A4D400-AS02-09

AC axial fan

sickle-shaped blades (S series)

ErP2015 EXCEEDS THE NORM

Nominal data

Type	**A4D400-AS02-09**
Motor	**M4D074-GA**

Phase		3~	3~	3~	3~
Nominal voltage	VAC	230	230	400	400
Wiring		Δ	Δ	Y	Y
Frequency	Hz	50	60	50	60
Method of obtaining data		fa	fa	fa	fa
Valid for approval/standard		CE	CE	CE	CE
Speed (rpm)	min^{-1}	1410	1600	1410	1600
Power consumption	W	210	320	210	320
Current draw	A	0.82	1.0	0.47	0.58
Max. back pressure	Pa	95	95	95	95
Max. back pressure	inH2O	0.38	0.38	0.38	0.38
Min. ambient temperature	°C	-40	-40	-40	-40
Max. ambient temperature	°C	50	30	50	30

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}	%	34.9	30
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		44.9	40
05 Variable speed drive		No	

09 Power consumption P_e	kW	0.26
09 Air flow q_v	m^3/h	3350
09 Pressure increase p_{fs}	Pa	101
10 Speed (rpm) n	min^{-1}	1375
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-27500

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Technical description

Weight	4.85 kg
Fan size	400 mm
Rotor surface	Painted black
Impeller material	Sheet steel
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 with low-temperature lubricant
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
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

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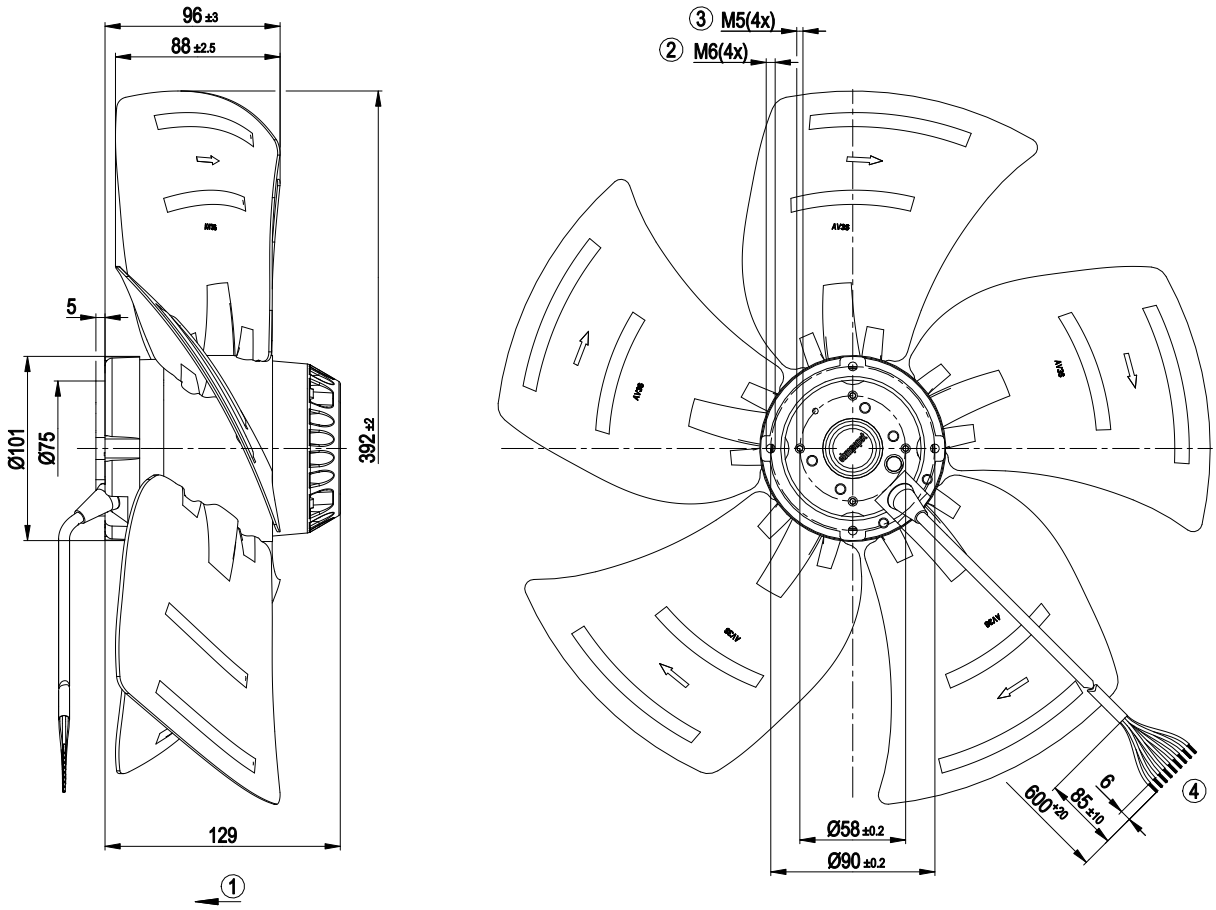
Product drawing



1	Airflow direction "V"
2	Max. clearance for screw 10 mm
3	Max. clearance for screw 5 mm
4	Cable halogen-silicone-free 9G 0.5 mm², 9x crimped splices

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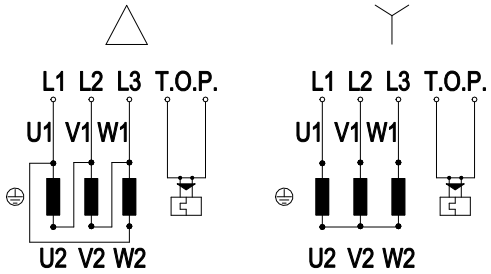
Connection diagram



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	gray

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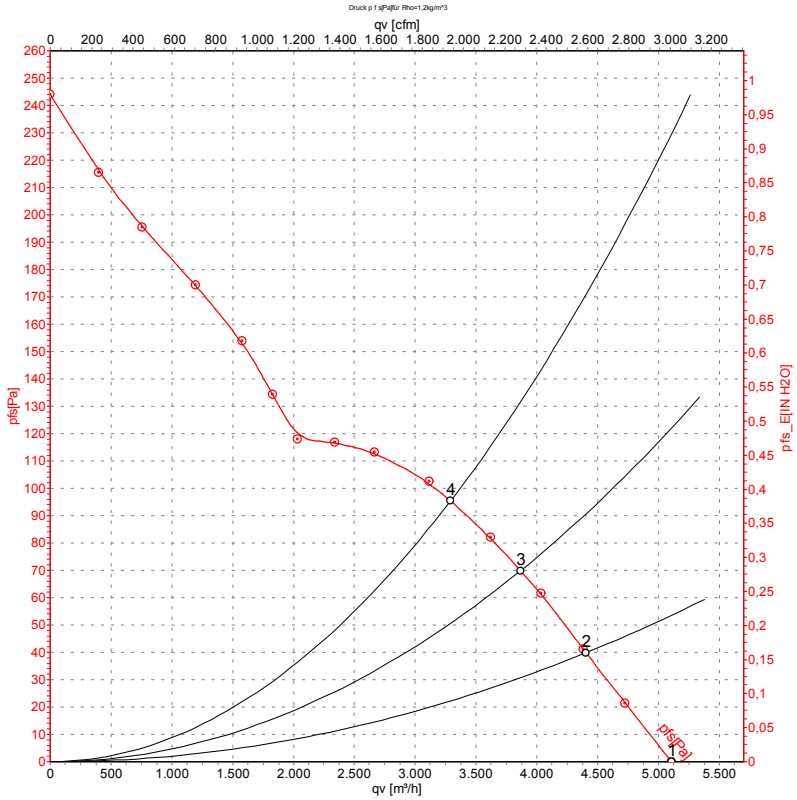
Curves: Air performance 50 Hz



Measurement: LU-32096-1

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

	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	400	50	1410	210	0.47	5110	0	3005	0.00
2	400	50	1385	231	0.54	4405	40	2590	0.16
3	400	50	1375	252	0.56	3865	70	2275	0.28
4	400	50	1360	273	0.59	3290	95	1935	0.38

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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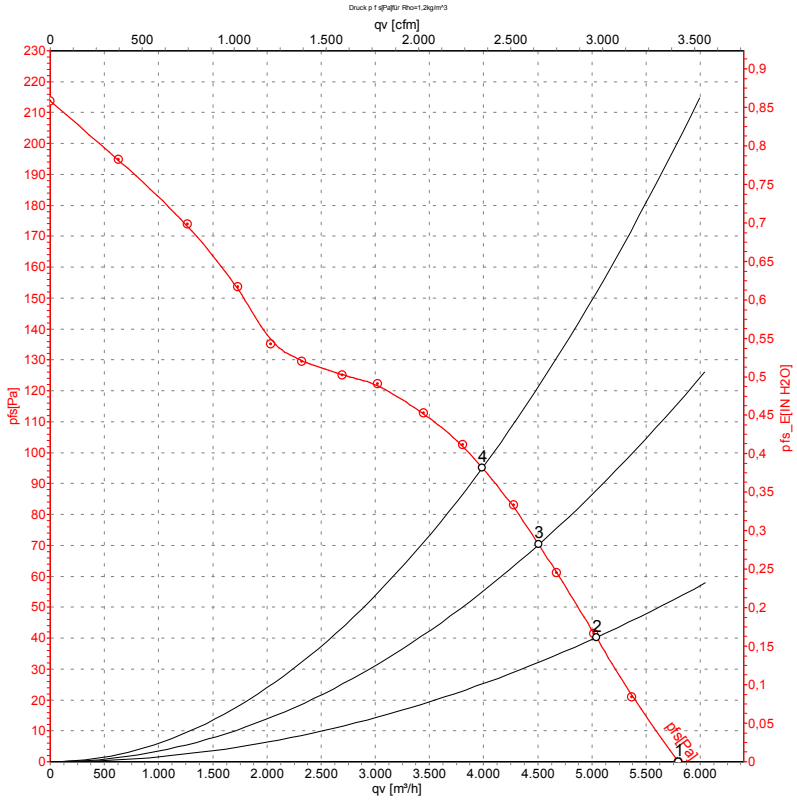
Curves: Air performance 60 Hz



Measurement: LU-32097-1

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

	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	400	60	1600	320	0.58	5795	0	3410	0.00
2	400	60	1550	339	0.62	5040	40	2965	0.16
3	400	60	1520	366	0.68	4510	70	2655	0.28
4	400	60	1495	389	0.72	3990	95	2345	0.38

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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