

# ACmaxx / EC fans



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# ACmaxx / EC fans

## Technical information about ACmaxx / GreenTech EC tubeaxial fans



### Progress made by ebm-papst

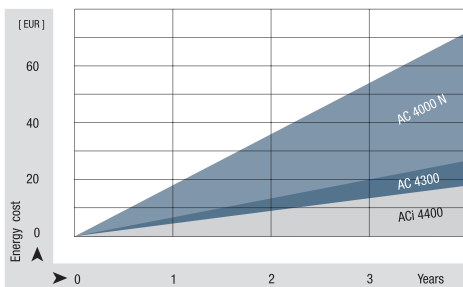
The best example: The ACmaxx fans from ebm-papst that offer substantial benefits thanks to an ingenious yet simple improvement over conventional AC fans.

The aim in developing the new ACmaxx series was to raise the technical standard of the conventional AC fan significantly and in the process facilitate a transition to new technology by maintaining the same fan sizes. In short, to make sure that the fans can be replaced 1:1 without any changes to the peripherals or voltage situation.

ebm-papst offers two generations of ACmaxx products that meet different needs.

### What the ACmaxx and GreenTech EC compact fans have in common: Energy efficiency

A drive concept based on state-of-the-art GreenTech EC technology with outstanding motor efficiency. Compared to AC fans of the same size, ACmaxx energy consumption is up to 77% lower – for greater cooling capacity! The energy savings alone means that the products pay for themselves after only a few months. The savings over the entire service life, especially in systems with multiple fans, is considerable.

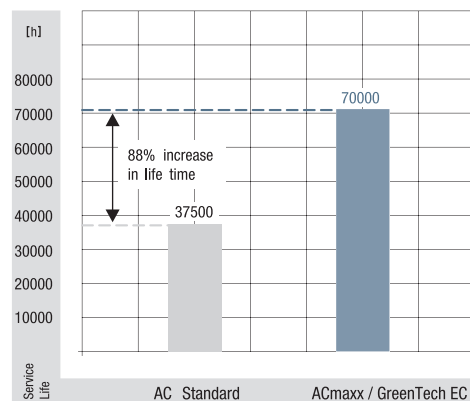


### Independent of the power frequency and line voltage

The ACmaxx and GreenTech EC tubeaxial fans are prepared for direct connection to a wide range of AC voltages and frequencies. The speed, and thus important properties of the fan such as air flow and noise, are independent of the power frequency and do not change, even within the defined voltage range. Voltage fluctuations in the power system are automatically compensated for.

### Long service life

The efficiency of ACmaxx and GreenTech EC tubeaxial fan motors is up to 75% greater than that of conventional AC fan variants. This not only saves energy, it also means less self-heating of the motor. Especially the bearing system responds positively to the low self-heating. The reason why the fans have a service life that is up to 85% longer! This also extends the service and maintenance intervals significantly. Investments in replacement fans and every more expensive downtime are manageably small.



# ACmaxx / EC fans

## Technical information about ACmaxx / GreenTech EC tubeaxial fans



### Safety

- Safety certifications: UL, CSA and VDE 0805 / EN60950. VDE 0700 / EN60335 on request.
- Our fans have the CE mark of conformity.
- EMC protection:
  - > EN61000-4-4 Level 1 (1 kV or 2 kV) B
  - > EN61000-4-2 Level 8 kV/15 kV or 4 kV/8 kV
  - > EN61000-4-3
  - > EN61000-4-6
  - > EN61000-4-8
  - > EN55022 Class B

### The environment

AC fans are extremely common and are used in a wide variety of applications. In control cabinet cooling, beer coolers, cooling cabinets, wood-burning stoves, medical devices – all have different requirements for resistance to environmental conditions. ACmaxx and GreenTech EC tubeaxial fans offer the same features for moisture protection, splash water, and tougher environmental conditions.

### Particular design features of the GreenTech EC tubeaxial fan

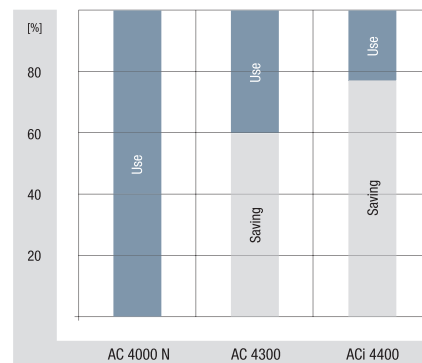
#### (ACi 4400): GreenTech EC compact fan is more compact!

As large as existing AC fans – and not a bit larger. This is the greatest feature of the new ACi 4400 GreenTech EC tubeaxial fans. Even in the hub area, the fan does not differ from typical 119 x 119 x 38 mm AC fans. Out with the AC, in with the ACi 4400 GreenTech EC tubeaxial fans – it's that simple.



### The GreenTech EC tubeaxial fan is more efficient!

ACmaxx saves energy, and the GreenTech EC tubeaxial fan generation saves even more. While an AC fan at 50 Hz can barely reach an overall efficiency of 5-6%, the ACmaxx makes it to about 20-25%. With the new ACi 4400 GreenTech EC tubeaxial fans, a remarkable level of up to 30% is reached. This is the result of the optimization of the entire package made up of the drive, electronics, AC/DC conversion, and aerodynamics. Thus the new GreenTech EC tubeaxial fan series boasts energy savings of almost 75% compared to the corresponding AC fan, thus providing significantly greater savings than the 40% level of the old AC 4300 generation.



### The GreenTech EC tubeaxial fan is quieter!

The ACi 4400 GreenTech EC tubeaxial fan is quieter! Quieter than AC fans and quieter than the existing ACmaxx generation. The reason for this is the optimized aerodynamics and the drive, which is optimized for minimum structure-borne noise. Thus the fan is only half as loud at a comparable air performance, and is up to 6 dB(A) quieter at some operating points.

### Speed independent of voltage and frequency

For the ACi 4400 GreenTech EC tubeaxial fans, the speed, and thus the flow quantity and operating noise, are independent of the power supply and power frequency.

Versions are available for 115 VAC with a voltage range from 85 to 132 VAC and 230 VAC with a voltage range of 195 to 265 VAC. Operation with DC voltage is also possible. Voltage fluctuations and frequency differences in the power system are compensated for automatically.

# ACmaxx / EC fans

Technical information  
about ACmaxx / GreenTech EC tubeaxial fans



## Particular design features of the ACmaxx:

### Prepared for all common AC voltages

These models have a very wide voltage range from 85 to 265 VAC – the global voltage range, so to speak. This allows the fan to be used around the world, opening up large savings potentials. In addition to reduced logistics effort and stock keeping, worldwide availability is key. ACmaxx is compatible with every power supply and no switching is needed. From 85 to 265 volts and power frequencies of 50 and 60 Hz. Voltage fluctuations in the power system are automatically compensated for.

### Higher performance

Unlike conventional AC technology, the state-of-the-art drive concept of this fan series is not linked to a fixed power frequency. This allows the motor speed to be increased over a wide range. Thus ACmaxx provides significantly greater air flow and significantly increased pressure.

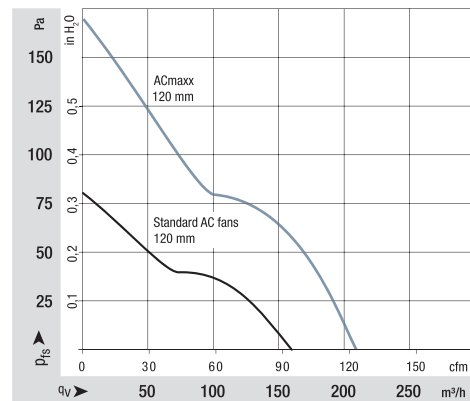
### Greater flexibility

The flexibility of ACmaxx is unique. With its intelligent features, ACmaxx can be adapted individually to the specific application: standby mode, overload mode at peak times, or night reduction all the way to temperature-controlled quiet operation are all possible. From speed monitoring to long-term function checks using an alarm or speed signal

outputs, ACmaxx offers optional interfaces that allow you to monitor an operation easily and quickly.

You can find further information about these fan options in the "Fans specials" chapter, starting on page 161.

Or you can simply contact our application engineers to discuss your ideal ACmaxx or GreenTech EC tubeaxial fan.



# Fans for AC operation

## Overview of air performance

Dimensions mm	Series	Air flow m <sup>3</sup> /h	Air flow scale (m <sup>3</sup> /h)																	Page
			10	20	30	40	50	60	70	80	90	100	200	300	400	500	600	700	800	
□ 80 x 32	AC 8300	80	[Performance bar]																	188
□ 92 x 38	AC 3200 J	144	[Performance bar]																	189
□ 119 x 25	AC 4400 FN	205	[Performance bar]																	190
□ 119 x 32	AC 4300	204	[Performance bar]																	191
□ 119 x 38	ACi 4400	100...175	[Performance bar]																	192
∅ 172 x 51	AC 6200 N	350	[Performance bar]																	193
∅ 130	W1G 130	220...370	[Performance bar]																	194
∅ 200	W3G 200	560...1065	[Performance bar]																	196
∅ 250	W3G 250	900...1910	[Performance bar]																	198
∅ 98.5 x 130	AC 100	40...135	[Performance bar]																	200

Subject to change

## Overview of technically feasible designs

Dimensions mm	Series	VDE, UL, CSA	SINTEC sleeve bearings / ball bearings	Speed signal	Go / NoGo alarm	Alarm with speed limit	External temperature sensor	Internal temperature sensor	PWM control input	Analog control input	Multi-options control input	Moisture protection IP >= 54 IP 68	Salt spray protection	Page
<b>ACmaxx / ACi axial fans</b>														
□ 80 x 32	AC 8300	yes	■	•	•	•	•	•	•	•	•	•	•	188
□ 92 x 38	AC 3200 J	no	■	•	•	•	•	•	•	•	•	•	•	189
□ 119 x 25	AC 4400 FN	yes	■	•	•	•	•	•	•	•	•	•	•	190
□ 119 x 32	AC 4300	yes	■	•	•	•	•	•	•	•	•	•	•	191
□ 119 x 38	ACi 4400	yes	■	-	-	-	-	-	-	-	-	•	•	192
∅ 172 x 51	AC 6200 N	yes	■	•	•	•	•	•	•	•	•	•	•	193
∅ 98.5 x 130	AC 100	*	■	-	-	-	-	-	-	-	-	•	•	200

Subject to change

- Not yet available
  - Available
  - Sleeve bearings
  - Ball bearings
- \* Partially granted, partially in registration stage.

Please note that these special versions are not possible for all voltages and speeds, and not in all combinations. The special versions are designed for specific customers and projects. As a rule they are not available off the shelf and are tied to minimum volumes. Please consult your customer support representative about the feasibility of your special variant.

Max. 80 m<sup>3</sup>/h

# ACmaxx axial fans

□ 80 x 32 mm



- **Material:** Housing: GRP<sup>1)</sup> (PBTP)  
Impeller: GRP<sup>1)</sup> (PA)
  - **Direction of air flow:** Exhaust over struts
  - **Direction of rotation:** Clockwise, looking towards rotor
  - **Connection:** Via single wires AWG 22, TR 64
  - **Highlights:** Universally usable for all power voltages between 85 and 265 VAC
  - **Weight:** 325 g
- **Possible special versions:** (See chapter DC fans - specials)
    - Speed signal
    - Go / NoGo alarm
    - Alarm with speed limit
    - External temperature sensor
    - Internal temperature sensor
    - PWM control input
    - Analog control input
    - Moisture protection
    - Salt spray protection
    - Degree of protection: IP 54

1) Fiberglass-reinforced plastic

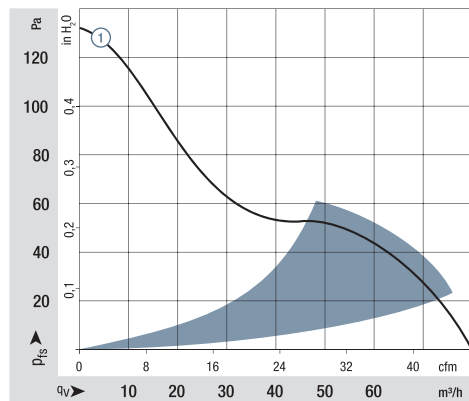
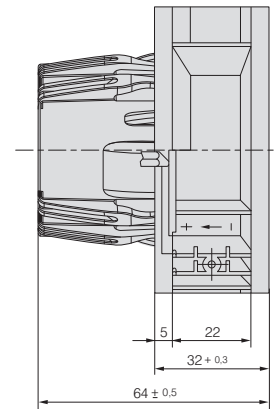
## Series AC 8300

### Nominal data

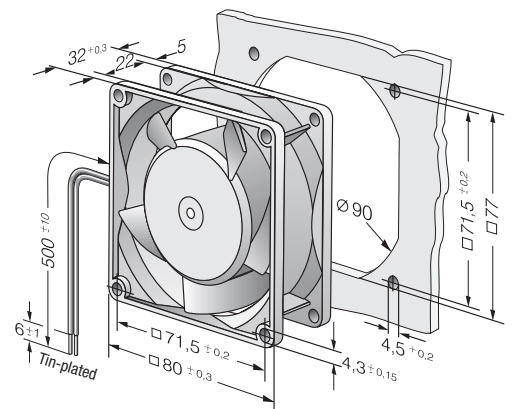
Type	Air flow		Nominal voltage	Frequency	Voltage range	Sound pressure level	Sound power level	Sinter sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L <sub>10</sub> (40 °C) ebm-papst standard	Service life L <sub>10</sub> (T <sub>max</sub> ) ebm-papst standard	Life expectancy L <sub>10</sub> DFC (40 °C) see page 17	Curve
	m <sup>3</sup> /h	cfm													
AC 8300 H	80	47	115 / 230	50 / 60	85 ... 265	48	6.2	■	8.3	5 000	-20...+75	55 000 / 20 000	92 500	ζ	

Subject to change

Speed variants available on request.



Air performance measured according to: ISO 5801.  
Installation category A, without contact protection.  
Noise: Total sound power level L<sub>wA</sub> ISO 103002 measured on a hemisphere with a radius of 2 m.  
Sound pressure level L<sub>pA</sub> measured at 1 m distance from fan axis.  
The values given are applicable only 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 after installation!  
For detailed information see <http://www.ebmpapst.com/general conditions>



Max. 144 m<sup>3</sup>/h

# ACmaxx axial fans

□ 92 x 38 mm



- **Material:** Housing: GRP<sup>1)</sup> (PBTP)  
Impeller: GRP<sup>1)</sup> (PA)
  - **Direction of air flow:** Exhaust over struts
  - **Direction of rotation:** Clockwise, looking towards rotor
  - **Connection:** Via single wires AWG 22, TR 64
  - **Highlights:** Universally usable for all power voltages between 85 and 265 VAC
  - **Weight:** 325 g
- **Possible special versions:** (See chapter DC fans - specials)
    - Speed signal
    - Go / NoGo alarm
    - Alarm with speed limit
    - External temperature sensor
    - Internal temperature sensor
    - PWM control input
    - Analog control input
    - Moisture protection
    - Salt spray protection
    - Degree of protection: IP 54

1) Fiberglass-reinforced plastic

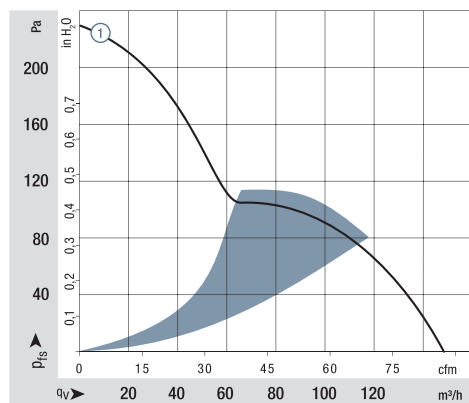
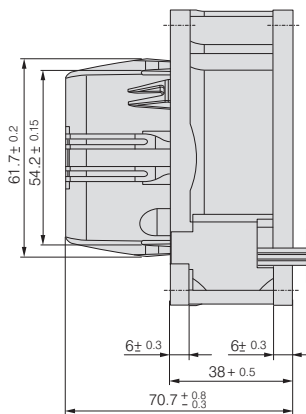
Series AC 3200 J

## Nominal data

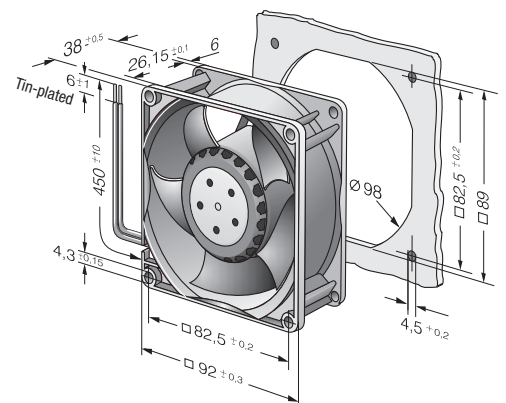
Type	Air flow		Nominal voltage	Frequency	Voltage range	Sound pressure level	Sound power level	Sinter sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L <sub>10</sub> (40 °C) ebm-papst standard	Service life L <sub>10</sub> (T <sub>max</sub> ) ebm-papst standard	Life expectancy L <sub>10</sub> DFC (40 °C) see page 17	Curve
	m <sup>3</sup> /h	cfm													
AC 3200 JH	144	85	115 / 230	50 / 60	85 ... 265	55	6.4	■	12	6 800	-20...+70	70 000 / 35 000	117 500		①

Subject to change

Speed variants available on request.



Air performance measured according to: ISO 5801.  
Installation category A, without contact protection.  
Noise: Total sound power level L<sub>WA</sub> ISO 103002 measured on a hemisphere with a radius of 2 m.  
Sound pressure level L<sub>PA</sub> measured at 1 m distance from fan axis.  
The values given are applicable only 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 after installation!  
For detailed information see <http://www.ebmpapst.com/general-conditions>



Max. 205 m<sup>3</sup>/h

# ACmaxx axial fans

□ 119 x 25 mm



- **Material:** Housing: GRP<sup>1)</sup> (PBTP)  
Impeller: GRP<sup>1)</sup> (PA)
  - **Direction of air flow:** Exhaust over struts
  - **Direction of rotation:** Counterclockwise, looking towards rotor
  - **Connection:** Via single wires AWG 22, TR 64
  - **Highlights:** Universally usable for all power voltages between 85 and 265 VAC
  - **Weight:** 370 g
- **Possible special versions:** (See chapter DC fans - specials)
    - Speed signal
    - Go / NoGo alarm
    - Alarm with speed limit
    - External temperature sensor
    - Internal temperature sensor
    - PWM control input
    - Analog control input
    - Moisture protection

1) Fiberglass-reinforced plastic

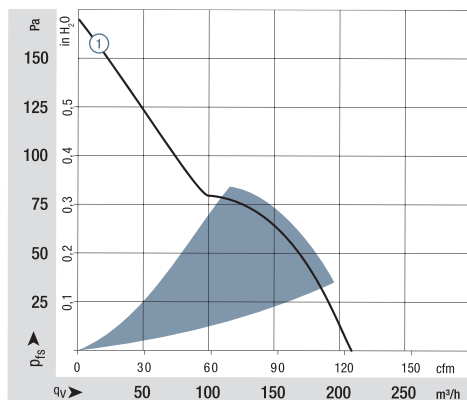
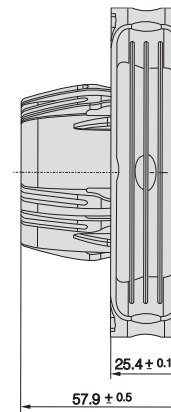
## Series AC 4400 FN

### Nominal data

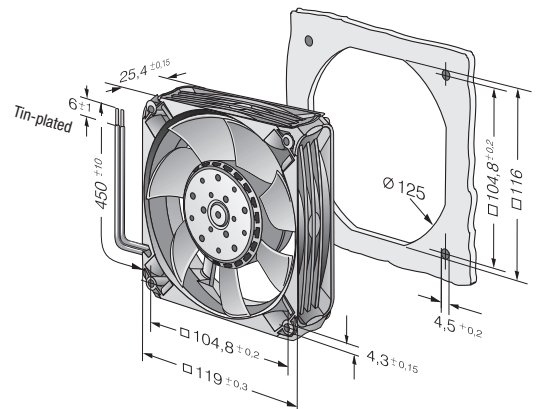
Type	Air flow		Nominal voltage	Frequency	Voltage range	Sound pressure level	Sound power level	Sinter sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L <sub>10</sub> (40 °C) ebm-papst standard	Service life L <sub>10</sub> (T <sub>max</sub> ) ebm-papst standard	Life expectancy L <sub>10</sub> DFC (40 °C) see page 17	Curve
	m <sup>3</sup> /h	cfm													
AC 4400 FNN	205	121	115 / 230	50 / 60	85 ... 265	53	6.2	■ / ■	12	4 850	-20...+70	60 000 / 30 000	102 500	①	

Subject to change

Speed variants available on request.



Air performance measured according to: ISO 5801.  
Installation category A, without contact protection.  
Noise: Total sound power level L<sub>WA</sub> ISO 103002 measured on a hemisphere with a radius of 2 m.  
Sound pressure level L<sub>PA</sub> measured at 1 m distance from fan axis.  
The values given are applicable only 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 after installation!  
For detailed information see <http://www.ebmpapst.com/general conditions>





Max. 204 m<sup>3</sup>/h

# ACmaxx axial fans

□ 119 x 32 mm



- **Material:** Housing: GRP<sup>1)</sup> (PBTP)  
Impeller: GRP<sup>1)</sup> (PA)
  - **Direction of air flow:** Exhaust over struts
  - **Direction of rotation:** Clockwise, looking towards rotor
  - **Connection:** Via single wires AWG 22, TR 64
  - **Highlights:** Universally usable for all power voltages between 85 and 265 VAC
  - **Weight:** 325 g
- **Possible special versions:** (See chapter DC fans - specials)
    - Speed signal
    - Go / NoGo alarm
    - Alarm with speed limit
    - External temperature sensor
    - Internal temperature sensor
    - PWM control input
    - Analog control input
    - Moisture protection
    - Salt spray protection
    - Degree of protection: IP 54 / IP 68

1) Fiberglass-reinforced plastic

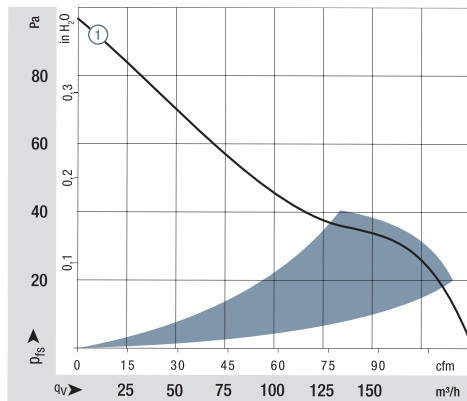
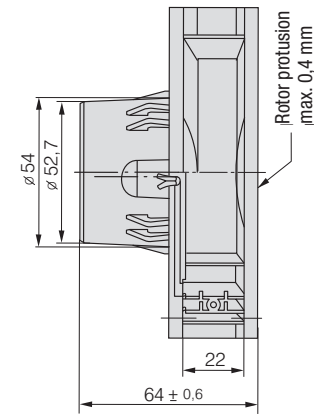
Series AC 4300

## Nominal data

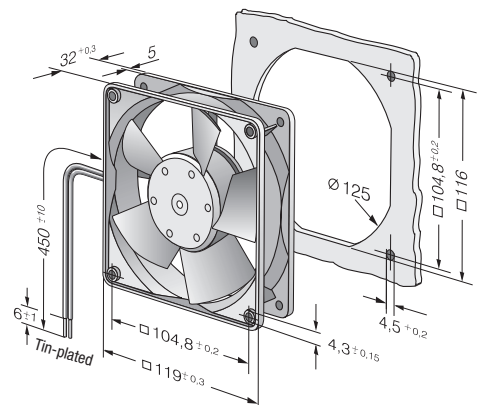
Type	Air flow		Nominal voltage	Frequency	Voltage range	Sound pressure level	Sound power level	Sinter sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L <sub>10</sub> (40 °C) ebm-papst standard	Service life L <sub>10</sub> (T <sub>max</sub> ) ebm-papst standard	Life expectancy L <sub>10</sub> DFC (40 °C) see page 17	Curve
	m <sup>3</sup> /h	cfm													
AC 4300 H	204	120	115 / 230	50 / 60	85 ... 265	51	6.4	■	12	3 400	-20...+70	45 000 / 22 500	75 500	①	

Subject to change

Speed variants available on request.



Air performance measured according to: ISO 5801.  
Installation category A, without contact protection.  
Noise: Total sound power level L<sub>WA</sub> ISO 103002 measured on a hemisphere with a radius of 2 m.  
Sound pressure level L<sub>PA</sub> measured at 1 m distance from fan axis.  
The values given are applicable only 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 after installation!  
For detailed information see <http://www.ebmpapst.com/general-conditions>



Max. 175 m<sup>3</sup>/h

# GreenTech EC tubeaxial fans

□ 119 x 38 mm



- **Material:** Housing: GRP<sup>1)</sup> (PBT)  
Impeller: GRP<sup>1)</sup> (PA)
  - **Direction of air flow:** Exhaust over struts
  - **Direction of rotation:** Clockwise, looking towards rotor
  - **Connection:** with flat plug 2.8 x 0.5, optionally also with exposed external wires
  - **Highlights:** Fully integrated converter and fan electronics
  - **Weight:** 250 g
- **Possible special versions:**  
(See chapter DC fans - specials)
    - Moisture protection
    - Salt spray protection
    - Degree of protection: IP 54

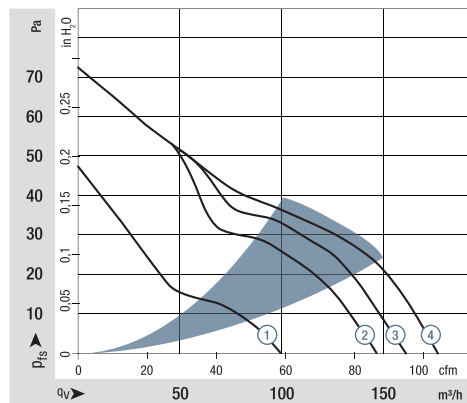
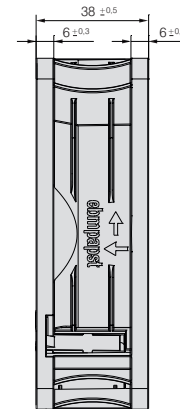
1) Fiberglass-reinforced plastic

## Series ACi 4400

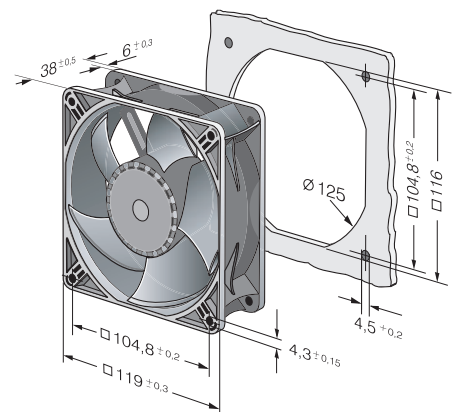
### Nominal data

Type	Air flow		Nominal voltage	Frequency	Voltage range	Sound pressure level	Sound power level	Sinter sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L <sub>10</sub> (40 °C) ebm-papst standard	Service life L <sub>10</sub> (T <sub>max</sub> ) ebm-papst standard	Life expectancy L <sub>10</sub> DFC (40 °C) see page 17	Curve
	m <sup>3</sup> /h	cfm													
ACi 4420 ML	100	59	230	50 / 60	195...265	25	4.1	■	1.7	1 850	-40...+75	65 000 / 25 000	110 000	110 000	①
ACi 4420 N	147	86	230	50 / 60	195...265	36	4.9	■	2.8	2 700	-40...+75	65 000 / 25 000	110 000	110 000	②
ACi 4420 H	160	94	230	50 / 60	195...265	39	5.1	■	3.2	3 000	-40...+75	65 000 / 25 000	110 000	110 000	③
ACi 4420 HH	175	103	230	50 / 60	195...265	42	5.3	■	4.6	3 300	-40...+75	65 000 / 25 000	110 000	110 000	④
ACi 4410 HH	175	103	115	50 / 60	85...132	42	5.3	■	4.4	3 300	-40...+75	65 000 / 25 000	110 000	110 000	④

Subject to change



Air performance measured according to: ISO 5801.  
Installation category A, without contact protection.  
Noise: Total sound power level L<sub>WA</sub> ISO 103002 measured on a hemisphere with a radius of 2 m.  
Sound pressure level L<sub>PA</sub> measured at 1 m distance from fan axis.  
The values given are applicable only 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 after installation!  
For detailed information see <http://www.ebmpapst.com/general conditions>



Max. 350 m<sup>3</sup>/h

# ACmaxx axial fans

Ø 172 x 51 mm



- **Material:** Housing: Die-cast aluminum  
Impeller: GRP<sup>1)</sup> (PA)
  - **Direction of air flow:** Exhaust over struts
  - **Direction of rotation:** Counterclockwise, looking towards rotor
  - **Connection:** Via single wires AWG 22, TR 64
  - **Highlights:** Universally usable for all power voltages between 85 and 265 VAC, 50-60 Hz  
Housing with grounding lug for screw M4 x 8 (Torx)
  - **Weight:** 900 g
- **Possible special versions:** (See chapter DC fans - specials)
    - Speed signal
    - Go / NoGo alarm
    - Alarm with speed limit
    - External temperature sensor
    - Internal temperature sensor
    - PWM control input
    - Analog control input
    - Moisture protection
    - Salt spray protection
    - Degree of protection: IP 54

1) Fiberglass-reinforced plastic

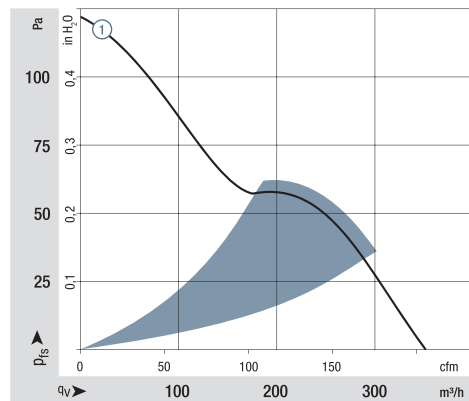
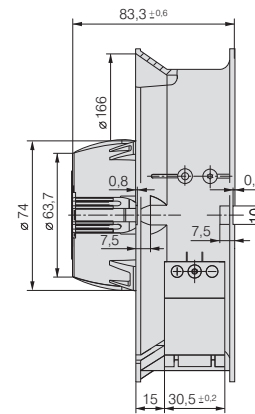
Series AC 6200 N

## Nominal data

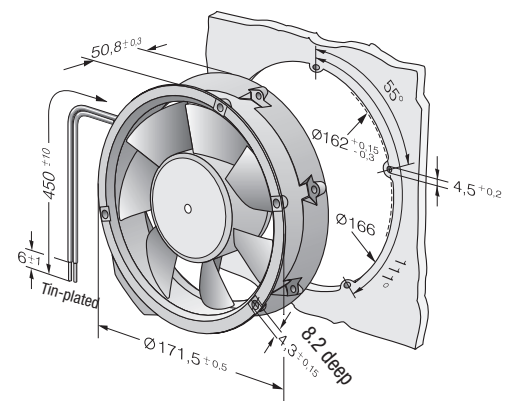
Type	Air flow		Nominal voltage	Frequency	Voltage range	Sound pressure level	Sound power level	Sinter sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L <sub>10</sub> (40 °C) ebm-papst standard	Service life L <sub>10</sub> (T <sub>max</sub> ) ebm-papst standard	Life expectancy L <sub>10</sub> DFC (40 °C) see page 17	Curve
	m <sup>3</sup> /h	cfm													
AC 6200 NM	350	206	115 / 230	50 / 60	85 ... 265	50	5.7	■	14	2 850	-20...+70	80 000 / 40 000	135 000	①	

Subject to change

Speed variants available on request.



Air performance measured according to: ISO 5801.  
Installation category A, without contact protection.  
Noise: Total sound power level L<sub>WA</sub> ISO 103002 measured on a hemisphere with a radius of 2 m.  
Sound pressure level L<sub>PA</sub> measured at 1 m distance from fan axis.  
The values given are applicable only 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 after installation!  
For detailed information see <http://www.ebmpapst.com/general-conditions>



Max. 370 m<sup>3</sup>/h

# Energy-saving axial fans

Ø 130 mm



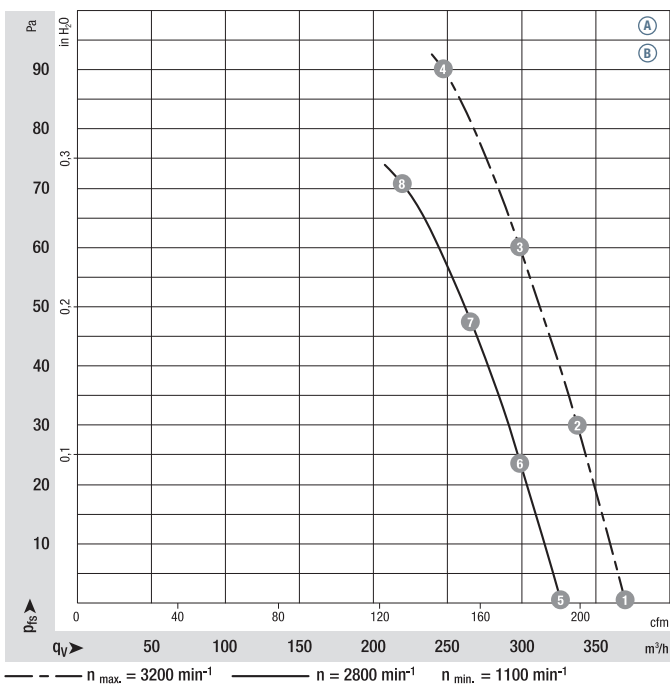
- **Material:** Housing: PP plastic, fiberglass-reinforced; Blades: PA plastic, fiberglass-reinforced
- **Number of blades:** 7
- **Direction of air flow:** "V", exhaust over struts
- **Direction of rotation:** Counterclockwise, looking towards rotor
- **Degree of protection:** IP 54
- **Insulation class:** "B"
- **Installation position:** Any
- **Condensation drainage holes:** None
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

Nominal data		Curve	Nominal voltage	Frequency	Nominal speed	Max. power consumption <sup>(1)</sup>	Max. input current <sup>(1)</sup>	Max. back-pressure	Admissible amb. temp.	Weight	Connection diagram
Type	Motor	VAC	Hz	rpm <sup>-1</sup>	W	A	Pa	°C	kg		
<b>W1G130-AA49 -01</b>	M1G055-AI	Ⓐ 1~115	50/60	3200	24	0.38	90	-30..+60	0.75	p. 264 / J7)	
<b>W1G130-AA25 -01</b>	M1G055-AI	Ⓑ 1~230	50/60	3200	24	0.19	90	-30..+70	0.75	p. 264 / J7)	

Subject to change

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

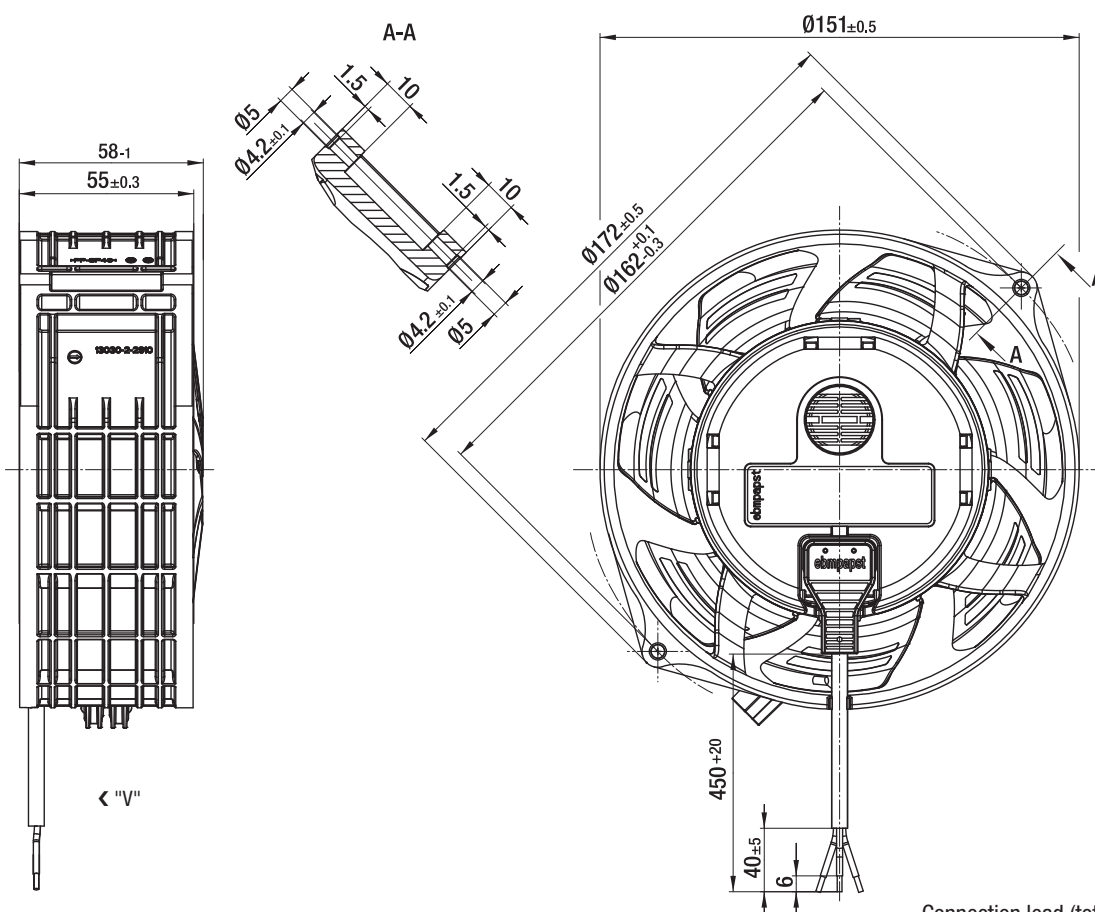
## Curves:



	n	P <sub>ed</sub>	I	L <sub>WA</sub>
	rpm <sup>-1</sup>	W	A	dB(A)
Ⓐ 1	3200	23	0.38	63
Ⓐ 2	3200	24	0.38	61
Ⓐ 3	3200	24	0.38	60
Ⓐ 4	3200	24	0.38	63
Ⓐ 5	2800	16	0.26	60
Ⓐ 6	2800	16	0.26	58
Ⓐ 7	2800	16	0.26	57
Ⓐ 8	2800	16	0.26	60
Ⓑ 1	3200	23	0.19	63
Ⓑ 2	3200	24	0.19	61
Ⓑ 3	3200	24	0.19	60
Ⓑ 4	3200	24	0.19	63
Ⓑ 5	2800	16	0.13	60
Ⓑ 6	2800	16	0.13	58
Ⓑ 7	2800	16	0.13	57
Ⓑ 8	2800	16	0.13	60

Air performance measured according to: ISO 5801, installation category A, in ebm-papst full nozzle without contact protection. Suction-side noise levels: L<sub>WA</sub> according to ISO 13347, L<sub>pA</sub> measured at 1 m distance from fan axis. The values given are applicable only 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 after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

- **Motor protection:** Via electronics and thermal overload protector
- **Electrical hookup:** Plug-in connection on motor side
- **Protection class:** II
- **Conformity with standard(s):** CE; EN 60335-1
- **Approvals:** VDE, GOST (are available); UL, CSA (are applied for)
- **Speed:** Using the programming unit 2 speeds between  $n_{\min}$  and  $n_{\max}$  can be programmed



Connection lead (total length 450 mm) is fitted ex works and can be detached.

Max. 1065 m<sup>3</sup>/h

# EC axial fans

Ø 200 mm



- **Material:** Housing: Die-cast aluminum  
Blades: PP plastic  
Rotor: Thick-film passivated
- **Number of blades:** 7
- **Direction of air flow:** "V"
- **Direction of rotation:** Counterclockwise, looking towards rotor
- **Degree of protection:** Depending on installation and position<sup>(2)</sup>
- **Insulation class:** "B"
- **Installation position:** Any
- **Condensate discharges:** None, open rotor
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

Nominal data		Curve	Nominal voltage	Frequency	Nominal speed	Max. power consumption <sup>(1)</sup>	Max. input current <sup>(1)</sup>	Max. back-pressure	Admissible amb. temp.	Weight	Technical features and connection diagram
Type	Motor	VAC	Hz	rpm <sup>-1</sup>	W	A	Pa	°C	kg		
<b>W3G200-HD01 -01</b>	M3G055-BD	Ⓐ 1~200-240	50/60	2 900	54	0,55	96	-25..+60	1,6	P. 260 / H3)	
<b>W3G200-HD01 -03</b>	M3G055-BD	Ⓑ 1~200-240	50/60	2 900	54	0,55	96	-25..+60	1,6	P. 261 / H4)	
<b>W3G200-HD23 -10</b>	M3G055-BD	Ⓒ 1~115	50/60	2 900	65	1,00	94	-25..+60	1,6	P. 261 / H4)	

Subject to change

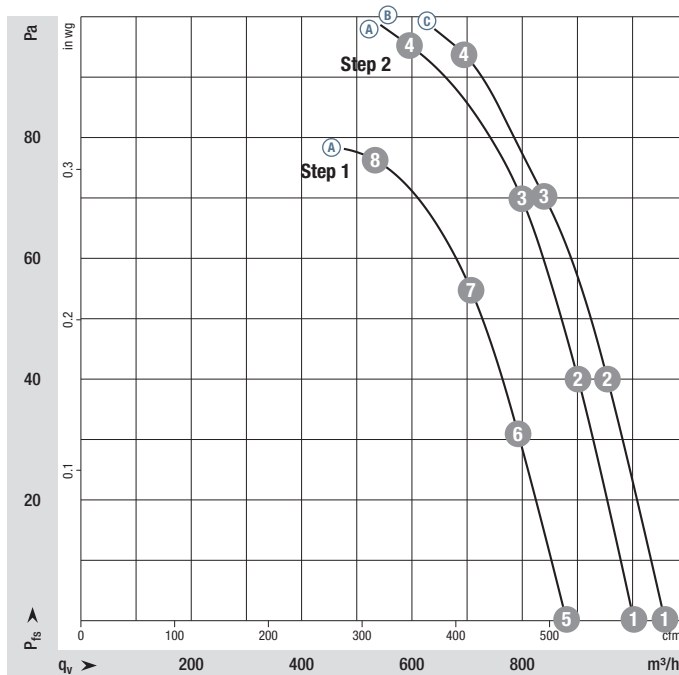
<sup>(1)</sup> Nominal data in operating point with maximum load and 230 VAC

<sup>(2)</sup> Not suitable for permanent outdoor use. Special version available on request.

Curves:

Ⓐ 2 Speed stages

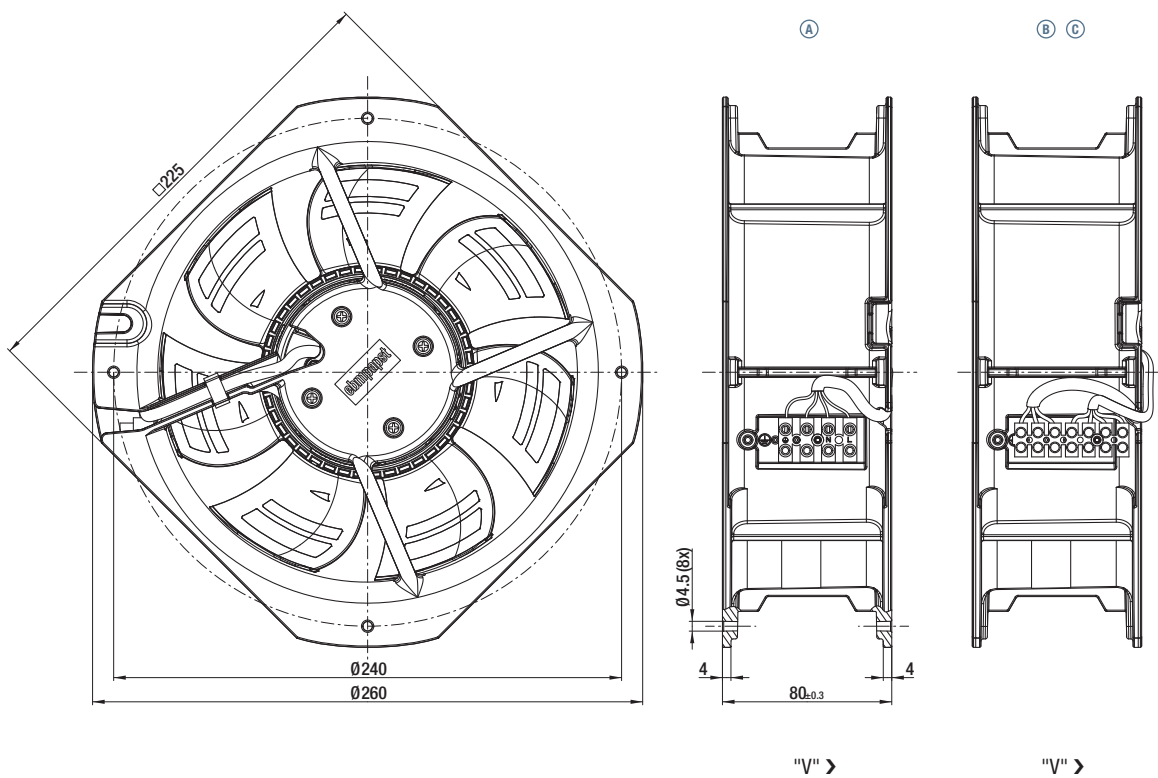
Ⓑ Ⓒ Speed-controlled



	n rpm <sup>-1</sup>	P <sub>ed</sub> W	I A	L <sub>wA</sub> dB(A)
Ⓐ 1	2970	50	0,49	65
Ⓐ 2	2890	54	0,53	64
Ⓐ 3	2830	58	0,56	65
Ⓐ 4	2900	54	0,55	70
Ⓐ 5	2645	36	0,37	62
Ⓐ 6	2575	39	0,40	61
Ⓐ 7	2530	42	0,42	62
Ⓐ 8	2500	43	0,43	67
Ⓑ 1	2970	50	0,49	65
Ⓑ 2	2890	54	0,53	64
Ⓑ 3	2830	58	0,56	65
Ⓑ 4	2900	54	0,55	70
Ⓒ 1	3150	62	1,00	66
Ⓒ 2	3050	65	1,00	66
Ⓒ 3	2930	65	1,00	72
Ⓒ 4	2900	65	1,00	74

Air performance measured according to: ISO 5801, Installation category A, without contact protection. Suction-side noise levels: L<sub>wA</sub> according to ISO 13347, L<sub>pA</sub> measured at 1 m distance from fan axis. The values given are applicable only 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 after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

- **Technical features:** See connection diagram p. 260/261
- **Touch current:**  $\leq 3.5$  mA acc. to IEC 60990 (test circuit, illustration 4)
- **Electrical hookup:** Via terminal strip
- **Protection class:** I (with customer connection to grounding conductor)
- **Conformity with standard(s):** EN 60335-1, CE
- **Approvals:** VDE, cUR<sub>us</sub>



Max. 1910 m<sup>3</sup>/h

# EC axial fans

Ø 250 mm



- **Material:** Housing: Die-cast aluminum  
Blades: PP plastic  
Rotor: Thick-film passivated
- **Number of blades:** 7
- **Direction of air flow:** "V"
- **Direction of rotation:** Counterclockwise, looking towards rotor
- **Degree of protection:** Depending on installation and position<sup>(2)</sup>
- **Insulation class:** "B"
- **Installation position:** Any
- **Condensate discharges:** None, open rotor
- **Mode of operation:** Continuous operation (S1)
- **Bearings:** Maintenance-free ball bearings

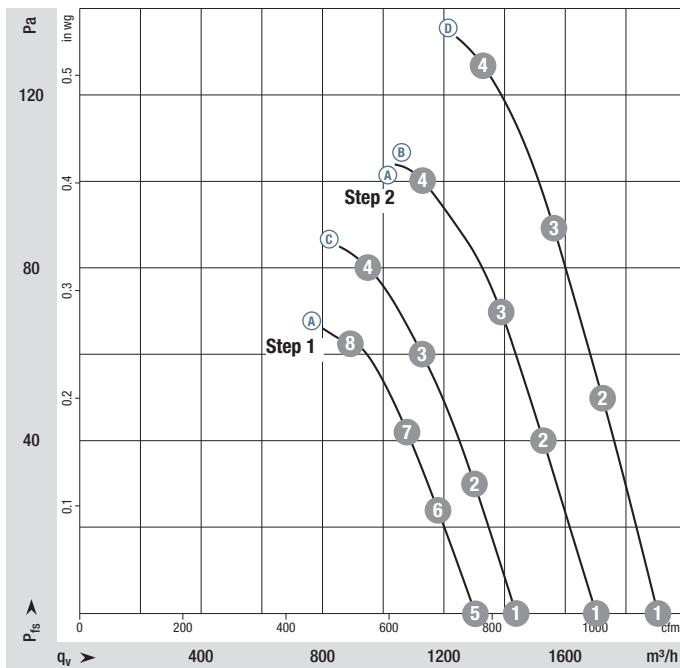
Nominal data		Curve	Nominal voltage	Frequency	Nominal speed	Max. power consumption <sup>(1)</sup>	Max. input current <sup>(1)</sup>	Max. back-pressure	Admissible amb. temp.	Weight	Technical features and connection diagram
Type	Motor	VAC	Hz	rpm <sup>-1</sup>	W	A	Pa	°C	kg		
W3G250-HH07 -01	M3G055-CF	Ⓐ 1~200-240	50/60	2 330	83	0,72	100	-25...+60	2,1	P. 260 / H3)	
W3G250-HH07 -03	M3G055-CF	Ⓑ 1~200-240	50/60	2 330	83	0,72	100	-25...+60	2,1	P. 261 / H4)	
W3G250-HH53 -03	M3G055-CF	Ⓒ 1~115	50/60	2 040	56	0,90	80	-25...+50	2,1	P. 261 / H4)	
W3G250-HK35 -11	M3G055-CF	Ⓓ 1~115	50/60	2 700	125	1,90	130	-25...+60	2,1	P. 261 / H4)	

Subject to change (1) Nominal data in operating point with maximum load and 230 VAC (2) Not suitable for permanent outdoor use. Special version available on request.

### Curves:

Ⓐ 2 Speed stages

Ⓑ Ⓒ Ⓓ Speed-controlled

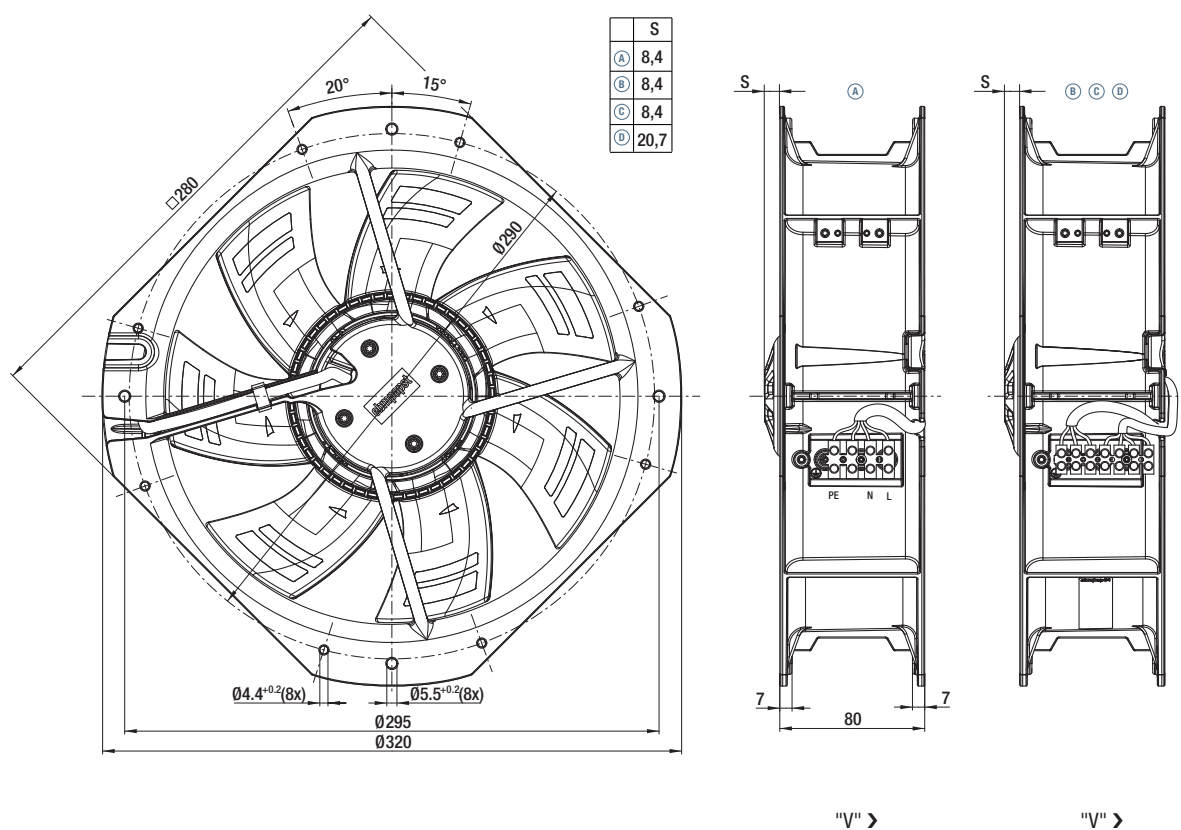


Air performance measured according to: ISO 5801, Installation category A, without contact protection. Suction-side noise levels: L<sub>WA</sub> according to ISO 13347, L<sub>WA</sub> measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

	n rpm <sup>-1</sup>	P <sub>ed</sub> W	I A	L <sub>WA</sub> dB(A)
Ⓐ 1	2465	67	0,59	69
Ⓐ 2	2410	75	0,65	69
Ⓐ 3	2375	80	0,68	68
Ⓐ 4	2330	83	0,72	69
Ⓐ 5	1900	33	0,33	63
Ⓐ 6	1880	37	0,37	63
Ⓐ 7	1860	40	0,38	62
Ⓐ 8	1850	42	0,40	63
Ⓑ 1	2465	67	0,59	69
Ⓑ 2	2410	75	0,65	69
Ⓑ 3	2375	80	0,68	68
Ⓑ 4	2330	83	0,72	69
Ⓒ 1	2140	43	0,72	63
Ⓒ 2	2100	49	0,80	63
Ⓒ 3	2070	53	0,86	64
Ⓒ 4	2040	56	0,90	65
Ⓓ 1	2820	93	1,43	70
Ⓓ 2	2760	106	1,61	71
Ⓓ 3	2725	114	1,72	71
Ⓓ 4	2700	125	1,90	71



- **Technical features:** See connection diagram p. 260/261
- **Touch current:**  $\leq 3.5$  mA acc. to IEC 60990 (test circuit, illustration 4)
- **Electrical hookup:** Via terminal strip
- **Protection class:** I (with customer connection to grounding conductor)
- **Conformity with standard(s):** EN 60335-1, CE
- **Approvals:** VDE, cUR<sub>us</sub>



Max. 135 m<sup>3</sup>/h

# ACmaxx in-line duct fan

Ø 98.5 x 130 mm



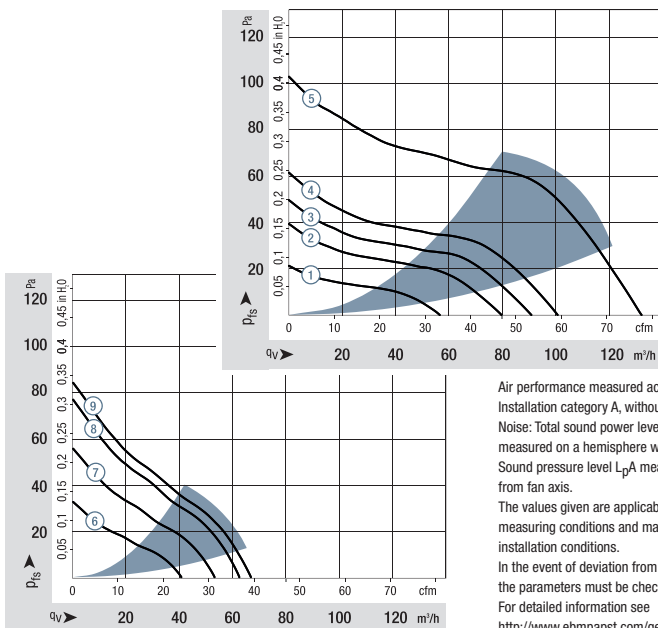
- **Material:** Housing: GRP<sup>1)</sup> (PBT)  
Impeller: GRP<sup>1)</sup> (PA)
- **Direction of air flow:** Intake over struts
- **Direction of rotation:** Clockwise, looking towards rotor
- **Connection:** Via 3-pin Europa terminal strip max. 1.5 mm<sup>2</sup>
- **Highlights:** Universally usable for all main voltages between 85 and 265 VAC, 50-60 Hz, Boost function  
Vibration-isolated motor  
Optional: new impeller for high pressure. Two speeds over jumper adjustable
- **Weight:** 400 g

1) Fiberglass-reinforced plastic

Series AC 100		Air flow		Nominal voltage	Frequency	Voltage range	Sound pressure level	Sound power level	Sintec sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L <sub>10</sub> (40 °C) ebm-papst standard	Service life L <sub>10</sub> (T <sub>max</sub> ) ebm-papst standard	Life expectancy L <sub>10</sub> DFC (40 °C) see page 17	Curve
Nominal data		m <sup>3</sup> /h	cfm	VAC	Hz	VAC	dB(A)	Bel(A)	□/■	Watts	rpm <sup>-1</sup>	°C	Hours	Hours		
Type	high air flow	m <sup>3</sup> /h	cfm	VAC	Hz	VAC	dB(A)	Bel(A)	□/■	Watts	rpm <sup>-1</sup>	°C	Hours	Hours		
Nominal Boost	AC 100 MR	55 90	32 53	115/230	50-60	85...265	33 40	4.5 5.0	□/■	1.8 3.8	2 050 3 150	-10...+55	70 000 / 50 000	117 500		① ③
Nominal Boost	AC 100 NR	80 105	47 62	115/230	50-60	85...265	35 42	4.7 5.3	■	2.5 4.5	2 750 3 500	-10...+55	70 000 / 50 000	117 500		② ④
Max.	AC 100 HR*	135	79	115/230	50-60	85...265	tbd	tbd	■	7.0	4 500	-10...+55	tbd	tbd		⑤
Type	high pressure	m <sup>3</sup> /h	cfm	VAC	Hz	VAC	dB(A)	Bel(A)	□/■	Watts	rpm <sup>-1</sup>	°C	Hours	Hours		
Nominal Boost	AC 100 MR*	40 62	23 36	115/230	50-60	85...265	31 38	4.2 4.7	■	tbd	2 050* 3 150*	-10...+55	70 000 / 50 000	117 500		⑥ ⑧
Nominal Boost	AC 100 NR-017	53 66	31 39	115/230	50-60	85...265	33 40	4.4 5.0	■	2.8 3.5	2 680 3 300	-10...+55	70 000 / 50 000	117 500		⑦ ⑧

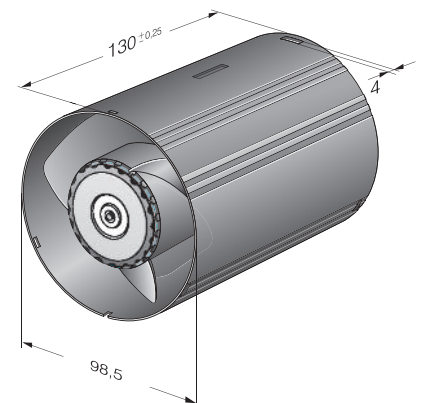
Subject to change

\* on request



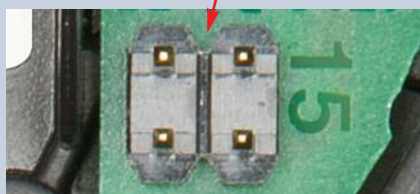
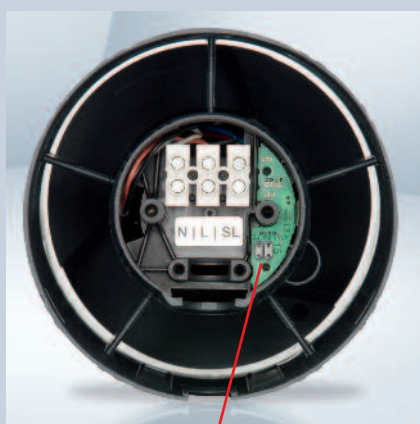
Air performance measured according to: ISO 5801.  
Installation category A, without contact protection.  
Noise: Total sound power level L<sub>WA</sub> ISO 103002 measured on a hemisphere with a radius of 2 m.  
Sound pressure level L<sub>pA</sub> measured at 1 m distance from fan axis.  
The values given are applicable only 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 after installation!  
For detailed information see <http://www.ebmpapst.com/general-conditions>

Impeller	Type	Boost off, Jumper low	Boost off, Jumper high	Boost on
High air flow	AC 100 MR	1 250	2 050	3 150
High air flow	AC 100 NR	2 200*	2 750	3 500
High pressure	AC 100 MR*	1 250*	2 050*	3 150*
High pressure	AC 100 NR-017	2 180	2 680	3 300



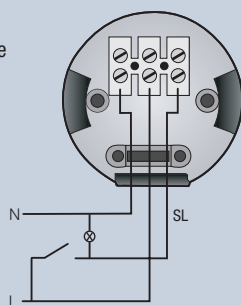
**Highest energy efficiency:** 0.03 - 0.045 W/m<sup>3</sup>/h free air (specific fan power).  
**Boost speed:** 2 speed settings possible via boost function.  
**Vibration isolation:** Reduced transmission of vibrations from motor to housing.  
**Intelligence:** Can be expanded to include set value requirement and signal outputs as an option.

**Examples of connections**

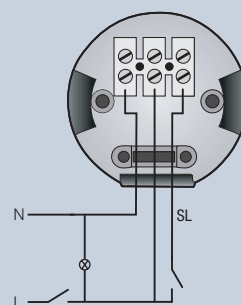


Jumper Low Jumper High

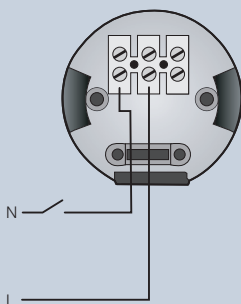
**Example 1:**  
 Nom speed endurance  
 Boost via light switch



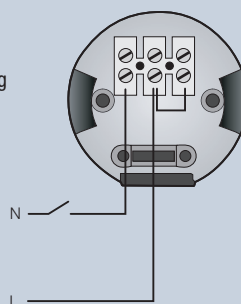
**Example 2:**  
 Nom speed via light switch  
 Separate boost switch



**Example 3:**  
 Simple connection  
 Nom speed without switching



**Example 4:**  
 Simple connection  
 Boost without switching



**Scope of delivery**

