S4D400-AJ04-22

AC axial fan

sickled blades (S series), single inlet
with guard grille for short nozzle

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ErP2013 EXCEEDS THE NORM

Nominal data

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

Phase		3~	3~	3~	3~
Nominal voltage	VAC	400	400	400	400
Connection		Δ	Y	Δ	Y
Frequency	Hz	50	50	60	60
Type of data definition		ml	ml	ml	ml
Valid for approval / standard		CE	CE	CE	CE
Speed	min^{-1}	1300	950	1340	825
Power input	W	290	180	400	185
Current draw	A	0.55	0.31	0.71	0.33
Max. back pressure	Pa	100	52	105	39
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 = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

Data according to ErP directive

Installation category	A
Efficiency category	Static
Variable speed drive	No
Specific ratio*	1.00

* Specific ratio = 1 + p_{fs} / 100 000 Pa

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	27.7	26.1	30.1
Efficiency grade N		37.6	36	40
Power input P_e	kW	0.27		
Air flow q_v	m^3/h	3195		
Pressure increase p_{fs}	Pa	86		
Speed n	min^{-1}	1320		

Data definition with optimum efficiency.
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

Mass	4.9 kg
Size	400 mm
Surface of rotor	Coated in black
Material of terminal box	ABS plastic
Material of blades	Press-fitted sheet steel blank, sprayed with PP plastic
Material of guard grille	Steel, coated in black plastic (RAL9005)
Number of blades	5
Direction of air flow	"V"
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position as per EN 60034-5
Insulation class	"F"
Humidity class	F1-2
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing with anti-freezing grease
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	< 0.75 mA
Electrical leads	Via terminal box
Motor protection	Thermal overload protector (TOP) brought out
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE

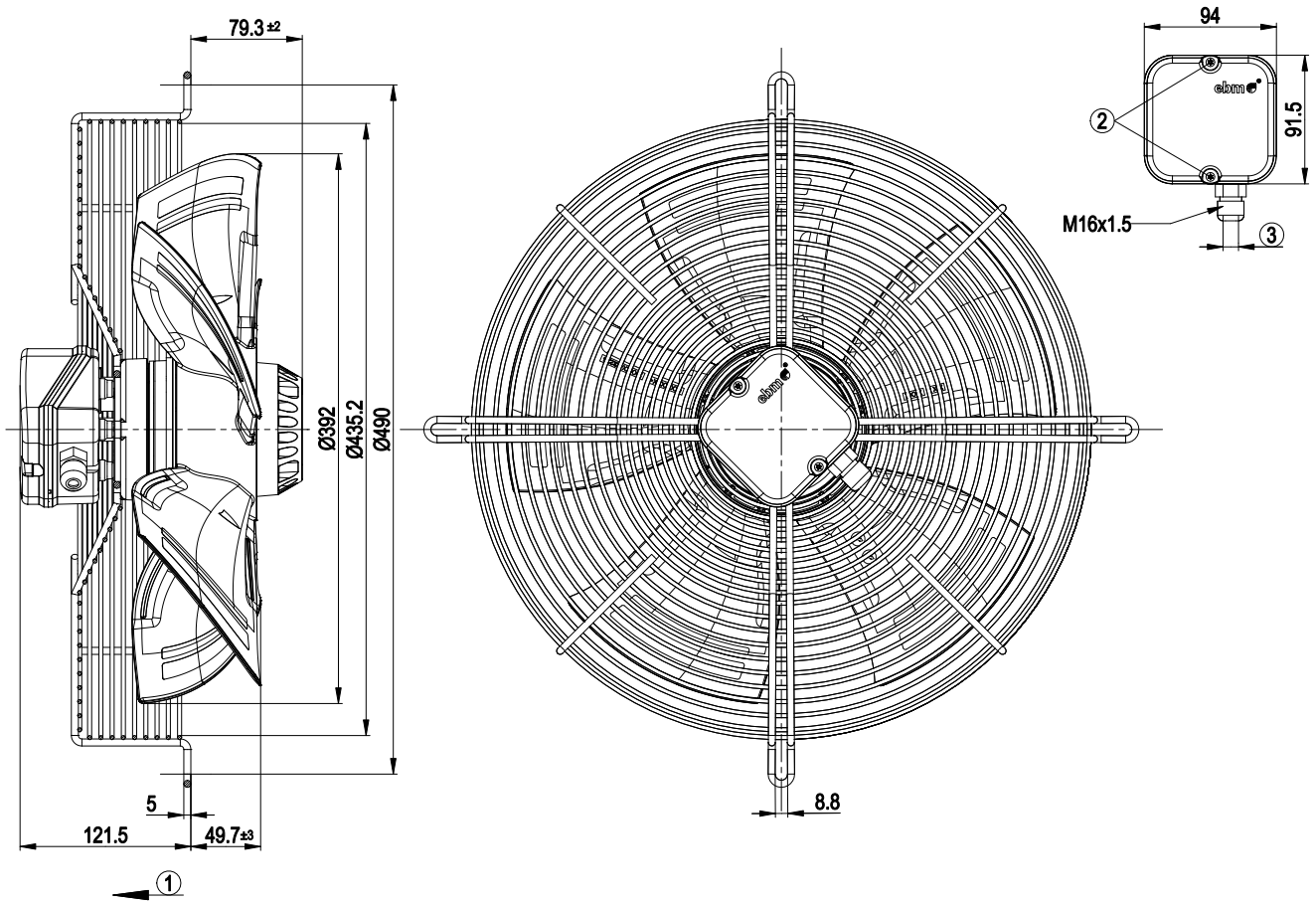
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Product drawing



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

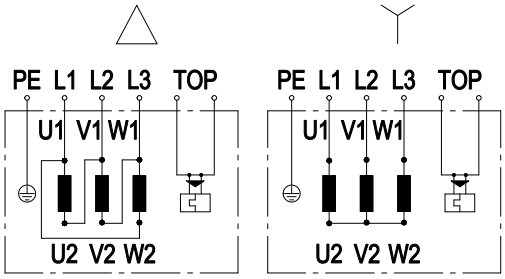
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Connection screen



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	2xgrey
PE	green/yellow				

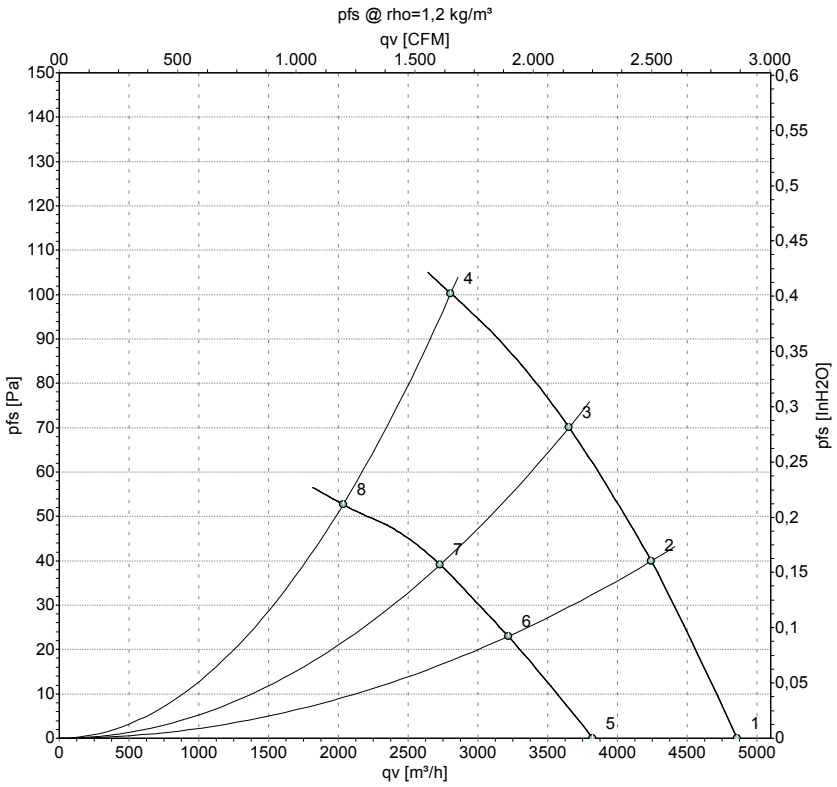
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Charts: Air flow 50 Hz



Measurement: LU-147977
Measurement: LU-147965

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	Conn.	U	f	n	P_e	I	qv	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa
1	Δ	400	50	1360	230	0.48	4860	0
2	Δ	400	50	1345	253	0.50	4245	40
3	Δ	400	50	1330	264	0.52	3655	70
4	Δ	400	50	1300	290	0.55	2805	100
5	Y	400	50	1070	161	0.28	3825	0
6	Y	400	50	1020	168	0.29	3220	23
7	Y	400	50	990	172	0.30	2730	39
8	Y	400	50	950	180	0.31	2035	53

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

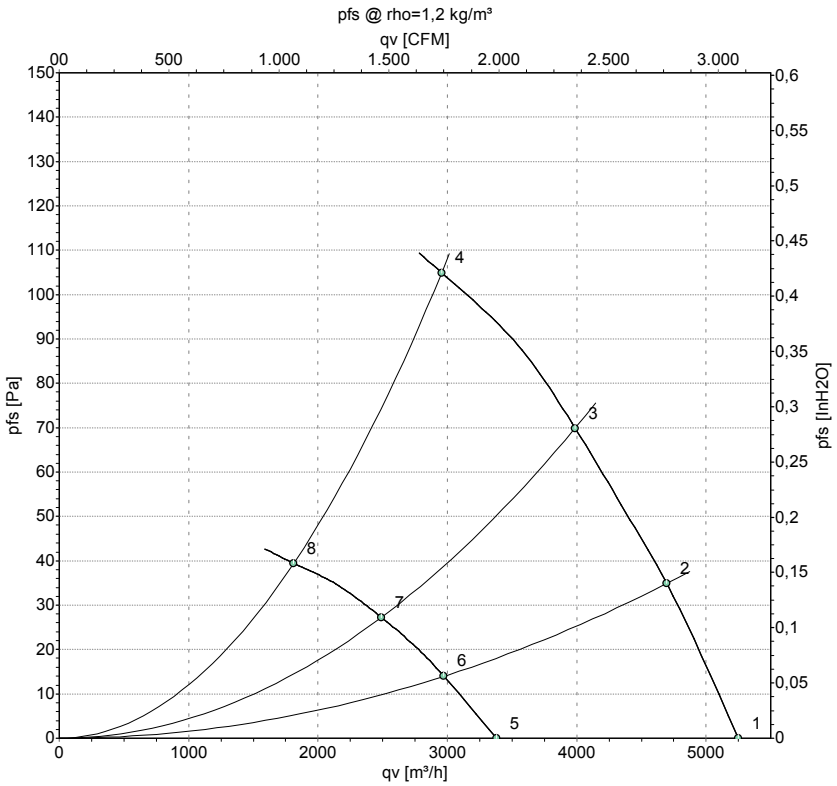
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Charts: Air flow 60 Hz



Measurement: LU-147985
Measurement: LU-147969

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	Conn.	U	f	n	P_e	I	qv	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa
1	Δ	400	60	1470	339	0.61	5245	0
2	Δ	400	60	1435	360	0.64	4700	35
3	Δ	400	60	1400	377	0.67	3990	70
4	Δ	400	60	1340	400	0.71	2955	105
5	Y	400	60	950	177	0.32	3380	0
6	Y	400	60	910	180	0.32	2975	14
7	Y	400	60	875	181	0.32	2490	27
8	Y	400	60	825	185	0.33	1810	39

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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