

# AC axial fan

straight blades (A series)

with guard grille for full nozzle

S4D350-BA06-01 ebmpapst Datasheet

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## Nominal data

Type	S4D350-BA06-01				
Motor	M4D068-EC				
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		-	-	-	-
Speed (rpm)	min <sup>-1</sup>	1420	1620	1420	1620
Power consumption	W	145	190	145	190
Current draw	A	0.68	0.62	0.39	0.36
Max. back pressure	Pa	150	150	150	150
Max. back pressure	inH <sub>2</sub> O	0.6	0.6	0.6	0.6
Min. ambient temperature	°C	-25	-25	-25	-25
Max. ambient temperature	°C	50	50	50	50

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 $\eta_{es}$	%	28.5	28.5	09 Power consumption $P_e$	kW 0.15
02 Measurement category		A		09 Air flow $q_v$	m <sup>3</sup> /h 2015
03 Efficiency category		Static		09 Pressure increase $p_{fs}$	Pa 75
04 Efficiency grade N		40	40	10 Speed (rpm) n	min <sup>-1</sup> 1390
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-64797



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## Technical description

<b>Weight</b>	4 kg
<b>Fan size</b>	350 mm
<b>Rotor surface</b>	Painted black
<b>Blade material</b>	Sheet steel, painted black
<b>Guard grille material</b>	Steel, galvanized and 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>	"B"
<b>Moisture (F) / Environmental (H) protection class</b>	H0+
<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>With cable</b>	Lateral
<b>Protection class</b>	I (with customer connection of protective earth)
<b>Conformity with standards</b>	EN 60335-1, motor does not have factory-installed overheating protection
<b>Approval</b>	EAC

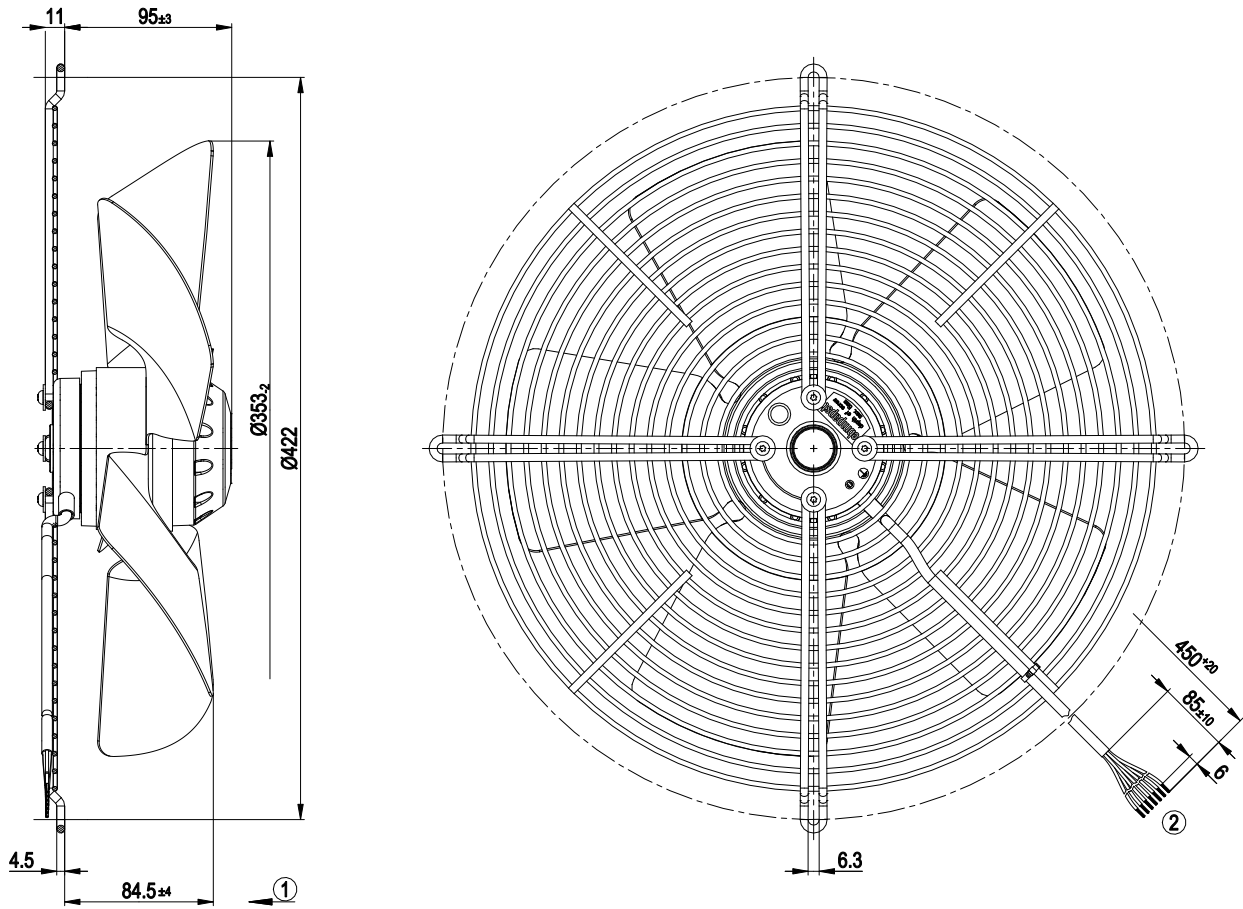


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## Product drawing



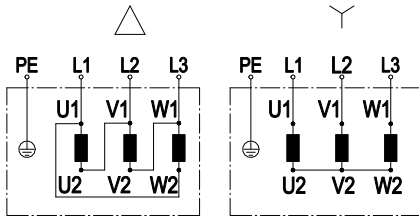
- |   |   |
|---|---|
| 1 | Direction of air flow "V"                             |
| 2 | Cable PVC 7G 0.5 mm <sup>2</sup> , 7x crimped splices |



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## Connection diagram



Change of rotation direction by reversing two phases

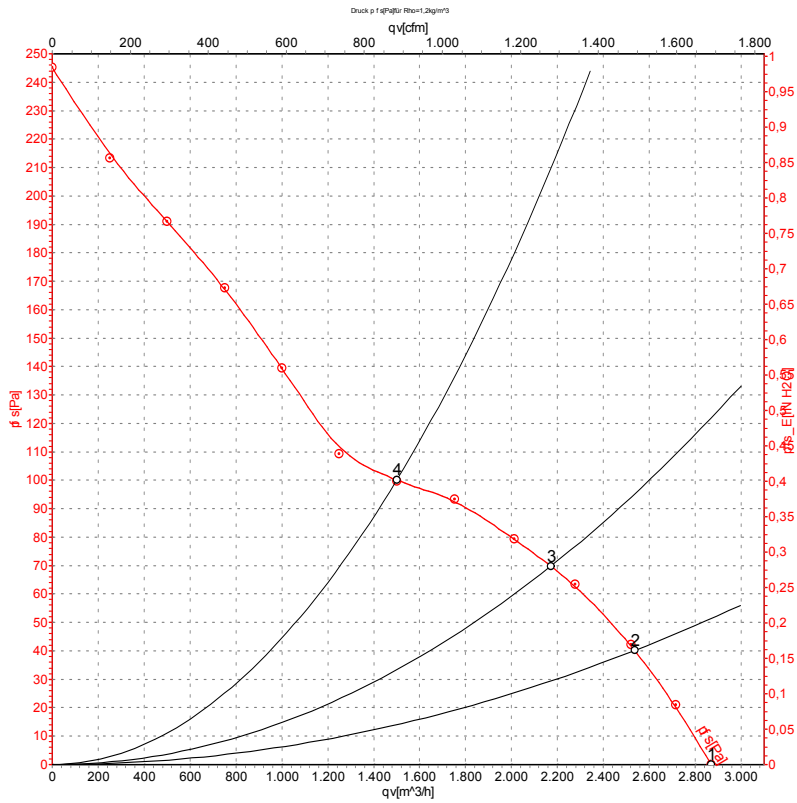
	Three-phase motor	Δ	Delta connection	Y	Star connection
L1	= U1 = black	L2	= V1 = blue	L3	= W1 = brown
U2	green	V2	white	W2	yellow
PE	green/yellow				



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## Curves: Air performance 50 Hz



Measurement: LU-64797-1

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	qv	p <sub>fs</sub>	qv	p <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa	CFM	inH <sub>2</sub> O
1	400	50	1420	128	0.39	2870	0	1690	0.00
2	400	50	1405	141	0.40	2535	40	1495	0.16
3	400	50	1395	150	0.41	2170	70	1280	0.28
4	400	50	1385	158	0.41	1500	100	885	0.40

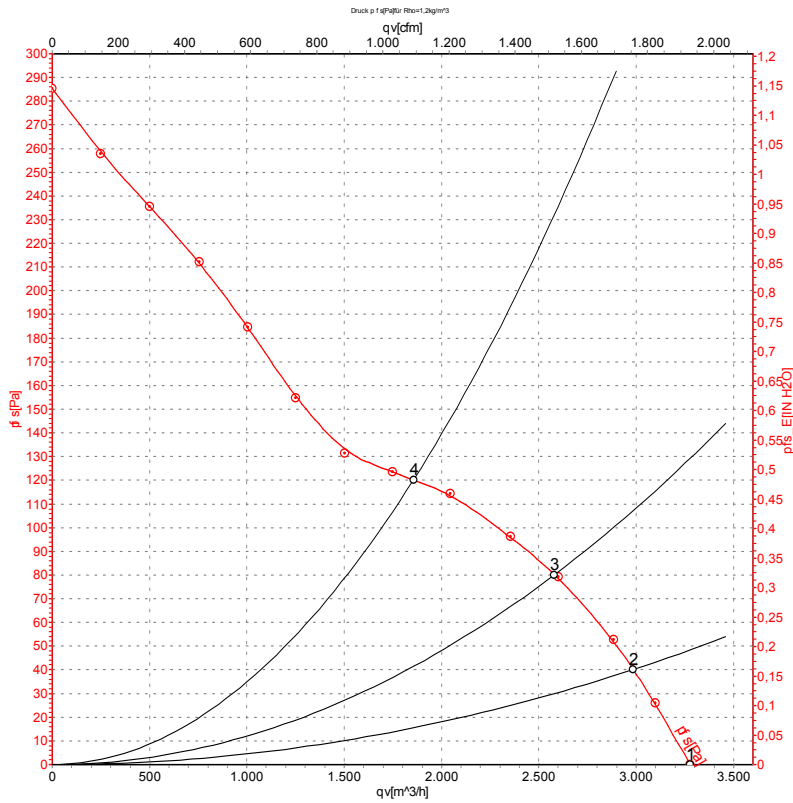
U = Power supply · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power consumption · I = Current draw · qv = Air flow · p<sub>fs</sub> = Pressure increase



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## Curves: Air performance 60 Hz



Measurement: LU-64798-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebmpapst. 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	qv	p <sub>fs</sub>	qv	p <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa	CFM	inH <sub>2</sub> O
1	400	60	1620	169	0.36	3280	0	1930	0.00
2	400	60	1605	185	0.36	2985	40	1755	0.16
3	400	60	1580	202	0.38	2580	80	1520	0.32
4	400	60	1560	217	0.39	1855	120	1090	0.48

U = Power supply · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power consumption · I = Current draw · qv = Air flow · p<sub>fs</sub> = Pressure increase

