W2S130-AA03-87

AC axial compact fan

sickle-shaped blades (S series)

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**W2S130-AA03-87**		
Motor	**M2S052-CA**		
Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Method of obtaining data		fa	fa
Valid for approval/standard		CE	CE
Speed (rpm)	min^{-1}	2800	3250
Power consumption	W	45	39
Current draw	A	0.31	0.25
Max. back pressure	Pa	80	120
Max. back pressure	in. wg	0.32	0.48
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	50	70
Starting current	A	0.45	0.40

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

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Technical description

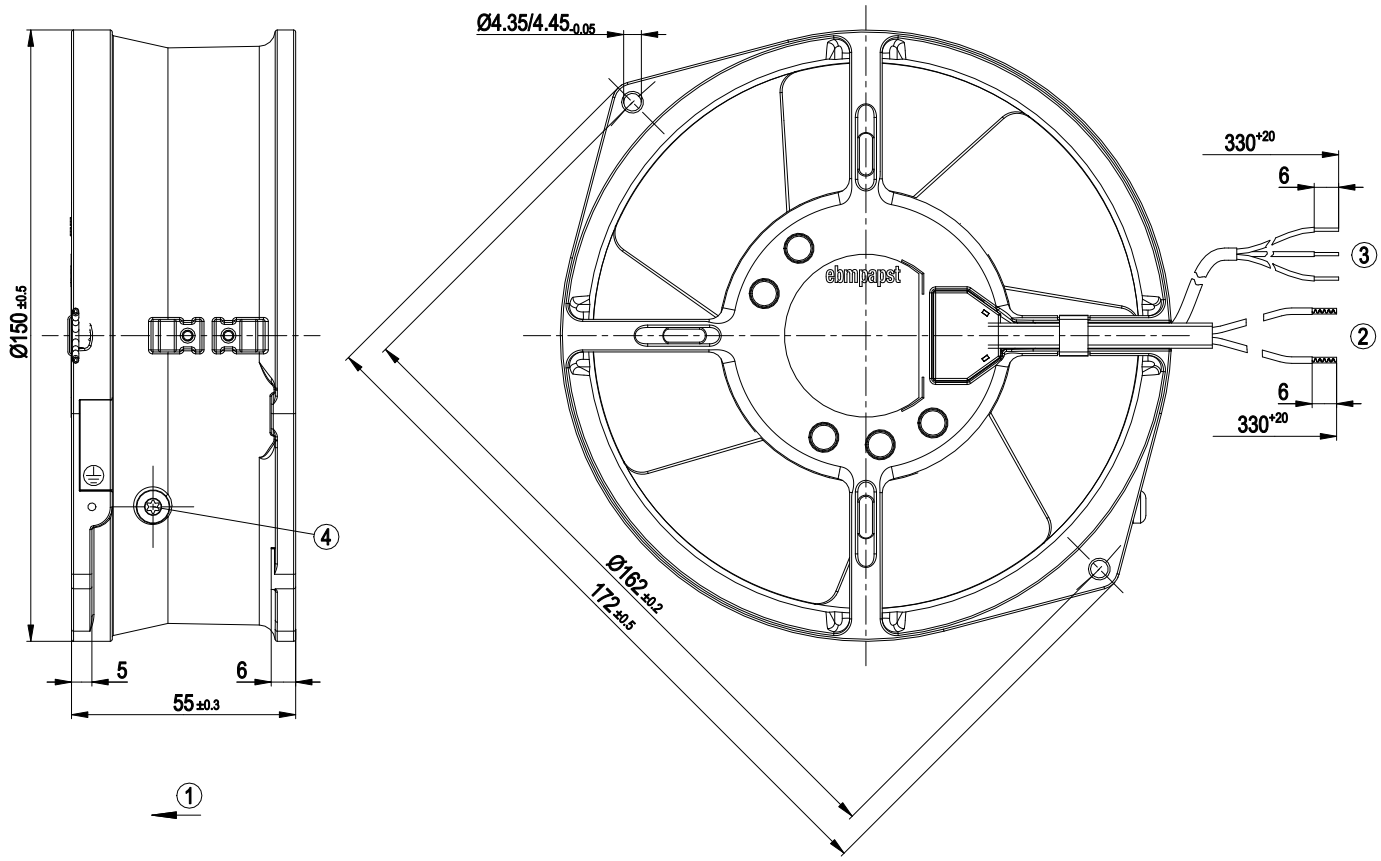
Weight	1.058 kg
Size	130 mm
Motor size	52
Rotor surface	Rotor open, painted black
Blade material	Sheet steel, painted black
Fan housing material	Die-cast aluminum, painted black
Number of blades	7
Airflow direction	V
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP20
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H0+
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 (if protective earth is connected by customer to the housing's connection point)
Conformity with standards	EN 60335-1; CE; UKCA
Approval	UL 507; CCC; CSA C22.2 No. 113; EAC

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Product drawing



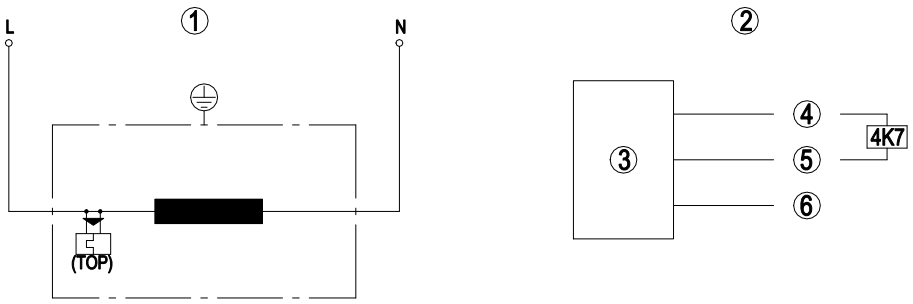
1	Airflow direction "V"
2	Cable PVC AWG20
	2x splice
3	Cable PVC AWG26
	3x splice
4	M4 screw for fastening ground connector

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Connection diagram



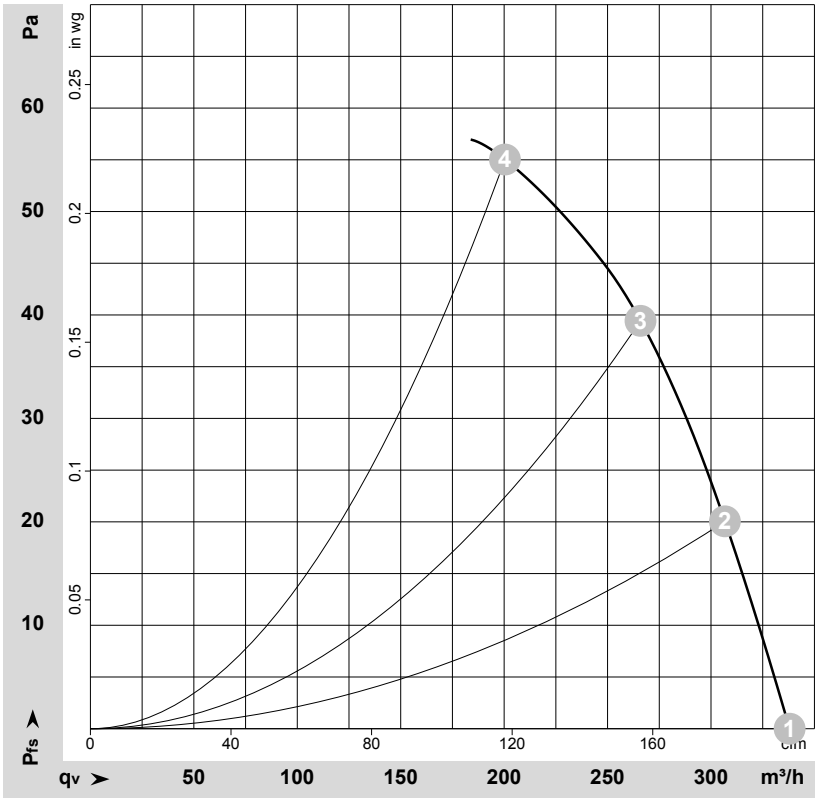
1	Fan connection diagram
TOP	Thermal overload protector
L	black
N	black
2	Hall IC circuit
3	Hall IC
4	red (+5 V)
5	white (out)
6	black (0 V)

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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-58475-1

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	45	0.31	340	0	200	0.00
2	230	50	2795	45	0.31	305	20	180	0.08
3	230	50	2780	46	0.31	265	40	155	0.16
4	230	50	2780	46	0.31	200	55	120	0.22

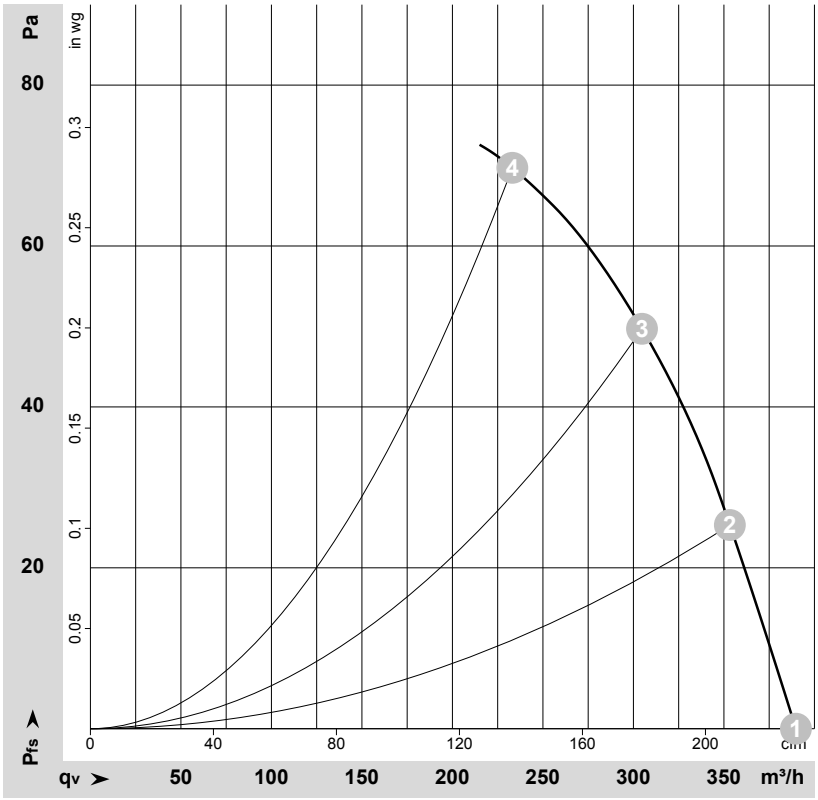
U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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Curves: Air performance 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-58476-1

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	3250	39	0.25	390	0	230	0.00
2	230	60	3200	42	0.25	355	25	210	0.10
3	230	60	3165	43	0.26	305	50	180	0.20
4	230	60	3145	44	0.26	235	70	135	0.28

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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