

# AC axial fan

sickle-shaped blades (S series)  
with guard grille for short nozzle

S4D350-AT24-52 ebmpapst Datasheet

sales@fansco.com

www.fansco.com

## Nominal data

Type	S4D350-AT24-52				
Motor	M4D074-EI				
Phase		1~	1~	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		CE	CE	CE	CE
Speed (rpm)	min <sup>-1</sup>	1410	1560	1410	1600
Power consumption	W	95	150	88	135
Current draw	A	0.42	0.65	0.20	0.24
Capacitor	μF	6	6		
Capacitor voltage	VDB	320	320		
Capacitor standard		S0 (CE)	S0 (CE)		
Max. back pressure	Pa	80	90	100	125
Max. back pressure	in. wg	0.32	0.36	0.4	0.5
Min. ambient temperature	°C	-25	-25	-25	-25
Max. ambient temperature	°C	55	55	55	55
Starting current	A	1.16	1.03	0.8	0.72

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



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## Technical description

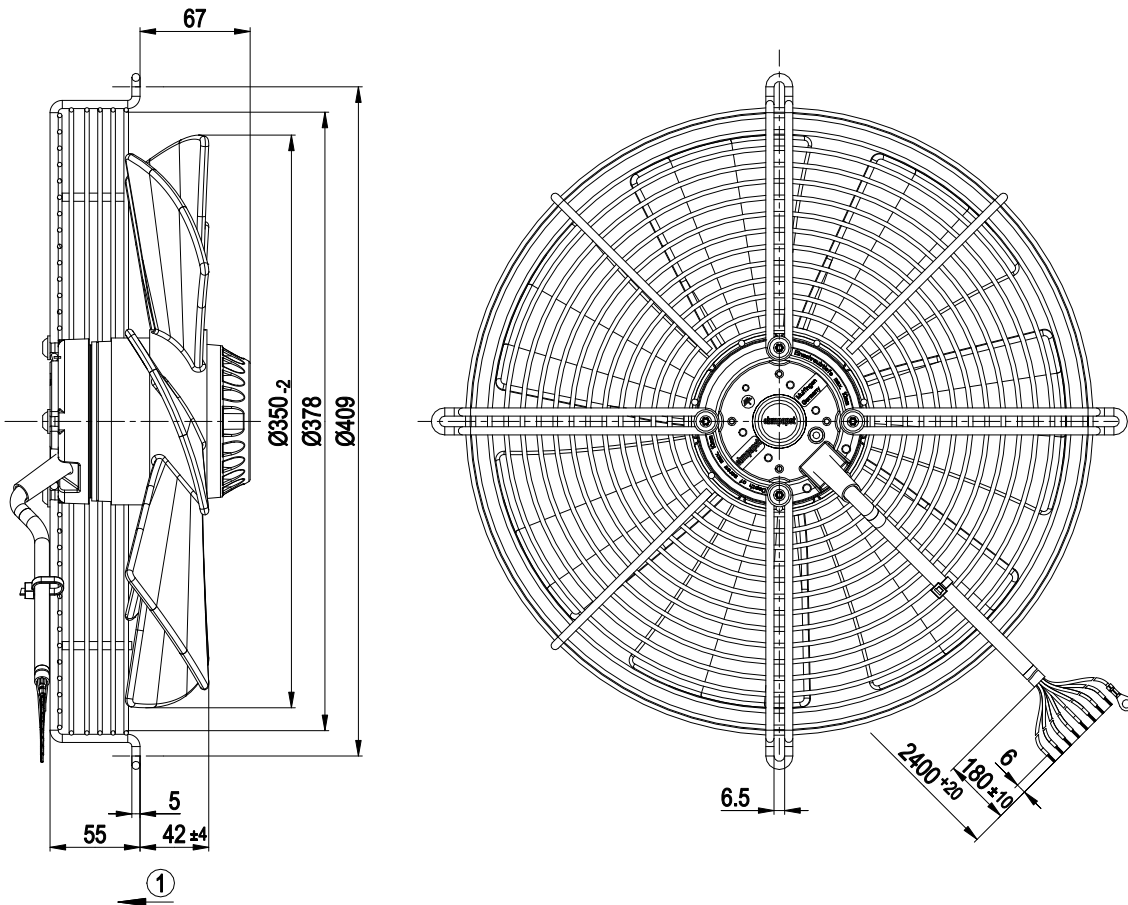
<b>Weight</b>	5.2 kg
<b>Size</b>	350 mm
<b>Motor size</b>	74
<b>Rotor surface</b>	Painted black
<b>Blade material</b>	Press-fitted sheet steel blank, sprayed with PA plastic
<b>Guard grille material</b>	Steel, coated with black plastic (RAL 9005)
<b>Number of blades</b>	7
<b>Airflow direction</b>	V
<b>Direction of rotation</b>	Counterclockwise, viewed toward rotor
<b>Degree of protection</b>	IP44; installation- and position-dependent
<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>	Any
<b>Condensation drainage holes</b>	None
<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>Motor protection</b>	Thermal overload protector (TOP) with basic insulation
<b>With cable</b>	Variable
<b>Protection class</b>	I (with customer connection of protective earth)
<b>Conformity with standards</b>	EN 60034-1; EN 60204-1; EN 60335-1; CE



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## Product drawing



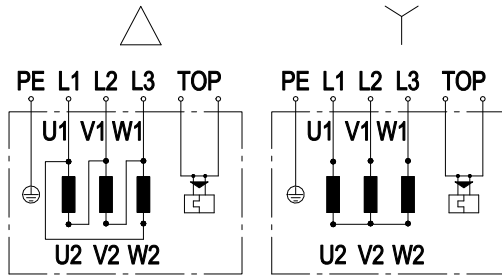
1	Airflow direction "V"
2	Cable silicone 9G 0.5 mm <sup>2</sup>
	8x splice, 1x ring terminal dia. 5.2 (PE)



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## Connection diagram



Note: Change of rotation direction by reversing two phases

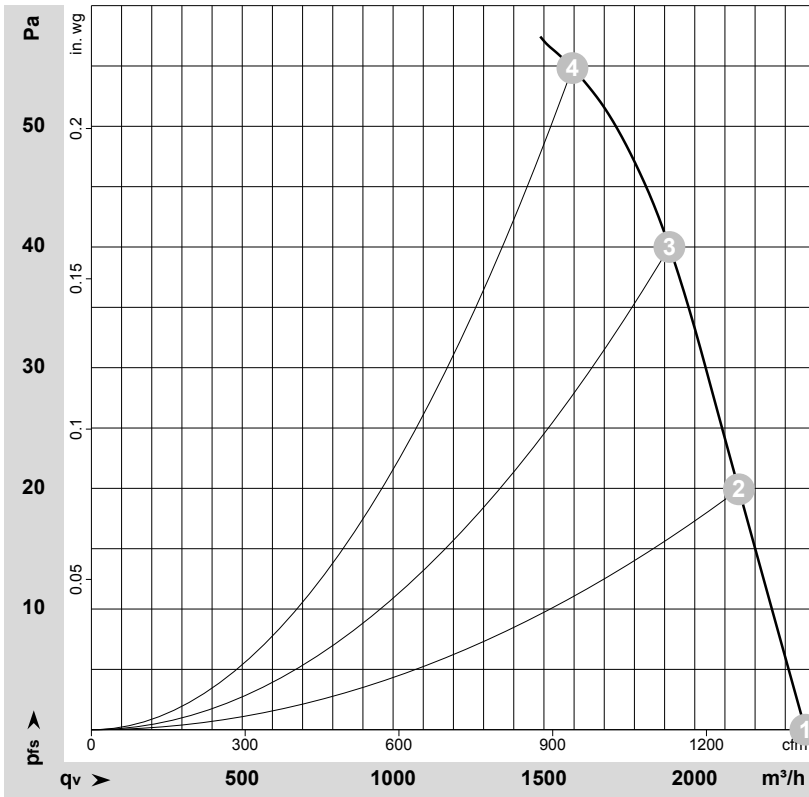
Δ	Delta connection	Y	Star connection	L1	black
L2	blue	L3	brown	U1	black
V1	blue	W1	brown	U2	green
V2	white	W2	yellow	TOP	2x gray
PE	green/yellow				



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## Curves: Air performance 50 Hz



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

Measurement: LU-64167-1

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	q <sub>v</sub>	P <sub>fs</sub>	q <sub>v</sub>	P <sub>fs</sub>
		V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa	cfm	in. wg
1	Y	400	50	1410	88	0.20	2365	0	1395	0.00
2	Y	400	50	1400	96	0.20	2145	20	1265	0.08
3	Y	400	50	1395	98	0.20	1915	40	1130	0.16
4	Y	400	50	1405	90	0.19	1595	55	940	0.22

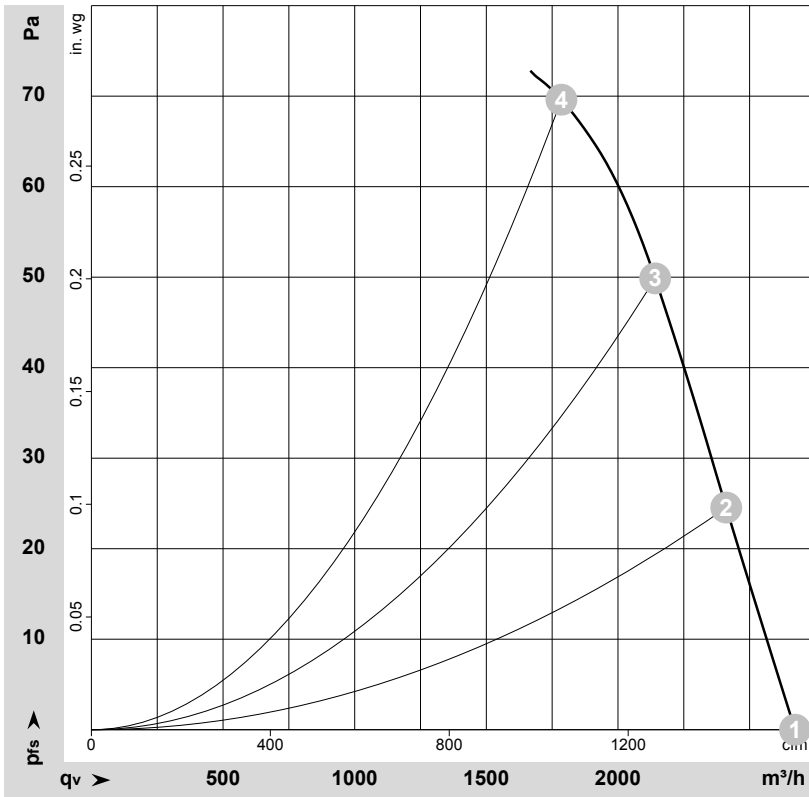
Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power consumption · I = Current draw · q<sub>v</sub> = Air flow · P<sub>fs</sub> = Pressure increase



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## Curves: Air performance 60 Hz



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

Measurement: LU-64168-1

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	q <sub>v</sub>	P <sub>fs</sub>	q <sub>v</sub>	P <sub>fs</sub>
		V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa	cfm	in. wg
1	Y	400	60	1600	135	0.24	2675	0	1575	0.00
2	Y	400	60	1580	145	0.25	2410	25	1420	0.10
3	Y	400	60	1575	146	0.25	2140	50	1260	0.20
4	Y	400	60	1595	136	0.24	1785	70	1050	0.28

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