

# AC axial fan - HyBlade

sickle-shaped blades (S series)

with guard grille for full nozzle

S4D300-BS34-30 ebmpapst Datasheet

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## Nominal data

Type	S4D300-BS34-30				
Motor	M4D068-CF				
Phase		3~	3~	3~	3~
Nominal voltage	VAC	400	400	460	480
Wiring		Y	Y	Y	Y
Frequency	Hz	50	60	60	60
Method of obtaining data		ml	ml	ml	ml
Valid for approval/standard		CE	CE	CE	CE
Speed (rpm)	min <sup>-1</sup>	1300	1400	1480	1510
Power consumption	W	68	90	102	105
Current draw	A	0.14	0.15	0.16	0.16
Max. back pressure	Pa	60	70	80	80
Max. back pressure	inH <sub>2</sub> O	0.24	0.28	0.32	0.32
Min. ambient temperature	°C	-25	-25	-25	-25
Max. ambient temperature	°C	60	55	50	50

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

Subject to change



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## Technical description

Weight	1.8 kg
Fan size	300 mm
Rotor surface	Painted black
Blade material	Press-fitted sheet steel blank, sprayed with PP plastic
Guard grille material	Steel, phosphated and coated with black plastic (RAL 9005)
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	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
With cable	Axial
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1

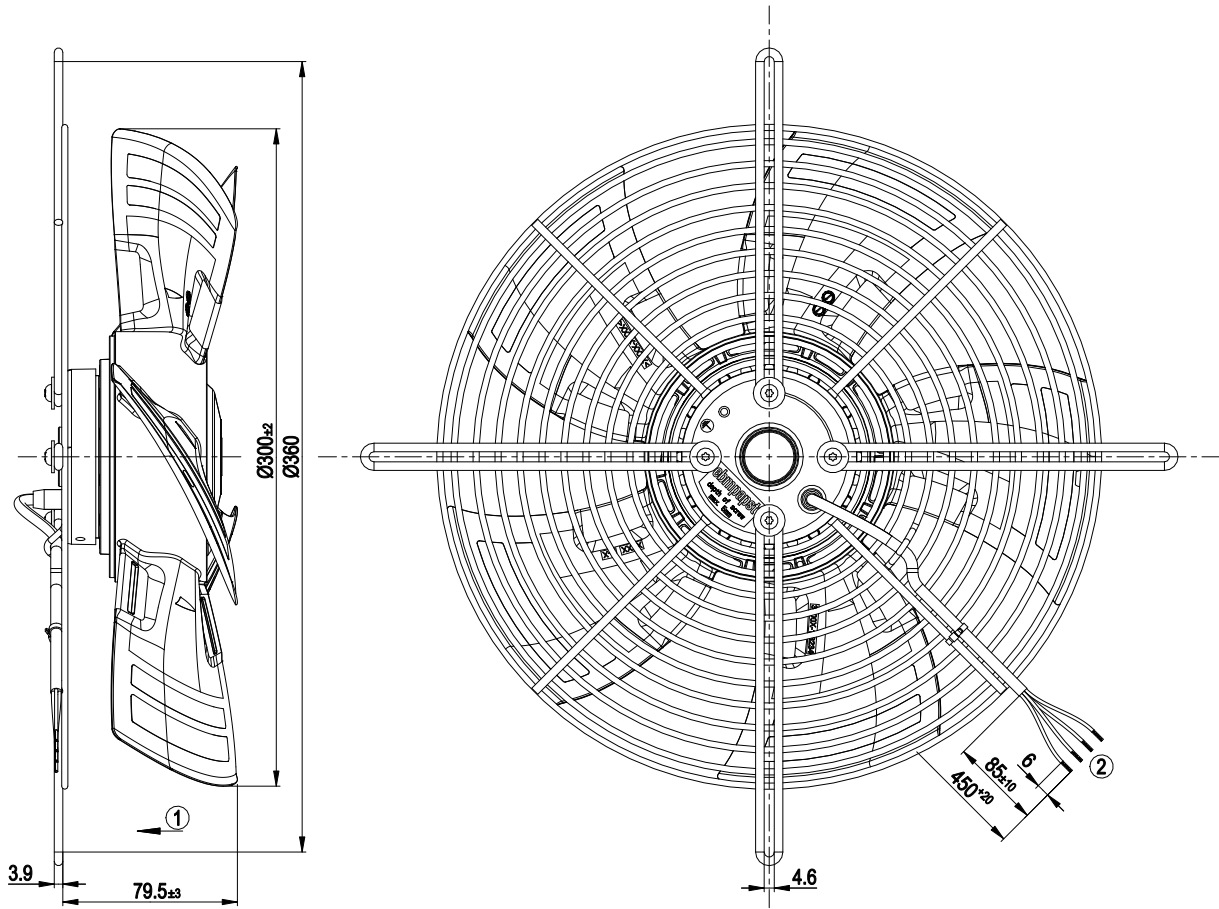


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## Product drawing



- |   |   |
|---|---|
| 1 | Direction of air flow "V"                             |
| 2 | Cable PVC 4G 0.5 mm <sup>2</sup> , 4x crimped splices |

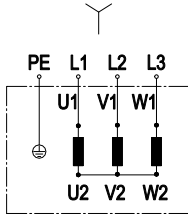


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## Connection diagram



Change of rotation direction by reversing two phases

	Three-phase motor	Y	Star connection	L1	black
L2	blue	L3	brown	PE	green/yellow

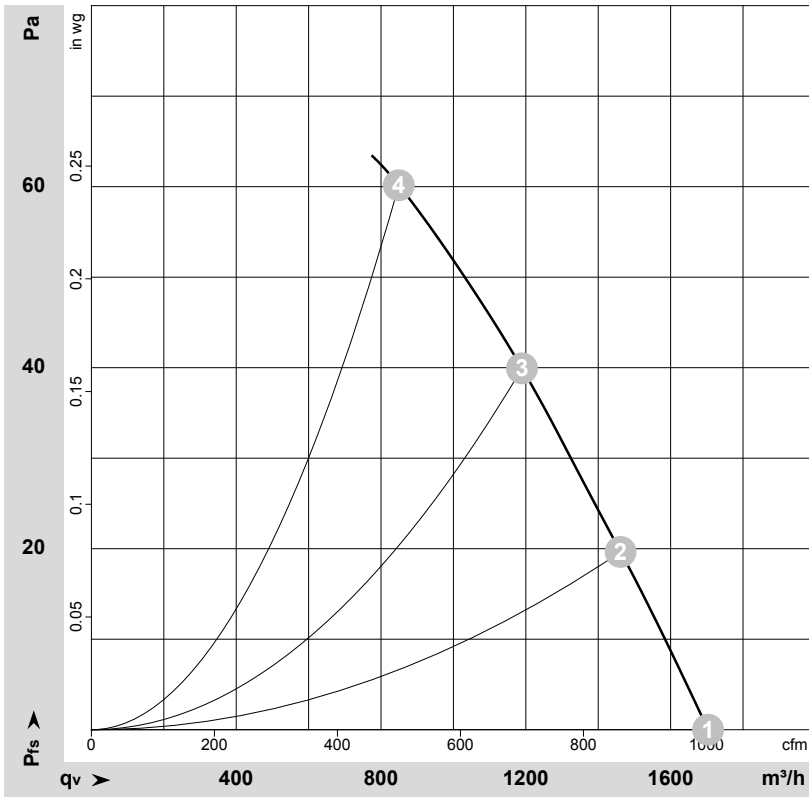


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## Curves: Air performance 50 Hz



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-114649-1

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

	Wired	U	f	n	P <sub>e</sub>	I	LpA <sub>in</sub>	LwA <sub>in</sub>	qv	P <sub>fs</sub>	qv	P <sub>fs</sub>
		V	Hz	min <sup>-1</sup>	W	A	dB(A)	dB(A)	m <sup>3</sup> /h	Pa	CFM	inH <sub>2</sub> O
1	Y	400	50	1370	53	0.13	52	59	1705	0	1000	0.00
2	Y	400	50	1350	57	0.13	51	58	1460	20	860	0.08
3	Y	400	50	1335	61	0.13	51	58	1190	40	700	0.16
4	Y	400	50	1300	68	0.14	57	65	850	60	500	0.24

Wired = Wiring · U = Power supply · 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  
 qv = Air flow · P<sub>fs</sub> = Pressure increase

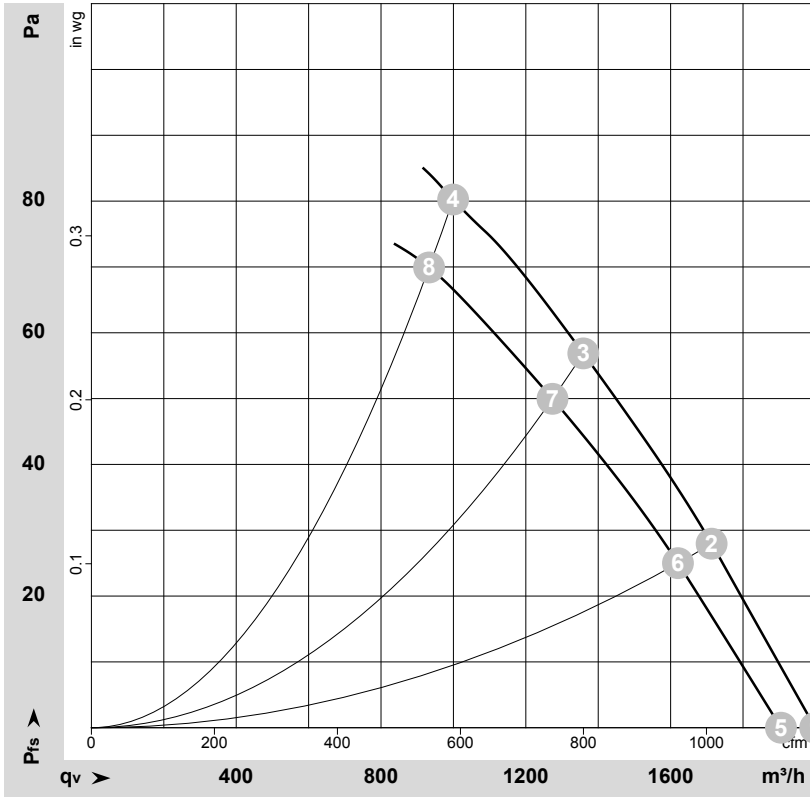


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## Curves: Air performance 60 Hz



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-114654-1  
Measurement: LU-114653-1

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 <sub>e</sub>	I	LpA <sub>in</sub>	LwA <sub>in</sub>	qv	P <sub>fs</sub>	qv	P <sub>fs</sub>
		V	Hz	min <sup>-1</sup>	W	A	dB(A)	dB(A)	m <sup>3</sup> /h	Pa	CFM	inH <sub>2</sub> O
1	Y	480	60	1605	79	0.14			2000	0	1175	0.00
2	Y	480	60	1580	86	0.14			1715	28	1010	0.11
3	Y	480	60	1560	92	0.15			1360	57	800	0.23
4	Y	480	60	1510	105	0.16			1000	80	590	0.32
5	Y	400	60	1530	69	0.13	55	62	1905	0	1120	0.00
6	Y	400	60	1495	75	0.13	54	61	1620	25	955	0.10
7	Y	400	60	1460	80	0.14	54	61	1275	50	750	0.20
8	Y	400	60	1400	90	0.15	60	68	935	70	550	0.28

Wired = Wiring · U = Power supply · 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  
qv = Air flow · P<sub>fs</sub> = Pressure increase

