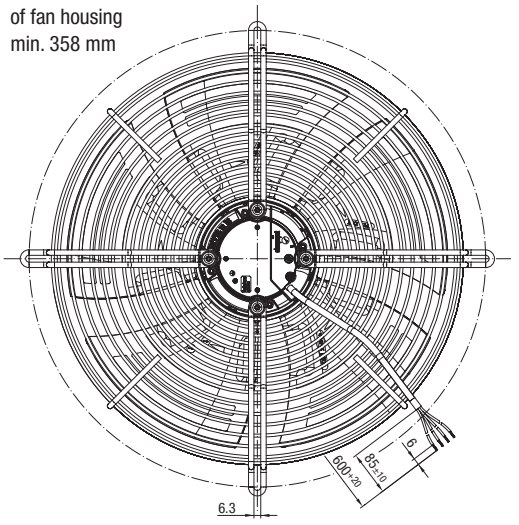




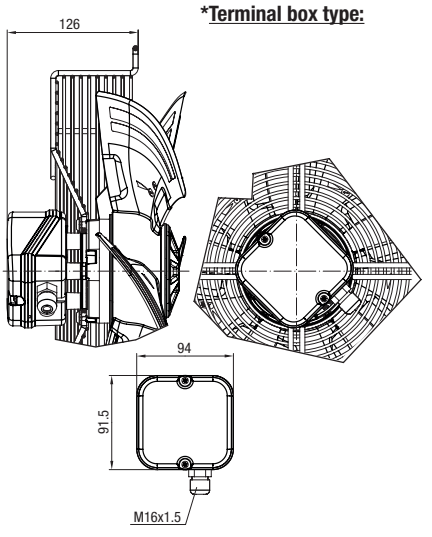
S3G 350-AN01-30 / S3G 350-AN01-50* (with guard grille for short nozzle, airflow direction "V")



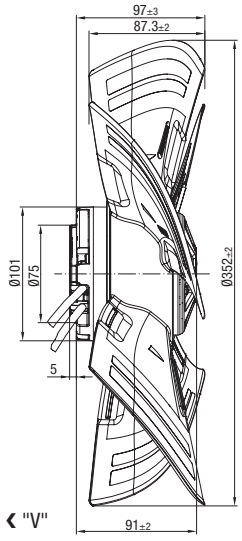
Inside diameter of fan housing min. 358 mm

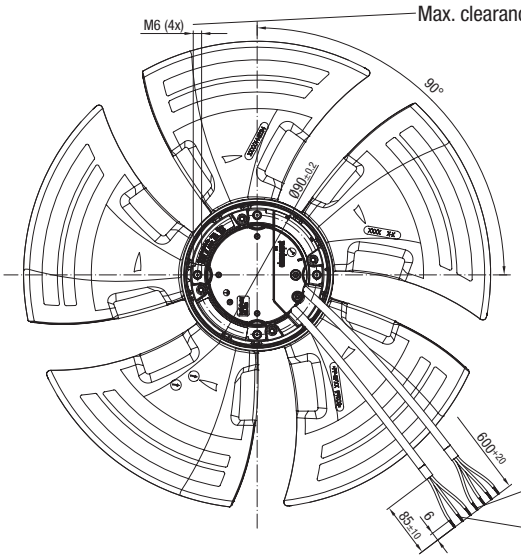


***Terminal box type:**



A3G 350-AN01-03 (without attachments, airflow direction "V")



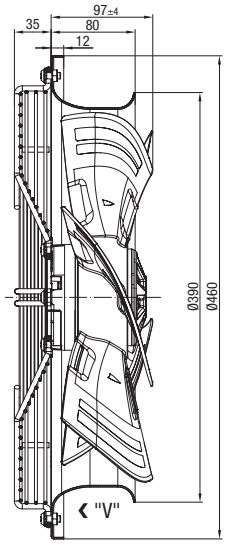


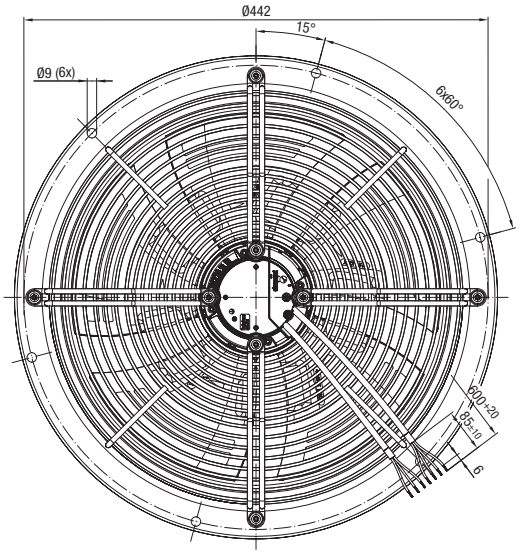
Inside diameter of fan housing min. 358 mm

Cable PVC 4X AWG22, 4x crimped splices

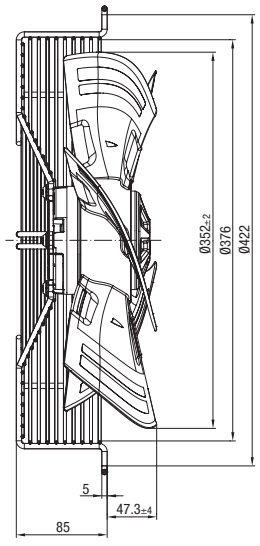
Cable PVC 3G AWG20, 3x crimped splices

W3G 350-CN01-32 (with round full nozzle, airflow direction "V")

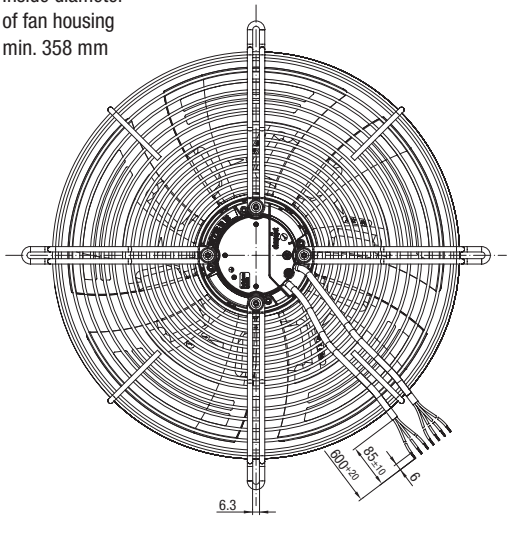




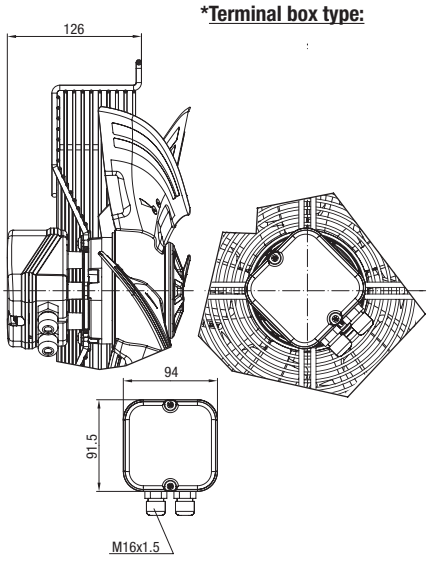
S3G 350-AN01-32 / S3G 350-AN01-52* (with guard grille for short nozzle, airflow direction "V")



Inside diameter of fan housing min. 358 mm



***Terminal box type:**



ErP2015 EXCEEDS THE NORM

EC axial fans – HyBlade®

Ø 400

- **Material:** Guard grille: Steel, coated with black plastic (RAL 9005)
  Fan housing: Sheet steel, galvanized and coated with black plastic (RAL 9005)
  Blades (5): Ⓐ Ⓑ PP plastic;
  Ⓒ Ⓓ press-fitted sheet steel blank, over-molded with PP plastic
  Rotor: Ⓐ Ⓑ Thick-film passivated; Ⓒ Ⓓ painted black
  Electronics housing: Ⓐ Ⓑ Ⓒ Ⓓ Die-cast aluminum; Ⓒ Ⓓ painted black
- **Direction of rotation:** Counterclockwise viewed toward rotor
- **Degree of protection:** Ⓐ Ⓑ IP 54(2); Ⓒ Ⓓ IP 55
- **Insulation class:** Ⓐ Ⓑ "B"; Ⓒ Ⓓ "F"
- **Installation position:** Ⓐ Ⓑ Any; Ⓒ Ⓓ shaft horizontal or rotor on bottom, rotor on top on request
- **Condensation drain holes:** Ⓐ Ⓑ None, open rotor; Ⓒ Ⓓ rotor side
- **Mode:** Continuous operation (S1)
- **Mounting:** Maintenance-free ball bearings

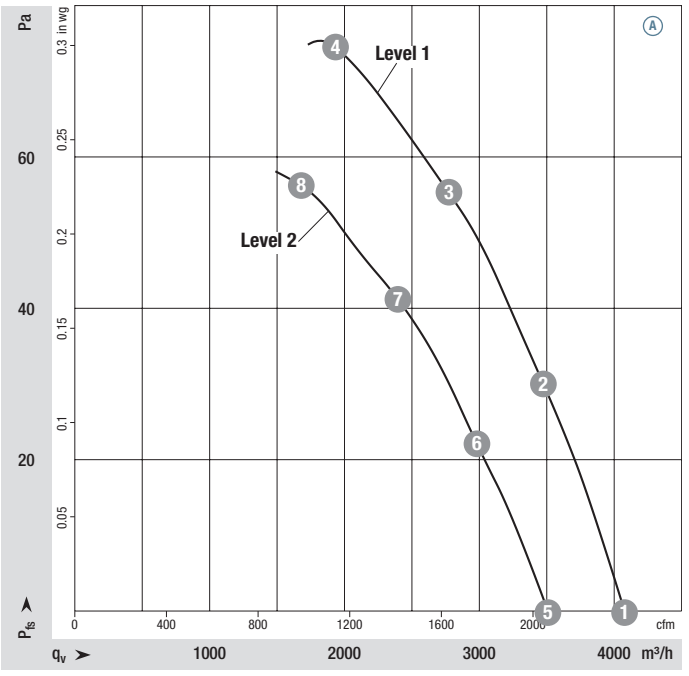
Nominal data

Type	Motor	Curve	Nominal voltage range	Frequency	Speed(1)	Max. input power(1)	Max. input current(1)	Max. back pressure	Perm. ambient temp.	2-speed / 0-10 V	Techn. features and connection diagram
			VAC	Hz	rpm	W	A	Pa	°C		
*3G 400 (2)	M3G 074-CF	Ⓐ	1~200-240	50/60	1080	140	1,15	75	-25..+60	2 speed levels	P. 128 / H3)
*3G 400 (2)	M3G 074-CF	Ⓑ	1~200-240	50/60	1080	140	1,15	75	-25..+60	Open-loop speed control	P. 129 / H4)
*3G 400	M3G 084-DF	Ⓒ	1~200-277	50/60	1760	500	2,20	180	-25..+60	Open-loop speed control	P. 130 / P5)
*3G 400	M3G 084-DF	Ⓓ	3~380-480	50/60	1760	500	0,80	180	-25(3)..+60	Open-loop speed control	P. 131 / P6)

Subject to change

(1) Nominal data at operating point with maximum load and 230 or 400 VAC (2) Not suitable for constant outdoor use, special version available on request.
(3) Occasional start-up between -40°C and -25°C is permissible. Continuous operation below -25°C only possible with special low-temperature bearings (on request).

Curves:
2 speed levels

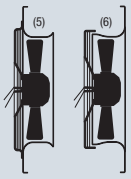


		n rpm	P_{ed} W	I A	L_{WA} dB(A)
Ⓐ 1	Level 1	1135	116	0,97	69
Ⓐ 2	Level 1	1110	127	1,05	66
Ⓐ 3	Level 1	1095	133	1,09	63
Ⓐ 4	Level 1	1080	140	1,15	69
Ⓐ 5	Level 2	980	75	0,69	65
Ⓐ 6	Level 2	965	82	0,71	63
Ⓐ 7	Level 2	950	87	0,77	59
Ⓐ 8	Level 2	840	90	0,79	64

Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection. Intake-side sound level: L_{WA} according to ISO 13347, L_{pA} measured at 1 m distance from fan axis. The values given are only applicable under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked in installed condition. See Page 136 ff for detailed information.

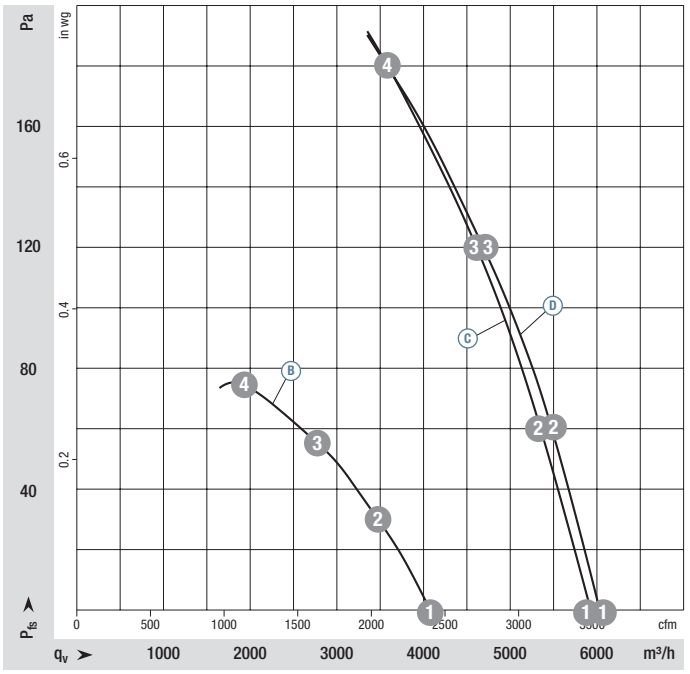
ebmpapst

– **Technical features:** See connection diagram P. 128 ff.
– **EMC:** Ⓐ Ⓑ Ⓒ Ⓓ Immunity to interference according to EN 61000-6-2 (industrial environment)
Ⓐ Ⓑ Circuit feedback up to total power of ≤ 130 W according to EN 61000-3-2/3
Ⓒ Ⓓ Circuit feedback according to EN 61000-3-2
Ⓐ Ⓑ Interference emission according to EN 61000-6-4 (industrial environment), radio interference is to be checked in the complete unit.
Ⓒ Ⓓ Interference emission according to EN 61000-6-4 (industrial environment), according to household appliance standard on request
– **Touch current:** < 3,5 mA according to IEC 60990 (measuring circuit Fig. 4)
– **Cable exit:** Variable
– **Terminal box design:** Ⓐ Ⓑ electrical connection via terminal strip
– **Protection class:** I (with customer connection of protective earth)
– **Conformity with standards:** Ⓐ Ⓑ EN 60335-1, CE; Ⓒ EN 61800-5-1, EN 60335-1, CE; Ⓓ EN 61800-5-1, CE
– **Approvals:** Ⓐ Ⓑ VDE; cURus[4]
Ⓒ EAC, UL; Ⓓ EAC, UL on request

Airflow direction	 ❮ "V" without attachments	Weight without attachments kg	 ❮ "V" with round[5], square[6], full nozzle	Weight with round full nozzle kg	 ❮ "V" with guard grille for short nozzle	Weight with guard grille for short nozzle kg	 ❮ "V" with guard grille for short nozzle and top-mounted terminal box	Weight with guard grille for short nozzle and top-mounted terminal box kg
"V"	A3G 400-AN04 -01	2,30	W3G 400-CN04 -30[5]	6,20	S3G 400-AN04 -30	4,10	S3G 400-AN04 -50	4,20
"V"	A3G 400-AN04 -03[4]	2,30	W3G 400-CN04 -32[4][5]	6,20	S3G 400-AN04 -32[4]	4,10	S3G 400-AN04 -52	4,20
"V"	A3G 400-BK08 -H1	4,40	W3G 400-FK08 -H1[6]	8,90	S3G 400-LK08 -H1	5,70	on request	---
"V"	A3G 400-BK11 -M1	5,00	W3G 400-FK11 -M1[6]	9,50	S3G 400-LK11 -M1	7,10	on request	---

Airflow direction "A" on request

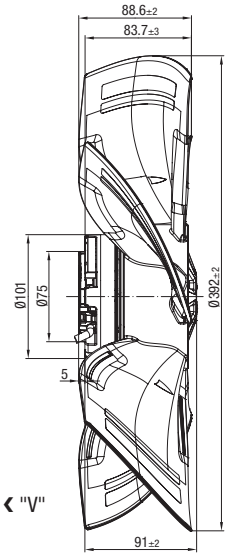
Curves: Open-loop speed control

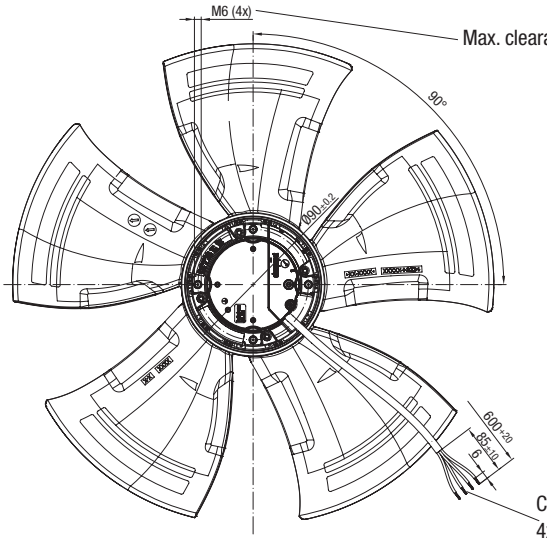


		n rpm	P_{ed} W	I A	L_{WA} dB(A)
Ⓑ	1	1135	116	0,97	69
Ⓑ	2	1110	127	1,05	66
Ⓑ	3	1095	133	1,09	63
Ⓑ	4	1080	140	1,15	69
Ⓒ	1	1760	432	1,89	79
Ⓒ	2	1760	464	2,03	77
Ⓒ	3	1760	490	2,14	73
Ⓒ	4	1760	500	2,20	74
Ⓓ	1	1760	452	0,72	79
Ⓓ	2	1760	474	0,75	77
Ⓓ	3	1760	489	0,78	73
Ⓓ	4	1760	500	0,80	74

Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection. Intake-side sound level: L_{WA} according to ISO 13347, L_{pA} measured at 1 m distance from fan axis. The values given are only applicable under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked in installed condition. See Page 136 ff for detailed information.

A3G 400-AN04-01 (without attachments, airflow direction "V")

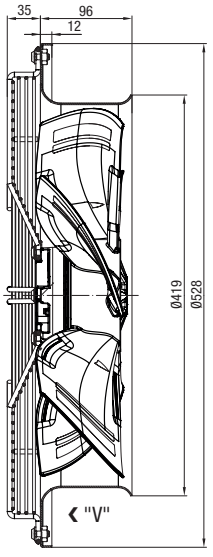


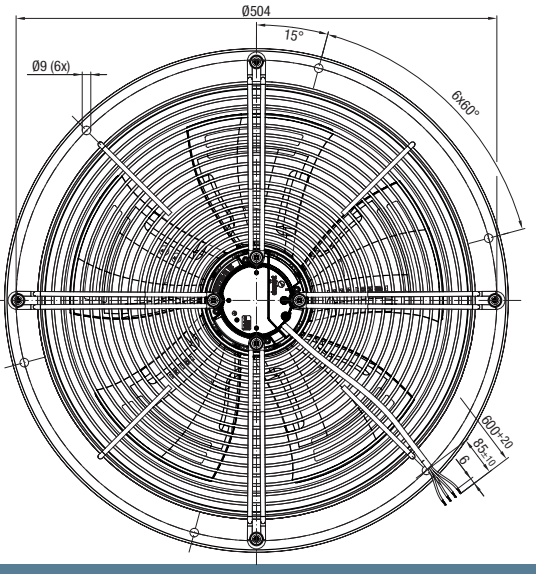


Inside diameter of fan housing min. 400 mm

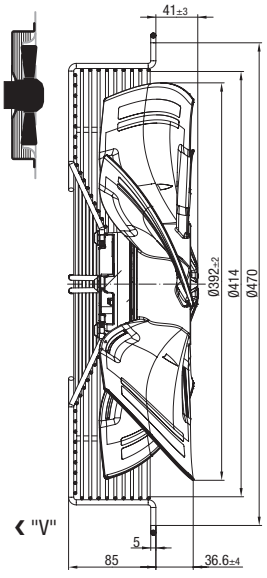
Cable PVC 4G AWG20, 4x crimped splices

W3G 400-CN04-30 (with round full nozzle, airflow direction "V")

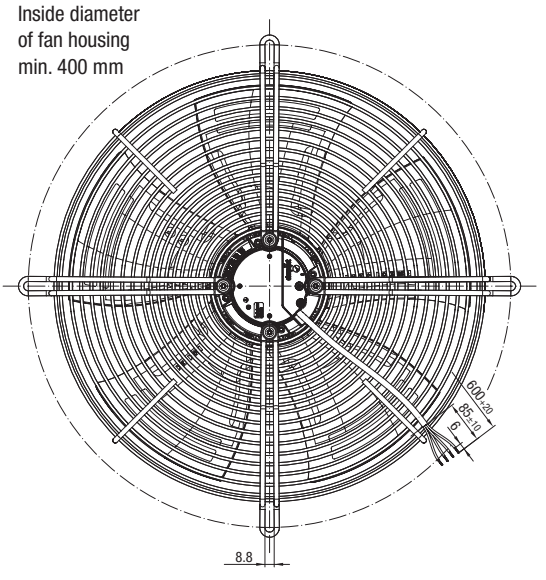




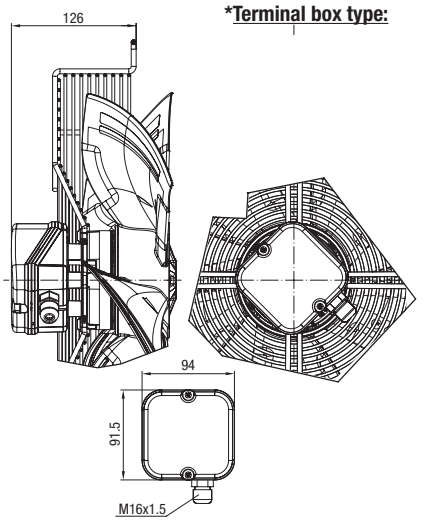
S3G 400-AN04-30 / S3G 400-AN04-50* (with guard grille for short nozzle, airflow direction "V")



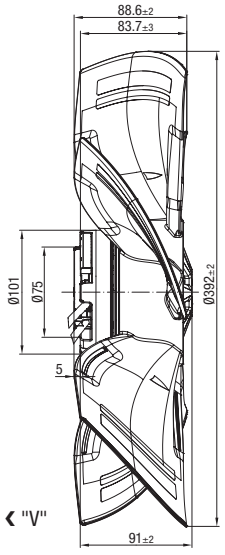
Inside diameter of fan housing min. 400 mm

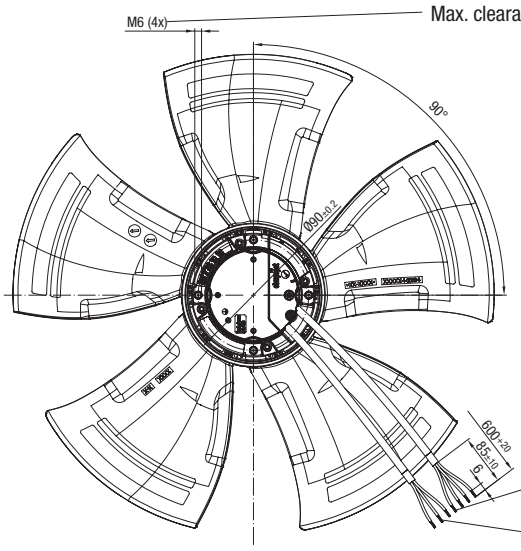


***Terminal box type:**



A3G 400-AN04-03 (without attachments, airflow direction "V")



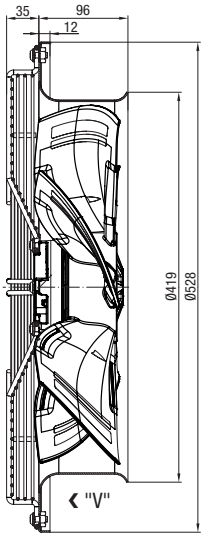


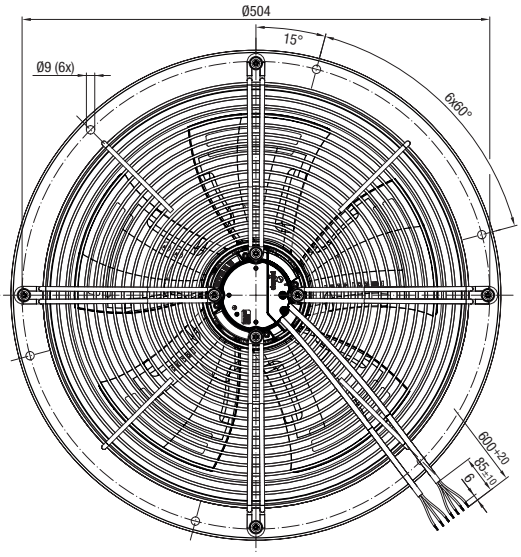
Inside diameter of fan housing min. 400 mm

Cable PVC 4X AWG22, 4x crimped splices

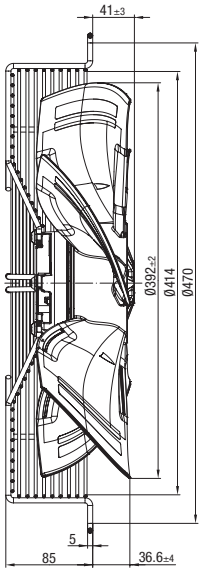
Cable PVC 3G AWG20, 3x crimped splices

W3G 400-CN04-32 (with round full nozzle, airflow direction "V")

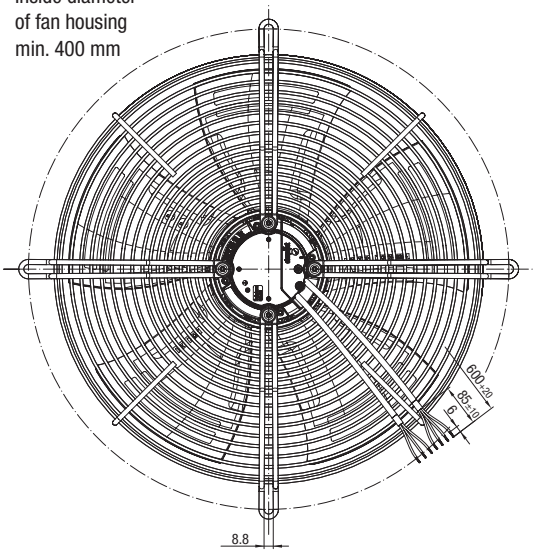




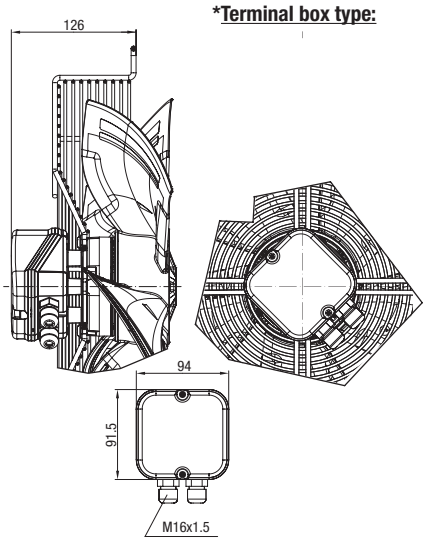
S3G 400-AN04-32 / S3G 400-AN04-52* (with guard grille for short nozzle, airflow direction "V")



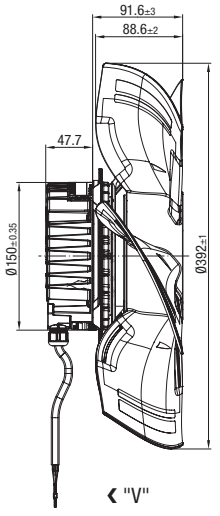
Inside diameter of fan housing min. 400 mm

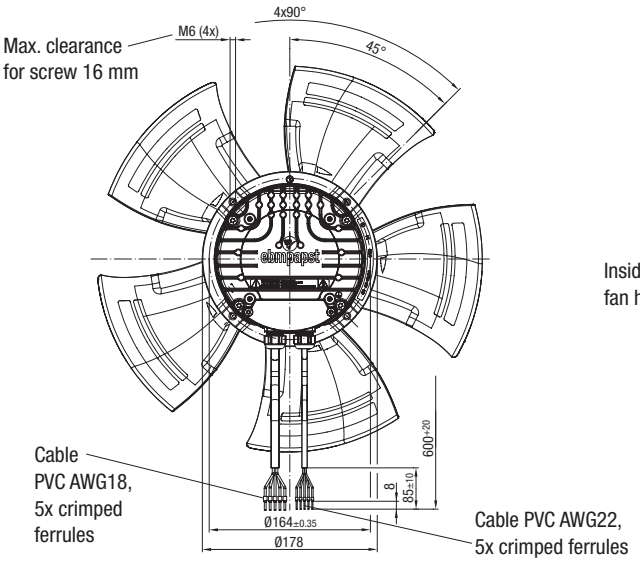


***Terminal box type:**



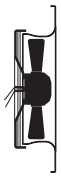
A3G 400-BK08-H1 (without attachments, airflow direction "V")

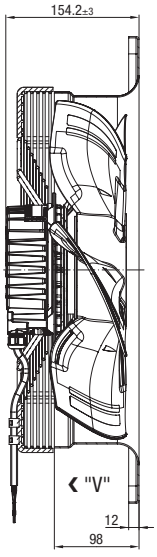


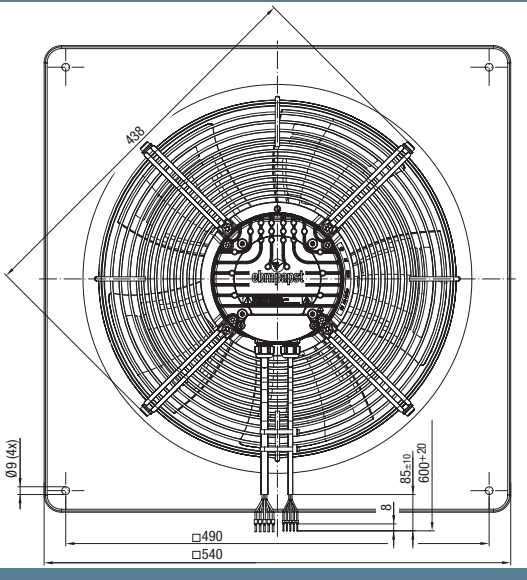


Inside diameter of
fan housing min. 400 mm

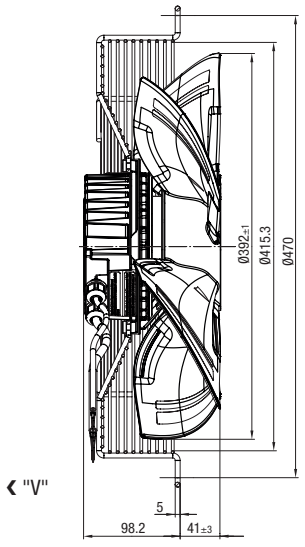
W3G 400-FK08-H1 (with square full nozzle, airflow direction "V")

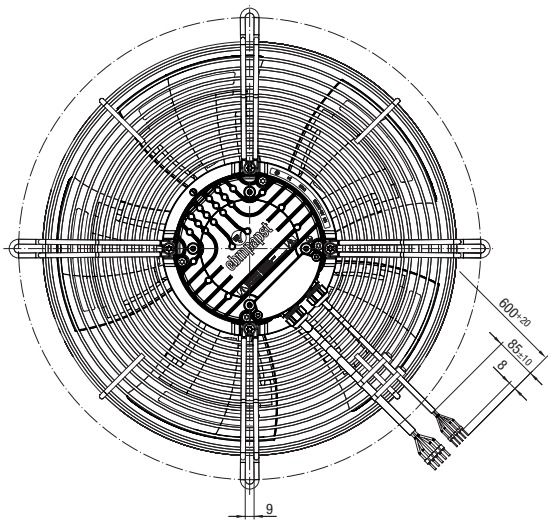






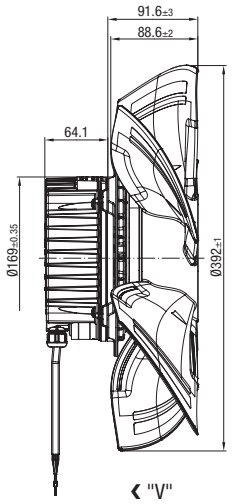
S3G 400-LK08-H1 (with guard grille for short nozzle, airflow direction "V")

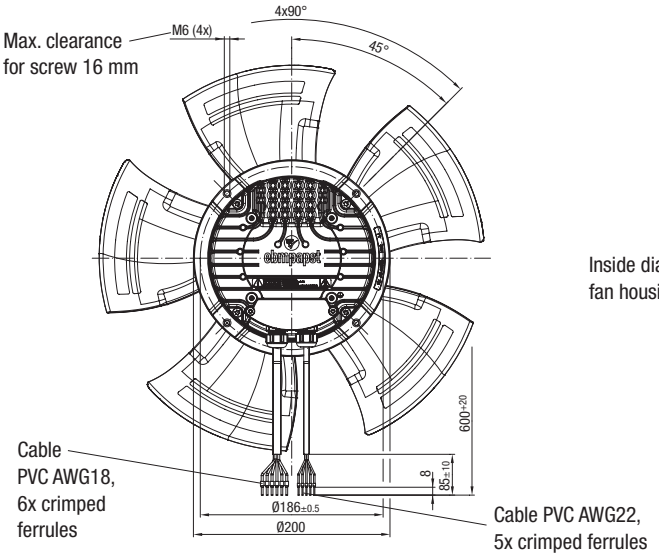




Inside diameter of
fan housing min. 400 mm

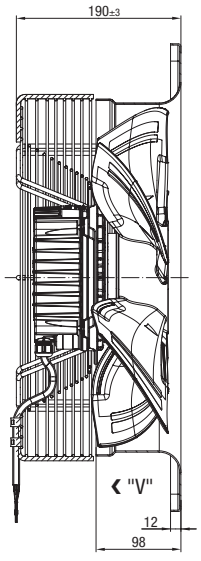
A3G 400-BK11-M1 (without attachments, airflow direction "V")

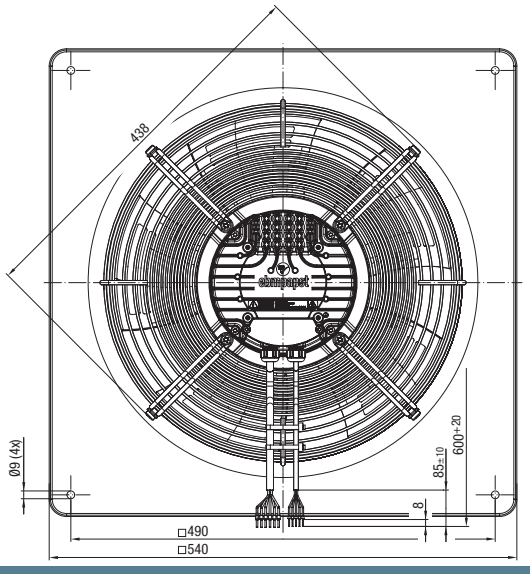




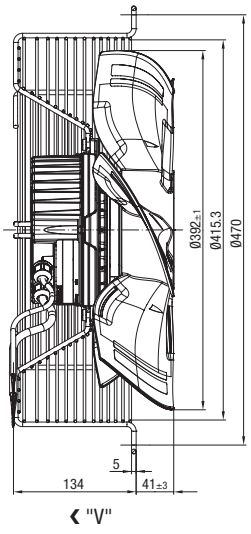
Inside diameter of fan housing min. 400 mm

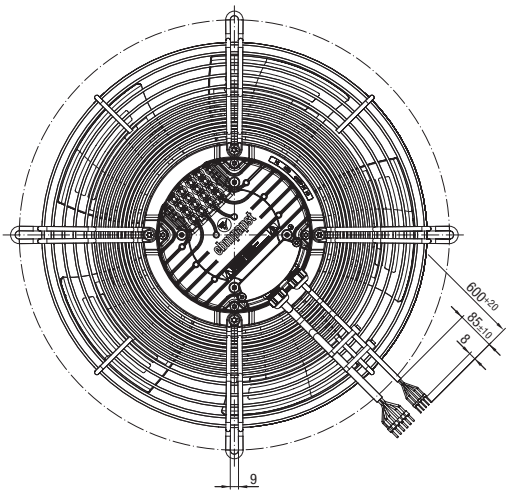
W3G 400-FK11-M1 (with square full nozzle, airflow direction "V")





S3G 400-LK11-M1 (with guard grille for short nozzle, airflow direction "V")





Inside diameter of fan housing min. 400 mm

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EC axial fans – HyBlade®

Ø 450

- **Material:** Guard grille: Steel, coated with black plastic (RAL 9005)
  Fan housing: Sheet steel, galvanized and coated with black plastic (RAL 9005)
  Blades (5): Ⓐ Ⓑ PP plastic;
  Ⓒ Ⓓ press-fitted sheet steel blank, over-molded with PP plastic
  Rotor: Ⓐ Ⓑ Thick-film passivated; Ⓒ Ⓓ painted black
  Electronics housing: Ⓐ Ⓑ Ⓒ Ⓓ Die-cast aluminum; Ⓒ Ⓓ painted black
- **Direction of rotation:** Counterclockwise viewed toward rotor
- **Degree of protection:** Ⓐ Ⓑ IP 54(2); Ⓒ Ⓓ IP 55
- **Insulation class:** Ⓐ Ⓑ "B"; Ⓒ Ⓓ "F"
- **Installation position:** Ⓐ Ⓑ Any; Ⓒ Ⓓ shaft horizontal or rotor on bottom, rotor on top on request
- **Condensation drain holes:** Ⓐ Ⓑ None, open rotor; Ⓒ Ⓓ rotor side
- **Mode:** Continuous operation (S1)
- **Mounting:** Maintenance-free ball bearings

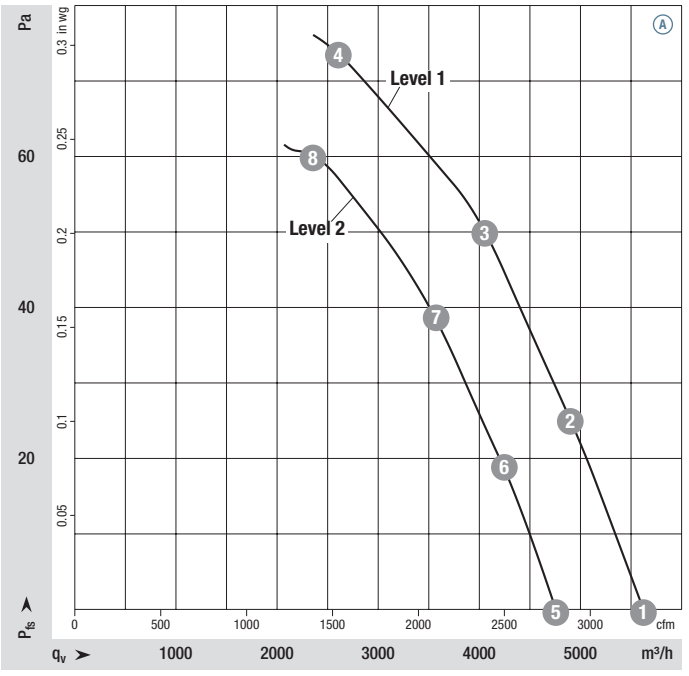
Nominal data

Type	Motor	Curve	Nominal voltage range	Frequency	Speed(1)	Max. input power(1)	Max. input current(1)	Max. back pressure	Perm. ambient temp.	2-speed / 0-10 V	Techn. features and connection diagram
			VAC	Hz	rpm	W	A	Pa	°C		
*3G 450 (2)	M3G 074-DF	Ⓐ	1~200-240	50/60	980	163	1,34	74	-25..+60	2 speed levels	P. 128 / H3)
*3G 450 (2)	M3G 074-DF	Ⓑ	1~200-240	50/60	980	163	1,34	74	-25..+60	Open-loop speed control	P. 129 / H4)
*3G 450	M3G 084-FA	Ⓒ	1~200-277	50/60	1500	500	2,20	150	-25..+60	Open-loop speed control	P. 130 / P5)
*3G 450	M3G 084-FA	Ⓓ	3~380-480	50/60	1520	530	0,85	165	-25(3)..+65	Open-loop speed control	P. 131 / P6)

Subject to change

(1) Nominal data at operating point with maximum load and 230 or 400 VAC (2) Not suitable for constant outdoor use, special version available on request.
(3) Occasional start-up between -40°C and -25°C is permissible. Continuous operation below -25°C only possible with special low-temperature bearings (on request).

Curves: 2 speed levels



		n rpm	P_{ed} W	I A	L_{WA} dB(A)
Ⓐ 1	Level 1	1110	163	1,34	66
Ⓐ 2	Level 1	1060	163	1,34	64
Ⓐ 3	Level 1	1025	163	1,34	61
Ⓐ 4	Level 1	980	163	1,34	68
Ⓐ 5	Level 2	945	105	0,92	61
Ⓐ 6	Level 2	930	114	0,99	60
Ⓐ 7	Level 2	915	122	1,07	58
Ⓐ 8	Level 2	895	129	1,09	66

Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection. Intake-side sound level: Lw_A according to ISO 13347, Lp_A measured at 1 m distance from fan axis. The values given are only applicable under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked in installed condition. See Page 136 ff for detailed information.

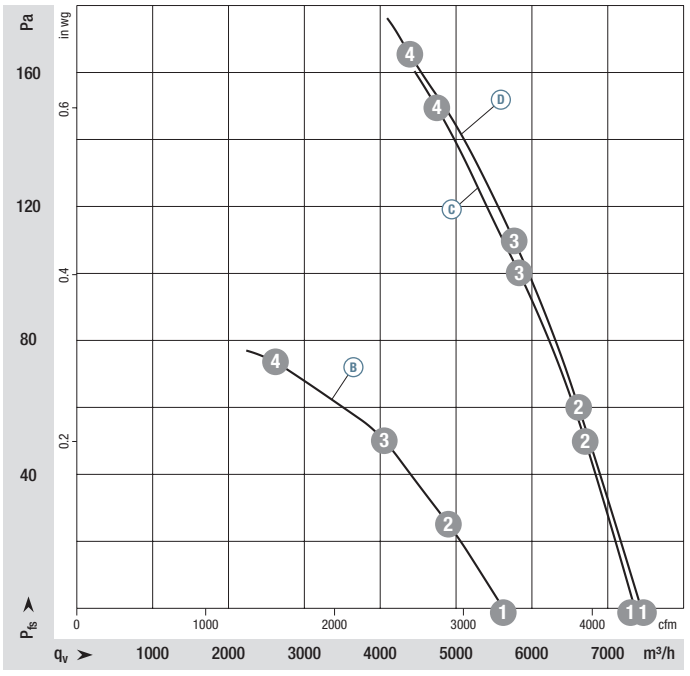
ebmpapst

- **Technical features:** See connection diagram P. 128 ff.
- **EMC:** Ⓐ Ⓑ Ⓒ Ⓓ Immunity to interference according to EN 61000-6-2 (industrial environment)
  Ⓐ Ⓑ Circuit feedback up to total power of ≤ 130 W according to EN 61000-3-2/3
  Ⓒ Ⓓ Circuit feedback according to EN 61000-3-2/3
  Ⓐ Ⓑ Interference emission according to EN 61000-6-4 (industrial environment), radio interference is to be checked in the complete unit.
  Ⓒ Ⓓ Interference emission according to EN 61000-6-4 (industrial environment), according to household appliance standard on request
- **Touch current:** < 3,5 mA according to IEC 60990 (measuring circuit Fig. 4)
- **Cable exit:** Variable
- **Terminal box design:** Ⓐ Ⓑ electrical connection via terminal strip
- **Protection class:** I (with customer connection of protective earth)
- **Conformity with standards:** Ⓐ Ⓑ EN 60335-1, CE; Ⓒ EN 61800-5-1, EN 60335-1, CE; Ⓓ EN 61800-5-1, CE
- **Approvals:** Ⓐ Ⓑ VDE; cURus[4]
  Ⓒ EAC, UL; Ⓓ EAC, UL on request

Airflow direction	❮ "V" without attachments	Weight without attachments	❮ "V" with round[5], square[6], full nozzle	Weight with round full nozzle	❮ "V" with guard grille for short nozzle	Weight with guard grille for short nozzle	❮ "V" with guard grille for short nozzle and top-mounted terminal box	Weight with guard grille for short nozzle and top-mounted terminal box
	without attachments	kg	with round[5], square[6], full nozzle	kg	with guard grille for short nozzle	kg	with guard grille for short nozzle and top-mounted terminal box	kg
"V"	A3G 450-A002 -01	2,70	W3G 450-C002 -30[5]	7,50	S3G 450-A002 -30	4,80	S3G 450-A002 -50	4,90
"V"	A3G 450-A002 -03[4]	2,70	W3G 450-C002 -32[4][5]	7,50	S3G 450-A002 -32[4]	4,80	S3G 450-A002 -52	4,90
"V"	A3G 450-BL03 -H1	5,00	W3G 450-FL03 -H1[6]	10,00	S3G 450-LL03 -H1	6,70	on request	---
"V"	A3G 450-BL07 -M1	5,30	W3G 450-FL07 -M1[6]	10,40	S3G 450-LL07 -M1	7,50	on request	---

Airflow direction "A" on request

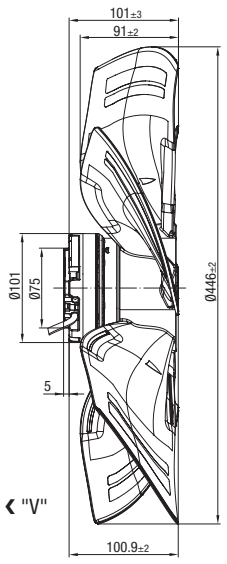
Curves: Open-loop speed control

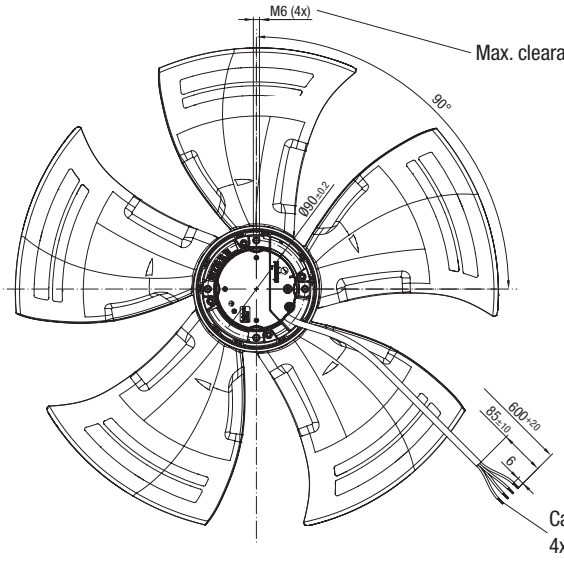


		n rpm	P_{ed} W	I A	L_{WA} dB(A)
Ⓑ	1	1110	163	1,34	66
Ⓑ	2	1060	163	1,34	64
Ⓑ	3	1025	163	1,34	61
Ⓑ	4	980	163	1,34	68
Ⓒ	1	1500	396	1,73	74
Ⓒ	2	1500	438	1,91	73
Ⓒ	3	1500	479	2,09	71
Ⓒ	4	1500	500	2,20	72
Ⓓ	1	1550	457	0,73	74
Ⓓ	2	1545	501	0,80	72
Ⓓ	3	1530	519	0,82	71
Ⓓ	4	1520	530	0,85	78

Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection. Intake-side sound level: L_{WA} according to ISO 13347, L_{pA} measured at 1 m distance from fan axis. The values given are only applicable under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked in installed condition. See Page 136 ff for detailed information.

A3G 450-A002-01 (without attachments, airflow direction "V")

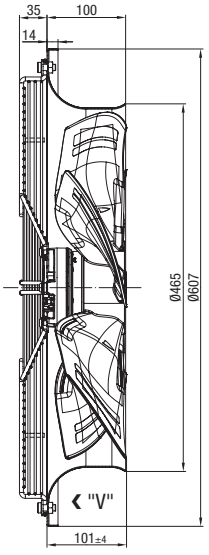


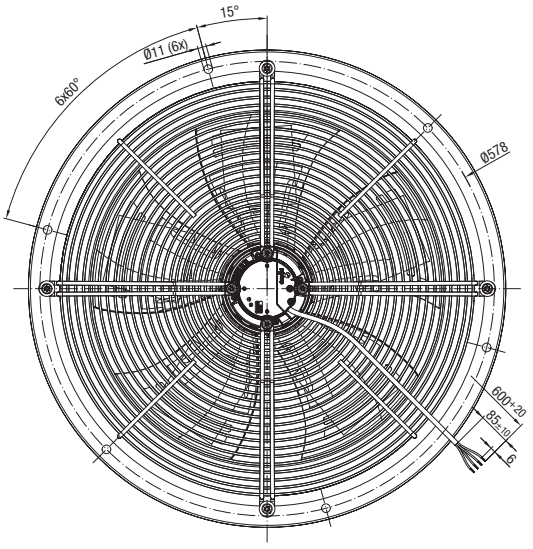


Inside diameter of fan housing min. 454 mm

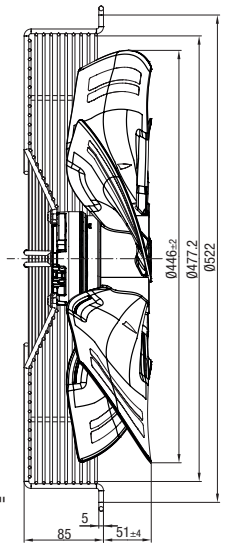
Cable PVC 4G AWG20, 4x crimped splices

W3G 450-C002-30 (with round full nozzle, airflow direction "V")

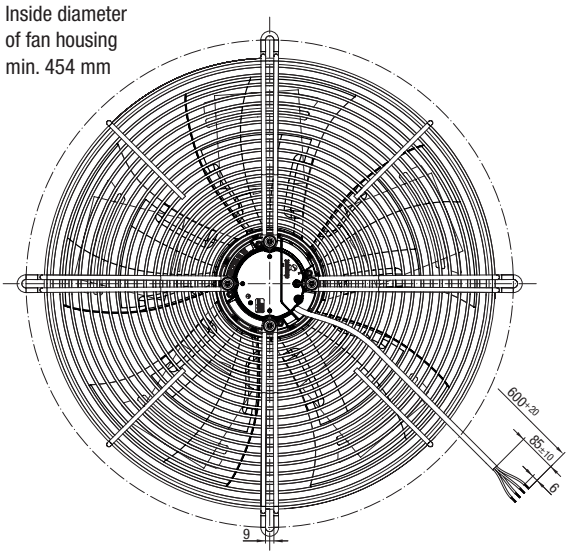




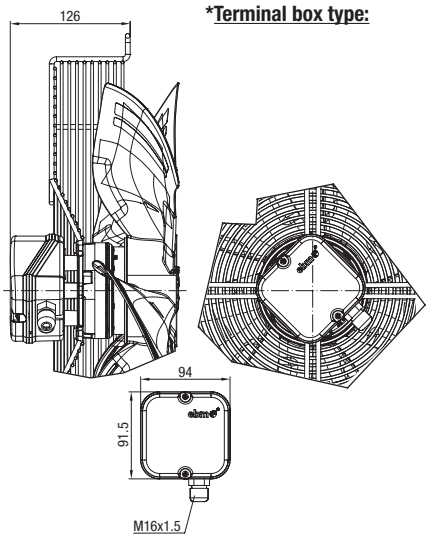
S3G 450-A002-30 / S3G 450-A002-50* (with guard grille for short nozzle, airflow direction "V")



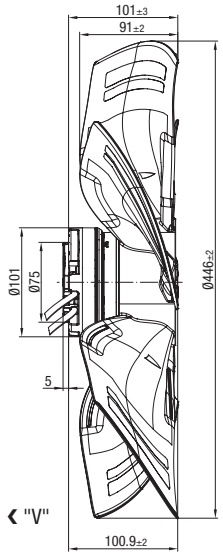
Inside diameter of fan housing min. 454 mm

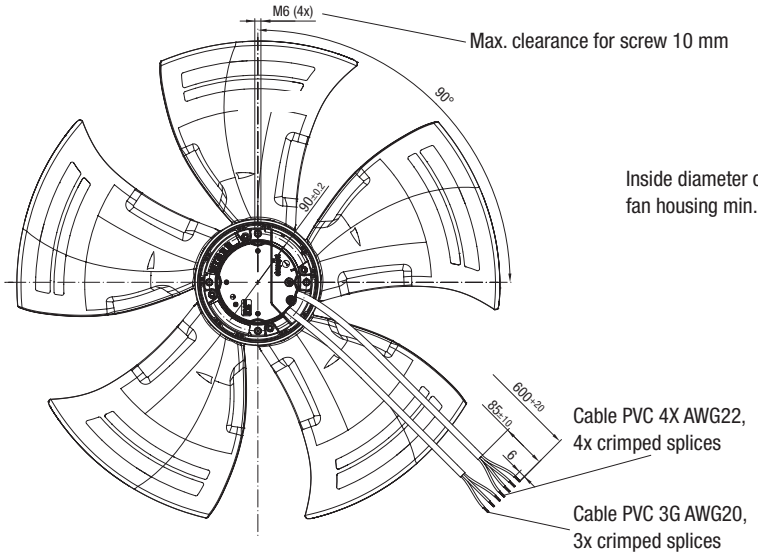


***Terminal box type:**

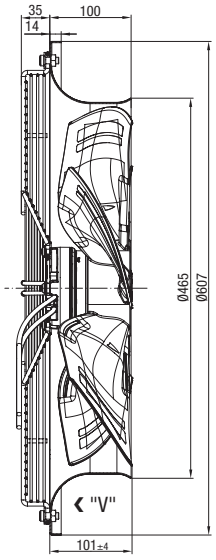


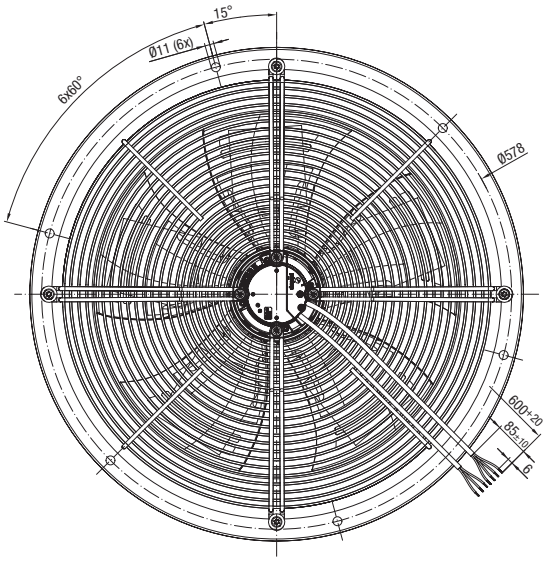
A3G 450-A002-03 (without attachments, airflow direction "V")



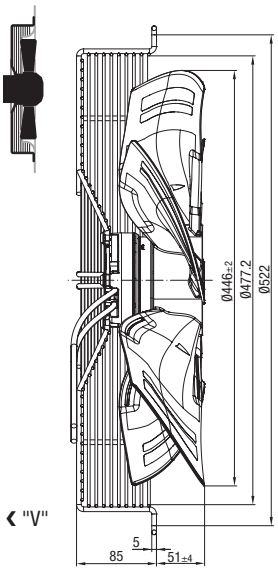


W3G 450-C002-32 (with round full nozzle, airflow direction "V")

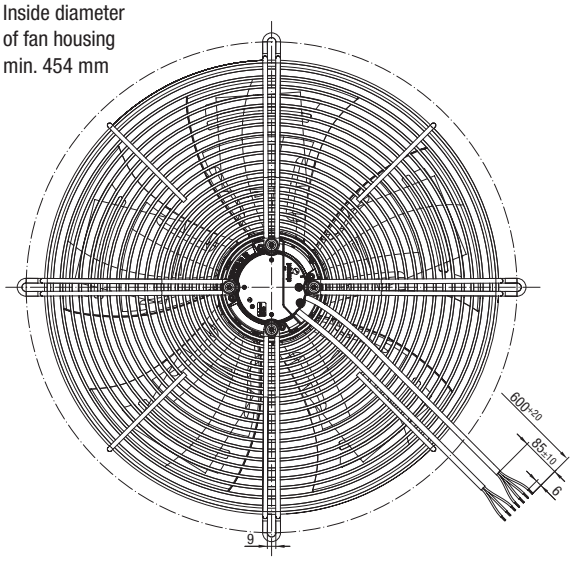




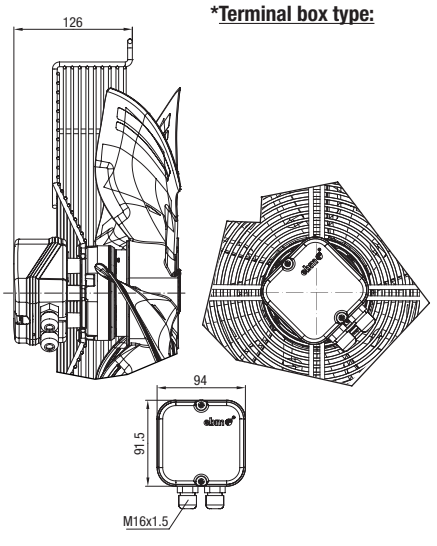
S3G 450-A002-32 / S3G 450-A002-52* (with guard grille for short nozzle, airflow direction "V")



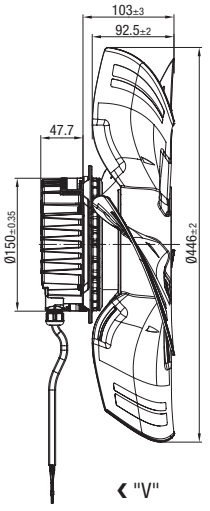
Inside diameter of fan housing min. 454 mm

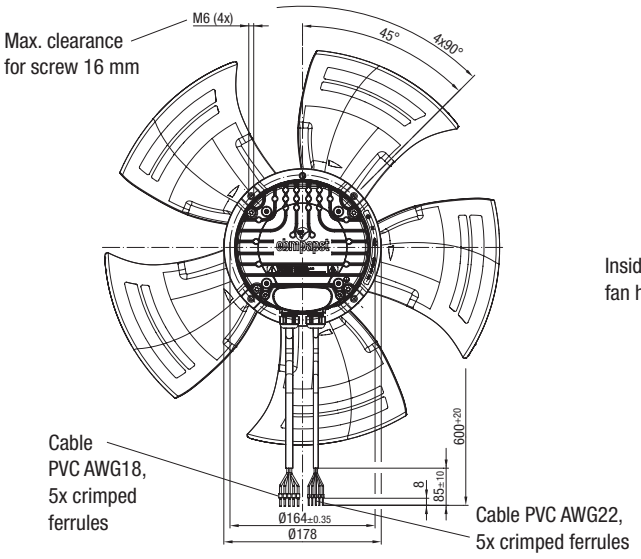


***Terminal box type:**



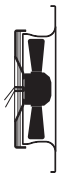
A3G 450-BL03-H1 (without attachments, airflow direction "V")

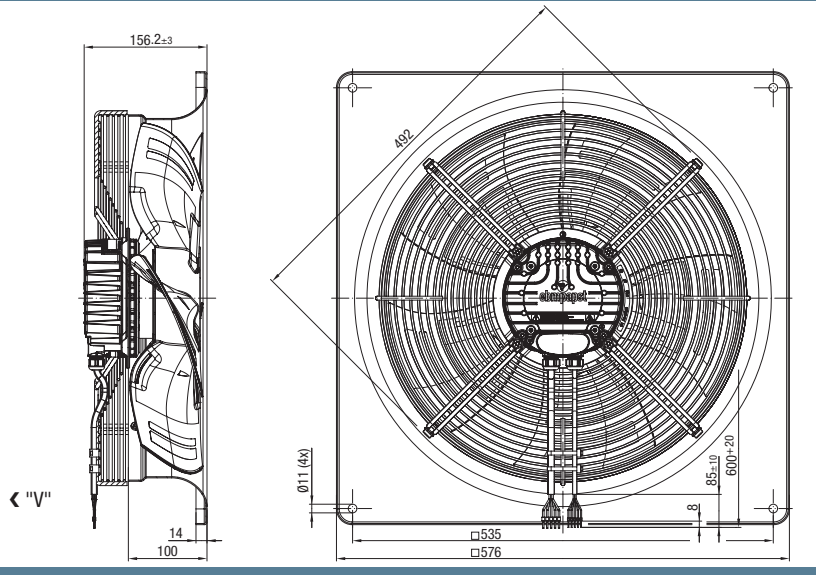




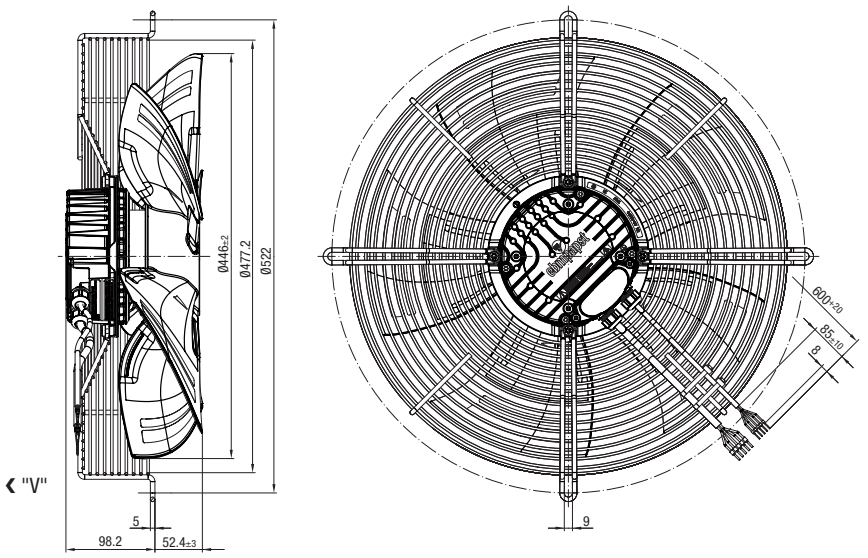
Inside diameter of
fan housing min. 454 mm

W3G 450-FL03-H1 (with square full nozzle, airflow direction "V")



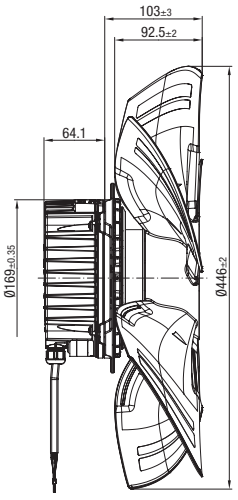


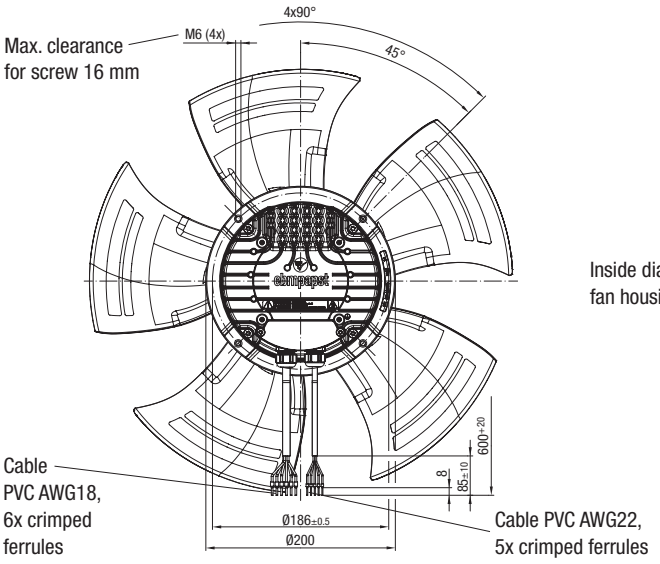
S3G 450-LL03-H1 (with guard grille for short nozzle, airflow direction "V")



Inside diameter of
fan housing min. 454 mm

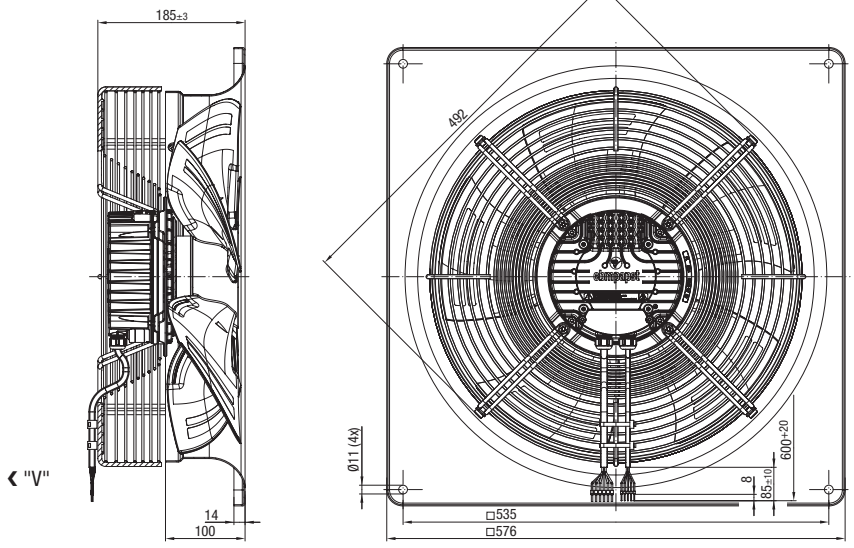
A3G 450-BL07-M1 (without attachments, airflow direction "V")



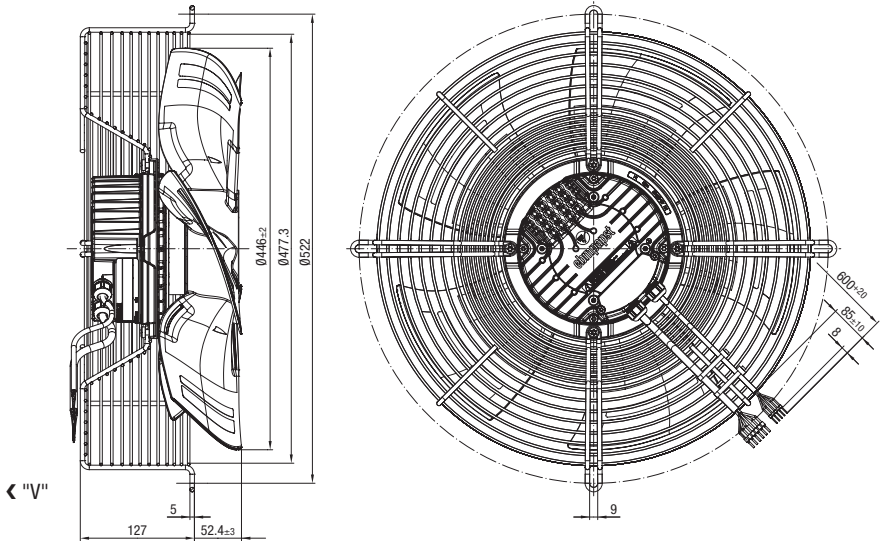


Inside diameter of
fan housing min. 454 mm

W3G 450-FL07-M1 (with square full nozzle, airflow direction "V")



S3G 450-LL07-M1 (with guard grille for short nozzle, airflow direction "V")



Inside diameter of
fan housing min. 454 mm

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EC axial fans – HyBlade®

Ø 500

- **Material:** Guard grille: Steel, coated with black plastic (RAL 9005)
  Fan housing: Sheet steel, galvanized and coated with black plastic (RAL 9005)
  Blades, press-fitted sheet steel blank, over-molded with PP plastic
  Rotor: Painted black
  Electronics housing: Die-cast aluminum, painted black
- **Number of blades:** 5
- **Direction of rotation:** Counterclockwise viewed toward rotor
- **Degree of protection:** IP55
- **Insulation class:** "F"
- **Installation position:** Shaft horizontal or rotor on bottom, rotor on top on request
- **Condensation drainage holes:** Rotor side
- **Mode:** Continuous operation (S1)
- **Mounting:** Maintenance-free ball bearings

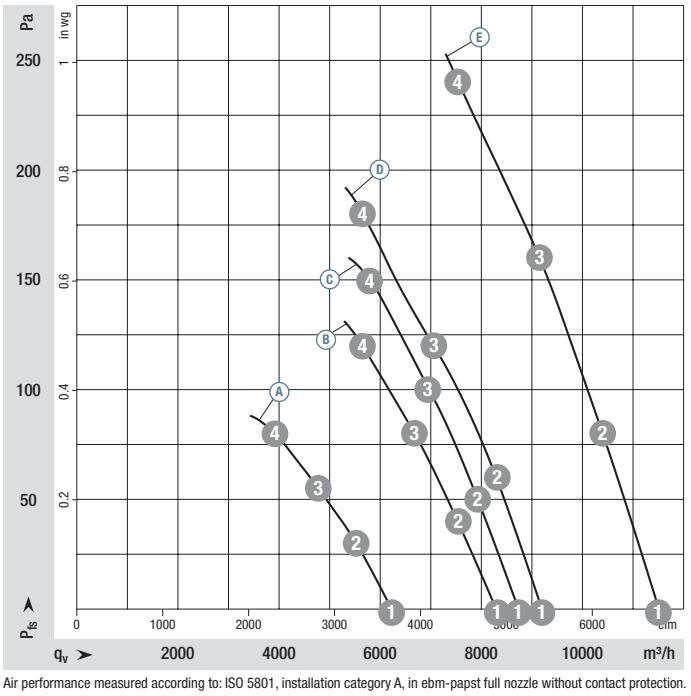
Nominal data

Type	Motor	Curve	Nominal voltage range	Frequency	Speed[1]	Max. input power[1]	Max. input current[1]	Max. back pressure	Perm. ambient temp.	Techn. features and connection diagram
			VAC	Hz	rpm	W	A	Pa	°C	
*3G 500	M3G 084-DF	A	1~200-277	50/60	970	250	1,10	80	-25..+60	P. 132 / P7)
*3G 500	M3G 084-GF	B	1~200-277	50/60	1260	500	2,20	120	-25..+60	P. 132 / P7)
*3G 500	M3G 084-GF	C	3~380-480	50/60	1370	630	1,00	150	-25[2]..+60	P. 133 / P8)
*3G 500	M3G 112-EA	D	1~200-277	50/60	1440	740	3,25	180	-25[2]..+60	P. 132 / P7)
*3G 500	M3G 112-GA	E	3~380-480	50/60	1770	1300	2,10	240	-25[2]..+60	P. 133 / P8)

Subject to change

(1) Nominal data at operating point with maximum load and 230 or 400 VAC.
(2) Occasional start-up between -40°C and -25°C is permissible. Continuous operation below -25°C only possible with special low-temperature bearings (on request).

Curves:



Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection. Intake-side sound level: Lw_A according to ISO 13347, Lp_A measured at 1 m distance from fan axis. The values given are only applicable under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked in installed condition. See Page 136 ff for detailed information.

		n rpm	P_{ed} W	I A	L_{WA} dB(A)
A	1	970	177	0,82	68
A	2	970	207	0,94	64
A	3	970	228	1,03	62
A	4	970	250	1,10	63
B	1	1260	374	1,65	71
B	2	1260	425	1,87	69
B	3	1260	467	2,05	68
B	4	1260	500	2,20	69
C	1	1370	471	0,77	73
C	2	1370	537	0,86	71
C	3	1370	591	0,94	70
C	4	1370	630	1,00	72
D	1	1440	533	2,37	77
D	2	1440	614	2,72	74
D	3	1440	683	3,00	72
D	4	1440	740	3,25	74
E	1	1770	987	1,58	80
E	2	1770	1094	1,75	78
E	3	1770	1213	1,93	76
E	4	1770	1300	2,10	78

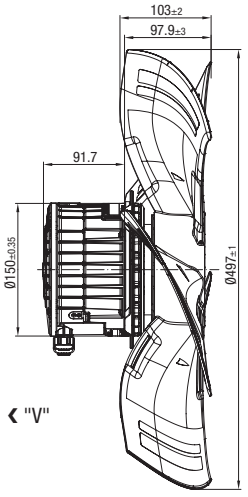
ebmpapst

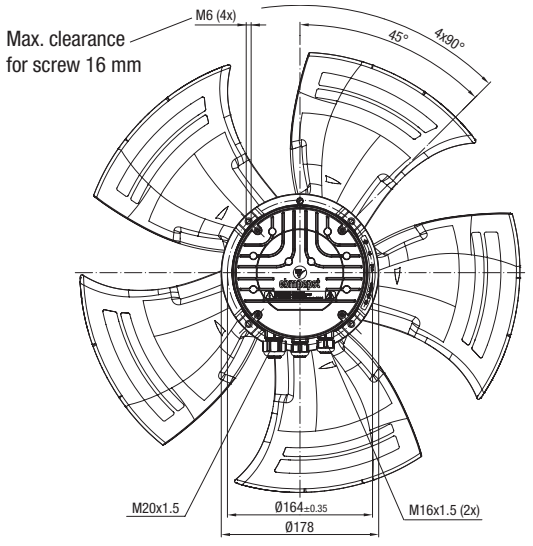
- **Technical features:** See connection diagram P. 132 ff.
- **EMC:** Immunity to interference according to EN 61000-6-2 (industrial environment)
  Circuit feedback according to EN 61000-3-2
  Interference emission according to EN 61000-6-4 (industrial environment), according to household appliance standard on request
- **Touch current:** <= 3.5 mA according to IEC 60990 (measuring circuit Fig. 4)
- **Electrical connection:** Via terminal box
- **Protection class:** I (with customer connection of protective earth)
- **Conformity with standards:** Ⓐ Ⓑ EN 61800-5-1, EN 60335-1, CE
  Ⓒ Ⓔ EN 61800-5-1, CE
  Ⓓ EN 61800-5-1, EN 60335-1 in preparation, CE
- **Approvals:** Ⓑ EAC, UL; Ⓐ Ⓒ EAC, UL on request
  Ⓓ UL, CSA; Ⓔ UL, CSA planned

Airflow direction	 ❮ "V" without attachments	Weight without attachments kg	 ❮ "V" with square full nozzle	Weight with square full nozzle kg	 ❮ "V" with guard grille for short nozzle	Weight with guard grille for short nozzle kg
"V"	A3G 500-BK07 -G1	4,80	W3G 500-GK07 -G1	11,30	S3G 500-AK07 -G1	7,40
"V"	A3G 500-BM06 -H1	5,70	W3G 500-GM06 -H1	12,30	S3G 500-AM06 -H1	8,30
"V"	A3G 500-BM03 -M1	6,00	W3G 500-GM03 -M1	13,30	S3G 500-AM03 -M1	9,50
"V"	A3G 500-BA74 -21	7,40	W3G 500-GA74 -21	14,40	S3G 500-AA74 -21	10,70
"V"	A3G 500-BD59 -01	8,90	W3G 500-GD59 -01	15,90	S3G 500-AD59 -01	12,20

Airflow direction "A" on request

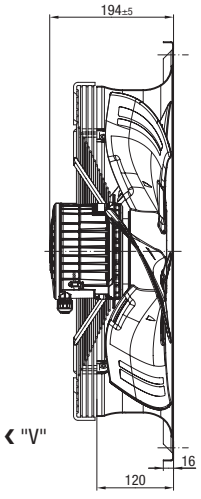
A3G 500-BK07-G1 (without attachments, airflow direction "V")

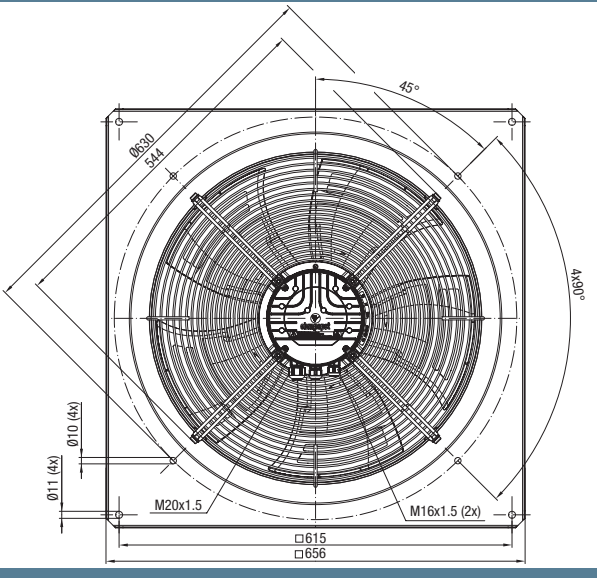




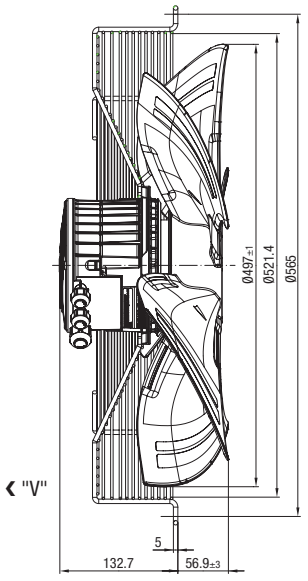
Inside diameter of
fan housing min. 503 mm

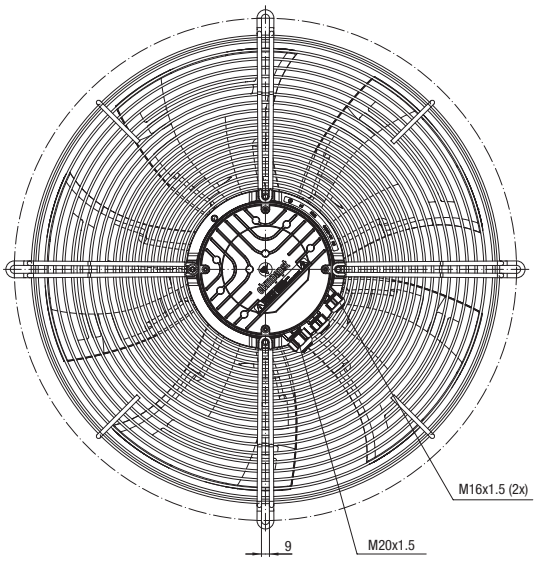
W3G 500-GK07-G1 (with square full nozzle, airflow direction "V")





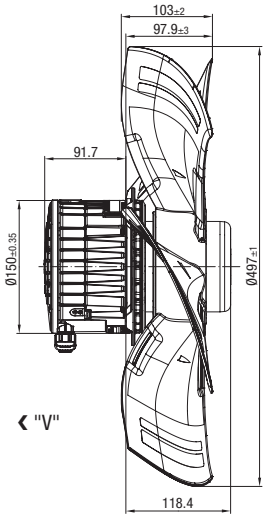
S3G 500-AK07-G1 (with guard grille for short nozzle, airflow direction "V")

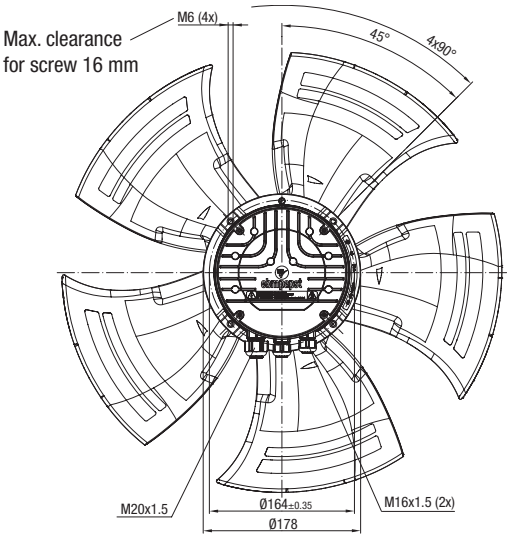




Inside diameter of
fan housing min. 503 mm

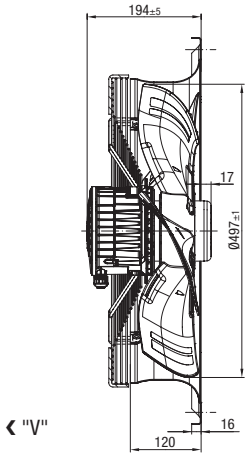
A3G 500-BM06-H1 (without attachments, airflow direction "V")

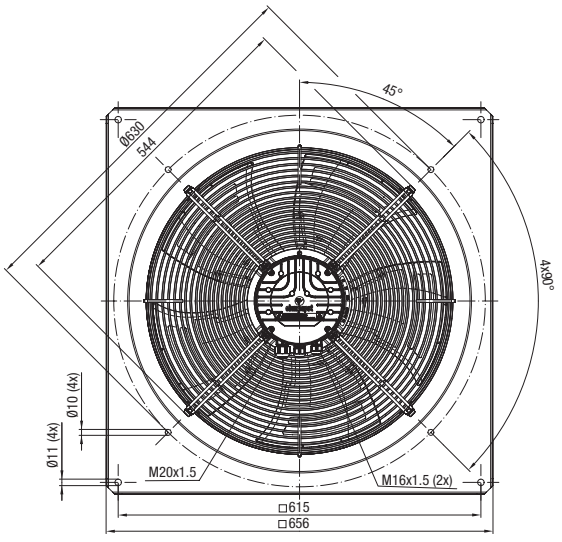




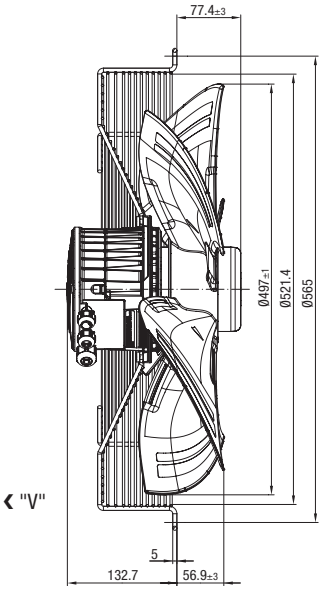
Inside diameter of
fan housing min. 503 mm

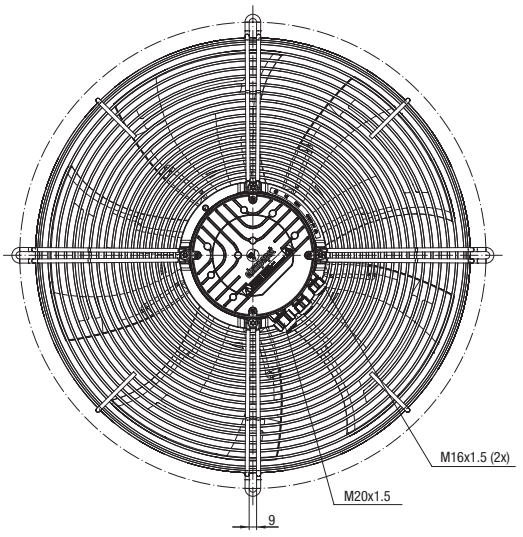
W3G 500-GM06-H1 (with square full nozzle, airflow direction "V")





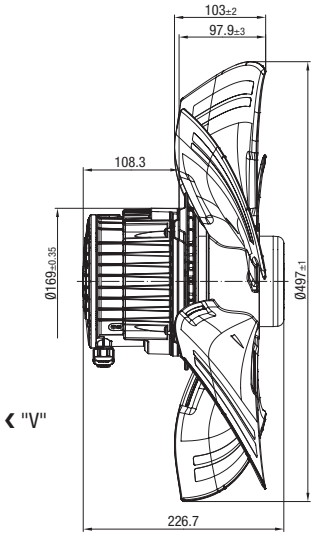
S3G 500-AM06-H1 (with guard grille for short nozzle, airflow direction "V")



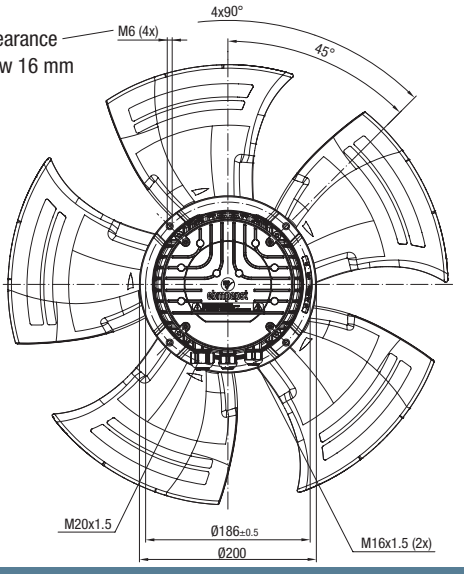


Inside diameter of
fan housing min. 503 mm

A3G 500-BM03-M1 (without attachments, airflow direction "V")

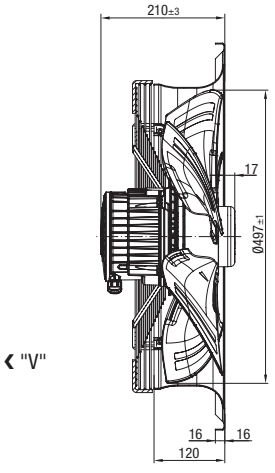


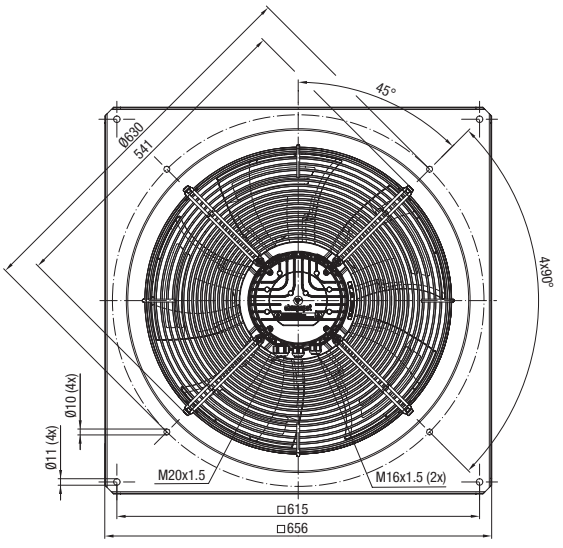
Max. clearance for screw 16 mm



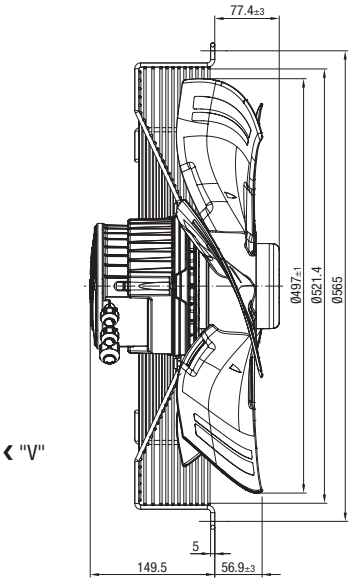
Inside diameter of fan housing min. 503 mm

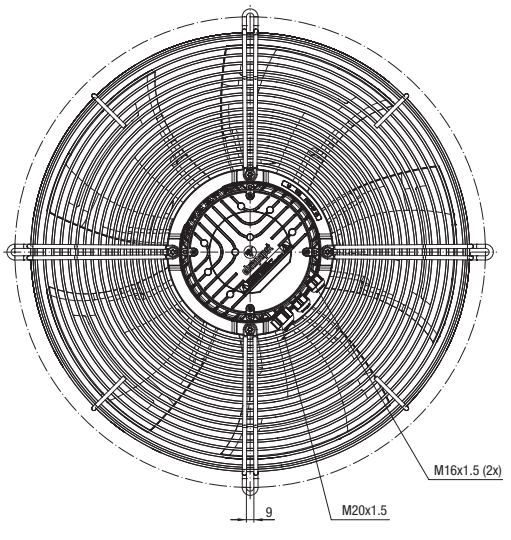
W3G 500-GM03-M1 (with square full nozzle, airflow direction "V")





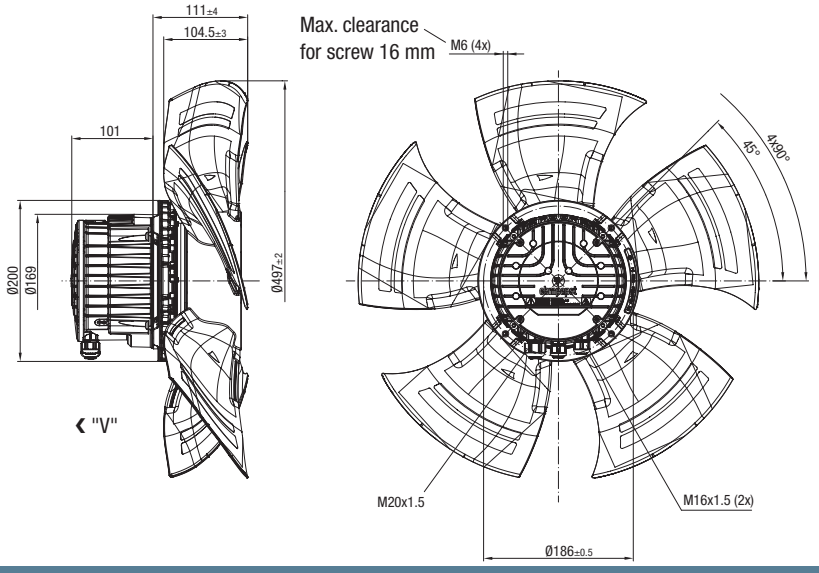
S3G 500-AM03-M1 (with guard grille for short nozzle, airflow direction "V")





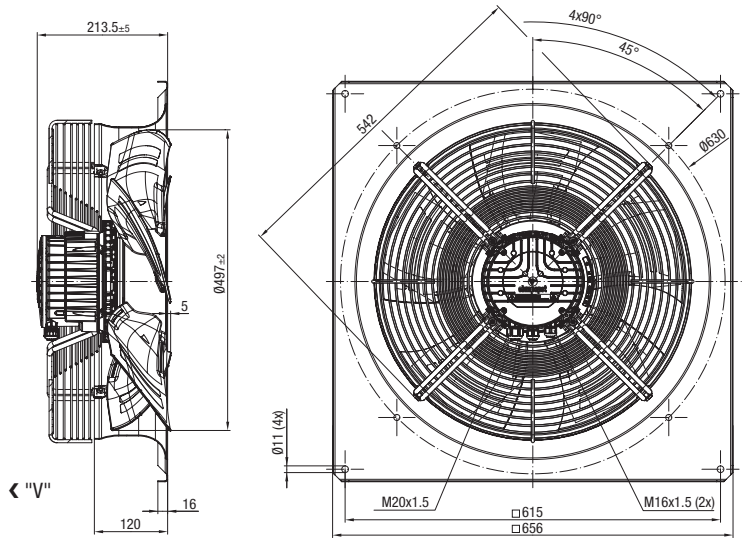
Inside diameter of fan housing min. 503 mm

A3G 500-BA74-21 (without attachments, airflow direction "V")

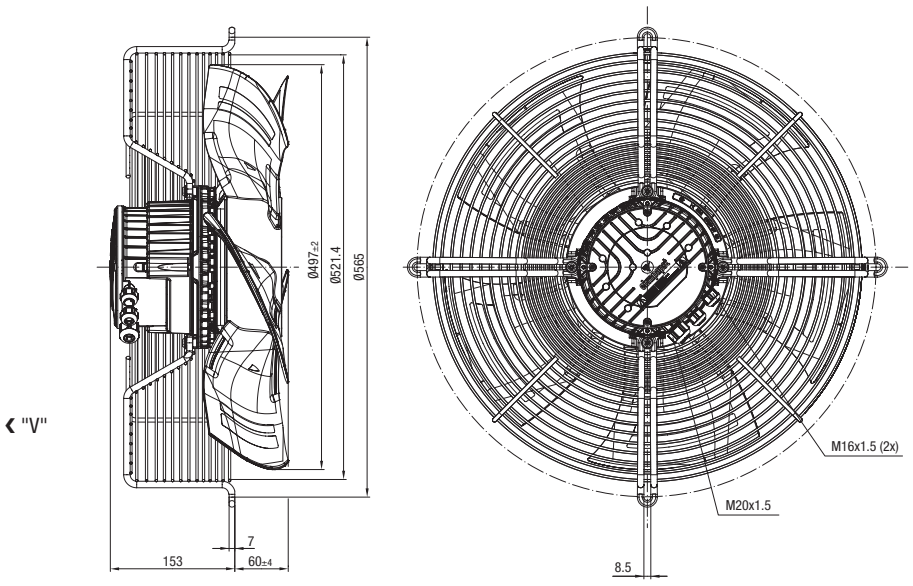


Inside diameter of
fan housing min. 503 mm

W3G 500-GA74-21 (with square full nozzle, airflow direction "V")

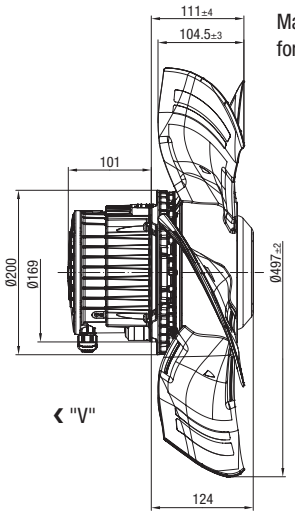


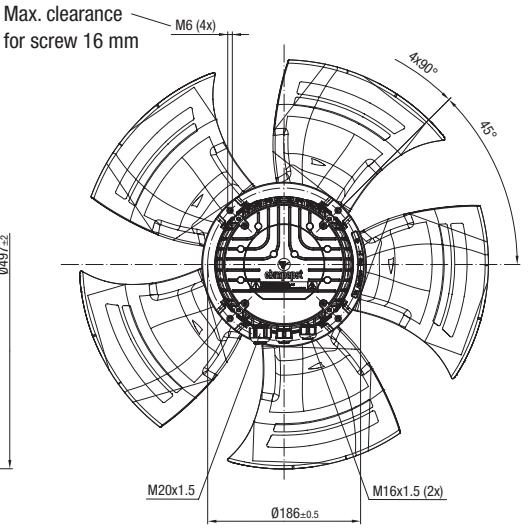
S3G 500-AA74-21 (with guard grille for short nozzle, airflow direction "V")



Inside diameter of
fan housing min. 503 mm

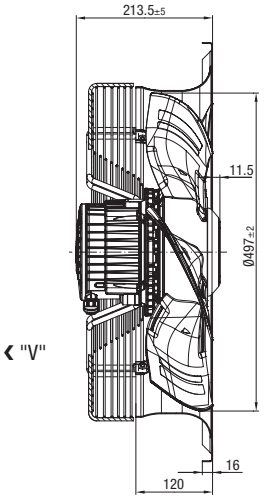
A3G 500-BD59-01 (without attachments, airflow direction "V")

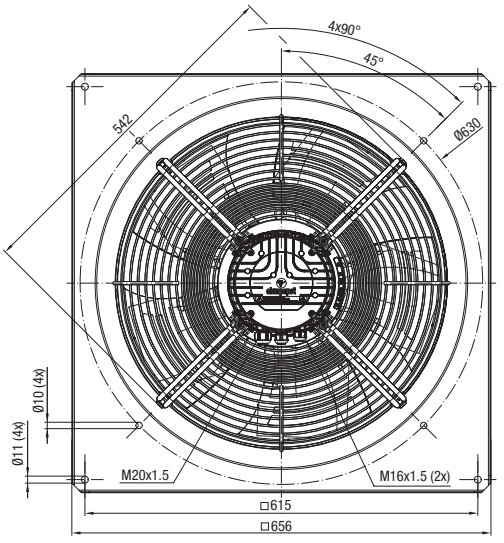




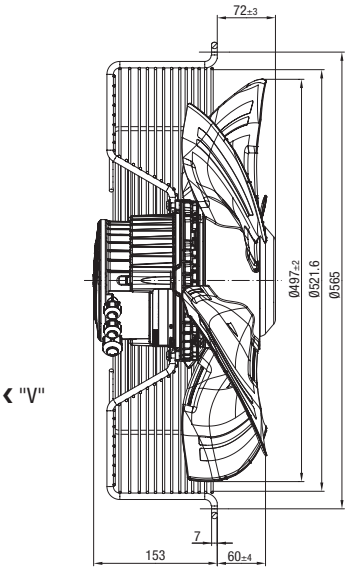
Inside diameter of fan housing min. 503 mm

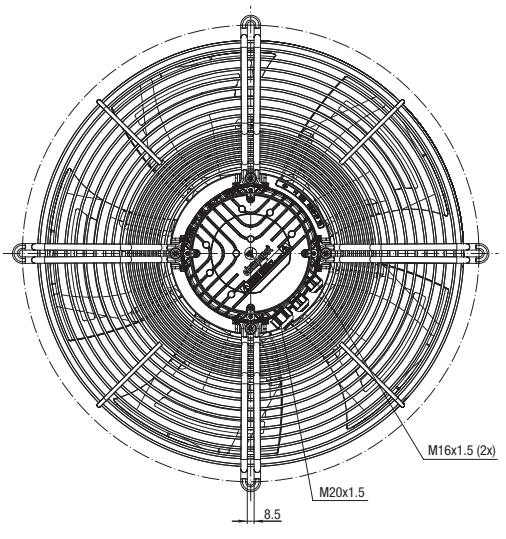
W3G 500-GD59-01 (with square full nozzle, airflow direction "V")





S3G 500-AD59-01 (with guard grille for short nozzle, airflow direction "V")





Inside diameter of fan housing min. 503 mm

Agents	Technology	Ø 1250	Ø 990	Ø 910	Ø 800	Ø 710	Ø 630	Ø 560	Ø 500	Ø 450	Ø 400	Ø 350	Ø 300	Ø 250	Ø 200	Information

ErP2015 EXCEEDS THE NORM

EC axial fans – HyBlade®

Ø 560

- **Material:** Guard grille: Steel, coated with black plastic (RAL 9005)
  Fan housing: Sheet steel, galvanized and coated with black plastic (RAL 9005)
  Blades: Sheet aluminum insert, over-molded with PP plastic
  Rotor: Painted black
  Electronics housing: Die-cast aluminum, painted black
- **Number of blades:** 5
- **Direction of rotation:** Counterclockwise viewed toward rotor
- **Degree of protection:** IP55
- **Insulation class:** "F"
- **Installation position:** Shaft horizontal or rotor on bottom, rotor on top on request
- **Condensation drainage holes:** Rotor side
- **Mode:** Continuous operation (S1)
- **Mounting:** Maintenance-free ball bearings

Nominal data

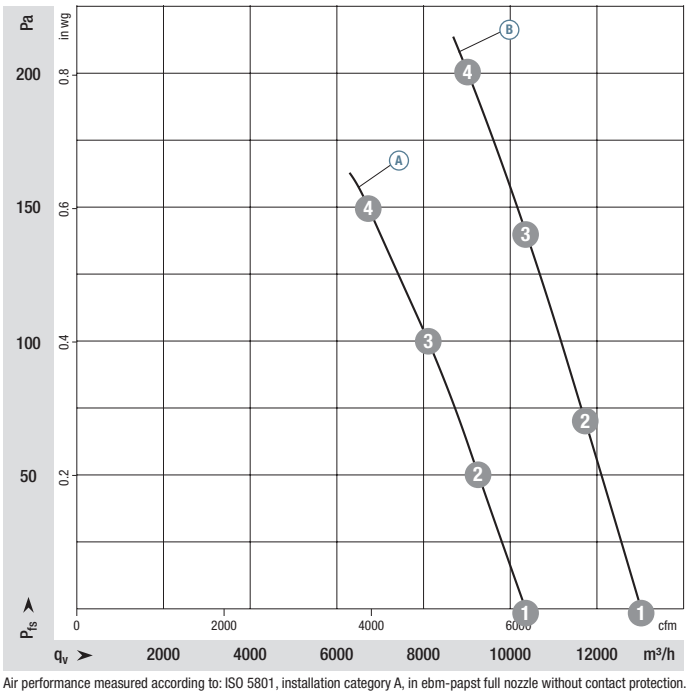
Type	Motor	Blade pitch	Curve	Nominal voltage range	Frequency	Speed[1]	Max. input power[1]	Max. input current[1]	Max. back pressure	Perm. ambient temp.	Techn. features and connection diagram
				VAC	Hz	rpm	W	A	Pa	°C	
*3G 560	M3G 112-EA	-5°	A	1~200-277	50/60	1230	735	3,20	150	-25[2]..+60	P. 132 / P7)
*3G 560	M3G 112-IA	-5°	B	3~380-480	50/60	1520	1300	2,10	200	-25[2]..+60	P. 133 / P8)

Subject to change

(1) Nominal data at operating point with maximum load and 230 or 400 VAC.

(2) Occasional start-up between -40°C and -25°C is permissible. Continuous operation below -25°C only possible with special low-temperature bearings (on request).

Curves:



		n rpm	P_{ed} W	I A	L_{WA} dB(A)
A	1	1230	531	2,38	73
A	2	1230	606	2,70	72
A	3	1230	668	2,96	71
A	4	1230	735	3,20	74
B	1	1520	958	1,51	77
B	2	1520	1097	1,72	76
B	3	1520	1207	1,89	75
B	4	1520	1300	2,10	78

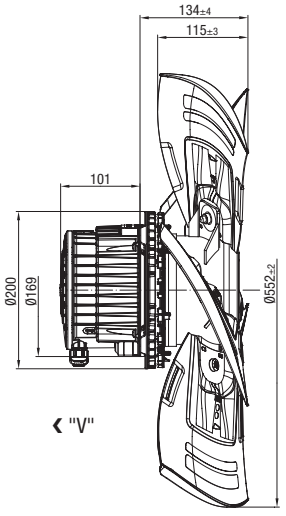
Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection. Intake-side sound level: Lw_A according to ISO 13347, Lp_A measured at 1 m distance from fan axis. The values given are only applicable under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked in installed condition. See Page 136 ff for detailed information.

- **Technical features:** See connection diagram P. 132 ff.
- **EMC:** Immunity to interference according to EN 61000-6-2 (industrial environment)
  Circuit feedback according to EN 61000-3-2
  Interference emission according to EN 61000-6-4 (industrial environment), according to household appliance standard on request
- **Touch current:** <= 3.5 mA according to IEC 60990 (measuring circuit Fig. 4)
- **Electrical connection:** Via terminal box
- **Protection class:** I (with customer connection of protective earth)
- **Conformity with standards:** EN 61800-5-1, CE; EN 60335-1 in preparation
- **Approvals:** Ⓐ EAC, UL, CSA
  Ⓑ EAC; UL, CSA planned

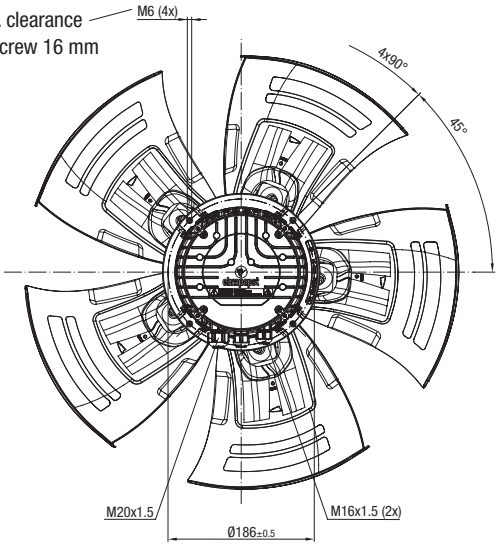
Airflow direction	 ❮ "V" without attachments	Weight without attachments kg	 ❮ "V" with square full nozzle	Weight with square full nozzle kg	 ❮ "V" with guard grille for short nozzle	Weight with guard grille for short nozzle kg
"V"	A3G 560-BB78 -21	8,50	W3G 560-GB78 -21	20,20	S3G 560-AB78 -21	12,80
"V"	A3G 560-BH99 -01	11,10	W3G 560-GH99 -01	22,80	S3G 560-AH99 -01	15,40

Airflow direction "A" on request

A3G 560-BB78-21 (without attachments, airflow direction "V")

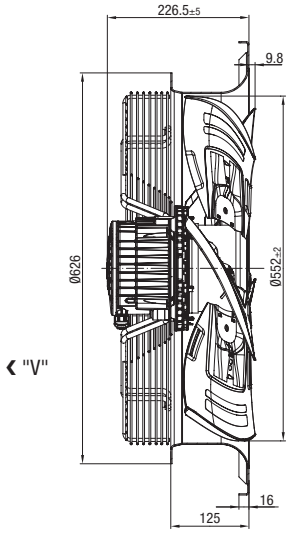


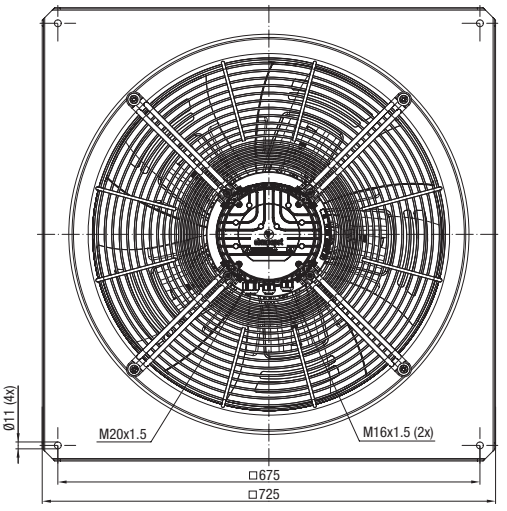
Max. clearance for screw 16 mm



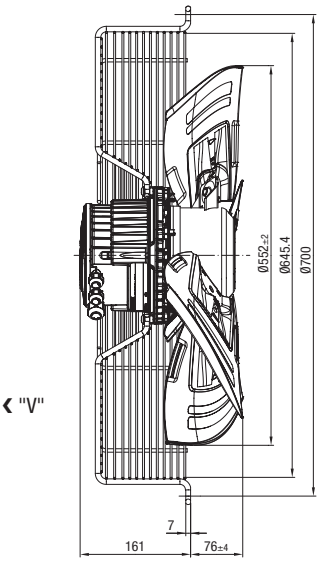
Inside diameter of fan housing min. 559 mm

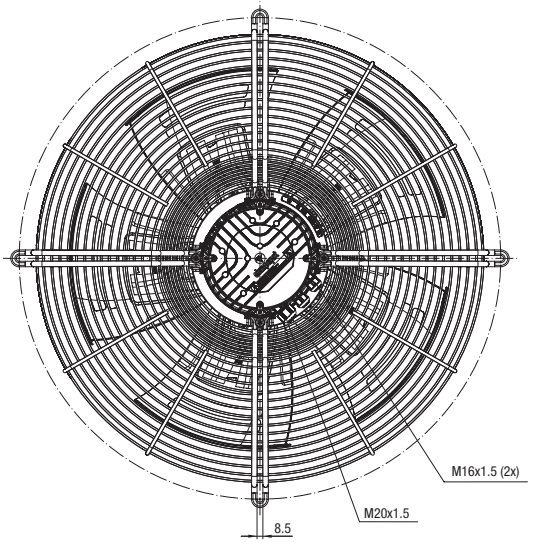
W3G 560-GB78-21 (with square full nozzle, airflow direction "V")





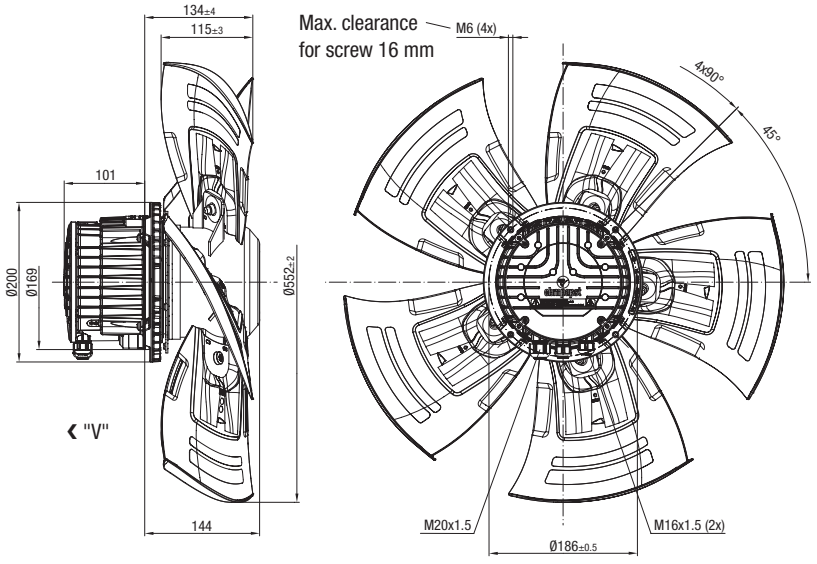
S3G 560-AB78-21 (with guard grille for short nozzle, airflow direction "V")





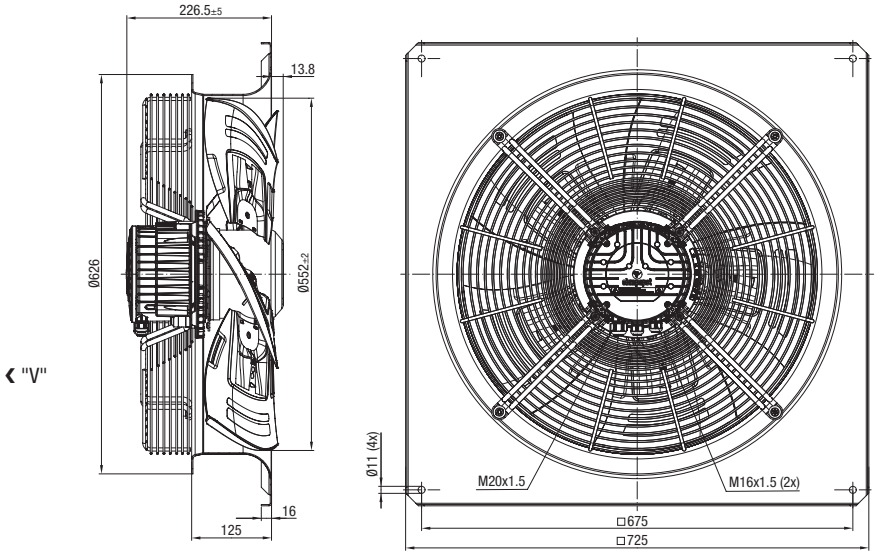
Inside diameter of fan housing min. 559 mm

A3G 560-BH99-01 (without attachments, airflow direction "V")

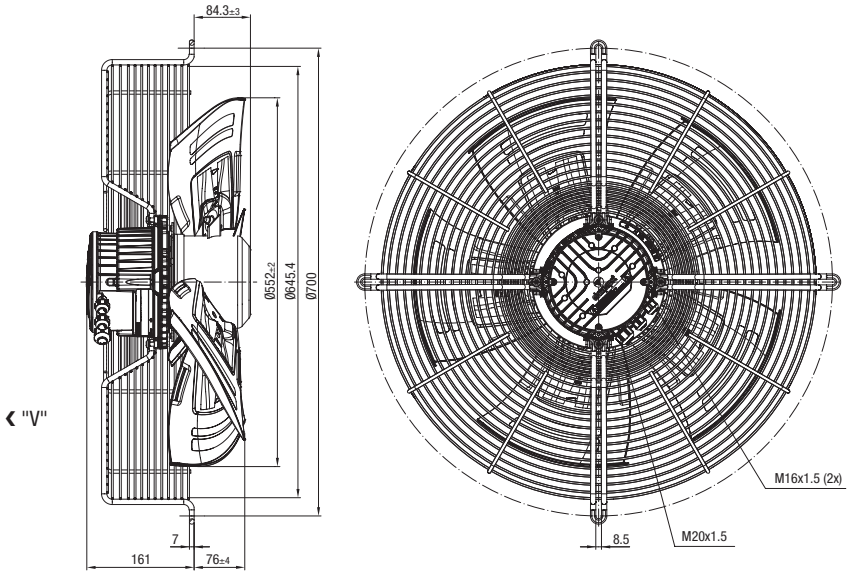


Inside diameter of fan housing min. 559 mm

W3G 560-GH99-01 (with square full nozzle, airflow direction "V")



S3G 560-AH99-01 (with guard grille for short nozzle, airflow direction "V")



Inside diameter of fan housing min. 559 mm

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EC axial fans – HyBlade®

Ø 630

- **Material:** Guard grille: Steel, coated with black plastic (RAL 9005)
  Fan housing: Sheet steel, galvanized and coated with black plastic (RAL 9005)
  Blades (5): Ⓐ to Ⓔ Press-fitted sheet steel blank, over-molded with PP plastic
  Ⓕ Aluminum insert, over-molded with PP plastic
  Rotor: Painted black
  Electronics housing: Die-cast aluminum, painted black
- **Direction of rotation:** Ⓐ to Ⓔ counterclockwise, Ⓕ clockwise, viewed toward rotor
- **Degree of protection:** IP55
- **Insulation class:** "F"
- **Installation position:** Shaft horizontal or rotor on bottom, rotor on top on request
- **Condensation drainage holes:** Rotor side
- **Mode:** Continuous operation (S1)
- **Mounting:** Maintenance-free ball bearings

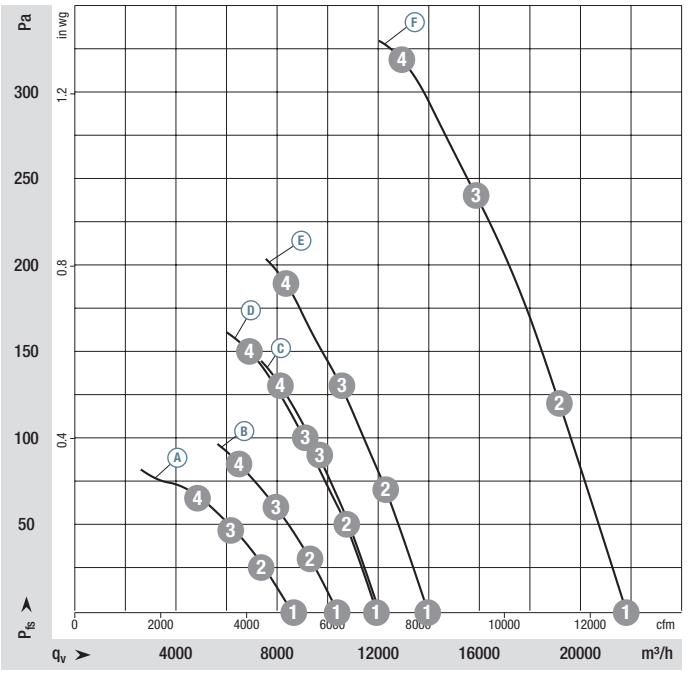
Nominal data

Type	Motor	Blade pitch	Curve	Nominal voltage range	Frequency	Speed[1]	Max. input power[1]	Max. input current[1]	Max. back pressure	Perm. ambient temp.	Techn. features and connection diagram
				VAC	Hz	rpm	W	A	Pa	°C	
*3G 630	M3G 084-FA	---	Ⓐ	1~200-277	50/60	770	240	1,00	65	-25..+60	P. 132 / P7)
*3G 630	M3G 084-GF	---	Ⓑ	1~200-277	50/60	900	390	1,70	85	-25..+60	P. 132 / P7)
*3G 630	M3G 112-GA	---	Ⓒ	3~380-480	50/60	1000	700	1,10	130	-25[2]..+60	P. 133 / P8)
*3G 630	M3G 112-GA	---	Ⓓ	1~200-277	50/60	1020	730	3,20	150	-25[2]..+60	P. 132 / P7)
*3G 630	M3G 112-IA	---	Ⓔ	3~380-480	50/60	1160	1080	1,70	190	-25[2]..+60	P. 133 / P8)
*3G 630	M3G 150-IF	0°	Ⓕ	3~380-480	50/60	1510	3250	5,00	320	-25[2]..+65	P. 134 / M5)

Subject to change

(1) Nominal data at operating point with maximum load and 230 or 400 VAC.
(2) Occasional start-up between -40°C and -25°C is permissible. Continuous operation below -25°C only possible with special low-temperature bearings (on request).

Curves:



		n rpm	P_{ed} W	I A	L_{WA} dB(A)
Ⓐ	1	770	152	0,68	62
Ⓐ	2	770	190	0,84	61
Ⓐ	3	770	218	0,96	62
Ⓐ	4	770	240	1,00	64
Ⓑ	1	900	258	1,15	66
Ⓑ	2	900	311	1,38	66
Ⓑ	3	900	357	1,57	65
Ⓑ	4	900	390	1,70	68
Ⓒ	1	1000	473	0,77	75
Ⓒ	2	1000	561	0,90	71
Ⓒ	3	1000	629	1,01	69
Ⓒ	4	1000	700	1,10	70
Ⓓ	1	1020	463	2,08	76
Ⓓ	2	1020	555	2,47	72
Ⓓ	3	1020	648	2,86	70
Ⓓ	4	1020	730	3,20	73

Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection. Intake-side sound level: L_{WA} according to ISO 13347, L_{pA} measured at 1 m distance from fan axis. The values given are only applicable under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked in installed condition. See Page 136 ff for detailed information.

ebmpapst

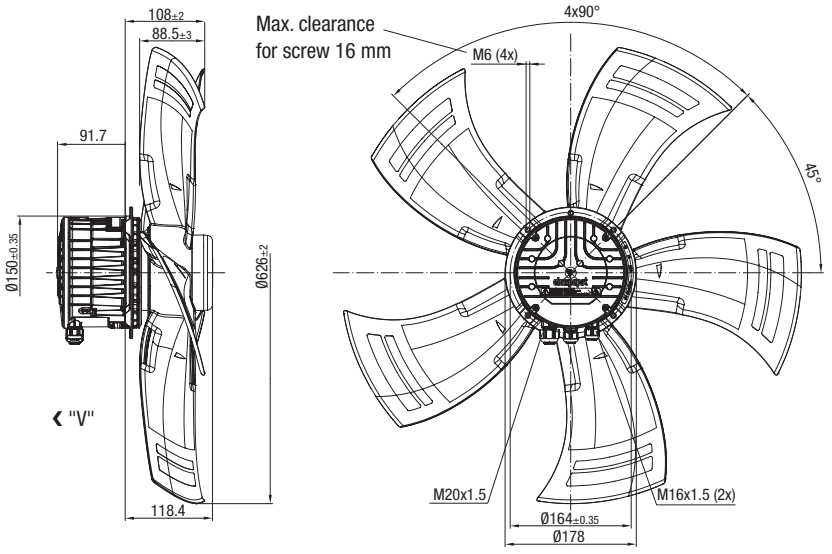
- **Technical features:** See connection diagram P. 132 ff.
- **EMC:** Immunity to interference according to EN 61000-6-2 (industrial environment)
  Circuit feedback according to EN 61000-3-2
  Interference emission according to EN 61000-6-4 (industrial environment), according to household appliance standard on request
- **Touch current:** <= 3.5 mA according to IEC 60990 (measuring circuit Fig. 4)
- **Electrical connection:** Via terminal box
- **Protection class:** I (with customer connection of protective earth)
- **Conformity with standards:** Ⓐ Ⓑ EN 61800-5-1, EN 60335-1, CE
  Ⓒ Ⓓ Ⓔ EN 61800-5-1, CE; EN 60335-1 in preparation
  Ⓕ EN 61800-5-1, CE
- **Approvals:** Ⓐ EAC, UL on request; Ⓑ EAC, UL
  Ⓓ UL, CSA; Ⓒ Ⓔ UL, CSA planned; Ⓕ EAC

Airflow direction	 ❮ "V" without attachments	Weight without attachments kg	 ❮ "V" with square full nozzle	Weight with square full nozzle kg	 ❮ "V" with guard grille for short nozzle	Weight with guard grille for short nozzle kg
"V"	A3G 630-BL06 -G1	5,50	W3G 630-GL06 -G1	20,00	S3G 630-AL06 -G1	11,10
"V"	A3G 630-BM07 -H1	5,90	W3G 630-GM07 -H1	20,40	S3G 630-AM07 -H1	11,40
"V"	A3G 630-BE55 -51	9,60	W3G 630-GE55 -51	23,60	S3G 630-AE55 -51	14,90
"V"	A3G 630-BE55 -21	9,60	W3G 630-GE55 -21	23,60	S3G 630-AE55 -21	14,90
"V"	A3G 630-BG97 -01	11,20	W3G 630-GG97 -01	25,20	S3G 630-AG97 -01	16,50
"V"	A3G 630-AU31 -71	25,40	W3G 630-GU31 -71	40,00	S3G 630-AU31 -71	33,00

Airflow direction "A" on request

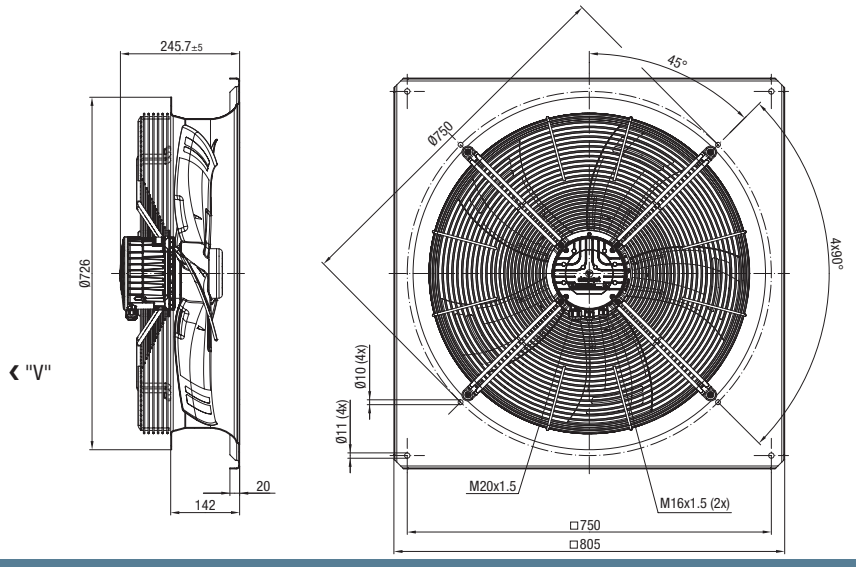
		n rpm	P_{ed} W	I A	L_{WA} dB(A)
Ⓔ	❶	1160	696	1,13	77
Ⓔ	❷	1160	836	1,35	74
Ⓔ	❸	1160	951	1,53	72
Ⓔ	❹	1160	1080	1,70	75
Ⓕ	❶	1510	2516	3,89	82
Ⓕ	❷	1510	2802	4,30	81
Ⓕ	❸	1510	3077	4,70	82
Ⓕ	❹	1510	3250	5,00	87

A3G 630-BL06-G1 (without attachments, airflow direction "V")

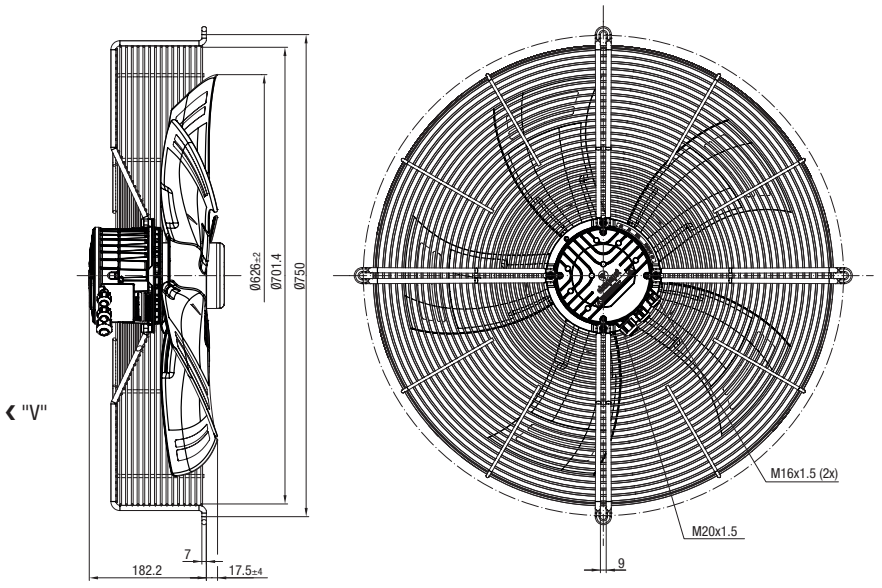


Inside diameter of
fan housing min. 634 mm

W3G 630-GL06-G1 (with square full nozzle, airflow direction "V")

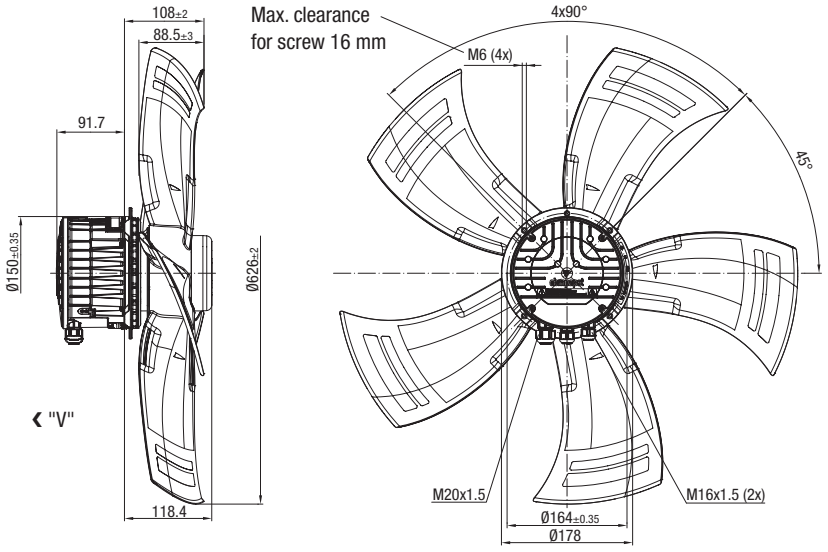


S3G 630-AL06-G1 (with guard grille for short nozzle, airflow direction "V")



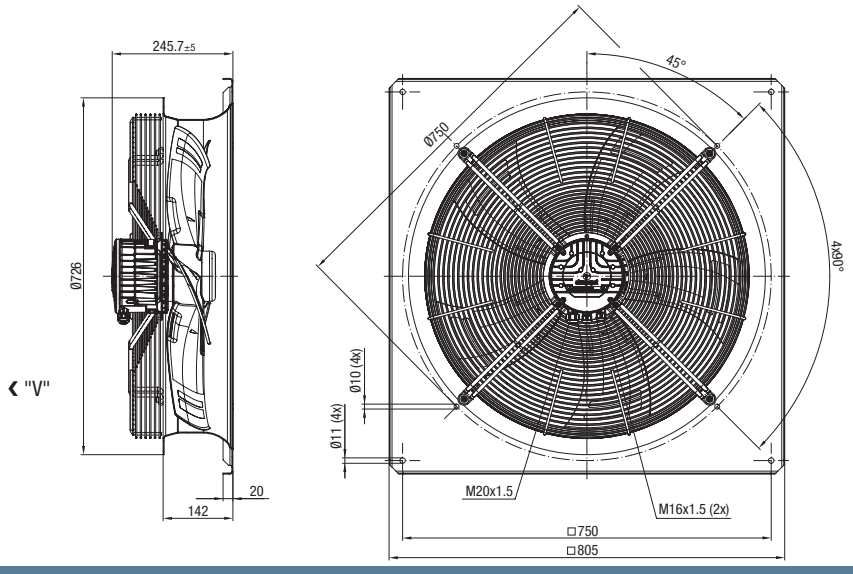
Inside diameter of
fan housing min. 634 mm

A3G 630-BM07-H1 (without attachments, airflow direction "V")

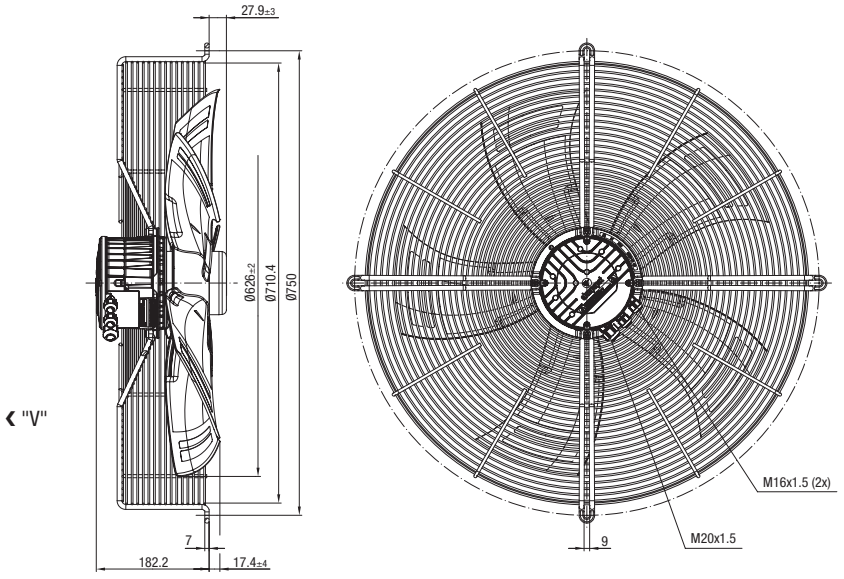


Inside diameter of
fan housing min. 634 mm

W3G 630-GM07-H1 (with square full nozzle, airflow direction "V")

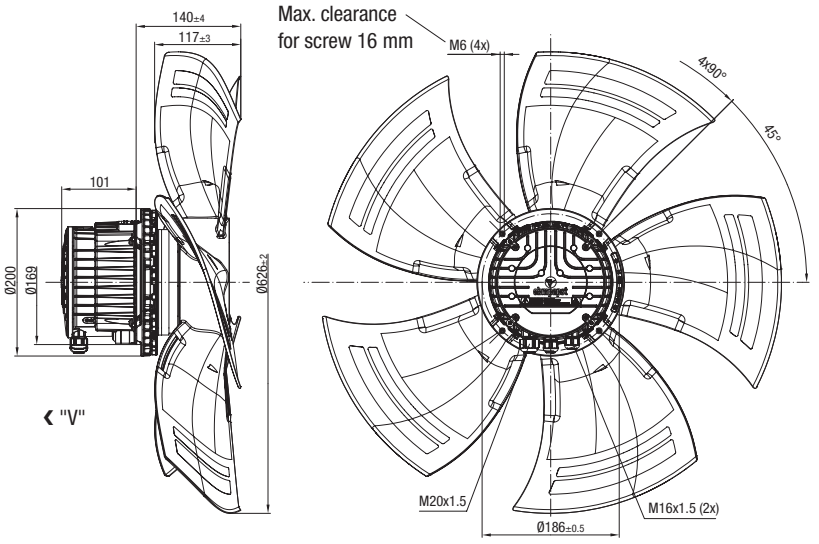


S3G 630-AM07-H1 (with guard grille for short nozzle, airflow direction "V")



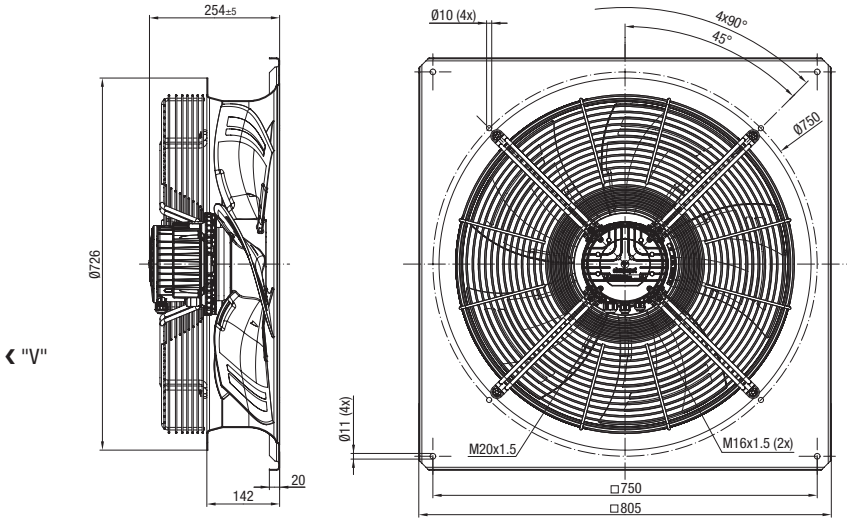
Inside diameter of
fan housing min. 634 mm

A3G 630-BE55-51 (without attachments, airflow direction "V")

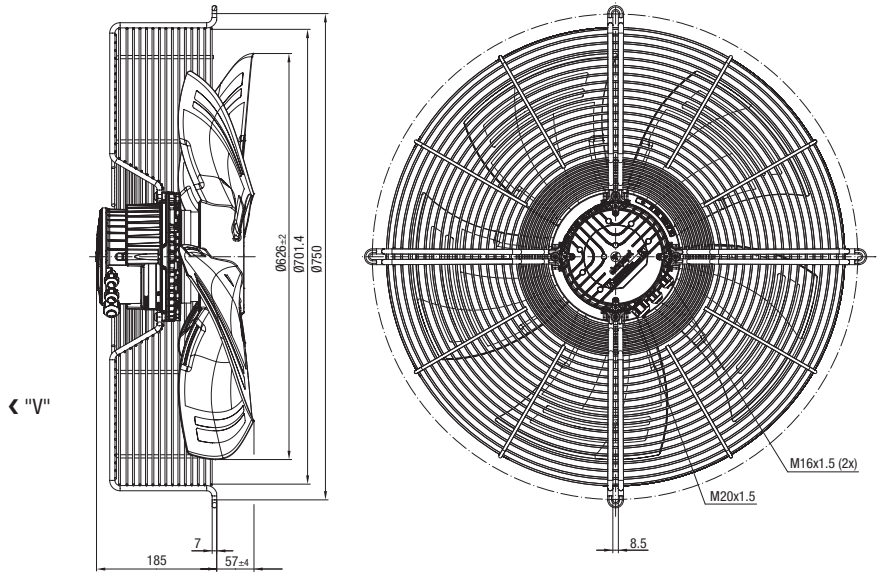


Inside diameter of
fan housing min. 634 mm

W3G 630-GE55-51 (with square full nozzle, airflow direction "V")

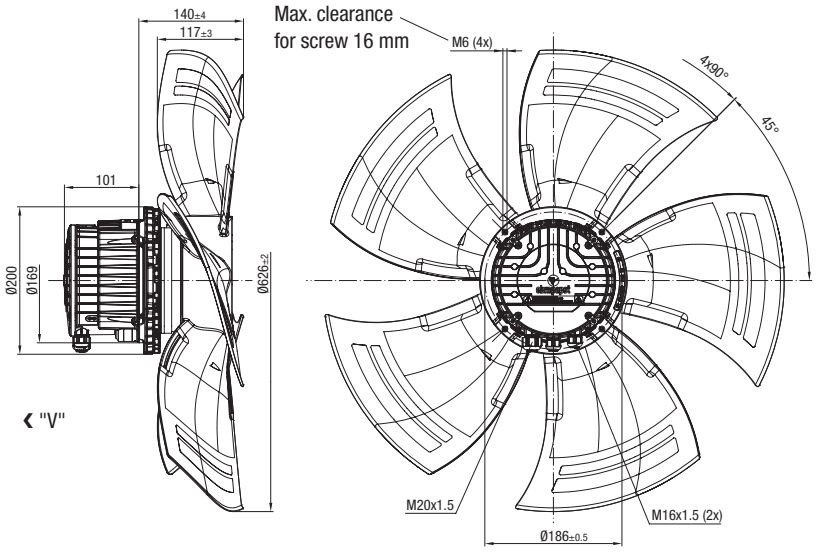


S3G 630-AE55-51 (with guard grille for short nozzle, airflow direction "V")



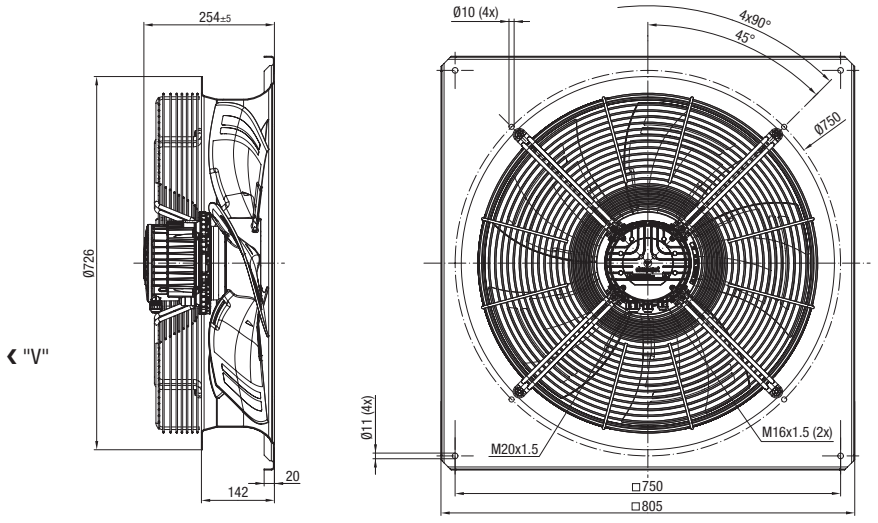
Inside diameter of
fan housing min. 634 mm

A3G 630-BE55-21 (without attachments, airflow direction "V")

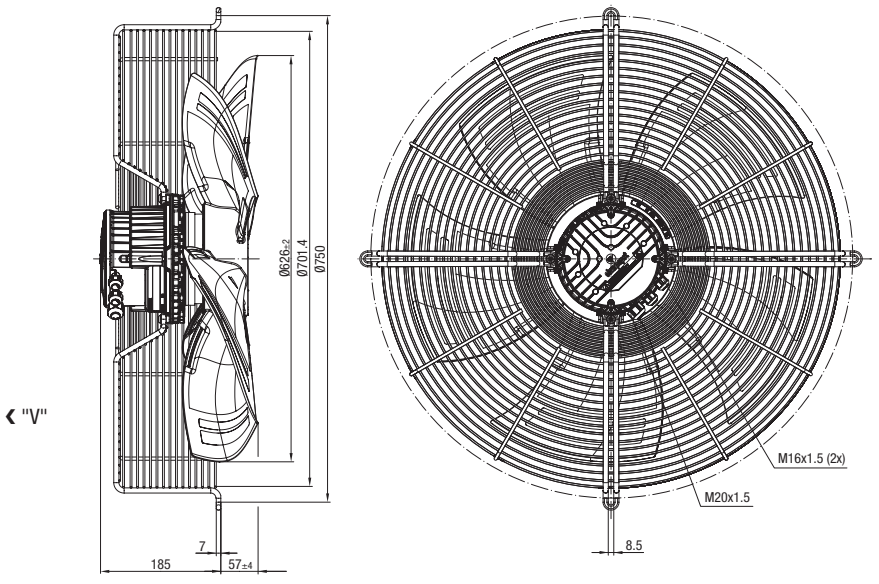


Inside diameter of
fan housing min. 634 mm

W3G 630-GE55-21 (with square full nozzle, airflow direction "V")

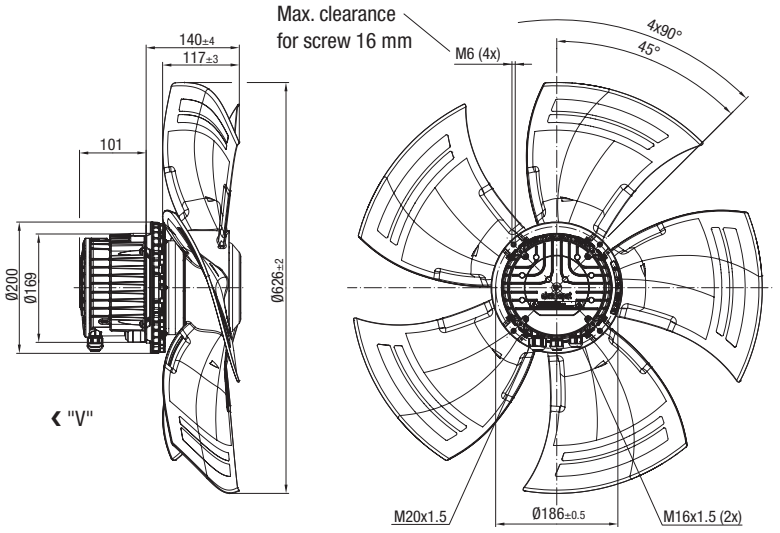


S3G 630-AE55-21 (with guard grille for short nozzle, airflow direction "V")



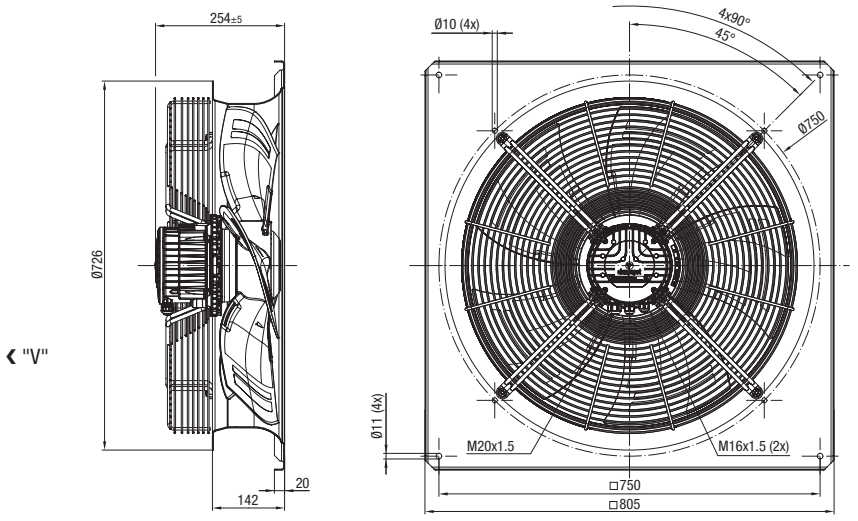
Inside diameter of
fan housing min. 634 mm

A3G 630-BG97-01 (without attachments, airflow direction "V")

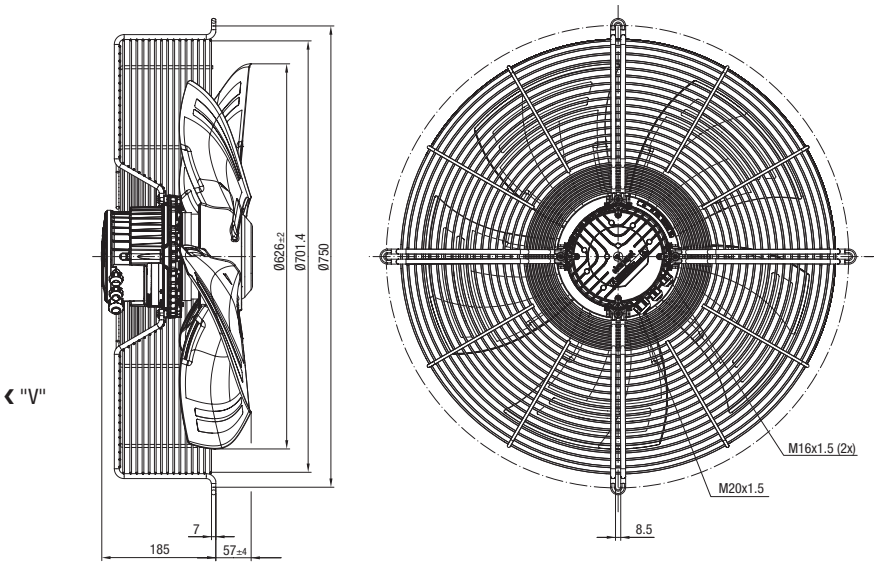


Inside diameter of
fan housing min. 634 mm

W3G 630-GG97-01 (with square full nozzle, airflow direction "V")

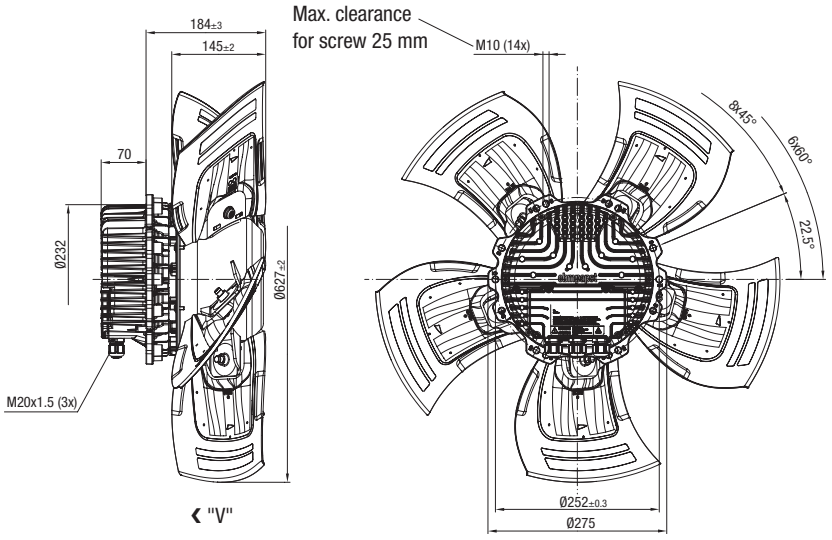


S3G 630-AG97-01 (with guard grille for short nozzle, airflow direction "V")



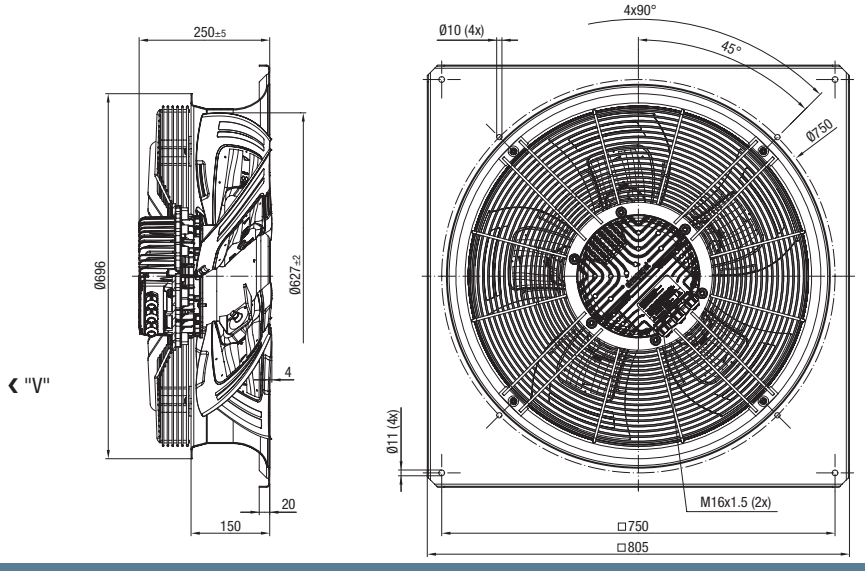
Inside diameter of
fan housing min. 634 mm

A3G 630-AU31-71 (without attachments, airflow direction "V")

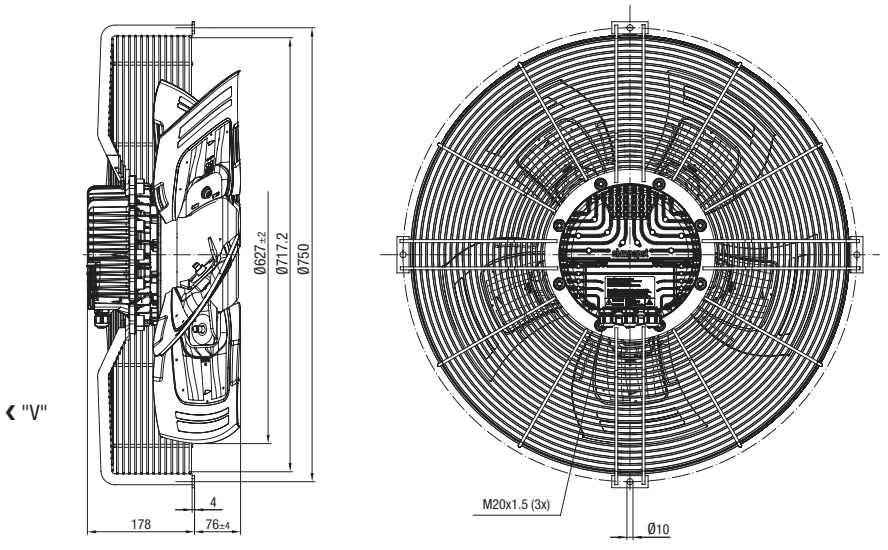


Inside diameter of
fan housing min. 634 mm

W3G 630-GU31-71 (with square full nozzle, airflow direction "V")



S3G 630-AU31-71 (with guard grille for short nozzle, airflow direction "V")



Inside diameter of
fan housing min. 634 mm

ErP2015 EXCEEDS THE NORM

EC axial fans – HyBlade®

Ø 710

- **Material:** Guard grille: Steel, coated with black plastic (RAL 9005)
  Fan housing: Sheet steel, galvanized and coated with black plastic (RAL 9005)
  Blades: Aluminum insert, over-molded with PP plastic
  Rotor: Painted black
  Electronics housing: Die-cast aluminum, painted black
- **Number of blades:** 5
- **Direction of rotation:** Ⓐ to Ⓔ counterclockwise, Ⓕ clockwise, viewed toward rotor
- **Degree of protection:** IP55
- **Insulation class:** "F"
- **Installation position:** Shaft horizontal or rotor on bottom, rotor on top on request
- **Condensation drainage holes:** Rotor side
- **Mode:** Continuous operation (S1)
- **Mounting:** Maintenance-free ball bearings

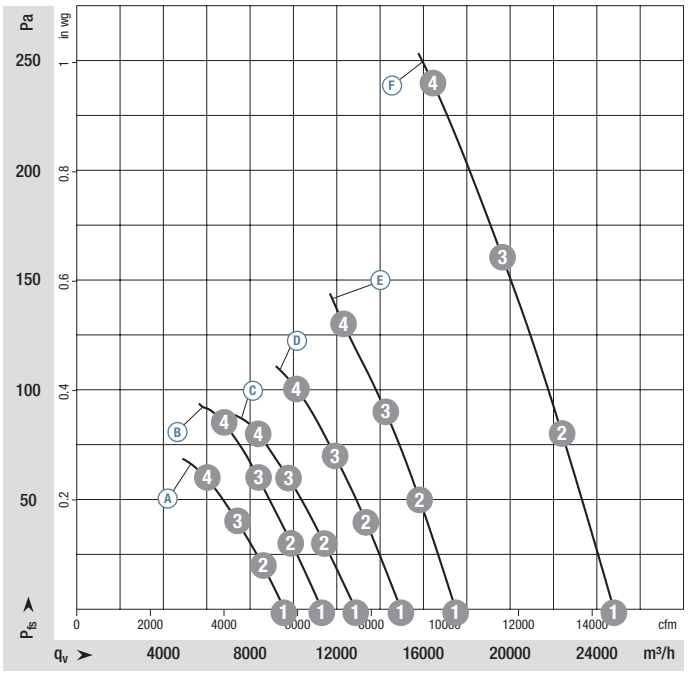
Nominal data

Type	Motor	Blade pitch	Curve	Nominal voltage range	Frequency	Speed[1]	Max. input power[1]	Max. input current[1]	Max. back pressure	Perm. ambient temp.	Techn. features and connection diagram
				VAC	Hz	rpm	W	A	Pa	°C	
*3G 710	M3G 112-EA	-5°	Ⓐ	1~200-277	50/60	620	250	1,10	60	-25..+60	P. 132 / P7)
*3G 710	M3G 112-EA	-5°	Ⓑ	3~380-480	50/60	730	400	0,67	85	-25[2]..+60	P. 133 / P8)
*3G 710	M3G 112-GA	0°	Ⓒ	1~200-277	50/60	730	500	2,20	80	-25..+60	P. 132 / P7)
*3G 710	M3G 112-IA	0°	Ⓓ	1~200-277	50/60	850	740	3,30	100	-25[2]..+60	P. 132 / P7)
*3G 710	M3G 112-IA	0°	Ⓔ	3~380-480	50/60	1010	1200	1,90	130	-25[2]..+60	P. 133 / P8)
*3G 710	M3G 150-IF	0°	Ⓕ	3~380-480	50/60	1250	2875	4,40	240	-25[2]..+60	P. 134 / M5)

Subject to change

(1) Nominal data at operating point with maximum load and 230 or 400 VAC.
(2) Occasional start-up between -40°C and -25°C is permissible. Continuous operation below -25°C only possible with special low-temperature bearings (on request).

Curves:



		n rpm	Ped W	I A	LwA dB(A)
Ⓐ	1	620	141	0,65	63
Ⓐ	2	620	177	0,79	60
Ⓐ	3	620	212	0,94	61
Ⓐ	4	620	250	1,10	65
Ⓑ	1	730	219	0,41	67
Ⓑ	2	730	286	0,50	65
Ⓑ	3	730	348	0,59	66
Ⓑ	4	730	400	0,67	70
Ⓒ	1	730	324	1,44	64
Ⓒ	2	730	386	1,71	64
Ⓒ	3	730	450	1,98	67
Ⓒ	4	730	500	2,20	71
Ⓓ	1	850	484	2,17	68
Ⓓ	2	850	590	2,62	67
Ⓓ	3	850	667	2,94	68
Ⓓ	4	850	740	3,30	73

Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection. Intake-side sound level: Lw_A according to ISO 13347, Lp_A measured at 1 m distance from fan axis. The values given are only applicable under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked in installed condition. See Page 136 ff for detailed information.

ebmpapst

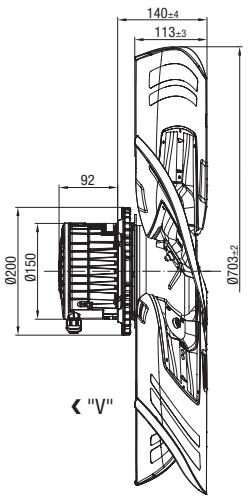
- **Technical features:** See connection diagram P. 132 ff.
- **EMC:** Immunity to interference according to EN 61000-6-2 (industrial environment)
  Circuit feedback according to EN 61000-3-2
  Interference emission according to EN 61000-6-4 (industrial environment), according to household appliance standard on request
- **Touch current:** <= 3.5 mA according to IEC 60990 (measuring circuit Fig. 4)
- **Electrical connection:** Via terminal box
- **Protection class:** I (with customer connection of protective earth)
- **Conformity with standards:** Ⓐ to Ⓔ EN 61800-5-1, CE; EN 60335-1 in preparation
  Ⓕ EN 61800-5-1, CE
- **Approvals:** Ⓑ Ⓓ UL, CSA
  Ⓐ Ⓒ Ⓔ UL, CSA planned
  Ⓕ EAC

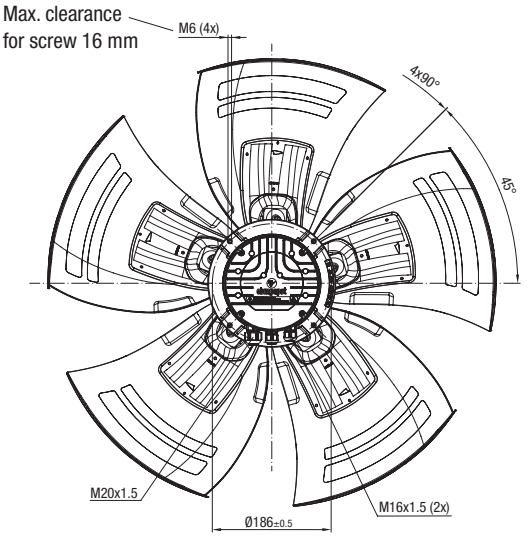
Airflow direction	 ❮ "V" without attachments	Weight without attachments kg	 ❮ "V" with square full nozzle	Weight with square full nozzle kg	 ❮ "V" with guard grille for short nozzle	Weight with guard grille for short nozzle kg
"V"	A3G 710-BB77 -41	9,30	W3G 710-GB77 -41	23,90	S3G 710-AB77 -41	15,80
"V"	A3G 710-BB80 -51	9,40	W3G 710-GB80 -51	24,00	S3G 710-AB80 -51	15,90
"V"	A3G 710-BD60 -31	10,30	W3G 710-GD60 -31	24,90	S3G 710-AD60 -31	16,80
"V"	A3G 710-BG95 -21	12,00	W3G 710-GG95 -21	26,60	S3G 710-AG95 -21	18,50
"V"	A3G 710-BG98 -01	12,20	W3G 710-GG98 -01	26,90	S3G 710-AG98 -01	18,70
"V"	A3G 710-AU32 -71	25,60	W3G 710-GU32 -71	42,80	S3G 710-AU32 -71	34,80

Airflow direction "A" on request

	n rpm	P_{ed} W	I A	L_{WA} dB(A)
Ⓔ ❶	1010	797	1,28	72
Ⓔ ❷	1010	957	1,53	71
Ⓔ ❸	1010	1073	1,70	72
Ⓔ ❹	1010	1200	1,90	78
Ⓕ ❶	1250	2209	3,43	79
Ⓕ ❷	1250	2431	3,77	78
Ⓕ ❸	1250	2645	4,08	79
Ⓕ ❹	1250	2875	4,40	81

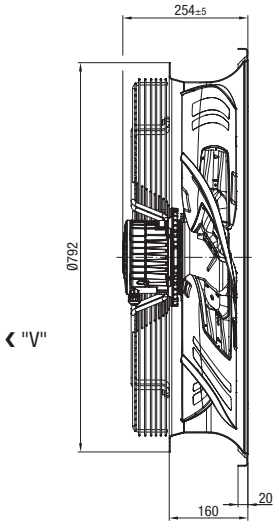
A3G 710-BB77-41 (without attachments, airflow direction "V")

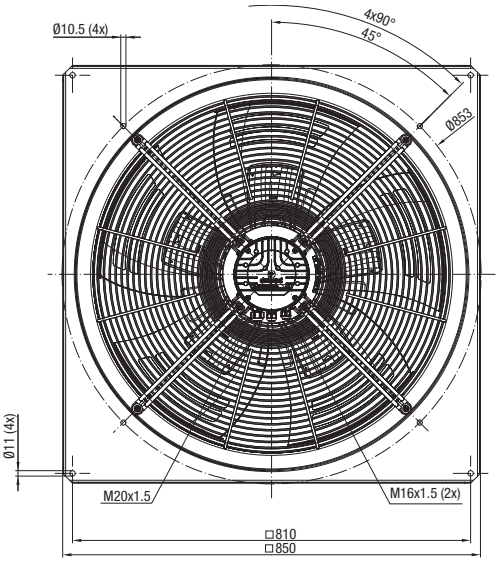




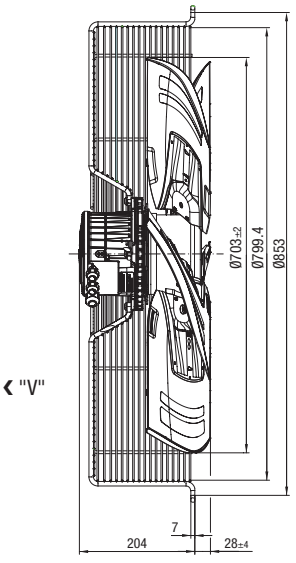
Inside diameter of
fan housing min. 710 mm

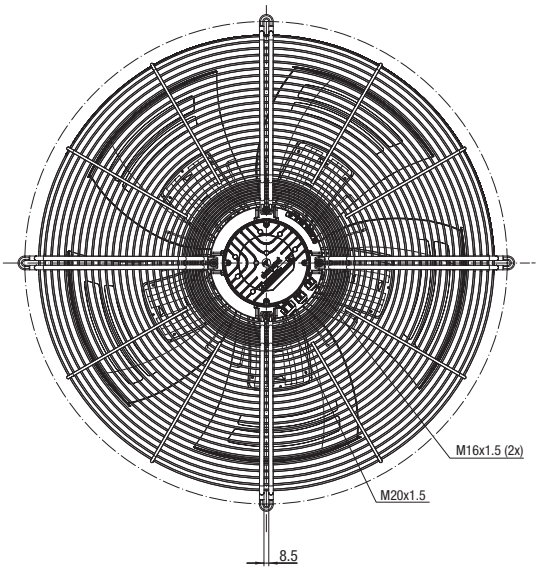
W3G 710-GB77-41 (with square full nozzle, airflow direction "V")





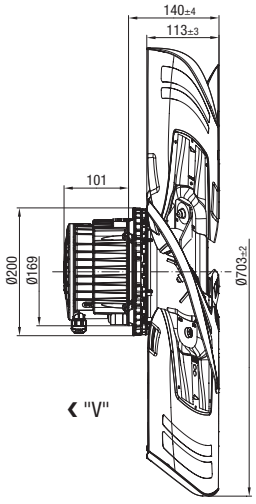
S3G 710-AB77-41 (with guard grille for short nozzle, airflow direction "V")

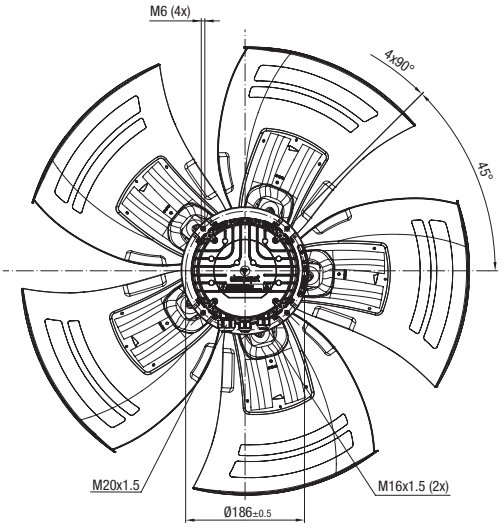




Inside diameter of
fan housing min. 710 mm

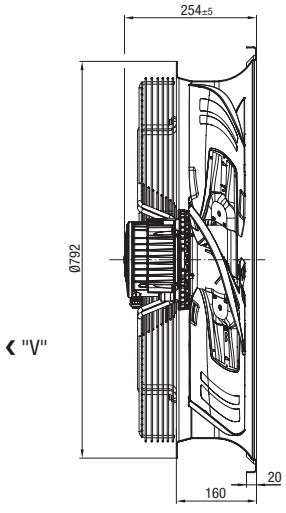
A3G 710-BB80-51 (without attachments, airflow direction "V")

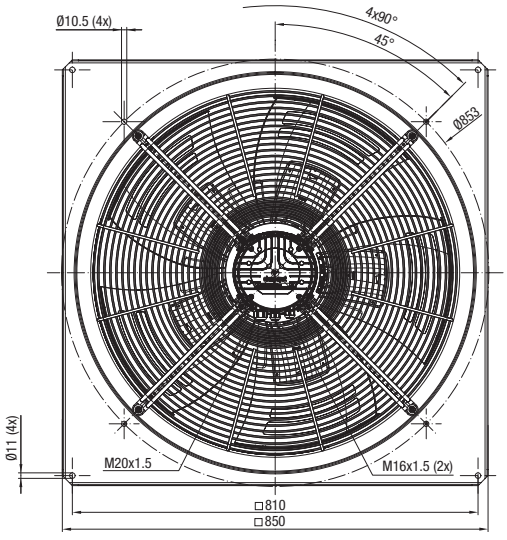




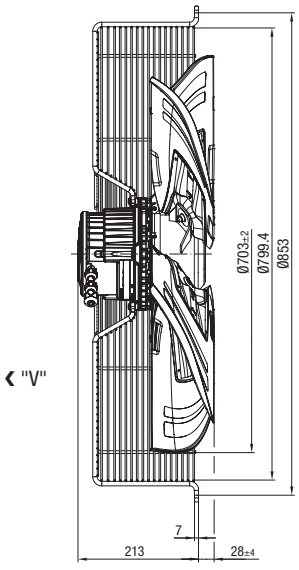
Inside diameter of fan housing min. 710 mm

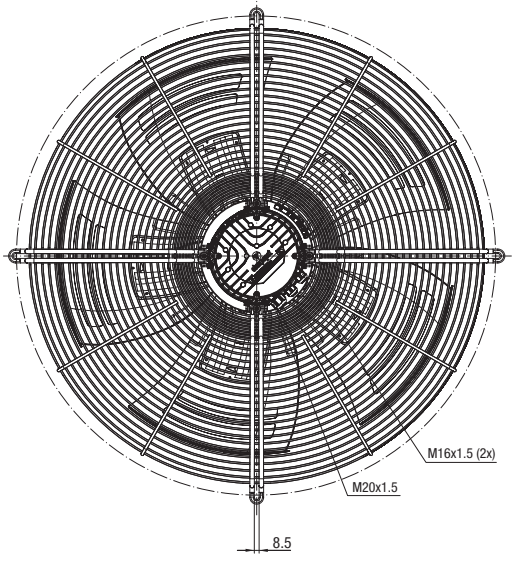
W3G 710-GB80-51 (with square full nozzle, airflow direction "V")





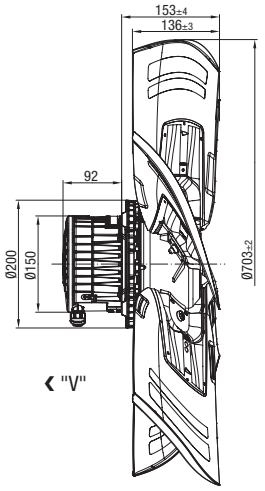
S3G 710-AB80-51 (with guard grille for short nozzle, airflow direction "V")

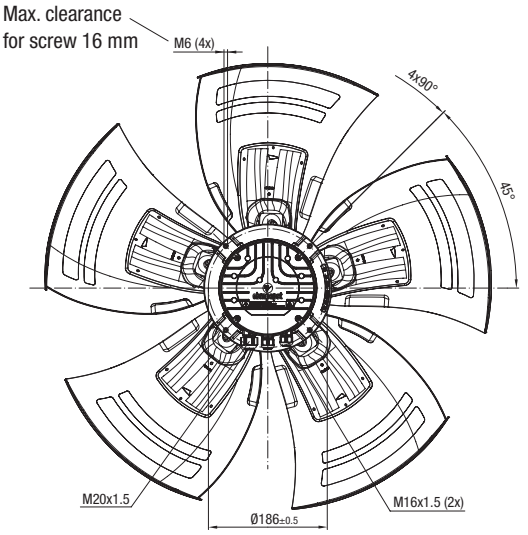




Inside diameter of fan housing min. 710 mm

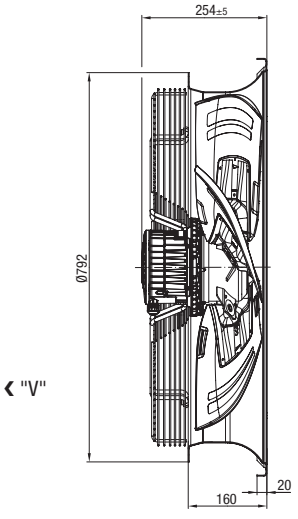
A3G 710-BD60-31 (without attachments, airflow direction "V")

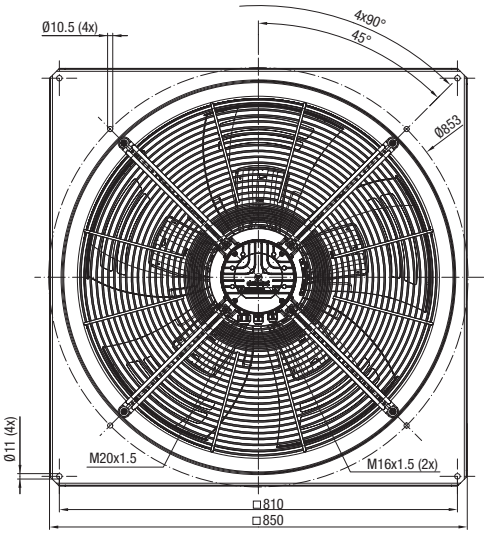




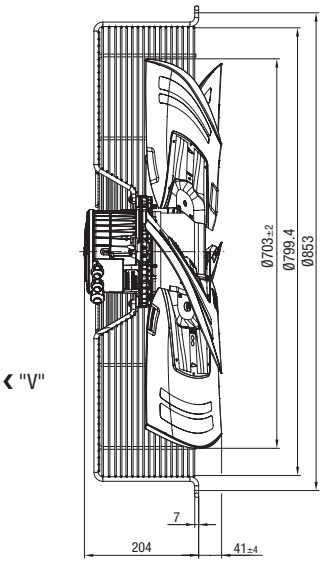
Inside diameter of
fan housing min. 710 mm

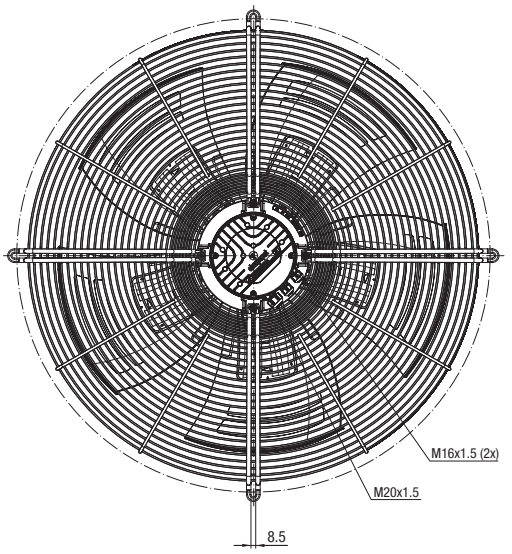
W3G 710-GD60-31 (with square full nozzle, airflow direction "V")





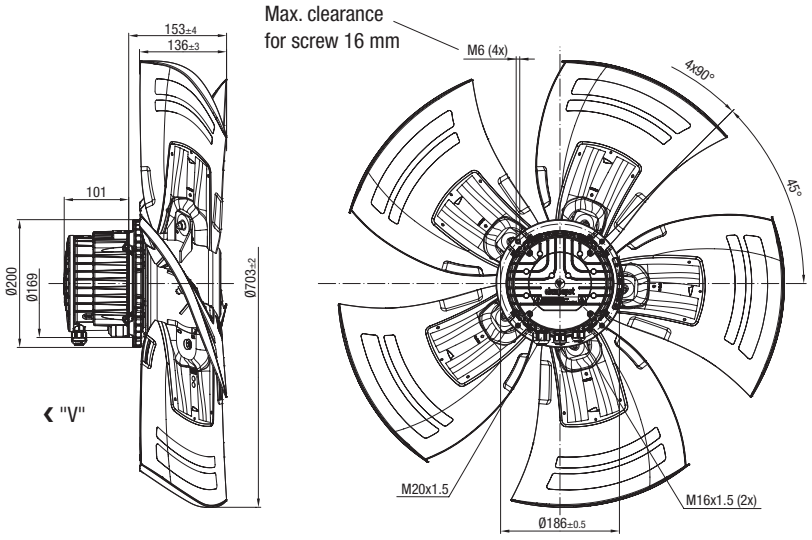
S3G 710-AD60-31 (with guard grille for short nozzle, airflow direction "V")





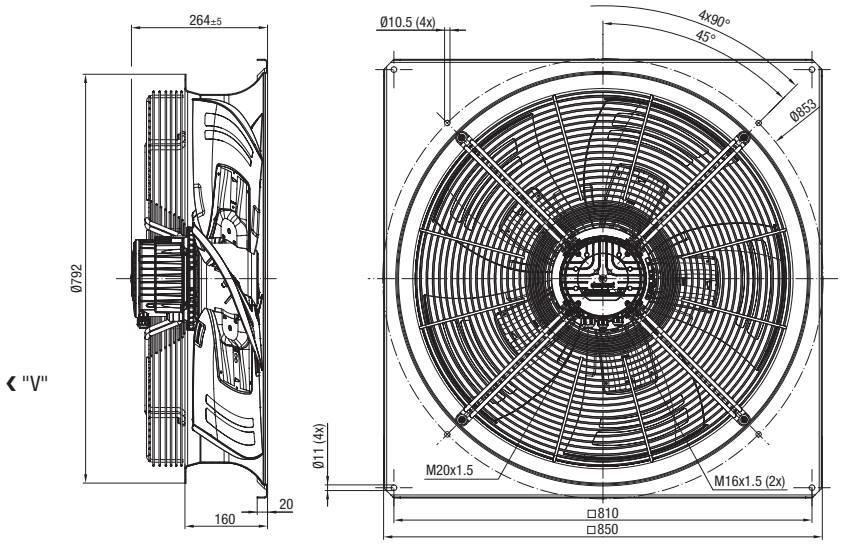
Inside diameter of
fan housing min. 710 mm

A3G 710-BG95-21 (without attachments, airflow direction "V")

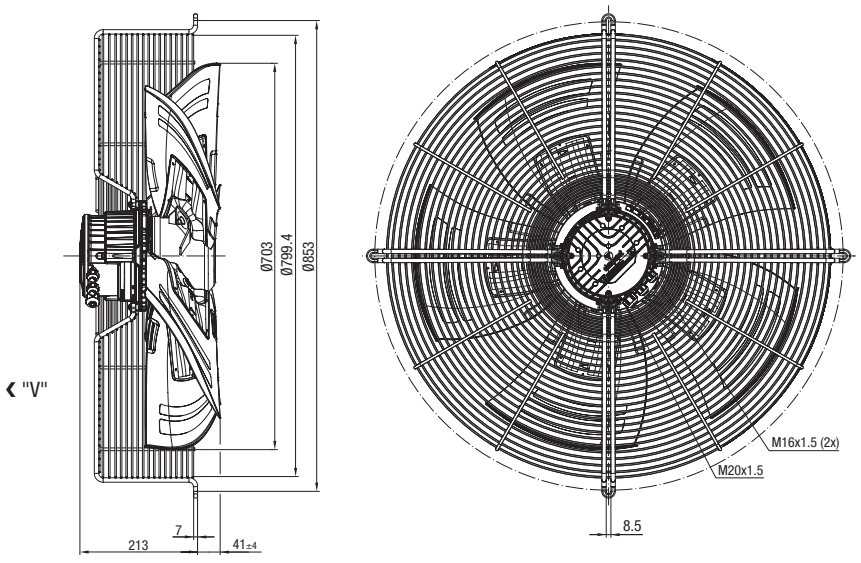


Inside diameter of
fan housing min. 710 mm

W3G 710-GG95-21 (with square full nozzle, airflow direction "V")

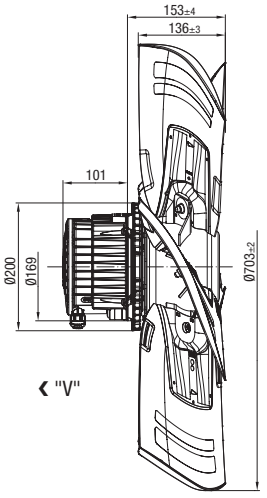


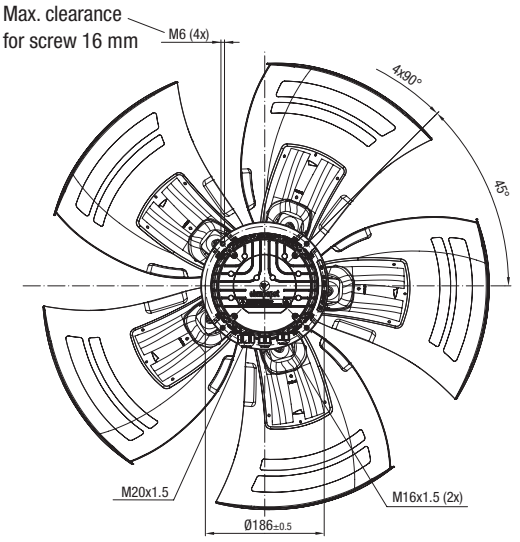
S3G 710-AG95-21 (with guard grille for short nozzle, airflow direction "V")



Inside diameter of
fan housing min. 710 mm

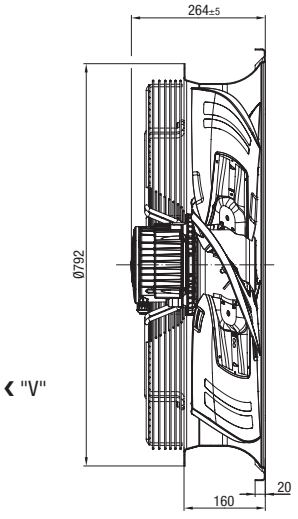
A3G 710-BG98-01 (without attachments, airflow direction "V")

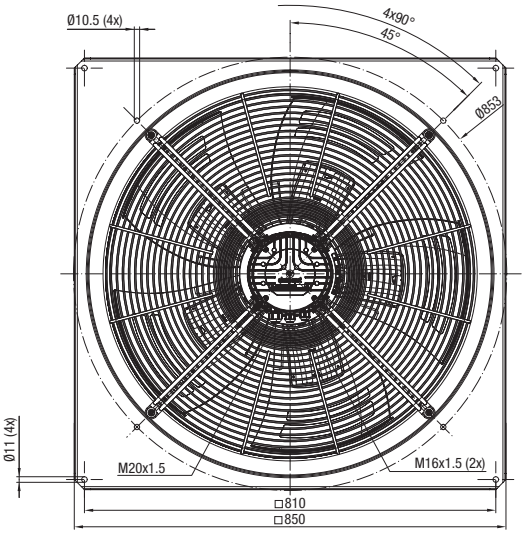




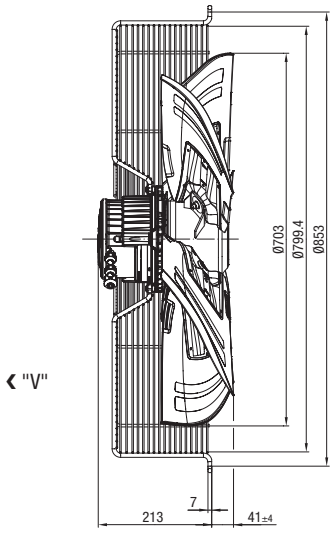
Inside diameter of
fan housing min. 710 mm

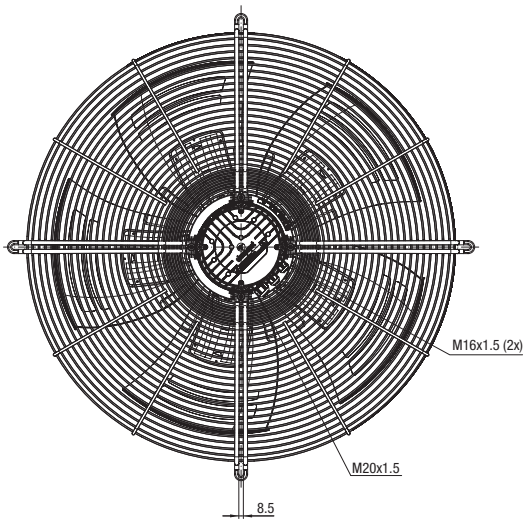
W3G 710-GG98-01 (with square full nozzle, airflow direction "V")





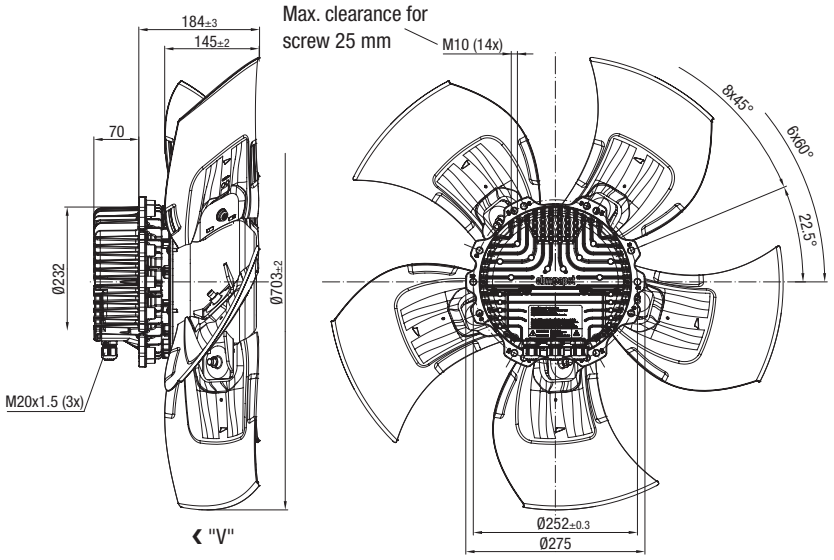
S3G 710-AG98-01 (with guard grille for short nozzle, airflow direction "V")





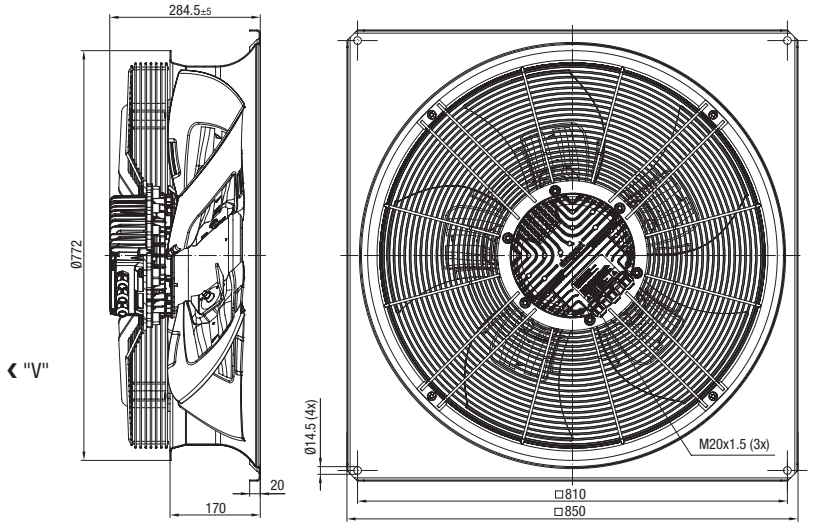
Inside diameter of
fan housing min. 710 mm

A3G 710-AU32-71 (without attachments, airflow direction "V")

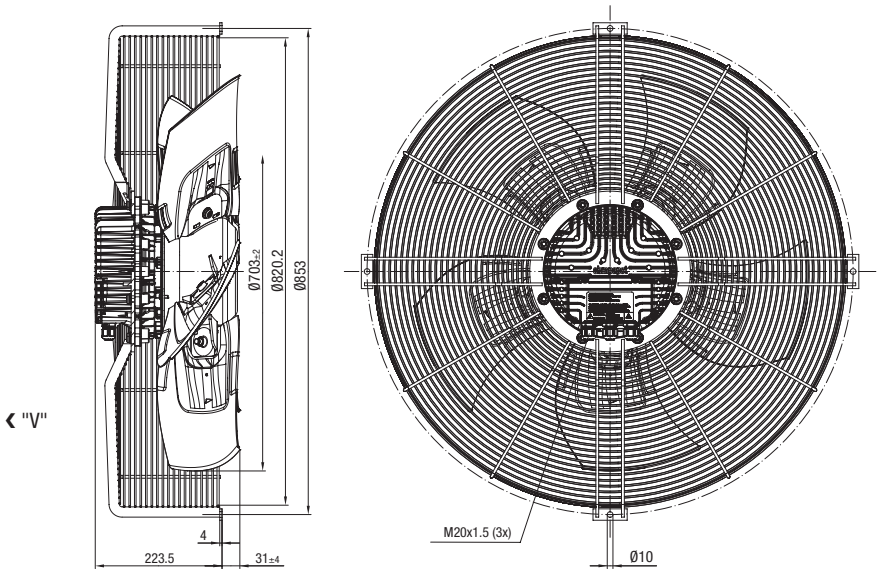


Inside diameter of fan housing min. 710 mm

W3G 710-GU32-71 (with square full nozzle, airflow direction "V")



S3G 710-AU32-71 (with guard grille for short nozzle, airflow direction "V")



Inside diameter of fan housing min. 710 mm

ErP2015 EXCEEDS THE NORM

EC axial fans – HyBlade®

Ø 800

- **Material:** Guard grille: Steel, coated with black plastic (RAL 9005)
  Fan housing: Sheet steel, galvanized and coated with black plastic (RAL 9005)
  Blades (5): Ⓐ to Ⓕ Press-fitted sheet steel blank, over-molded with PP plastic
  Ⓖ to Ⓘ Aluminum insert, over-molded with PP plastic
  Rotor: Painted black / Diffuser: PP plastic
  Electronics housing: Die-cast aluminum, painted black
- **Direction of rotation:** Clockwise viewed toward rotor
- **Degree of protection:** IP55
- **Insulation class:** "F"
- **Installation position:** Shaft horizontal or rotor on bottom, rotor on top on request
- **Condensation drainage holes:** Rotor side
- **Mode:** Continuous operation (S1)
- **Mounting:** Maintenance-free ball bearings

Nominal data

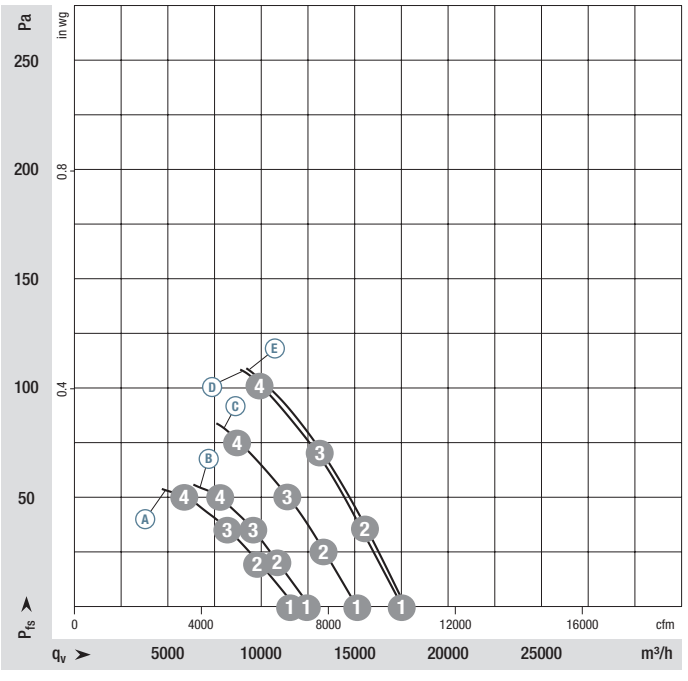
Type	Motor	Blade pitch	Curve	Nominal voltage range	Frequency	Speed(1)	Max. input power(1)	Max. input current(1)	Max. back pressure	Perm. ambient temp.	Techn. features and connection diagram
				VAC	Hz	rpm	W	A	Pa	°C	
*3G 800	M3G 112-EA	---	Ⓐ	1~200-277	50/60	490	240	1,10	50	-25..+60	P. 132 / P7)
*3G 800	M3G 112-GA	---	Ⓑ	3~380-480	50/60	520	275	0,49	50	-25(2)..+60	P. 133 / P8)
*3G 800	M3G 112-EA	---	Ⓒ	1~200-277	50/60	630	480	2,10	75	-25..+60	P. 132 / P7)
*3G 800	M3G 112-IA	---	Ⓓ	3~380-480	50/60	700	700	1,10	100	-25(2)..+60	P. 133 / P8)
*3G 800	M3G 112-IA	---	Ⓔ	1~200-277	50/60	730	750	3,30	100	-25(2)..+60	P. 132 / P7)
*3G 800	M3G 112-IA	---	Ⓕ	3~380-480	50/60	770	900	1,50	120	-25(2)..+60	P. 133 / P8) / P. 136* / M7*)
*3G 800	M3G 150-FF	0°	Ⓖ	3~380-480	50/60	930	1700	2,70	160	-25(2)..+65	P. 134 / M5)
*3G 800	M3G 150-IF	0°	Ⓗ	3~380-480	50/60	1020	2560	3,90	230	-25(2)..+70	P. 134 / M5) / P. 137* / M9*)
*3G 800	M3G 150-NA	0°	Ⓘ	3~380-480	50/60	1090	2980	4,50	260	-25(2)..+65	P. 134 / M5) / P. 137* / M9*)

Subject to change

(1) Nominal data at operating point with maximum load and 230 or 400 VAC. (*) AxiTop

(2) Occasional start-up between -40°C and -25°C is permissible. Continuous operation below -25°C only possible with special low-temperature bearings (on request).

Curves:



		n rpm	P_{ed} W	I A	L_{WA} dB(A)
Ⓐ	1	490	148	0,68	60
Ⓐ	2	490	184	0,83	57
Ⓐ	3	490	208	0,93	55
Ⓐ	4	490	240	1,10	61
Ⓑ	1	520	177	0,37	62
Ⓑ	2	520	217	0,42	58
Ⓑ	3	520	247	0,45	57
Ⓑ	4	520	275	0,49	60
Ⓒ	1	630	306	1,34	65
Ⓒ	2	630	360	1,58	62
Ⓒ	3	630	411	1,79	60
Ⓒ	4	630	480	2,10	65
Ⓓ	1	700	453	0,74	68
Ⓓ	2	700	536	0,86	65
Ⓓ	3	700	622	0,99	63
Ⓓ	4	700	700	1,10	69
Ⓔ	1	730	473	2,14	62
Ⓔ	2	730	576	2,57	58
Ⓔ	3	730	667	2,96	57
Ⓔ	4	730	750	3,30	61

Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection. Intake-side sound level: L_{WA} according to ISO 13347, L_{pA} measured at 1 m distance from fan axis. The values given are only applicable under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked in installed condition. See Page 136 ff for detailed information.

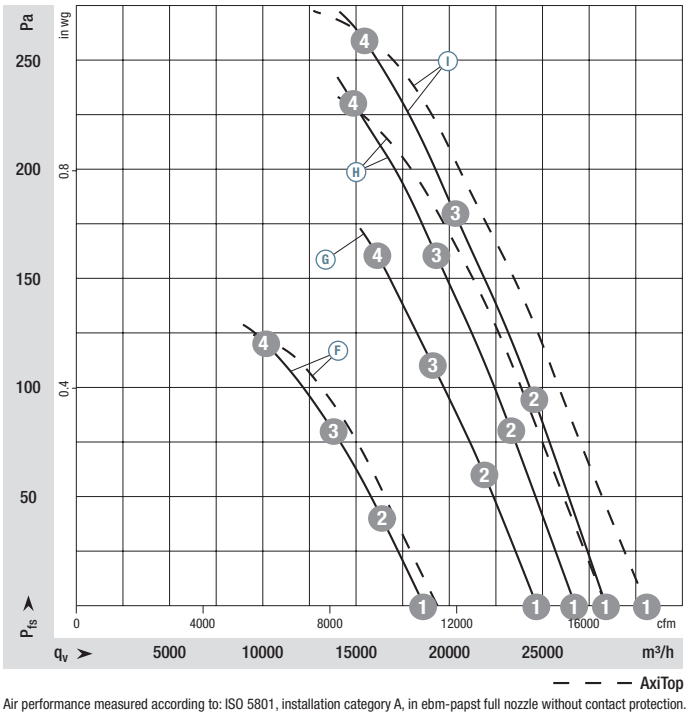
ebmpapst

- **Technical features:** See connection diagram P. 132 ff.
- **EMC:** Immunity to interference according to EN 61000-6-2 (industrial environment)
  Circuit feedback according to EN 61000-3-2
  Interference emission according to EN 61000-6-4 (industrial environment), according to household appliance standard on request
- **Touch current:** <= 3.5 mA according to IEC 60990 (measuring circuit Fig. 4)
- **Electrical connection:** Via terminal box
- **Protection class:** I (with customer connection of protective earth)
- **Conformity with standards:** Ⓐ to Ⓕ EN 61800-5-1, CE; EN 60335-1 in preparation
  Ⓖ Ⓗ Ⓘ EN 61800-5-1, CE
- **Approvals:** Ⓒ Ⓔ UL, CSA
  Ⓐ Ⓑ Ⓓ Ⓕ UL, CSA planned
  Ⓖ Ⓗ Ⓘ EAC

Airflow direction		Weight without attachments		Weight with square full nozzle		Weight with guard grille for full nozzle		Weight with square full nozzle and diffuser
	❮ "V" without attach-ments-	kg	❮ "V" with square full nozzle	kg	❮ "V" with guard grille for full nozzle	kg	❮ "V" with square full nozzle and diffuser (AxiTop)	kg
"V"	A3G 800-BA77 -41	8,60	W3G 800-GA77 -41	25,40	S3G 800-BA77 -41	15,30	---	---
"V"	A3G 800-BA77 -51	8,80	W3G 800-GA77 -51	25,60	S3G 800-BA77 -51	15,50	---	---
"V"	A3G 800-BD57 -31	10,10	W3G 800-GD57 -31	30,00	S3G 800-BD57 -31	16,80	---	---
"V"	A3G 800-BG01 -51	12,10	W3G 800-GG01 -51	31,90	S3G 800-BG01 -51	18,80	---	---
"V"	A3G 800-BG95 -21	12,20	W3G 800-GG95 -21	32,00	S3G 800-BG95 -21	18,90	---	---
"V"	A3G 800-BG95 -01	12,10	W3G 800-GG95 -01	31,90	S3G 800-BG95 -01	18,80	W3G 800-HG95 -01	38,50
"V"	A3G 800-AS26 -71	22,50	W3G 800-GS26 -71	42,50	S3G 800-BS26 -71	29,50	---	---
"V"	A3G 800-AU23 -71	25,00	W3G 800-GU23 -71	45,00	S3G 800-BU23 -71	32,00	W3G 800-HU23 -71	52,50
"V"	A3G 800-AV05 -71	31,00	W3G 800-GV05 -71	51,00	S3G 800-BV05 -71	38,00	W3G 800-HV05 -71	58,50

Airflow direction "A" on request

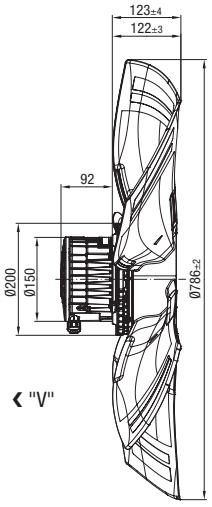
Curves:



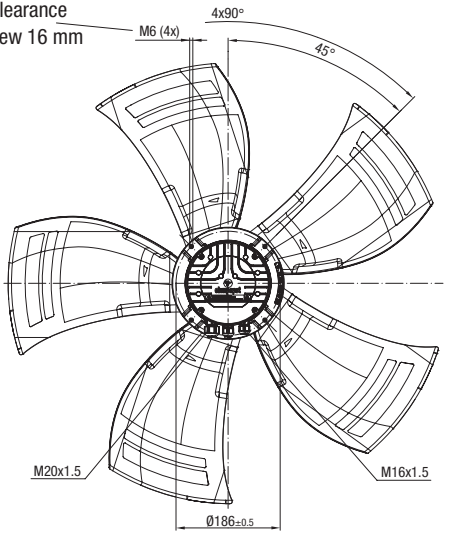
		n rpm	Ped W	I A	LWA dB(A)
Ⓕ	1	770	550	0,93	70
Ⓕ	2	770	667	1,12	67
Ⓕ	3	770	773	1,28	65
Ⓕ	4	770	900	1,50	72
Ⓖ	1	930	1243	2,03	73
Ⓖ	2	930	1461	2,34	72
Ⓖ	3	930	1614	2,56	73
Ⓖ	4	930	1700	2,70	75
Ⓗ	1	1020	1654	2,62	75
Ⓗ	2	1020	1938	3,04	75
Ⓗ	3	1020	2195	3,42	76
Ⓗ	4	1020	2560	3,90	82
Ⓘ	1	1090	1911	3,00	77
Ⓘ	2	1090	2240	3,49	76
Ⓘ	3	1090	2531	3,92	78
Ⓘ	4	1090	2980	4,50	83

Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection. Intake-side sound level: Lw_A according to ISO 13347, Lp_A measured at 1 m distance from fan axis. The values given are only applicable under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked in installed condition. See Page 136 ff for detailed information.

A3G 800-BA77-41 (without attachments, airflow direction "V")

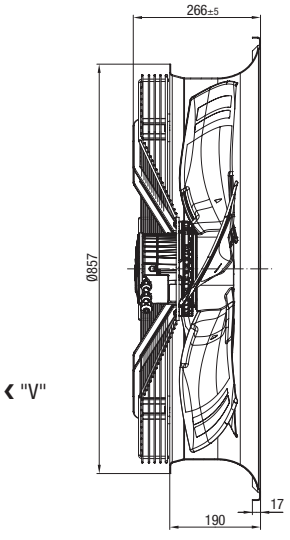


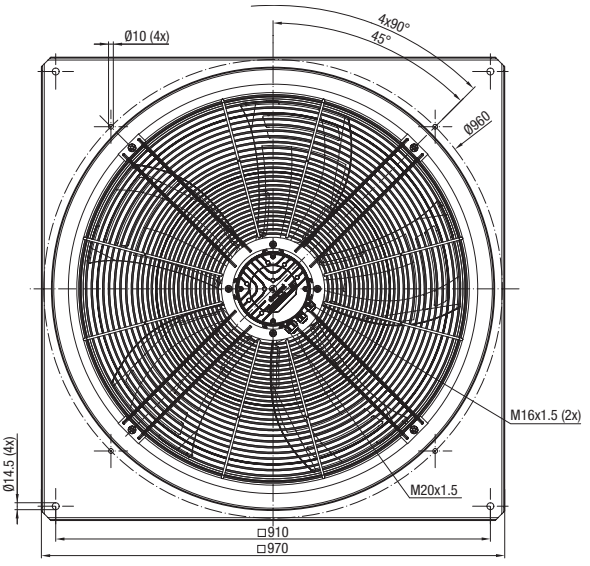
Max. clearance
for screw 16 mm



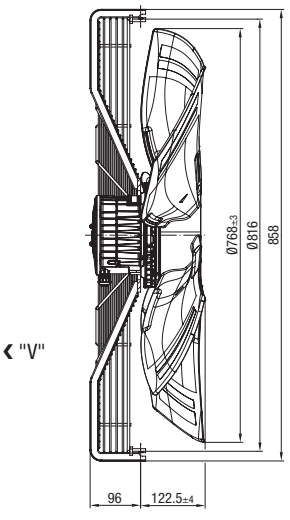
Inside diameter of
fan housing min. 795 mm

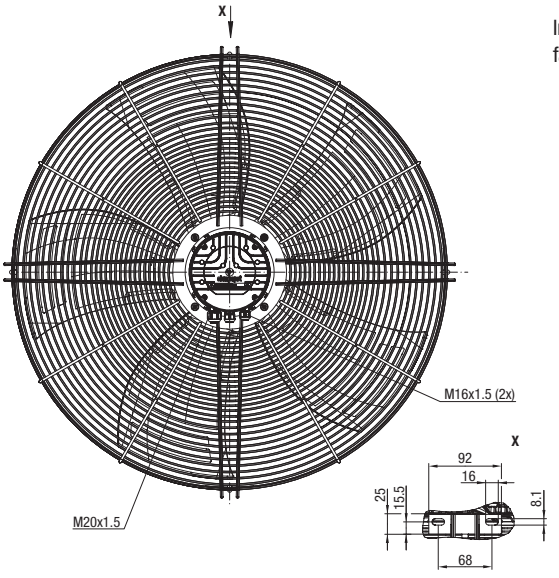
W3G 800-GA77-41 (with square full nozzle, airflow direction "V")





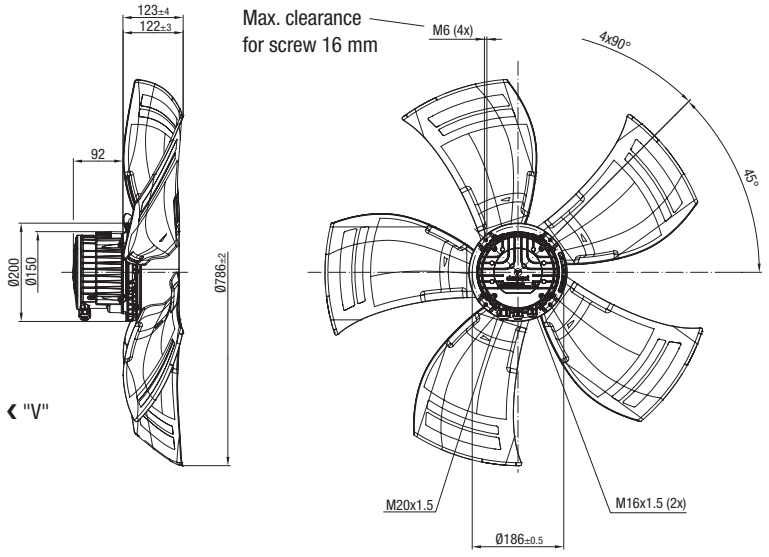
S3G 800-BA77-41 (with guard grille for full nozzle, airflow direction "V")





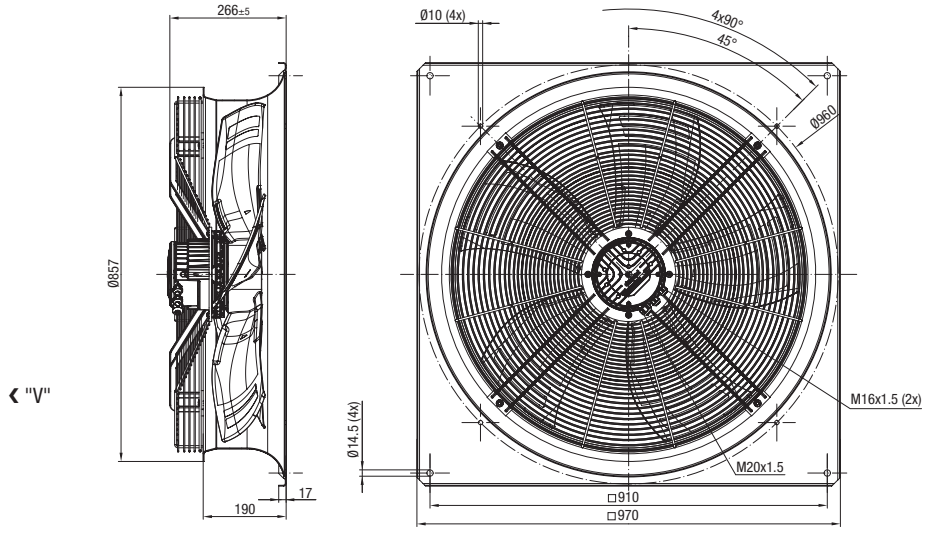
Inside diameter of
fan housing min. 795 mm

A3G 800-BA77-51 (without attachments, airflow direction "V")

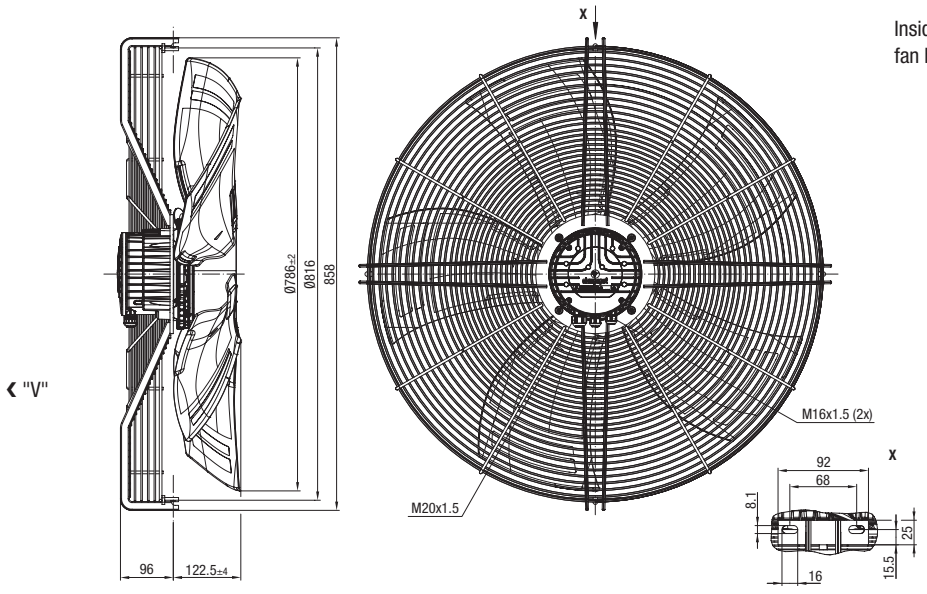


Inside diameter of
fan housing min. 795 mm

W3G 800-GA77-51 (with square full nozzle, airflow direction "V")

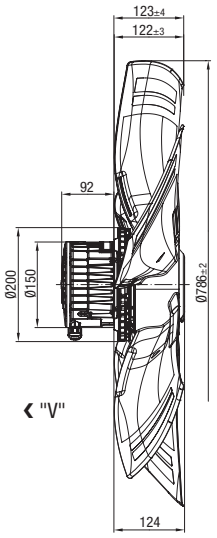


S3G 800-BA77-51 (with guard grille for full nozzle, airflow direction "V")

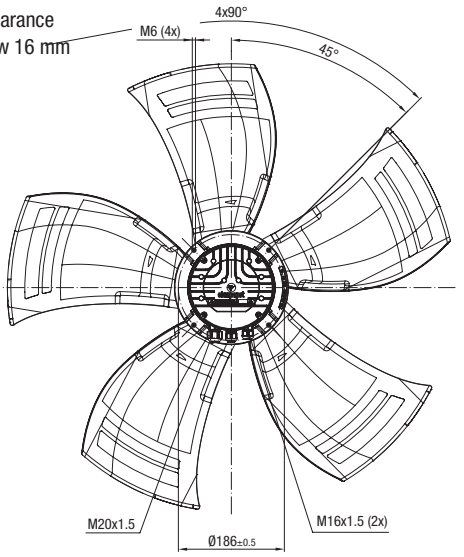


Inside diameter of
fan housing min. 795 mm

A3G 800-BD57-31 (without attachments, airflow direction "V")

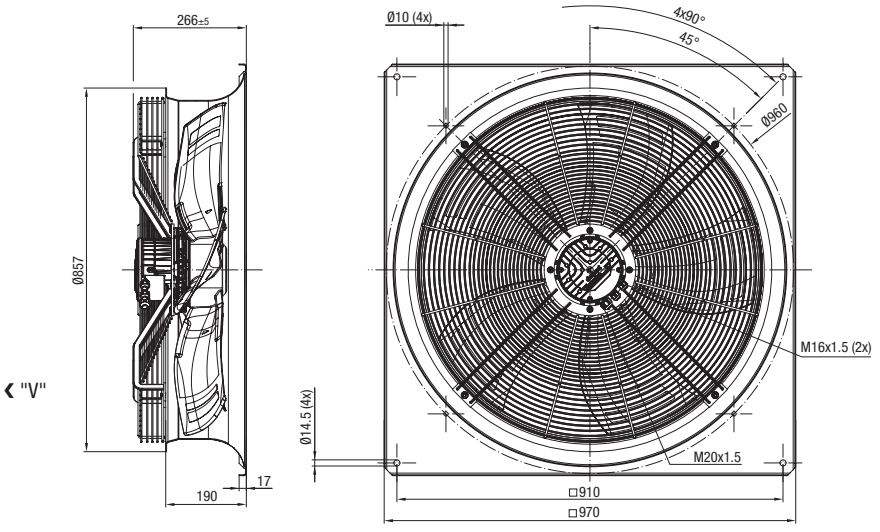


Max. clearance
for screw 16 mm

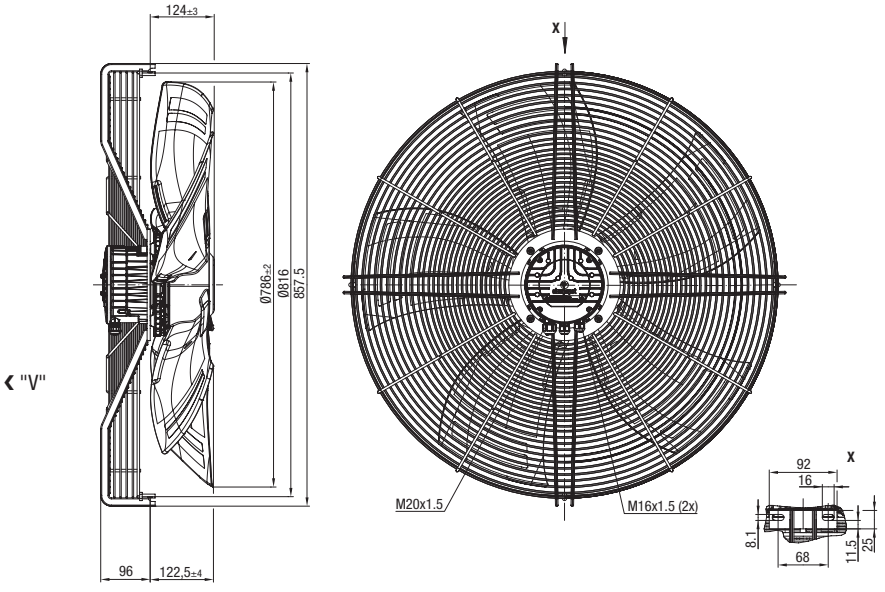


Inside diameter of
fan housing min. 795 mm

W3G 800-GD57-31 (with square full nozzle, airflow direction "V")

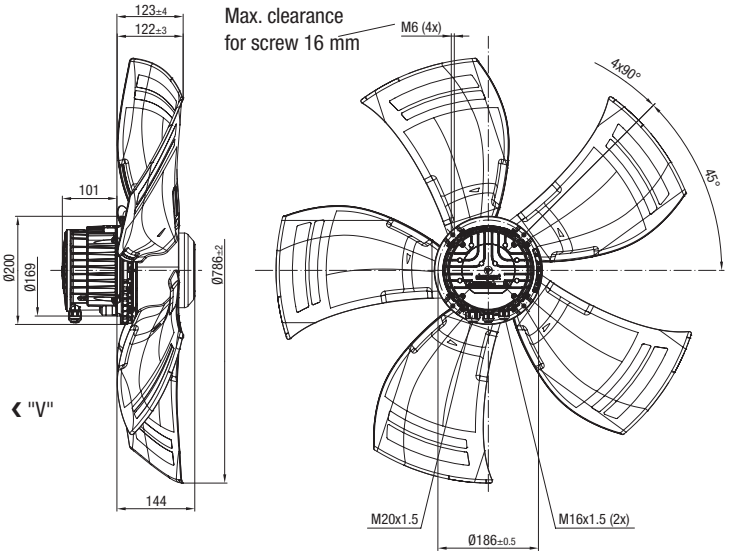


S3G 800-BD57-31 (with guard grille for full nozzle, airflow direction "V")



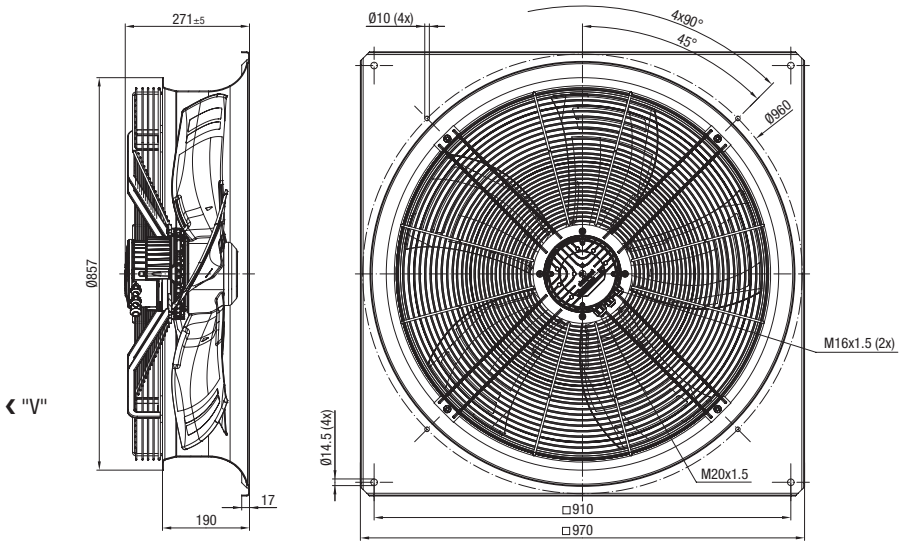
Inside diameter of
fan housing min. 795 mm

A3G 800-BG01-51 (without attachments, airflow direction "V")

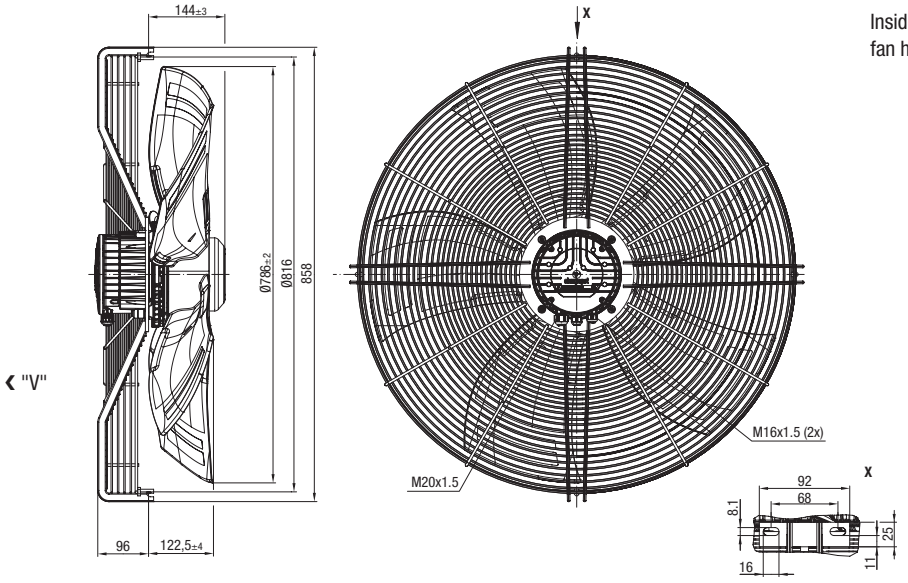


Inside diameter of
fan housing min. 795 mm

W3G 800-GG01-51 (with square full nozzle, airflow direction "V")

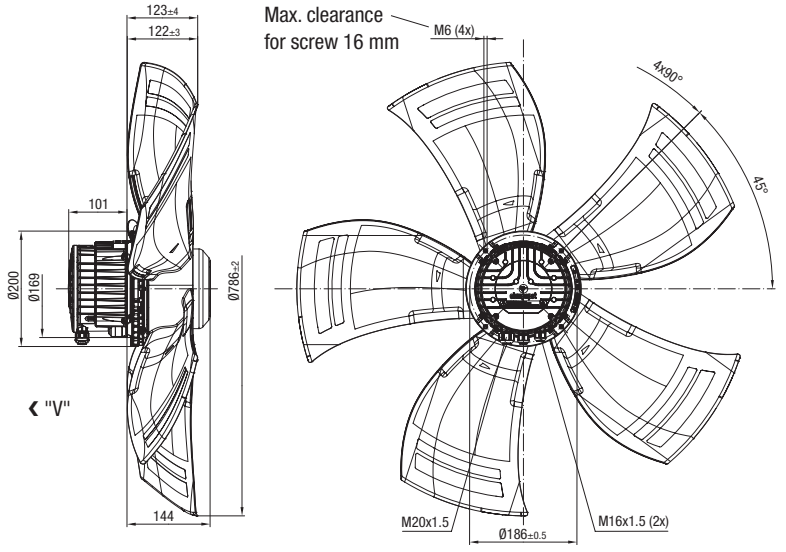


S3G 800-BG01-51 (with guard grille for full nozzle, airflow direction "V")



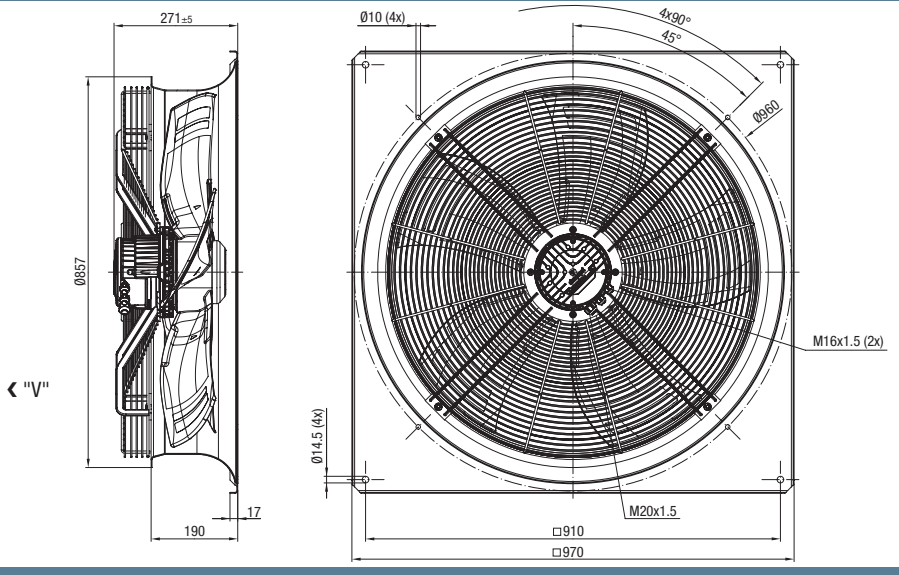
Inside diameter of
fan housing min. 795 mm

A3G 800-BG95-21 (without attachments, airflow direction "V")

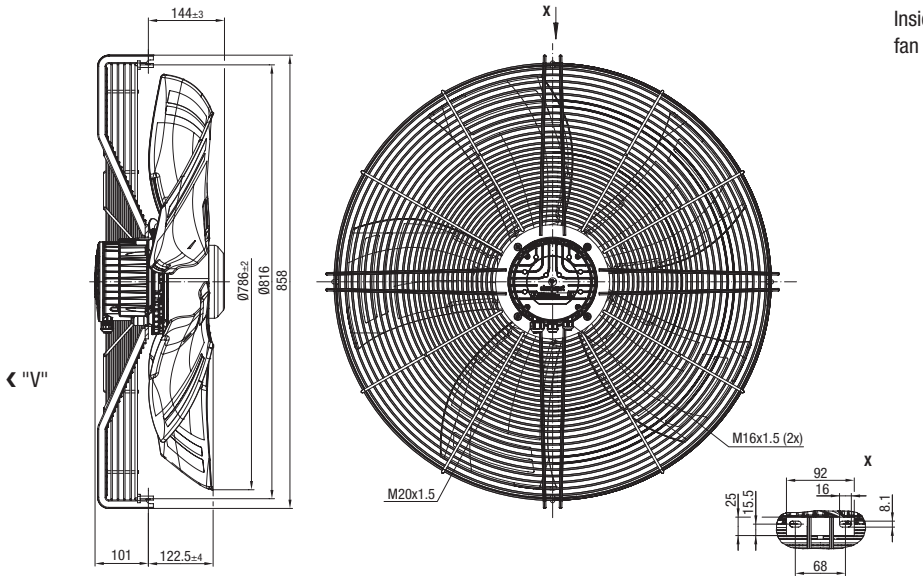


Inside diameter of
fan housing min. 795 mm

W3G 800-GG95-21 (with square full nozzle, airflow direction "V")



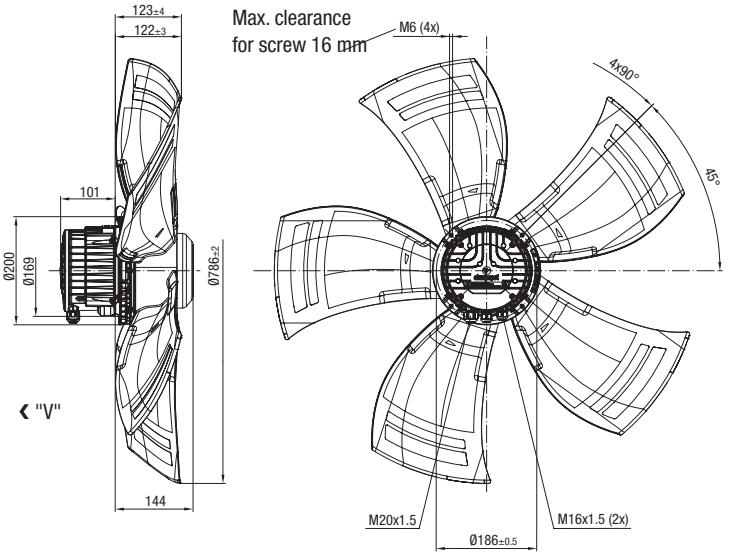
S3G 800-BG95-21 (with guard grille for full nozzle, airflow direction "V")



Inside diameter of
fan housing min. 795 mm

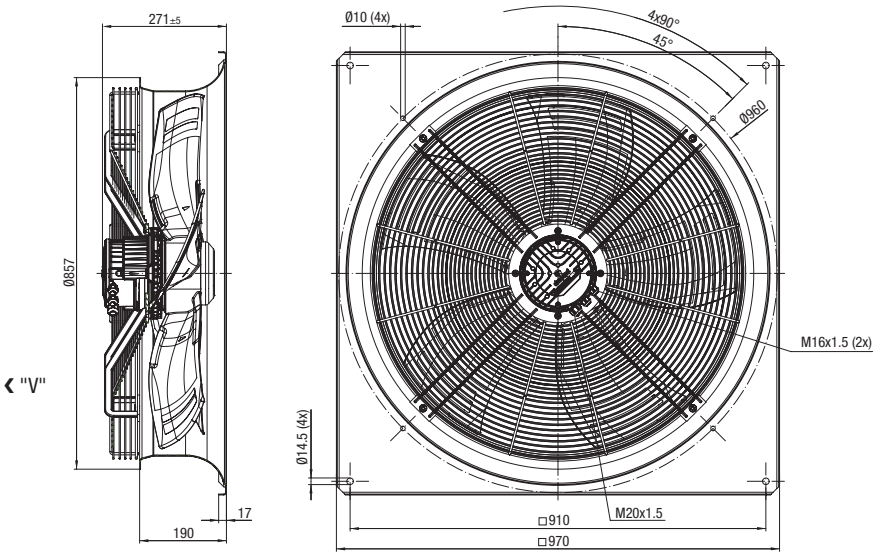
Agents	Technology	Ø 1250	Ø 990	Ø 910	Ø 800	Ø 710	Ø 630	Ø 560	Ø 500	Ø 450	Ø 400	Ø 350	Ø 300	Ø 250	Ø 200	Information

A3G 800-BG95-01 (without attachments, airflow direction "V")

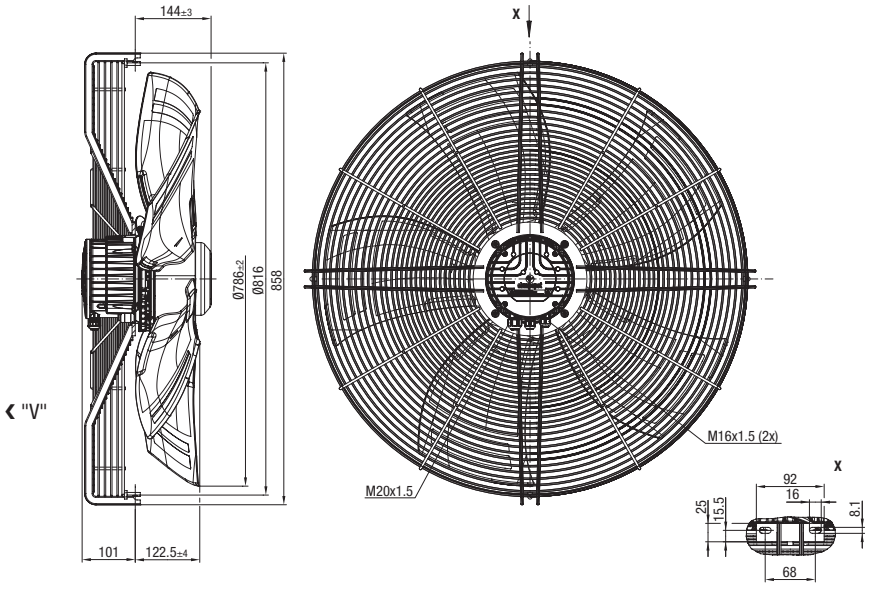


Inside diameter of
fan housing min. 795 mm

W3G 800-GG95-01 (with square full nozzle, airflow direction "V")

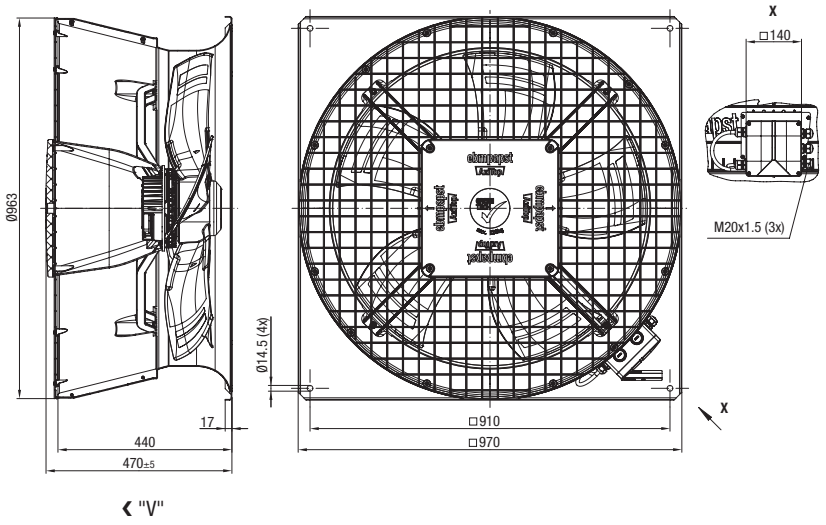


S3G 800-BG95-01 (with guard grille for full nozzle, airflow direction "V")

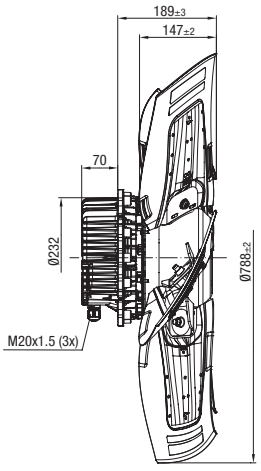


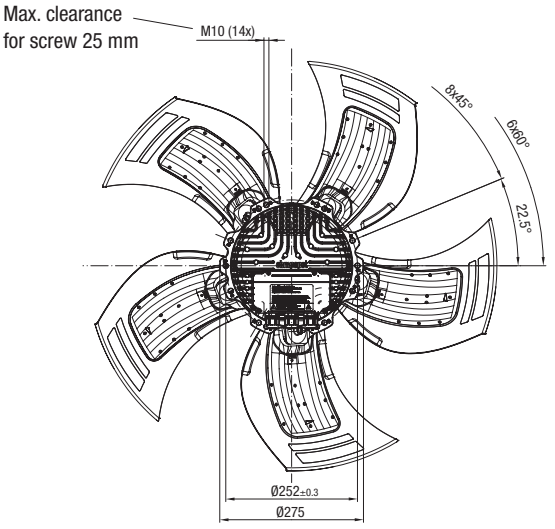
Inside diameter of
fan housing min. 795 mm

W3G 800-HG95-01 (with square full nozzle and diffuser, airflow direction "V") - AxiTop -



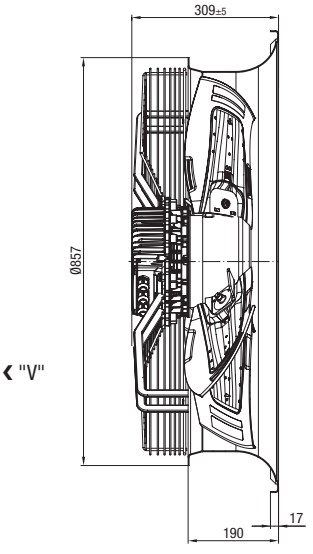
A3G 800-AS26-71 (without attachments, airflow direction "V")

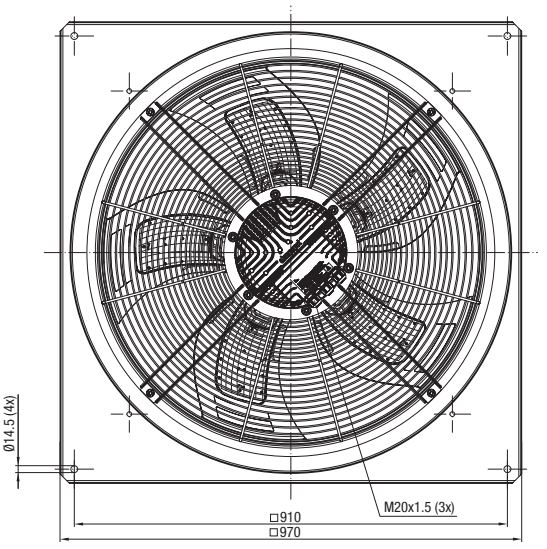




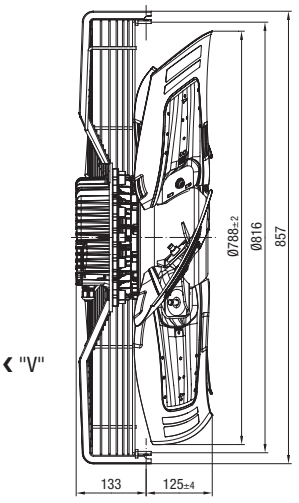
Inside diameter of
fan housing min. 795 mm

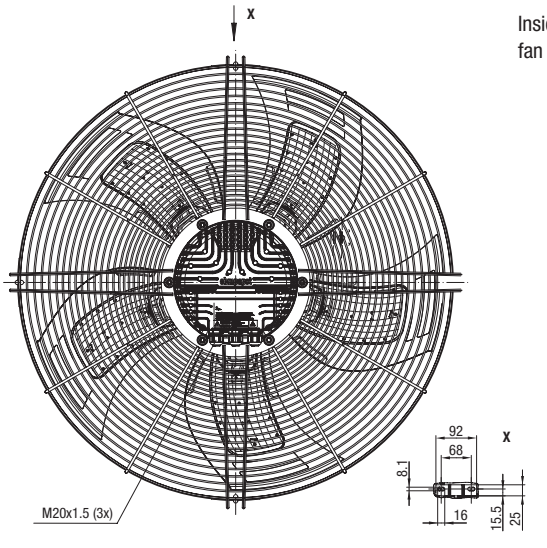
W3G 800-GS26-71 (with square full nozzle, airflow direction "V")





S3G 800-BS26-71 (with guard grille for full nozzle, airflow direction "V")

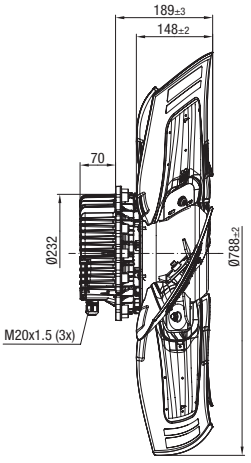




Inside diameter of
fan housing min. 795 mm

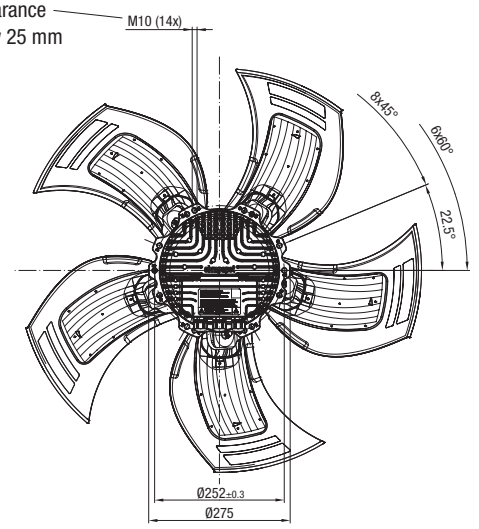
Agents	Technology	Ø 1250	Ø 990	Ø 910	Ø 800	Ø 710	Ø 630	Ø 560	Ø 500	Ø 450	Ø 400	Ø 350	Ø 300	Ø 250	Ø 200	Information

A3G 800-AU23-71 (without attachments, airflow direction "V")



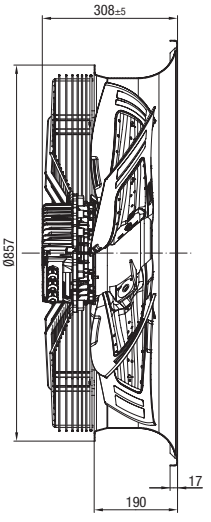
❮ "V"

Max. clearance for screw 25 mm

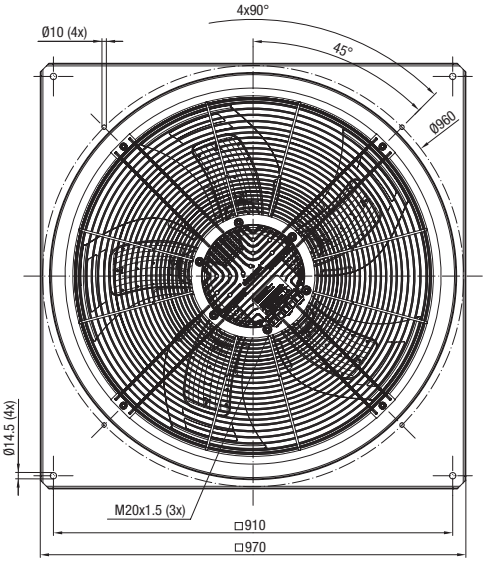


Inside diameter of fan housing min. 795 mm

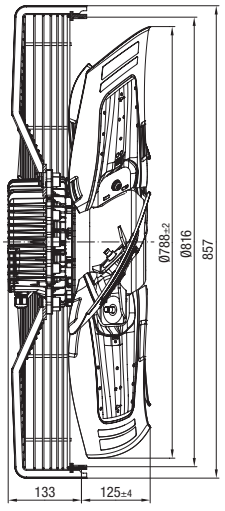
W3G 800-GU23-71 (with square full nozzle, airflow direction "V")



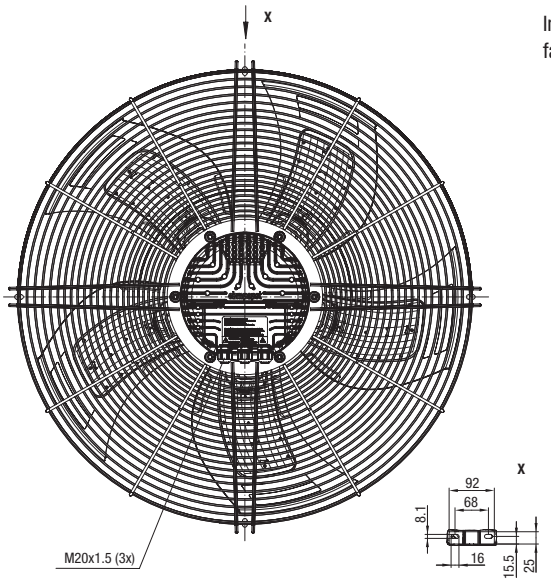
❮ "V"



S3G 800-BU23-71 (with guard grille for full nozzle, airflow direction "V")

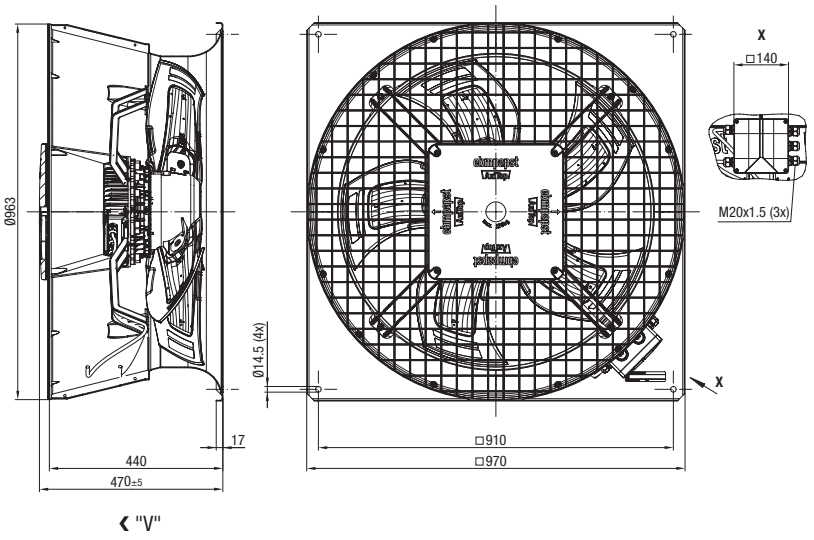


❮ "V"

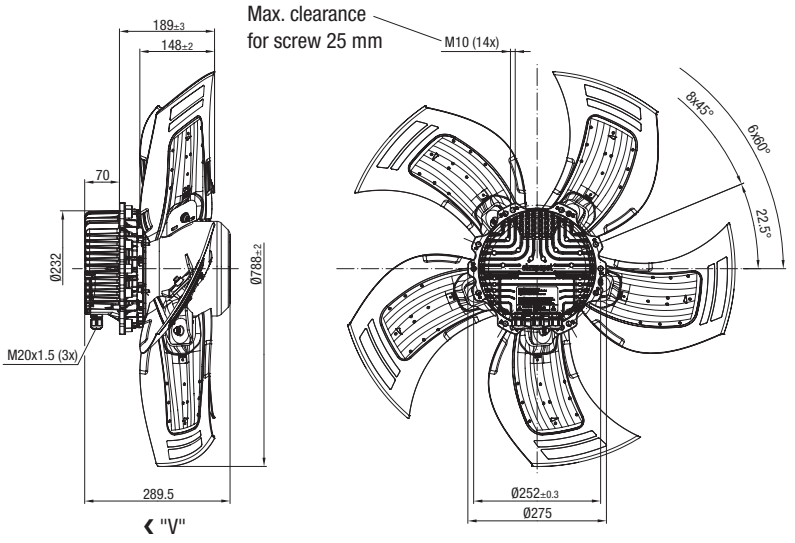


Inside diameter of fan housing min. 795 mm

W3G 800-HU23-71 (with square full nozzle and diffuser, airflow direction "V") - AxiTop -

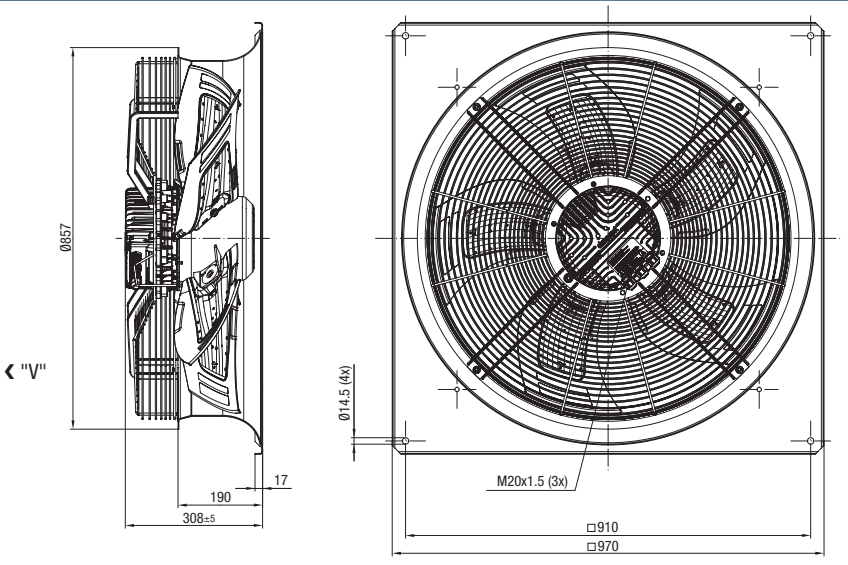


A3G 800-AV05-71 (without attachments, airflow direction "V")

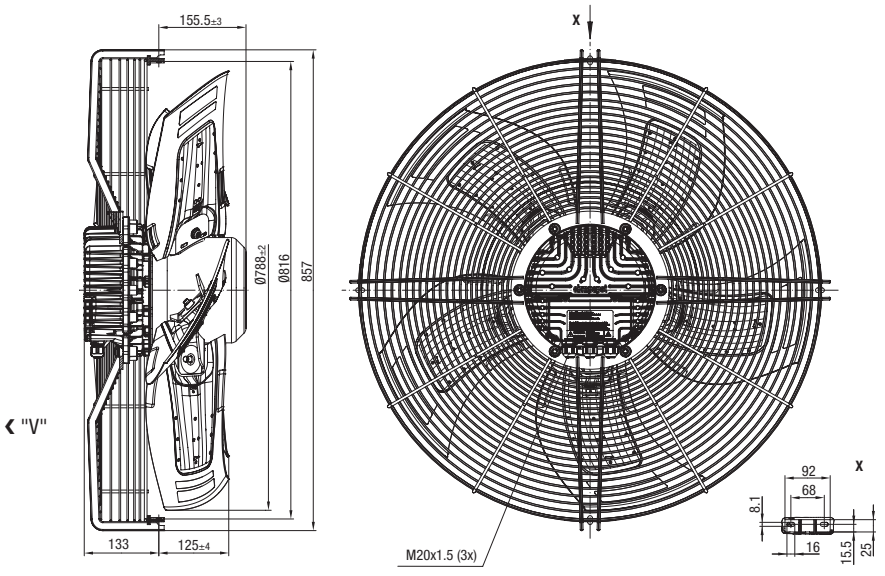


Inside diameter of
fan housing min. 795 mm

W3G 800-GV05-71 (with square full nozzle, airflow direction "V")

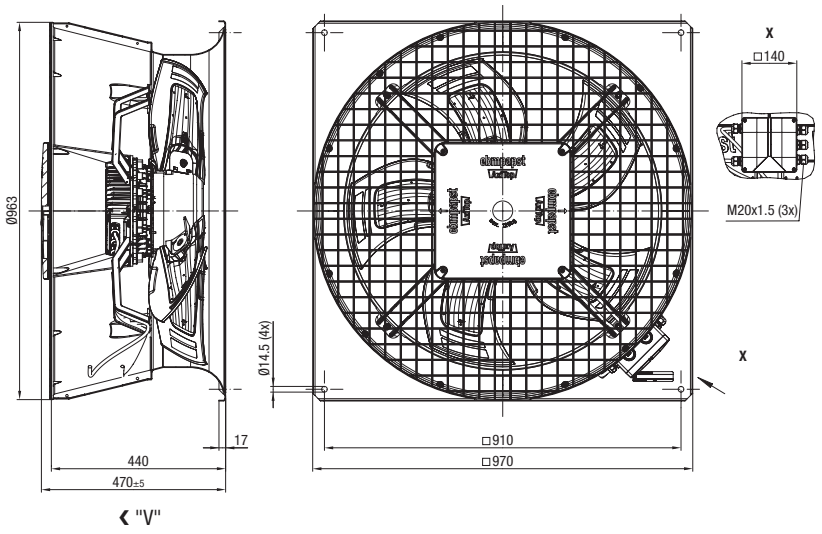


S3G 800-BV05-71 (with guard grille for full nozzle, airflow direction "V")



Inside diameter of
fan housing min. 795 mm

W3G 800-HV05-71 (with square full nozzle and diffuser, airflow direction "V") - AxiTop -



ErP2015 EXCEEDS THE NORM

EC axial fans – HyBlade®

Ø 910

- **Material:** Guard grille: Steel, coated with black plastic (RAL 9005)
  Fan housing: Sheet steel, galvanized and coated with black plastic (RAL 9005)
  Blades (5): Ⓐ to Ⓓ Press-fitted sheet steel blank, over-molded with PP plastic
  Ⓔ to Ⓖ Aluminum insert, over-molded with PP plastic
  Rotor: Painted black / Diffuser: PP plastic
  Electronics housing: Die-cast aluminum, painted black
- **Direction of rotation:** Clockwise viewed toward rotor
- **Degree of protection:** IP55
- **Insulation class:** "F"
- **Installation position:** Shaft horizontal or rotor on bottom, rotor on top on request
- **Condensation drainage holes:** Rotor side
- **Mode:** Continuous operation (S1)
- **Mounting:** Maintenance-free ball bearings

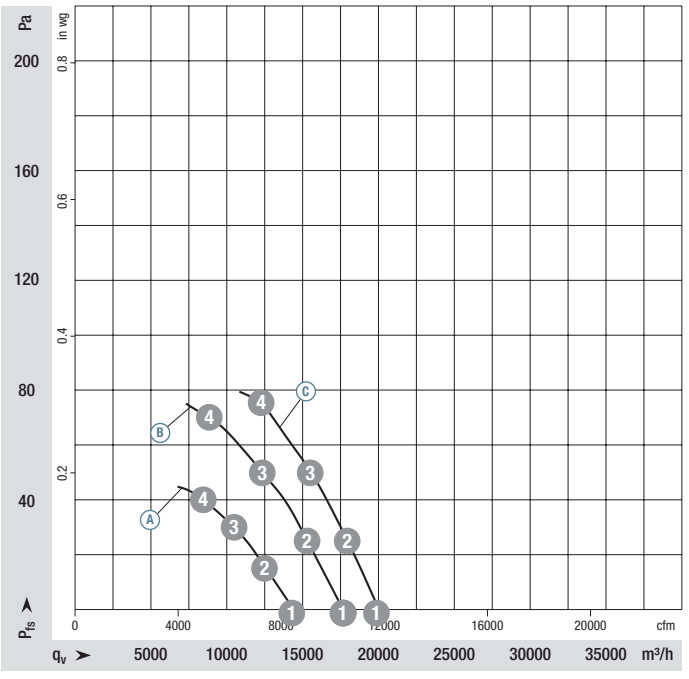
Nominal data		Blade pitch	Curve	Nominal voltage range	Frequency	Speed[1]	Max. input power[1]	Max. input current[1]	Max. back pressure	Perm. ambient temp.	Techn. features and connection diagram
Type	**Motor**			**VAC**	**Hz**	**rpm**	**W**	**A**	**Pa**	**°C**	
***3G 910**	M3G 112-EA	---	Ⓐ	1~200-277	50/60	450	250	1,10	40	-25..+60	P. 132 / P7)
***3G 910**	M3G 112-GA	---	Ⓑ	1~200-277	50/60	560	470	2,10	70	-25..+60	P. 132 / P7)
***3G 910**	M3G 112-IA	---	Ⓒ	1~200-277	50/60	620	630	2,80	75	-25[2]..+60	P. 132 / P7)
***3G 910**	M3G 112-IA	---	Ⓓ	3~380-480	50/60	640	700	1,10	85	-25[2]..+60	P. 133 / P8) / P. 136* / M7*)
***3G 910**	M3G 150-FF	0°	Ⓔ	3~380-480	50/60	800	1550	2,50	130	-25[2]..+60	P. 134 / M5)
***3G 910**	M3G 150-IF	0°	Ⓕ	3~380-480	50/60	885	2100	3,20	160	-25[2]..+60	P. 134 / M5) / P. 137* / M9*)
***3G 910**	M3G 150-NA	0°	Ⓖ	3~380-480	50/60	1000	2880	4,40	190	-25[2]..+65	P. 134 / M5) / P. 137* / M9*)

Subject to change

(1) Nominal data at operating point with maximum load and 230 or 400 VAC. (*) AxiTop

(2) Occasional start-up between -40°C and -25°C is permissible. Continuous operation below -25°C only possible with special low-temperature bearings (on request).

Curves:



		n rpm	P_{ed} W	I A	L_{WA} dB(A)
Ⓐ	1	450	154	0,73	61
Ⓐ	2	450	191	0,88	59
Ⓐ	3	450	224	1,01	58
Ⓐ	4	450	250	1,10	60
Ⓑ	1	560	284	1,29	66
Ⓑ	2	560	352	1,57	64
Ⓑ	3	560	413	1,83	64
Ⓑ	4	560	470	2,10	67
Ⓒ	1	620	406	1,84	68
Ⓒ	2	620	493	2,20	66
Ⓒ	3	620	564	2,49	65
Ⓒ	4	620	630	2,80	68

Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection. Intake-side sound level: L_{WA} according to ISO 13347, L_{pA} measured at 1 m distance from fan axis. The values given are only applicable under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked in installed condition. See Page 136 ff for detailed information.

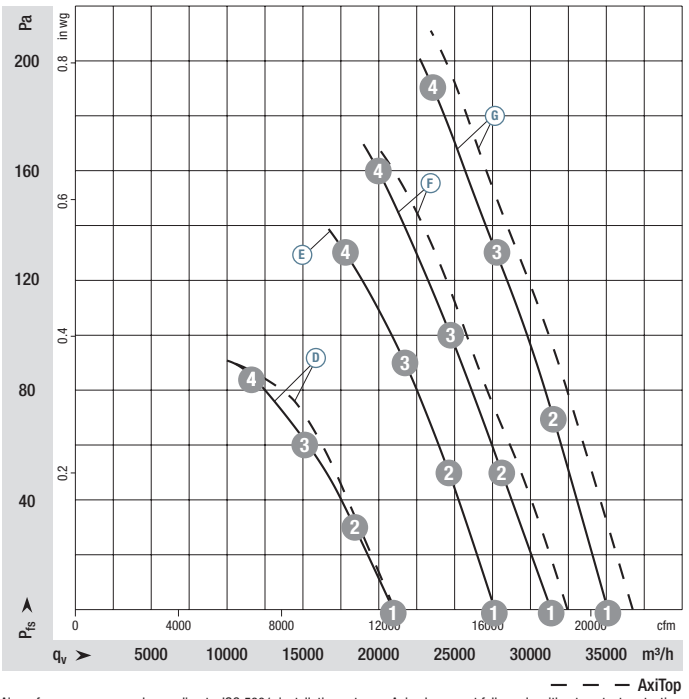
ebmpapst

- **Technical features:** See connection diagram P. 132 ff.
- **EMC:** Immunity to interference according to EN 61000-6-2 (industrial environment)
  Circuit feedback according to EN 61000-3-2
  Interference emission according to EN 61000-6-4 (industrial environment), according to household appliance standard on request
- **Touch current:** <= 3.5 mA according to IEC 60990 (measuring circuit Fig. 4)
- **Electrical connection:** Via terminal box
- **Protection class:** I (with customer connection of protective earth)
- **Conformity with standards:** Ⓐ to Ⓓ EN 61800-5-1, CE; EN 60335-1 in preparation
  Ⓔ Ⓕ Ⓖ EN 61800-5-1, CE
- **Approvals:** Ⓑ Ⓒ UL, CSA
  Ⓐ Ⓓ UL, CSA planned
  Ⓔ Ⓕ Ⓖ EAC

Airflow direction	❮ "V" without attach-ments-	Weight without attachments kg	❮ "V" with square full nozzle	Weight with square full nozzle kg	❮ "V" with guard grille for full nozzle	Weight with guard grille for full nozzle kg	❮ "V" with square full nozzle and diffuser (AxiTop)	Weight with square full nozzle and diffuser kg
"V"	A3G 910-BA79 -41	8,80	W3G 910-GA79 -41	32,50	S3G 910-BA79 -41	16,10	---	---
"V"	A3G 910-BD61 -31	10,30	W3G 910-GD61 -31	34,00	S3G 910-BD61 -31	17,60	---	---
"V"	A3G 910-BG02 -21	12,10	W3G 910-GG02 -21	35,80	S3G 910-BG02 -21	19,40	---	---
"V"	A3G 910-BG02 -51	12,00	W3G 910-GG02 -51	35,70	S3G 910-BG02 -51	19,30	W3G 910-HG02 -51	42,50
"V"	A3G 910-AS39 -71	23,00	W3G 910-GS39 -71	47,00	S3G 910-BS39 -71	31,00	---	---
"V"	A3G 910-AU27 -71	25,50	W3G 910-GU27 -71	49,50	S3G 910-BU27 -71	33,50	W3G 910-HU27 -71	57,00
"V"	A3G 910-AV12 -71	31,50	W3G 910-GV12 -71	55,50	S3G 910-BV12 -71	39,50	W3G 910-HV12 -71	63,00

Airflow direction "A" on request

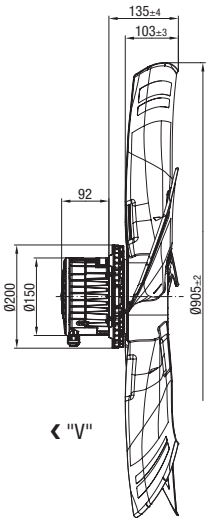
Curves:

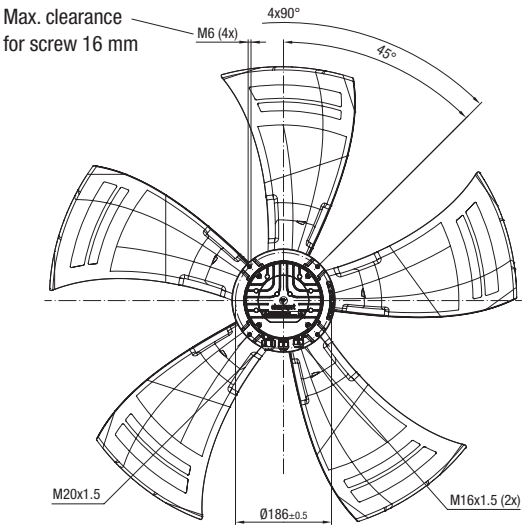


		n rpm	P_{ed} W	I A	L_{WA} dB(A)
Ⓓ	1	640	444	0,76	70
Ⓓ	2	640	542	0,90	67
Ⓓ	3	640	622	1,02	67
Ⓓ	4	640	700	1,10	70
Ⓔ	1	800	1040	1,74	73
Ⓔ	2	800	1267	2,06	72
Ⓔ	3	800	1440	2,30	72
Ⓔ	4	800	1550	2,50	75
Ⓕ	1	885	1406	2,25	77
Ⓕ	2	885	1631	2,58	76
Ⓕ	3	885	1835	2,88	75
Ⓕ	4	885	2100	3,20	78
Ⓖ	1	1000	1973	3,09	79
Ⓖ	2	1000	2282	3,54	78
Ⓖ	3	1000	2582	3,99	78
Ⓖ	4	1000	2880	4,40	80

Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection. Intake-side sound level: L_{WA} according to ISO 13347, L_{pA} measured at 1 m distance from fan axis. The values given are only applicable under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked in installed condition. See Page 136 ff for detailed information.

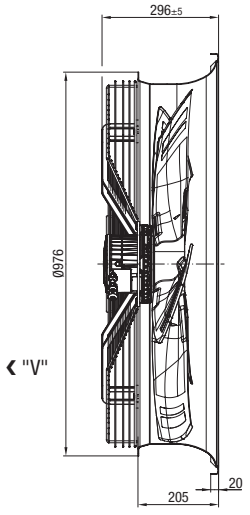
A3G 910-BA79-41 (without attachments, airflow direction "V")

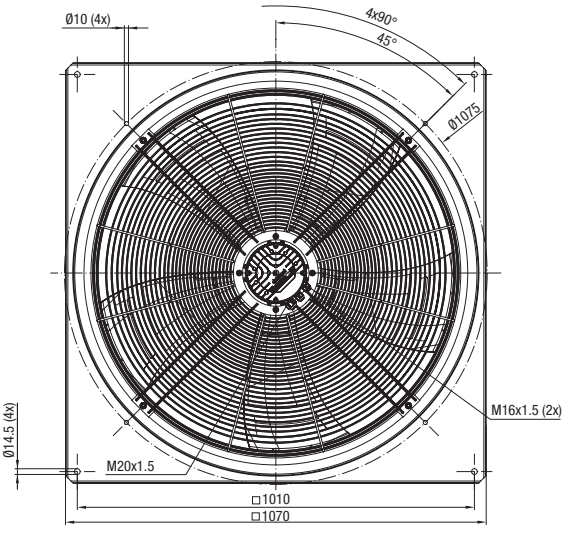




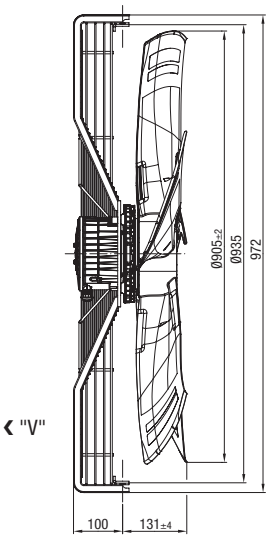
Inside diameter of
fan housing min. 913 mm

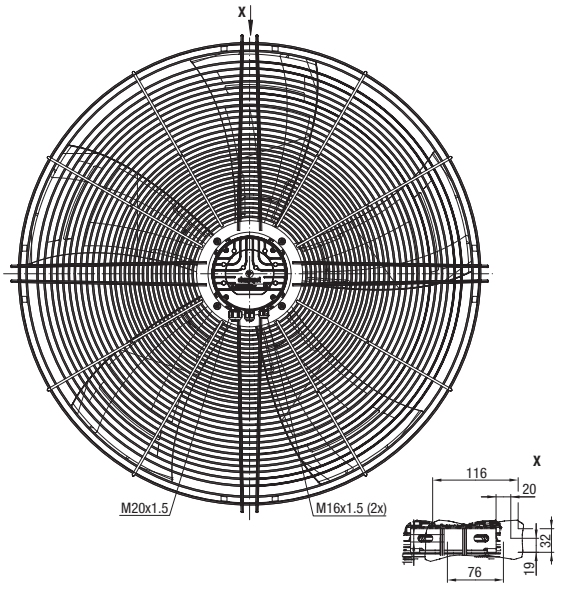
W3G 910-GA79-41 (with square full nozzle, airflow direction "V")





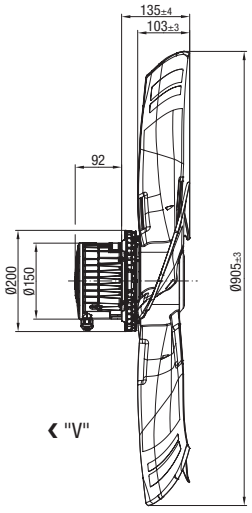
S3G 910-BA79-41 (with guard grille for full nozzle, airflow direction "V")

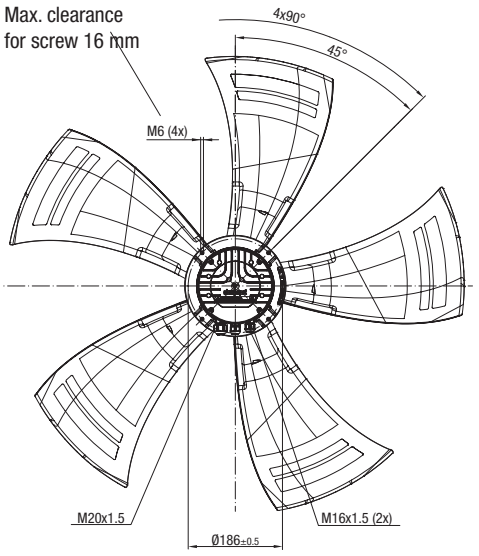




Inside diameter of
fan housing min. 913 mm

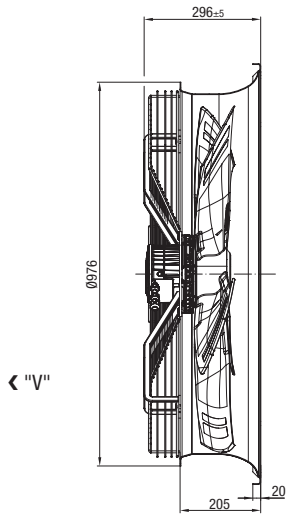
A3G 910-BD61-31 (without attachments, airflow direction "V")

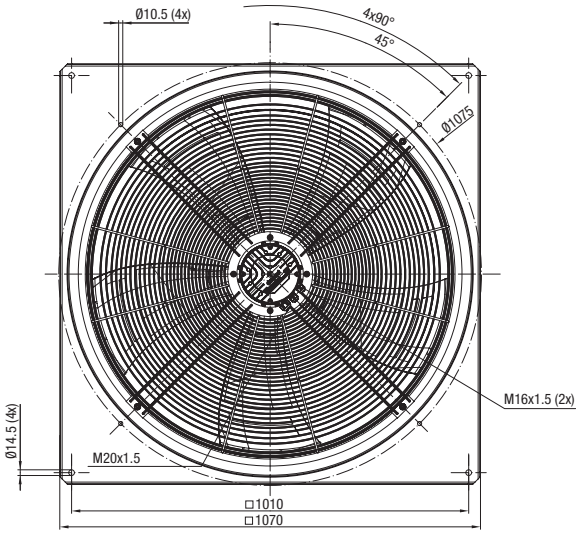




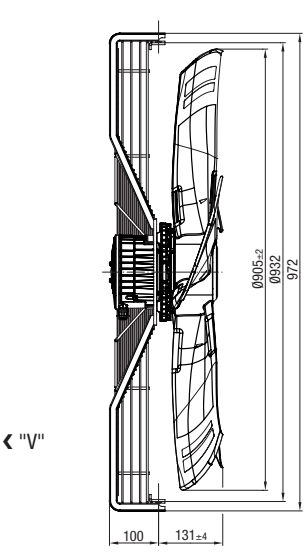
Inside diameter of
fan housing min. 913 mm

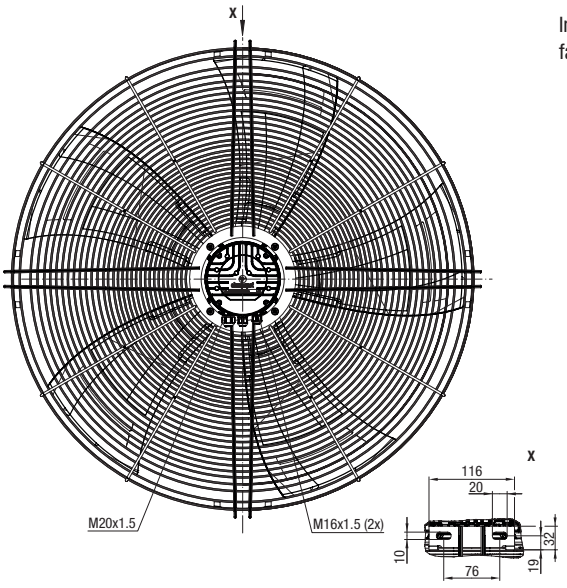
W3G 910-GD61-31 (with square full nozzle, airflow direction "V")





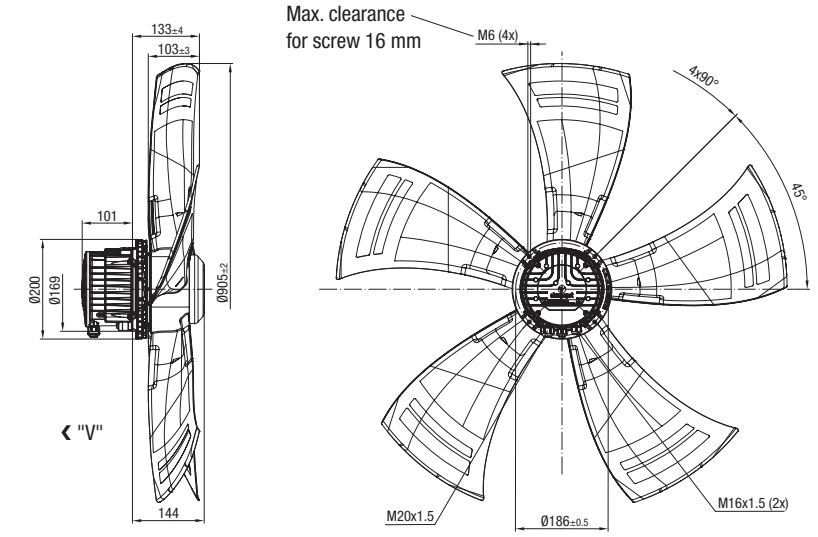
S3G 910-BD61-31 (with guard grille for full nozzle, airflow direction "V")





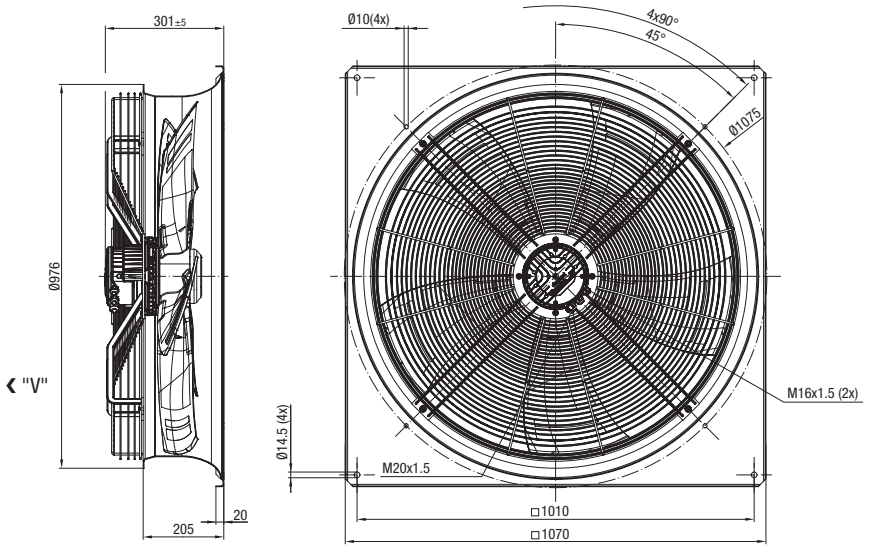
Inside diameter of
fan housing min. 913 mm

A3G 910-BG02-21 (without attachments, airflow direction "V")

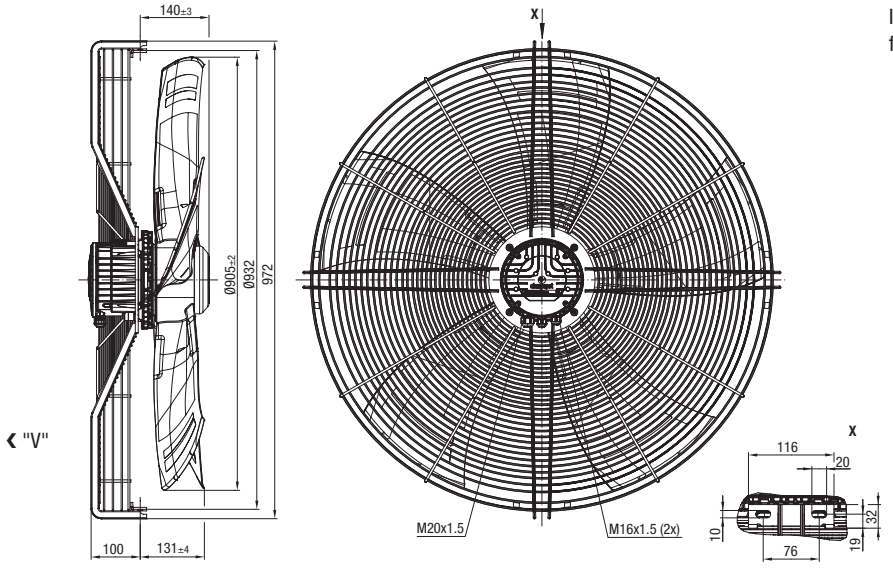


Inside diameter of
fan housing min. 913 mm

W3G 910-GG02-21 (with square full nozzle, airflow direction "V")



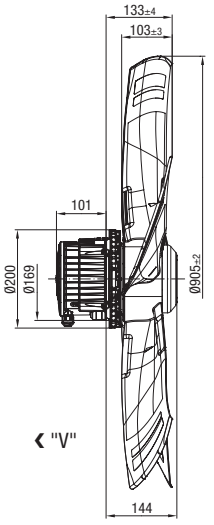
S3G 910-BG02-21 (with guard grille for full nozzle, airflow direction "V")



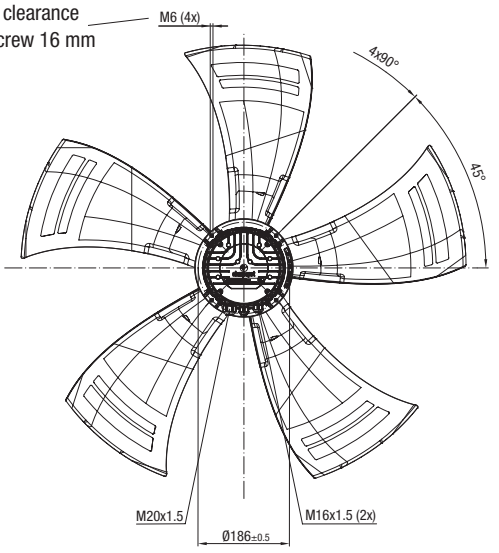
Inside diameter of
fan housing min. 913 mm

Agents	Technology	Ø 1250	Ø 990	Ø 910	Ø 800	Ø 710	Ø 630	Ø 560	Ø 500	Ø 450	Ø 400	Ø 350	Ø 300	Ø 250	Ø 200	Information

A3G 910-BG02-51 (without attachments, airflow direction "V")

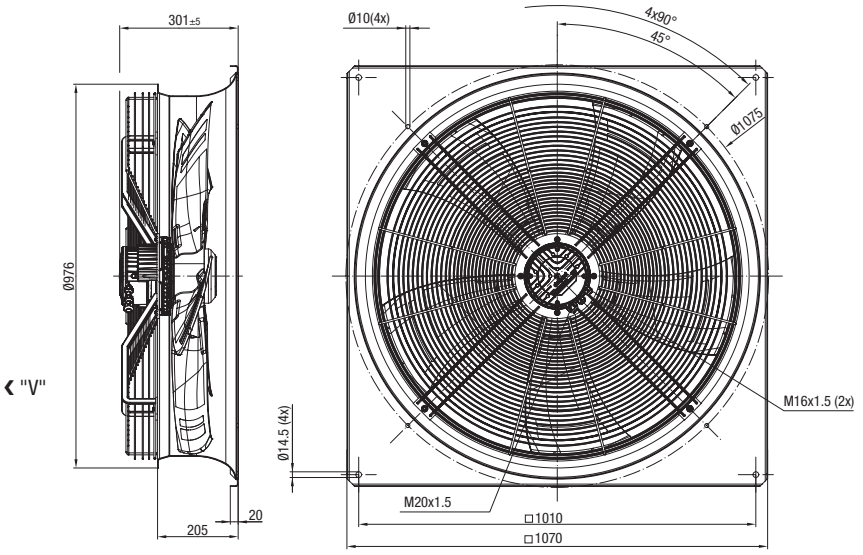


Max. clearance for screw 16 mm

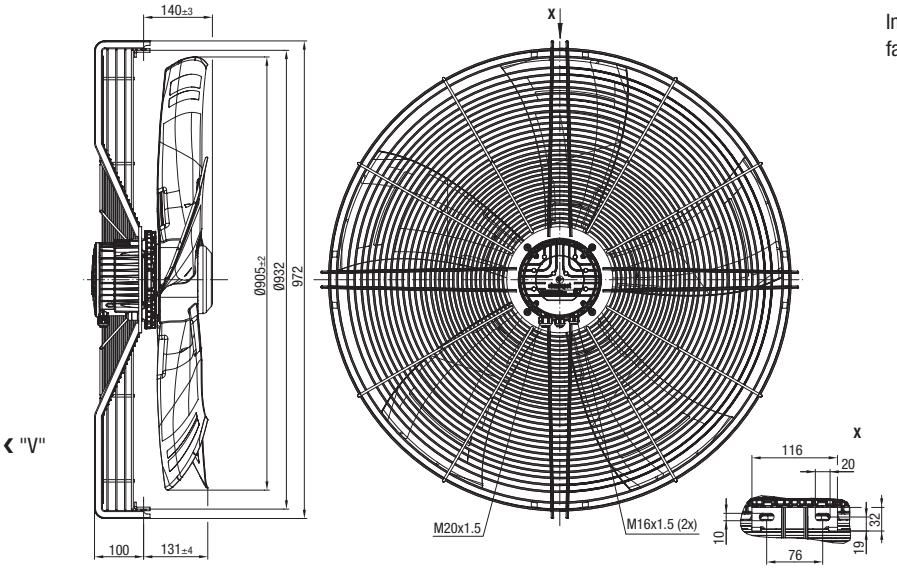


Inside diameter of fan housing min. 913 mm

W3G 910-GG02-51 (with square full nozzle, airflow direction "V")

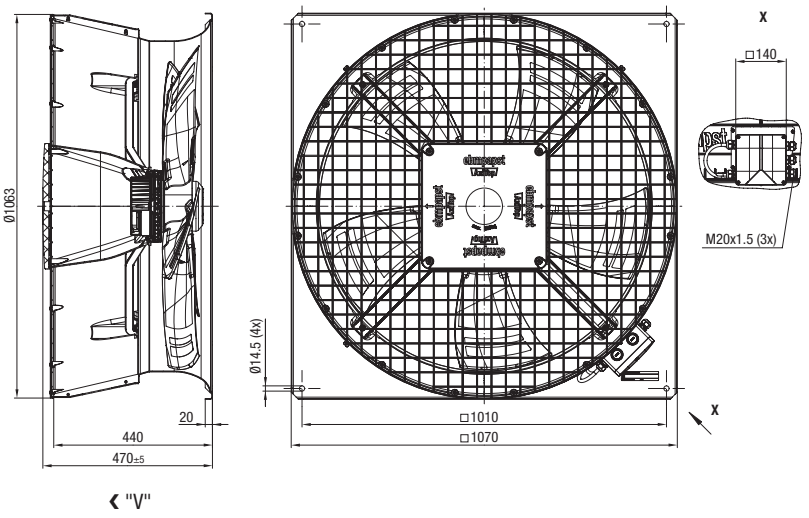


S3G 910-BG02-51 (with guard grille for full nozzle, airflow direction "V")

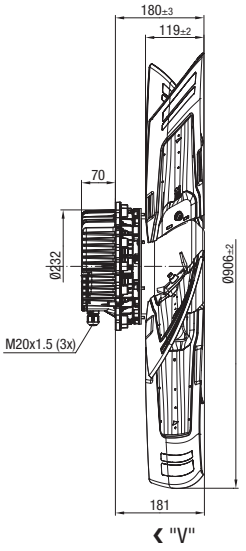


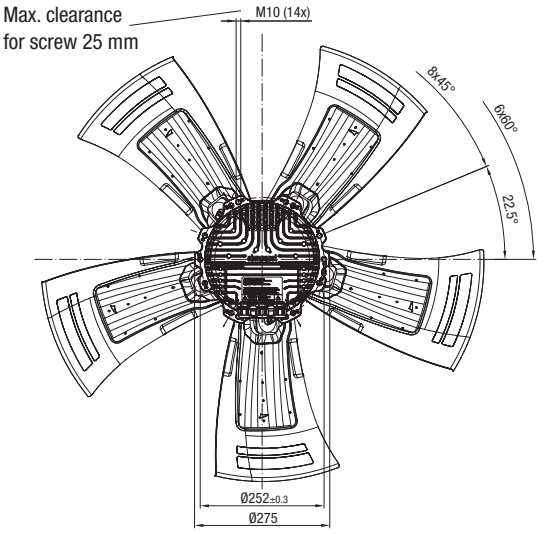
Inside diameter of fan housing min. 913 mm

W3G 910-HG02-51 (with square full nozzle and diffuser, airflow direction "V") - AxiTop -



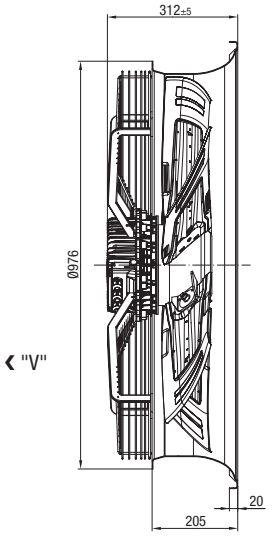
A3G 910-AS39-71 (without attachments, airflow direction "V")

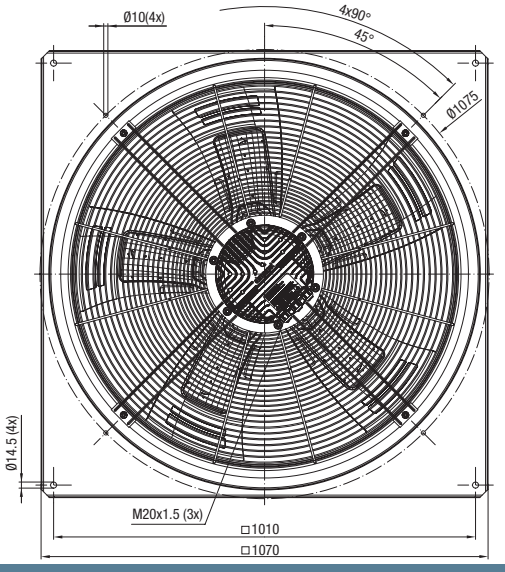




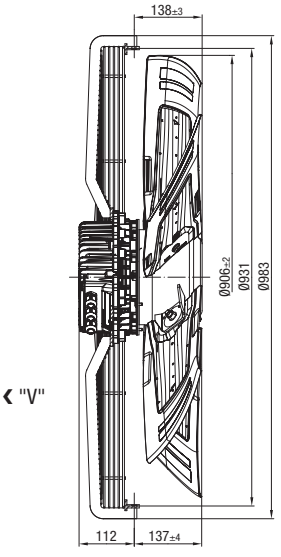
Inside diameter of
fan housing min. 913 mm

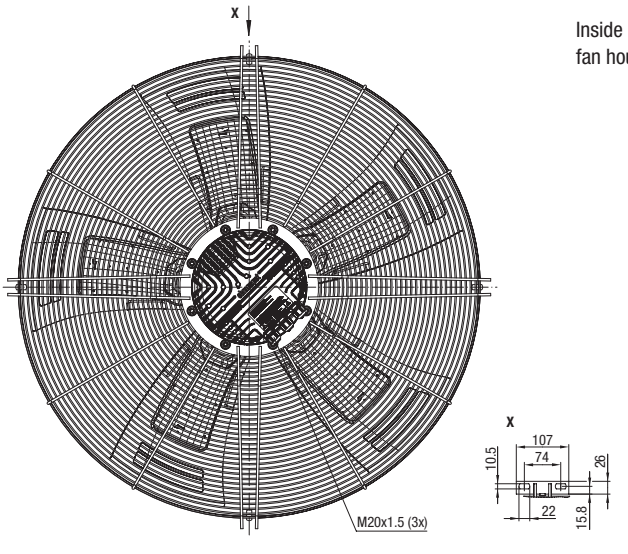
W3G 910-GS39-71 (with square full nozzle, airflow direction "V")





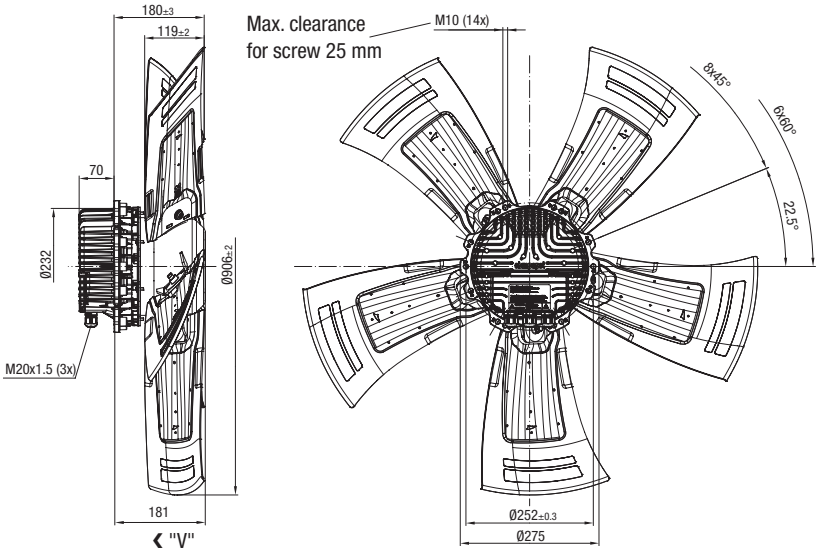
S3G 910-BS39-71 (with guard grille for full nozzle, airflow direction "V")





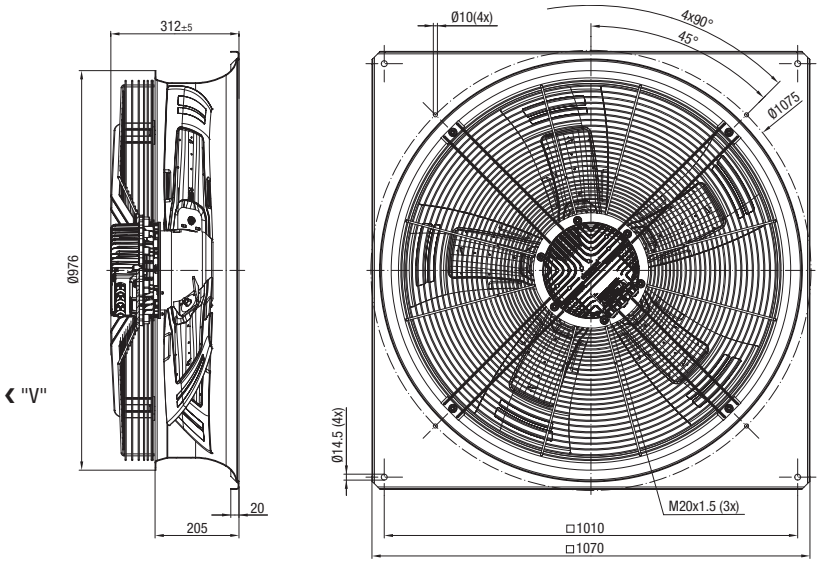
Inside diameter of
fan housing min. 913 mm

A3G 910-AU27-71 (without attachments, airflow direction "V")

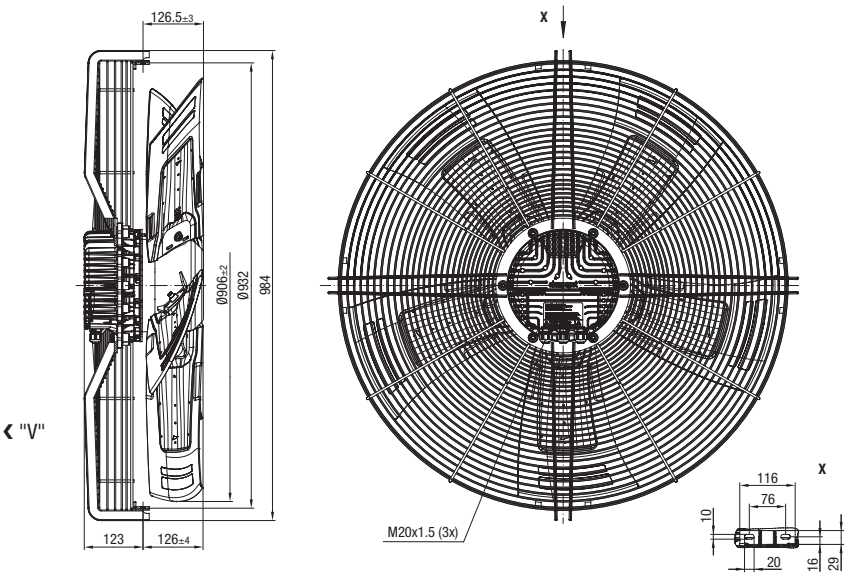


Inside diameter of
fan housing min. 913 mm

W3G 910-GU27-71 (with square full nozzle, airflow direction "V")

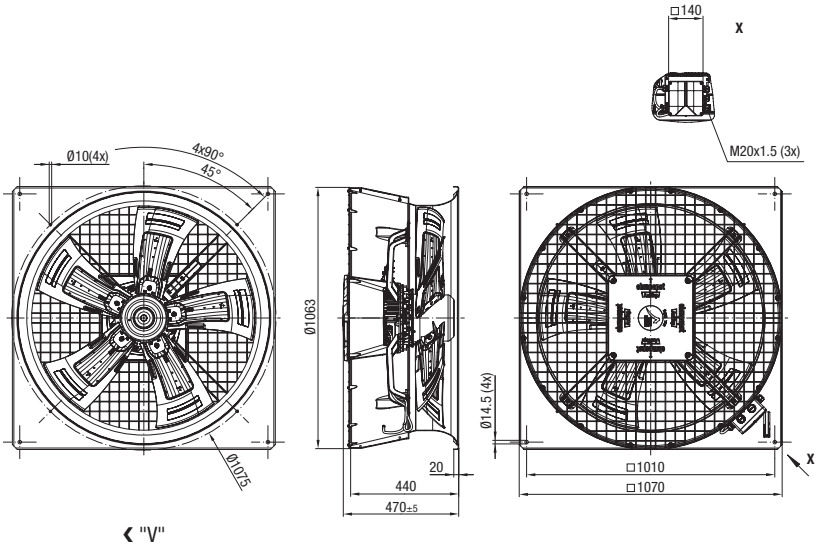


S3G 910-BU27-71 (with guard grille for full nozzle, airflow direction "V")

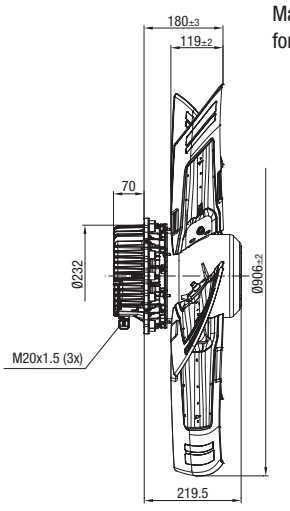


Inside diameter of
fan housing min. 913 mm

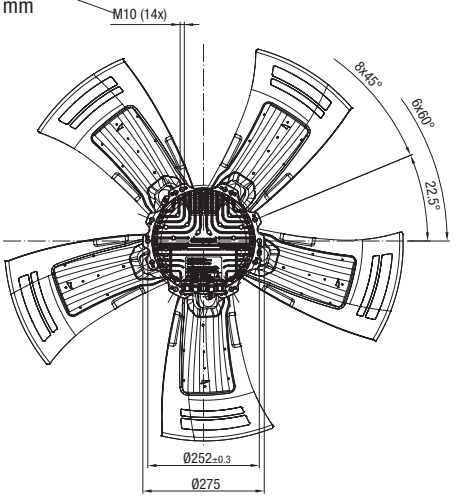
W3G 910-HU27-71 (with square full nozzle and diffuser, airflow direction "V") - AxiTop -



A3G 910-AV12-71 (without attachments, airflow direction "V")

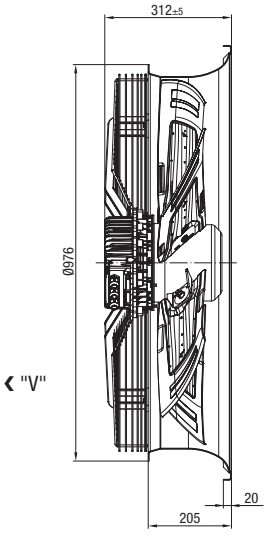


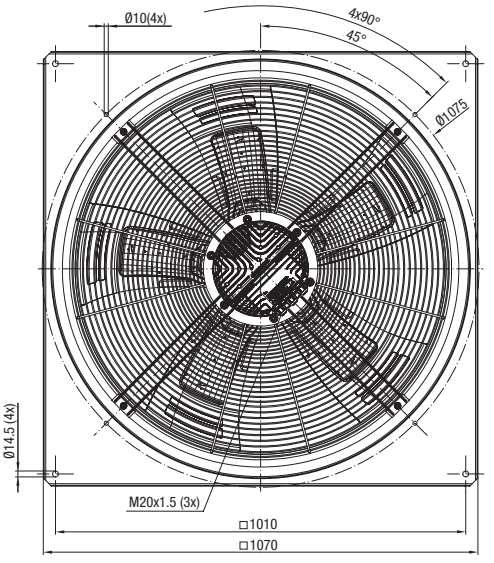
Max. clearance for screw 25 mm



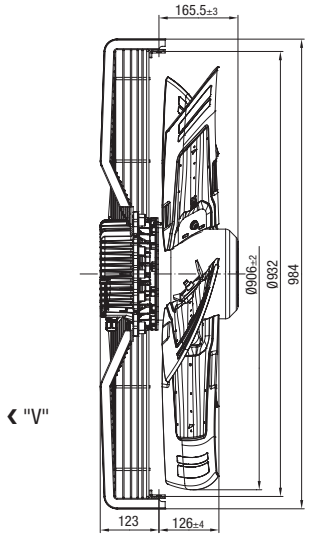
Inside diameter of fan housing min. 913 mm

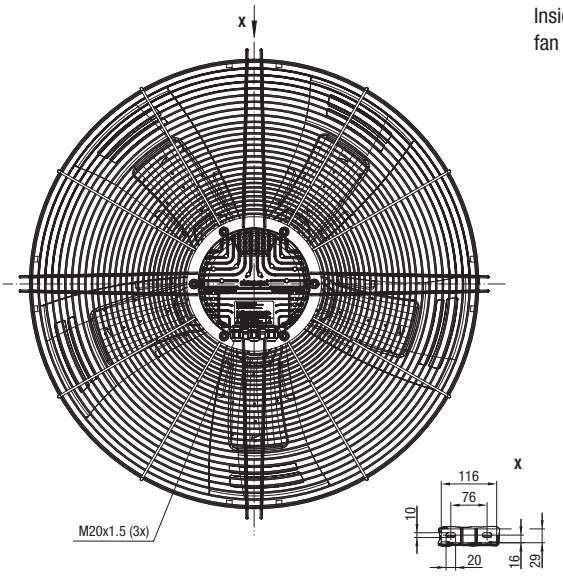
W3G 910-GV12-71 (with square full nozzle, airflow direction "V")





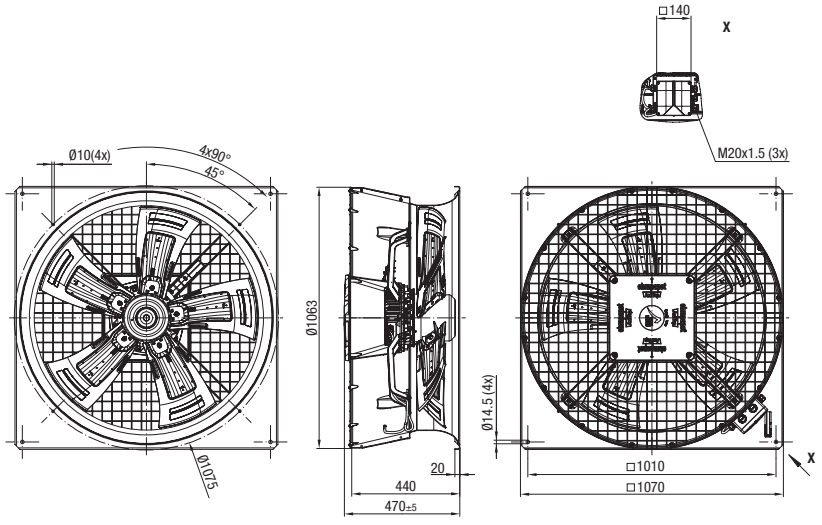
S3G 910-BV12-71 (with guard grille for full nozzle, airflow direction "V")





Inside diameter of fan housing min. 913 mm

W3G 910-HV12-71 (with square full nozzle and diffuser, airflow direction "V") - AxiTop -



❮ "V"

ErP2015 EXCEEDS THE NORM

EC axial fans – HyBlade®

Ø 990

- **Material:** Guard grille: Steel, coated with black plastic (RAL 9005)
  Fan housing: Sheet steel, galvanized and coated with black plastic (RAL 9005)
  Blades: Aluminum insert, over-molded with PP plastic
  Rotor: Painted black
  Electronics housing: Die-cast aluminum, painted black
- **Number of blades:** 5
- **Direction of rotation:** Clockwise viewed toward rotor
- **Degree of protection:** IP55
- **Insulation class:** "F"
- **Installation position:** Shaft horizontal or rotor on bottom, rotor on top on request
- **Condensation drainage holes:** Rotor side
- **Mode:** Continuous operation (S1)
- **Mounting:** Maintenance-free ball bearings

Nominal data

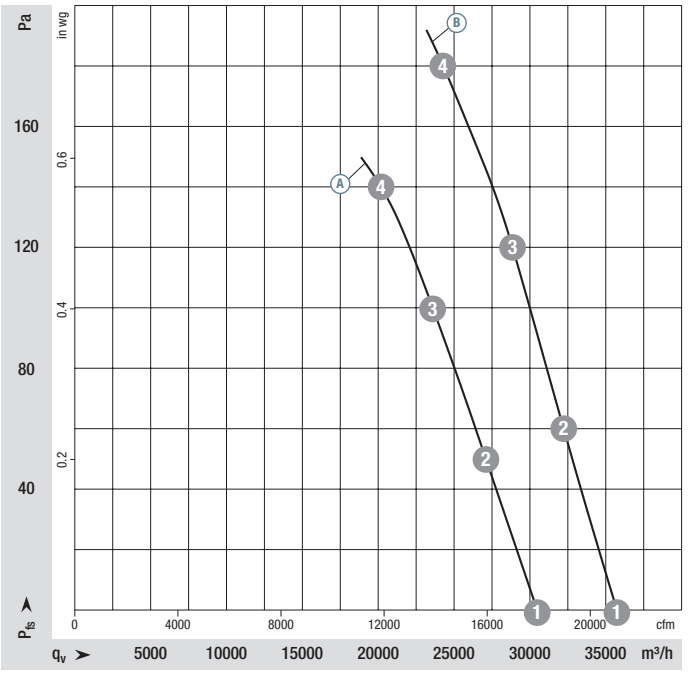
Type	Motor	Blade pitch	Curve	Nominal voltage range	Frequency	Speed[1]	Max. input power[1]	Max. input current[1]	Max. back pressure	Perm. ambient temp.	Techn. features and connection diagram
				VAC	Hz	rpm	W	A	Pa	°C	
*3G 990	M3G 150-IF	-5°	A	3~380-480	50/60	820	1650	2,60	140	-25[2]..+70	P. 134 / M5)
*3G 990	M3G 150-NA	-5°	B	3~380-480	50/60	960	2500	3,90	180	-25[2]..+65	P. 134 / M5)

Subject to change

(1) Nominal data at operating point with maximum load and 400 VAC.

(2) Occasional start-up between -40°C and -25°C is permissible. Continuous operation below -25°C only possible with special low-temperature bearings (on request).

Curves:



		n rpm	P_{ed} W	I A	L_{WA} dB(A)
A	1	820	947	1,61	80
A	2	820	1224	1,99	77
A	3	820	1465	2,34	78
A	4	820	1650	2,60	80
B	1	960	1478	2,36	84
B	2	960	1827	2,87	82
B	3	960	2176	3,38	82
B	4	960	2500	3,90	83

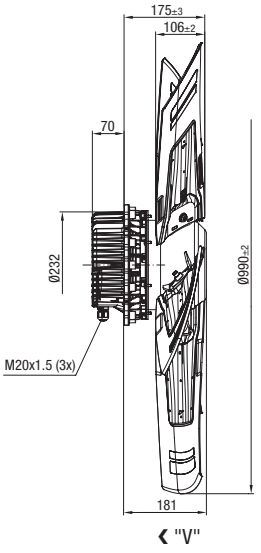
Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection. Intake-side sound level: L_{WA} according to ISO 13347, L_{pA} measured at 1 m distance from fan axis. The values given are only applicable under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked in installed condition. See Page 136 ff for detailed information.

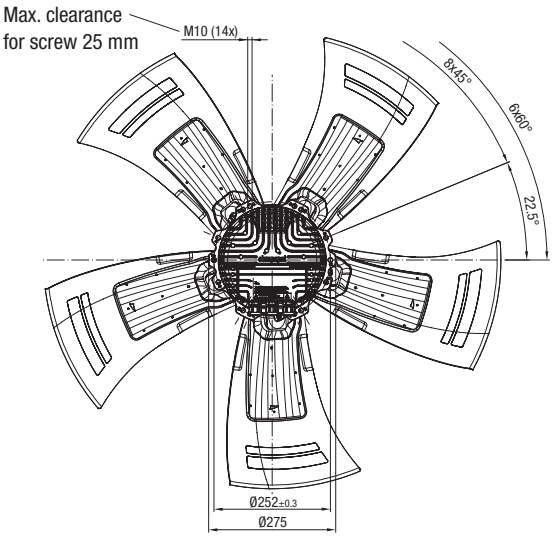
- **Technical features:** See connection diagram P. 134
- **EMC:** Immunity to interference according to EN 61000-6-2 (industrial environment)
  Circuit feedback according to EN 61000-3-2
  Interference emission according to EN 61000-6-4 (industrial environment), according to household appliance standard on request
- **Touch current:** <= 3.5 mA according to IEC 60990 (measuring circuit Fig. 4)
- **Electrical connection:** Via terminal box
- **Protection class:** I (with customer connection of protective earth)
- **Conformity with standards:** EN 61800-5-1, CE
- **Approvals:** EAC

Airflow direction	 ❮ "V" without attachments	Weight without attachments kg	 ❮ "V" with square full nozzle	Weight with square full nozzle kg	 ❮ "V" with guard grille for full nozzle	Weight with guard grille for full nozzle kg
"V"	A3G 990-AY22 -71	26,00	W3G 990-GY22 -71	55,00	S3G 990-BY22 -71	35,00
"V"	A3G 990-AZ01 -71	32,00	W3G 990-GZ01 -71	61,00	S3G 990-BZ01 -71	41,00

Airflow direction "A" on request

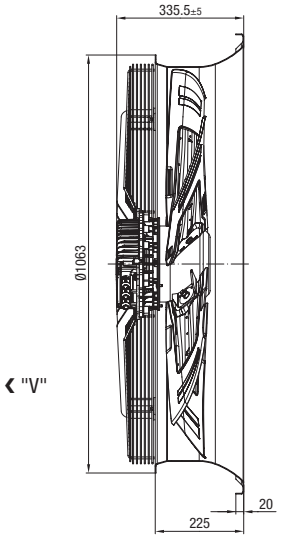
A3G 990-AY22-71 (without attachments, airflow direction "V")

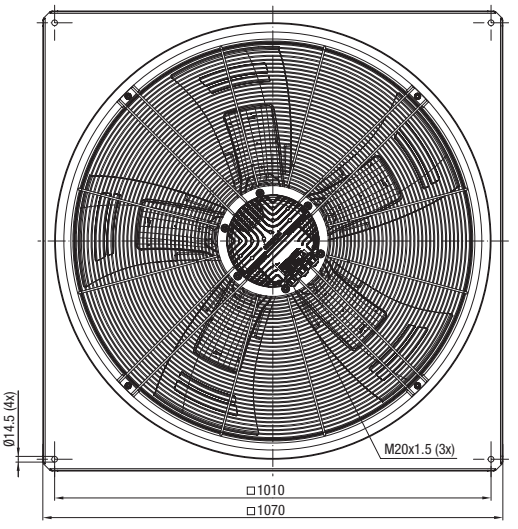




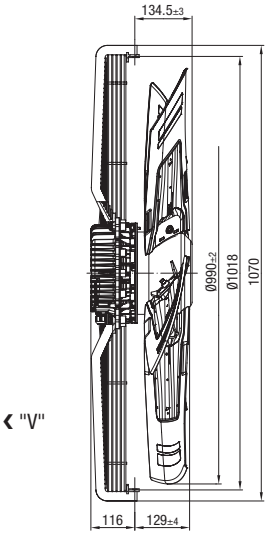
Inside diameter of
fan housing min. 1000 mm

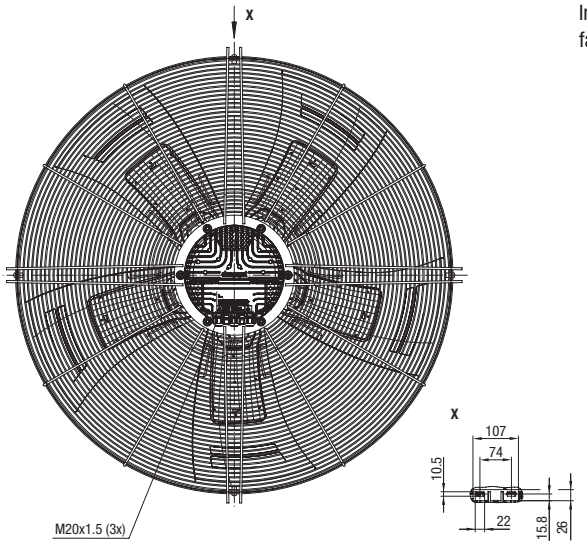
W3G 990-GY22-71 (with square full nozzle, airflow direction "V")





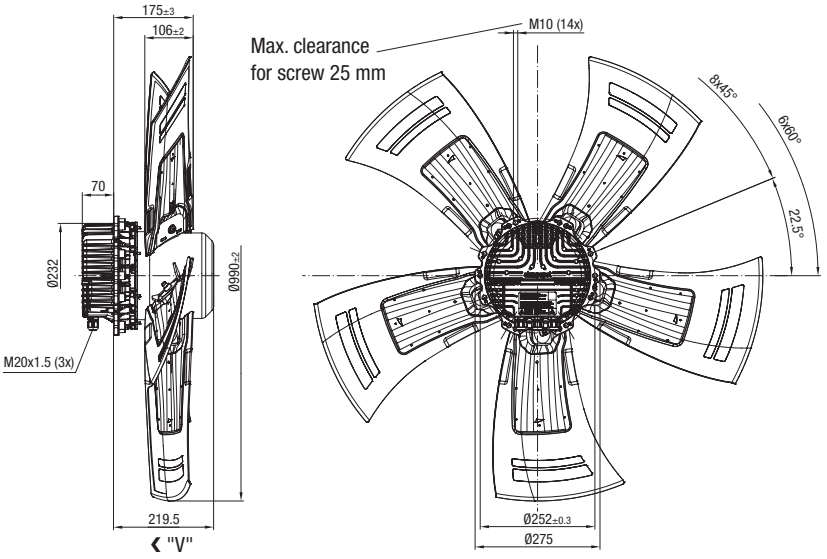
S3G 990-BY22-71 (with guard grille for full nozzle, airflow direction "V")





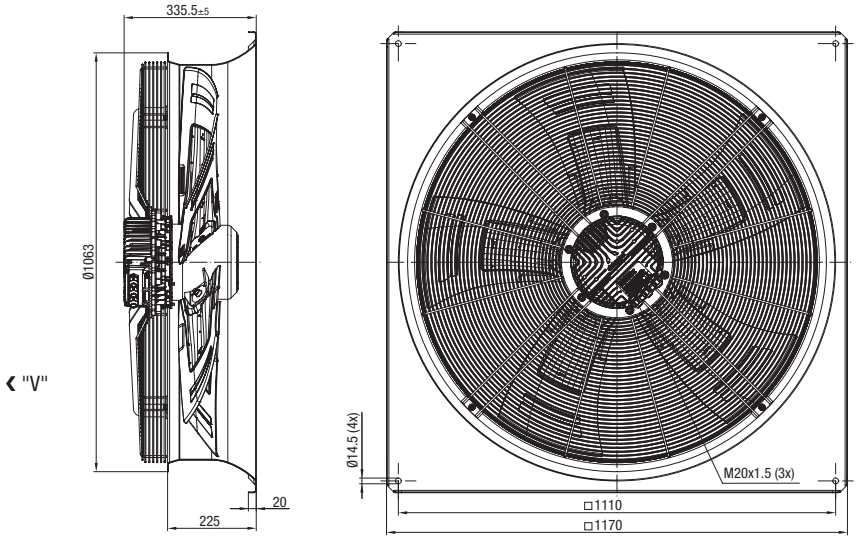
Inside diameter of
fan housing min. 1000 mm

A3G 990-AZ01-71 (without attachments, airflow direction "V")

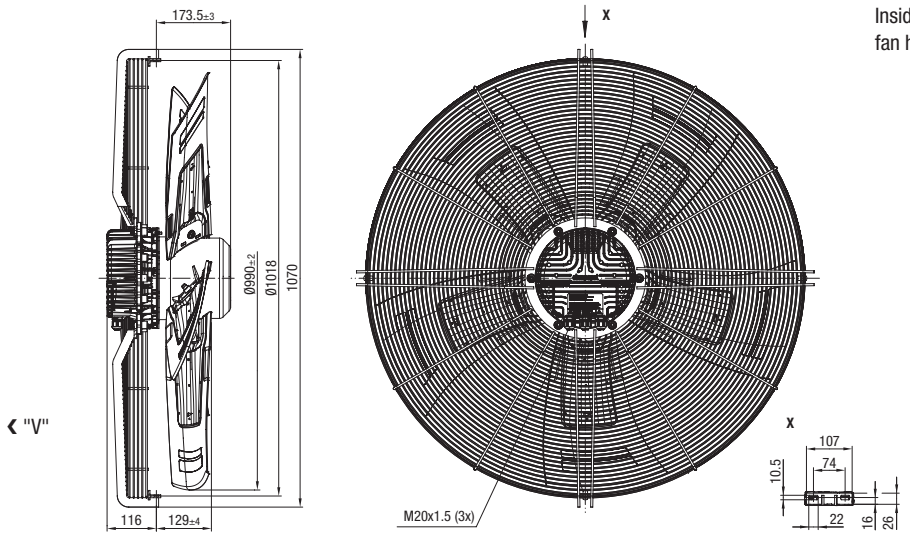


Inside diameter of
fan housing min. 1000 mm

W3G 990-GZ01-71 (with square full nozzle, airflow direction "V")



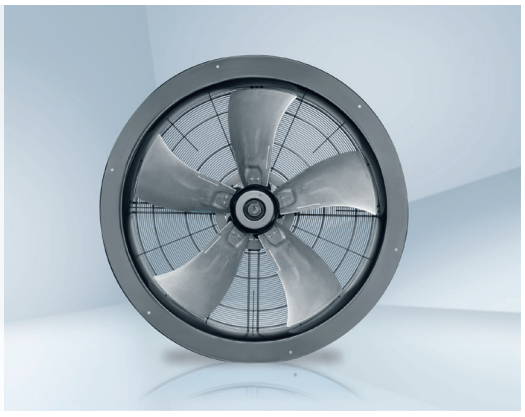
S3G 990-BZ01-71 (with guard grille for full nozzle, airflow direction "V")



Inside diameter of
fan housing min. 1000 mm

EC axial fans – HyBlade®

Ø 1250



- **Material:** Guard grille: Steel, coated with black plastic (RAL 9005)
  Fan housing and diffuser: Sheet steel, galvanized and coated with black plastic (RAL 9005)
  Blades: Die-cast aluminum
  Rotor: Painted black
  Electronics housing: Die-cast aluminum, painted black
- **Number of blades:** 5
- **Direction of rotation:** Clockwise viewed toward rotor
- **Degree of protection:** IP54
- **Insulation class:** "F"
- **Installation position:** Shaft horizontal or rotor on bottom, rotor on top on request
- **Condensation drainage holes:** Rotor side
- **Mode:** Continuous operation (S1)
- **Mounting:** Maintenance-free ball bearings

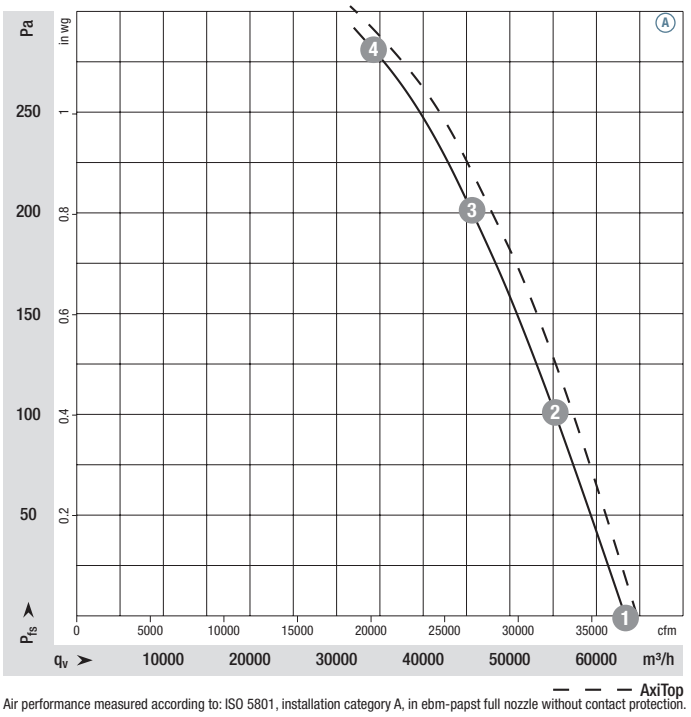
Nominal data

Type	Motor	Blade pitch	Curve	Nominal voltage range	Frequency	Speed[1]	Max. input power[1]	Max. input current[1]	Max. back pressure	Perm. ambient temp.	Techn. features and connection diagram
				VAC	Hz	rpm	W	A	Pa	°C	
***3G Z50**	M3G 200-QA	-5°	Ⓐ	3~380-480	50/60	820	6000	9,20	280	-25..+60	P. 135 / M3) / P. 137* / M9*)

Subject to change

(1) Nominal data at operating point with maximum load and 400 VAC. (*) AxiTop

Curves:



	n rpm	P_{ed} W	I A	L_{WA} dB(A)
Ⓐ 1	820	3560	5,35	84
Ⓐ 2	820	4500	6,75	84
Ⓐ 3	820	5300	8,11	86
Ⓐ 4	820	6000	9,20	93

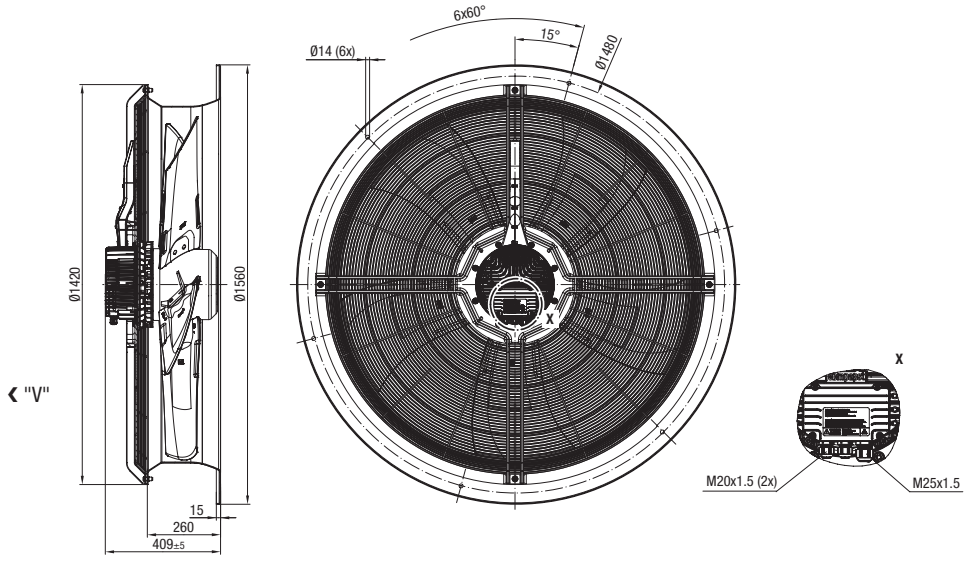
Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection. Intake-side sound level: L_{WA} according to ISO 13347, L_{pA} measured at 1 m distance from fan axis. The values given are only applicable under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked in installed condition. See Page 136 ff for detailed information.

- **Technical features:** See connection diagram P. 135/137
- **EMC:** Immunity to interference according to EN 61000-6-2 (industrial environment)
  Circuit feedback according to EN 61000-3-2
  Interference emission according to EN 61000-6-4 (industrial environment), according to household appliance standard on request
- **Touch current:** <= 3.5 mA according to IEC 60990 (measuring circuit Fig. 4)
- **Electrical connection:** Via terminal box
- **Protection class:** I (with customer connection of protective earth)
- **Conformity with standards:** EN 61800-5-1, CE
- **Approvals:** EAC, C22.2 Nr. 77 + CAN/CSA-E60730-1, UL 1004-7 + 60730

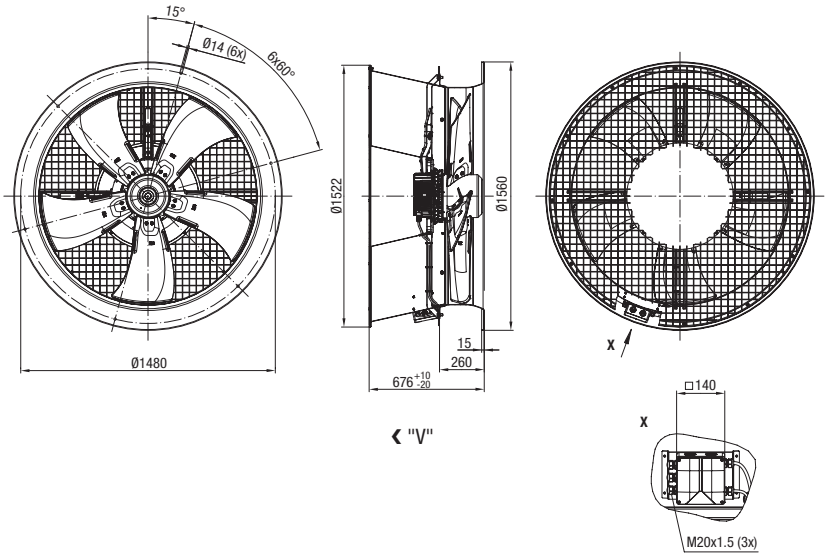
Airflow direction	❮ "V" without attach-ments-	Weight without attachments kg	❮ "V" with round full nozzle	Weight with round full nozzle kg	❮ "V" with guard grille for full nozzle	Weight with guard grille for full nozzle kg	❮ "V" with round full nozzle and diffuser (AxiTop)	Weight with round full nozzle and diffuser kg
"V"	---	---	W3G Z50-FF02 -01	144,0	---	---	W3G Z50-EF02 -01	193,0

Airflow direction "A" on request

W3G Z50-FF02-01 (with round full nozzle, airflow direction "V")



W3G Z50-EF02-01 (with round full nozzle and diffuser, airflow direction "V") - AxiTop -



Agents	Technology	Ø 1250	Ø 990	Ø 910	Ø 800	Ø 710	Ø 630	Ø 560	Ø 500	Ø 450	Ø 400	Ø 350	Ø 300	Ø 250	Ø 200	Information

Tender specifications

Fan size 200 to 450

Direct-drive EC axial fans - HyBlade® with high-performance axial impeller, mounted on a GreenTech EC external rotor motor with integrated control electronics.

Round full nozzle, pre-galvanized, coated with black plastic RAL 9005, flow-optimized nozzle shape integrated on intake side, guard grille made of phosphated steel and coated with black plastic.

Sickle-shaped blades; one-piece impellers made of glass-fiber reinforced PP plastic; winglets at blade tips.

Motor impeller statically and dynamically balanced on two planes to balancing grade G 6.3 in accordance with DIN ISO 1940.

GreenTech EC external rotor motor surpasses efficiency class IE4, magnets with no rare earths, maintenance-free ball bearings with long-term lubrication, theoretical nominal service life of at least 40,000 hours of operation, installation with horizontal and vertical motor shaft; soft start, integrated current limitation.

Extended voltage input 1~200-240 V, 50/60 Hz, fan can be used with all standard power supply networks with unaltered air performance. Designed for mode S1 Continuous operation.

See data sheet for installation position and temperature range.

Compact electronics; no time-consuming installation work involving shielded wiring; extremely low-noise commutation logic; pre-set operating parameters, no complicated parameterization. Standard cable design.

Any work required for isolation from structure-borne noise to be performed by the customer.

Fan satisfies the applicable EMC guidelines and requirements with regard to circuit feedback; documentation and marking conform to the applicable EU Directives.

Reliable performance data, air performance measurements on intake-side chamber test rig according to ISO 5801 and DIN 24163, noise measurements in anechoic rooms according to DIN EN ISO 3745.

Integrated protective devices:

- Locked-rotor protection
- Soft start of motors
- Thermal overload protection for electronics and motor
- Short circuit protection
- Motor current limitation
- Degree of protection
  M3G 055/074: IP 54 (according to EN 60529)
- Degree of protection
  M3G 084: IP 55

Optional:

- Other and specific requirements on request

Technical data:

Fan type		= __ __ __ __ __ __ - __ __ __ __ - __ __	
Air flow	q_V	= _____	m^3/h
Stat. pressure increase	p_{fs}	= _____	Pa
Stat. overall effi ciency	η_{es}	= _____	%
Operating speed	n	= _____	rpm
Motor type		= EC motor	
Type of control		☐ 0-10VDC/PWM	
		☐ 2 speed levels	
Motor efficiency class		= IE4	
Total power input	P_{ed}	= _____	kW
Specific fan power	SFP	= _____	$kW/(m^3/s)$
Nominal voltage range	U_N	= _____	V
Line frequency	f	= 50 / 60	Hz
Nominal current	I_N	= _____	A
Protection class M3G 055/074		= IP54	
Protection class M3G 084		= IP55	
Sound power level	L_WA (A, in)	= _____ / L_WA (A, out) = _____	dB(A)
Sound pressure level (at 1 m)	L_PA (A, in)	= _____ / L_PA (A, out) = _____	dB(A)
Perm. ambient temperature	T	= _____ to _____	°C
Weight of fan	m	= _____	kg

See data sheet for dimensions and connections.

Tender specifications

Fan size 500 to 1250

Direct-drive EC axial fans - HyBlade® with high-performance axial impeller, mounted on a GreenTech EC external rotor motor with integrated control electronics.

Square full nozzle, pre-galvanized, coated with black plastic RAL 9005, flow-optimized nozzle shape integrated on intake side, guard grille made of phosphated steel and coated with black plastic.

Sickle-shaped blades; high-strength aluminum alloy or steel blank; sprayed with glass-fiber reinforced PP plastic; winglets at blade tips.

Motor impeller statically and dynamically balanced on two planes to balancing grade G 6.3 in accordance with DIN ISO 1940.

GreenTech EC external rotor motor surpasses efficiency class IE4, magnets with no rare earths, maintenance-free ball bearings with long-term lubrication, theoretical nominal service life of at least 40,000 hours of operation, installation with horizontal and vertical motor shaft; soft start, integrated current limitation.

Extended voltage input 1~200-277 V / 3~380-480 V, 50/60 Hz, fan can be used with all standard power supply networks with unaltered air performance. Designed for mode S1 Continuous operation.

See data sheet for installation position and temperature range.

Compact electronics; no time-consuming installation work involving shielded wiring; extremely low-noise commutation logic; 100% open-loop speed control, RS485/MODBUS RTU interface; pre-set operating parameters, no complicated parameterization.

Top-mounted terminal box made of plastic with easily accessible connection area with terminal strip or integrated terminal box in motor electronics with easily accessible connection area with spring terminals, environment-resistant cable glands.

Any work required for isolation from structure-borne noise to be performed by the customer.

Fan satisfies the applicable EMC guidelines and requirements with regard to circuit feedback; documentation and marking conform to the applicable EU Directives.

Reliable performance data, air performance measurements on intake-side chamber test rig according to ISO 5801 and DIN 24163, noise measurements in anechoic rooms according to DIN EN ISO 3745.

Integrated protective devices:

- Alarm relay with floating contacts (250 V AC/2 A, cos φ = 1)
- Locked-rotor protection
- Phase failure detection
- Soft start of motors
- Line undervoltage detection
- Thermal overload protection for electronics and motor
- Short circuit protection
- Motor current limitation
- Degree of protection: IP 55

Optional:

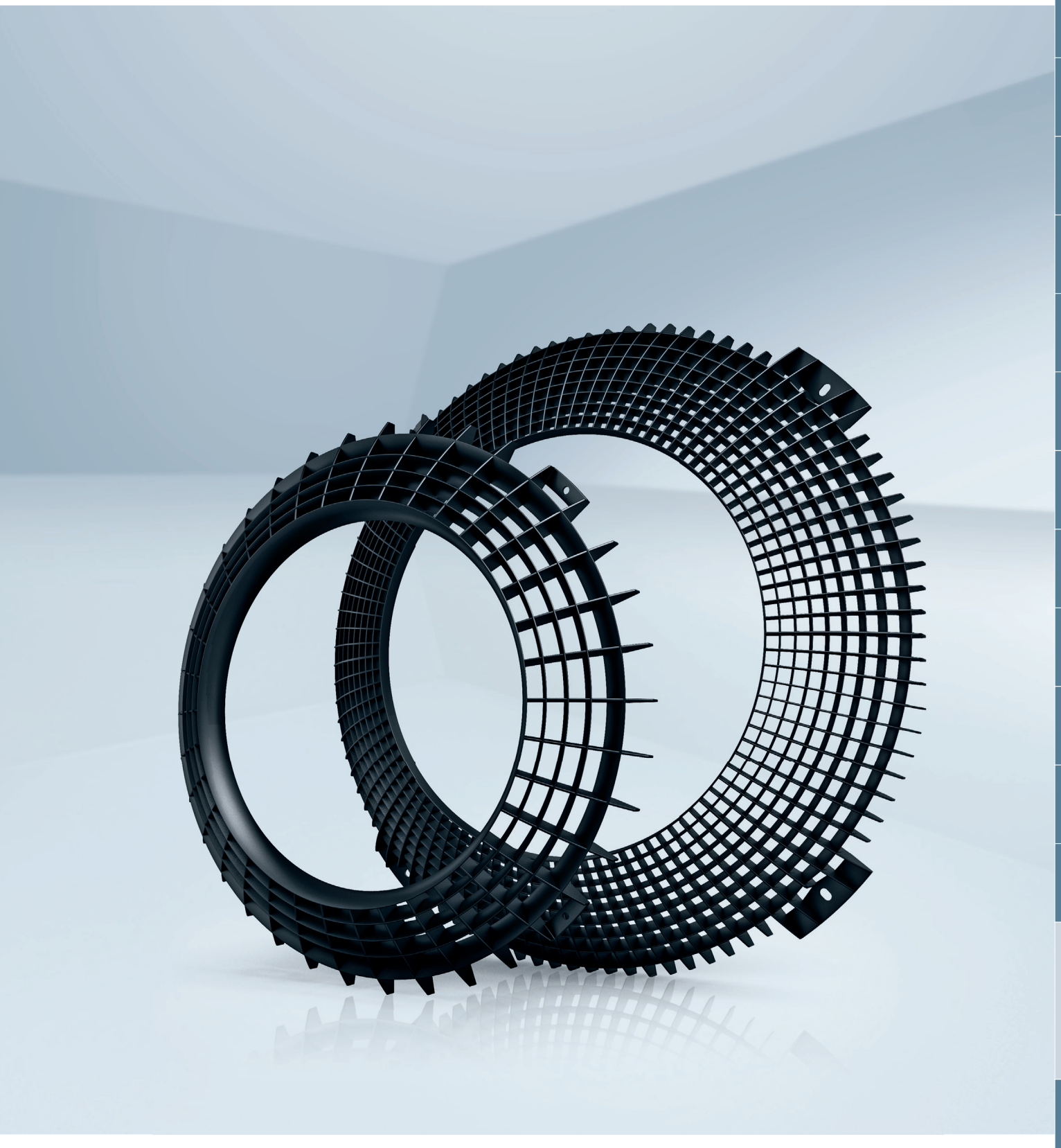
- Other and specific requirements on request

Technical data:

Fan type		= __ __ __ __ __ __ - __ __ __ __ - __ __	
Air flow	q_V	= _____	m^3/h
Stat. pressure increase	p_{fs}	= _____	Pa
Stat. overall efficiency	η_{es}	= _____	%
Operating speed	n	= _____	rpm
Motor type		= EC motor	
Type of control		= Closed-loop speed control, 0-100 %	
Motor efficiency class		= IE4	
Total power input	P_{ed}	= _____	kW
Specific fan power	SFP	= _____	$kW/(m^3/s)$
Nominal voltage range	U_N	= _____	V
Line frequency	f	= 50 / 60	Hz
Nominal current	I_N	= _____	A
Protection class		= IP55	
Sound power level	L_WA (A, in)	= _____ / L_WA (A, out) = _____	dB(A)
Sound pressure level (at 1 m)	L_PA (A, in)	= _____ / L_PA (A, out) = _____	dB(A)
Perm. ambient temperature	T	= _____ to _____	°C
Weight of fan	m	= _____	kg

See data sheet for dimensions and connections.

Accessories

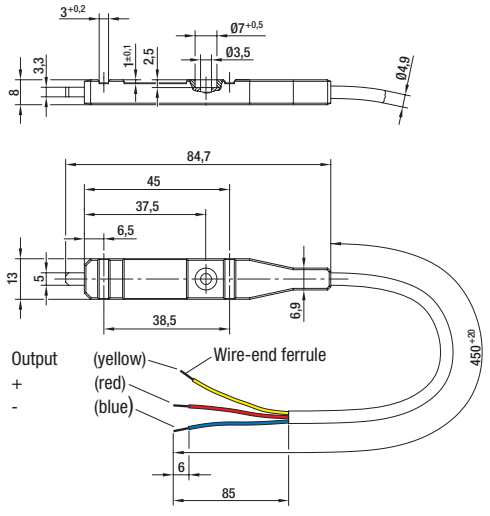


Temperature control modules

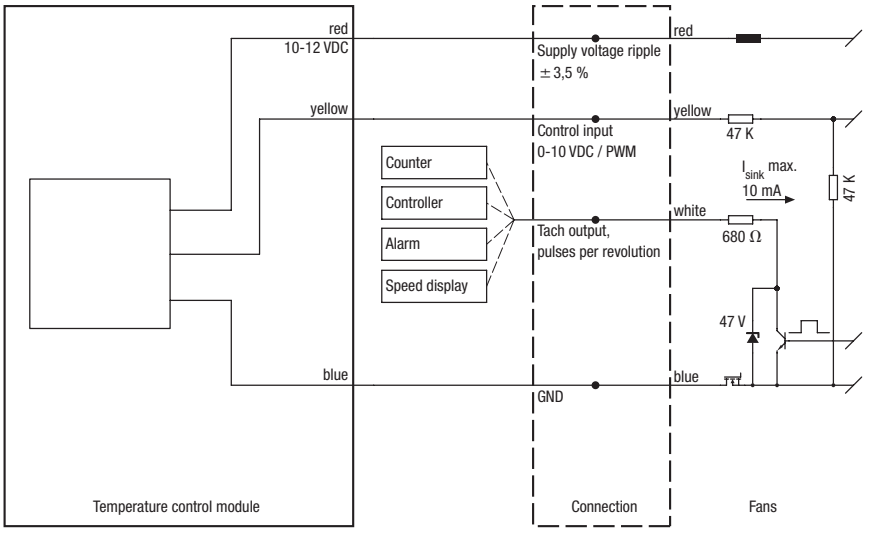
– **Degree of protection:** IP40

Nominal data	Nominal voltage	Input current	PWM	Output current	Output impedance	Temperature control range	Weight
Part number	**VDC**	**mA**	**%**	**mA**	**kΩ**	**°C**	**g**
50010-1-0174	10-12	1	10 - 100	0,1	1,1	+10..+45	20
50011-1-0174	10-12	1	20 - 100	0,1	1,1	+30..+55	20

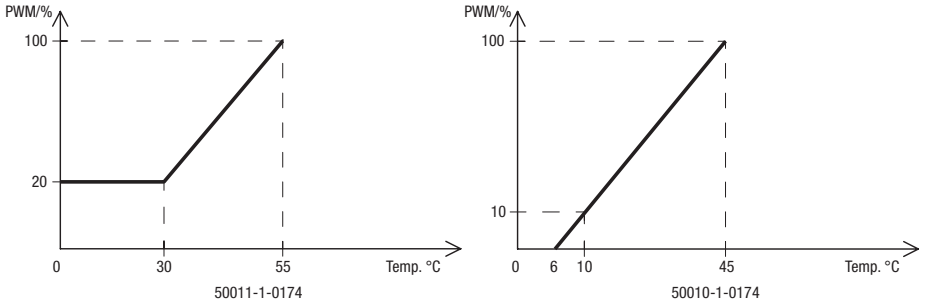
Subject to change



– **Connection diagram:**



– **Control function:** Control function of both versions is cooling

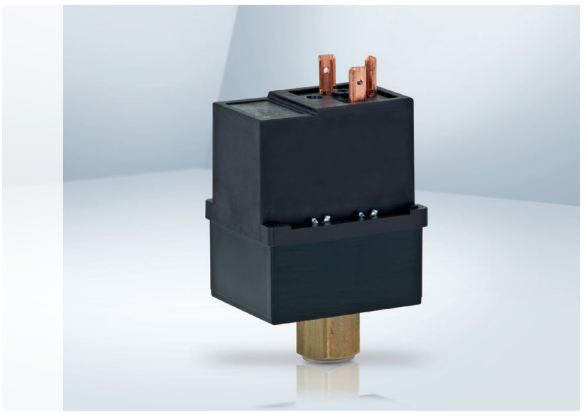


Tolerance ± 3 K

ebmpapst

Pressure sensors

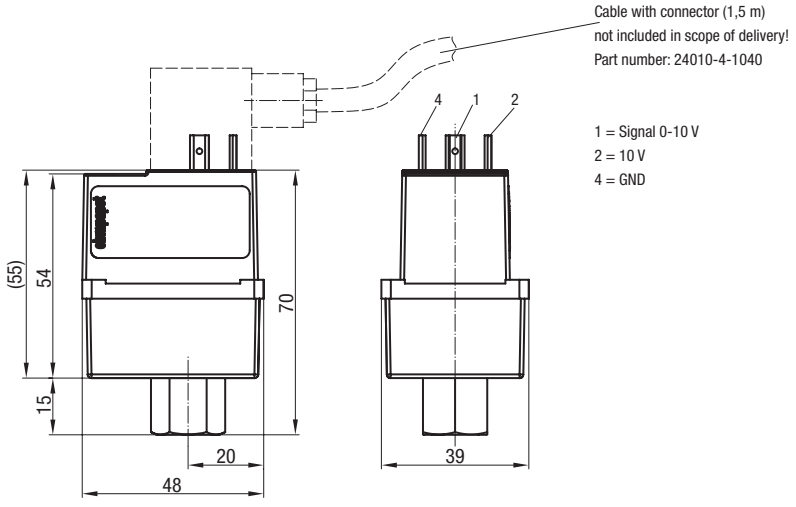
for pressure-controlled speed control

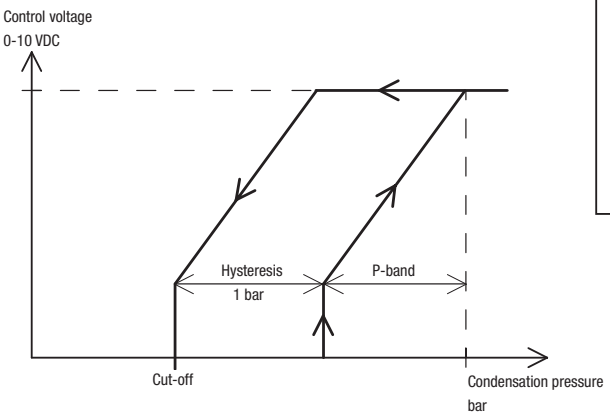


- **Material**: Housing made of PA
  Pressure connection made of brass
- **Degree of protection:** IP 65 according to EN 60529 / IEC 529
- **Refrigerants:** suitable for Ⓐ R134A; Ⓑ R407C, R404A, R507
- **Installation:** via pressure connection with 7/16”-20 UNF internal thread
  with Schrader valve opener
- **Power supply:** via 10 VDC
- **Actuating output signal:** 0-10 VDC for pressure-dependent fan speed setting
- **Supplied:** as single pack

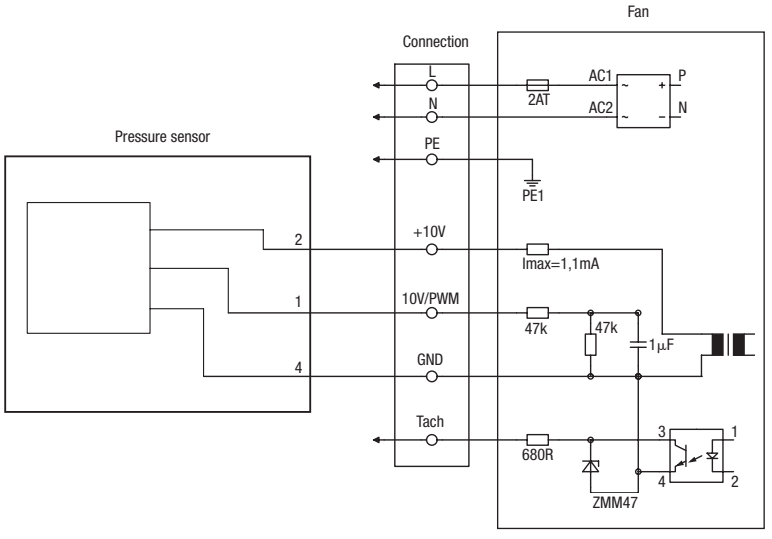
Nominal data		Nominal voltage	Max. input current	Adjustment range Cut-off	Factory setting Cut-off	Test pressure	Max. point of operation	Max. media temperature	Perm. ambient temperature	Weight
Part number		**VDC**	**mA**	**bar**	**bar**	**bar**	**bar**	**°C**	**°C**	**g**
40100-4-7380	Ⓐ	10	1	4.. 12,5	7,8	30	27	70	-20..+65	125
40101-4-7380	Ⓑ	10	1	10.. 21	15,5	36	32	70	-20..+65	125

Subject to change





– **Connection diagram:**



FlowGrid
by ebmpapst
patent pending

FlowGrid air inlet grille

Efficient noise insulation

FlowGrid:
the air inlet grille, drastically reduces noise-generating disturbances.

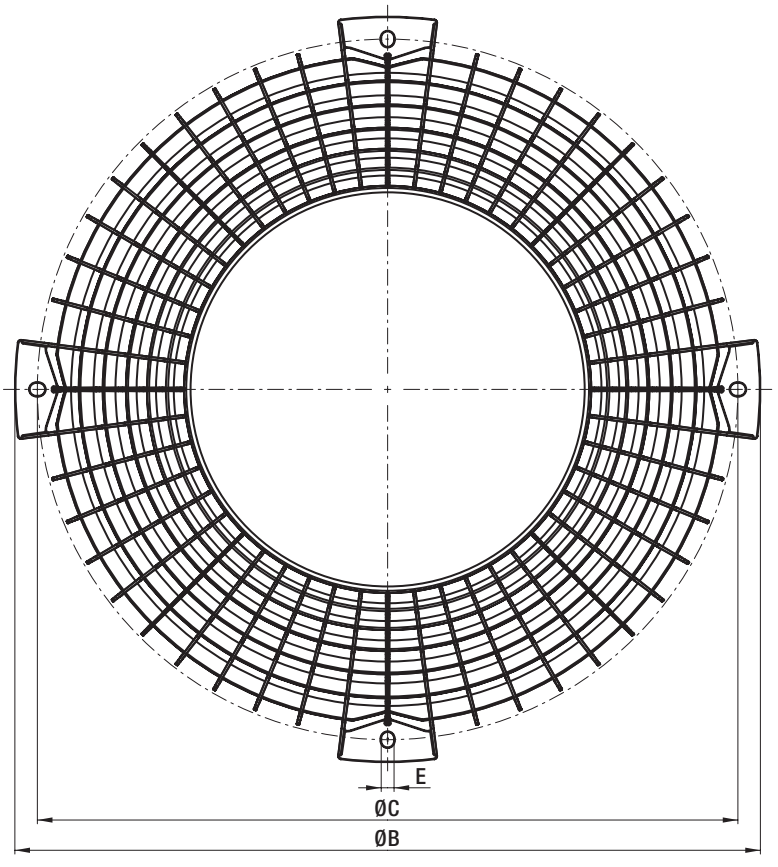
The vortex strings are split up on coming into contact with the grille and greatly dampened in the through-flow.
This reduces the sound pressure in the entire frequency band and in particular the disturbing tonal noise in the low frequency band.
As a result the sound pressure level is far lower and a pleasant running noise is obtained.
It is thus easier to comply with noise regulations and people in the direct vicinity are not disturbed.

FlowGrid air inlet grille Dimensions (mm)

Part number	Fan size	ØB	ØC	ØE	S	H	N*
20280-2-2957	200	280	245-260	4,5	3,0	40	2 ± 0,5 Nm
25310-2-2957	250	310	290	4,5	3,0	49	2 ± 0,5 Nm
35505-2-2957	300, 350	470	440	9,0	3,5	71	10 ± 2 Nm
00630-2-2957	400	580	545	10	3,0	90	10 ± 2 Nm
50710-2-2957	450, 500	666	630	10	3,0	106	10 ± 2 Nm
63000-2-2957	560, 630	785	750	10	3,0	125	10 ± 2 Nm
80000-2-2957	710, 800	995	960	10	3,5	131	10 ± 2 Nm
91000-2-2957	910	1105	1075	10	3,5	164	10 ± 2 Nm

Subject to change

* Recommended tightening torque for fastening screws



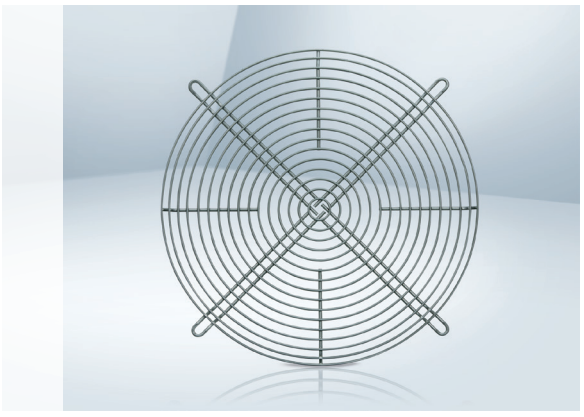
Would you like to find out more?

If you need an installation guide or more information about the dimensions, go to:

www.ebmpapst.com/flowgrid-manual

or scan the QR code below:

Guard grille
for Compact fans

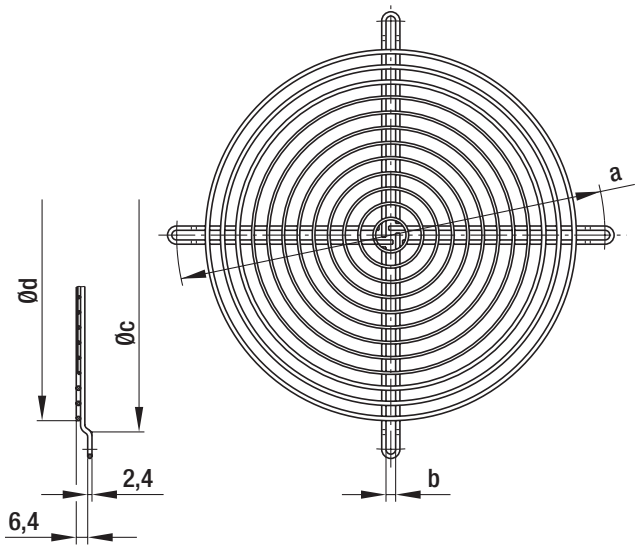


– **Material**: Steel, coated with plastic (silver-metallic gloss)

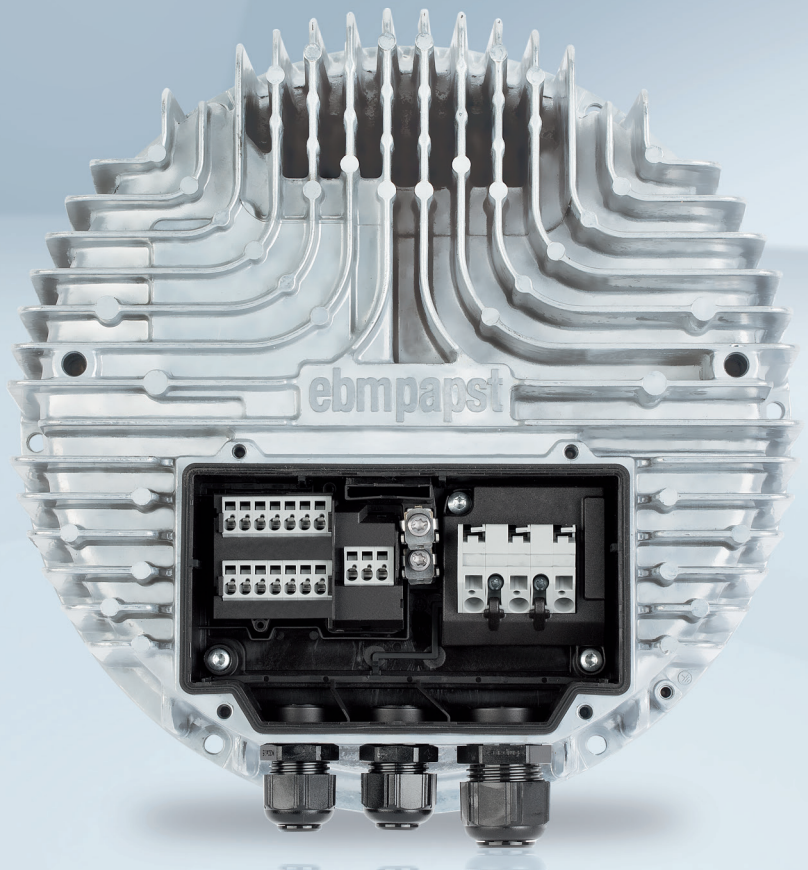
Guard grille for Compact fans Dimensions (mm)

Part number	Fan size	a	b	c	d
78128-2-4039	200	240	5,4	221,5	208
09418-2-4039	250	295	6,4	278,5	270

Subject to change



EC connection diagrams

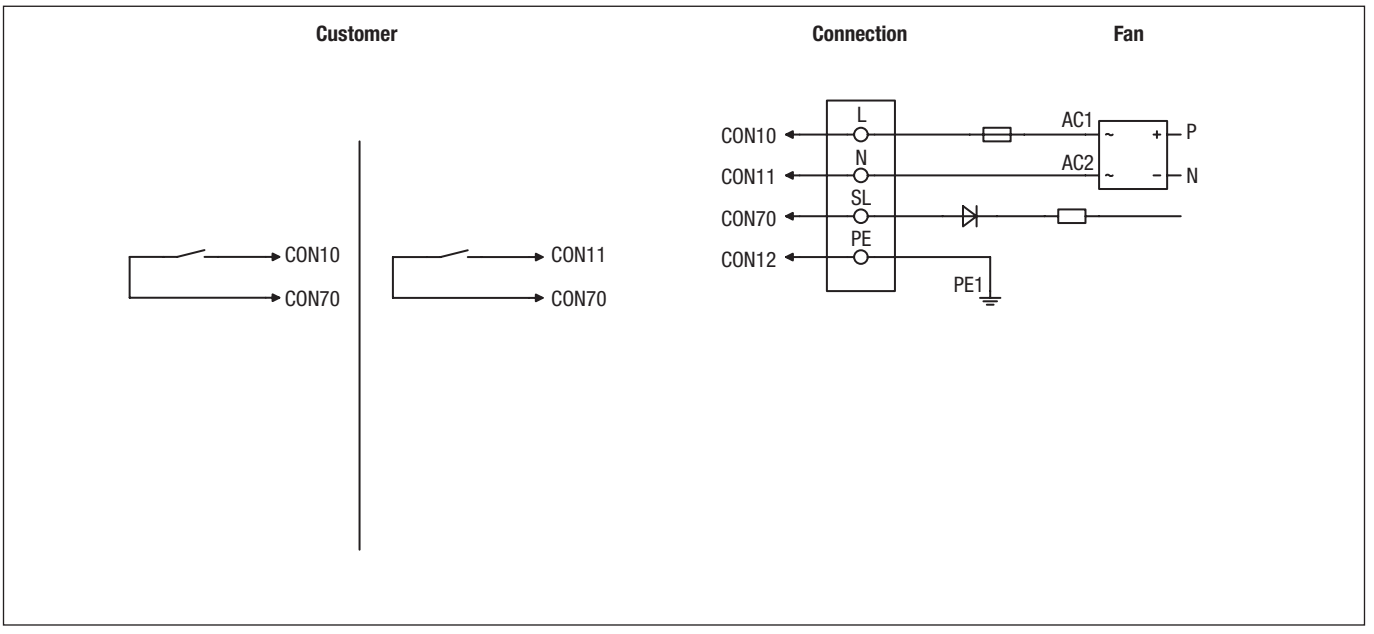


Connection diagram: H3)

M3G055 & M3G074, with 2 speed levels

Technical features:

- Speed selection max./min.
- Locked-rotor protection
- Soft start
- Motor current limitation
- Thermal overload protection for electronics/motor



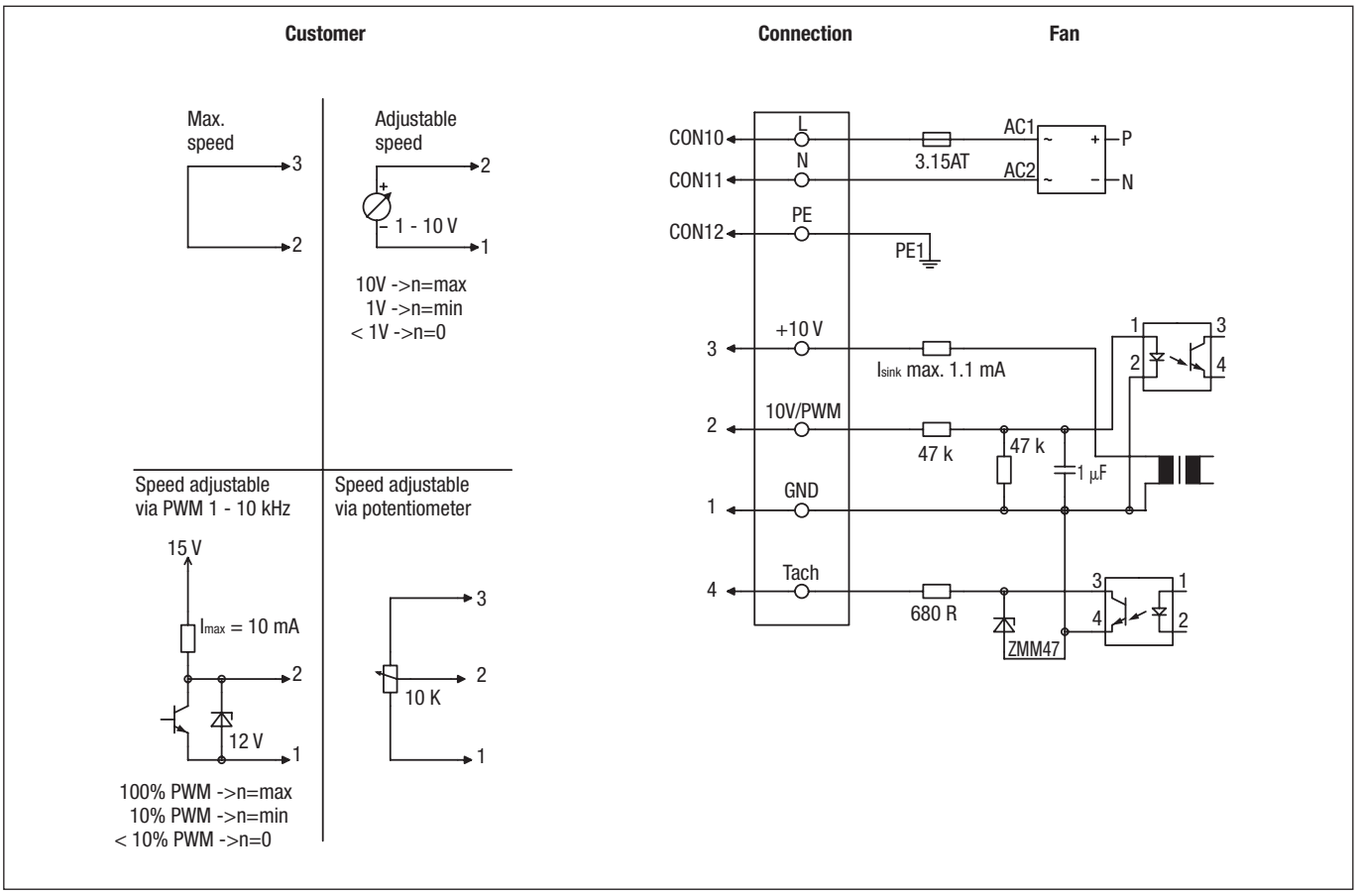
Wire	Connection	Color	Assignment/function
CON10	L	black	Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range
CON11	N	blue	Neutral conductor
CON12	PE	green/yellow	Protective earth
CON70	SL	brown	Speed selection: switch open speed 1; switch closed speed 2

Connection diagram: H4)

M3G055 & M3G074, Open-loop speed control

Technical features:

- Control input 0-10 VDC / PWM
- Output 10 VDC max. 1,1 mA
- Undervoltage detection
- Tach output
- Locked-rotor protection
- Soft start
- Power limiter
- Motor current limitation
- Overvoltage detection
- Thermal overload protection for electronics/motor
- Control interface with SELV potential safely disconnected from supply



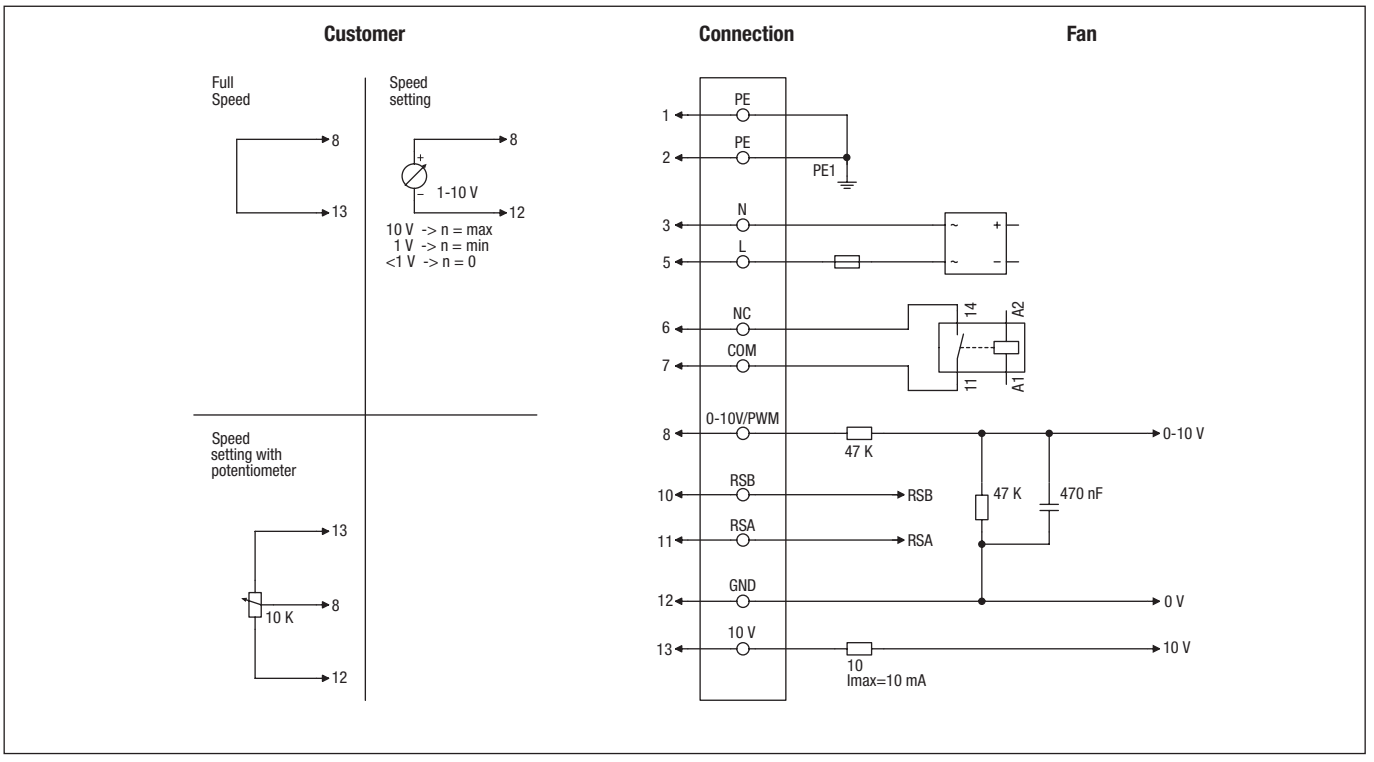
Wire	Connection	Color	Assignment/function
CON10	L	black	Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range
CON11	N	blue	Neutral conductor
CON12	PE	green/yellow	Protective earth
1	GND	blue	GND connection of control interface
2	0-10V / PWM	yellow	Control input 0-10V or PWM, electrically isolated
3	10V max. 1.1 mA	red	Voltage output 10 V / 1.1 mA, electrically isolated, not short-circuit-proof
4	Tach	white	Tach output: Open collector, 1 pulse per revolution, electrically isolated

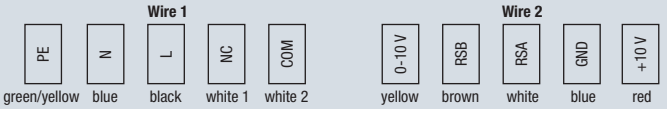
Connection diagram: P5)

M3G084, 1~, Open-loop speed control

Technical features:

- Control input 0-10 VDC / PWM
- Output 10 VDC max. 10 mA
- Operation and fault indicator
- Integrated PI controller
- Alarm relay
- Locked-rotor protection, soft start
- PFC, active
- Power limiter
- Motor current limitation
- RS 485 MODBUS-RTU
- Thermal overload protection for electronics/motor
- Undervoltage detection
- Control interface with SELV potential safely disconnected from supply





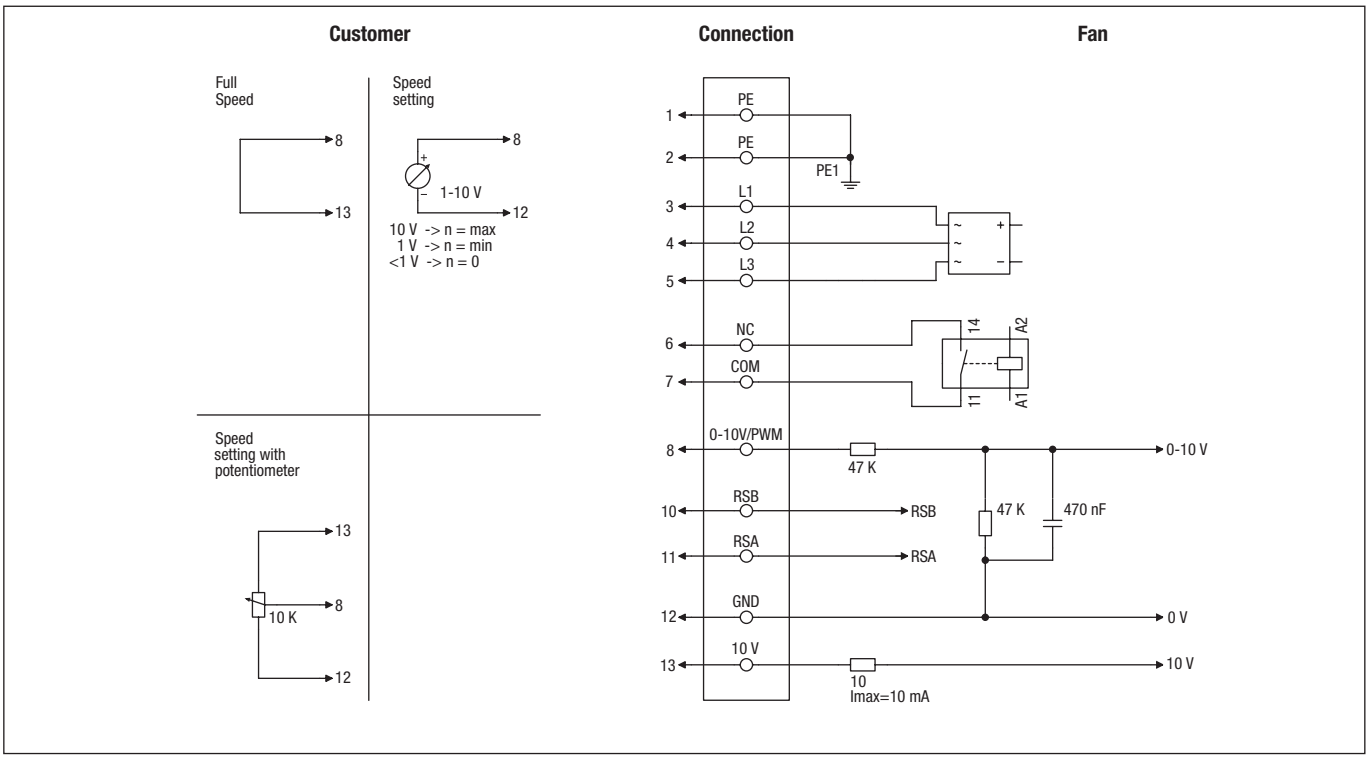
Wire	No.	Connection	Color	Assignment/function
1	1, 2	PE	green/yel.	Protective earth
1	3	N	blue	Power supply, neutral conductor, voltage range see nameplate, 50/60 Hz
1	5	L	black	Power supply, phase, voltage range see nameplate, 50/60 Hz
1	6	NC	white 1	Status relay, floating status contact, break for failure, contact rating 250 VAC / 2 A (AC1) min. 10 mA, basic insulation on supply side and reinforced insulation on control interface side
1	7	COM	white 2	Status relay, floating status contact, common connection, contact rating 250 VAC / 2 A (AC1) min. 10 mA, basic insulation on supply side and reinforced insulation on control interface side
2	8	0-10 V / PWM	yellow	Analog input (set value), SELV 0-10 V, impedance 100 kΩ, adjustable curve
2	10	RSB	brown	RS485 interface for MODBUS, RSB, SELV
2	11	RSA	white	RS485 interface for MODBUS, RSA, SELV
2	12	GND	blue	Reference ground for control interface, SELV
2	13	+ 10 V	red	Fixed voltage output 10 VDC, SELV +10 V +/- 3%), max. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. potentiometer)

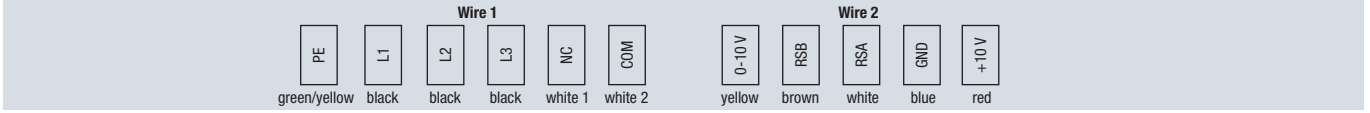
Connection diagram: P6)

M3G084, 3~, Open-loop speed control

Technical features:

- Control input 0-10 VDC / PWM
- Output 10 VDC max. 10 mA
- Operation and fault indicator
- Integrated PI controller
- Alarm relay
- Locked-rotor protection, soft start
- PFC, passive
- Motor current limitation
- RS 485 MODBUS-RTU
- Thermal overload protection for electronics/motor
- Undervoltage/phase failure detection
- Control interface with SELV potential safely disconnected from supply





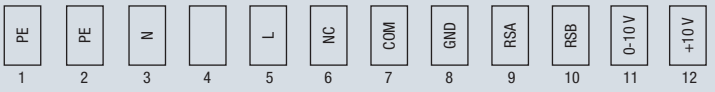
Wire	No.	Connection	Color	Assignment/function
1	1, 2	PE	green/yel.	Protective earth
1	3, 4, 5	L1, L2, L3	black	Power supply, phase, voltage range see nameplate, 50/60 Hz
1	6	NC	white 1	Status relay, floating status contact, break for failure, contact rating 250 VAC / 2 A (AC1) min. 10 mA, basic insulation on supply side and reinforced insulation on control interface side
1	7	COM	white 2	Status relay, floating status contact, common connection, contact rating 250 VAC / 2 A (AC1) min. 10 mA, basic insulation on supply side and reinforced insulation on control interface side
2	8	0-10 V / PWM	yellow	Analog input (set value), SELV 0-10 V, impedance 100 kΩ, adjustable curve
2	10	RSB	brown	RS485 interface for MODBUS, RSB, SELV
2	11	RSA	white	RS485 interface for MODBUS, RSA, SELV
2	12	GND	blue	Reference ground for control interface, SELV
2	13	+10 V	red	Fixed voltage output 10 VDC, SELV +10 V +/- 3%), max. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. potentiometer)

Connection diagram: P7)

M3G084 & M3G112, 1~

Technical features:

- Control input 0-10 VDC / PWM
- Output 10 VDC max. 10 mA
- Operation and fault indicator
- Integrated PI controller
- Alarm relay
- Locked-rotor protection, soft start
- PFC, active
- Power limiter
- Motor current limitation
- RS 485 MODBUS-RTU
- Thermal overload protection for electronics/motor
- Undervoltage detection
- Control interface with SELV potential safely disconnected from supply



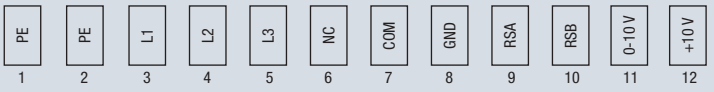
No.	Connection	Assignment/function
1, 2	PE	Protective earth
3	N	Power supply, neutral conductor, voltage range see nameplate, 50/60 Hz
4	-	not used
5	L	Power supply, phase, voltage range see nameplate, 50/60 Hz
6	NC	Status relay, floating status contact, break for failure, contact rating 250 VAC / 2 A (AC1) min. 10 mA, basic insulation on supply side and reinforced insulation on control interface side
7	COM	Status relay, floating status contact, common connection, contact rating 250 VAC / 2 A (AC1) min. 10 mA, basic insulation on supply side and reinforced insulation on control interface side
8	GND	Reference ground for control interface, SELV
9	RSA	RS485 interface for MODBUS, RSA, SELV
10	RSB	RS485 interface for MODBUS, RSB, SELV
11	0-10 V / PWM	Analog input (set value), SELV 0-10 V, impedance 100 kΩ, adjustable curve
12	+10 V	Fixed voltage output 10 VDC, SELV +10 V +/- 3%), max. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. potentiometer)

Connection diagram: P8)

M3G084 & M3G112, 3~

Technical features:

- Control input 0-10 VDC / PWM
- Output 10 VDC max. 10 mA
- Operation and fault indicator
- Integrated PI controller
- Alarm relay
- Locked-rotor protection, soft start
- PFC, passive
- Motor current limitation
- RS 485 MODBUS-RTU
- Thermal overload protection for electronics/motor
- Undervoltage/phase failure detection
- Control interface with SELV potential safely disconnected from supply



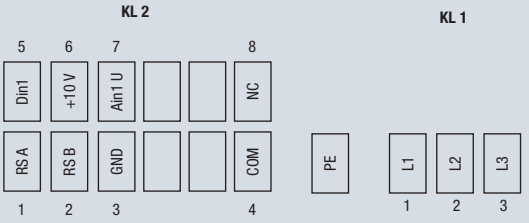
No.	Connection	Assignment/function
1, 2	PE	Protective earth
3	L1	Power supply, voltage range see nameplate, 50/60 Hz
4	L2	Power supply, voltage range see nameplate, 50/60 Hz
5	L3	Power supply, voltage range see nameplate, 50/60 Hz
6	NC	Status relay, floating status contact, break for failure, contact rating 250 VAC / 2 A (AC1) min. 10 mA, basic insulation on supply side and reinforced insulation on control interface side
7	COM	Status relay, floating status contact, common connection, contact rating 250 VAC / 2 A (AC1) min. 10 mA, basic insulation on supply side and reinforced insulation on control interface side
8	GND	Reference ground for control interface, SELV
9	RSA	RS485 interface for MODBUS, RSA, SELV
10	RSB	RS485 interface for MODBUS, RSB, SELV
11	0-10 V / PWM	Analog input (set value), SELV 0-10 V, impedance 100 kΩ, adjustable curve
12	+10 V	Fixed voltage output 10 VDC, SELV +10 V +/- 3%), max. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. potentiometer)

Connection diagram: M5)

M3G150

Technical features:

- Control input 0-10 VDC / PWM
- Output 10 VDC max. 10 mA
- Operation and fault indicator
- Integrated PI controller
- Alarm relay
- Soft start
- PFC, passive
- Reverse polarity and locked-rotor protection
- Motor current limitation
- RS 485 MODBUS-RTU
- Thermal overload protection for electronics/motor
- Undervoltage/phase failure detection
- Control interface with SELV potential safely disconnected from supply
- External enable input/External 24 V input (parameterization)



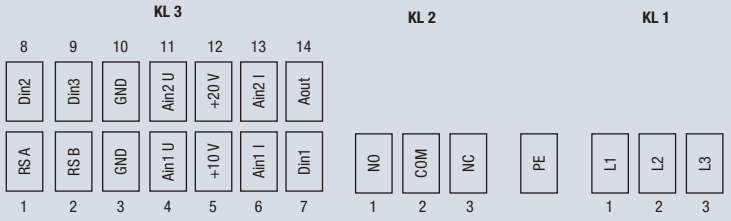
Terminal	Pin	Connection	Assignment/function
KL1	1	L1	Supply connection, power supply 3-phase 380-480 VAC, 50/60 Hz
	2	L2	Supply connection, power supply 3-phase 380-480 VAC, 50/60 Hz
	3	L3	Supply connection, power supply 3-phase 380-480 VAC, 50/60 Hz
PE		PE	Ground connection, PE connection
KL2	1	RSA	Bus connection RS485; RSA; MODBUS RTU
	2	RSB	Bus connection RS485; RSB; MODBUS RTU
	3	GND	Reference ground for control interface
	4	COM	Status relay, floating status contact, changeover contact, common connection, contact rating 250 VAC / 2 A (AC1)
	5	Din1	Digital input 1: Enable electronics; Enable: Pin open or applied voltage 5...50 VDC; Disable: Bridge to GND or applied voltage < 1 VDC; Reset function: Triggering of software reset at level change to < 1V
	6	+10 V	Fixed voltage output 10 VDC; +10 V ±3 %; max. 10 mA; short-circuit-proof; power supply for external devices (e.g. potentiometer)
	7	Ain1 U /PWM	Analog input 1 (set value); 0-10 V; Ri= 100 kΩ; adjustable curve
	8	NC	Status relay, floating status contact; break for failure

Connection diagram: M3)

M3G200

Technical features:

- Control input 0-10 VDC / PWM
- Output 10 VDC (+10 %) max. 10 mA
- Output 20 VDC (+/-20 %) max. 50 mA
- Output for slave 0-10 V max. 5 mA
- Input for sensor 0-10 V or 4-20 mA
- Operation and fault indicator
- Integrated PI controller
- Reverse polarity and locked-rotor protection/Soft start
- Motor current limitation/Alarm relay
- RS 485 MODBUS-RTU / PFC, passive
- Thermal overload protection for electronics/motor
- Undervoltage/phase failure detection
- Control interface with SELV potential safely disconnected from supply
- External enable input/External 24 V input (parameterization)



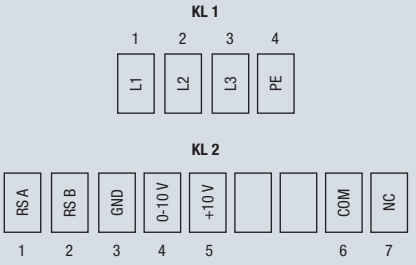
Terminal	Pin	Connection	Assignment/function
KL1	1	L1	Supply connection, power supply 3-phase 380-480 VAC, 50/60 Hz
	2	L2	Supply connection, power supply 3-phase 380-480 VAC, 50/60 Hz
	3	L3	Supply connection, power supply 3-phase 380-480 VAC, 50/60 Hz
PE		PE	Ground connection, PE connection
KL2	1	NO	Status relay, floating status contact, make for failure
	2	COM	Status relay, floating status contact, changeover contact, common connectionl (2 A, 250 V, min. 10 mA, AC1)
	3	NC	Status relay, floating status contact, break for failure
KL3	1	RSA	Bus connection RS485; RSA; MODBUS RTU
	2	RSB	Bus connection RS485; RSB; MODBUS RTU
	3/10	GND	Reference ground for control interface
	4	Ain1 U /PWM	Analog input 1 (set value); 0-10 V; Ri= 100 kΩ; adjustable curve; only for use as alternative to input Ain1 I
	5	+10 V	Fixed voltage output 10 VDC; +10 V ±3 %; max. 10 mA; short-circuit-proof; power supply for external devices (e.g. potentiometer)
	6	Ain1I	Analog input 1 (set value); 4-20 mA; Ri= 100 Ω; adjustable curve, only for use as alternative to input Ain1 U
	7	Din1	Digital input 1: Enable electronics; Enable: Pin open or applied voltage 5...50 VDC; Disable: Bridge to GND or applied voltage < 1 VDC; Reset function: Triggering of software reset after level change to < 1V
	8	Din2	Digital input 2: Switching parameter sets 1/2, according to EEPROM setting, the valid/used parameter set can be selected via bus or via digital input Din2. Parameter set 1: Pin open or applied voltage 5-50 VDC; Parameter set 2: Bridge to GND or applied voltage < 1 VDC
	9	Din3	Digital input 3: Direction of action of integrated controller; According to EEPROM setting, the direction of action of the integrated controller can be selected as normal/inverse via bus or digital input; Normal: Pin open or applied voltage 5...50 VDC; Inverse: Bridge or applied voltage < 1 VDC
	11	Ain2 U	Analog input 2; Measured value 0-10 V; Ri= 100 kΩ; adjustable curve; only for use as alternative to input 11 Ain2 I
	12	+20 V	Fixed voltage output 20 VDC; +20 V +25/-10 %; max. 50 mA; short-circuit-proof; power supply for external devices (e.g. sensor)
	13	Ain2I	Analog input 2; Measured value 4-20 mA; Ri= 100 Ω; adjustable curve, only for use as alternative to input Ain2 U
	14	Aout	Analog output 0-10 V; max. 5 mA; output of current motor modulation level/current motor speed. Adjustable curve

Connection diagram: M7)

M3G112, AxiTop

Technical features:

- Control input 0-10 VDC / PWM
- Output 10 VDC max. 10 mA
- Operation and fault indicator
- Integrated PI controller
- Alarm relay
- Soft start
- PFC, passive
- Reverse polarity and locked-rotor protection
- Motor current limitation
- RS 485 MODBUS-RTU
- Thermal overload protection for electronics/motor
- Undervoltage/phase failure detection
- Control interface with SELV potential safely disconnected from supply
- External 24 V input (parameterization)



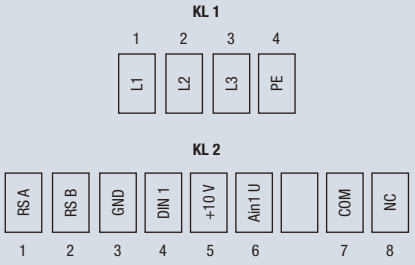
Terminal	Pin	Connection	Assignment/function
KL1	1	L1	Supply connection, power supply 3-phase 380-480 VAC, 50/60 Hz
	2	L2	Supply connection, power supply 3-phase 380-480 VAC, 50/60 Hz
	3	L3	Supply connection, power supply 3-phase 380-480 VAC, 50/60 Hz
	4	PE	Ground connection, PE connection
KL2	1	RSA	Bus connection RS485; RSA; MODBUS RTU
	2	RSB	Bus connection RS485; RSB; MODBUS RTU
	3	GND	Reference ground for control interface
	4	0-10 V / PWM	Control input/current sensor value input 0-10 VDC, impedance 100 kΩ; adjustable curve
	5	+10 V	Fixed voltage output 10 VDC; +10 V ±3 %; max. 10 mA; short-circuit-proof; power supply for external devices (e.g. potentiometer); voltage input 24 VDC for setting parameters via MODBUS without line voltage supply
	6	COM	Status relay, floating status contact, changeover contact, common connection (2 A, 250 V, min. 10 mA, AC1)
	7	NC	Status relay, floating status contact; break for failure

Connection diagram: M9)

M3G150 & M3G200, AxiTop

Technical features:

- Control input 0-10 VDC / PWM
- Output 10 VDC (+10 %) max. 10 mA
- Operation and fault indicator
- Integrated PI controller
- Alarm relay
- Soft start
- PFC, passive
- Reverse polarity and locked-rotor protection
- Motor current limitation
- RS 485 MODBUS-RTU
- Thermal overload protection for electronics/motor
- Undervoltage/phase failure detection
- Control interface with SELV potential safely disconnected from supply
- External enable input/External 24 V input (parameterization)



Terminal	Pin	Connection	Assignment/function
KL1	1	L1	Supply connection, power supply 3-phase 380-480 VAC, 50/60 Hz
	2	L2	Supply connection, power supply 3-phase 380-480 VAC, 50/60 Hz
	3	L3	Supply connection, power supply 3-phase 380-480 VAC, 50/60 Hz
	4	PE	Ground connection, PE connection
KL2	1	RSA	Bus connection RS485; RSA; MODBUS RTU
	2	RSB	Bus connection RS485; RSB; MODBUS RTU
	3	GND	Reference ground for control interface
	4	Din1	Digital input 1: Enable electronics; Enable: Pin open or applied voltage 5...50 VDC; Disable: Bridge to GND or applied voltage < 1 VDC; Reset function: Triggering of software reset after level change to < 1 V
	5	+10 V	Fixed voltage output 10 VDC; +10 V ±3 %; max. 10 mA; short-circuit-proof; power supply for external devices (e.g. potentiometer); voltage input 24 VDC for setting parameters via MODBUS without line voltage supply
	6	Ain1 U /PWM	Analog input 1 (set value); 0-10 V; Ri= 100 kΩ; adjustable curve
	7	COM	Status relay, floating status contact, changeover contact, common connection (2 A, 250 V, min. 10 mA, AC1)
	8	NC	Status relay, floating status contact; break for failure

Technical parameters and scope

High standards for all ebm-papst products
At ebm-papst we are always looking to improve our products to be able to offer customers just what they need for their particular requirements. Careful monitoring of the market enables us to constantly incorporate enhancements into our products. As shown by the technical parameters listed below, you can always be sure of finding the right solution from ebm-papst for whatever application you may have in mind.

General performance parameters
Any deviations from the technical data and technical parameters described here are given in the product-specific data sheet.

Degree of protection
The degree of protection is specified in the product-specific data sheets.

Insulation class
The insulation class is specified in the product-specific data sheets.

Installation position
The installation position is specified in the product-specific data sheets.

Condensation drainage holes
Information on condensation drainage holes is provided in the product-specific data sheets.

Mode of operation
The mode of operation is specified in the product-specific data sheets.

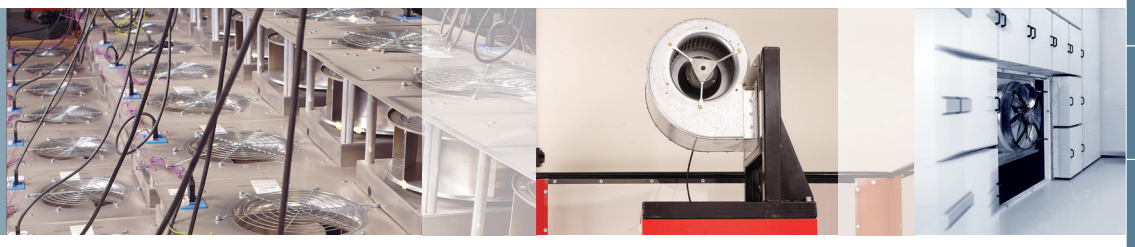
Protection class
The protection class is specified in the product-specific data sheets.

Service life
The service life of ebm-papst products depends on two main factors:
– The service life of the insulation system
– The service life of the bearing system
The service life of the insulation system is essentially governed by the voltage level, the temperature and the ambient conditions such as humidity and condensation.

The service life of the bearing system is primarily governed by the thermal load on the bearings. For the majority of our products we use maintenance-free ball bearings which can be fitted in any installation position. Sleeve bearings can alternatively be employed, as described in the product-specific data sheets.
As a rough guide (depending on the general conditions), the ball bearings have a life expectancy L10 of approx. 40.000 hours of operation at an ambient temperature of 40 °C.
We will gladly provide you with a life expectancy calculation based on your specific usage conditions.

Motor protection/thermal protection
Information on motor protection and thermal protection is provided in the product-specific data sheets.
The following protection methods are provided depending on the type of motor and area of application:
– Thermal overload protector, in-circuit or external
– PTC with electronic diagnostics
– Impedance protection
– Thermal overload protector with electronic diagnostics
– Current limitation via electronics
If use is made of an external thermal overload protector, a commercially available tripping unit must be connected by the customer for shut-off.
Motor protection conforming to the applicable standard must be fitted for products not provided with a built-in thermal overload protector and not protected against improper use.

Mechanical strain/performance parameters
All ebm-papst products are subjected to comprehensive testing in conformity with the normative specifications and also incorporating the extensive experience of ebm-papst.



Vibration testing

Vibration testing is performed as follows:

– Vibration test in operation according to DIN IEC 68 Part 2-6
– Vibration test at standstill according to DIN IEC 68 Part 2-6

Shock load

Shock load testing is performed as follows:

– Shock load according to DIN IEC 68 Part 2-27

Balancing grade

Balancing grade testing is performed as follows:

– Residual imbalance according to DIN ISO 1940
– Standard balancing quality level G 6.3

Should your particular application require a higher level of balancing, please contact us and specify the details in your order.

Chemical and physical strain/performance parameters

Please consult your ebm-papst contact for any questions regarding chemical and physical strain.

Areas of use, industries & applications

Our products are used in a variety of industries and for numerous applications:
Ventilation, air conditioning and refrigeration technology, clean room technology, automotive and railway engineering, medical and laboratory technology, electronics, computer and office systems, telecommunications, household appliances, heating systems, machinery and installations, drive engineering.
Our products are not intended for use in the aerospace industry!

Legal and normative specifications

The products described in this catalog are developed and manufactured in accordance with the standards applying to the particular product and, if known, in accordance with the conditions of the particular area 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.
Compliance with EMC standards has to be assessed on the final product, as EMC properties may change under different installation conditions.

Touch current

Information on touch current is provided in the product-specific data sheets.
Measurement is performed according to IEC 60990.

Approvals

Please contact us if you require a specific type of approval (VDE, UL, GOST, CCC, CSA, etc.) for your ebm-papst product.
Most of our products can be supplied with the applicable approval.
Information on existing approvals is provided in the product-specific data sheets.

Air performance measurements

All air performance measurements are conducted on intake-side chamber test rigs conforming to the requirements of ISO 5801 and DIN 24163. The fans under test are attached to the measuring chamber with free air intake and exhaust (installation category A) and operated at nominal voltage, with alternating current also at nominal frequency, without any additional attachments such as a guard grille.
As required by the standards, the air performance curves shown are referenced to an air density of 1,15 kg/m^3.

Technical parameters and scope

Air and sound measurement conditions

Measurements on ebm-papst products are taken under the following conditions:

– Axial and diagonal fans in airflow direction “V” in full nozzle without guard grille
– Backward-curved centrifugal fans, free-running with inlet ring
– Forward-curved single and dual-inlet centrifugal fans with housing
– Backward-curved dual-inlet centrifugal fans with housing

Sound measurements

All sound measurements are taken in anechoic rooms with reverberant floor. ebm-papst acoustic test chambers meet the requirements of accuracy class 1 as per DIN EN ISO 3745. For sound measurement, the fans being tested are positioned in a reverberant wall and operated at nominal voltage, with alternating current also at nominal frequency, without any additional attachments such as a guard grille.

Sound pressure and sound power level

All acoustic values are determined in accordance with ISO 13347, DIN 45635 and ISO 3744/3745 as per accuracy class 2 and given in A-rated form.

For measurement of the sound pressure level L_p the microphone is located on the intake side of the fan being tested, generally at a distance of 1 m on the fan axis.

For measurement of the sound power level L_W 10 microphones are distributed over an enveloping surface on the intake side of the fan being tested (see graphic). The measured sound power level can be roughly calculated from the sound pressure level by adding 7 dB.

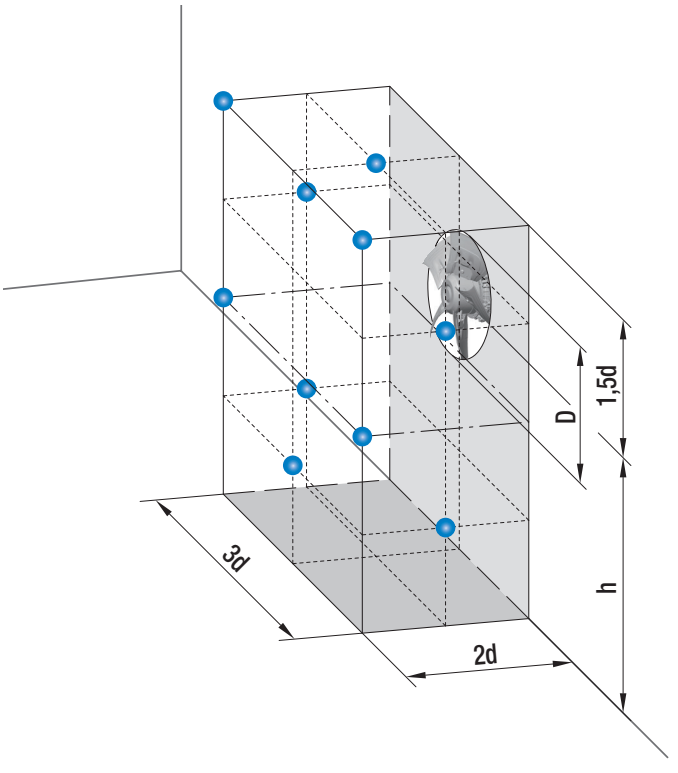
Measurement set-up according to ISO 13347-3 and DIN 45635-38:

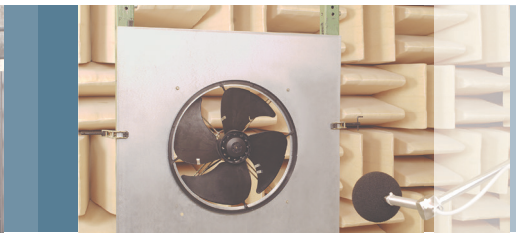
● 10 measuring points

$d \geq D$

$h = 1{,}5d \ldots 4{,}5d$

Measurement area $S = 6d^2 + 7d\,(h + 1{,}5d)$

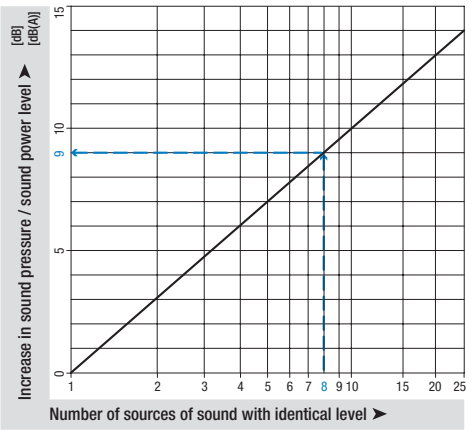




Cumulative level of several sound sources with the same level

The addition of 2 sound sources with the same level produces a level increase of approx. 3 dB. The noise characteristics of several identical fans can be predicted on the basis of the sound values specified in the data sheet. This is shown in the adjacent graph.

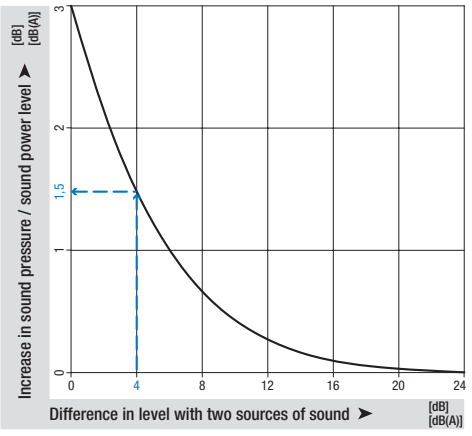
Example: There are 8 axial fans A3G800 on a condenser. According to the data sheet, the sound pressure level of one fan is 75 dB(A). The level increase determined from the graph is 9 dB. This means that a total level of 84 dB(A) is to be expected for the installation.



Cumulative level of two sound sources with different levels

The noise characteristics of two different fans can be predicted on the basis of the sound values specified in the data sheet. This is shown in the adjacent graph.

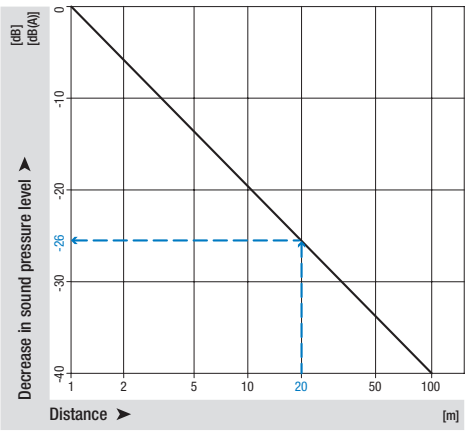
Example: In a ventilation unit, there is one axial fan A3G800 with a sound pressure level of 75 dB(A) at the point of operation and one axial fan A3G710 with 71 dB(A). The difference in level is 4 dB. The level increase of approx. 1,5 dB can now be read off the graph. This means that a total level of 76,5 dB(A) is to be expected for the unit.



Distance laws

The sound power level is not governed by the distance from the noise source. By contrast, the sound pressure level decreases with increasing distance from the sound source. The adjacent graph shows the decrease in level under far field conditions. Far field conditions apply if there is a considerable distance between the microphone and the fan in relation to the fan diameter and the wavelength under consideration. On account of the complexity of the topic, literature should be consulted for more detailed information on far fields. The level in the far field decreases by 6 dB each time the distance is doubled. Different relationships apply in the near field of the fan and the level may decrease to a far lesser extent. The following example only applies to far field conditions and may vary considerably as a result of installation effects:

For an axial fan A3G300, a sound pressure level of 65 dB(A) was measured at a distance of 1 m. From the adjacent graph, this would yield a reduction of 26 dB at a distance of 20 m, i.e. a sound pressure level of 39 dB(A).



ebm-papst in Germany

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

ebm-papst St. Georgen GmbH & Co. KG
Hermann-Papst-Straße 1
78112 St. Georgen
GERMANY
Phone +49 7724 81-0
Fax +49 7724 81-1309
info2@de.ebmpapst.com

ebm-papst Landshut GmbH
Hofmark-Aich-Straße 25
84030 Landshut
GERMANY
Phone +49 871 707-0
Fax +49 871 707-465
info3@de.ebmpapst.com

Berlin
Dipl.-Ing. (TH) Jens Duchow
Händelstraße 7
16341 Panketal
GERMANY
Phone +49 30 944149-62
Fax +49 30 944149-63
Jens.Duchow@de.ebmpapst.com

Bielefeld
Dipl.-Ing. (FH) Wolf-Jürgen Weber
Niehausweg 13
33739 Bielefeld
GERMANY
Phone +49 5206 91732-31
Fax +49 5206 91732-35
Wolf-Juergen.Weber@de.ebmpapst.com

Dortmund
Dipl.-Ing. (FH) Hans-Joachim Pundt
Auf den Steinern 3
59519 Möhnesee-Völlinghausen
GERMANY
Phone +49 2925 800-407
Fax +49 2925 800-408
Hans-Joachim.Pundt@de.ebmpapst.com

Frankfurt
Dipl.-Ing. Christian Kleffmann
Dr.-Hermann-Krause-Straße 23
63452 Hanau
GERMANY
Phone +49 6181 1898-12
Fax +49 6181 1898-13
Christian.Kleffmann@de.ebmpapst.com

Halle
Dipl.-Ing. (TU) Michael Hanning
Lercheneck 4
06198 Salzatal / OT Lieskau
GERMANY
Phone +49 345 55124-56
Fax +49 345 55124-57
Michael.Hanning@de.ebmpapst.com

Hamburg
Ingenieurbüro Breuell GmbH
Ing. Dirk Kahl
Elektroingenieur
Oststraße 96
22844 Norderstedt
GERMANY
Phone +49 40 538092-19
Fax +49 40 538092-84
Kahl@breuell-hilgenfeldt.de

Heilbronn / Heidelberg
Dipl.-Ing. Mark Gartner
Gehrweg 12
74199 Unterheinriet
GERMANY
Phone +49 7130 404569-1
Fax +49 7130 404569-2
Mark.Gartner@de.ebmpapst.com

Kassel
Dipl.-Ing. (FH) Ralph Brück
Hoherainstraße 3 b
35075 Gladenbach
GERMANY
Phone +49 6462 4071-10
Fax +49 6462 4071-11
Ralph.Brueck@de.ebmpapst.com

Koblenz
Winfried Schaefer
Hinter der Kirch 10
56767 Uersfeld
GERMANY
Phone +49 2657 16-96
Fax +49 2657 16-76
Winfried.Schaefer@de.ebmpapst.com

Munich
Dipl.-Wirt.-Ing. (FH) Jens Peter
Landsbergerstraße 14
86932 Pürgen
GERMANY
Phone +49 8196 99877-54
Fax +49 8196 99877-55
Jens.Peter@de.ebmpapst.com

Nuremberg
Dipl.-Wirt.-Ing. (FH) Axel Resch
Dr.-August-Koch-Str. 1
91639 Wolframs-Eschenbach
GERMANY
Phone +49 9875 9783-170
Fax +49 9875 9783-171
Axel.Resch@de.ebmpapst.com

Offenburg
Dipl.-Ing. (FH) Ralf Braun
Hubeneck 21
77704 Oberkirch
GERMANY
Phone +49 7802 9822-52
Fax +49 7802 9822-53
Ralf.Braun@de.ebmpapst.com

Stuttgart
Dipl.-Ing. (FH) Rudi Weinmann
Hindenburgstraße 100/1
73207 Plochingen
GERMANY
Phone +49 7153 9289-80
Fax +49 7153 9289-81
Rudi.Weinmann@de.ebmpapst.com

Ulm
M.Sc. Reinhard Sommerreißer
Am Germanenring 13
86674 Baar / Schwaben
GERMANY
Phone +49 8276 5899-775
Fax +49 8276 5899-776
Reinhard.Sommerreisser@de.ebmpapst.com

Distributors

Frankfurt
R.E.D. Handelsgesellschaft mbH
Gutenbergstraße 3
63110 Rodgau - Jügesheim
GERMANY
Phone +49 6106 841-0
Fax +49 6106 841-111
info@red-elektromechanik.de
www.red-elektromechanik.de

Hamburg
Breuell + Hilgenfeldt GmbH
Oststraße 96
22844 Norderstedt
GERMANY
Phone +49 40 538092-20
Fax +49 40 538092-84
info@breuell-hilgenfeldt.de

Munich
A. Schweiger GmbH
Ohmstraße 1
82054 Sauerlach
GERMANY
Phone +49 8104 897-0
Fax +49 8104 897-90
info@schweiger-gmbh.de
www.schweiger-gmbh.com

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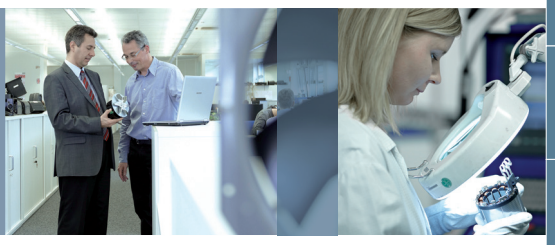
North
Breuell + Hilgenfeldt GmbH
Oststraße 96
22844 Norderstedt
GERMANY
Phone +49 40 538092-20
Fax +49 40 538092-84
info@breuell-hilgenfeldt.de

South
HDS Ventilatoren Vertriebs GmbH
Glaswiesenstraße 1
74677 Dörzbach
GERMANY
Phone +49 7937 80355-20
Fax +49 7937 80355-25
info@hds-gmbh.net
www.hds-gmbh.net

ebm-papst in Europe



Europe

Austria
ebm-papst Motoren & Ventilatoren GmbH
Straubingstraße 17
4030 Linz
AUSTRIA
Phone +43 732 321150-0
Fax +43 732 321150-20
info@at.ebmpapst.com
www.ebmpapst.at

Belarus
ebm-papst Bel AgmbH
Lipkovskaya Gasse 34
Office No.6, Room 106,107
223010 Minsk
BELARUS
Phone +375 17 3851556
Fax +375 17 3851556
info@by.ebmpapst.com
www.ebmpapst.by

Belgium
ebm-papst Benelux B.V.
Sales office Belgium-Luxemburg
Romeinsestraat 6/0101
Research Park Haasrode
3001 Heverlee-Leuven
BELGIUM
Phone +32 16 396-200
Fax +32 16 396-220
info@be.ebmpapst.com
www.ebmpapst.be

Bulgaria
ebm-papst Romania S.R.L.
Str. Tarnavei No. 20
500327 Brasov
ROMANIA
Phone +40 268 331859
Fax +40 268 312805
dudasludovic@xnet.ro

Croatia
ebm-papst Industries Kft.
Ezred u. 2.
1044 Budapest
HUNGARY
Phone +36 1 8722-190
Fax +36 1 8722-194
office@hu.ebmpapst.com

Cyprus
Helcoma
E. Rota and Co. OE
Davaki 65
17672 Kallithea-Attiki
GREECE
Phone +30 210 9513-705
Fax +30 210 9513-490
contact@helcoma.gr
www.helcoma.gr

Czech Republic / Slovakia
ebm-papst CZ s.r.o.
Kaštanová 34a
620 00 Brno
CZECH REPUBLIC
Phone +420 544 502-411
Fax +420 547 232-622
info@ebmpapst.cz
www.ebmpapst.cz

Denmark
ebm-papst Denmark ApS
Vallensbækvej 21
2605 Brøndby
DENMARK
Phone +45 43 631111
Fax +45 43 630505
mail@dk.ebmpapst.com
www.ebmpapst.dk

Estonia
ebm-papst Oy, Eesti Filiaal
Kesk tee 13
Aaviku küla, Jüri Tehnopark
75301 Rae Vald, Harjumaa
ESTONIA
Phone +372 65569-78
Fax +372 65569-79
www.ebmpapst.ee

Finland
ebm-papst Oy
Puistotie 1
02760 Espoo
FINLAND
Phone +358 9 887022-0
Fax +358 9 887022-13
mailbox@ebmpapst.fi
www.ebmpapst.fi

France
ebm-papst sarl
Parc d'Activités Nord
1 rue Mohler – BP 62
67212 Obernai Cedex
FRANCE
Phone +33 820 326266
Fax +33 3 88673883
info@ebmpapst.fr
www.ebmpapst.fr

Greece
Helcoma
E. Rota and Co. OE
Davaki 65
17672 Kallithea-Attiki
GREECE
Phone +30 210 9513-705
Fax +30 210 9513-490
contact@helcoma.gr
www.helcoma.gr

Hungary
ebm-papst Industries Kft.
Ezred u. 2.
1044 Budapest
HUNGARY
Phone +36 1 8722-190
Fax +36 1 8722-194
office@hu.ebmpapst.com

Iceland
RJ Engineers
Stangarhyl 1a
110 Reykjavik
ICELAND
Phone +354 567 8030
Fax +354 567 8015
rj@rj.is
www.rj.is

Ireland
ebm-papst UK Ltd.
Chelmsford Business Park
Chelmsford Essex CM2 5EZ
UNITED KINGDOM
Phone +44 1245 468555
Fax +44 1245 466336
sales@uk.ebmpapst.com
www.ebmpapst.co.uk

AuBren Limited
Portlaoise Business & Technology Park
Mountrath Road
Portlaoise, Co. Laois
IRELAND
Phone +353 57 8664343
Fax +353 57 8664346
sales@ie.aubren.com
www.aubren.com

Italy
ebm-papst Srl
Via Cornaggia 108
22076 Mozzate (Co)
ITALY
Phone +39 0331 836201
Fax +39 0331 821510
info@it.ebmpapst.com
www.ebmpapst.it

ebm-papst in Europe

Macedonia
ebm-papst Industries Kft.
Ezred u. 2.
1044 Budapest
HUNGARY
Phone +36 1 8722-190
Fax +36 1 8722-194
office@hu.ebmpapst.com

Netherlands
ebm-papst Benelux B.V.
Polbeemd 7 - 5741 TP Beek en Donk
P.O. Box 140 - 5740 AC Beek en Donk
NETHERLANDS
Phone +31 492 502-900
Fax +31 492 502-950
verkoop@nl.ebmpapst.com
www.ebmpapst.nl

ebm-papst Heating Systems B.V.
Van Veldekekade 360
5216 KT 's-Hertogenbosch
NETHERLANDS
Phone +31 73 648 89 00
Fax +31 73 648 89 11
info@ebmpapst-hs.nl
www.ebmpapst-hs.nl

Norway
ebm-papst AS
P.B. 173 Holmlia
1203 Oslo
NORWAY
Phone +47 22 763340
Fax +47 22 619173
mailbox@ebmpapst.no
www.ebmpapst.no

Poland
ebm-papst Polska Sp. z o.o.
ul. Annopol 4A
03236 Warszawa
POLAND
Phone +48 22 6757819
Fax +48 22 6769587
office@ebmpapst.pl
www.ebmpapst.pl

Portugal
ebm-papst (Portugal), Lda.
Centro Empresarial de Alverca
Rua de Adarse, Vale D'Ervas
Corpo D / Fracção 3
2615-178 Alverca do Ribatejo
PORTUGAL
Phone +351 218 394 880
Fax +351 218 394 759
info@pt.ebmpapst.com
www.ebmpapst.pt

Romania
ebm-papst Romania S.R.L.
Str. Tarnavei Nr. 20
500327 Brasov
ROMANIA
Phone +40 268 331859
Fax +40 268 312805
dudasludovic@xnet.ro

Russia
ebm-papst Ural GmbH
Posadskaja-Strasse, 23(E), 3
620102 Ekaterinburg
RUSSIA
Phone +7 343 2338000
Fax +7 343 2337788
Konstantin.Molokov@ru.ebmpapst.com
www.ebmpapst.ur.ru

ebm-papst Rus GmbH
proezd 4529, vladenie 5, stroenie 1
141000 Mytistschi, Oblast Moskau
RUSSIA
Phone +7 495 9807524
Fax +7 495 5140924
info@ebmpapst.ru
www.ebmpapst.ru

Serbia & Montenegro
ebm-papst Industries Kft.
Ezred u. 2.
1044 Budapest
HUNGARY
Phone +36 1 8722-190
Fax +36 1 8722-194
office@hu.ebmpapst.com

Spain
ebm-papst Ibérica S.L.
Avda. del Sistema Solar, 29
28830 San Fernando de Henares (Madrid)
SPAIN
Phone +34 91 6780894
Fax +34 91 6781530
ventas@ebmpapst.es
www.ebmpapst.es

Sweden
ebm-papst AB
Äggelundavägen 2
17562 Järfälla
SWEDEN
Phone +46 10 4544400
Fax +46 8 362306
info@ebmpapst.se
www.ebmpapst.se

Switzerland
ebm-papst AG
Rütisbergstrasse 1
8156 Oberhasli
SWITZERLAND
Phone +41 44 73220-70
Fax +41 44 73220-77
verkauf@ebmpapst.ch
www.ebmpapst.ch

Turkey
Akantel Elektronik San. Tic. LTD. Sti.
Atatürk Organize Sanayi
Bölgesi 10007 SK. No.:6
35620 Cigli-Izmir
TURKEY
Phone +90 232 3282090
Fax +90 232 3280270
akantel@akantel.com.tr
www.ebmpapst.com.tr

Ukraine
ebm-papst Ukraine LLC
Lepse Boulevard, 4, Building 21
03067 Kiev
UKRAINE
Phone +38 044 2063091
Fax +38 044 2063091
mail@ebmpapst.ua
www.ebmpapst.ua

United Kingdom
ebm-papst UK Ltd.
Chelmsford Business Park
Chelmsford Essex CM2 5EZ
UNITED KINGDOM
Phone +44 1245 468555
Fax +44 1245 466336
sales@uk.ebmpapst.com
www.ebmpapst.co.uk

ebm-papst Automotive & Drives (UK) Ltd.
The Smithy
Fidlers Lane
East Ilsley, Berkshire RG20 7LG
UNITED KINGDOM
Phone +44 1635 2811-11
Fax +44 1635 2811-61
A&Dsales@uk.ebmpapst.com
www.ebmpapst-ad.com

ebm-papst in America and Africa

America

Argentina
ebm-papst de Argentina S.A.
Hernandarias 148 Lomas del Mirador
Pcia. de Buenos Aires (1752)
ARGENTINA
Phone +54 11 46576135
Fax +54 11 46572092
ventas@ar.ebmpapst.com
www.ebmpapst.com.ar

Brasil
ebm-papst Motores Ventiladores Ltda.
Av. José Giorgi, 301 Galpões B6+B7
Condominio Logical Center
06707-100 Cotia - São Paulo
BRAZIL
Phone +55 11 4613-8700
Fax +55 11 4777-1456
vendas@br.ebmpapst.com
www.ebmpapst.com.br

Canada
ebm-papst Canada Inc.
1800 Ironstone Manor, Unit 2
Pickering, Ontario, L1W3J9
CANADA
Phone +1 905 420-3533
Fax +1 905 420-3772
sales@ca.ebmpapst.com
www.ebmpapst.ca

Mexico
ebm Industrial S. de R.L. de C.V.
Paseo de Tamarindos 400-A-5to Piso
Col. Bosques de las Lomas
Mexico 05120, D.F.
MEXICO
Phone +52 55 3300-5144
Fax +52 55 3300-5243
sales@mx.ebmpapst.com
www.ebmpapst.com.mx

USA
ebm-papst Inc.
P.O. Box 4009
100 Hyde Road
Farmington, CT 06034
UNITED STATES
Phone +1 860 674-1515
Fax +1 860 674-8536
sales@us.ebmpapst.com
www.ebmpapst.us

ebm-papst Automotive & Drives, Inc.
3200 Greenfield, Suite 255
Dearborn, MI 48120
UNITED STATES
Phone +1 313 406-8080
Fax +1 313 406-8081
automotive@us.ebmpapst.com
www.ebmpapst-automotive.us

Africa

South Africa
ebm-papst South Africa (Pty) Ltd.
P.O. Box 3124
1119 Yacht Avenue
2040 Honeydew
SOUTH AFRICA
Phone +27 11 794-3434
Fax +27 11 794-5020
info@za.ebmpapst.com
www.ebmpapst.co.za

ebm-papst in Asia

Asia

China
ebm-papst Ventilator (Shanghai) Co., Ltd.
No. 418, Huajing Road
WaiGaoQiao Free Trade Zone
No. 2001, Yang Gao (N) Road
200131 Shanghai
P.R. of CHINA
Phone +86 21 5046-0183
Fax +86 21 5046-1119
sales@cn.ebmpapst.com
www.ebmpapst.com.cn

Hong Kong
ebm-papst Hong Kong Ltd.
Room 17E, MG Tower
133 Hoi Bun Road, Kwun Tong
Hong Kong
P.R. of CHINA
Phone +852 2145-8678
Fax +852 2145-7678
info@hk.ebmpapst.com

India
ebm-papst India Pvt. Ltd.
26/3, G.N.T. Road, Erukkencherry
Chennai-600118
INDIA
Phone +91 44 25372556
Fax +91 44 25371149
sales@in.ebmpapst.com
www.ebmpapst.in

Indonesia
ebm-papst Indonesia
Representative Office
German Centre, 4th Floor, Suite 4470
Jl. Kapt. Subijono Dj. Bumi Serpong Damai
15321 Tangerang
INDONESIA
Phone +62 21 5376250
Fax +62 21 5388305
salesdept@id.ebmpapst.com

Israel
Polak Bros. Import Agencies Ltd.
9 Hamefalsim Street
Kiryat Arie, Petach-Tikva 49514
ISRAEL
Phone +972 3 9100300
Fax +972 3 5796679
polak@polak.co.il
www.polak.co.il

Japan
ebm-papst Japan K.K.
Attend on Tower 13F
Shinyokohama 2-8-12, Kohoku-ku
222-0033 Yokohama-City, Kanagawa
JAPAN
Phone +81 45 47057-51
Fax +81 45 47057-52
info@jp.ebmpapst.com
www.ebmpapst.jp

Korea
ebm-papst Korea Co. Ltd.
6F, Trutec Bldg.
12, WorldCupbuk-ro 56-gil
Mapo-Gu
Seoul 121-835
KOREA
Phone +82 2 366213-24
Fax +82 2 366213-26
info@kr.ebmpapst.com
www.ebmpapst.co.kr

Malaysia
ebm-papst Malaysia
Representative Office
Unit 12-2, Jalan USJ Sentral 3
Persiaran Subang, Selangor Darul Ehsan
47600 Subang Jaya
MALAYSIA
Phone +60 3 8024-1680
Fax +60 3 8024-8718
salesdept@my.ebmpapst.com

Philippines
ebm-papst SEA Pte. Ltd.
Representative Office (Philippines)
ALPAP II Building
Trade Street Corner Investment Drive
Unit 1101 Madrigal Business Park
1799 Ayala Alabang / Muntinlupa City
Telefon: +63 02 8042747
Telefax: +63 02 8042757
salesdept@ph.ebmpapst.com

Singapore
ebm-papst SEA Pte. Ltd.
No. 23 Ubi Road 4
#06-00 Olympia Industrial Building
Singapore 408620
SINGAPORE
Phone +65 65513789
Fax +65 68428439
salesdept@sg.ebmpapst.com

Taiwan
ETECO Engineering & Trading Corp.
10F-I, No. 92, Teh-Wei Str.
Tsow-Inn District, Kaohsiung
TAIWAN
Phone +886 7 557-4268
Fax +886 7 557-2788
eteco@ms22.hinet.net
www.ebmpapst.com.tw

Thailand
ebm-papst Thailand Co., Ltd.
99/9 Moo 2, Central Chaengwattana Tower
14th Floor, Room 1402
Chaengwattana Road Bangtarad, Pakkret
11120 Nonthaburi
THAILAND
Phone +66 2 8353785-7
Fax +66 2 8353788
salesdept@th.ebmpapst.com

United Arab Emirates
ebm-papst Middle East FZE
PO Box 17755
Jebel Ali Free Zone / FZS1 / AP05
Dubai
UNITED ARAB EMIRATES
Phone +971 4 88608-26
Fax +971 4 88608-27
info@ae.ebmpapst.com
www.ebmpapst.ae

Vietnam
ebm-papst SEA Pte. Ltd.
Representative Office
Room 402, 4th Floor, Sai Gon 3 Building
140 Nguyen Van Thu, District 1
Ho Chi Minh City
VIETNAM
Phone +84 8 39104099 / 39103969
Fax +84 8 39103970
linh.nguyen@vn.ebmpapst.com

ebm-papst in Oceania

Oceania

Australia
ebm-papst A&NZ Pty Ltd.
10 Oxford Road
Laverton North, Victoria, 3026
AUSTRALIA
Phone +61 3 9360-6400
Fax +61 3 9360-6464
sales@ebmpapst.com.au
www.ebmpapst.com.au

New Zealand
ebm-papst A&NZ Pty Ltd.
61 Hugo Johnston Drive, Unit H
Penrose 1061, Auckland
NEW ZEALAND
PO Box 112278,
Penrose 1642, Auckland
Phone +64 9 525-0245
Fax +64 9 525-0246
sales@ebmpapst.com.au
www.ebmpapst.com.au

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ebm-papst
Mulfingen GmbH & Co. KG

Bachmühle 2
74673 Mulfingen
Germany
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com

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