W6D910-KA19-03

AC axial fan - AxiBlade

sickle-shaped blades (S series)

with square full nozzle

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**W6D910-KA19-03**
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

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	42.7	35.2
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		47.5	40
05 Variable speed drive		No	

09 Power consumption P_e	kW	1.76
09 Air flow q_v	m^3/h	18755
09 Pressure increase p_{fs}	Pa	145
10 Speed (rpm) n	min^{-1}	920
11 Specific ratio*		1.00

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

* Specific ratio = 1 + p_{fs} / 100 000 Pa

LU-195250

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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	IP54
Insulation class	"F"
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	Any
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 overload protector (TOP) with basic insulation
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60034-1 (2010); CE
Approval	EAC; UL 1004-1; CSA C22.2 No. 100

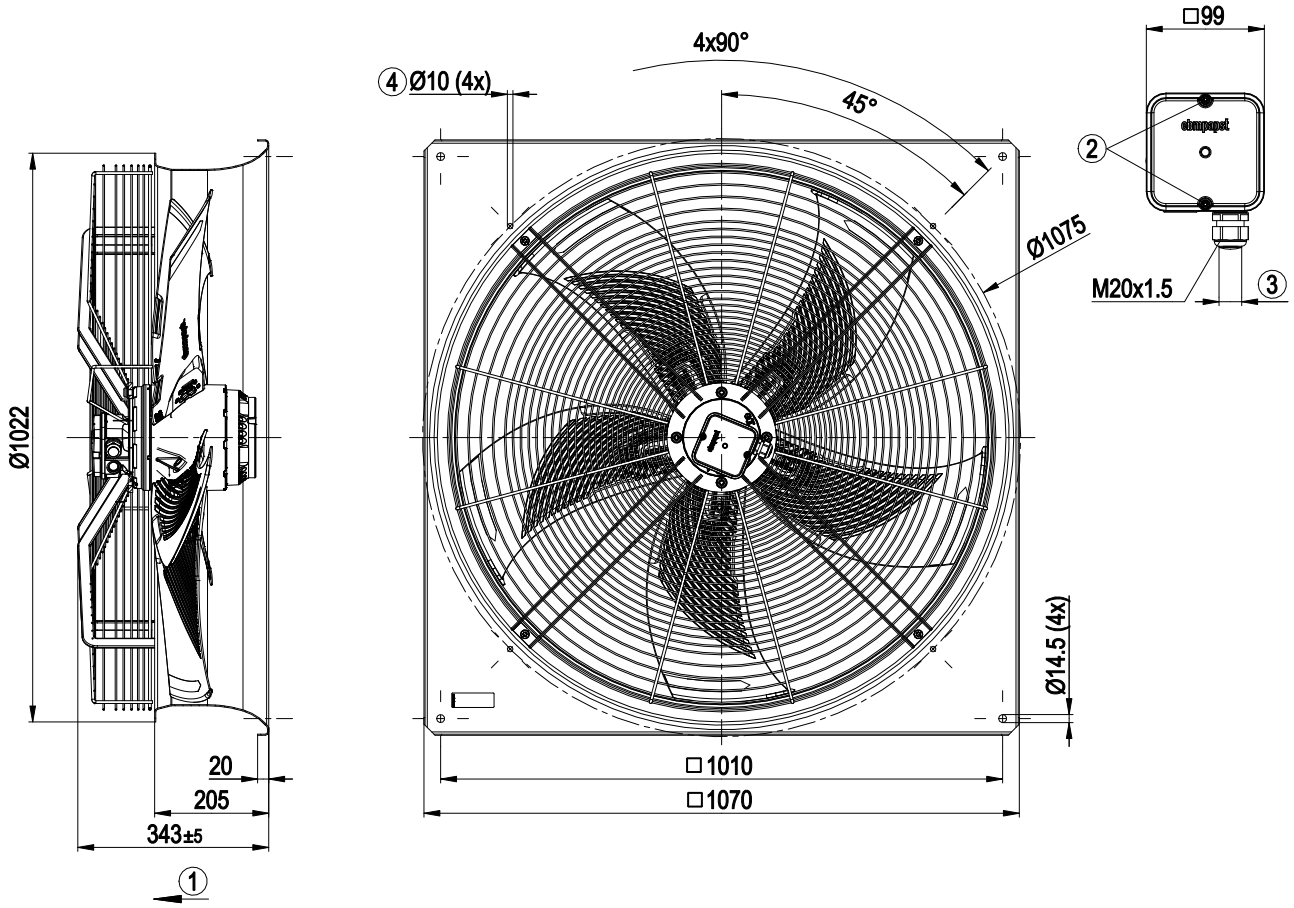
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Product drawing



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

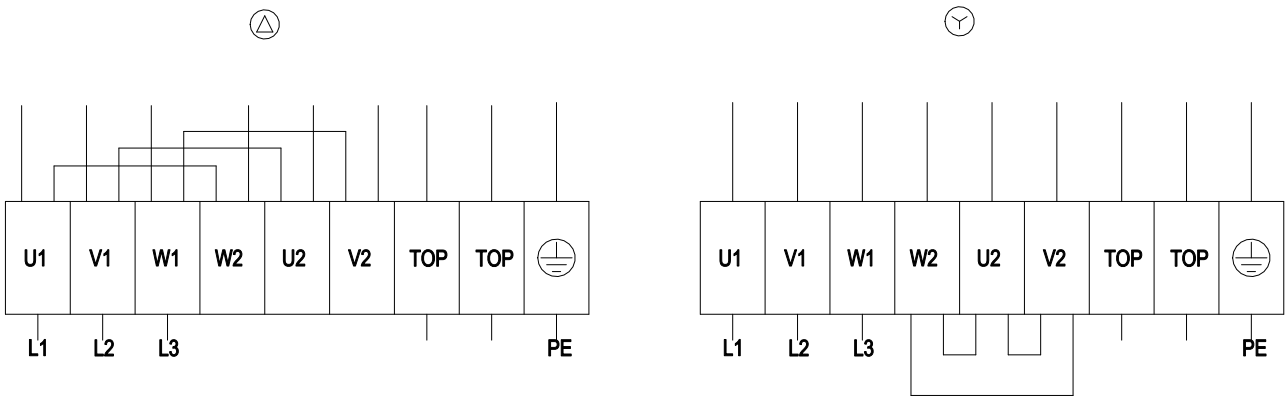
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Connection diagram



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

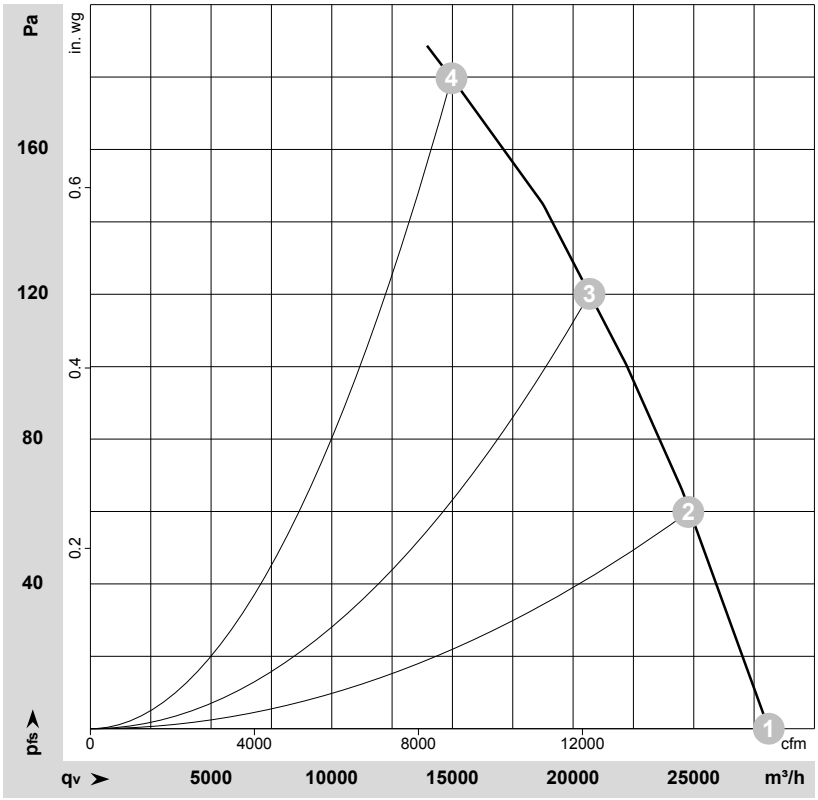
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 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. 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}	LwA_{out}	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa	cfm	in. wg
1	Y	400	50	950	1164	3.83	70	77	77	28110	0	16545	0.00
2	Y	400	50	855	1429	4.08	68	75	75	24775	60	14585	0.24
3	Y	400	50	925	1673	4.35	70	77	77	20680	120	12175	0.48
4	Y	400	50	910	1920	4.70	79	86	87	14960	180	8805	0.72

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
LwA_{out} = Sound power level outlet side · q_V = Air flow · p_{fs} = Pressure increase

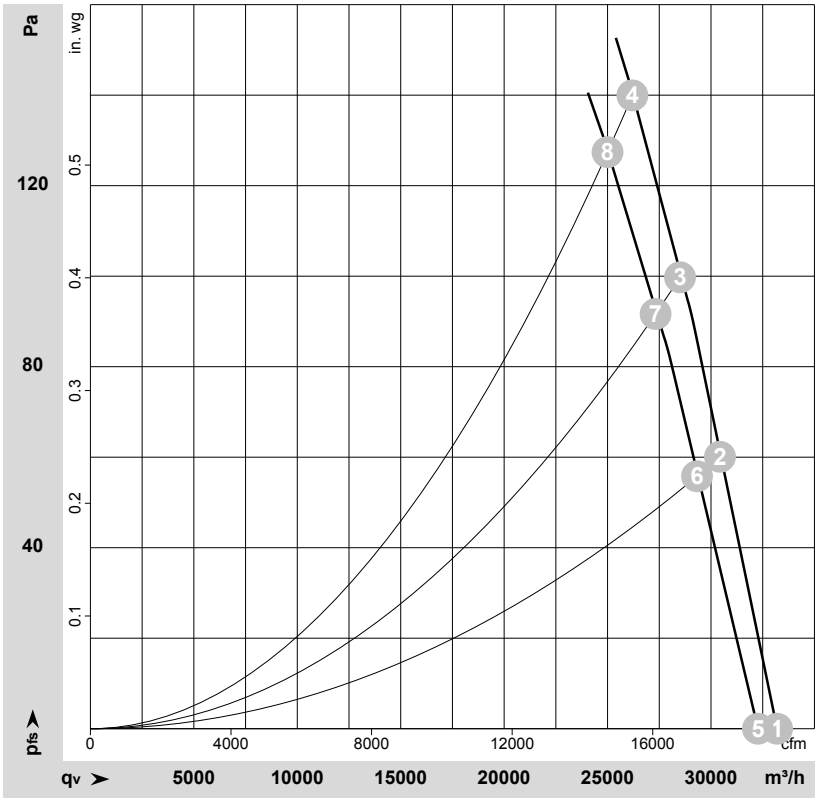
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Curves: Air performance 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-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. 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}	LwA_{out}	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa	cfm	in. wg
1	Y	480	60	1135	1865	4.35	74	82	82	33195	0	19540	0.00
2	Y	480	60	1120	2176	4.65	73	80	80	30435	60	17915	0.24
3	Y	480	60	1110	2379	4.86	72	80	80	28505	100	16775	0.40
4	Y	480	60	1100	2580	5.10	73	80	80	26200	140	15420	0.56
5	Y	400	60	1095	1740	3.73	74	81	81	32270	0	18995	0.00
6	Y	400	60	1075	2015	4.15	72	79	79	29325	57	17260	0.23
7	Y	400	60	1060	2189	4.42	71	78	78	27320	93	16080	0.37
8	Y	400	60	1040	2370	4.80	71	78	78	25000	125	14715	0.50

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
LwA_{out} = Sound power level outlet side · q_V = Air flow · p_{fs} = Pressure increase

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