W3G800-GO84-01

EC axial fan - HyBlade®

sickled blades (S series)

with full square nozzle



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County court Stuttgart · HRB 590142

ErP2015 EXCEEDS THE NORM

Nominal data

Type	**W3G800-GO84-01**	
Motor	**M3G112-IA**	
Phase		3~
Nominal voltage	VAC	400
Nominal voltage range	VAC	380 .. 480
Frequency	Hz	50/60
Type of data definition		ml
Speed	min^{-1}	735
Power input	W	835
Current draw	A	1.4
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

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 integrated	Integrated
Specific ratio*	1,00

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}		44,2	29	33
Efficiency grade N		51,2	36	40
Power input P_{ed}	kW	0,78		
Air flow q_v	m³/h	12095		
Pressure increase p_{fs}	Pa	95		
Speed n	min^{-1}	740		

Data established at point of optimum efficiency

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Technical features

Mass	28 kg
Size	800 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium, coated in black
Material of blades	Press-fitted sheet steel blank, sprayed with PP plastic
Material of wall ring	Sheet steel, pre-galvanised and coated in black plastic
Material of guard grille	Steel, phosphated and coated in black plastic
Number of blades	5
Blade angle	0°
Direction of air flow	"V"
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Humidity class	F4-1
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
Technical features	- PFC, passive - Control input 0-10 VDC / PWM - Output 10 VDC, max. 1.1 mA - Tach output - Over-temperature protected electronics / motor - Alarm relay - Integrated PID controller - RS485 ebmBUS - Motor current limit - Soft start - Line undervoltage / phase failure detection
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC interference emission	Acc. to EN 61000-6-3 (household environment)
EMC harmonics	Acc. to EN 61000-3-2/3
Leakage current	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 61800-5-1

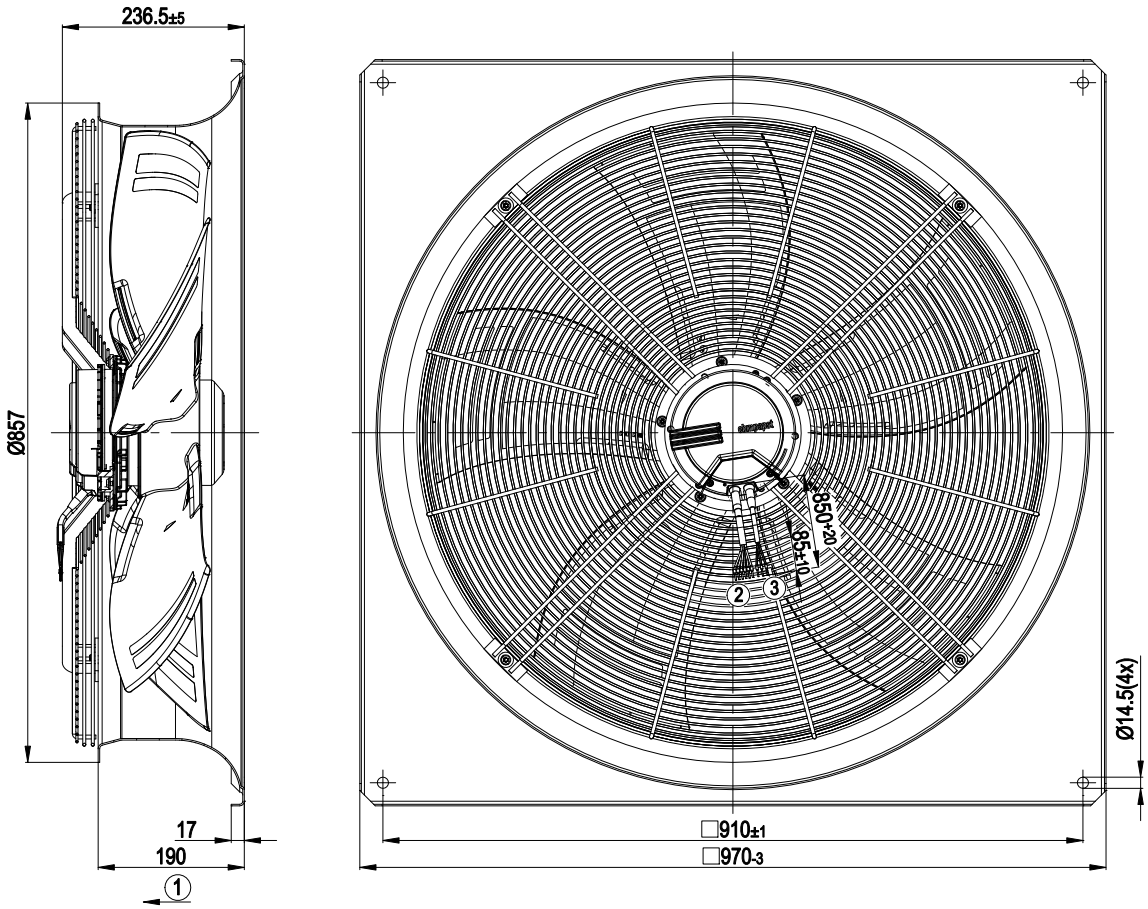
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Product drawing



1	Direction of air flow "V"
2	Connection line AWG18, 6 x crimped core-end sleeves
3	Connection line AWG22, 3 x crimped core-end sleeves

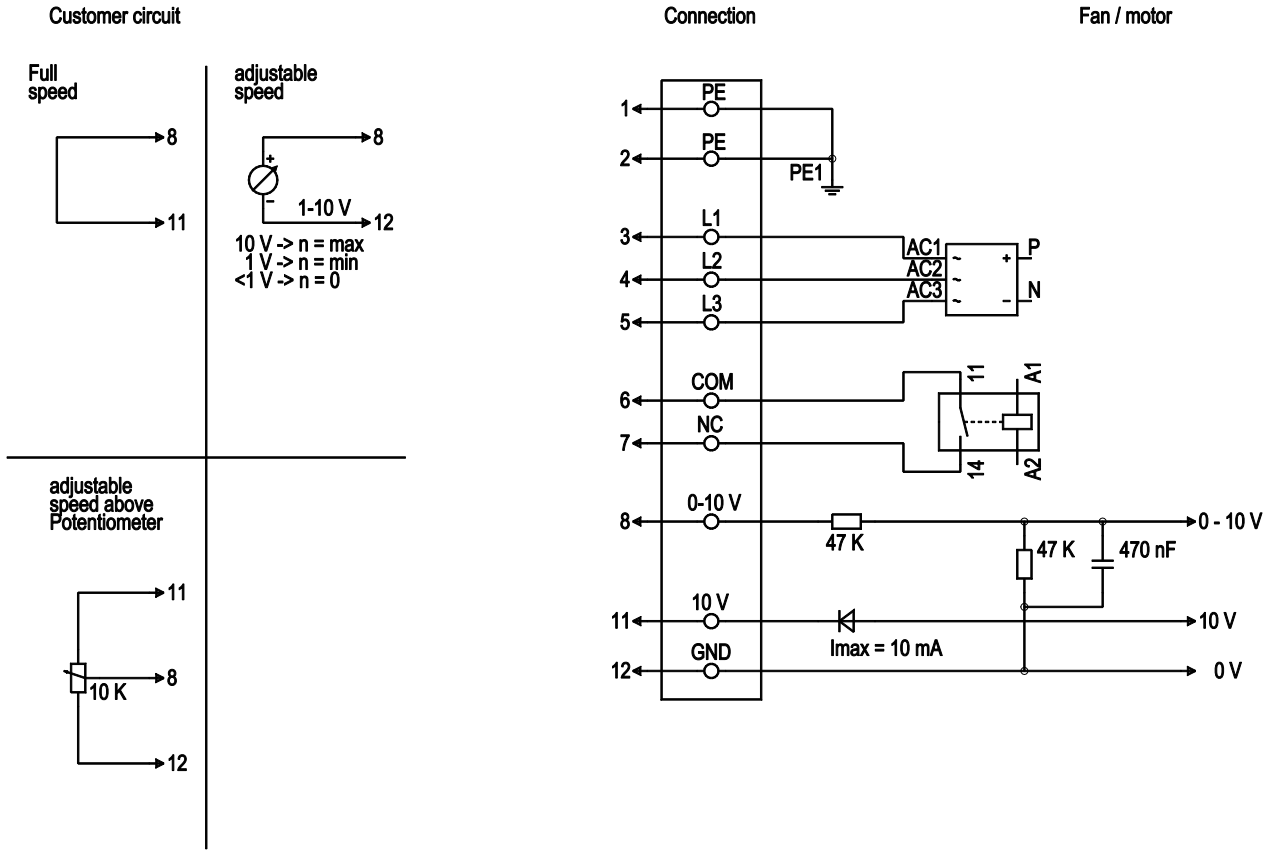
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Connection screen



Line	No.	Signal	Colour	Function / assignment
1	1, 2	PE	green/yellow	Protective earth
1	3, 4, 5	L1, L2, L3	black	Supply voltage 50 / 60 Hz
1	6	COM	white 1	Floating status contact, break for failure (2 A, max. 250 VAC, min. 10 mA, AC1)
1	7	NC	white 2	Floating status message contact, break for failure
2	8	0 - 10 V	yellow	Control input, set value 0 - 10 VDC, impedance 100 kOhm, SELV
2	11	+ 10 V	red	Voltage output 10 VDC (+/-3%), max. 10 mA, supply voltage for ext. devices (e.g. potentiometer), SELV
2	12	GND	blue	Reference mass for control interface, SELV

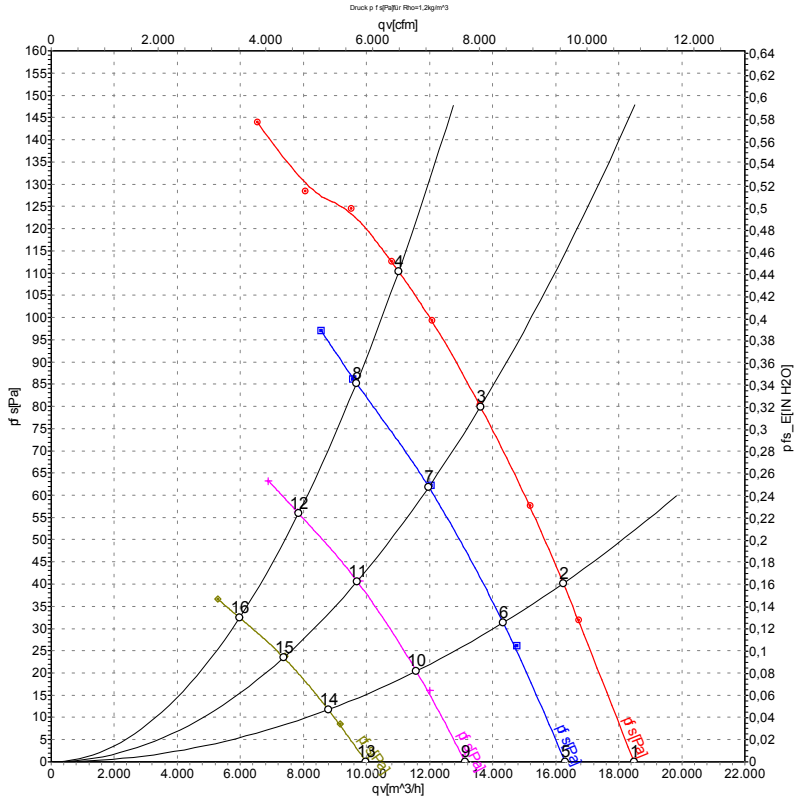
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Charts: Air flow 50 Hz



Measurement: LU-117968
Measurement: LU-118106
Measurement: LU-118107
Measurement: LU-118105

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

	U	f	n	P_{ed}	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	400	50	735	514	0.87	63	70	70	18480	0
2	400	50	735	632	1.04	59	66	65	16240	40
3	400	50	735	732	1.20	57	64	64	13610	80
4	400	50	735	835	1.40	62	70	69	11020	110
5	400	50	650	338	0.66	59	66	66	16290	0
6	400	50	650	398	0.77	57	63	63	14330	32
7	400	50	650	476	0.86	54	61	60	11970	63
8	400	50	650	521	0.89	58	66	66	9685	85
9	400	50	525	185	0.39	54	61	60	13120	0
10	400	50	525	223	0.46	52	58	58	11580	21
11	400	50	525	253	0.51	49	56	55	9705	41
12	400	50	525	276	0.55	53	60	60	7845	56
13	400	50	400	90	0.23	48	54	54	9985	0
14	400	50	400	107	0.26	46	52	52	8785	12
15	400	50	400	120	0.28	43	50	50	7375	24
16	400	50	400	127	0.29	45	52	52	5975	32

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