S4D400-AS04-28

AC axial fan

sickled blades (S series)

with guard grille for short nozzle

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**S4D400-AS04-28**
Motor	**M4D074-GA**

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		fa	fa	fa	fa
Valid for approval / standard		CE	CE	CE	CE
Speed	min^{-1}	1370	1070	1490	970
Power input	W	225	160	330	175
Current draw	A	0.46	0.28	0.58	0.33
Max. back pressure	Pa	120	55	80	30
Min. ambient temperature	°C	-40	-40	-40	-40
Max. ambient temperature	°C	70	70	55	55

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 2015
Overall efficiency η_{es}	%	30	30
Efficiency grade N		40	40
Power input P_e	kW	0.26	
Air flow q_v	m^3/h	3540	
Pressure increase p_{fs}	Pa	80	
Speed n	min^{-1}	1335	

Data definition with optimum efficiency. LU-42301
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

Mass	6.9 kg
Size	400 mm
Surface of rotor	Coated in black
Material of terminal box	ABS plastic
Material of blades	Sheet steel, coated in black
Material of guard grille	Steel, coated in black plastic (RAL9005)
Number of blades	5
Direction of air flow	"A"
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position as per EN 60034-5
Insulation class	"F"
Humidity class	F2-2
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

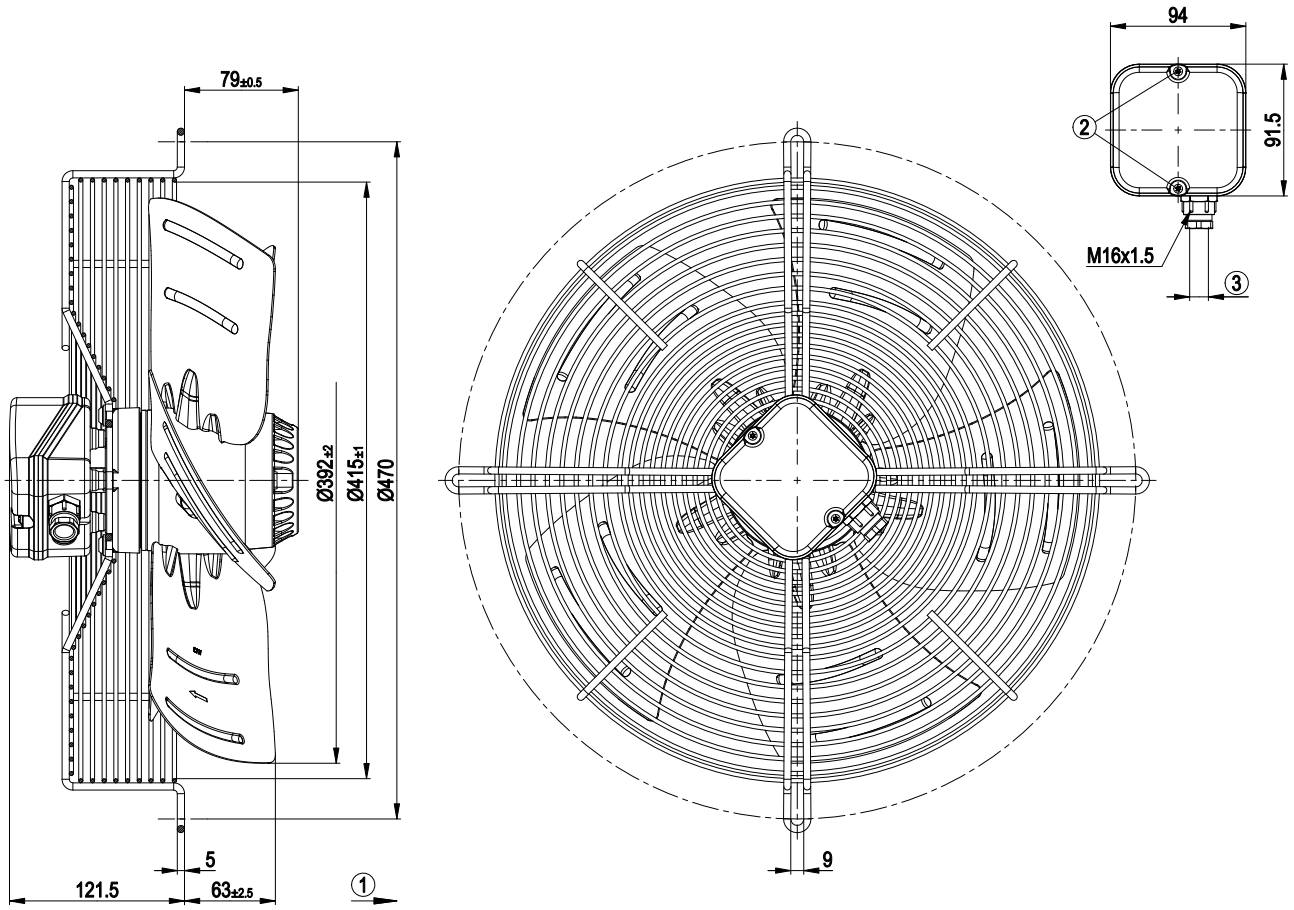
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Product drawing



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

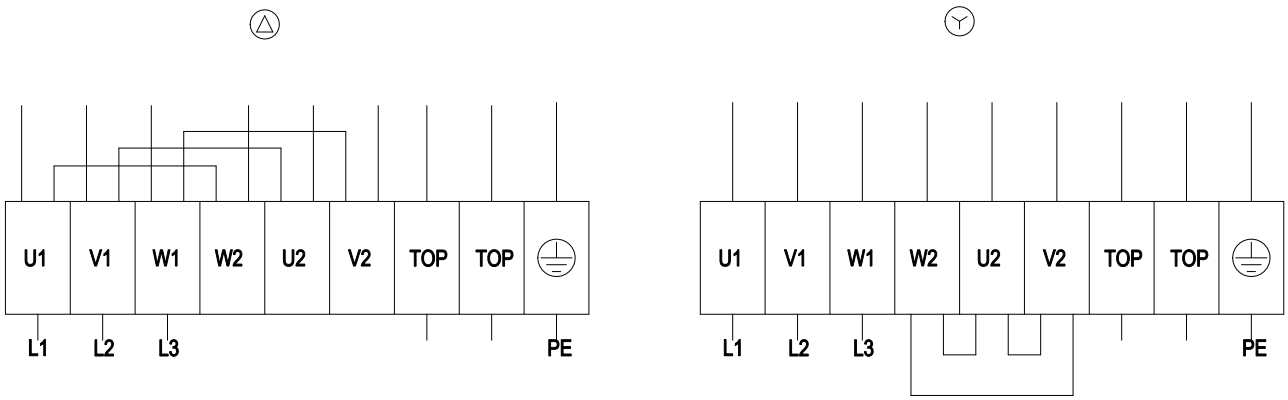
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Connection screen



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

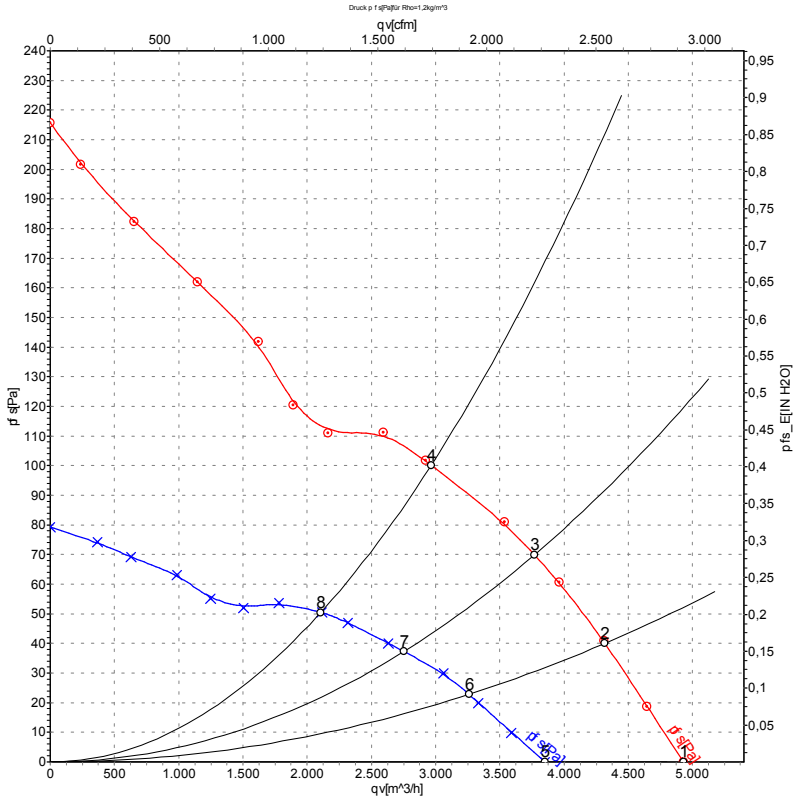
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Charts: Air flow 50 Hz Δ



Measurement: LU-42301
Measurement: LU-42303

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	1370	225	0.46	4930	0
2	Δ	400	50	1350	245	0.49	4315	40
3	Δ	400	50	1340	262	0.52	3770	70
4	Δ	400	50	1320	283	0.55	2965	100
5	Y	400	50	1070	160	0.28	3855	0
6	Y	400	50	1020	165	0.29	3260	23
7	Y	400	50	980	170	0.30	2750	37
8	Y	400	50	940	176	0.31	2105	51

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

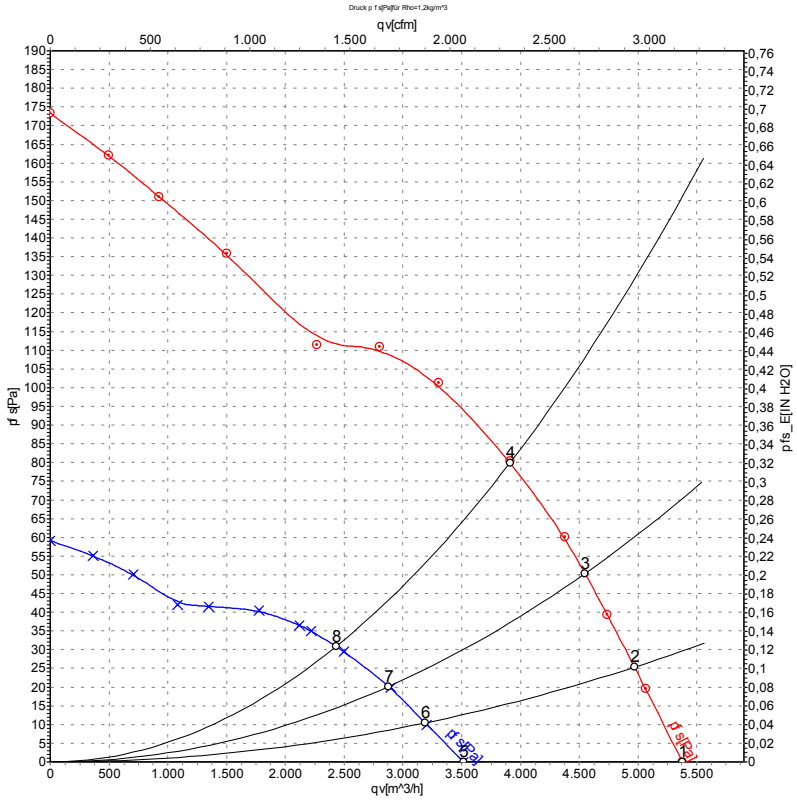
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Charts: Air flow 60 Hz Δ



Measurement: LU-42302
Measurement: LU-42304

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	1490	330	0.58	5375	0
2	Δ	400	60	1470	346	0.62	4970	25
3	Δ	400	60	1440	361	0.65	4550	50
4	Δ	400	60	1405	381	0.68	3910	80
5	Y	400	60	970	175	0.33	3515	0
6	Y	400	60	945	177	0.33	3190	10
7	Y	400	60	910	179	0.33	2875	20
8	Y	400	60	875	180	0.34	2430	31

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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