

# AC axial fan - HyBlade

sickle-shaped blades (S series)

with guard grille for short nozzle

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## Nominal data

Type	S4E350-AN02-50	
Motor	M4E074-DF	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50
Method of obtaining data		ml
Valid for approval/standard		CE
Speed (rpm)	min <sup>-1</sup>	1340
Power consumption	W	165
Current draw	A	0.73
Capacitor	µF	4
Capacitor voltage	VDB	400
Capacitor standard		S0 (CE)
Max. back pressure	Pa	90
Max. back pressure	in. wg	0.36
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	65
Starting current	A	1.4

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 (EN 17166)

		Actual	Req. 2015			
01 Overall efficiency $\eta_{es}$	%	28.6	28.6	09 Power consumption $P_e$	kW	0.15
02 Measurement category		A		09 Air flow $q_v$	m <sup>3</sup> /h	1995
03 Efficiency category		Static		09 Pressure increase $p_{fs}$	Pa	83
04 Efficiency grade N		40	40	10 Speed (rpm) n	min <sup>-1</sup>	1355
05 Variable speed drive		No		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 =  $1 + p_g / 100\,000\text{ Pa}$

LU-186262



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## Technical description

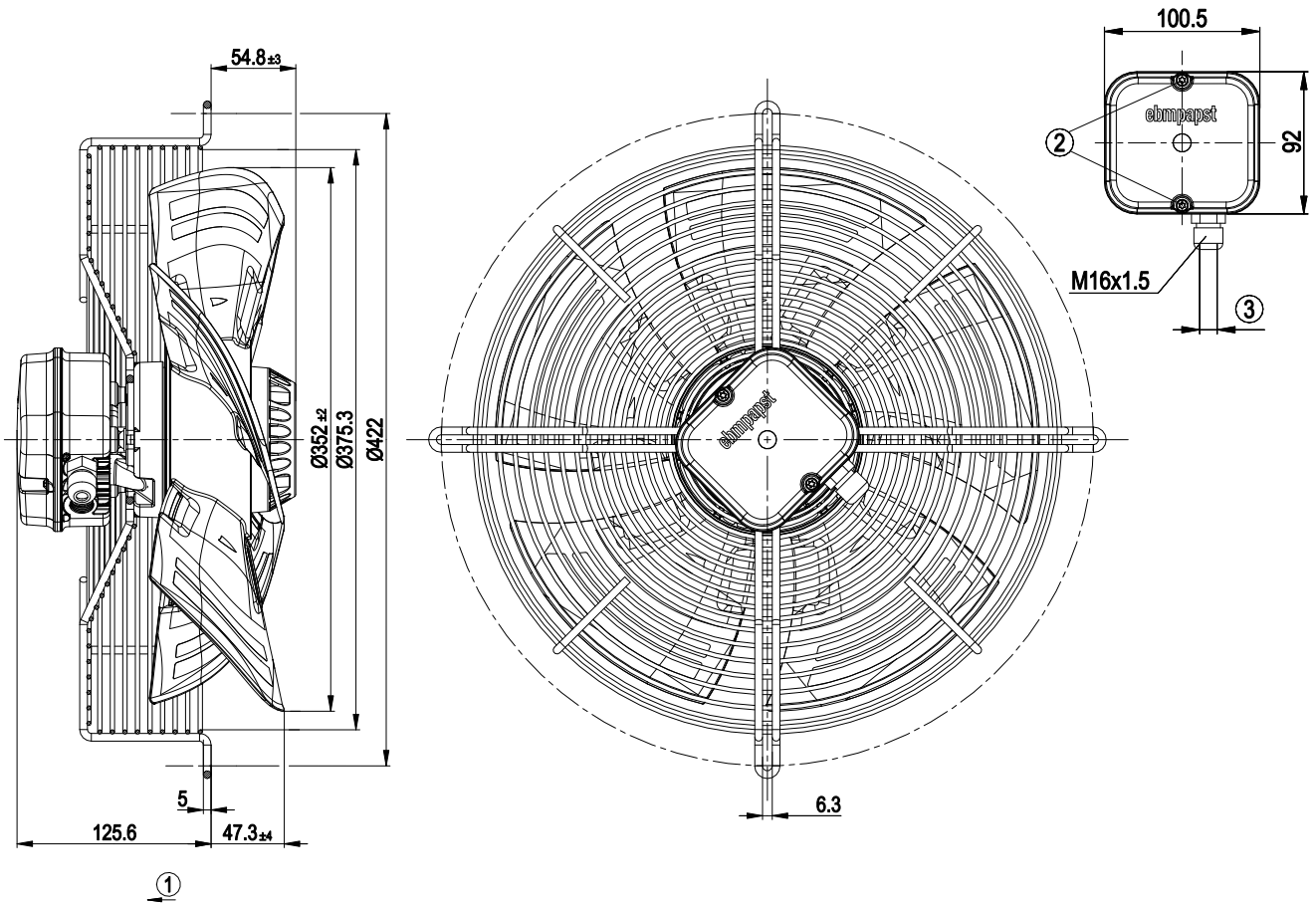
<b>Weight</b>	4.9 kg
<b>Size</b>	350 mm
<b>Motor size</b>	74
<b>Rotor surface</b>	Painted black
<b>Terminal box material</b>	ABS plastic
<b>Blade material</b>	Press-fitted sheet steel blank, sprayed with PP plastic
<b>Guard grille material</b>	Steel, coated with black plastic (RAL 9005)
<b>Number of blades</b>	5
<b>Airflow direction</b>	V
<b>Direction of rotation</b>	Counterclockwise, viewed toward rotor
<b>Degree of protection</b>	IP44; installation- and position-dependent as per EN 60034-5
<b>Insulation class</b>	"F"
<b>Moisture (F) / Environmental (H) protection class</b>	H1
<b>Max. permitted ambient temp. for motor (transport/storage)</b>	+ 80 °C
<b>Min. permitted ambient temp. for motor (transport/storage)</b>	- 40 °C
<b>Installation position</b>	Shaft horizontal or rotor on bottom; rotor on top on request
<b>Condensation drainage holes</b>	On rotor side
<b>Mode</b>	S1
<b>Motor bearing</b>	Ball bearing
<b>Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)</b>	< 0.75 mA
<b>Electrical hookup</b>	Terminal box; Via terminal box, capacitor integrated and connected
<b>Motor protection</b>	Thermal overload protector (TOP) internally connected
<b>With cable</b>	Axial
<b>Protection class</b>	I (with customer connection of protective earth)
<b>Motor capacitor according to EN 60252-1 in safety protection class</b>	S0
<b>Conformity with standards</b>	EN 60335-1; CE
<b>Approval</b>	CCC; EAC



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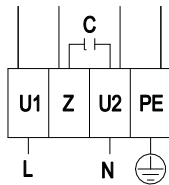
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## Product drawing



1	Direction of air flow "V"
2	Tightening torque $1.5 \pm 0.2$ Nm
3	Cable diameter: max. 7.5 mm, tightening torque $1.3 \pm 0.2$ Nm

## Connection diagram



L	= U1 = blue	Z	brown	N	= U2 = black
PE	green/yellow				

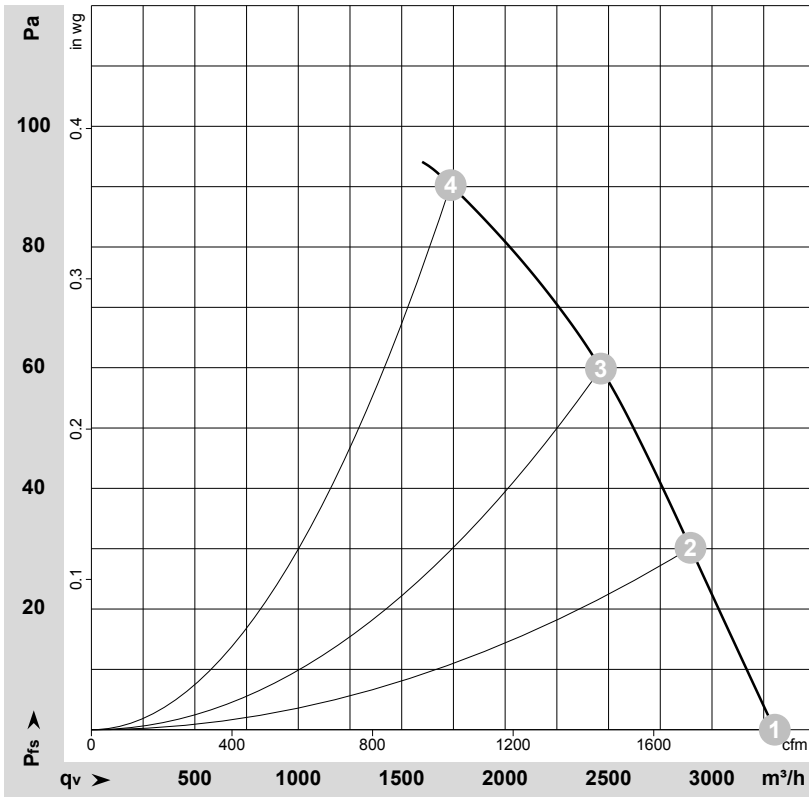


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## Curves: Air performance 50 Hz



$\rho = 1.179 \text{ kg/m}^3 \pm 2 \%$

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 <sub>e</sub>	I	LpA <sub>in</sub>	LwA <sub>in</sub>	q <sub>v</sub>	p <sub>fs</sub>	q <sub>v</sub>	p <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	dB(A)	dB(A)	m³/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<sub>e</sub> = Power consumption · I = Current draw · LpA<sub>in</sub> = Sound pressure level intake side · LwA<sub>in</sub> = Sound power level intake side  
 q<sub>v</sub> = Air flow · p<sub>fs</sub> = Pressure increase

