A4E350-AN02-01

AC axial fan - HyBlade

sickle-shaped blades (S series)



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Nominal data

Type	**A4E350-AN02-01**		
Motor	**M4E074-DF**		
Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Method of obtaining data		ml	ml
Valid for approval/standard		CE	CE
Speed (rpm)	min^{-1}	1340	1470
Power consumption	W	165	210
Current draw	A	0.73	0.93
Capacitor	µF	4	4
Capacitor voltage	VDB	400	400
Capacitor standard		S0 (CE)	S0 (CE)
Max. back pressure	Pa	90	60
Max. back pressure	in. wg	0.36	0.24
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	65	30
Starting current	A	1.4	1.28

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

Data according to Commission Regulation (EU) 327/2011 (prEN 17166)

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	30.3	28.6
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		41.7	40
05 Variable speed drive		No	

09 Power consumption P_e	kW	0.15
09 Air flow q_v	m^3/h	2215
09 Pressure increase p_{fs}	Pa	77
10 Speed (rpm) n	min^{-1}	1360
11 Specific ratio*		1.00

Data obtained at optimum efficiency level.

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

LU-186193

The efficiency values displayed for achieving conformity with the Ecodesign Regulation EU 327/2011 has been reached with defined air duct components (e.g. inlet rings).
The dimensions must be requested from ebm-papst. If other air conduction geometries are used on the installation side, the ebm-papst evaluation loses its validity/the conformity must be confirmed again.

The product does not fall within the scope of Regulation (EU) 2019/1781 due to the exception specified in Article 2 (2a) (motors completely integrated into a product).

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Technical description

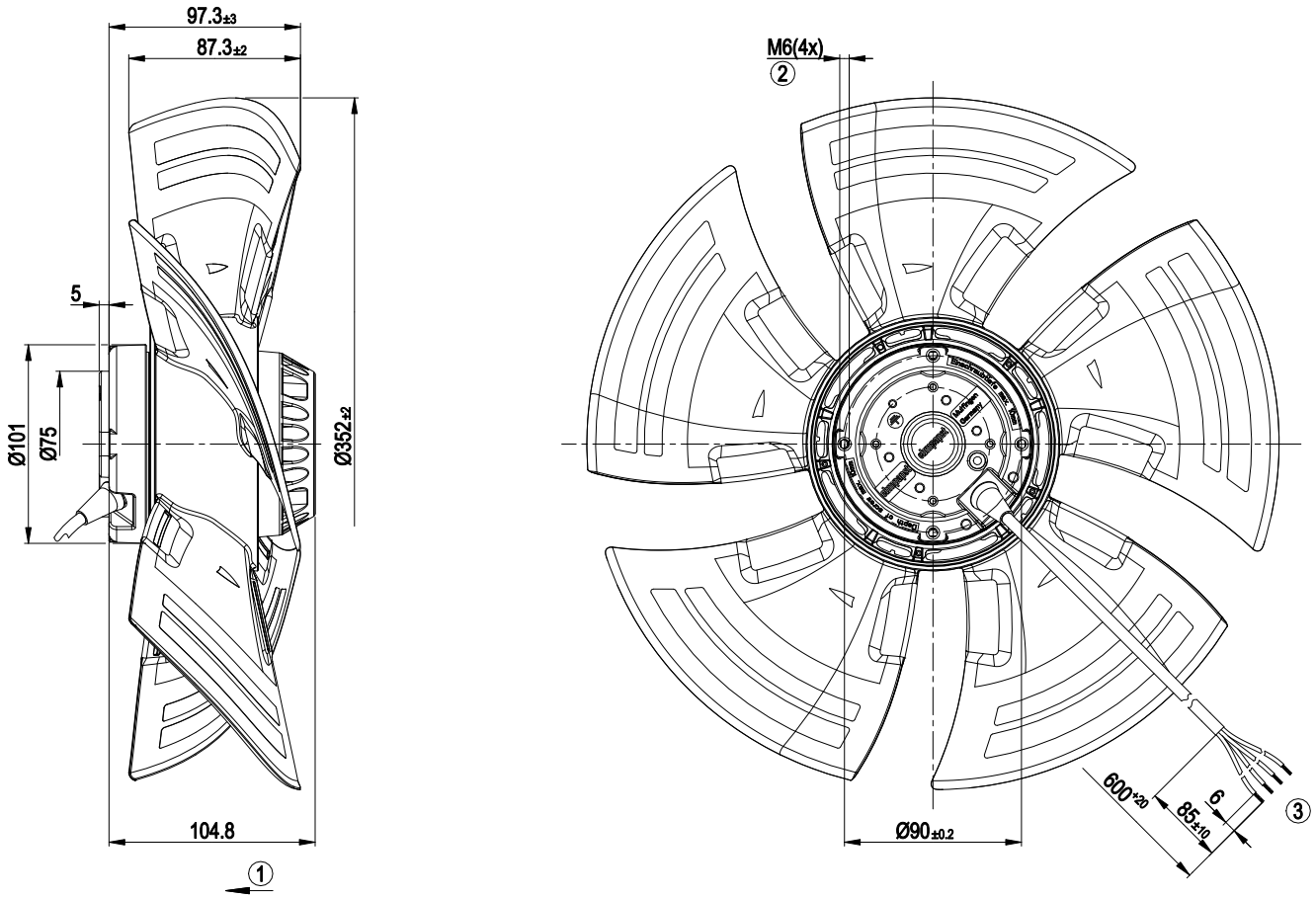
Weight	3.3 kg
Size	350 mm
Motor size	74
Rotor surface	Painted black
Blade material	Press-fitted sheet steel blank, sprayed with PP plastic
Number of blades	5
Airflow direction	V
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H1
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) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE; UKCA
Approval	CCC; EAC

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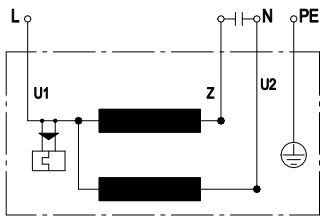
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Product drawing



1	Direction of air flow "V"
2	Max. clearance for screw 10 mm
3	Cable silicone 4G 0.5 mm², 4x crimped splices

Connection diagram



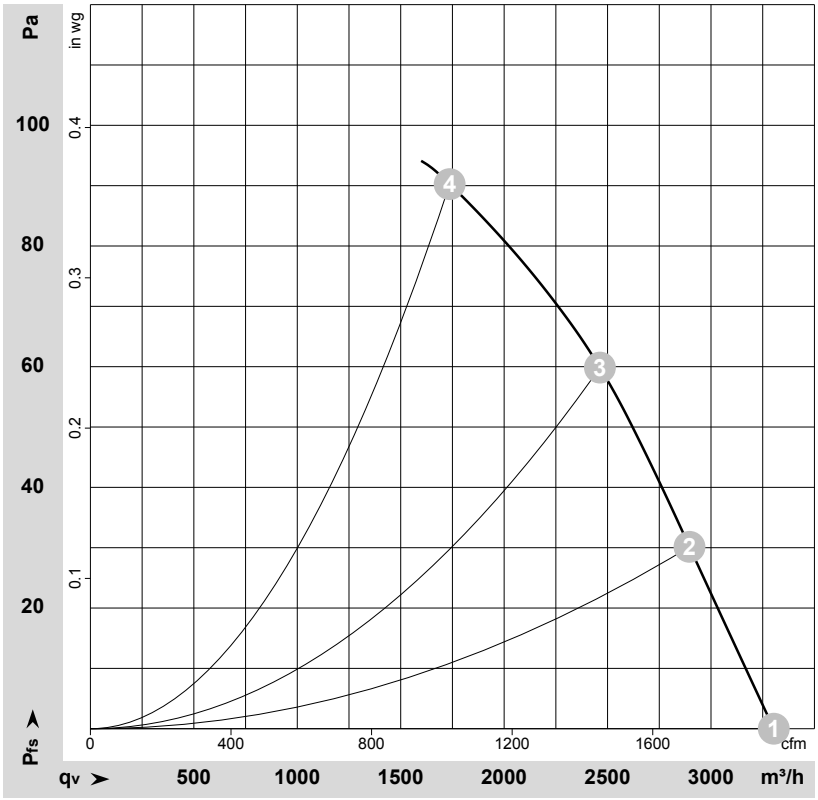
U1	blue	Z	brown	U2	black
PE	green/yellow				

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Curves: Air performance 50 Hz



ρ = 1.179 kg/m³ ± 2 %

Measurement: LU-131320-1

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	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	in. wg
1	230	50	1400	135	0.60	62	69	3305	0	1945	0.00
2	230	50	1380	145	0.64	59	67	2895	30	1705	0.12
3	230	50	1365	155	0.68	56	64	2465	60	1450	0.24
4	230	50	1340	165	0.73	58	66	1735	90	1020	0.36

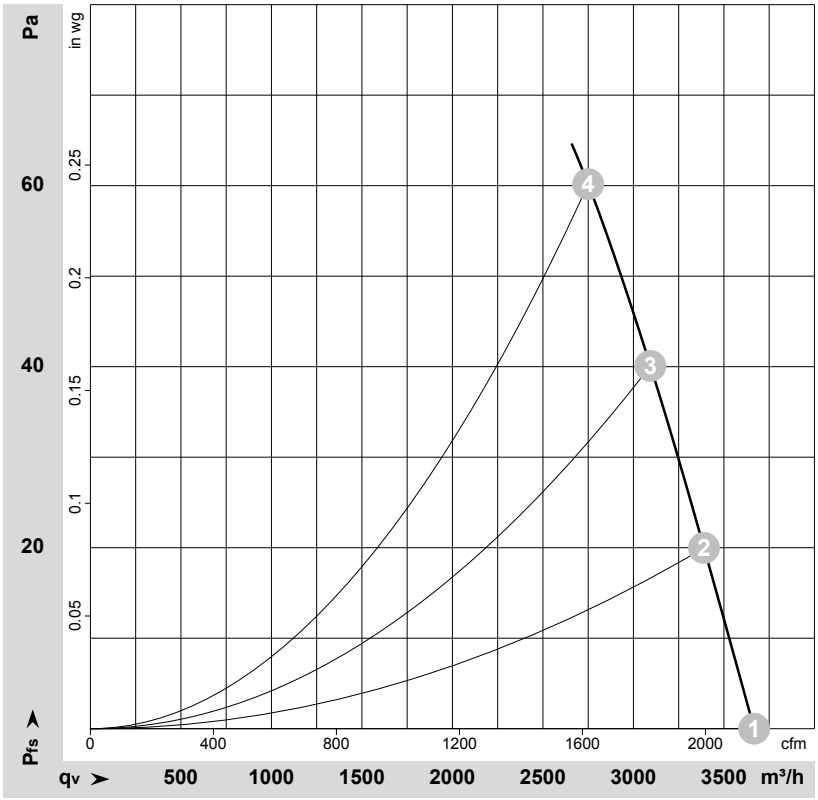
U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
q_V = Air flow · p_{fs} = Pressure increase

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Curves: Air performance 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-154491-1

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	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	230	60	1575	192	0.84	3665	0	2160	0.00
2	230	60	1545	199	0.87	3390	20	1995	0.08
3	230	60	1515	206	0.90	3095	40	1820	0.16
4	230	60	1470	210	0.93	2750	60	1620	0.24

U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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