

AC axial fans



AC axial fan overview
AC axial fans

205
206

AC axial fans

Technical information



Product line

The renowned ebm-papst AC fans are used when DC voltage is not available. The AC range of fans is based on experience gained from decades of development know-how, millions of units in series production, and the innovation competence of a world-wide technology pioneer.

In this catalog, we offer you the broad spectrum of our AC fans. In addition to complete systems, you will also find fans without external housing. They offer economic benefits whenever the air duct design can be integrated in the respective device.

Variety of sizes

AC fans are available in a variety of sizes with either air exhaust or air intake over struts. Silent running models with sleeve bearings. Electrical connection with plug connection or external exposed connection wires are available.

Shaded-pole or capacitor motors

Fan drives by shaded-pole or capacitor motors, most of which incorporate the world-famous ebm-papst external rotor principle. The fan blades are directly attached to the external rotor of the external rotor motor. This construction combining high performance with profitability.

Flat built AC fans

ebm-papst also has AC fans with a particularly flat construction and an internal rotor motor. Their advantage: quick start to full speed. A plastic impeller and the smaller and lighter internal rotor motor result in lower rotational inertia.

Bearings

AC fans with sleeve bearings are powered by Class E insulated motors. Fans with ball bearings are equipped with Class B, E, or F insulated motors.

Degree of protection

All ebm-papst fans conform to the requirements of IP 20. IP 54 / IP 65 and special degrees of protection are available on request.

AC voltage

The line of AC fans for Euro voltage according to IEC 60038 (230 V ± 10 %) is also available in 115 V.

Frequencies

AC fans can be operated at frequencies of 50 or 60 Hz. In this case, their technical data changes accordingly.

Capacitor

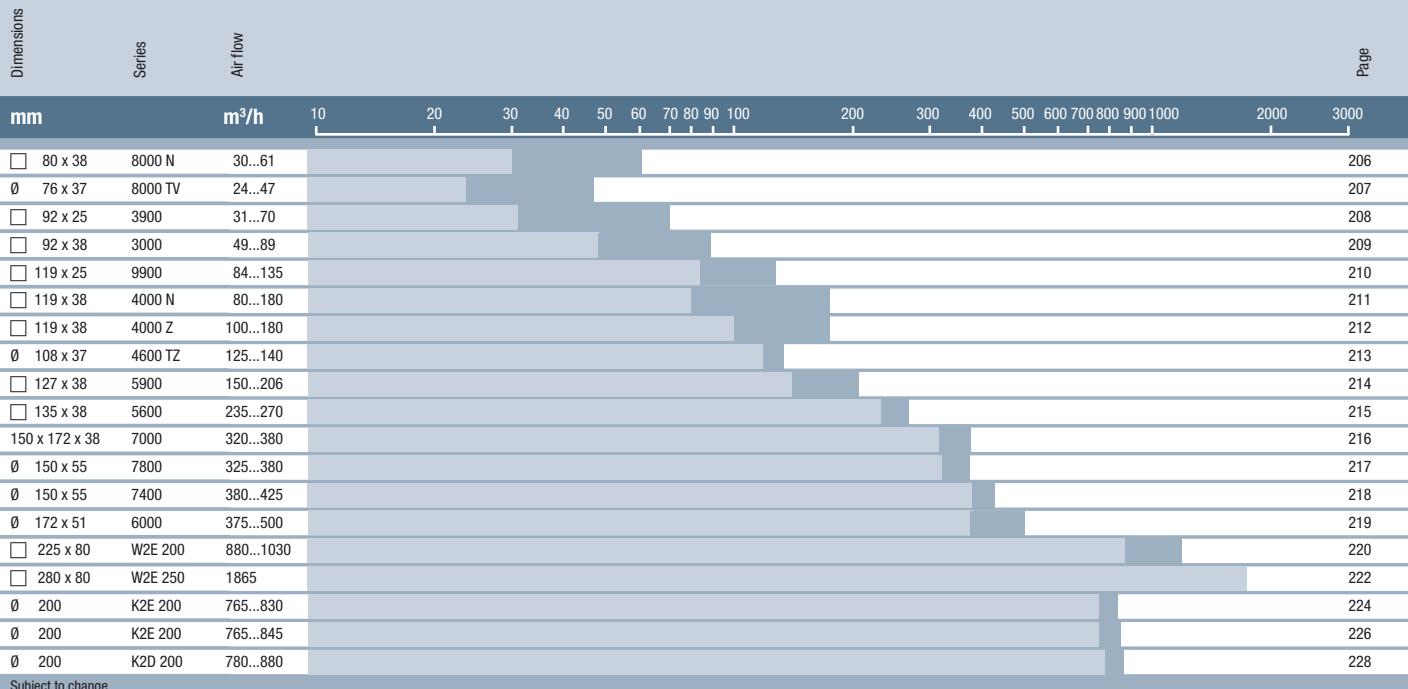
Fans driven by capacitor external motors provide particularly high operating efficiency. Generally, the required motor run capacitor is already integrated in the fan housing.

Overloading

Almost all AC fans are protected against overloading (e. g. due to locked rotor) – either impedance protected (marked "Impedance protected" or "Z. P.") or equipped with a thermal switch (marked "Thermally protected" or "Th. P."). The model designation of these fans ends with "S".

Axial fans for AC operation

Overview of air performance



Overview of technically feasible designs

Dimensions	VDE, UL, CSA	Sintec sleeve bearings/ Ball bearings	Speed signal	Moisture protection IP >= 54 IP 65	Salt spray protection	Page
Axial fans						
mm	Series	OPTIONAL	P.			
□ 80 x 38	8000 N	yes □ / ■	-	● ● ● ● ●	●	206
Ø 76 x 37	8000 TV	yes □ / ■	-	● ● ● ● ●	●	207
□ 92 x 25	3900	yes □ / ■	-	● - - - -	-	208
□ 92 x 38	3000	yes □ / ■	-	● ● ● ● ●	●	209
□ 119 x 25	9900	yes □ / ■	-	● - - - -	-	210
□ 119 x 38	4000 N	yes □ / ■	●	● ● ● ● ●	●	211
□ 119 x 38	4000 Z	yes □ / ■	●	● ● ● ● ●	●	212
Ø 108 x 37	4600 TZ	yes □ / ■	-	● ● ● ● ●	●	213
□ 127 x 38	5900	yes □ / ■	-	● - - - -	-	214
□ 135 x 38	5600	yes ■	-	● ● - - ●	●	215
150 x 172 x 38	7000	yes ■	-	- - - - -	-	216
Ø 150 x 55	7800	yes ■	●	- - - - -	-	217
Ø 150 x 55	7400	yes ■	-	- - - - -	-	218
Ø 172 x 51	6000	yes ■	-	- - - - -	-	219

Subject to change

• available – not yet available □ Sleeve bearings ■ Ball bearings

Max. 61 m³/h

AC axial fans

□ 80 x 38 mm

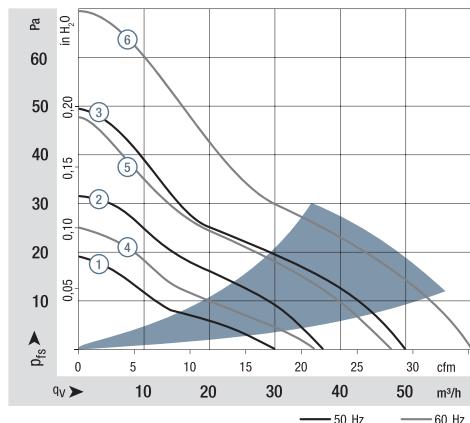


Series 8000 N

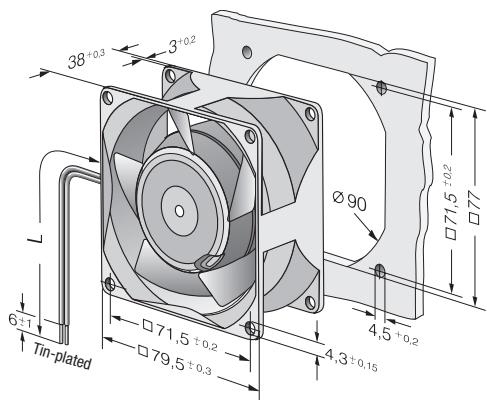
Nominal data		Air flow m ³ /h	Air flow cfm	Nominal voltage VAC	Frequency Hz	Sound pressure level dB(A)	Sound power level Bel(A)	Sinter sleeve bearings Ball bearings	Power consumption Watts	Nominal speed rpm ⁻¹	Temperature range °C	Service life L ₁₀ at 40 °C Hours	at T _{max} Hours	Curve
Type		m ³ /h	cfm	VAC	Hz	dB(A)	Bel(A)	□ / ■	Watts	rpm ⁻¹	°C	Hours	Hours	
8880 N		30	17.7	230	50	18	3.3	□	9.0	1 750	-10...+80	60 000 / 25 000	①	
8850 N		37	21.8	230	50	24	3.9	□	12.5	2 150	-10...+70	52 500 / 25 000	②	
8550 N		50	29.4	230	50	30	4.4	□	12.0	2 700	-10...+70	52 500 / 25 000	③	
8556 N		50	29.4	230	50	31	4.5	■	12.0	2 800	-40...+90	52 500 / 15 000	③	
8830 N		36	21.2	115	60	21	3.7	□	8.0	1 950	-10...+80	62 500 / 25 000	④	
8800 N		47	27.7	115	60	28	4.3	□	11.0	2 500	-10...+70	55 000 / 27 500	⑤	
8500 N		61	35.9	115	60	34	4.8	□	11.0	3 200	-10...+75	55 000 / 25 000	⑥	
8506 N		61	35.9	115	60	35	5.0	■	11.0	3 300	-40...+95	55 000 / 15 000	⑥	

Subject to change

Fan type						Length "L"	Connection wires
	8880 N	8830 N	8800 N	8550 N	8500 N		
8880 N						310 mm long	AWG 18, TR 64
8556 N	8830 N					310 mm long	AWG 22
8850 N		8506 N				440 mm long	AWG 18, TR 64



Air performance measured according to: ISO 5801.
Installation category A, without contact protection.
Noise: Total sound power level L_{WA} ISO 103002
measured on a hemisphere with a radius of 2 m.
Sound pressure level L_{pA} 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
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In the event of deviation from the standard configuration,
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For detailed information see
<http://www.ebmpapst.com/general-conditions>



Max. 47 m³/h

AC axial fans

Ø 76 x 37 mm



Series 8000 TV

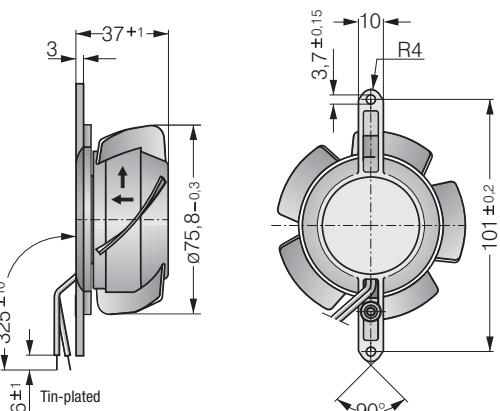
Nominal data		Air flow m ³ /h	Air flow cfm	Nominal voltage	Frequency Hz	Sound pressure level dB(A)	Sinter sleeve bearings / Ball bearings	Power consumption Watts	Nominal speed rpm ⁻¹	Temperature range °C	Hours at T max	Service life L ₁₀ at 40 °C
Type		m ³ /h	cfm	VAC	Hz	dB(A)	□ / ■	Watts	rpm ⁻¹	°C	Hours	Hours
8880 TV		24	14.1	230	50	15	■	9.0	1 650	-10...+80	60 000 / 25 000	
8850 TV		31	18.2	230	50	20	■	12.0	2 100	-10...+70	52 500 / 25 000	
8550 TV		40	23.5	230	50	27	■	12.0	2 650	-10...+70	52 500 / 25 000	
8556 TV		40	23.5	230	50	28	■	12.0	2 750	-40...+90	52 500 / 15 000	
8830 TV		27	15.9	115	60	18	■	8.0	1 850	-10...+80	62 500 / 25 000	
8800 TV		36	21.2	115	60	24	■	11.0	2 450	-10...+70	55 000 / 27 500	
8500 TV		47	27.7	115	60	32	■	11.0	3 150	-10...+75	55 000 / 25 000	
8506 TV		47	27.7	115	60	33	■	11.0	3 250	-40...+95	55 000 / 15 000	

Subject to change

The air flow and sound level of fans without external housing depend on the installation conditions. The stated air flow and noise have been measured with an orifice 76.5 mm Ø at a distance of approx. 17 mm from the mounting bracket.

The air flow capacity of fan series 8000 N is achievable because of the exceptionally favorable installation conditions. The noise in the optimal operating range can be measured for these fans only in a specific application.

Fan type	Length "L"	Connection wires
8880 TV	325 mm long	AWG 18, TR 64
8850 TV	325 mm long	AWG 18, TR 64
8556 TV	325 mm long	AWG 18



Max. 70 m³/h

AC axial fans

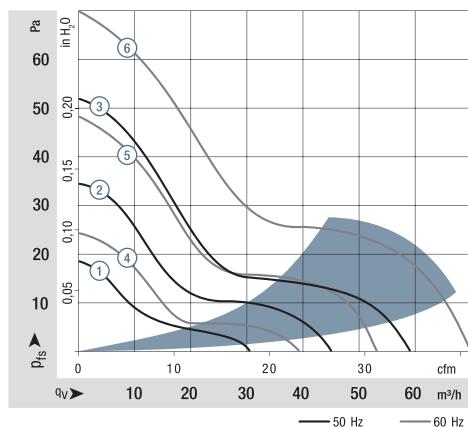
□ 92 x 25 mm



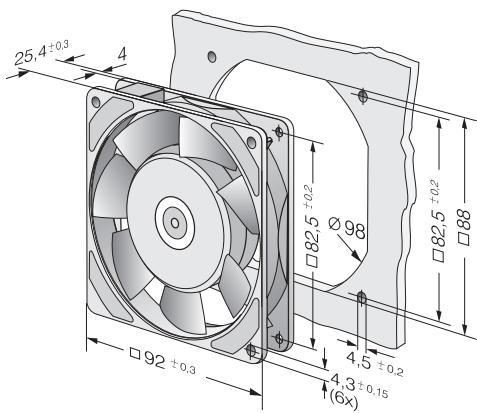
Series 3900

Nominal data		Air flow m ³ /h	Air flow cfm	Nominal voltage VAC	Frequency Hz	Sound pressure level dB(A)	Sound power level Bel(A)	Shaft sleeve bearings Ball bearings	Power consumption Watts	Nominal speed rpm ⁻¹	Temperature range °C	Service life L ₁₀ at 40 °C Hours	at T _{max} Hours	Curve
Type														
3950 L		31	18.2	230	50	24	3.8	■	6.0	1 550	-10...+80	70 000 / 27 500		①
3956 L		31	18.2	230	50	24	3.8	■	6.0	1 550	-40...+80	70 000 / 27 500		①
3950 M		45	26.5	230	50	29	4.2	■	6.0	2 150	-10...+80	70 000 / 27 500		②
3956 M		45	26.5	230	50	29	4.2	■	6.0	2 150	-40...+80	70 000 / 27 500		②
3950		59	34.7	230	50	35	4.7	■	11.0	2 650	-20...+80	55 000 / 20 000		③
3956		59	34.7	230	50	35	4.7	■	11.0	2 650	-40...+80	55 000 / 20 000		③
3900 L		39	23.0	115	60	27	4.0	■	5.0	1 850	-10...+80	70 000 / 27 500		④
3906 L		39	23.0	115	60	27	4.0	■	5.0	1 850	-40...+80	70 000 / 27 500		④
3900 M		53	31.2	115	60	34	4.6	■	5.0	2 600	-10...+80	70 000 / 27 500		⑤
3906 M		53	31.2	115	60	34	4.6	■	5.0	2 600	-40...+80	70 000 / 27 500		⑤
3900		70	41.2	115	60	40	5.1	■	9.0	3 150	-20...+80	60 000 / 22 500		⑥
3906		70	41.2	115	60	40	5.1	■	9.0	3 150	-40...+80	60 000 / 22 500		⑥

Subject to change



Air performance measured according to: ISO 5801.
Installation category A, without contact protection.
Noise: Total sound power level L_{WA} ISO 103002
measured on a hemisphere with a radius of 2 m.
Sound pressure level L_{pA} 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 configura-
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For detailed information see
<http://www.ebmpapst.com/general-conditions>



Max. 89 m³/h

AC axial fans

□ 92 x 38 mm



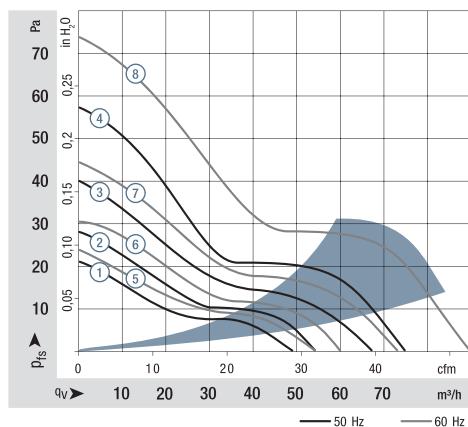
Series 3000

Nominal data

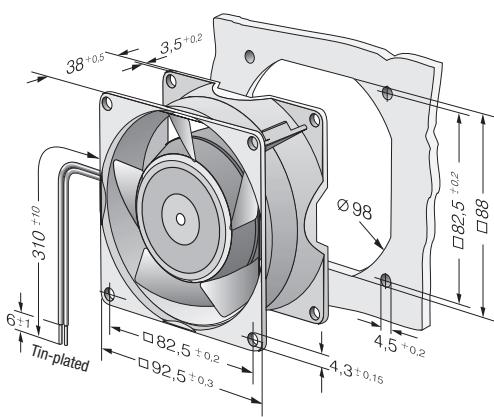
Type	m ³ /h	cfm	VAC	Hz	Frequency	Sound pressure level	Sound power level	Sinter sleeve bearings / Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ at 40 °C	at T _{max}	Curve
3850	49	28.8	230	50	24	3.7	■	9.0	1 750	-10...+75	60 000 / 27 500	①		
3856	54	31.8	230	50	26	3.9	■	9.0	1 950	-40...+90	60 000 / 20 000	②		
3550	67	39.4	230	50	32	4.4	■	8.5	2 300	-10...+80	60 000 / 25 000	③		
3556	67	39.4	230	50	33	4.5	■	8.5	2 400	-40...+90	60 000 / 20 000	③		
3650	75	44.1	230	50	36	4.8	■	12.0	2 650	-10...+55	52 500 / 37 500	④		
3656	75	44.1	230	50	37	4.9	■	12.0	2 700	-40...+75	52 500 / 22 500	④		
3800	54	31.8	115	60	26	3.9	■	8.0	1 900	-10...+80	62 500 / 25 000	⑤		
3806	60	35.3	115	60	29	4.2	■	8.0	2 150	-40...+95	62 500 / 17 500	⑥		
3500	73	43.0	115	60	35	4.6	■	8.0	2 500	-10...+80	62 500 / 25 000	⑦		
3506	73	43.0	115	60	36	4.7	■	8.0	2 600	-40...+95	62 500 / 17 500	⑦		
3600	89	52.4	115	60	41	5.1	■	11.0	3 100	-10...+65	55 000 / 30 000	⑧		
3606	89	52.4	115	60	42	5.2	■	11.0	3 200	-40...+75	55 000 / 25 000	⑧		

Subject to change

Fan type	Length "L"	Connection wires
With sleeve bearings	310 mm long	AWG 18, TR 64
With ball bearings	310 mm long	AWG 18



Air performance measured according to: ISO 5801.
Installation category A, without contact protection.
Noise: Total sound power level L_{WA} ISO 103002
measured on a hemisphere with a radius of 2 m.
Sound pressure level L_{pA} measured at 1 m distance
from fan axis.
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Max. 135 m³/h

AC axial fans

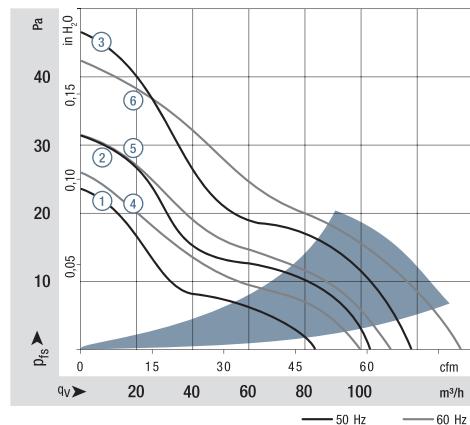
□ 119 x 25 mm



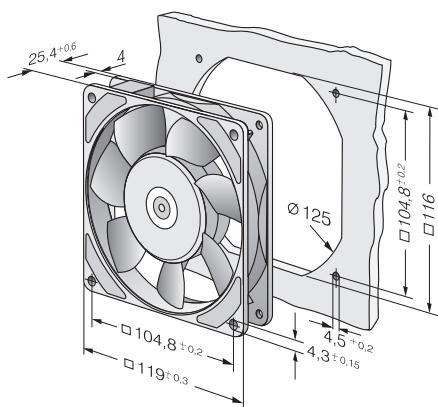
Series 9900

Nominal data		Air flow m ³ /h	Air flow cfm	Nominal voltage VAC	Frequency Hz	Sound pressure level dB(A)	Sound power level Bel(A)	Sinter sleeve bearings Ball bearings	Power consumption Watts	Nominal speed rpm ⁻¹	Temperature range °C	Service life L ₁₀ at 40 °C Hours	at T _m Hours	Curve
Type														
9956 L		84	49.4	230	50	29	4.4	■	9.5	1850	-40...+80	57 500 / 22 500		①
9956 M		104	61.2	230	50	35	4.7	■	10.0	2250	-40...+80	57 500 / 22 500		②
9950		117	68.9	230	50	37	5.0	□	14.0	2450	-20...+70	47 500 / 22 500		③
9956		117	68.9	230	50	37	5.0	■	14.0	2450	-40...+70	47 500 / 22 500		③
9906 L		100	58.9	115	60	34	4.6	■	8.0	2100	-40...+80	62 500 / 25 000		④
9906 M		111	65.3	115	60	37	5.0	■	8.0	2450	-40...+80	62 500 / 25 000		⑤
9900		135	79.5	115	60	42	5.4	□	12.0	2850	-20...+70	52 500 / 25 000		⑥
9906		135	79.5	115	60	42	5.4	■	12.0	2850	-40...+70	52 500 / 25 000		⑥

Subject to change



Air performance measured according to: ISO 5801.
Installation category A, without contact protection.
Noise: Total sound power level L_{WA} ISO 103002
measured on a hemisphere with a radius of 2 m.
Sound pressure level L_{pA} measured at 1 m distance
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Max. 180 m³/h



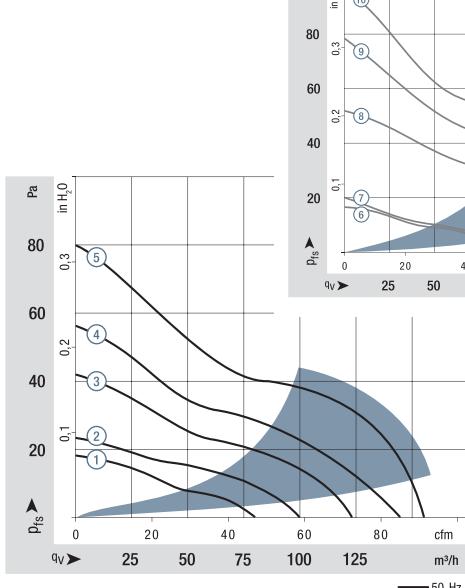
AC axial fans

□ 119 x 38 mm

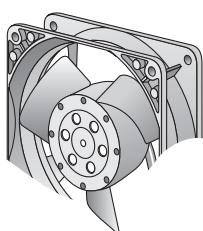
Series 4000 N

Nominal data		Air flow m ³ /h	Air flow cfm	Nominal voltage	Frequency	Sound pressure level dB(A)	Sound power level Bel(A)	■ / ■	Watts	rpm ⁻¹	°C	Hours	Hours	Curve
Type		m ³ /h	cfm	VAC	Hz									
4890 N		80	47.0	230	50	25	4.0	■	11.0	1 550	-10...+70	55 000 / 27 500	①	
4850 N*		100	58.8	230	50	32	4.4	■	10.0	1 800	-10...+70	57 500 / 27 500	②	
4580 N*		123	72.3	230	50	41	5.2	■	18.0	2 350	-10...+55	40 000 / 27 500	③	
4550 N*		145	85.2	230	50	44	5.4	■	16.5	2 550	-10...+55	42 500 / 30 000	④	
4650 N		160	94.1	230	50	46	5.4	■	19.0	2 650	-10...+55	37 500 / 27 500	⑤	
4656 N		160	94.1	230	50	47	5.5	■	19.0	2 650	-40...+85	37 500 / 15 000	⑤	
4840 N		85	50.0	115	60	26	4.1	■	10.0	1 650	-10...+75	57 500 / 25 000	⑥	
4800 N*		97	57.0	115	60	32	4.3	■	9.0	1 750	-10...+75	60 000 / 27 500	⑦	
4530 N*		151	88.8	115	60	45	5.4	■	16.0	2 700	-10...+65	42 500 / 25 000	⑧	
4500 N*		169	100	115	60	48	5.7	■	15.0	3 000	-10...+65	47 500 / 25 000	⑨	
4600 N		180	106	115	60	50	5.7	■	18.0	3 100	-10...+60	40 000 / 25 000	⑩	
4606 N		180	106	115	60	51	5.8	■	18.0	3 100	-40...+90	40 000 / 15 000	⑩	

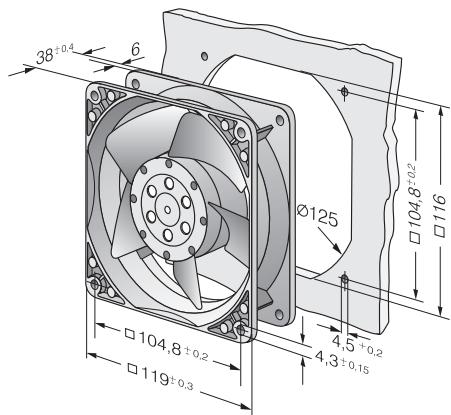
Subject to change



Air performance measured according to: ISO 5801.
Installation category A, without contact protection.
Noise: Total sound power level L_{WA} ISO 103002
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Sound pressure level L_p measured at 1 m distance
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* Fan with 3 blades.



Max. 180 m³/h

AC axial fans

□ 119 x 38 mm

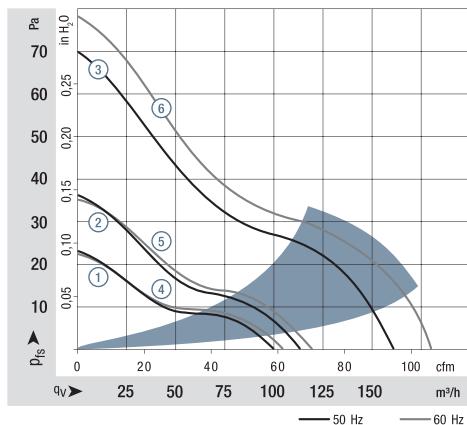


- **Material:** Housing: Die-cast aluminum
Impeller: painted sheet steel
- **Direction of air flow:** Exhaust over struts
- **Direction of rotation:** Clockwise,
looking towards rotor
- **Connection:** Via 2 flat plugs 2.8 x 0.5 mm
grounding lug for M4 x 8
- **Weight:** 540 g
- **Note:**
Please note our new ACmaxx series.
With identical mounting dimensions and voltages, this
series achieves greater energy efficiency.
See page 192.

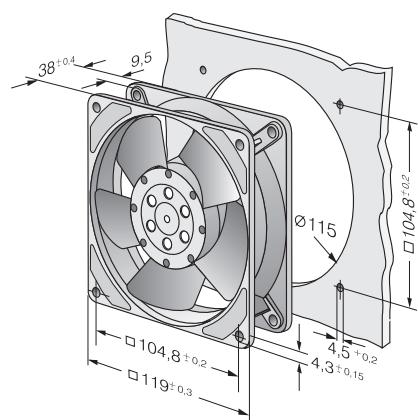
Series 4000 Z

Nominal data		Air flow	Air flow	Nominal voltage	Frequency	Sound pressure level	Sound power level	Sintec sleeve bearings Ball bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ at 40 °C	at T _{max}	Curve
Type		m ³ /h	cfm	VAC	Hz	dB(A)	Bel(A)	□ / ■	Watts	rpm ⁻¹	°C	Hours	Hours	
4850 Z		100	58.8	230	50	26	4.0	□	13.0	1 700	-10...+65	50 000 / 27 500		①
4856 Z		100	58.8	230	50	26	4.0	■	13.0	1 700	-40...+75	50 000 / 20 000		①
4580 Z		115	67.6	230	50	30	4.3	□	13.0	1 900	-10...+65	50 000 / 27 500		②
4586 Z		115	67.6	230	50	30	4.3	■	13.0	1 900	-40...+75	50 000 / 20 000		②
4650 Z		160	94.1	230	50	40	5.3	□	19.0	2 650	-10...+50	37 500 / 30 000		③
4656 Z		160	94.1	230	50	40	5.3	■	19.0	2 650	-40...+75	37 500 / 17 500		③
4800 Z		105	61.7	115	60	28	4.1	□	12.0	1 800	-10...+70	52 500 / 25 000		④
4806 Z		105	61.7	115	60	28	4.1	■	12.0	1 800	-40...+75	52 500 / 17 500		④
4530 Z		120	70.5	115	60	32	4.4	□	12.0	2 000	-10...+70	52 500 / 25 000		⑤
4536 Z		120	70.5	115	60	32	4.4	■	12.0	2 000	-40...+75	52 500 / 17 500		⑤
4600 Z		180	106	115	60	45	5.6	□	18.0	3 100	-10...+60	40 000 / 25 000		⑥
4606 Z		180	106	115	60	45	5.6	■	18.0	3 100	-40...+85	40 000 / 15 000		⑥

Subject to change



Air performance measured according to: ISO 5801.
Installation category A, without contact protection.
Noise: Total sound power level L_{WA} ISO 103002
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Sound pressure level L_{pA} measured at 1 m distance
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Max. 140 m³/h

AC axial fans

Ø 108 x 37 mm



Series 4600 TZ

Nominal data		Air flow m ³ /h	Air flow cfm	Nominal voltage VAC	Frequency Hz	Sound pressure level dB(A)	Sinter sleeve bearings Ball bearings	Power consumption Watts	Nominal speed rpm ⁻¹	Temperature range °C	Hours at T max	Service life L ₁₀ at 40 °C
Type		m ³ /h	cfm	VAC	Hz	dB(A)	□ / ■	Watts	rpm ⁻¹	°C	Hours	Hours
4650 TZ		125	73.6	230	50	42	□	19.0	2 600	-10...+50	37 500 / 30 000	
4656 TZ		125	73.6	230	50	42	■	19.0	2 600	-40...+65	37 500 / 20 000	
4600 TZ		140	82.4	115	60	45	□	18.0	2 950	-10...+50	40 000 / 32 500	
4606 TZ		140	82.4	115	60	45	■	18.0	2 950	-40...+75	40 000 / 17 500	

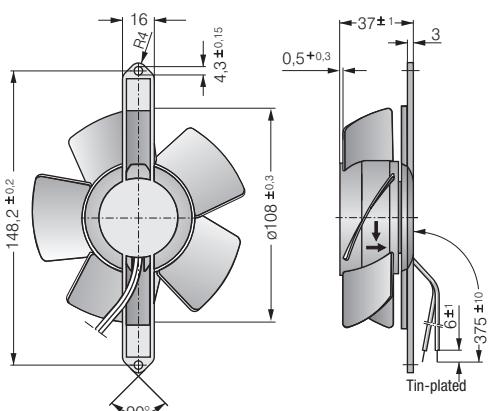
Subject to change

The air flow and sound level of fans without external housing depends on the installation conditions.

The stated air flow and noise have been measured with an orifice 109 mm Ø at a distance of approx. 17 mm from the mounting bracket.

The air flow capacity of fan series 4000 Z is achievable because of the exceptionally favorable installation conditions. The noise in the optimal operating range can be measured for these fans only in a specific application.

Fan type	Connection wires
4650 TZ	4600 TZ
4656 TZ	AWG 22, TR 32
4606 TZ	AWG 18



Max. 206 m³/h

AC axial fans

□ 127 x 38 mm



- **Material:** Housing: Die-cast aluminum
Impeller: GRP¹⁾ (PA)
- **Direction of air flow:** Exhaust over struts
- **Direction of rotation:** Counterclockwise, looking towards rotor
- **Connection:** Via 2 flat plugs 2.8 x 0.8 mm grounding lug for M4 x 6
- **Weight:** 570 g

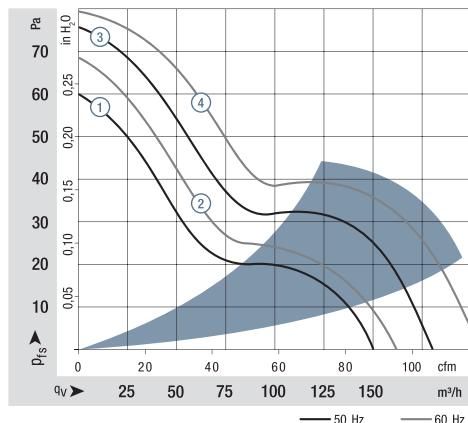
- **Possible special versions:**
(See page 12)
 - Moisture protection

1) Fiberglass-reinforced plastic

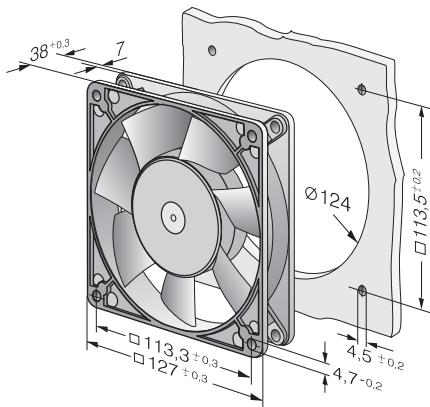
Series 5900

Nominal data		Air flow	Air flow	Nominal voltage	Frequency	Sound pressure level	Sound power level	Sintec sleeve bearings Ball bearing	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ at 40 °C	at T _m max	Curve
Type		m ³ /h	cfm	VAC	Hz	dB(A)	Bel(A)	□ / ■	Watts	rpm ⁻¹	°C	Hours	Hours	
5988		150	88.2	230	50	37	4.9	■	13.0	2 250	-30...+55	35 000 / 20 000	①	
5950		180	106	230	50	43	5.4	□	18.0	2 700	-20...+50	40 000 / 32 500	③	
5958		180	106	230	50	44	5.5	■	18.0	2 750	-30...+60	40 000 / 25 000	③	
5938		162	95.2	115	60	40	4.9	■	12.0	2 500	-30...+55	35 000 / 20 000	②	
5900		206	121	115	60	46	5.7	□	17.0	3 050	-20...+55	42 500 / 30 000	④	
5908		206	121	115	60	47	5.8	■	17.0	3 100	-30...+75	42 500 / 20 000	④	

Subject to change



Air performance measured according to: ISO 5801.
Installation category A, without contact protection.
Noise: Total sound power level L_{WA} ISO 103002
measured on a hemisphere with a radius of 2 m.
Sound pressure level L_{pA} 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. 270 m³/h

AC axial fans

□ 135 x 38 mm



Series 5600

Nominal data

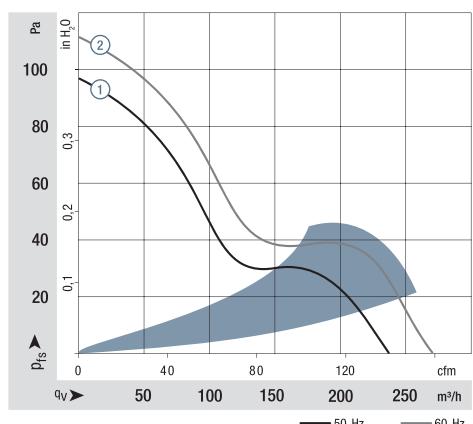
Type	m ³ /h	cfm	VAC	Hz	dB(A)	Bel(A)	□ / ■	Watts	rpm ⁻¹	°C	Hours	Hours	Curve
5656 S	235	138	230	50	46	5.9	■	30.0	2 700	-35...+70	45 000 / 20 000	①	
5606 S	270	159	115	60	50	6.2	■	26.0	3 100	-35...+80	47 500 / 20 000	②	

Subject to change

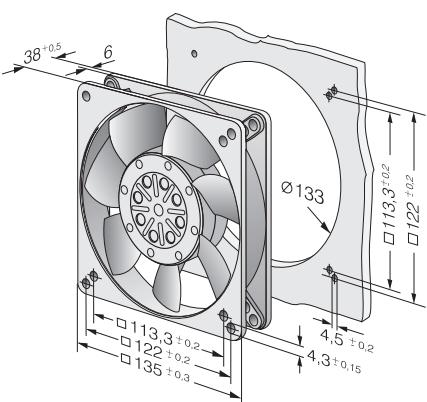
- **Material:** Housing: Die-cast aluminum
Impeller: painted sheet steel
- **Direction of air flow:** Exhaust over struts
- **Direction of rotation:** Counterclockwise, looking towards rotor
- **Connection:** Via 2 flat plugs 2.8 x 0.5 mm grounding lug for M4 x 8
- **Weight:** 800 g

Possible special versions:

- (See page 12)
- Moisture protection
 - Salt spray protection
 - Degree of protection: IP 54



Air performance measured according to: ISO 5801.
Installation category A, without contact protection.
Noise: Total sound power level L_{WA} ISO 103002
measured on a hemisphere with a radius of 2 m.
Sound pressure level L_{pA} 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. 380 m³/h

AC axial fans

150 x 172 x 38 mm

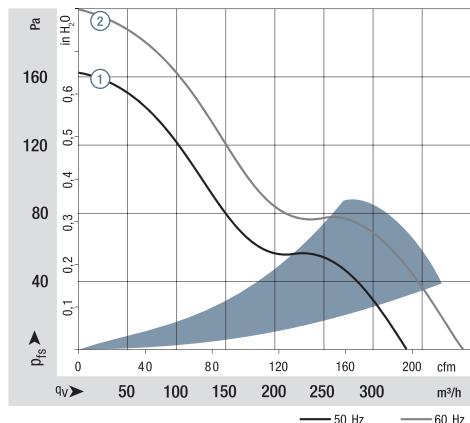


- **Material:** Housing: Die-cast aluminum
Impeller: painted sheet steel
- **Direction of air flow:** Exhaust over struts
- **Direction of rotation:** Counterclockwise, looking towards rotor
- **Connection:** Via 2 flat plugs 2.8 x 0.5 mm grounding lug for M4 x 8
- **Weight:** 900 g
- **Note:**
Please note our new ACmaxx series.
With identical mounting dimensions and voltages, this series achieves greater energy efficiency.
See pages 194, 196, and 198.

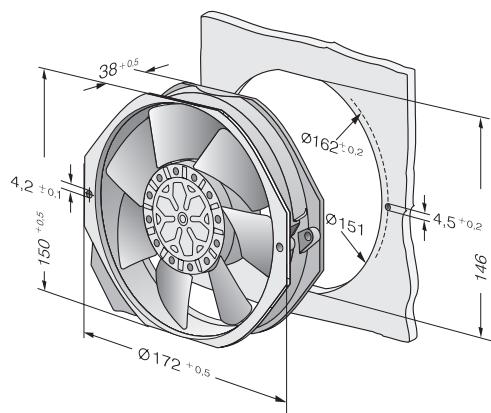
Series 7000

Nominal data		Air flow	Air flow	Nominal voltage	Frequency	Sound pressure level	Sound power level	Sintec sleeve bearings Ball ball bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ at 40 °C	at T _{max}	Curve
Type		m ³ /h	cfm	VAC	Hz	dB(A)	Bel(A)	□ / ■	Watts	rpm ⁻¹	°C	Hours	Hours	
7056 ES		320	188	230	50	51	6.4	■	27.0	2 800	-25...+55	60 000 / 32 000		①
7006 ES		380	224	115	60	56	6.8	■	28.0	3 350	-25...+65	55 000 / 18 000		②

Subject to change



Air performance measured according to: ISO 5801.
Installation category A, without contact protection.
Noise: Total sound power level L_{WA} ISO 103002
measured on a hemisphere with a radius of 2 m.
Sound pressure level L_{pA} 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. 380 m³/h

AC axial fans

Ø 150 x 55 mm

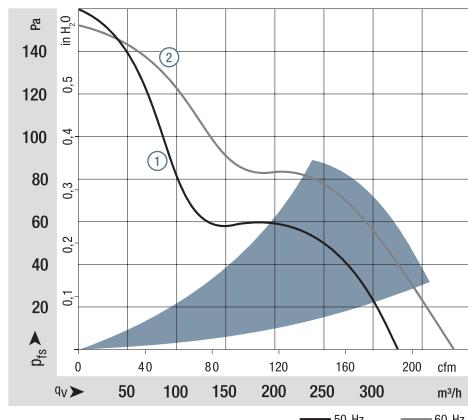


Series 7800

Nominal data

Type	m ³ /h	cfm	VAC	Hz	dB(A)	Bel(A)	□ / ■	Watts	rpm ⁻¹	°C	Hours	Hours	Curve
7855 ES	325	191	230	50	49	6.0	■	45.0	2 800	-25...+50	60 000 / 47 500	①	
7856 ES	325	191	230	50	49	6.0	■	45.0	2 800	-25...+70	60 000 / 30 000	①	
7805 ES	380	224	115	60	53	6.4	■	38.0	3 250	-25...+70	60 000 / 47 500	②	
7806 ES	380	224	115	60	53	6.4	■	38.0	3 250	-25...+90	60 000 / 15 000	②	

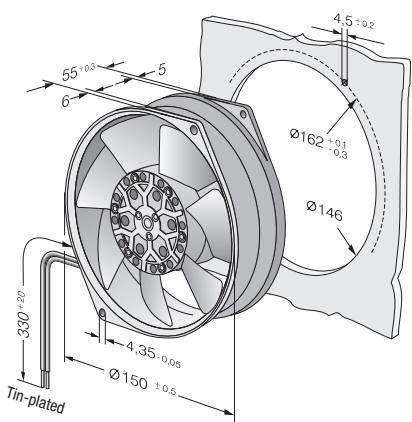
Subject to change



- **Material:** Housing: Die-cast aluminum
Impeller: painted sheet steel
- **Direction of air flow:** Exhaust over struts
- **Direction of rotation:** Counterclockwise, looking towards rotor
- **Connection:** Via 2 single wires
wire ends with wire end splices
grounding lug for M4 x 8
- **Weight:** 1.1 kg
- **Note:** Please note our new ACmaxx series.
With identical mounting dimensions and voltages, this series achieves greater energy efficiency. See page 194.

Sound pressure level	Sound power level	Sinter sleeve bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ at 40 °C	at T _{max}
49	6.0	■	45.0	2 800	-25...+50	60 000 / 47 500	①
49	6.0	■	45.0	2 800	-25...+70	60 000 / 30 000	①
53	6.4	■	38.0	3 250	-25...+70	60 000 / 47 500	②
53	6.4	■	38.0	3 250	-25...+90	60 000 / 15 000	②

Air performance measured according to: ISO 5801.
Installation category A, without contact protection.
Noise: Total sound power level L_{WA} ISO 103002
measured on a hemisphere with a radius of 2 m.
Sound pressure level L_{pA} 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. 425 m³/h

AC axial fans

Ø 150 x 55 mm

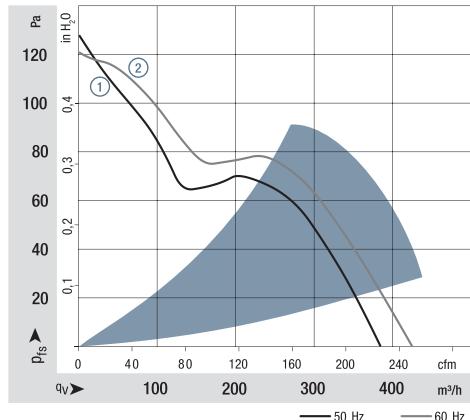


- **Material:** Housing: Die-cast aluminum
Impeller: painted sheet steel
- **Direction of air flow:** Intake over struts
- **Direction of rotation:** Counterclockwise, looking towards rotor
- **Connection:** Via 2 single wires
wire ends with wire end splices
grounding lug for M4 x 8
- **Weight:** 1.1 kg
- **Note:**
Please note our new ACmaxx series.
With identical mounting dimensions and voltages,
this series achieves greater energy efficiency.
See page 194.

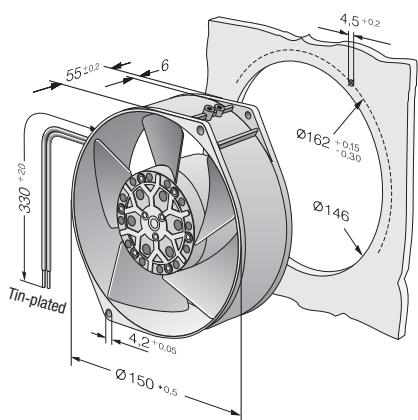
Series 7400

Nominal data		Air flow	Air flow	Nominal voltage	Frequency	Sound pressure level	Sound power level	Sintec sleeve bearings Ball ball bearings	Power consumption	Nominal speed	Temperature range	Service life L ₁₀ at 40 °C	at T _{max}	Curve
Type		m ³ /h	cfm	VAC	Hz	dB(A)	Bel(A)	□ / ■	Watts	rpm ⁻¹	°C	Hours	Hours	
7450 ES		380	224	230	50	60	6.8	■	47.0	2 700	-25...+50	63 000 / 50 000		①
7400 ES		425	250	115	60	62	6.9	■	46.0	3 050	-25...+70	50 000 / 24 000		②

Subject to change



Air performance measured according to: ISO 5801.
Installation category A, without contact protection.
Noise: Total sound power level L_{WA} ISO 103002
measured on a hemisphere with a radius of 2 m.
Sound pressure level L_{pA} 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 configura-
tion, the parameters must be checked after installation!
For detailed information see
<http://www.ebmpapst.com/general-conditions>



Max. 500 m³/h

AC axial fans

Ø 172 x 51 mm



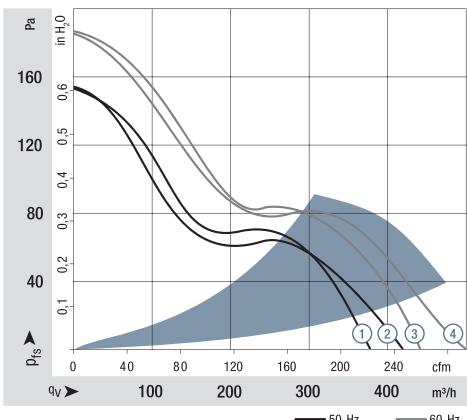
Series 6000

Nominal data

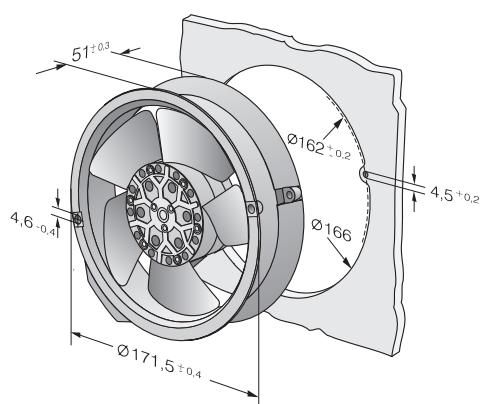
Type	m ³ /h	cfm	VAC	Hz	dB(A)	Bel(A)	□ / ■	Watts	rpm ⁻¹	°C	Hours	Hours	Curve
6058 ES	375	221	230	50	55	5.9	■	24.0	2 800	-25...+70	62 000 / 31 000	①	
6078 ES	420	247	230	50	54	6.3	■	26.0	2 800	-25...+60	62 000 / 39 000	②	
6008 ES	440	259	115	60	60	6.4	■	26.0	3 300	-25...+70	57 000 / 28 000	③	
6028 ES	500	284	115	60	58	6.7	■	29.0	3 300	-25...+75	57 000 / 22 000	④	

Subject to change

- **Material:** Housing: Die-cast aluminum
Impeller: painted sheet steel
- **Direction of air flow:** Exhaust over struts
- **Direction of rotation:** Counterclockwise, looking towards rotor
- **Connection:** Via 2 flat plugs 2.8 x 0.5 mm grounding lug for M4 x 6
- **Weight:** 1.0 kg
- **Note:**
Please note our new ACmaxx series.
With identical mounting dimensions and voltages, this series achieves greater energy efficiency.
See pages 196 and 198.



Air performance measured according to: ISO 5801.
Installation category A, without contact protection.
Noise: Total sound power level L_{WA} ISO 103002 measured on a hemisphere with a radius of 2 m.
Sound pressure level L_{pA} 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. 1000 m³/h

AC axial fans

□ 225 x 80 mm



- Material:

Housing: Die-cast-aluminum

Impeller: Sheet steel, painted black

Rotor: Painted black

7

"V"

Counterclockwise, looking towards rotor

Degree of protection: IP 44, depending on installation and position

"B"

Installation position: Any

Condensation drainage holes: None

Mode of operation: Continuous operation (S1)

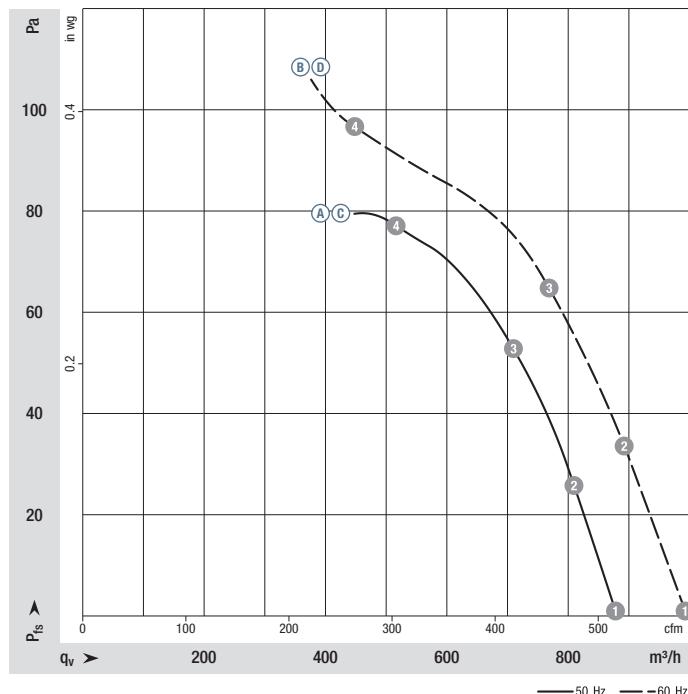
Bearings: Maintenance-free ball bearings

Nominal data

Type	Motor	Curve	Nominal voltage	Frequency	Air flow	Nominal speed	Power consumption	Input current	Capacitor	Sound power level	Max. back-pressure	Admissible amb. temp.	Weight	Connection diagram
W2E 200-HK86-01	M2E 068-BF	(A) (B)	1~115	50	880	2550	64	0.58	5.0/220	—	80	-25...+60	2.0	P. 263 / A1)
W2E 200-HK38-01	M2E 068-BF	(C) (D)	1~230	50	880	2550	64	0.29	1.5/450	—	80	-25...+60	2.1	P. 263 / A1)
(D)			1~230	60	1000	2800	80	0.35	1.5/450	—	95	-25...+65	2.1	

Subject to change

Curves:

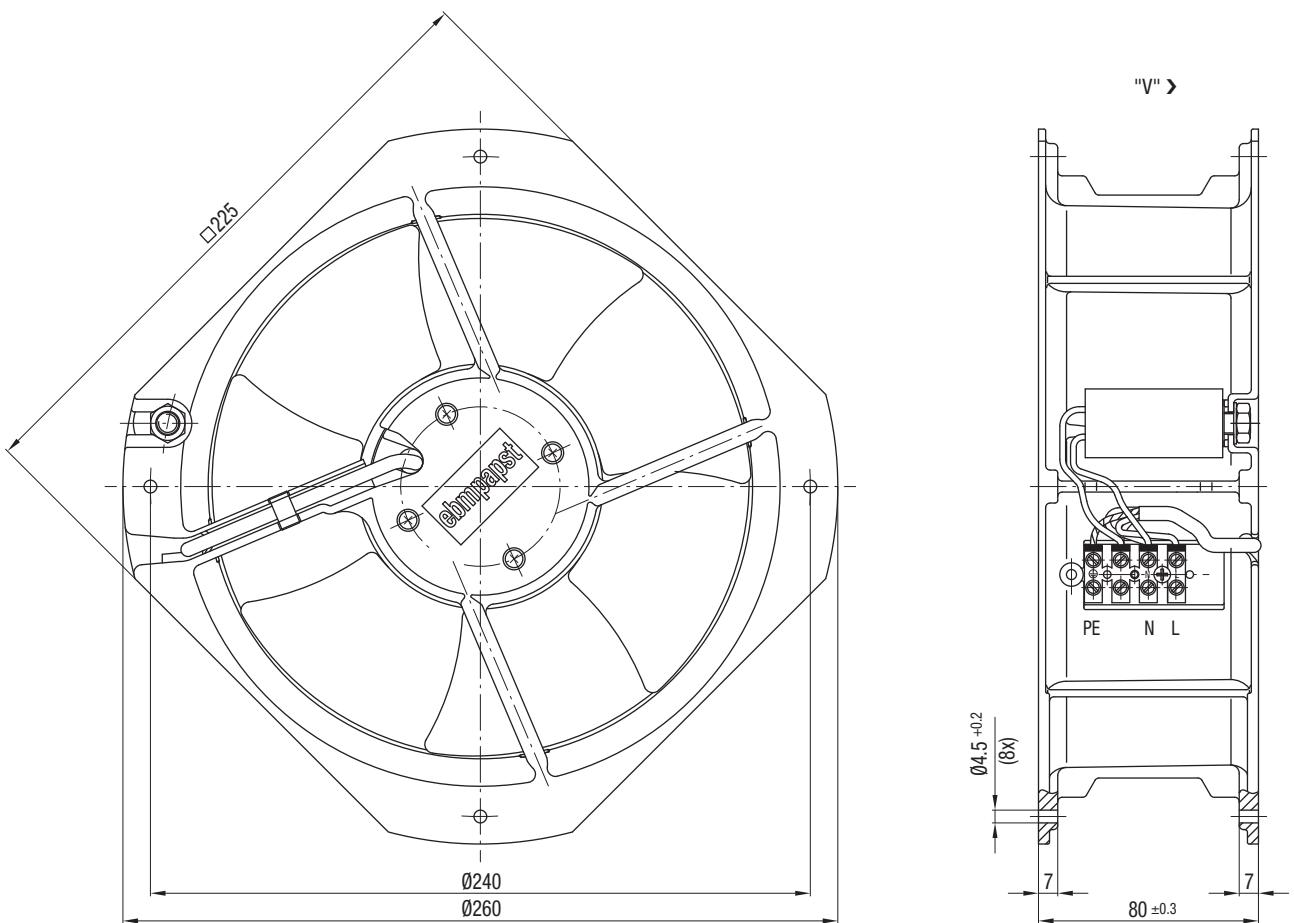


n
rpm⁻¹ P_{ed}
W I
A L_{WA}
dB(A)

(A) 1	2640	56	0.56	—
(A) 2	2595	58	0.57	—
(A) 3	2550	61	0.58	—
(A) 4	2480	64	0.60	—
(B) 1	2980	67	0.58	—
(B) 2	2880	71	0.62	—
(B) 3	2790	75	0.65	—
(B) 4	2660	80	0.69	—
(C) 1	2630	60	0.30	—
(C) 2	2585	64	0.31	—
(C) 3	2530	66	0.31	—
(C) 4	2480	69	0.32	—
(D) 1	3000	70	0.31	—
(D) 2	2935	73	0.32	—
(D) 3	2850	77	0.34	—
(D) 4	2705	83	0.36	—

Air performance measured according to: ISO 5801, Installation category A. For detailed information on the measurement setup, contact ebm-papst. Suction-side noise levels: L_{WA} according to ISO 13347. L_{WA} 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.ebm-papst.com/general-conditions>

- **Motor protection:** Thermal overload protector (TOP) connected internally
- **Touch current:** < 0.75 mA acc. to IEC 60990 (test circuit, illustration 4)
- **Cable exit:** Variable
- **Electrical hookup:** Via terminal strips, capacitor connected
- **Protection class:** I (with customer connection to grounding conductor)
- **Conformity with standard(s):** EN 60335-1, CE
- **Approvals:**
 - ^A ^B EAC, UL 507, VDE, CSA C22.2 no. 113, CCC
 - ^C ^D EAC, UL 2111, VDE, CSA C22.2 no. 113, CCC



Max. 1880 m³/h

AC axial fans

□ 225 x 80 mm



- Material:

Housing: Die-cast-aluminum

Impeller: PP plastic

Rotor: Painted black

7

"V"

Counterclockwise, looking towards rotor

IP 44, depending on installation and position

"F"

Any

Condensation drainage holes: None

Mode of operation: Continuous operation (S1)

Maintenance-free ball bearings

- Bearings:

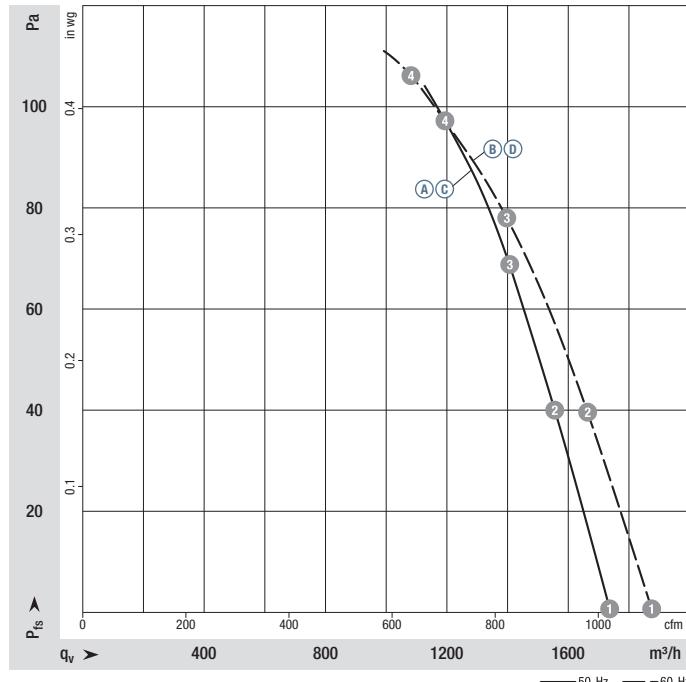
Nominal data

Type	Motor	Curve	Nominal voltage	Frequency	Air flow	Nominal speed	Max. power consumption (1)	Max. input current (1)	Capacitor	Sound power level	Max. back-pressure	Admissible amb. temp.	Weight	Connection diagram
W2E 250-HP08-01	M2E 068-CF	(A) (B)	1~115 VAC 1~115 VAC	50 Hz 60 Hz	1740 m ³ /h 1880 m ³ /h	2375 rpm ⁻¹ 2350 rpm ⁻¹	125 W 165 W	1.10 A 1.45 A	12/320	70 dB(A)	100 Pa	-25...+50 °C	2.7 kg	P. 263 / A3)
W2E 250-HP06-01	M2E 068-CF	(C) (D)	1~230 VAC 1~230 VAC	50 Hz 60 Hz	1695 m ³ /h 1840 m ³ /h	2320 rpm ⁻¹ 2300 rpm ⁻¹	125 W 160 W	0.55 A 0.71 A	3.0/400	70 dB(A)	100 Pa	-25...+60 °C	2.7 kg	P. 263 / A3)

Subject to change

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

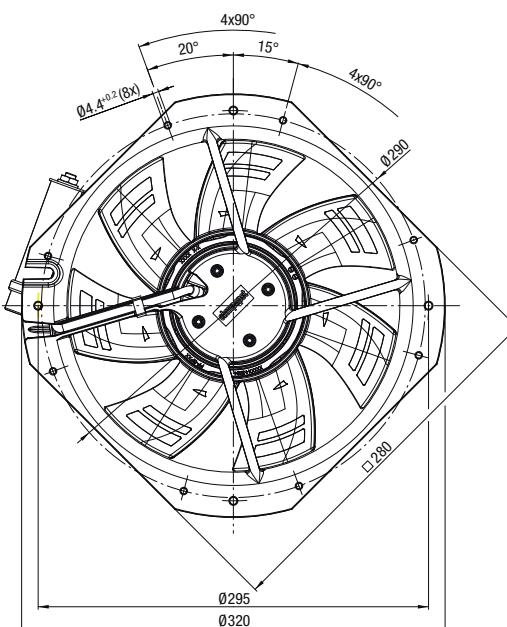
Curves:



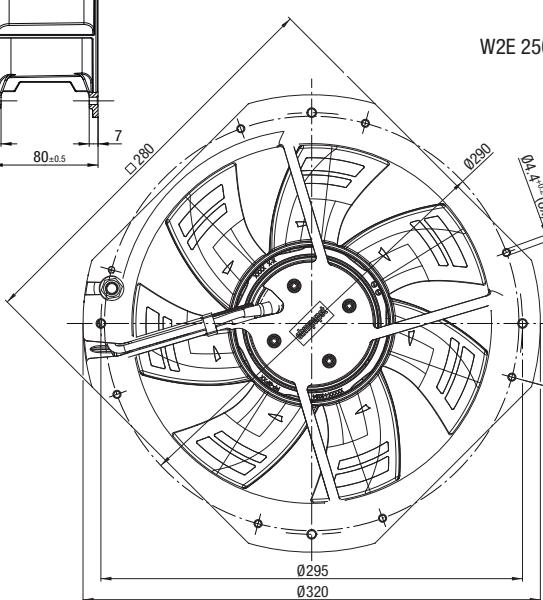
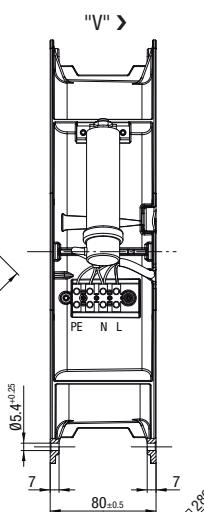
	n rpm ⁻¹	P _{ed} W	I A	L _{wA} dB(A)
(A) 1	2580	108	0.96	70
(A) 2	2510	115	1.02	69
(A) 3	2455	121	1.06	68
(A) 4	2375	125	1.10	68
(B) 1	2785	149	1.30	72
(B) 2	2655	154	1.35	70
(B) 3	2490	162	1.41	70
(B) 4	2350	165	1.45	70
(C) 1	2550	101	0.44	70
(C) 2	2480	109	0.47	69
(C) 3	2410	115	0.50	68
(C) 4	2320	125	0.55	68
(D) 1	2750	134	0.59	71
(D) 2	2600	145	0.63	70
(D) 3	2420	152	0.66	69
(D) 4	2300	160	0.71	70

Air performance measured according to: ISO 5801, Installation category A. For detailed information on the measurement setup, contact ebm-papst. Suction-side noise levels: L_{wA} according to ISO 13347. L_{pA} 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.ebm-papst.com/general-conditions>

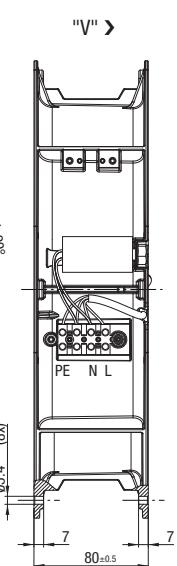
- **Motor protection:** Thermal overload protector (TOP) connected internally
- **Touch current:** < 0.75 mA acc. to IEC 60990 (test circuit, illustration 4)
- **Cable exit:** Variable
- **Electrical hookup:** Via terminal strips, capacitor connected
- **Protection class:** I (with customer connection to grounding conductor)
- **Conformity with standard(s):** EN 60335-1, CE
- **Approvals:**
 - (A) (B) UL 2111, CSA C22.2 no. 77
 - (C) (D) EAC, UL 2111, CSA C22.2 no. 77



W2E 250-HP08-01



W2E 250-HP06-01



Max. 830 m³/h

AC diagonal module

Ø 200 mm

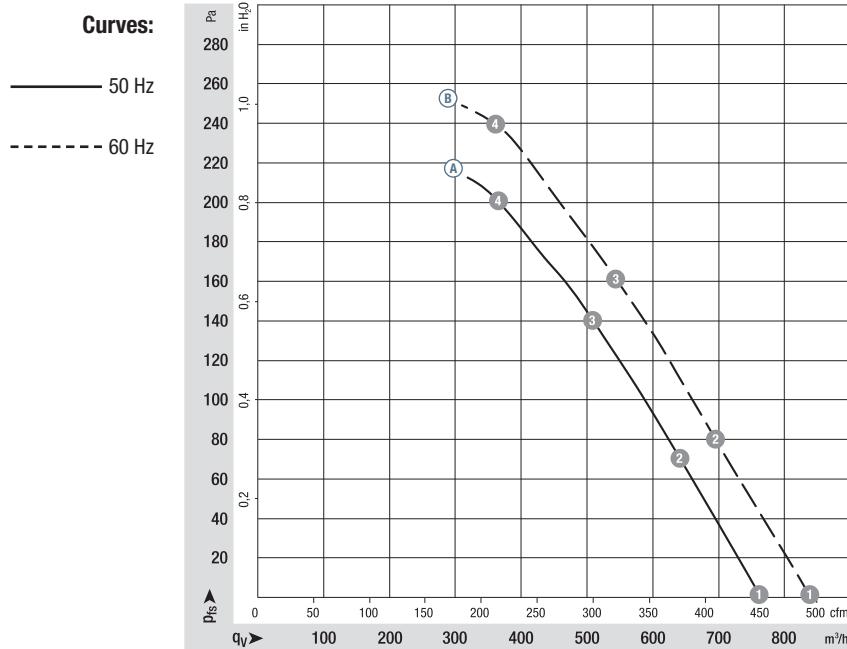


Nominal data

Type	Motor	VAC	Hz	Air flow	Nominal speed	Power consumption	Input current	Capacitor	Sound power level	Max. back-pressure	Admissible amb. temp.	Weight	Connection diagram
K2E 200-AA12 -01	M2E 068-CF	(A) 1~ 115 (B) 1~ 115	50 60	760 830	2650 2910	64 88	0.56 0.77	6.0/250 6.0/250	70 72	200 240	-25..+65 -25..+65	2.1 2.1	P. 263 / A1)

Subject to change

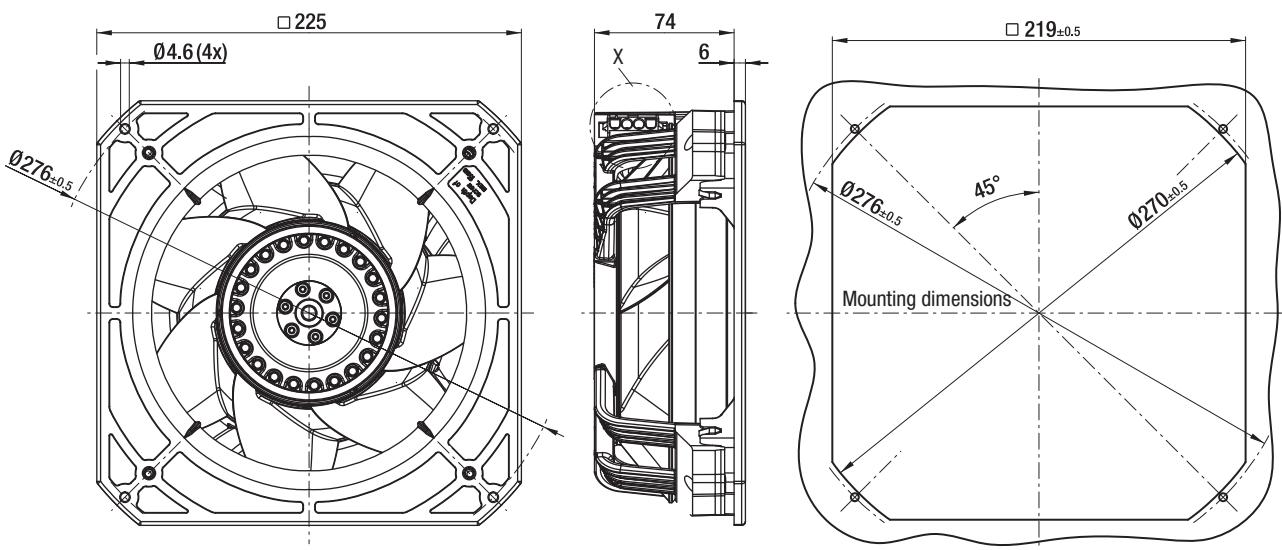
Curves:



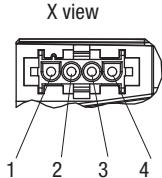
n rpm⁻¹	P _{ed} W	I A	L _{WA} dB(A)
(A) ① 2650	64	0.56	70
(A) ② 2610	67	0.59	68
(A) ③ 2580	70	0.61	67
(A) ④ 2590	69	0.61	69
(B) ① 2910	88	0.77	72
(B) ② 2815	93	0.81	69
(B) ③ 2755	96	0.84	69
(B) ④ 2780	95	0.83	71

Air performance measured according to ISO 5801. Installation category A, without contact protection. Suction-side noise levels: L_{WA} according to ISO 13347, L_{pA} 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.ebm-papst.com/general-conditions>

- **Motor protection:** Thermal overload protector (TOP) connected internally
- **Touch current:** < 0.75 mA acc. to IEC 60990 (test circuit, illustration 4)
- **Cable exit:** Lateral
- **Electrical hookup:** Via connector
- **Protection class:** I (with customer connection to grounding conductor)
- **Conformity with standard(s):** EN 60335-1, CE
- **Approvals:** UL 2111, CSA C22.2 no. 77



Coded plug system
Universal Mate-N-Lok
Connector shell: AMP 350 780-1
3x plug pins: AMP 926 885-1
Mating connector (not included in scope of delivery):
Connector shell: AMP 350 779-4
3x sockets: AMP 926 884-1



1 = not used
2 = N + capacitor
3 = L
4 = PE

Max. 845 m³/h

AC diagonal module

Ø 200 mm



- Material:

Housing: PA plastic

Support bracket: PA plastic

Impeller: PA plastic

Rotor: Painted black

7

"V", single inlet

Clockwise, looking towards rotor

IP 44, depending on installation and position

"F"

Any

None

Continuous operation (S1)

Maintenance-free ball bearings

- Number of blades:

- Direction of air flow:

- Direction of rotation:

- Degree of protection:

- Insulation class:

- Installation position:

- Condensation drainage holes:

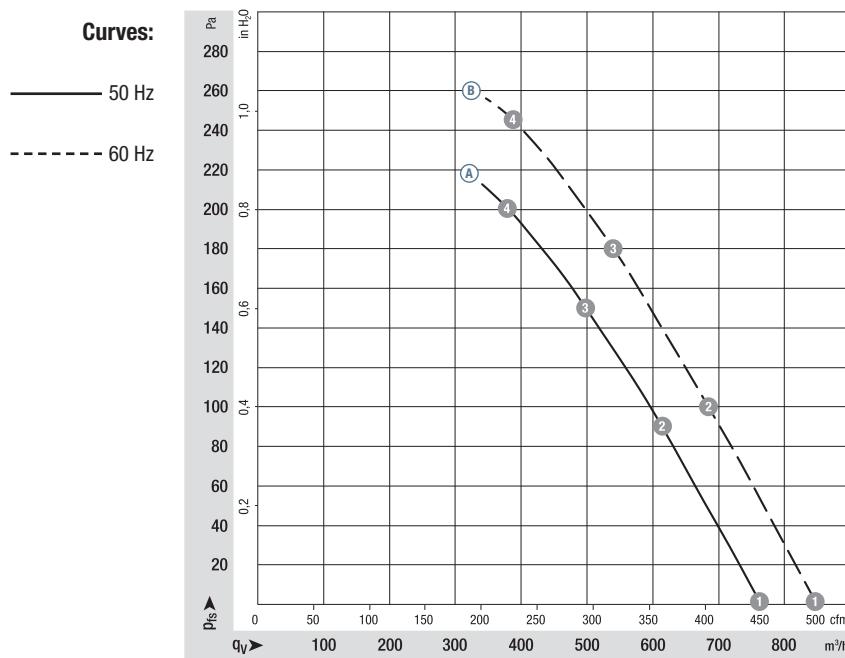
- Mode of operation:

- Bearings:

Nominal data

Type	Motor	Curve	Nominal voltage	Frequency	Air flow	Nominal speed	Power consumption	Input current	Capacitor	Sound power level	Max. back-pressure	Admissible amb. temp.	Weight	Connection diagram
K2E 200-AA52 -02	M2E 068-CF	(A) 1~ 230 (B) 1~ 230	50 Hz 60 Hz	VAC Hz	m ³ /h m ³ /min	rpm ⁻¹	W	A	μF/VDB	dB(A)	Pa	°C	kg	p. 263 / A1)

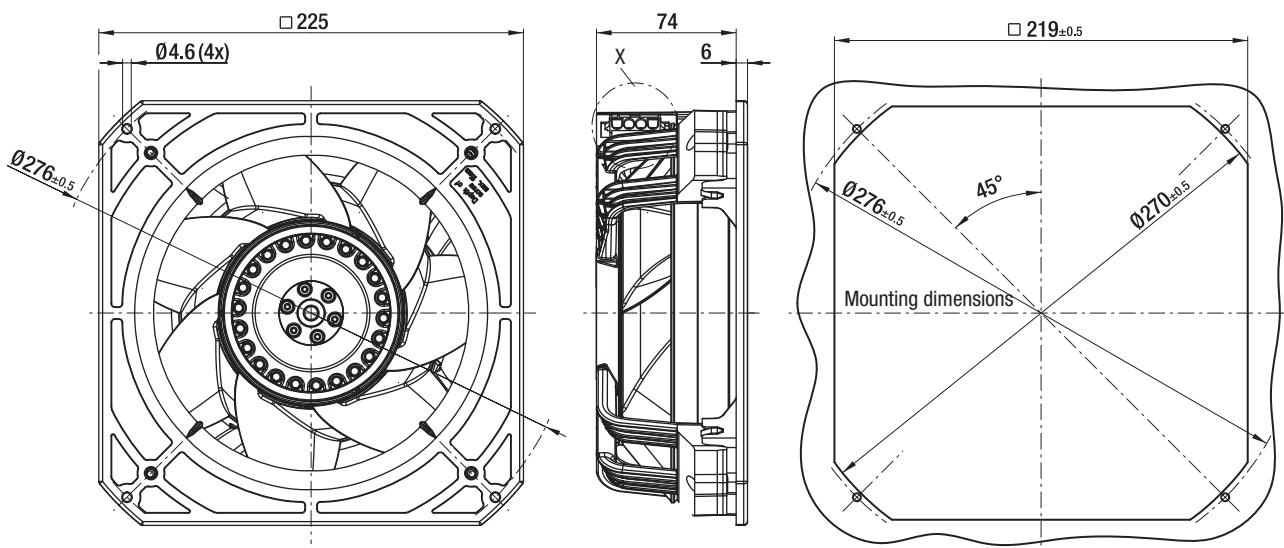
Subject to change



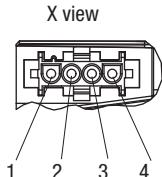
n rpm ⁻¹	P _{ed} W	I A	L _{WA} dB(A)
(A) ① 2650	65	0.30	70
(A) ② 2620	67	0.30	68
(A) ③ 2605	68	0.30	67
(A) ④ 2610	68	0.30	69
(B) ① 2950	90	0.40	73
(B) ② 2865	93	0.41	70
(B) ③ 2820	96	0.42	69
(B) ④ 2840	94	0.41	71

Air performance measured according to: ISO 5801. Installation category A, without contact protection. Suction-side noise levels: L_{WA} according to ISO 13347, L_{PA} 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.ebm-papst.com/general-conditions>

- **Motor protection:** Thermal overload protector (TOP) connected internally
- **Touch current:** < 0.75 mA acc. to IEC 60990 (test circuit, illustration 4)
- **Cable exit:** Lateral
- **Electrical hookup:** Via connector
- **Protection class:** I (with customer connection to grounding conductor)
- **Conformity with standard(s):** EN 60335-1, CE
- **Approvals:** UL 2111, CSA C22.2 no. 77



Coded plug system
Universal Mate-N-Lok
Connector shell: AMP 350 780-1
3x plug pins: AMP 926 885-1
Mating connector (not included in scope of delivery):
Connector shell: AMP 350 779-4
3x sockets: AMP 926 884-1



1 = not used
2 = N + capacitor
3 = L
4 = PE

Max. 880 m³/h

AC diagonal module

Ø 200 mm



Nominal data

Type	Motor	VAC	Hz	m ³ /h	rpm ⁻¹	W	A	µF/VDB	dB(A)	Pa	°C	kg	Connection diagram
K2D 200-AA02 -02	M2D 068-CF	(A) 3~ 400 Y (B) 3~ 400 Y	50 60	780 880	2700 3050	65 90	0.15 0.16	— —	71 73	210 260	-25..+75 -25..+75	2.0 2.0	P. 263 / C2)

Subject to change

- Material:

Housing: PA plastic

Support bracket: PA plastic

Impeller: PA plastic

Rotor: Painted black

7

"V", single inlet

Clockwise, looking towards rotor

IP 44, depending on installation and position

"F"

Any

None

Continuous operation (S1)

Maintenance-free ball bearings

- Number of blades:

- Direction of air flow:

- Direction of rotation:

- Degree of protection:

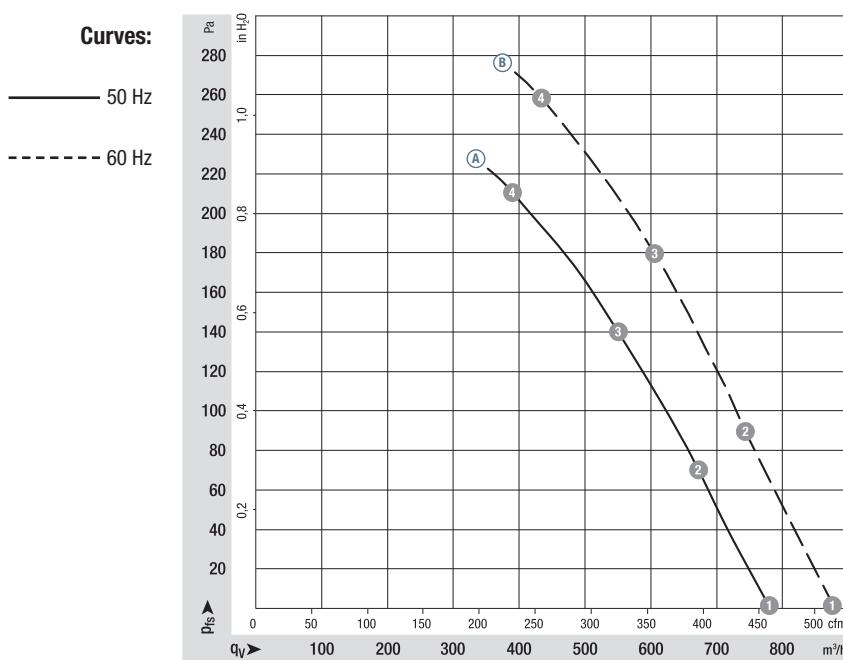
- Insulation class:

- Installation position:

- Condensation drainage holes:

- Mode of operation:

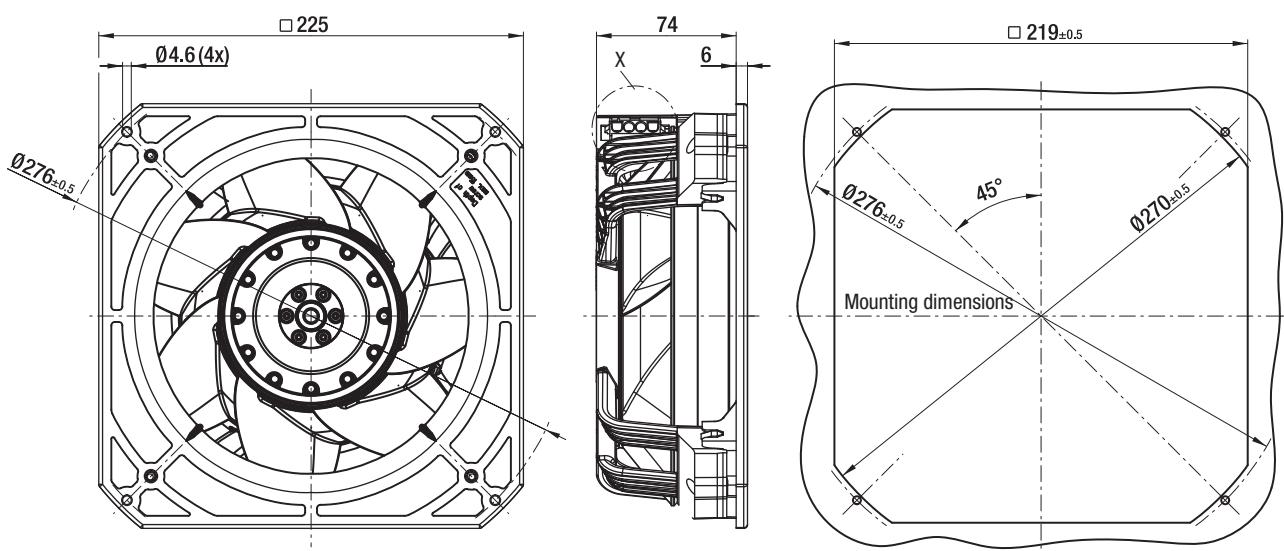
- Bearings:



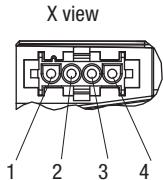
n rpm ⁻¹	P _{ed} W	I A	L _{WA} dB(A)
(A) ① 2700	65	0.15	71
(A) ② 2695	69	0.16	69
(A) ③ 2675	71	0.16	68
(A) ④ 2680	70	0.16	69
(B) ① 3050	90	0.16	73
(B) ② 3010	94	0.16	71
(B) ③ 2970	98	0.17	70
(B) ④ 2975	96	0.17	72

Air performance measured according to ISO 5801. Installation category A, without contact protection. Suction-side noise levels: L_{WA} according to ISO 13347, L_{pA} 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.ebm-papst.com/general-conditions>

- **Motor protection:** thermal overload protector wired internally
- **Touch current:** < 0.75 mA acc. to IEC 60990 (test circuit, illustration 4)
- **Cable exit:** Lateral
- **Electrical hookup:** Via connector
- **Protection class:** I (with customer connection to grounding conductor)
- **Conformity with standard(s):** EN 60335-1, CE



Coded plug system
Universal Mate-N-Lok
Connector shell: AMP 350 780-1
4 x plug pins: AMP 926 885-1
Mating connector (not included in scope of delivery):
Connector shell: AMP 350 779-4
4x sockets: AMP 926 884-1



1 = L3
2 = L1
3 = L2
4 = PE

