

S4D400-AP12-83 ebmpapst Datasheet

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Nominal data

Type	S4D400-AP12-83			
Motor	M4D074-EI			
Phase		3~	3~	3~
Nominal voltage	VAC	400	400	400
Wiring		Y	Y	Y
Frequency	Hz	50	60	60
Method of obtaining data		fa	fa	fa
Valid for approval/standard		CE	CE	UL 2111
Speed (rpm)	min ⁻¹	1450	1690	1690
Power consumption	W	135	185	185
Current draw	A	0.44	0.39	0.39
Max. back pressure	Pa	105	120	120
Max. back pressure	inH ₂ O	0.42	0.48	0.48
Min. ambient temperature	°C	-25	-25	-25
Max. ambient temperature	°C	60	60	60
Starting current	A	1.7	1.7	1.7

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}	%	32.7	29.1	09 Power consumption P_e	kW	0.19
02 Measurement category		A		09 Air flow q_v	m ³ /h	2595
03 Efficiency category		Static		09 Pressure increase p_{fs}	Pa	91
04 Efficiency grade N		43.6	40	10 Speed (rpm) n	min ⁻¹	1415
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-27622



AC axial fan

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

Technical description

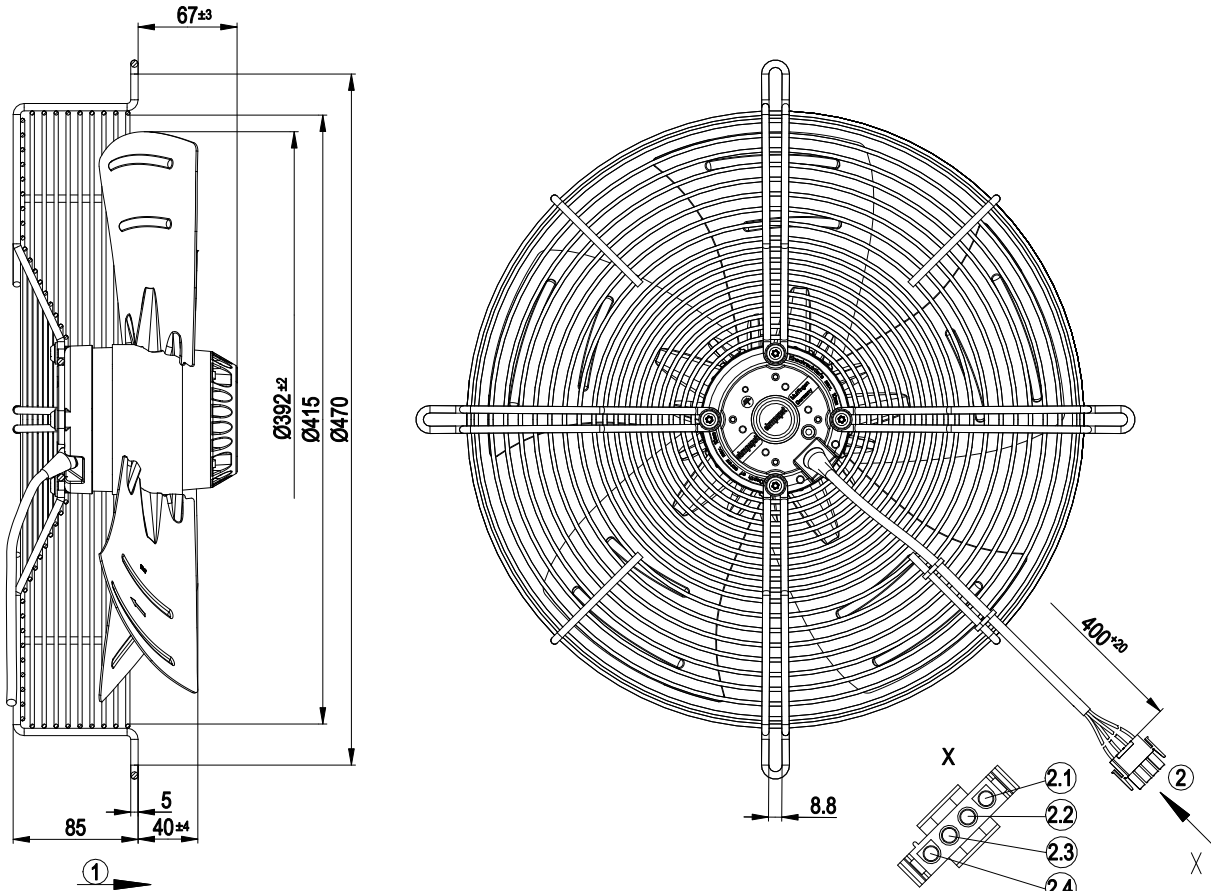
Weight	5.9 kg
Fan size	400 mm
Rotor surface	Painted black
Blade material	Sheet steel, painted black
Guard grille material	Steel, coated with black plastic (RAL 9005)
Number of blades	5
Airflow direction	"A"
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44; installation- 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)	+ 80 °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
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE
Approval	UL 2111; CSA C22.2 No. 77



AC axial fan

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Product drawing



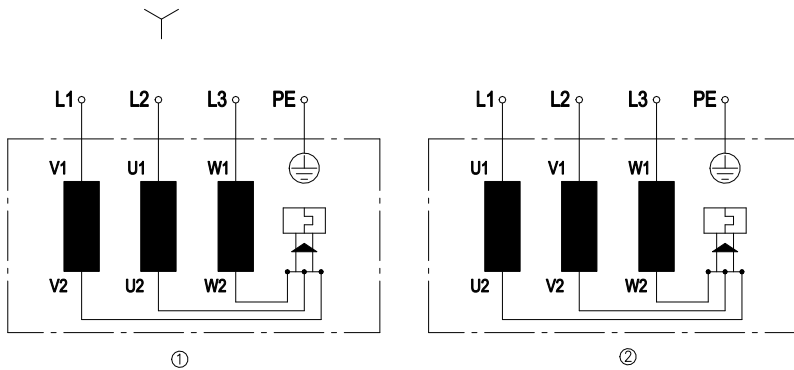
1	Direction of air flow "A"
2	Cable silicone 4G 0.5 mm ² , 4-pole connector housing tyco 926298-7, 4x plug pin tyco 926885-1
2.1	green/yellow
2.2	brown
2.3	blue
2.4	black



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Connection diagram



Change of rotation direction by reversing two phases

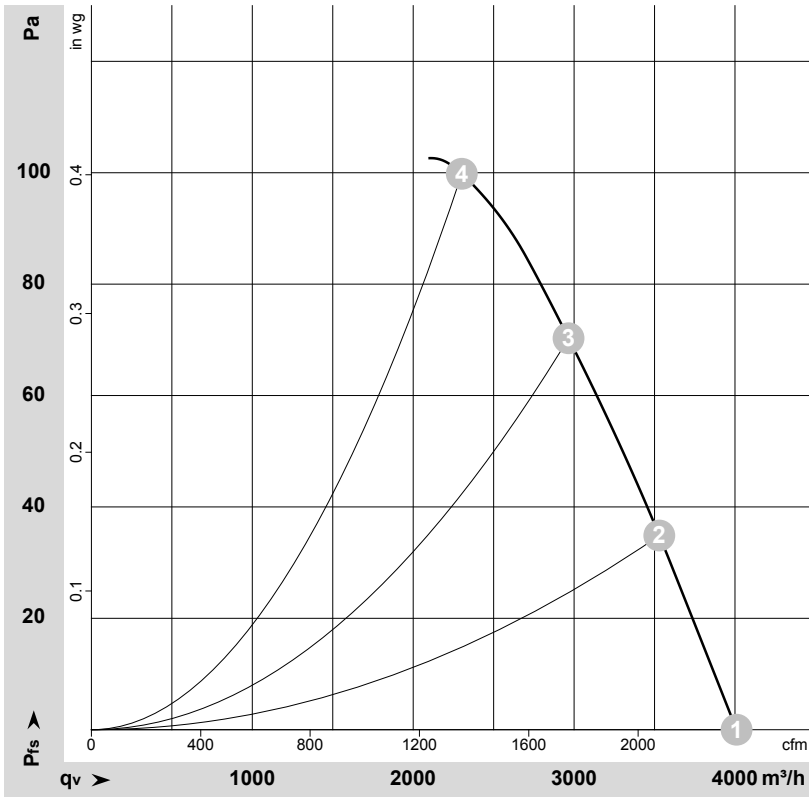
	Three-phase motor
Y	Star connection
1	Counterclockwise operation
L1	= V1 = blue
L2	= U1 = black
L3	= W1 = brown
2	Clockwise operation
L1	=U1=black
L2	=V1=blue
L3	=W1=brown
PE	green/yellow



AC axial fan

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

Curves: Air performance 50 Hz



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

Measurement: LU-27622-1

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	400	50	1450	135	0.44	4010	0	2360	0.00
2	Y	400	50	1435	161	0.47	3530	35	2080	0.14
3	Y	400	50	1420	183	0.49	2965	70	1745	0.28
4	Y	400	50	1410	204	0.50	2300	100	1355	0.40

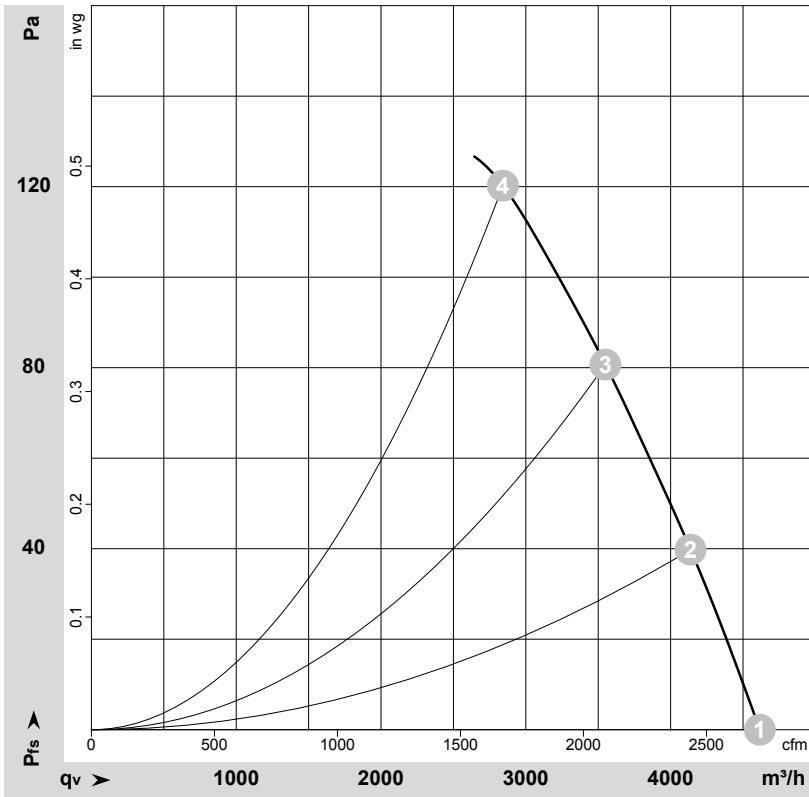
Wired = Wiring · U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_v = Air flow · p_{fs} = Pressure increase



AC axial fan

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

Curves: Air performance 60 Hz



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

Measurement: LU-27623-1

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	60	1690	185	0.39	4615	0	2715	0.00
2	Y	400	60	1660	223	0.45	4140	40	2435	0.16
3	Y	400	60	1635	257	0.49	3550	80	2090	0.32
4	Y	400	60	1605	292	0.54	2840	120	1675	0.48

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

