W6D910-GC01-01

AC axial fan - HyBlade

sickled blades (S series)

with full square nozzle

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Nominal data

Type	**W6D910-GC01-01**
Motor	**M6D138-NA**

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}	940	830	1110	950
Power input	W	1520	1150	2380	1770
Current draw	A	4.1	2.12	4.53	2.73
Max. back pressure	Pa	165	125	210	150
Min. ambient temperature	°C	-40	-40	-40	-40
Max. ambient temperature	°C	70	70	55	55
Starting current	A	18.6	6.2	20	6.0

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}	%	39.7	34.7
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		45	40
05 Variable speed drive		No	

09 Power input P_e	kW	1.44
09 Air flow q_v	m^3/h	15385
09 Pressure increase p_{fs}	Pa	135
10 Speed (rpm) n	min^{-1}	945
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

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Technical features

Mass	52.8 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 in black plastic (RAL 9005)
Material of guard grille	Steel, coated in black plastic (RAL9005)
Number of blades	5
Blade angle	-10°
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)	F3-1
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Any
Condensate discharge holes	On rotor and stator sides
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 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	VDE; EAC

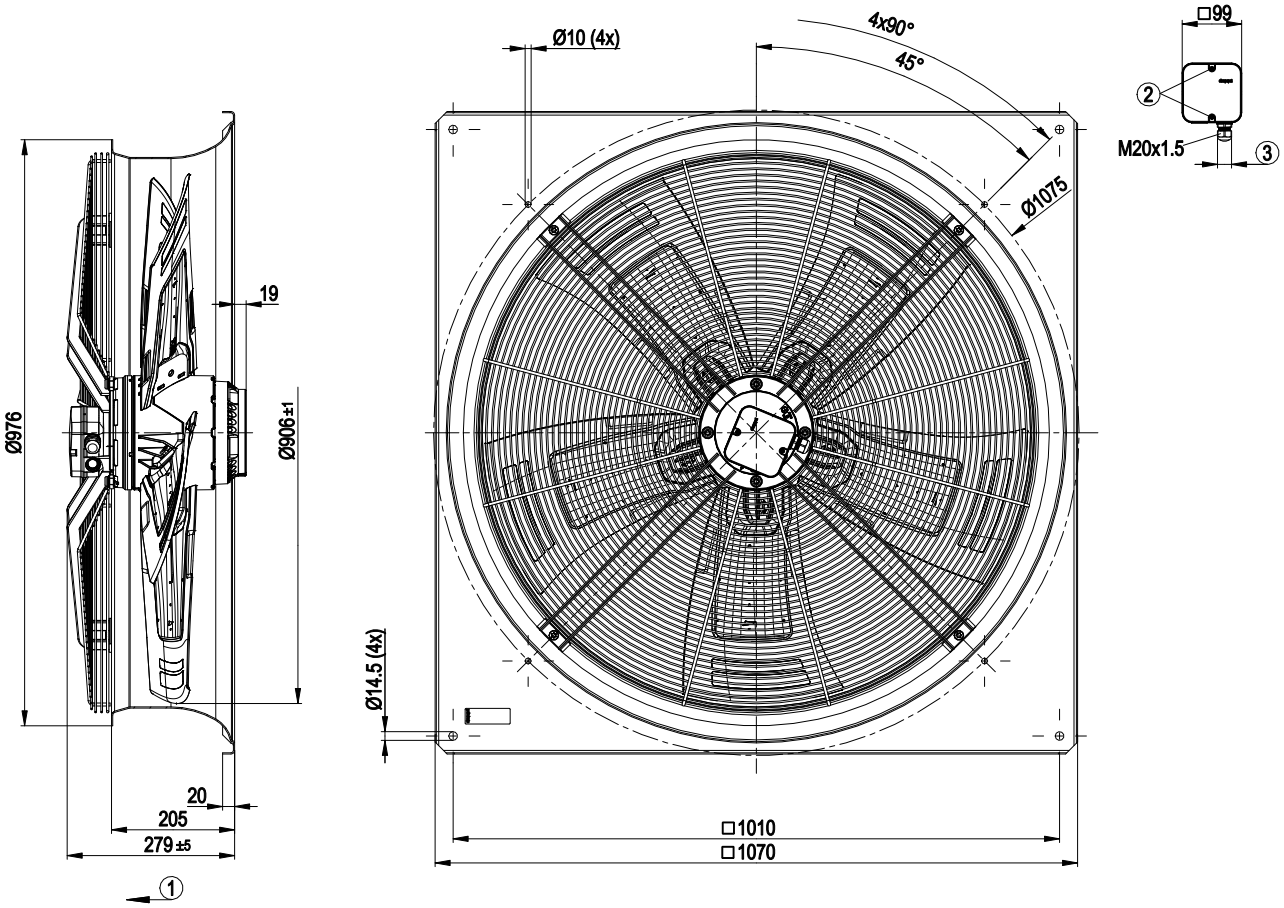
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Product drawing



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

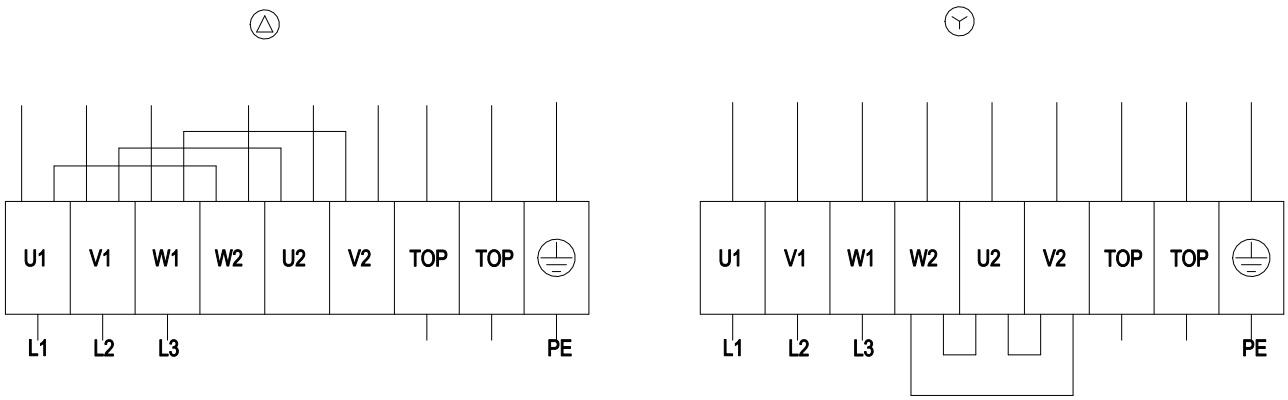
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Connection screen



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				

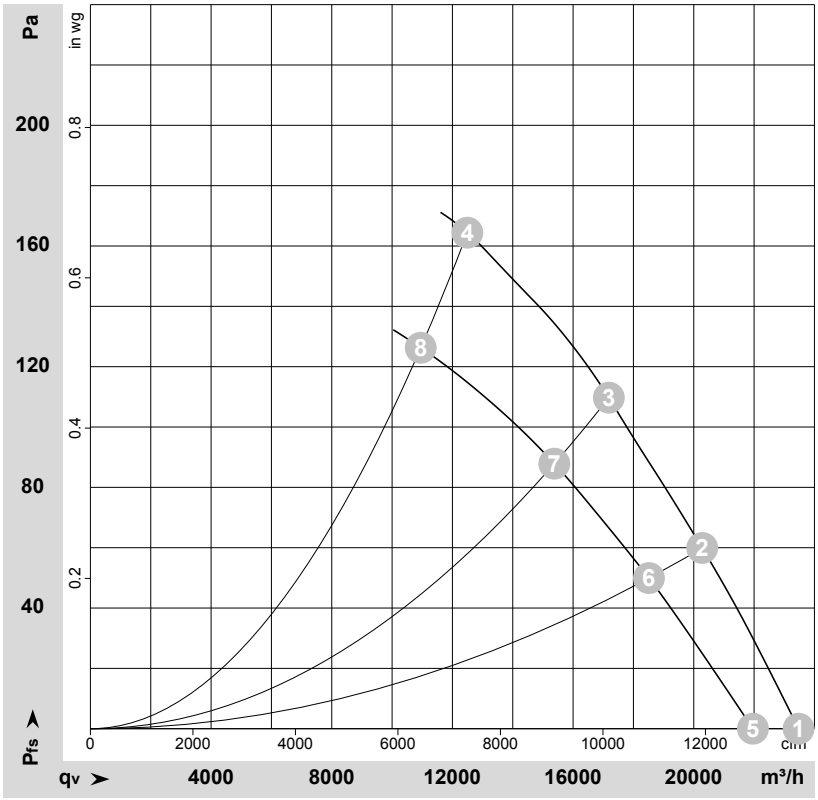
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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-120961-1
Measurement: LU-120963-1

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

	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	Δ	400	50	970	933	3.71	73	80	80	23475	0	13815	0.00
2	Δ	400	50	960	1186	3.80	71	78	78	20280	60	11935	0.24
3	Δ	400	50	950	1373	3.94	71	79	78	17185	110	10115	0.44
4	Δ	400	50	940	1520	4.10	82	89	90	12495	165	7355	0.66
5	Y	400	50	910	716	1.44	71	78	78	21960	0	12925	0.00
6	Y	400	50	875	908	1.73	68	76	75	18515	50	10900	0.20
7	Y	400	50	850	1046	1.95	69	76	76	15375	88	9050	0.35
8	Y	400	50	830	1150	2.12	77	85	85	10950	126	6445	0.51

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

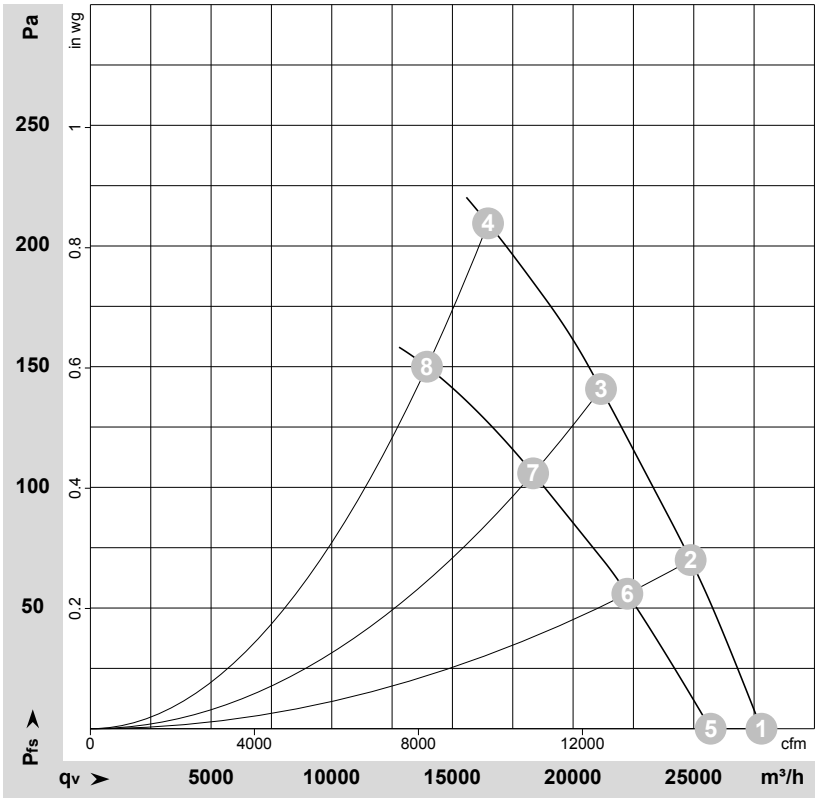
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Charts: Air flow 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-120964-1
Measurement: LU-120965-1

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

	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	Δ	480	60	1155	1458	3.86	78	85	84	27805	0	16365	0.00
2	Δ	480	60	1140	1811	4.07	76	83	82	24870	70	14640	0.28
3	Δ	480	60	1130	2143	4.33	76	83	82	21155	140	12455	0.56
4	Δ	480	60	1110	2380	4.53	86	93	94	16475	210	9700	0.84
5	Y	480	60	1070	1150	1.83	75	83	82	25700	0	15125	0.00
6	Y	480	60	1025	1415	2.19	72	80	79	22250	57	13095	0.23
7	Y	480	60	985	1624	2.51	72	79	79	18345	106	10795	0.43
8	Y	480	60	950	1770	2.73	82	89	90	13945	151	8210	0.61

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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