

AC axial fan

sickle-shaped blades (S series), single-intake
with guard grille for short nozzle

S4D400-AT17-53 ebmpapst Datasheet

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	S4D400-AT17-53								
Motor	M4D074-EI								
Phase		3~	3~	3~	3~	3~	3~	3~	3~
Nominal voltage	VAC	230	265	277	400	400	440	460	480
Wiring		Δ	Δ	Δ	Y	Y	Y	Y	Y
Frequency	Hz	50	60	60	50	60	60	60	60
Method of obtaining data		ce	ce	ce	ce	ce	ce	ce	ce
Valid for approval/standard		CE	CE	CE	CE	CE	CE	CE	CE
Speed (rpm)	min ⁻¹	1200	1300	1330	1200	1200	1250	1300	1330
Power consumption	W	95	145	150	95	125	140	145	150
Current draw	A	0.24	0.36	0.36	0.17	0.21	0.21	0.21	0.21
Min. ambient temperature	°C	-40	-40	-40	-40	-40	-40	-40	-40
Max. ambient temperature	°C	90	90	90	90	90	90	90	90

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

Data according to ErP Directive

		Actual	Req. 2015			
01 Overall efficiency η_{es}	%	38.7	28.3	09 Power consumption P_e	kW	0.14
02 Measurement category		A		09 Air flow q_v	m ³ /h	2255
03 Efficiency category		Static		09 Pressure increase p_{fs}	Pa	88
04 Efficiency grade N		50.4	40	10 Speed (rpm) n	min ⁻¹	1380
05 Variable speed drive		No		11 Specific ratio [*]		1.00

Data obtained at optimum efficiency level.

The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

^{*} Specific ratio = $1 + p_{fs} / 100\,000\text{ Pa}$

LU-152037



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Technical description

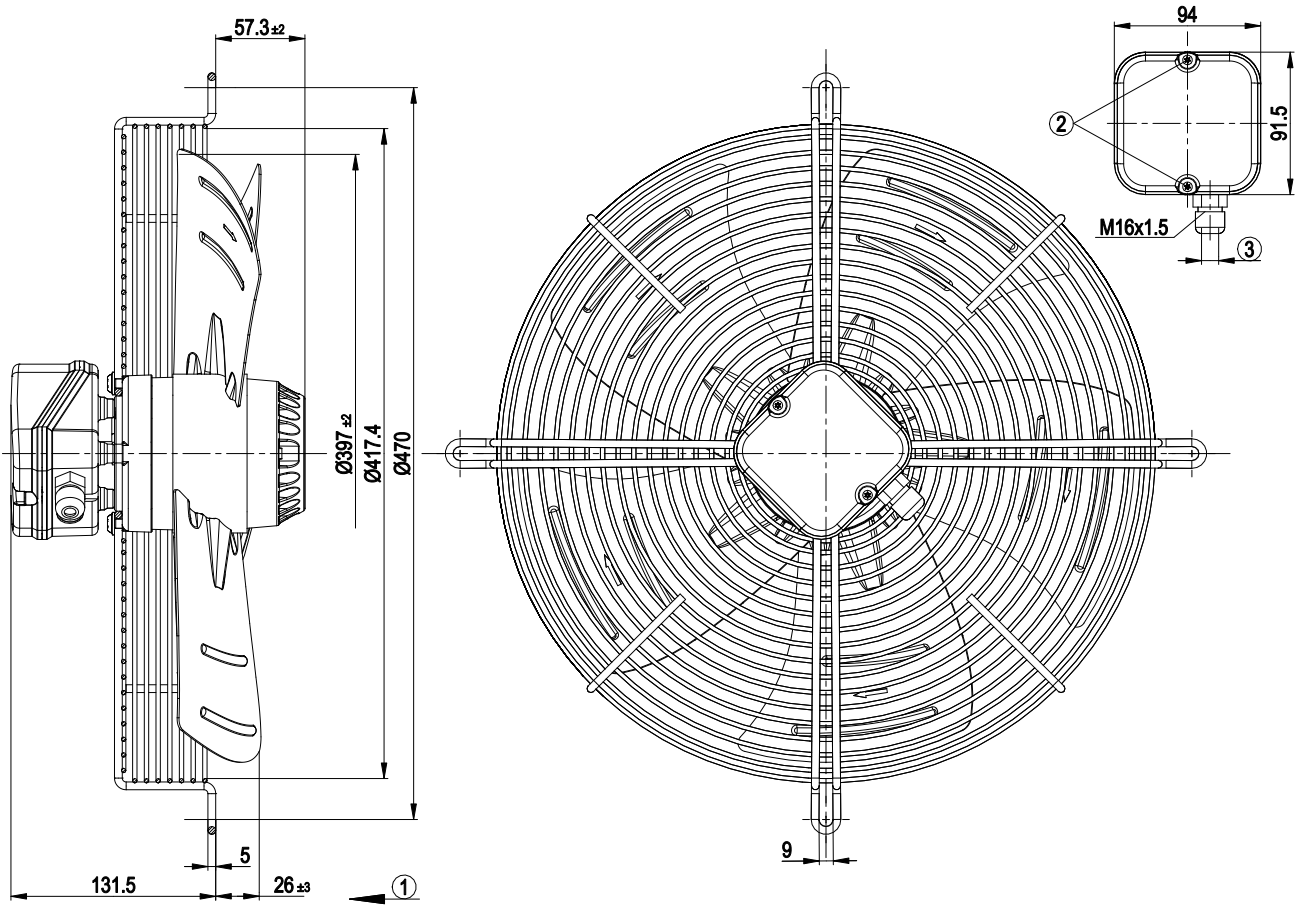
Weight	5.9 kg
Fan size	400 mm
Rotor surface	Painted black
Terminal box material	ABS plastic
Blade material	Sheet steel, painted black
Guard grille material	Steel, galvanized and coated with white plastic (RAL 9003)
Number of blades	5
Airflow direction	"V"
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	F2-2
Max. permitted ambient temp. for motor (transport/storage)	+ 70 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing with low-temperature lubricant
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Electrical hookup	Via terminal box
Motor protection	Thermal overload protector (TOP) with basic insulation
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE
Approval	CCC



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Product drawing



1	Direction of air flow "V"
2	Tightening torque 0.5 ± 0.1 Nm
3	Cable diameter max. 7.5 mm; tightening torque 1.3±0.2 Nm



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Connection diagram



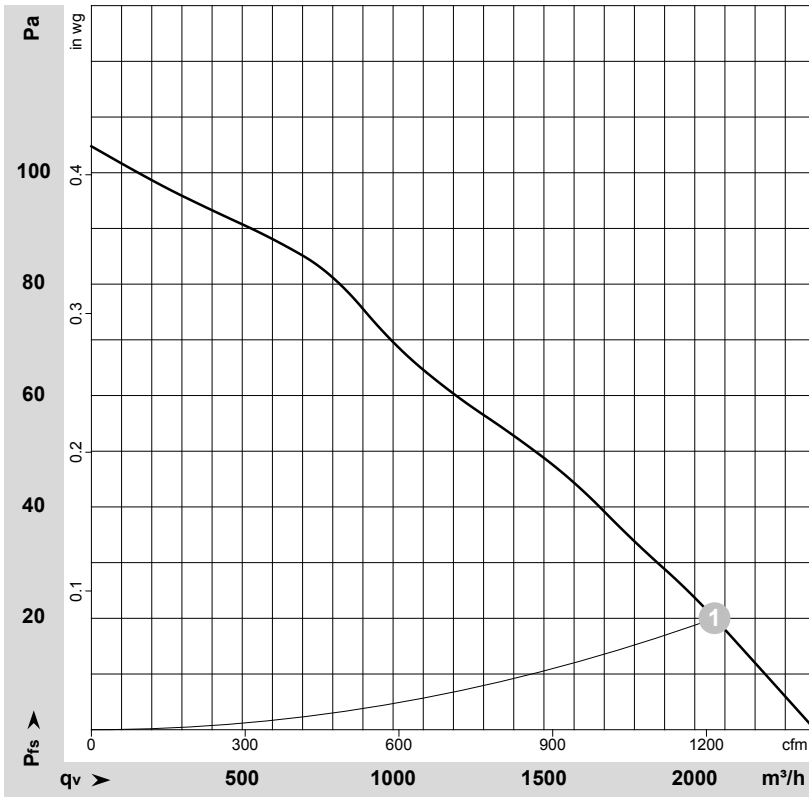
Δ	Delta connection	Y	Star connection	L1	= U1 = black
L2	= V1 = blue	L3	= W1 = brown	W2	yellow
U2	green	V2	white	TOP	2x gray
PE	green/yellow				



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Curves: Air performance 50 Hz



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-180456-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebmpapst. 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

	Wired	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	inH2O
1	Y	400	50	1200	95	0.17	2065	20	1215	0.08

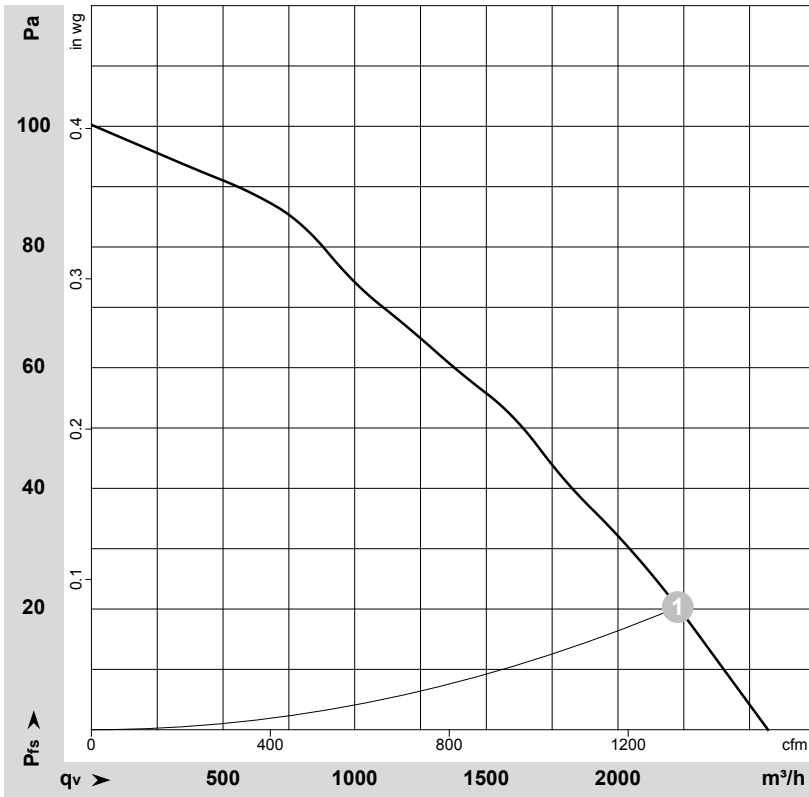
Wired = Wiring · U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_v = Air flow · p_s = Pressure increase



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Curves: Air performance 60 Hz



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-180465-1

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

	Wired	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	inH2O
1	Y	440	60	1250	140	0.21	2225	20	1310	0.08

Wired = Wiring · U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_v = Air flow · P_{fs} = Pressure increase

