W2E143-AB09-20

AC axial compact fan

straight blades (A series)

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**W2E143-AB09-20**
Motor	**M2E052-BF**

Phase		1~	1~	1~
Nominal voltage	VAC	230	230	230
Frequency	Hz	50	60	60
Method of obtaining data		fa	fa	fa
Valid for approval/standard		CE	UL	CE
Speed (rpm)	min^{-1}	2800	3300	3300
Power consumption	W	26	33	29
Current draw	A	0.13	0.14	0.13
Capacitor	µF	0.75	0.75	0.75
Capacitor voltage	VDB	400	400	400
Capacitor standard		S0 (CE)	S0 (CE)	S0 (CE)
Min. ambient temperature	°C	-25	-25	-25
Max. ambient temperature	°C	60	75	75
Starting current	A	0.26		0.26

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

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Technical description

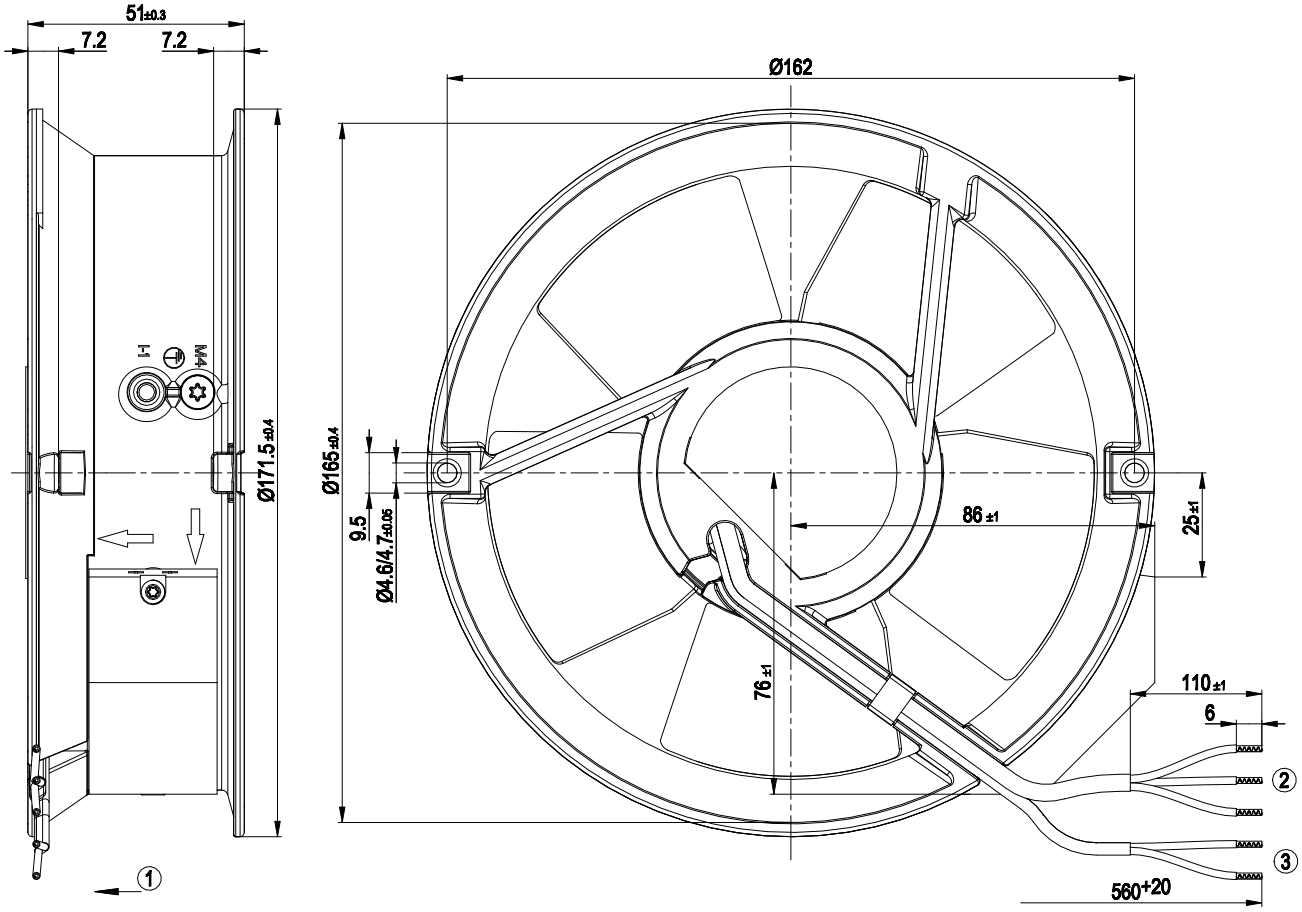
Weight	0.92 kg
Size	143 mm
Motor size	52
Rotor surface	Rotor open, painted black
Blade material	Sheet steel, painted black
Fan housing material	Die-cast aluminum, painted black
Number of blades	5
Airflow direction	V
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP20
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H0 - dry environment
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Any
Condensation drainage holes	None, open rotor
Mode	S1
Motor bearing	Ball bearing
Technical features	- Speed monitoring Hall IC (with basic insulation)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Motor protection	Thermal overload protector (TOP) internally connected
Protection class	I (with customer connection of protective earth)
Motor capacitor according to EN 60252-1 in safety protection class	S0
Conformity with standards	EN 60335-1; CE
Approval	UL 1004-3; CSA C22.2 No. 77; CCC

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Product drawing



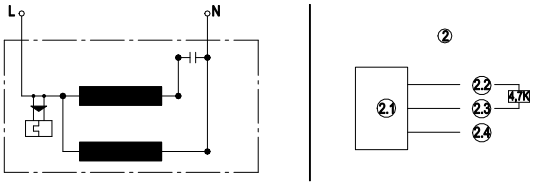
1	Airflow direction "V"
2	Cable PVC AWG26
	3x splice
3	Cable PVC AWG22
	2x splice

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Connection diagram



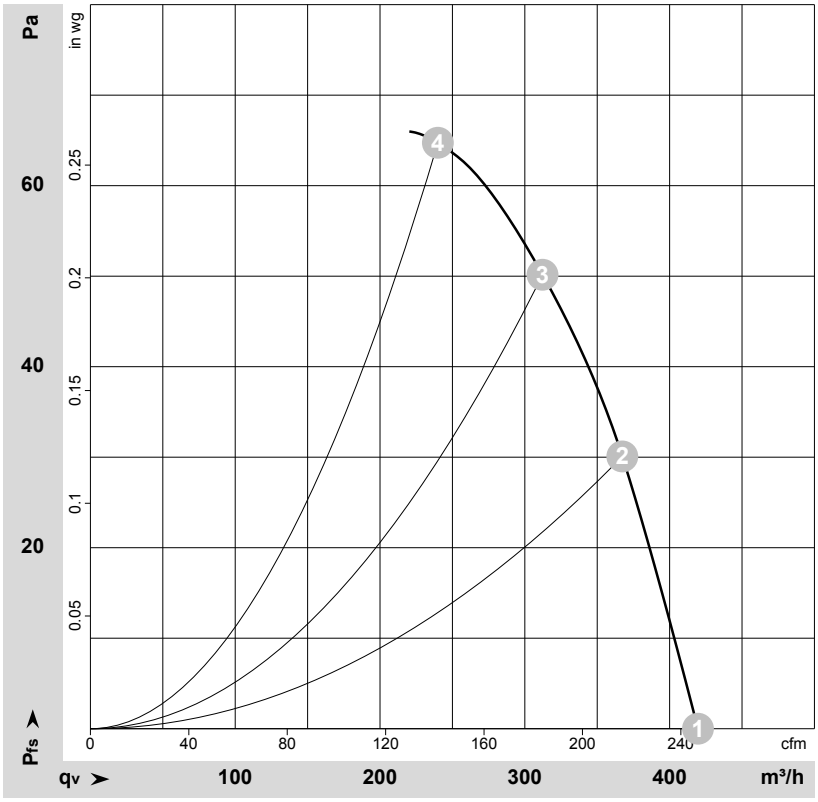
1	Fan connection diagram
L	blue
N	black
2	Hall IC circuit
2.1	Hall IC
2.2	Red (+5 V)
2.3	White (out)
2.4	Black (0 V)

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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-58509-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

	U	f	n	P_e	I	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	230	50	2800	26	0.13	420	0	245	0.00
2	230	50	2770	27	0.13	365	30	215	0.12
3	230	50	2755	27	0.13	310	50	185	0.20
4	230	50	2750	28	0.13	240	65	140	0.26

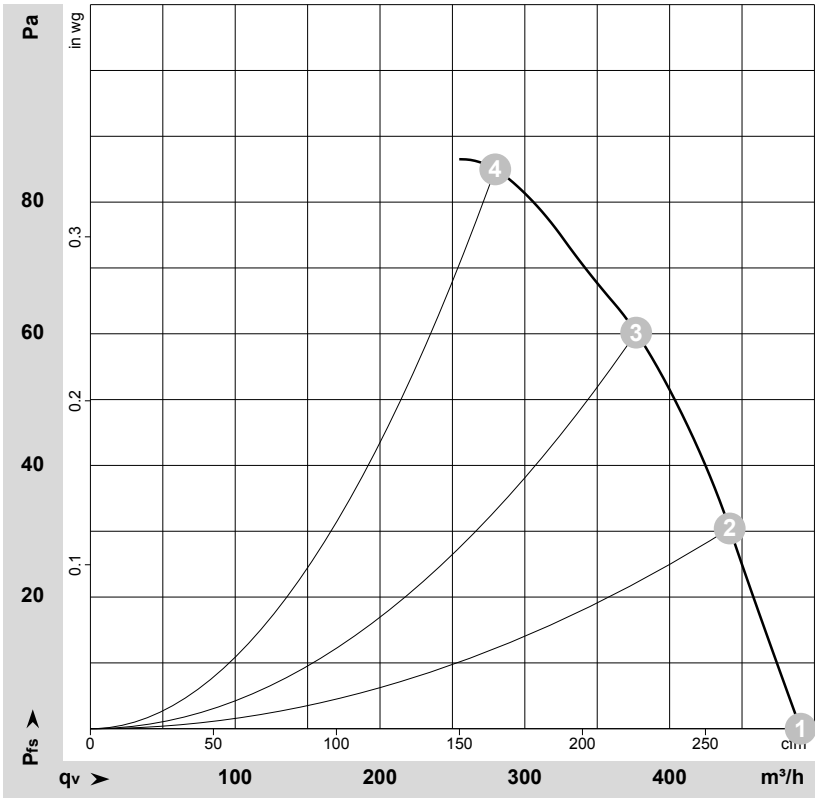
U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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Curves: Air performance 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-58510-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

	U	f	n	P_e	I	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	230	60	3300	29	0.13	490	0	290	0.00
2	230	60	3210	31	0.14	440	30	260	0.12
3	230	60	3175	32	0.14	375	60	220	0.24
4	230	60	3140	33	0.14	280	85	165	0.34

U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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