AC axial fan

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

A4D315-AS30-13 ebmpapst Datasheet

sales@fansco.com

www.fansco.com

Nominal data

Type	A4D315-AS30-13			
Motor	M4D068-DF			
Phase		3~	3~	3~
Nominal voltage	VAC	400	400	460
Wiring		Y	Y	Y
Frequency	Hz	50	60	60
Method of obtaining data		ml	ml	ml
Valid for approval/standard		CE	CE	CE
Speed (rpm)	min^{-1}	1350	1480	1550
Power consumption	W	110	146	162
Current draw	A	0.25	0.25	0.26
Max. back pressure	Pa	70	90	90
Max. back pressure	in. wg	0.28	0.36	0.36
Min. ambient temperature	°C	-25	-25	-25
Max. ambient temperature	°C	70	70	65

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	2.0 kg
Size	315 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
Insulation class	"F"
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	Any
Condensation drainage holes	None
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Motor protection	Thermal overload protector (TOP) with basic insulation
With cable	Lateral
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE; UKCA
Approval	CSA C22.2 No. 100; UL 1004-1

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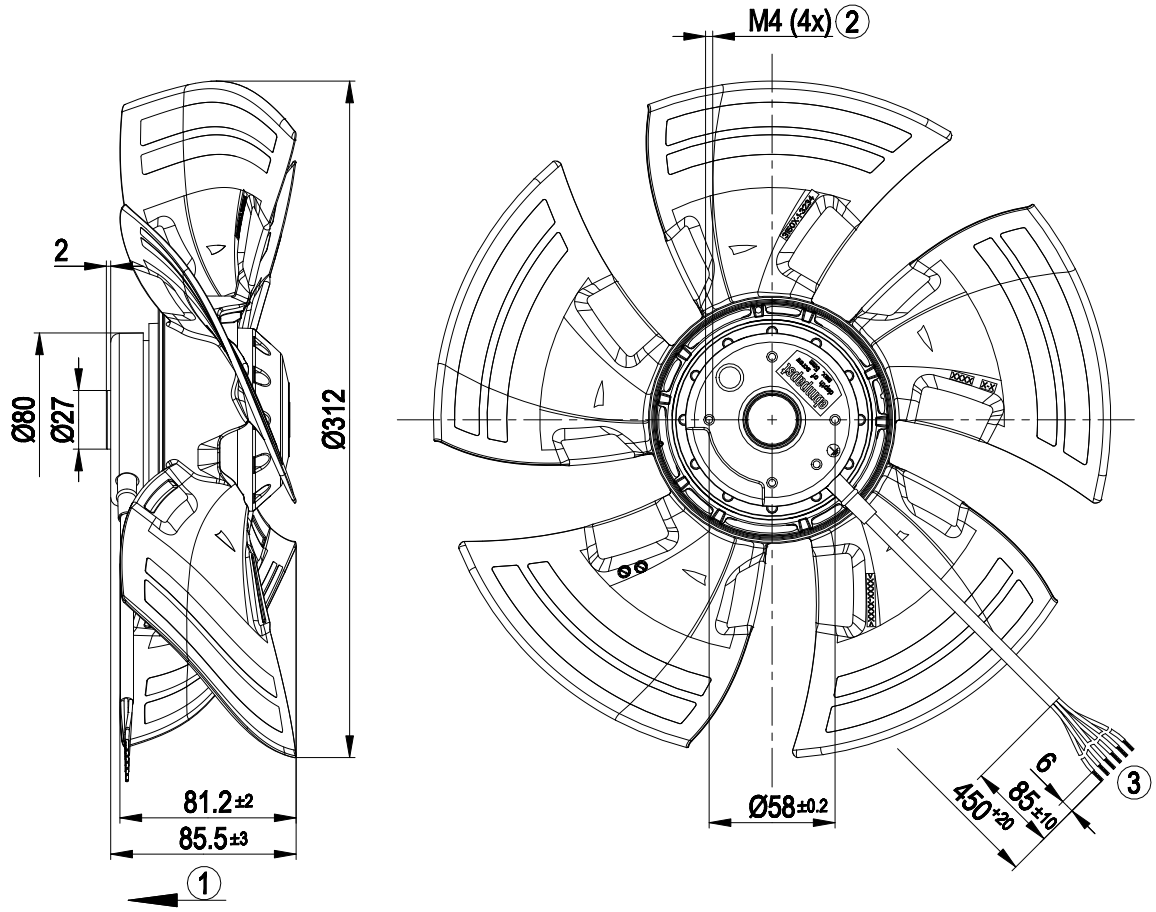
Product drawing



1	Direction of air flow "V"
2	Max. clearance for screw 5 mm
3	Cable PFA AWG20 (green/yellow AWG18), 6x crimped splices

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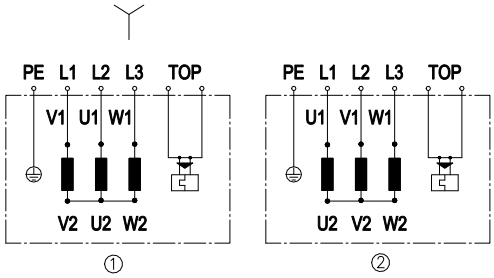
Connection diagram



Change of rotation direction by reversing two phases

	Three-phase motor
Y	Star connection
1	Counterclockwise operation
L1	= V1 = blue
L2	= U1 = black
L3	= W1 = brown
2	Clockwise operation
L1	= U1 = black
L2	= V1 = blue
L3	= W1 = brown
PE	green/yellow
TOP	2x gray

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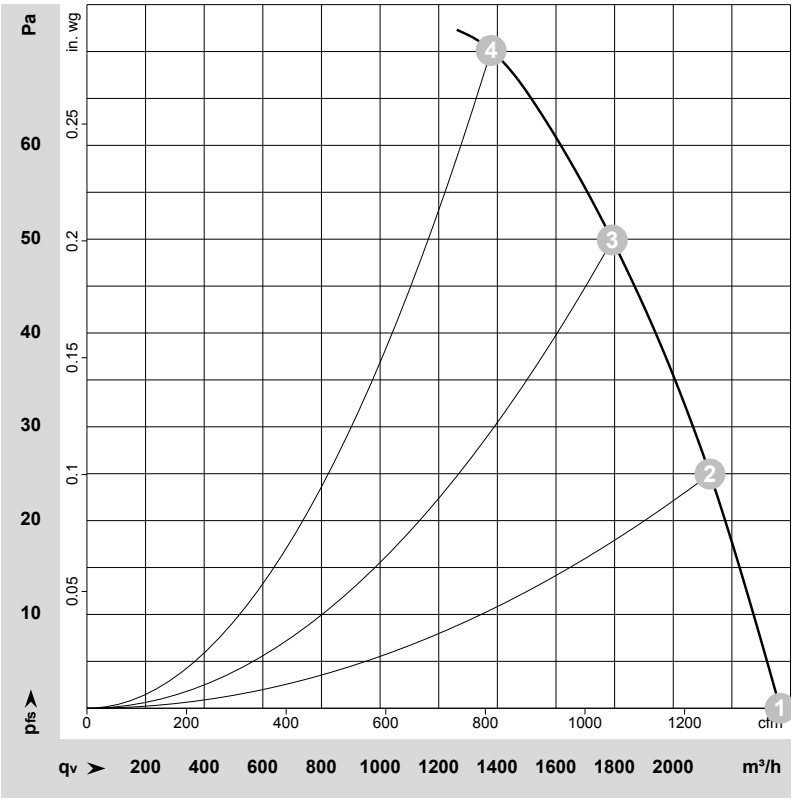
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-160005-1

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)	m^3/h	Pa	cfm	in. wg
1	Y	400	50	1390	90	0.24	57	64	2365	0	1390	0.00
2	Y	400	50	1380	96	0.24	55	61	2125	25	1250	0.10
3	Y	400	50	1365	102	0.24	52	59	1790	50	1055	0.20
4	Y	400	50	1350	110	0.25	51	59	1380	70	810	0.28

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

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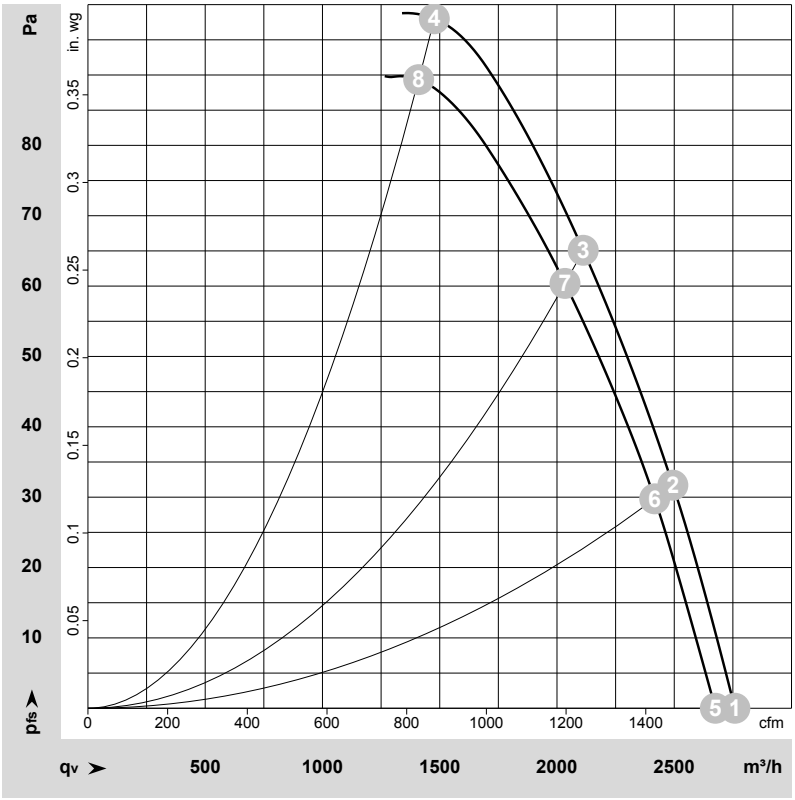
Curves: Air performance 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-160176-1
Measurement: LU-160168-1

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)	m^3/h	Pa	cfm	in. wg
1	Y	460	60	1620	129	0.24	61	67	2760	0	1625	0.00
2	Y	460	60	1605	137	0.24	59	65	2495	32	1470	0.13
3	Y	460	60	1585	148	0.25	55	62	2110	65	1245	0.26
4	Y	460	60	1550	162	0.26	55	63	1475	98	870	0.39
5	Y	400	60	1575	116	0.22	60	66	2675	0	1575	0.00
6	Y	400	60	1550	125	0.23	58	64	2415	30	1425	0.12
7	Y	400	60	1525	134	0.24	54	61	2035	60	1195	0.24
8	Y	400	60	1480	146	0.25	53	61	1410	90	830	0.36

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