S4D400-AJ04-22

AC axial fan

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

ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.com

Limited partnership · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**S4D400-AJ04-22**
Motor	**M4D074-EI**

Phase		3~	3~	3~	3~
Nominal voltage	VAC	400	400	400	400
Wiring		Δ	Y	Δ	Y
Frequency	Hz	50	50	60	60
Method of obtaining data		ml	ml	ml	ml
Valid for approval/standard		-	-	-	-
Speed (rpm)	min^{-1}	1300	950	1340	825
Power consumption	W	290	180	400	185
Current draw	A	0.55	0.31	0.71	0.33
Max. back pressure	Pa	100	52	105	39
Max. back pressure	inH2O	0.4	0.21	0.42	0.16
Min. ambient temperature	°C	-40	-40	-40	-40
Max. ambient temperature	°C	70	70	25	25
Starting current	A	1.47	0.45	1.37	0.43

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	4.9 kg
Fan size	400 mm
Rotor surface	Painted black
Terminal box material	ABS plastic
Blade material	Press-fitted sheet steel blank, sprayed with PP plastic
Guard grille material	Steel, coated with black plastic (RAL 9005)
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	H0+
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 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

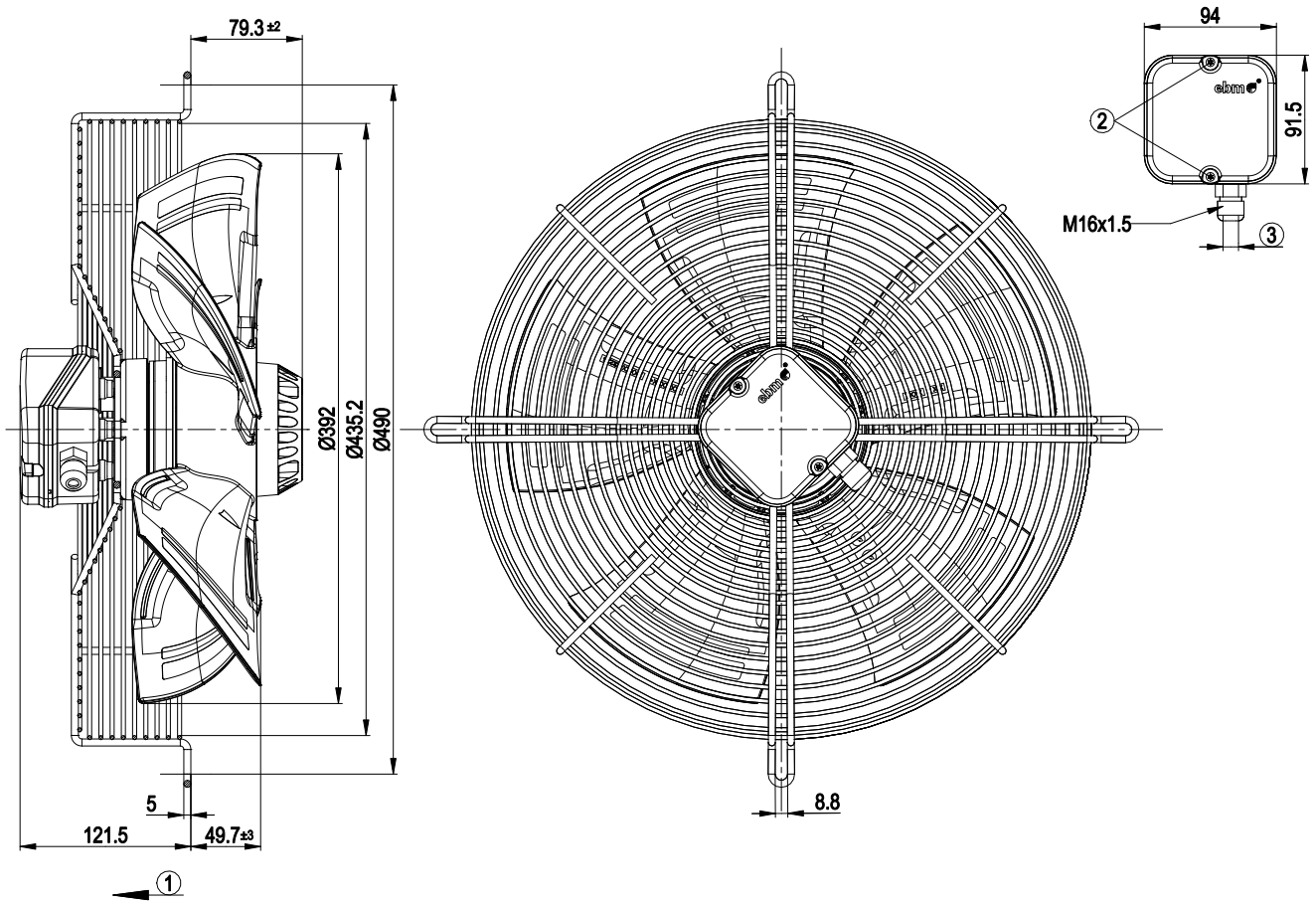
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Product drawing



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

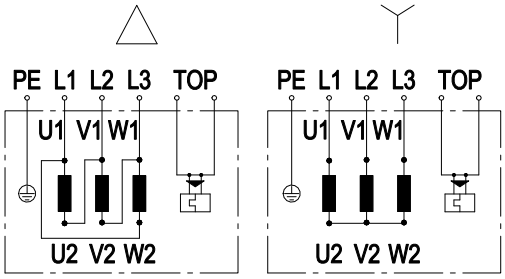
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Connection diagram



Note: Change of rotation direction by reversing two phases

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

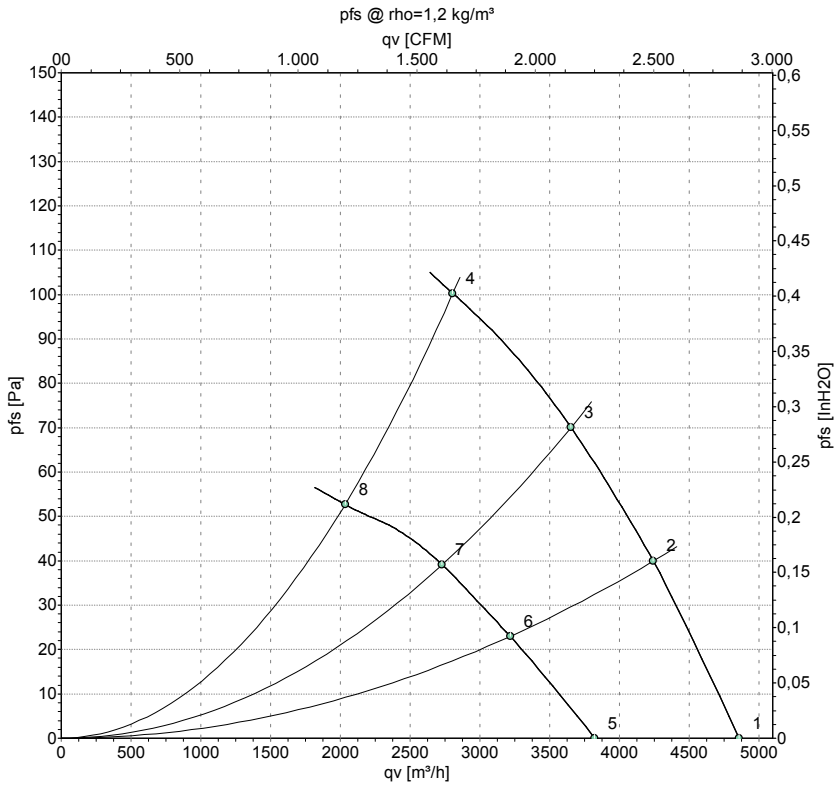
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AC axial fan

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Curves: Air performance 50 Hz



Measurement: LU-147977-1
Measurement: LU-147965-1

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	qv	p_{fs}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	Δ	400	50	1360	230	0.48	4860	0	2860	0.00
2	Δ	400	50	1345	253	0.50	4245	40	2500	0.16
3	Δ	400	50	1330	264	0.52	3655	70	2150	0.28
4	Δ	400	50	1300	290	0.55	2805	100	1650	0.40
5	Y	400	50	1070	161	0.28	3825	0	2250	0.00
6	Y	400	50	1020	168	0.29	3220	23	1895	0.09
7	Y	400	50	990	172	0.30	2730	39	1605	0.16
8	Y	400	50	950	180	0.31	2035	53	1195	0.21

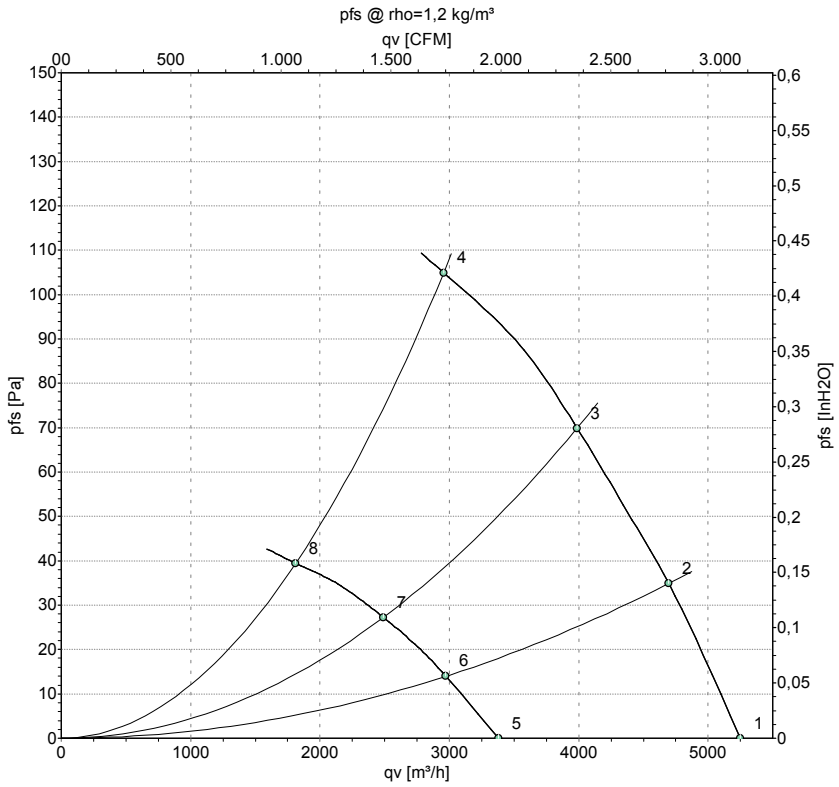
Wired = Wiring · U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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Curves: Air performance 60 Hz



Measurement: LU-147985-1
Measurement: LU-147969-1

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	qv	p_{fs}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	Δ	400	60	1470	339	0.61	5245	0	3090	0.00
2	Δ	400	60	1435	360	0.64	4700	35	2765	0.14
3	Δ	400	60	1400	377	0.67	3990	70	2350	0.28
4	Δ	400	60	1340	400	0.71	2955	105	1740	0.42
5	Y	400	60	950	177	0.32	3380	0	1990	0.00
6	Y	400	60	910	180	0.32	2975	14	1750	0.06
7	Y	400	60	875	181	0.32	2490	27	1465	0.11
8	Y	400	60	825	185	0.33	1810	39	1065	0.16

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

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