AC axial fan

sickle-shaped blades (S series)

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	**A4D315-AP30-12**
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		fa	fa	fa
Valid for approval/standard		CE	CE	CE
Speed (rpm)	min^{-1}	1420	1630	1650
Power consumption	W	82	102	125
Current draw	A	0.25	0.22	0.24
Max. back pressure	Pa	120	120	130
Max. back pressure	in. wg	0.48	0.48	0.52
Min. ambient temperature	°C	-25	-25	-25
Max. ambient temperature	°C	60	60	55
Starting current	A	0.38	0.37	0.38

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	2.6 kg
Size	315 mm
Motor size	68
Rotor surface	Painted black
Blade material	Sheet steel
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	F2-2; 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
Approval	CSA C22.2 No. 100; UL 1004-1

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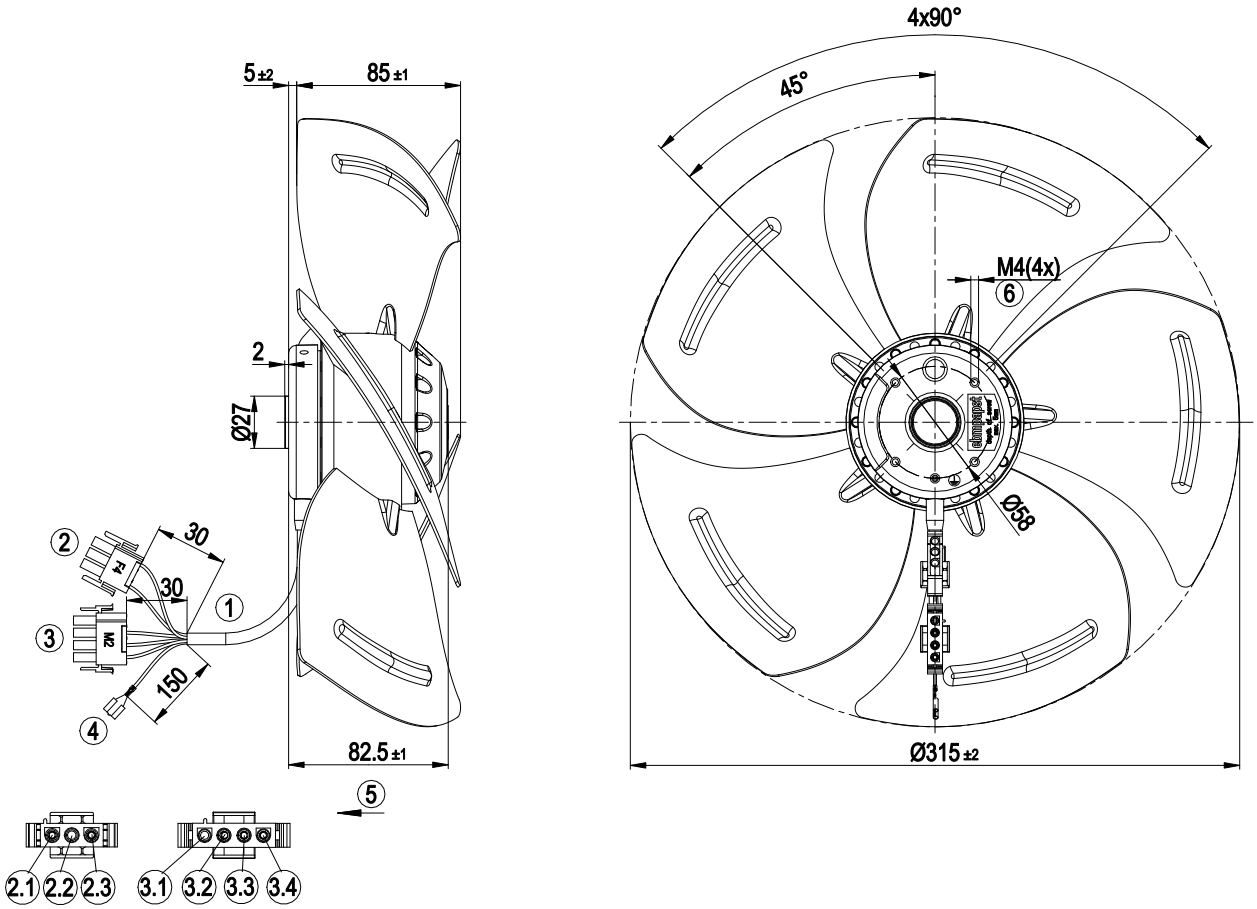
Product drawing



1	Cable PFA AWG20
2	3-pole connector housing TE 2178473-3, 2x plug pin TE 926885-1
2.1	gray
2.2	not used
2.3	gray
3	4-pole connector housing TE 350779-5, 3x plug pin TE 926885-1
3.1	not used
3.2	brown
3.3	blue
3.4	black
4	PE (green-yellow), flat push-on receptacle 6.3x0.8, lockable
5	Direction of air flow "V"
6	Max. clearance for screw 5 mm

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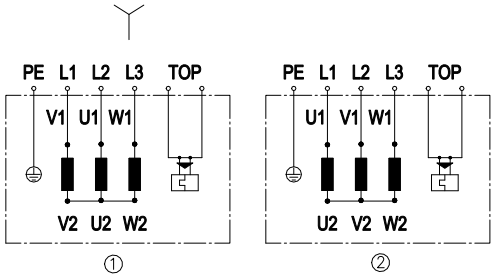
Connection diagram



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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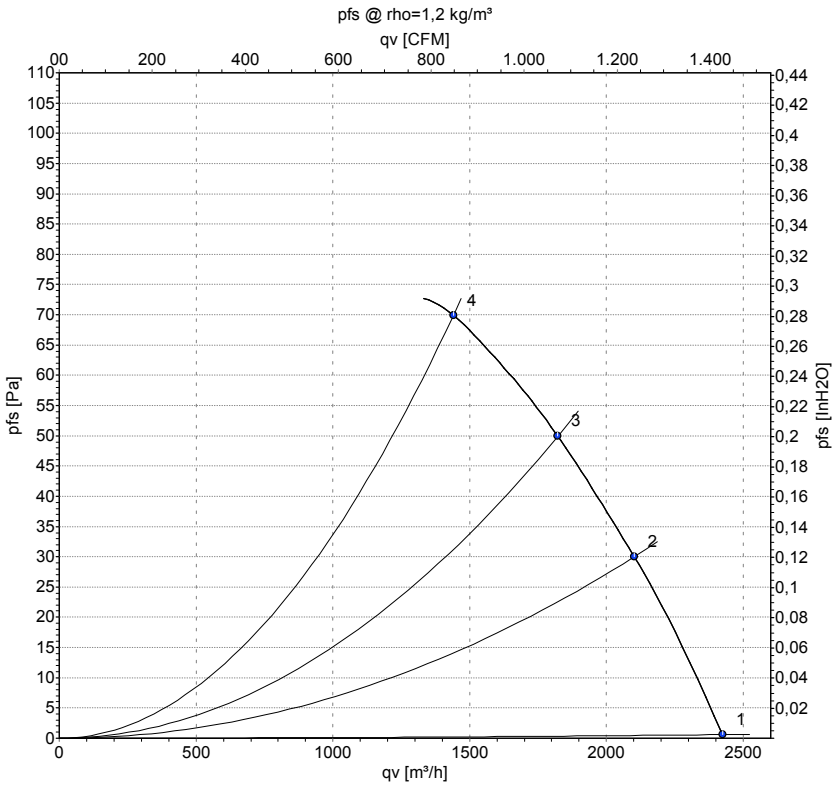
Curves: Air performance 50 Hz



Measurement: LU-55176-1

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	m^3/h	Pa	cfm	in. wg
1	Y	400	50	1420	82	0.25	2425	0	1425	0.00
2	Y	400	50	1400	91	0.25	2100	30	1235	0.12
3	Y	400	50	1390	99	0.26	1820	50	1070	0.20
4	Y	400	50	1370	107	0.26	1440	70	850	0.28

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

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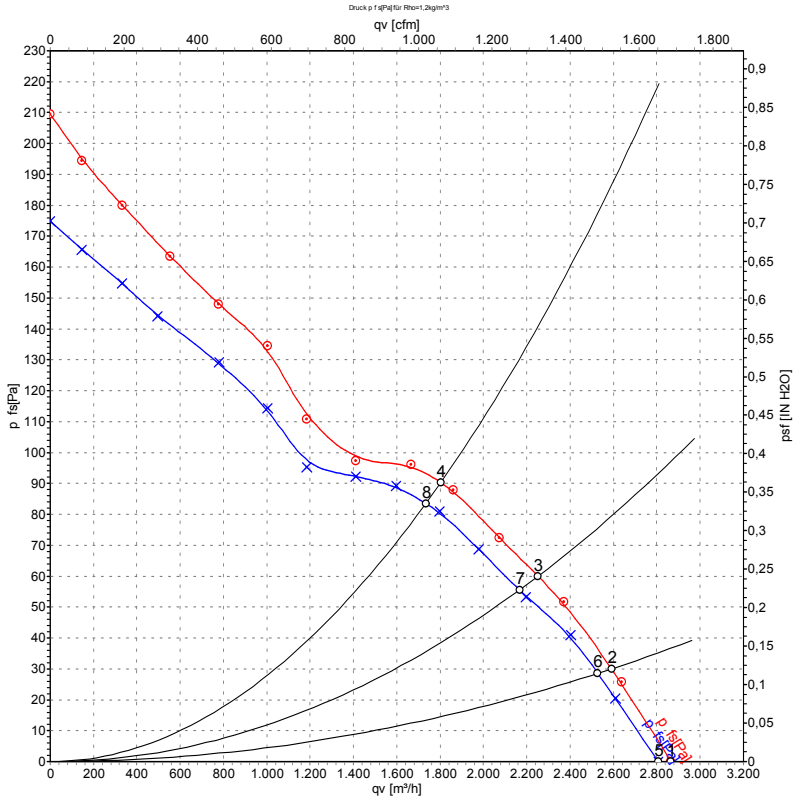
Curves: Air performance 60 Hz



Measurement: LU-55185-1
Measurement: LU-55182-1

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

	U	f	n	P_e	I	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	460	60	1650	125	0.24	2865	0	1685	0.00
2	460	60	1645	128	0.25	2590	30	1525	0.12
3	460	60	1625	140	0.26	2250	60	1325	0.24
4	460	60	1600	155	0.27	1800	90	1060	0.36
5	400	60	1630	102	0.22	2805	0	1650	0.00
6	400	60	1605	116	0.23	2525	29	1485	0.12
7	400	60	1575	129	0.24	2165	55	1275	0.22
8	400	60	1545	142	0.26	1735	84	1020	0.34

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