W6D800-GF05-03

AC axial fan - HyBlade®

sickled blades (S series)

with full square nozzle

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**W6D800-GF05-03**
Motor	**M6D138-LA**

Phase		3~	3~	3~	3~
Nominal voltage	VAC	230	277	400	480
Connection		Δ	Δ	Y	Y
Frequency	Hz	50	60	50	60
Type of data definition		ml	ml	ml	ml
Valid for approval / standard		CE	CE	CE	CE
Speed	min^{-1}	930	1095	930	1095
Power input	W	1210	1970	1210	1970
Current draw	A	5.16	6.17	2.98	3.56
Max. back pressure	Pa	160	220	160	220
Min. ambient temperature	°C	-40	-40	-40	-40
Max. ambient temperature	°C	70	60	70	60
Starting current	A	22	24	13	14

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

Installation category	A
Efficiency category	Static
Variable speed drive	No
Specific ratio*	1.00

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	38.6	29.9	33.9
Efficiency grade N		44.7	36	40
Power input P_e	kW	1.1		
Air flow q_v	m^3/h	11920		
Pressure increase p_{fs}	Pa	130		
Speed n	min^{-1}	945		

Data definition with optimum efficiency. LU-127409
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

Mass	44 kg
Size	800 mm
Surface of rotor	Cast in aluminium
Material of terminal box	PC / ABS plastic
Material of blades	Aluminium sheet insert, sprayed with PP plastic
Material of wall ring	Sheet steel, pre-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 class	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
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	CSA C22.2 Nr.100; EAC; UL 1004-1

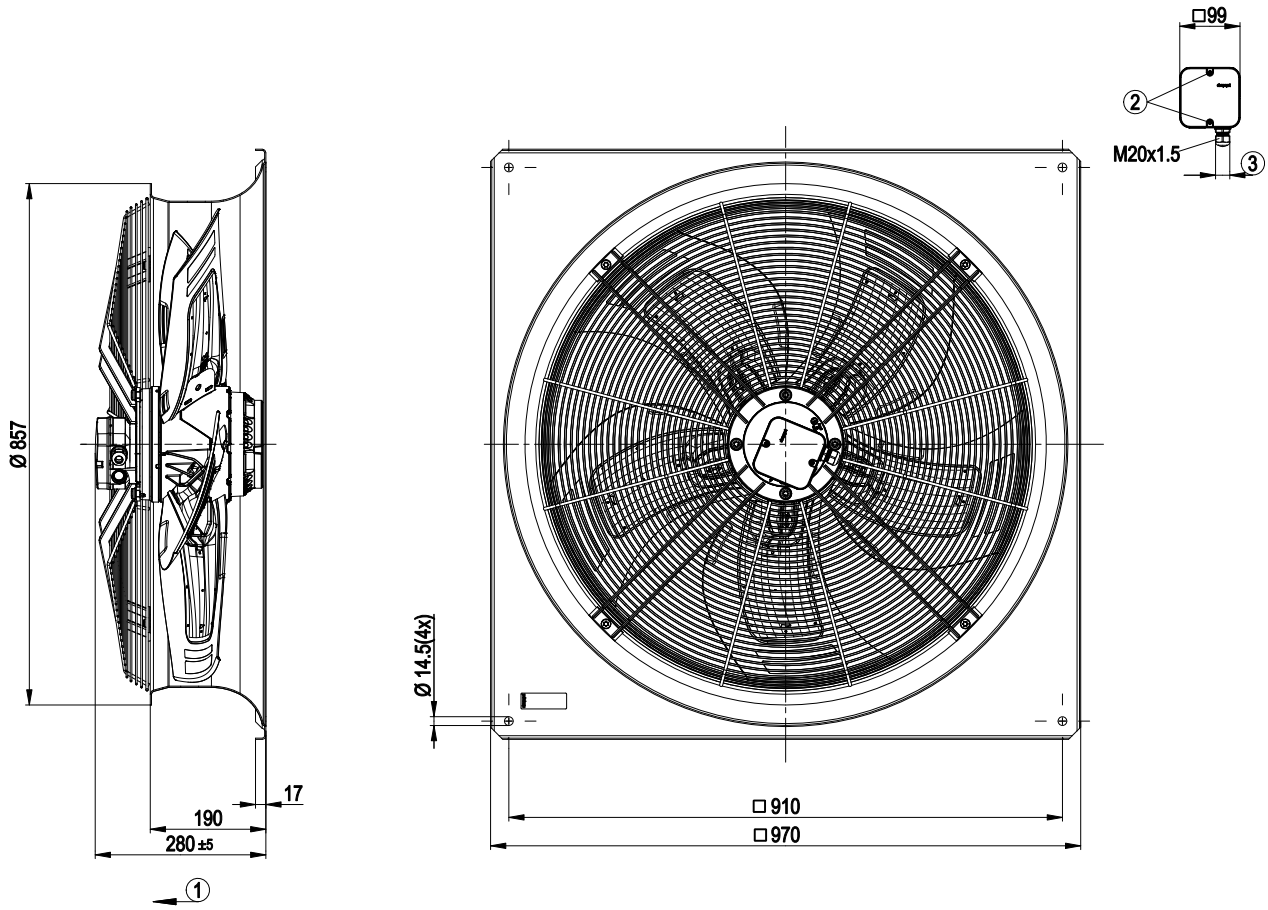
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Product drawing



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

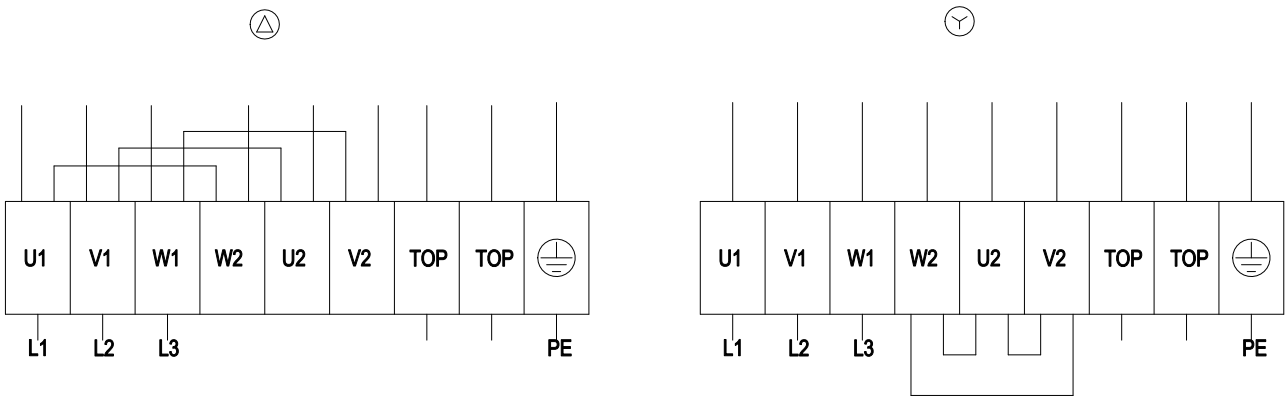
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Connection screen



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				

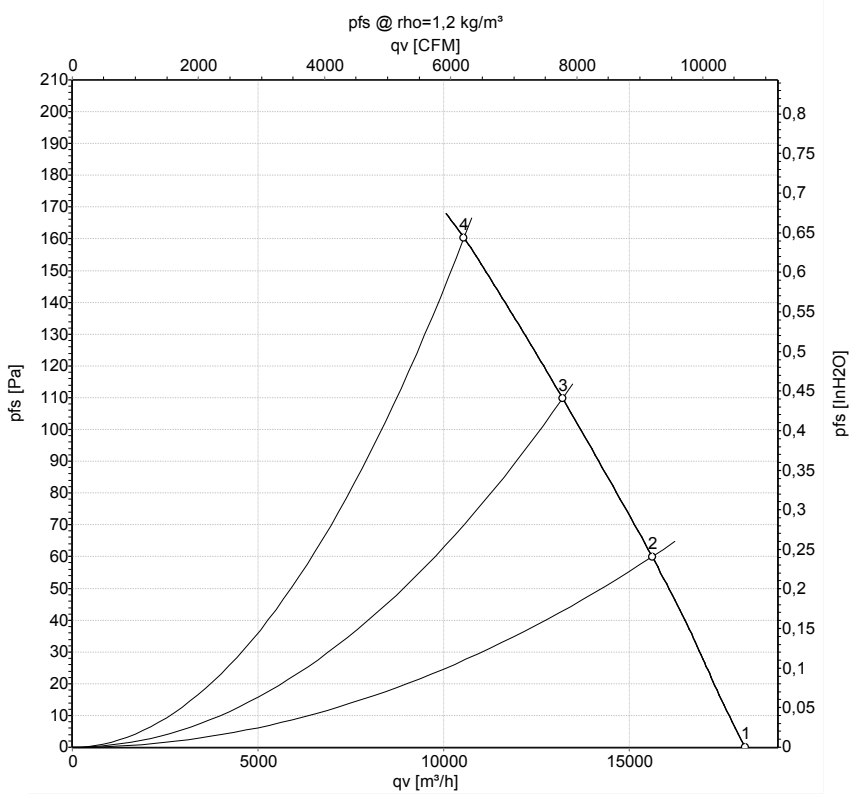
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Charts: Air flow 50 Hz



Measurement: LU-127409

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}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa
1	Y	400	50	965	731	2.59	67	74	74	18120	0
2	Y	400	50	955	912	2.74	64	71	71	15620	60
3	Y	400	50	950	1041	2.87	67	73	72	13210	110
4	Y	400	50	930	1210	2.98	71	78	77	10550	160

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed · 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 · qv = Air flow · p_{fs} = Pressure increase

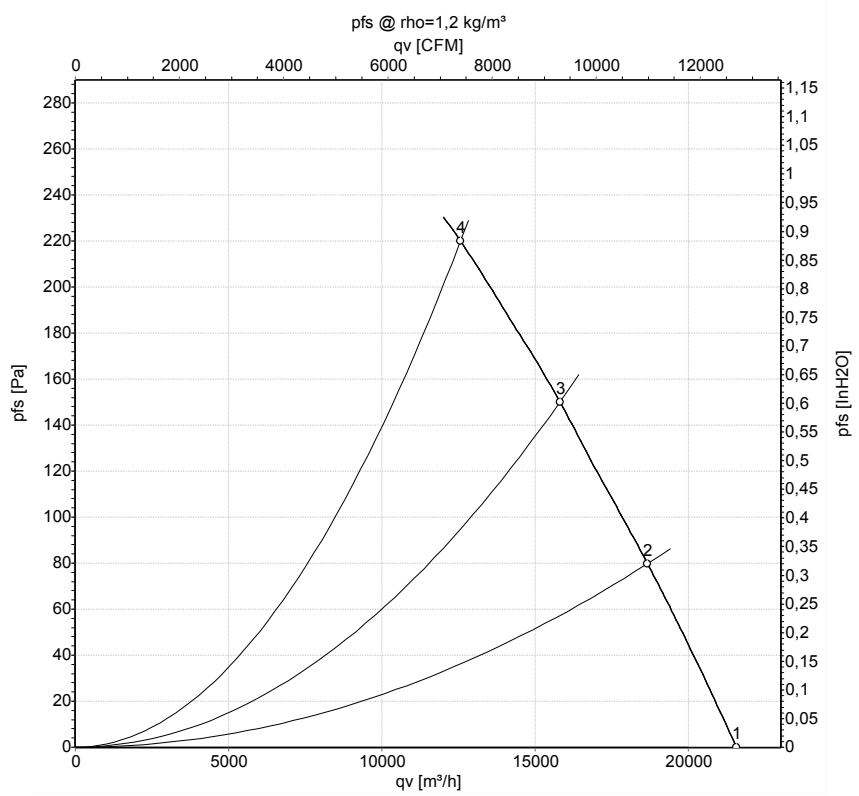
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Charts: Air flow 60 Hz



Measurement: LU-115891

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}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa
1	Y	480	60	1145	1201	2.73	72	79	79	21560	0
2	Y	480	60	1130	1496	3.01	69	76	76	18660	80
3	Y	480	60	1115	1724	3.28	71	78	77	15800	150
4	Y	480	60	1095	1970	3.56	75	82	81	12560	220

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed · 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 · qv = Air flow · p_{fs} = Pressure increase

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