

8322000016
VWA0910B7SRZ

AC axial fan - AxiBlade

sickle-shaped blades (S series)
with square full nozzle

8322000016 ebmpapst Datasheet FansCo
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Nominal data

Item	8322000016								
Motor	M6D138-NA								
Phase		3~	3~	3~	3~	3~	3~	3~	3~
Nominal voltage	VAC	230	230	277	380	400	400	460	480
Wiring		Δ	Δ	Δ	Y	Y	Y	Y	Y
Frequency	Hz	50	60	60	60	50	60	60	60
Method of obtaining data		ml	ml	ml	ml	ml	ml	ml	ml
Valid for approval/standard		CE	CE	CE	CE	CE	CE	CE	CE
Speed (rpm)	min ⁻¹	910	1040	1100	1020	910	1040	1080	1100
Power consumption	W	1920	2370	2580	2280	1920	2370	2550	2580
Current draw	A	8.2	8.5	9.0	4.8	4.7	4.8	5.0	5.1
Max. back pressure	Pa	180	125	140	120	180	125	135	140
Max. back pressure	in. wg	0.72	0.5	0.56	0.48	0.72	0.5	0.54	0.56
Min. ambient temperature	°C	-40	-40	-40	-40	-40	-40	-40	-40
Max. ambient temperature	°C	65	50	50	50	65	50	50	50
Starting current	A	31	28	35	15	18	16	19	20

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

Data according to Commission Regulation (EU) 327/2011 (prEN 17166)

		Actual	Req. 2015			
01 Overall efficiency η_{es}	%	42.7	35.2	09 Power consumption P_e	kW	1.76
02 Measurement category		A		09 Air flow q_v	m ³ /h	18755
03 Efficiency category		Static		09 Pressure increase p_{fs}	Pa	145
04 Efficiency grade N		47.5	40	10 Speed (rpm) n	min ⁻¹	920
05 Variable speed drive		No		11 Specific ratio*		1.00

Data obtained at optimum efficiency level.

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

LU-195250

The efficiency values displayed for achieving conformity with the Ecodesign Regulation EU 327/2011 has been reached with defined air duct components (e.g. inlet rings).

The dimensions must be requested from ebm-papst. If other air conduction geometries are used on the installation side, the ebm-papst evaluation loses its validity/the conformity must be confirmed again.

The product does not fall within the scope of Regulation (EU) 2019/1781 due to the exception specified in Article 2 (2a) (motors completely integrated into a product).



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Technical description

Weight	54.5 kg
Size	910 mm
Motor size	138
Rotor surface	Painted black
Terminal box material	PP plastic
Blade material	PP plastic
Fan housing material	Sheet steel, galvanized and coated with black plastic (RAL 9005)
Guard grille material	Steel, coated with black plastic (RAL 9005)
Number of blades	5
Blade pitch	0°
Airflow direction	V
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP55
Insulation class	"F"
Impulse voltage insulation class (IVIC)	C (the maximum allowable peak/peak operating voltage between phases is $5.9 \times U_N$, while the maximum allowable peak/peak operating voltage between phases and ground is $4.2 \times U_N$. U_N is maximum allowable operating voltage at the machine terminals.)
Moisture (F) / Environmental (H) protection class	H2
Ambient temperature note	Occasional start-up at temperatures between -40°C and -25°C is permitted. For continuous operation at ambient temperatures below -25°C (such as refrigeration applications), use must be made of a fan design with special low-temperature bearings.
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
Condensation drainage holes	On rotor and stator sides
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	≤ 3.5 mA
Electrical hookup	Terminal box
Motor protection	Thermal switch auto reset, lead out, with basic insulation
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60034-1 (2010); CE
Approval	UL 1004-1; CSA C22.2 No. 100

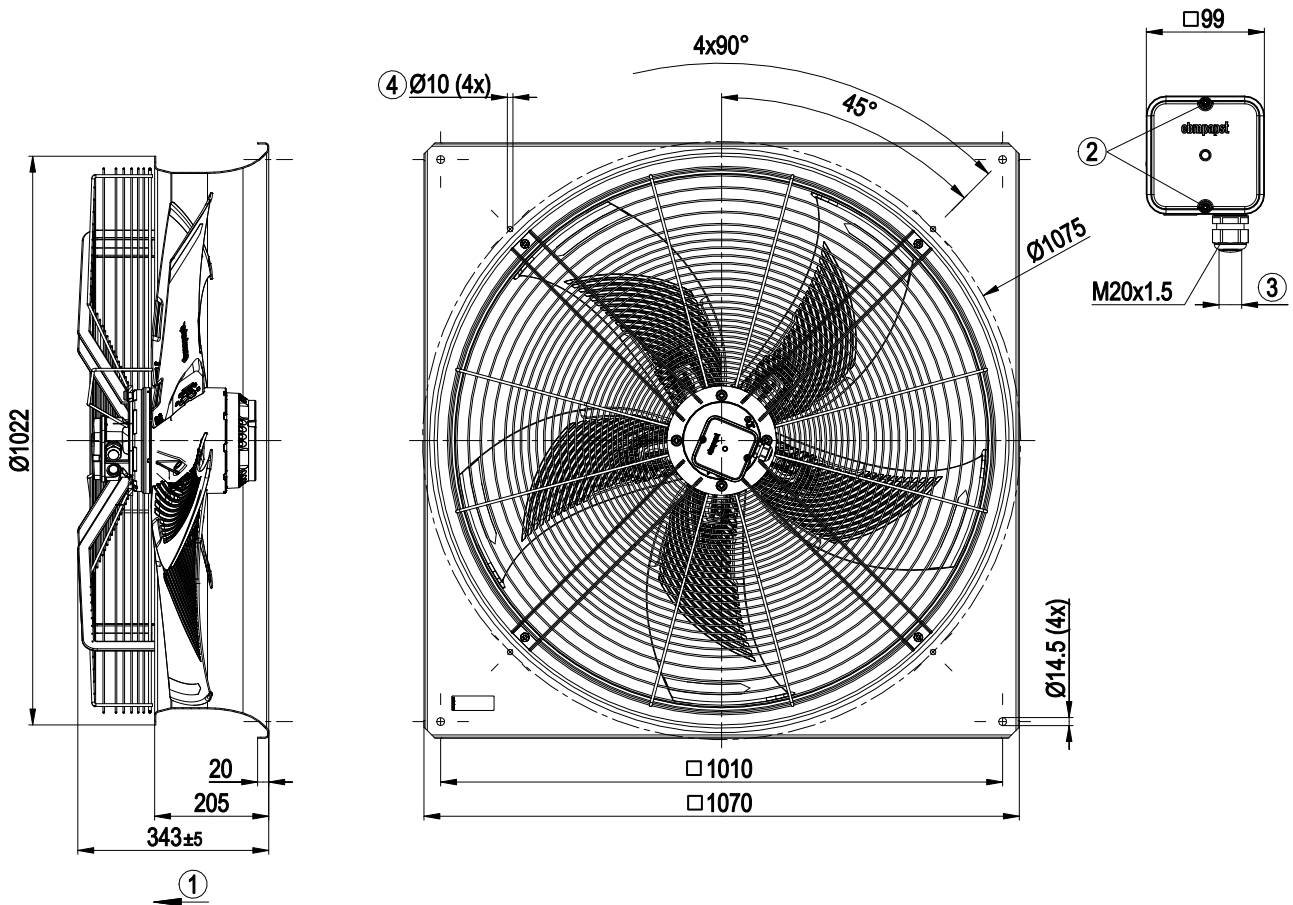


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Product drawing



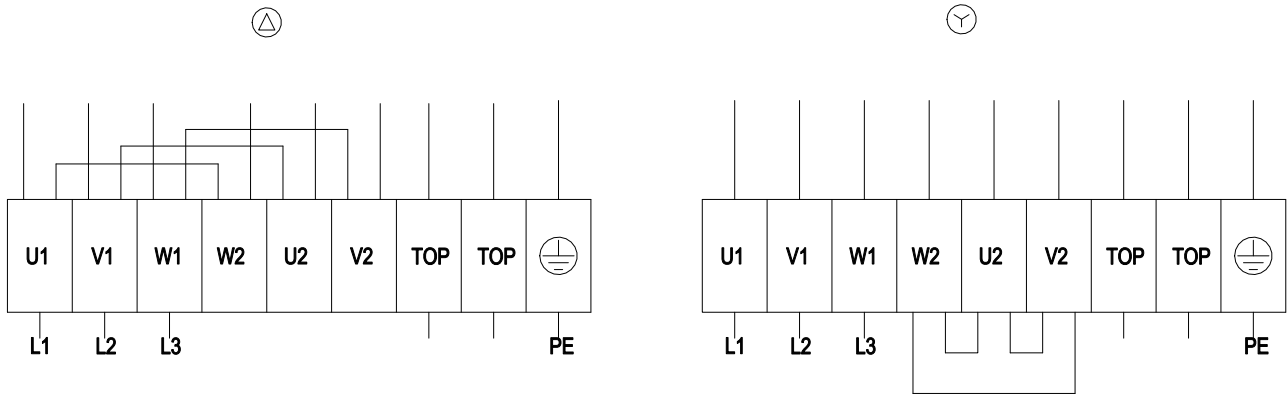
1	Airflow direction "V"
2	Tightening torque 1.5 ± 0.2 Nm
3	Cable diameter min. 7 mm, max. 14 mm, tightening torque 2 ± 0.3 Nm
4	Mounting holes for FlowGrid

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Connection diagram



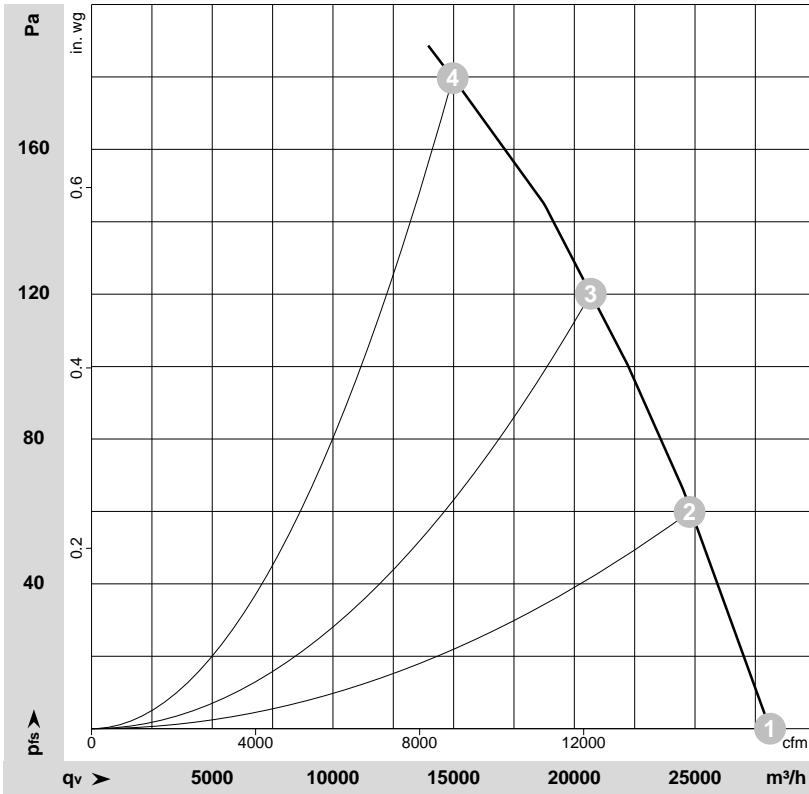
Δ	Delta connection	Y	Star connection	L1	= U1 = black
L2	= V1 = blue	L3	= W1 = brown	W2	yellow
U2	green	V2	white	PE	green/yellow



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Curves: Air performance 50Hz



$\rho = 1.2 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-195250-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. 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.

Fan performance

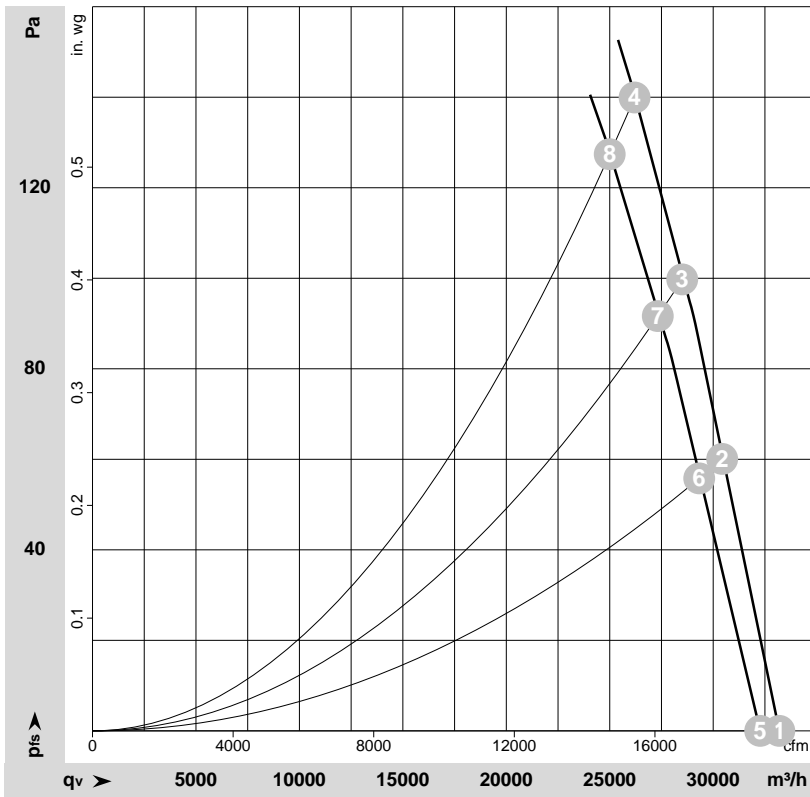
	Wired	U	f	n	P _e	I	q _v	p _{fs}
		V	Hz	min ⁻¹	W	A	m ³ /h	Pa
1	Y	400	50	950	1164	3.83	28110	0
2	Y	400	50	940	1429	4.08	24775	60
3	Y	400	50	925	1673	4.35	20680	120
4	Y	400	50	910	1920	4.70	14960	180

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 60Hz



$\rho = 1.2 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-195146-1
Measurement: LU-196143-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. 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.

Fan performance

	Wired	U	f	n	P _e	I	q _v	p _{fs}
		V	Hz	min ⁻¹	W	A	m ³ /h	Pa
1	Y	480	60	1135	1865	4.35	33195	0
2	Y	480	60	1120	2176	4.65	30435	60
3	Y	480	60	1110	2379	4.86	28505	100
4	Y	480	60	1100	2580	5.10	26200	140
5	Y	400	60	1095	1740	3.73	32270	0
6	Y	400	60	1075	2015	4.15	29325	57
7	Y	400	60	1060	2189	4.42	27320	93
8	Y	400	60	1040	2370	4.80	25000	125

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