

## AC axial fan

sickled blades (S series)  
with guard grille for short nozzle

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## Nominal data

<b>Type</b>	<b>S4D350-AN08-31</b>				
<b>Motor</b>	<b>M4D074-DF</b>				
Phase		3~	3~	3~	3~
Nominal voltage	VAC	230	230	400	400
Connection		Δ	Δ	Y	Y
Frequency	Hz	50	60	50	60
Type of data definition		ml	ml	ml	ml
Valid for approval / standard		CE	CE	CE	CE
Speed	min <sup>-1</sup>	1370	1520	1370	1520
Power input	W	170	230	170	230
Current draw	A	0.64	0.70	0.37	0.40
Max. back pressure	Pa	90	90	90	90
Min. ambient temperature	°C	-25	-25	-25	-25
Max. ambient temperature	°C	65	55	65	55
Starting current	A	1.9	1.9	1.1	1.1

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit  
Subject to alterations

## Data according to ErP directive

Installation category	A
Efficiency category	Static
Variable speed drive	No
Specific ratio*	1.00

\* Specific ratio =  $1 + p_s / 100\,000\text{ Pa}$

		Actual	Request 2013	Request 2015
Overall efficiency $\eta_{es}$	%	28.7	24.6	28.6
Efficiency grade N		40.1	36	40
Power input $P_e$	kW	0.16		
Air flow $q_v$	m <sup>3</sup> /h	2105		
Pressure increase $p_{fs}$	Pa	82		
Speed n	min <sup>-1</sup>	1375		

Data definition with optimum efficiency. LU-131044  
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.



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## Technical features

<b>Mass</b>	4.8 kg
<b>Size</b>	350 mm
<b>Surface of rotor</b>	Coated in black
<b>Material of blades</b>	Press-fitted sheet steel blank, sprayed with PP plastic
<b>Material of guard grille</b>	Steel, phosphated and coated with black plastic
<b>Number of blades</b>	5
<b>Direction of air flow</b>	"A"
<b>Direction of rotation</b>	Clockwise, seen on rotor
<b>Type of protection</b>	IP 44; Depending on installation and position as per EN 60034-5
<b>Insulation class</b>	"F"
<b>Humidity class</b>	F1-2
<b>Max. permissible ambient motor temp. (transp./ storage)</b>	+ 80 °C
<b>Min. permissible ambient motor temp. (transp./storage)</b>	- 40 °C
<b>Mounting position</b>	Shaft horizontal or rotor on bottom; rotor on top on request
<b>Condensate discharge holes</b>	Rotor-side
<b>Operation mode</b>	S1
<b>Motor bearing</b>	Ball bearing
<b>Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)</b>	< 0.75 mA
<b>Cable exit</b>	Variable
<b>Protection class</b>	I (if protective earth is connected by customer)
<b>Product conforming to standard</b>	EN 60335-1
<b>Approval</b>	CCC



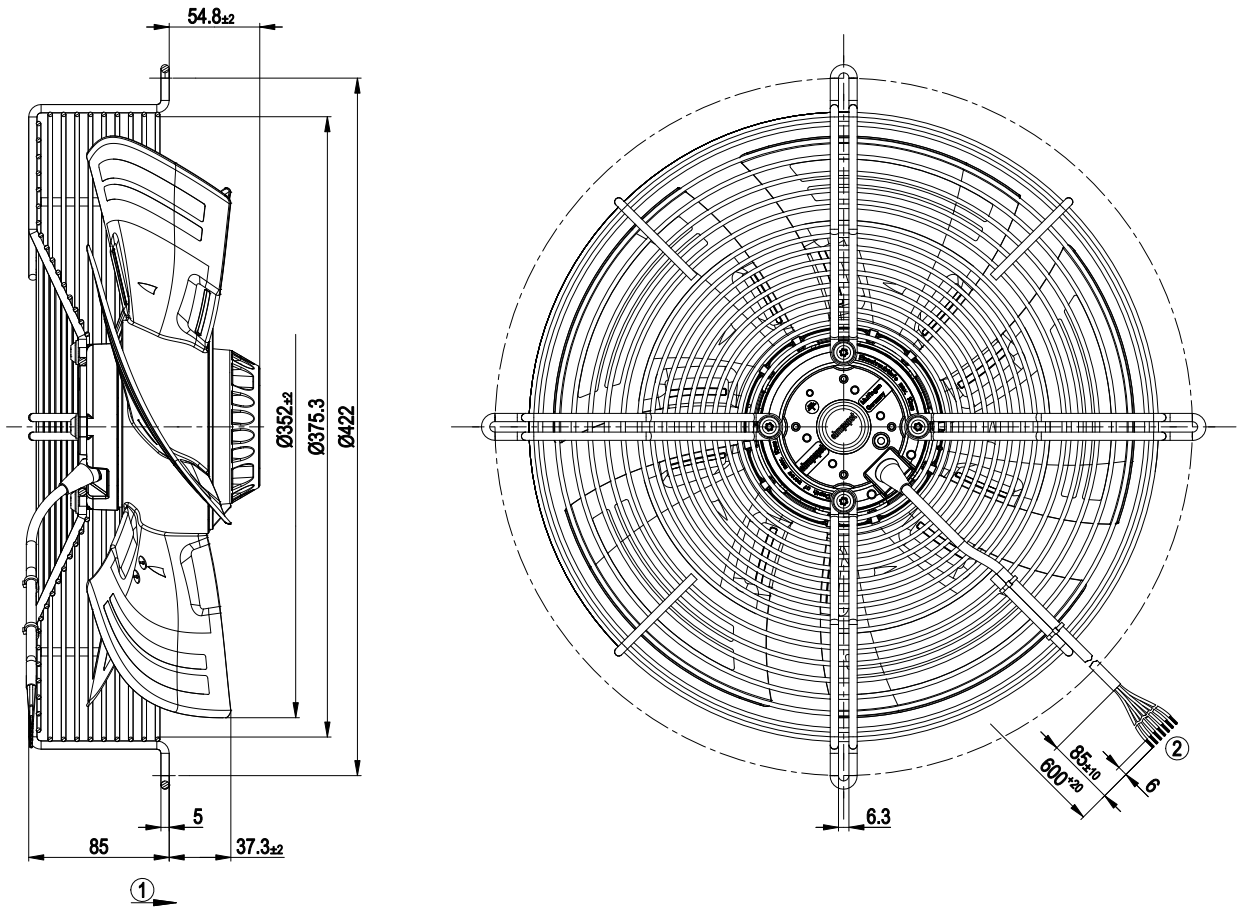
S4D350-AN08-31

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## Product drawing



- |   |   |
|---|---|
| 1 | Direction of air flow "A"                                       |
| 2 | Connection line PFA AWG 20 (gn/ye AWG 18), 7x lead tips crimped |

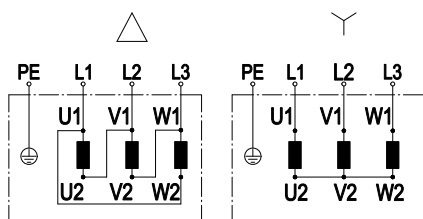


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## Connection screen



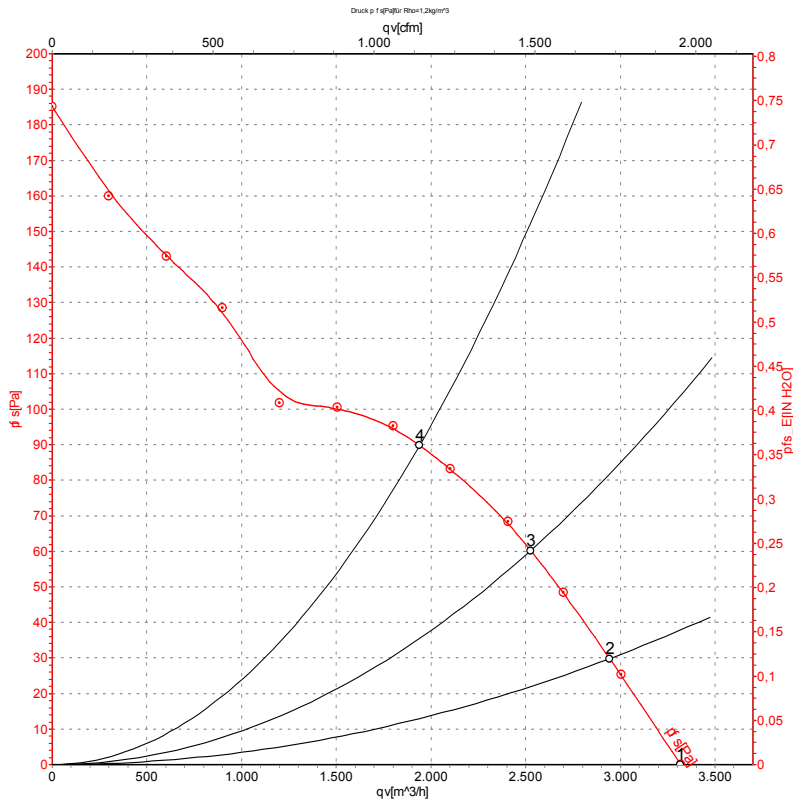
Change direction of rotation by reversing two phases

	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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## Charts: Air flow 50 Hz



Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

## Measured values

	Conn.	U	f	n	P <sub>e</sub>	I	LpA <sub>in</sub>	LwA <sub>in</sub>	qv	p <sub>fs</sub>
		V	Hz	min <sup>-1</sup>	W	A	dB(A)	dB(A)	m <sup>3</sup> /h	Pa
1	Y	400	50	1400	140	0.36	61	69	3320	0
2	Y	400	50	1395	147	0.36	59	66	2945	30
3	Y	400	50	1380	157	0.36	56	64	2525	60
4	Y	400	50	1370	170	0.37	55	64	1940	90

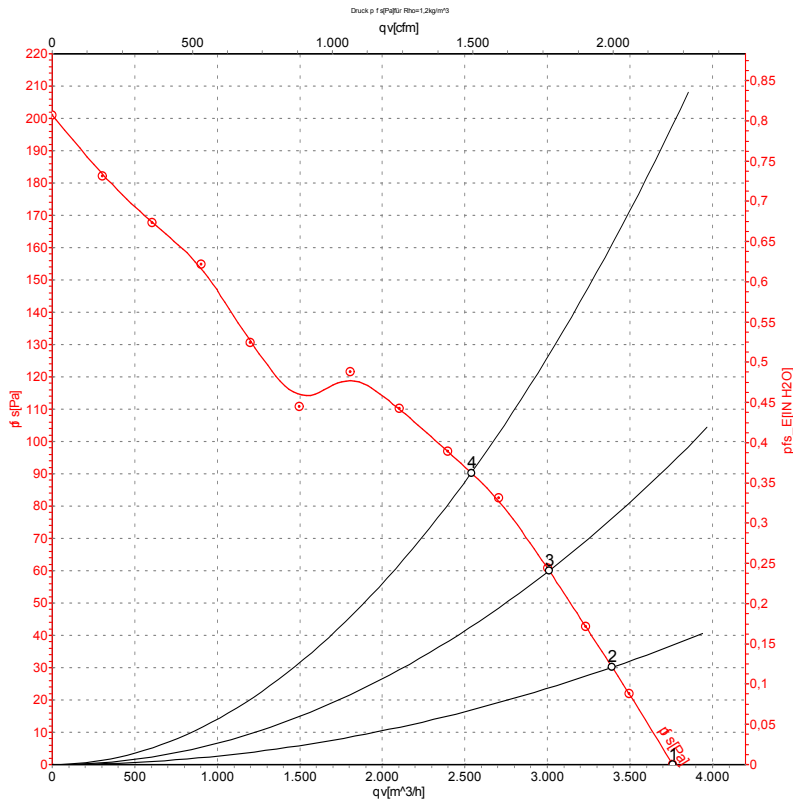
Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed · P<sub>e</sub> = Power input · I = Current draw · LpA<sub>in</sub> = Sound pressure level inlet side · LwA<sub>in</sub> = Sound power level inlet side  
qv = Air flow · p<sub>fs</sub> = Pressure increase



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## Charts: Air flow 60 Hz



Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: L<sub>wA</sub> measured as per ISO 13347 / L<sub>pA</sub> measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

## Measured values

	Conn.	U	f	n	P <sub>e</sub>	I	L <sub>pA<sub>in</sub></sub>	L <sub>wA<sub>in</sub></sub>	qv	p <sub>f</sub>
		V	Hz	min <sup>-1</sup>	W	A	dB(A)	dB(A)	m <sup>3</sup> /h	Pa
1	Y	400	60	1600	185	0.36	64	72	3760	0
2	Y	400	60	1575	200	0.36	62	69	3390	30
3	Y	400	60	1550	214	0.37	60	67	3010	60
4	Y	400	60	1520	230	0.40	58	66	2540	90

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed · P<sub>e</sub> = Power input · I = Current draw · L<sub>pA<sub>in</sub></sub> = Sound pressure level inlet side · L<sub>wA<sub>in</sub></sub> = Sound power level inlet side  
qv = Air flow · p<sub>f</sub> = Pressure increase

