AC axial fan

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**S4D400-AS04-65**
Motor	**M4D074-GA**

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		fa	fa	fa	fa
Valid for approval/standard		CE	CE	CE	CE
Speed (rpm)	min^{-1}	1370	1070	1490	970
Power consumption	W	225	160	330	175
Current draw	A	0.46	0.28	0.58	0.33
Max. back pressure	Pa	120	55	80	30
Max. back pressure	inH2O	0.48	0.22	0.32	0.12
Min. ambient temperature	°C	-40	-40	-40	-40
Max. ambient temperature	°C	50	50	35	35

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}	%	30	30
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		40	40
05 Variable speed drive		No	

09 Power consumption P_e	kW	0.26
09 Air flow q_v	m^3/h	3540
09 Pressure increase p_{fs}	Pa	80
10 Speed (rpm) n	min^{-1}	1335
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 Pa

LU-42301

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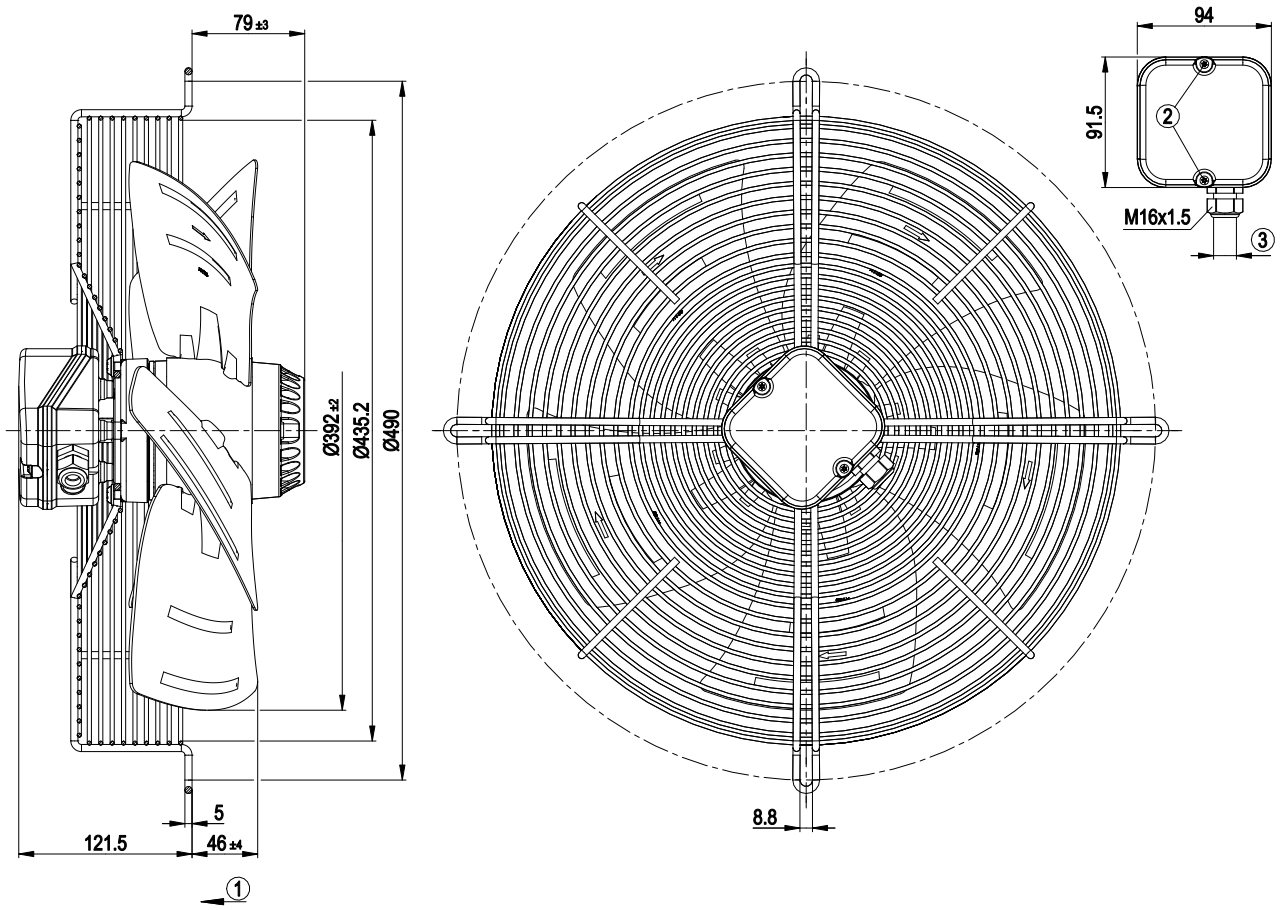
Technical description

Weight	6.9 kg
Fan size	400 mm
Rotor surface	Painted black
Terminal box material	ABS plastic
Blade material	Sheet steel, painted black
Guard grille material	Steel, 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	"B"
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
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	EAC

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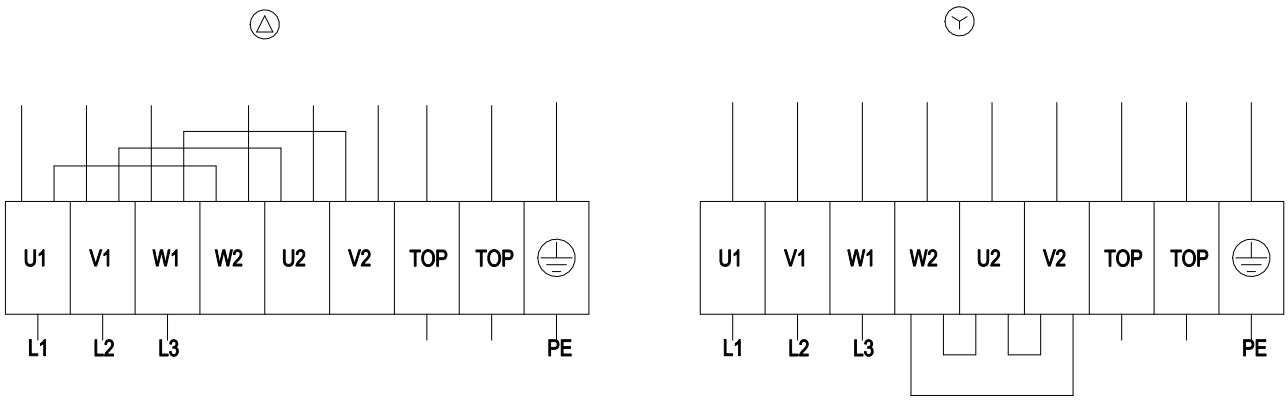
Product drawing



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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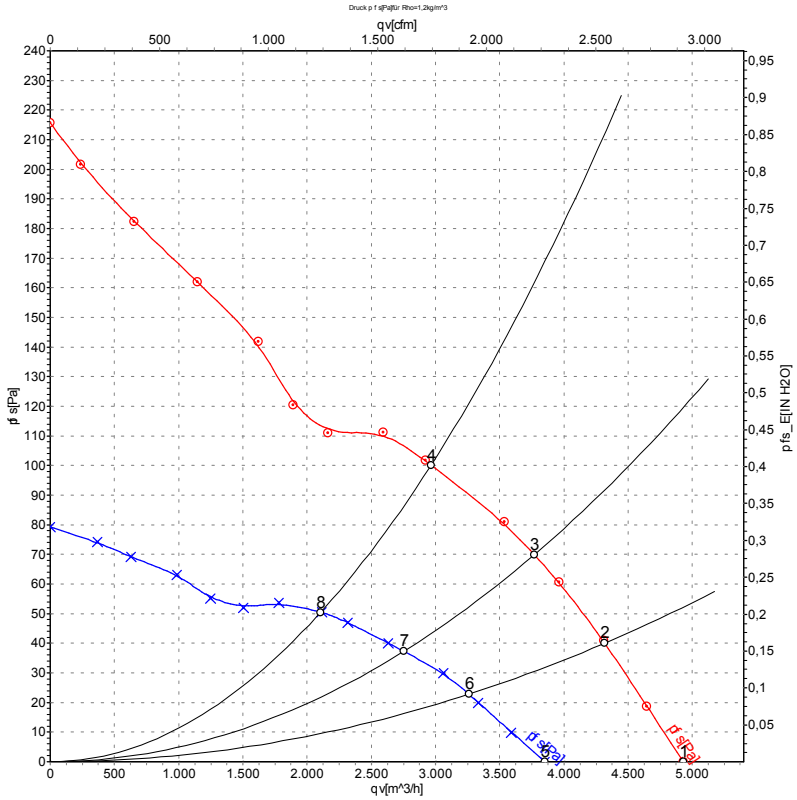
Connection diagram



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 Δ



Measurement: LU-42301-1
Measurement: LU-42303-1

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

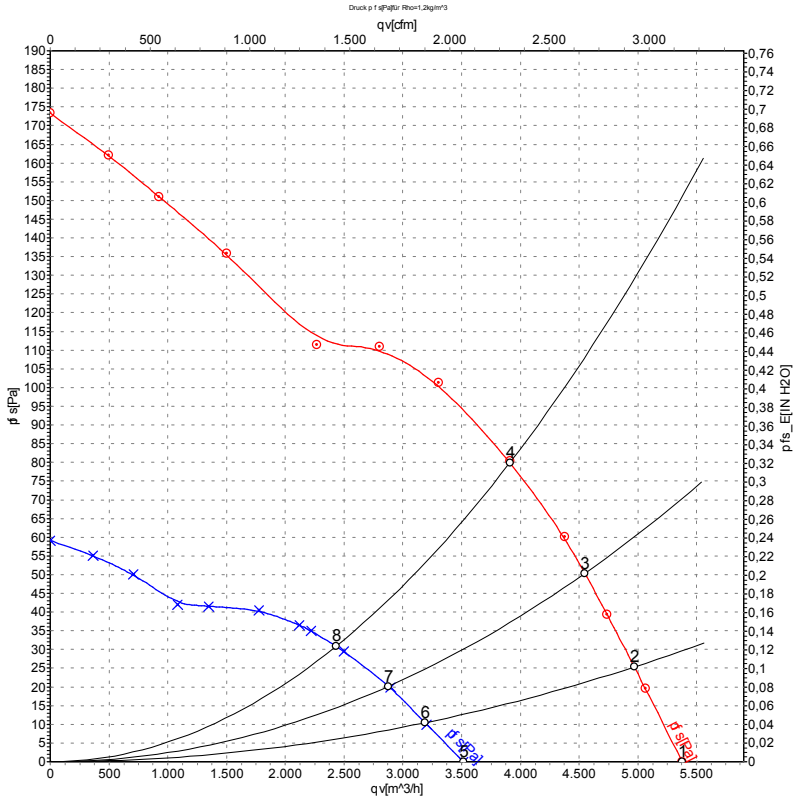
	Wired	U	f	n	P_e	I	qv	p_{fs}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	Δ	400	50	1370	225	0.46	4930	0	2900	0.00
2	Δ	400	50	1350	245	0.49	4315	40	2540	0.16
3	Δ	400	50	1340	262	0.52	3770	70	2220	0.28
4	Δ	400	50	1320	283	0.55	2965	100	1745	0.40
5	Y	400	50	1070	160	0.28	3855	0	2270	0.00
6	Y	400	50	1020	165	0.29	3260	23	1920	0.09
7	Y	400	50	980	170	0.30	2750	37	1620	0.15
8	Y	400	50	940	176	0.31	2105	51	1240	0.20

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 Δ



Measurement: LU-42302-1
Measurement: LU-42304-1

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	1490	330	0.58	5375	0	3165	0.00
2	Δ	400	60	1470	346	0.62	4970	25	2925	0.10
3	Δ	400	60	1440	361	0.65	4550	50	2675	0.20
4	Δ	400	60	1405	381	0.68	3910	80	2300	0.32
5	Y	400	60	970	175	0.33	3515	0	2070	0.00
6	Y	400	60	945	177	0.33	3190	10	1875	0.04
7	Y	400	60	910	179	0.33	2875	20	1695	0.08
8	Y	400	60	875	180	0.34	2430	31	1430	0.12

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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