W6D910-GX09-22

AC axial fan - HyBlade

sickled blades (S series)

with full square nozzle

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County court Stuttgart · HRB 590142

Nominal data

Type	**W6D910-GX09-22**
Motor	**M6D138-OA**

Phase		3~	3~	3~	3~
Nominal voltage	VAC	400	400	480	480
Connection		Δ	Y	Δ	Y
Frequency	Hz	50	50	60	60
Type of data definition		ml	ml	ml	ml
Valid for approval / standard		CE	CE	CE	CE
Speed (rpm)	min^{-1}	925	750	1090	840
Power input	W	1950	1410	3000	2020
Current draw	A	4.09	2.59	4.89	3.19
Max. back pressure	Pa	150	105	160	100
Min. ambient temperature	°C	-40	-40	-40	-40
Max. ambient temperature	°C	75	75	45	45

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

Data according to ErP directive

		Actual	Request 2015
01 Overall efficiency η_{es}	%	41.1	35.5
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		45.6	40
05 Variable speed drive		No	

09 Power input P_e	kW	1.96
09 Air flow q_v	m^3/h	19140
09 Pressure increase p_{fs}	Pa	152
10 Speed (rpm) n	min^{-1}	925
11 Specific ratio*		1.00

Data definition with optimum efficiency.
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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

LU-171476

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Technical features

Mass	55.7 kg
Size	910 mm
Surface of rotor	Cast in aluminium
Material of terminal box	PP plastic
Material of blades	Aluminium sheet insert, sprayed with PP plastic
Material of wall ring	Sheet steel, galvanised and coated with pure white plastic (RAL 9010)
Material of guard grille	Steel, coated in black plastic (RAL9005)
Number of blades	5
Blade angle	-5°
Direction of air flow	"V"
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"F"
Humidity (F)/environmental protection class (H)	H2
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	< 0.75 mA
Electrical leads	Via terminal box
Motor protection	Thermal overload protector (TOP) brought out, basic insulation
Cable exit	Axial
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60034-1 (2010); EN 61800-5-1; CE
Approval	UL 1004-1; CSA C22.2 No.100; EAC

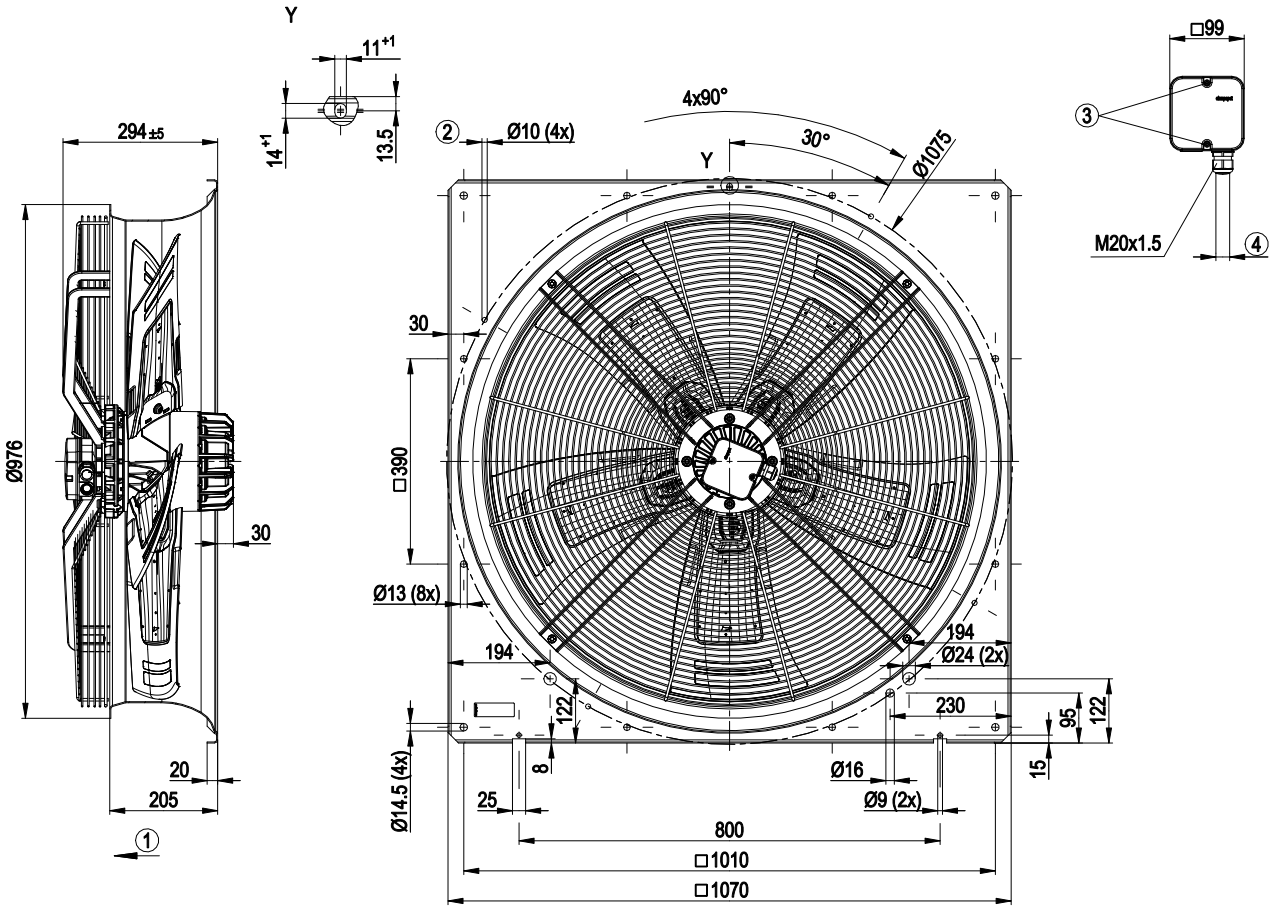
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Product drawing



1	Direction of air flow "V"
2	Mounting holes for FlowGrid
3	Tightening torque 1.5±0.2 Nm
4	Cable diameter: min. 7 mm, max. 14 mm; tightening torque 2±0.3 Nm

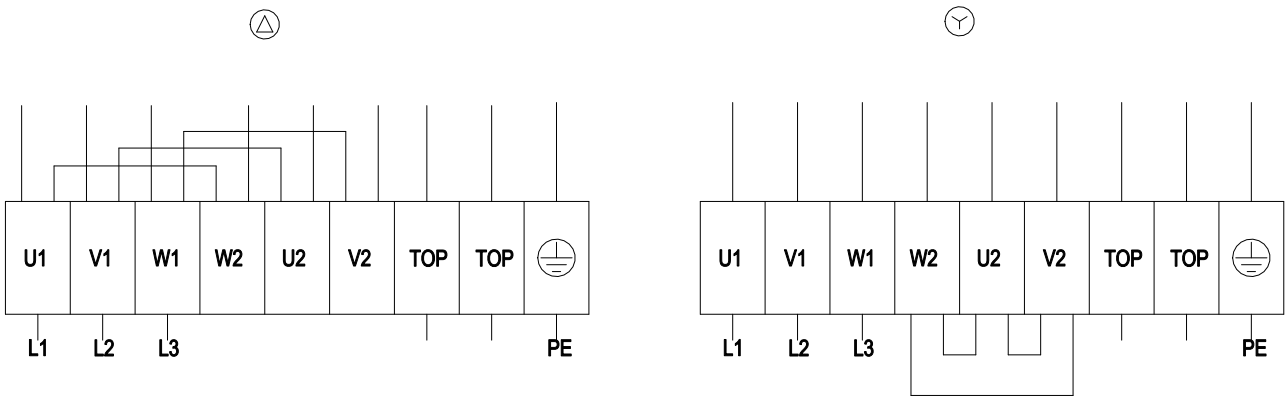
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Connection screen



Δ	Delta connection	Y	Star connection	L1	= U1 = black
L2	= V1 = blue	L3	= W1 = brown	W2	yellow
U2	green	V2	white	TOP	2 x grey
PE	green/yellow				

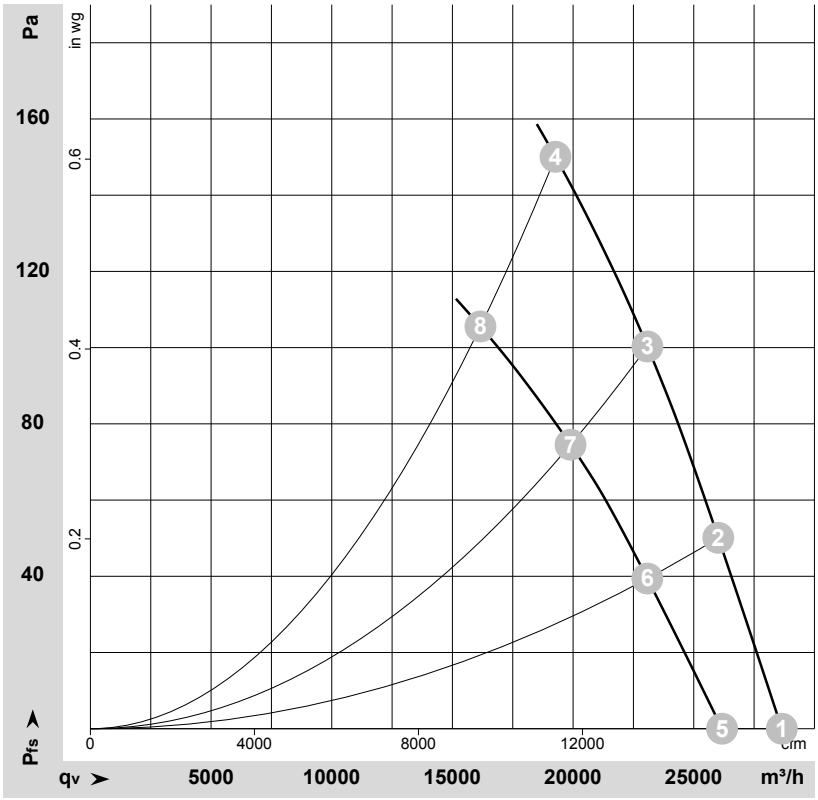
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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-171476-1
Measurement: LU-171517-1

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	Stage	Conn.	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	inH2O
1	1	Δ	400	50	955	1290	3.28	72	79	79	28650	0	16865	0.00
2	1	Δ	400	50	945	1530	3.54	70	77	77	26015	50	15310	0.20
3	1	Δ	400	50	935	1753	3.80	68	75	75	23080	100	13585	0.40
4	1	Δ	400	50	925	1950	4.09	69	76	75	19270	150	11340	0.60
5	1	Y	400	50	860	1036	1.89	69	76	76	26170	0	15405	0.00
6	1	Y	400	50	820	1190	2.16	66	73	73	23075	40	13585	0.16
7	1	Y	400	50	785	1315	2.39	64	71	70	19895	75	11710	0.30
8	1	Y	400	50	750	1410	2.59	64	71	70	16160	105	9510	0.42

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side
LwA_{out} = Sound power level outlet side · q_V = Air flow · p_{fs} = Pressure increase

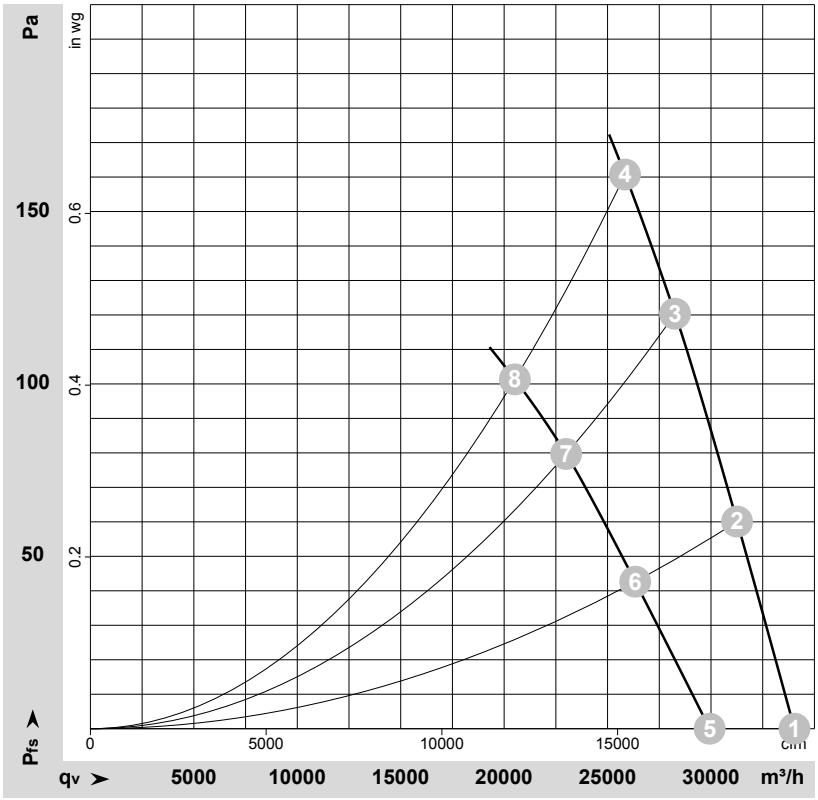
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Charts: Air flow 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-171513-1
Measurement: LU-171946-1

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	Stage	Conn.	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	inH2O
1	1	Δ	480	60	1135	2122	3.85	76	84	83	34035	0	20035	0.00
2	1	Δ	480	60	1120	2461	4.23	75	82	82	31260	60	18400	0.24
3	1	Δ	480	60	1105	2785	4.61	73	81	81	28260	120	16635	0.48
4	1	Δ	480	60	1090	3000	4.89	73	80	80	25845	160	15210	0.64
5	1	Y	480	60	970	1643	2.52	72	79	79	29935	0	17620	0.00
6	1	Y	480	60	910	1817	2.82	69	76	76	26335	43	15500	0.17
7	1	Y	480	60	865	1951	3.06	66	74	73	22995	80	13535	0.32
8	1	Y	480	60	840	2020	3.19	66	73	72	20520	100	12075	0.40

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side
LwA_{out} = Sound power level outlet side · q_V = Air flow · p_{fs} = Pressure increase

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