

AC axial fan - HyBlade

sickle-shaped blades (S series), single-intake

ebm-papst Mulfingen GmbH & Co. KG

Bachmühle 2 · D-74673 Mulfingen

Phone +49 7938 81-0

Fax +49 7938 81-110

sales@fansco.com

www.fansco.com

Limited partnership · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	A4D300-AT04-01				
Motor	M4D068-DF				
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		ml	ml	ml	ml
Valid for approval/standard		CE	CE	CE	CE
Speed (rpm)	min ⁻¹	1350	1530	1350	1530
Power consumption	W	65	90	65	90
Current draw	A	0.28	0.29	0.16	0.17
Max. back pressure	Pa	60	75	60	75
Max. back pressure	in. wg	0.24	0.3	0.24	0.3
Min. ambient temperature	°C	-25	-25	-25	-25
Max. ambient temperature	°C	70	70	70	70
Starting current	A	0.87	0.81	0.5	0.47

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



Technical description

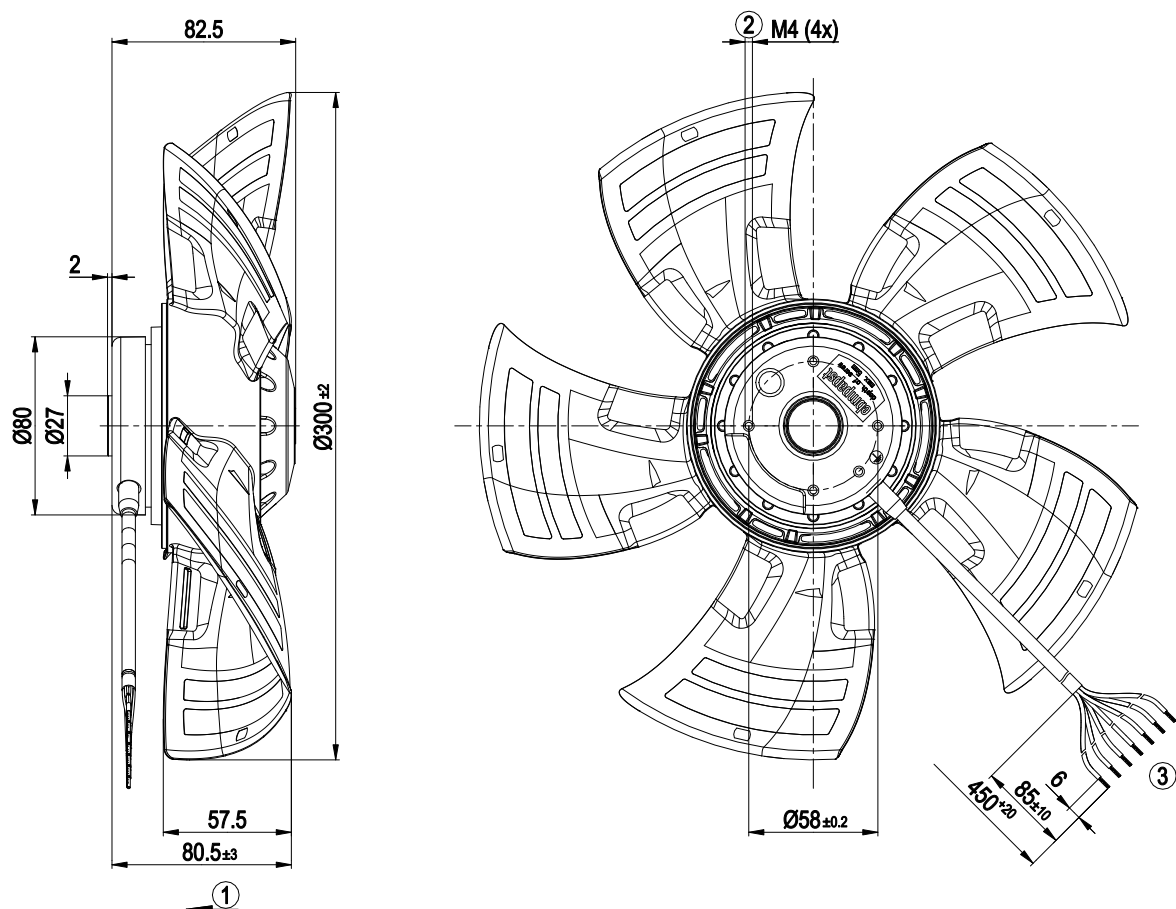
Weight	2.1 kg
Size	300 mm
Motor size	68
Rotor surface	Painted black
Blade material	Press-fitted sheet steel blank, sprayed with PP plastic
Number of blades	5
Airflow direction	V
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1
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	Lateral
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1, motor does not have factory-installed overheating protection; CE



AC axial fan - HyBlade

sickle-shaped blades (S series), single-intake

Product drawing



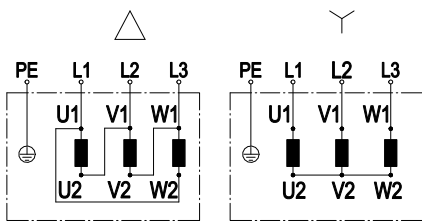
- | | |
|---|----------------------------------|
| 1 | Airflow direction "V" |
| 2 | Max. clearance for screw 5 mm |
| 3 | Cable PVC 7G 0.5 mm ² |
| | 7x splice |



AC axial fan - HyBlade

sickle-shaped blades (S series), single-intake

Connection diagram

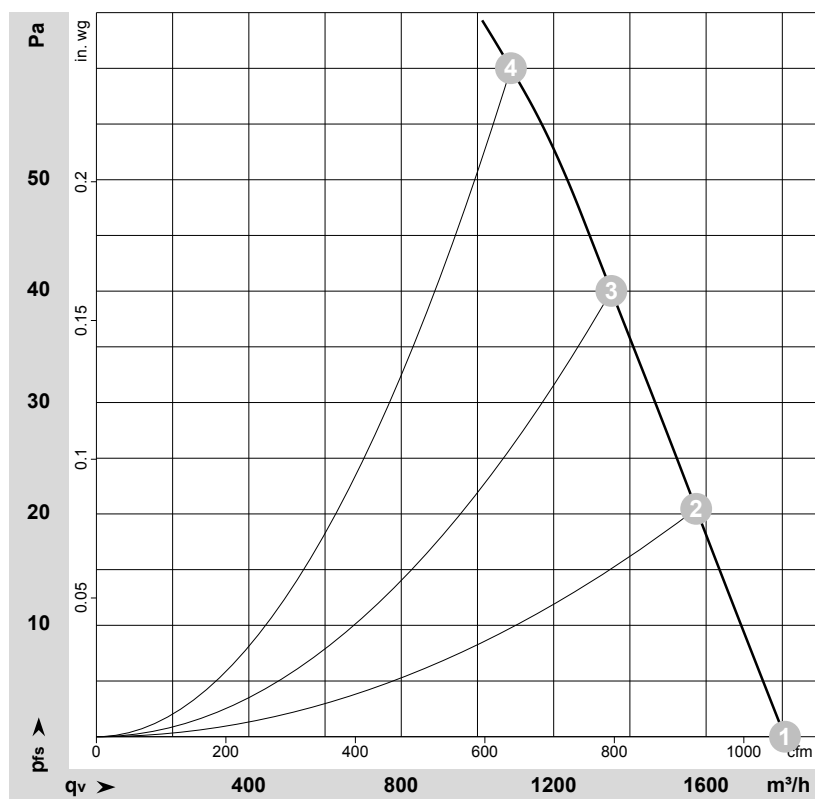


Change of rotation direction by reversing two phases

	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				



Curves: Air performance 50 Hz



$$\rho = 1.178 \text{ kg/m}^3 \pm 2 \%$$

Measurement: LU-141395-1

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 _e	I	LpA _{in}	LwA _{in}	q _V	p _{fs}	q _V	p _{fs}
		V	Hz	min ⁻¹	W	A	dB(A)	dB(A)	m³/h	Pa	cfm	in. wg
1	Y	400	50	1410	52	0.15	53	60	1805	0	1065	0.00
2	Y	400	50	1395	57	0.15	52	59	1575	20	925	0.08
3	Y	400	50	1385	60	0.15	51	59	1350	40	795	0.16
4	Y	400	50	1350	65	0.16	55	62	1090	60	640	0.24

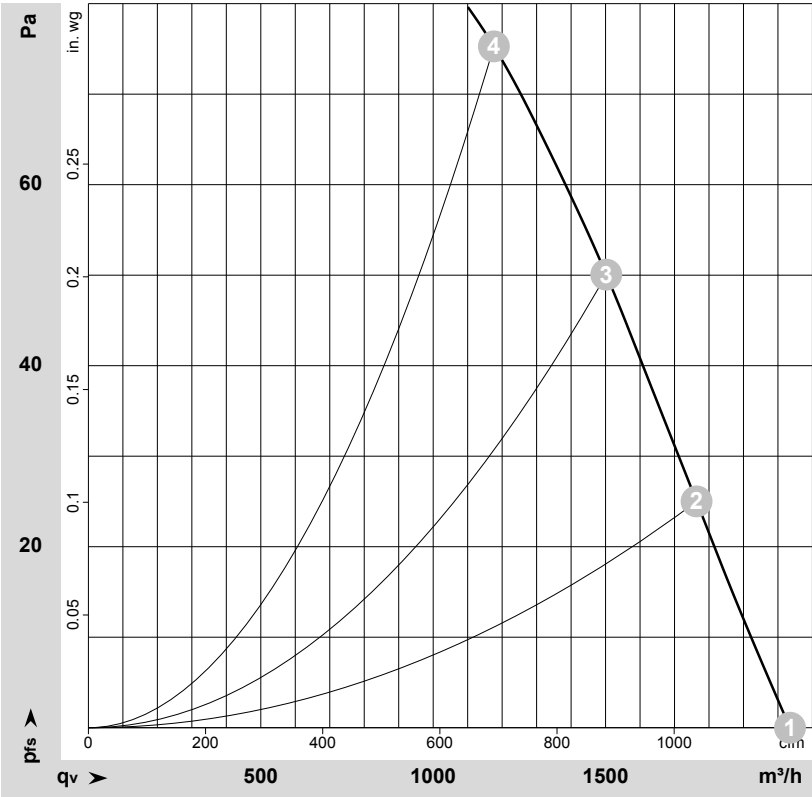
Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
 q_V = Air flow · p_{fs} = Pressure increase



AC axial fan - HyBlade

sickle-shaped blades (S series), single-intake

Curves: Air performance 60 Hz



$\rho = 1.177 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-141397-1

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 _e	I	q _v	p _{fs}	q _v	p _{fs}
		V	Hz	min ⁻¹	W	A	m³/h	Pa	cfm	in. wg
1	Y	400	60	1605	70	0.14	2035	0	1200	0.00
2	Y	400	60	1580	78	0.15	1765	25	1040	0.10
3	Y	400	60	1560	82	0.15	1500	50	885	0.20
4	Y	400	60	1530	90	0.17	1175	75	690	0.30

Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_v = Air flow · p_{fs} = Pressure increase

