A4D350-AN24-14

AC axial fan

sickle-shaped blades (S series), single-intake

A4D350-AN24-14 ebmpapst Datasheet
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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**A4D350-AN24-14**
Motor	**M4D074-DF**

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		CE	CE	CE	CE
Speed (rpm)	min^{-1}	1370	1080	1510	1020
Power consumption	W	170	115	235	140
Current draw	A	0.4	0.20	0.43	0.25
Max. back pressure	Pa	90	55	110	50
Max. back pressure	inH2O	0.36	0.22	0.44	0.2
Min. ambient temperature	°C	-25	-25	-25	-25
Max. ambient temperature	°C	45	45	40	40
Starting current	A	1.1	0.35	1.1	0.35

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}	%	28.6	28.6
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	0.16
09 Air flow q_v	m^3/h	2250
09 Pressure increase p_{fs}	Pa	74
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-140791

ebmpapst

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Technical description

Weight	3.3 kg
Fan size	350 mm
Rotor surface	Painted black
Blade material	Press-fitted sheet steel blank, sprayed with PP plastic
Number of blades	5
Airflow direction	"A"
Direction of rotation	Clockwise, 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	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
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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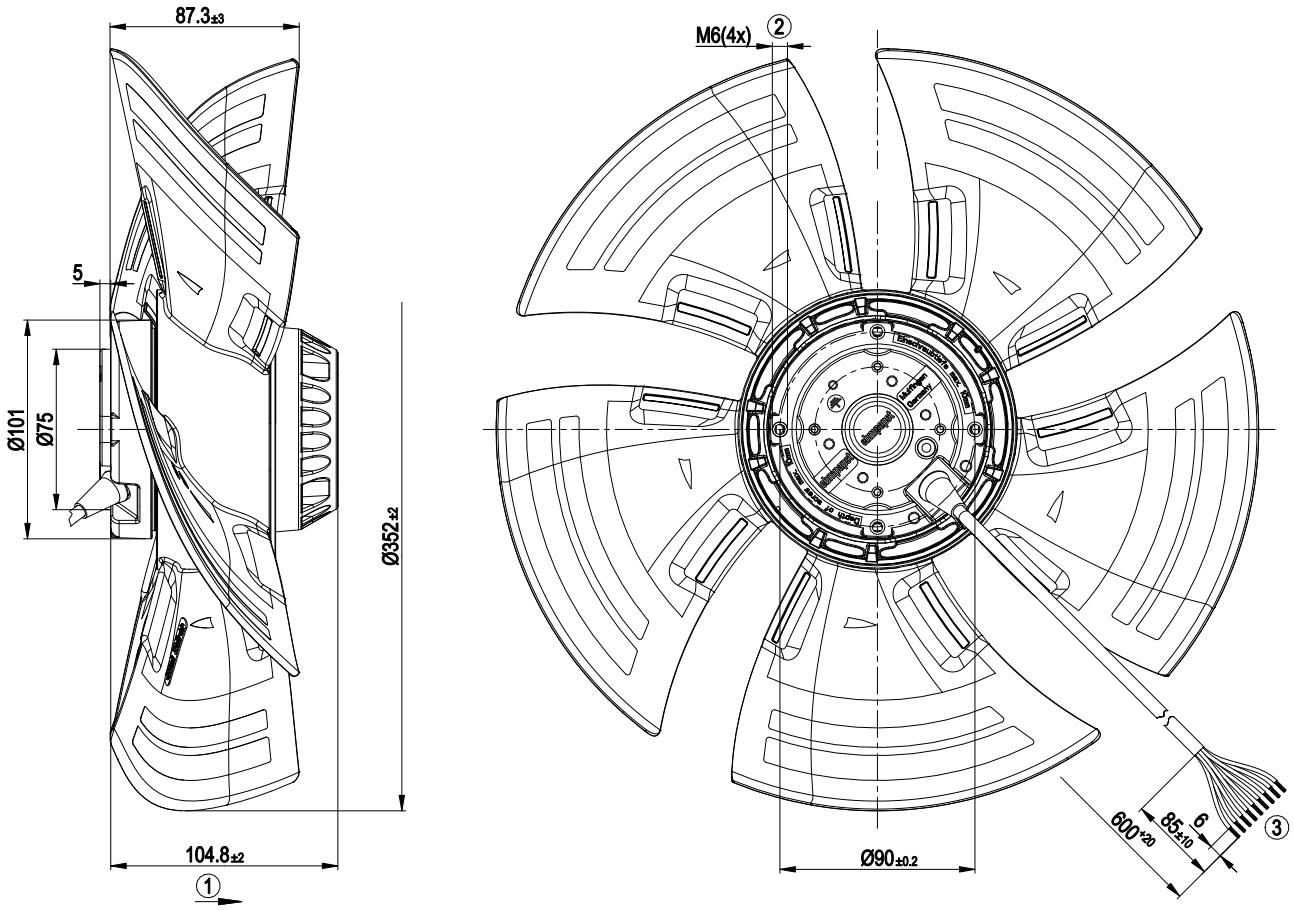
Product drawing



1	Direction of air flow "A"
2	Max. clearance for screw 10 mm
3	Cable AWG20, 9x crimped splices

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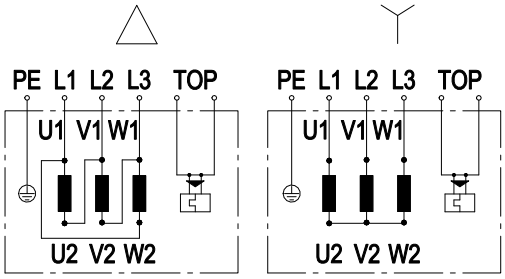
Connection diagram



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	2x gray
PE	green/yellow				

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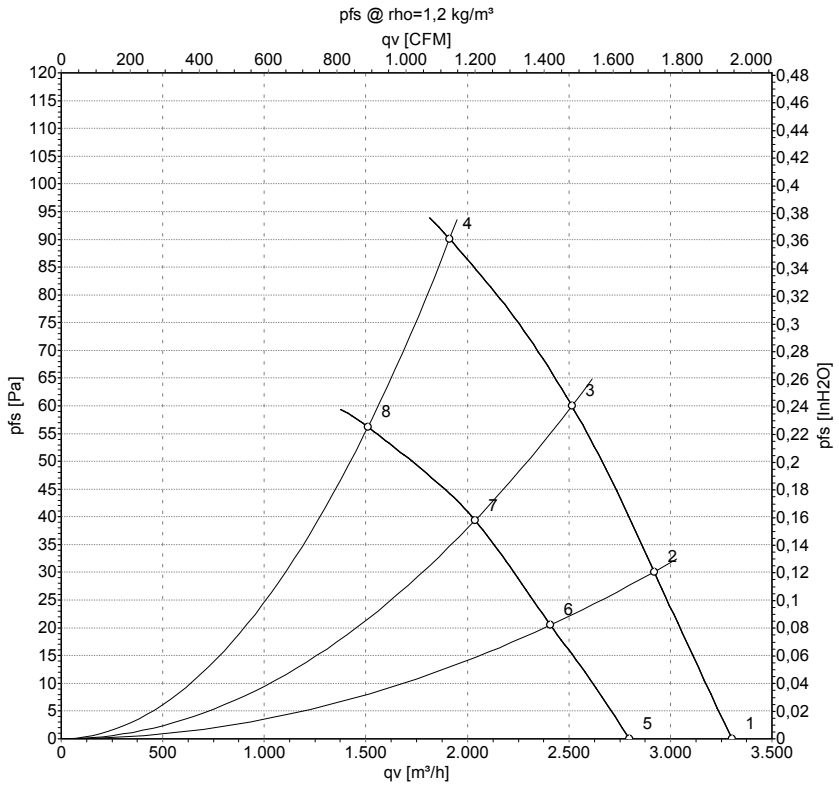
Curves: Air performance 50 Hz



Measurement: LU-140791-1
Measurement: LU-140796-1

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	1405	135	0.36	3305	0	1945	0.00
2	Δ	400	50	1395	145	0.37	2920	30	1720	0.12
3	Δ	400	50	1385	156	0.37	2515	60	1480	0.24
4	Δ	400	50	1370	170	0.40	1910	90	1125	0.36
5	Y	400	50	1195	92	0.16	2800	0	1645	0.00
6	Y	400	50	1160	99	0.17	2410	20	1420	0.08
7	Y	400	50	1120	107	0.18	2040	40	1200	0.16
8	Y	400	50	1080	115	0.20	1510	56	890	0.22

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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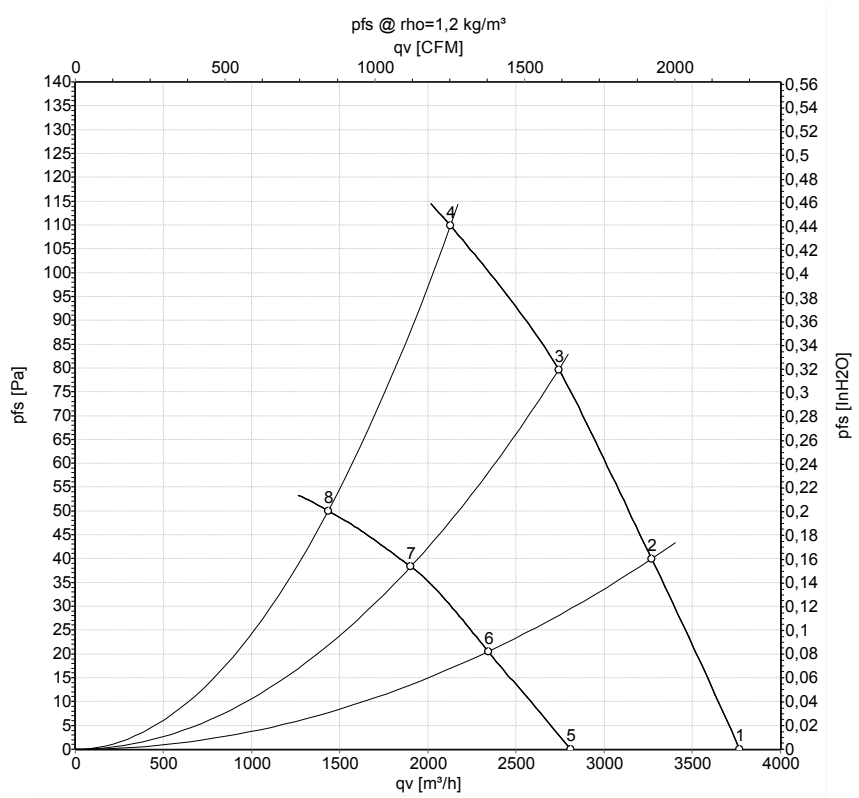
Curves: Air performance 60 Hz



Measurement: LU-140792-1
Measurement: LU-140794-1

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	Y	400	60	1605	179	0.35	3770	0	2220	0.00
2	Y	400	60	1570	199	0.37	3270	40	1925	0.16
3	Y	400	60	1540	217	0.40	2740	80	1615	0.32
4	Y	400	60	1510	235	0.43	2125	110	1250	0.44
5	Y	400	60	1205	122	0.20	2810	0	1655	0.00
6	Y	400	60	1135	130	0.22	2340	20	1380	0.08
7	Y	400	60	1075	135	0.23	1905	38	1120	0.15
8	Y	400	60	1020	140	0.25	1435	50	845	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