W3G560-DQ41-05

EC axial fan - HyBlade

sickled blades (S series)

with full square nozzle

ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.com

Limited partnership · Headquarters Mulfingen
County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
County court Stuttgart · HRB 590142

Nominal data

Type	**W3G560-DQ41-05**
Motor	**M3G112-GA**

Phase		3~
Nominal voltage	VAC	400
Nominal voltage range	VAC	380 .. 480
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	1350
Power input	W	945
Current draw	A	1.5
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

		Actual	Request 2015
01 Overall efficiency η_{es}	%	42.9	33.5
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		49.4	40
05 Variable speed drive		Yes	

09 Power input P_{ed}	kW	0.93
09 Air flow q_v	m^3/h	7890
09 Pressure increase p_{fs}	Pa	168
10 Speed (rpm) n	min^{-1}	1360
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-116554

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Technical features

Mass	21.8 kg
Size	560 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium, coated in black
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	-5°
Direction of air flow	"A"
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Humidity (F)/environmental protection class (H)	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	- Output 10 VDC, max. 10 mA - Alarm relay - Integrated PID controller - Motor current limit - PFC, passive - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Over-temperature protected electronics / motor - Line undervoltage / phase failure detection
EMC interference immunity	Acc. to EN 61000-6-2
EMC harmonics	Acc. to EN 61000-3-2/3
EMC interference emission	Acc. to EN 61000-6-3
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 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; CE

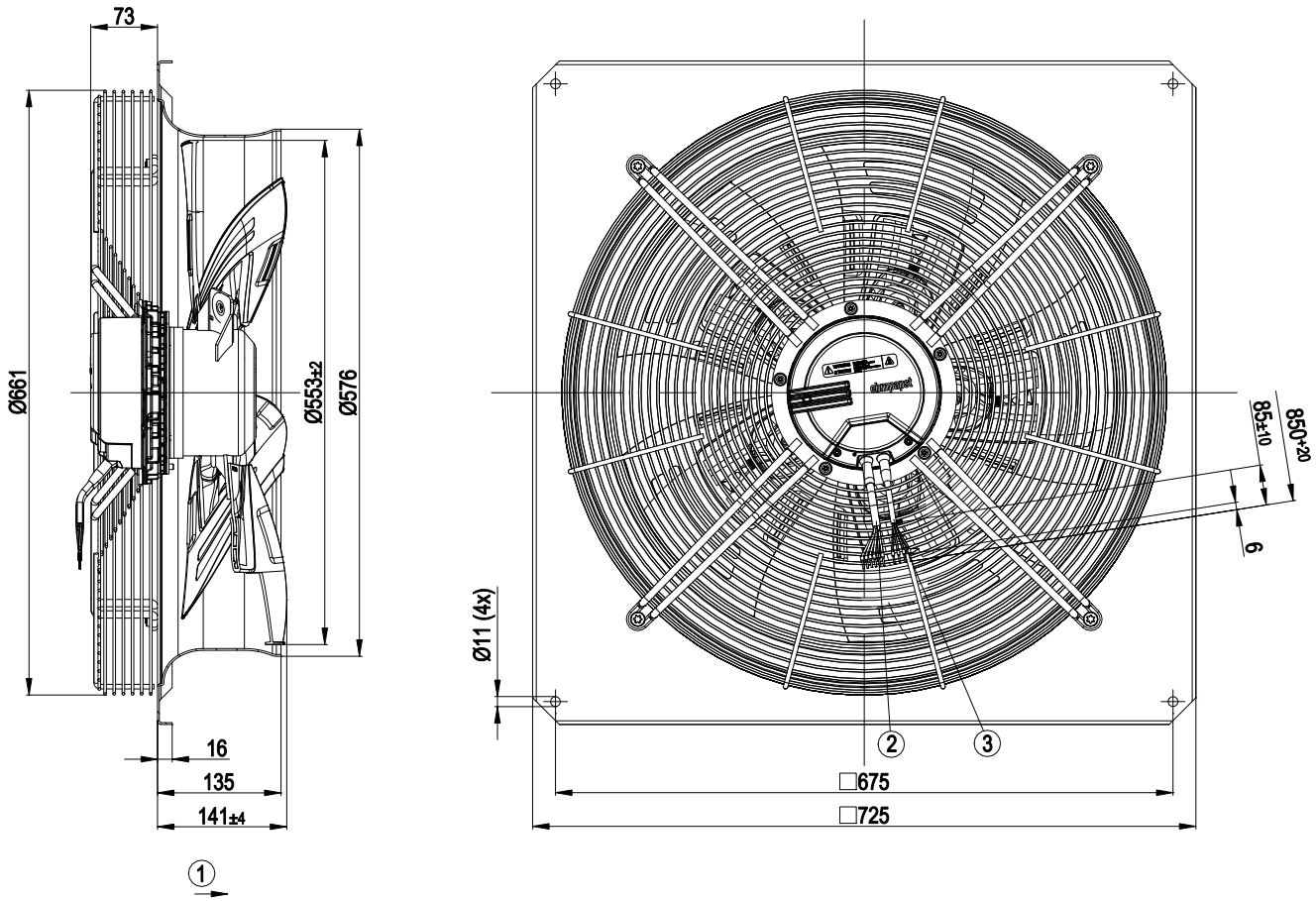
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Product drawing



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

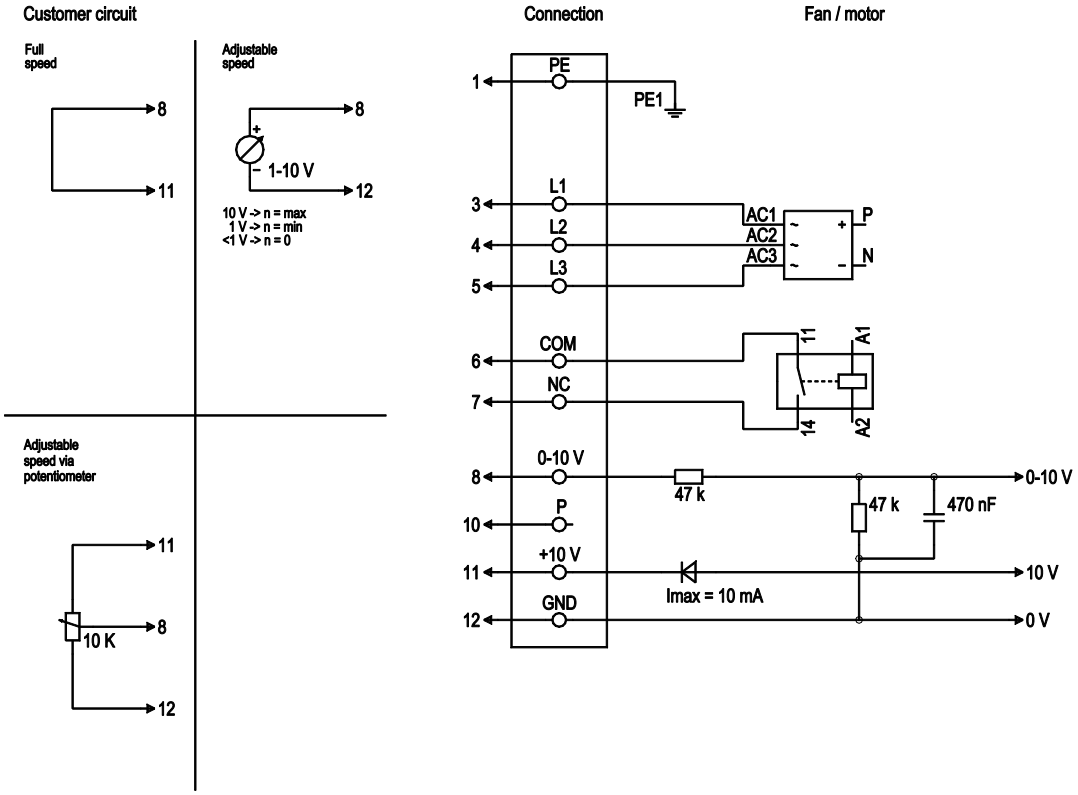
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Connection screen



No.	Conn.	Designation	Colour	Function / assignment
1	1	PE	green/yellow	Ground wire
1	3	L1	black	Supply voltage, 50/60 Hz
1	4	L2	black	Supply voltage, 50/60 Hz
1	5	L3	black	Supply voltage, 50/60 Hz
1	6	COM	white 1	Floating status message contact, normally closed connection (2 A, max. 250 VAC, min. 10 mA, AC1)
1	7	NC	white 2	Floating status message contact, normally closed connection
2	8	0-10 V	yellow	Control input, set value 0-10 VDC, impedance 100 kΩ, SELV
2	10	P	orange	Do not use
2	11	+10 V	red	Voltage output 10 VDC (+/-3%), max. 10 mA, supply voltage for external devices (e.g. potentiometer), SELV
2	12	GND	blue	Reference mass for control interface, SELV

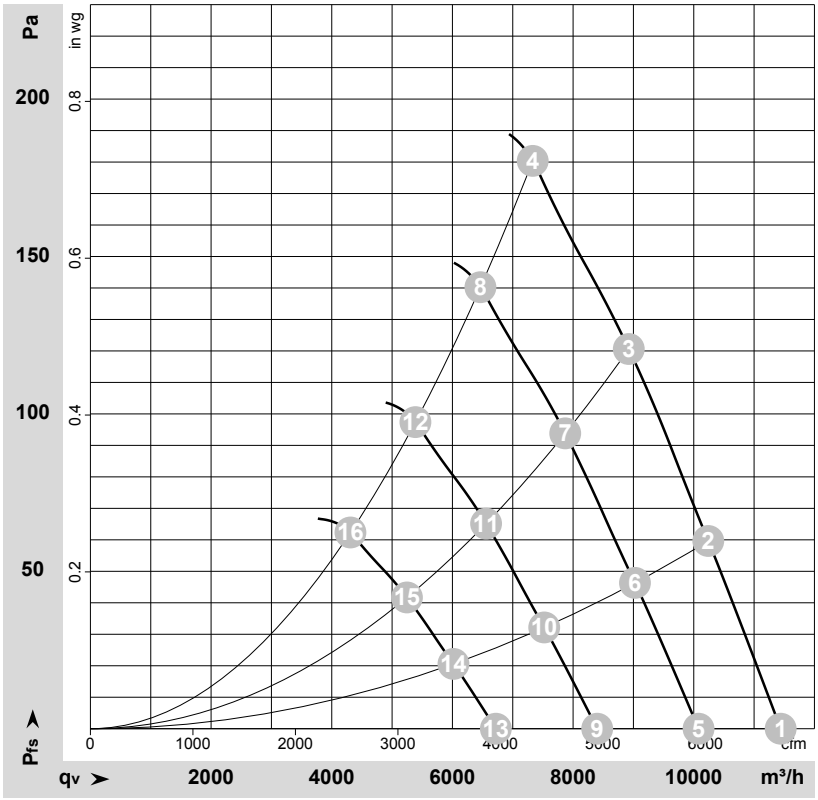
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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-119233-1

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

	U	f	n	P_{ed}	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	400	50	1350	673	1.11	68	75	75	11440	0	6735	0.00
2	400	50	1350	784	1.26	67	74	74	10240	60	6030	0.24
3	400	50	1350	869	1.38	68	74	74	8925	120	5250	0.48
4	400	50	1350	945	1.50	70	77	76	7330	180	4315	0.72
5	400	50	1200	460	0.76	65	71	72	10080	0	5935	0.00
6	400	50	1200	537	0.86	64	71	70	9025	46	5315	0.18
7	400	50	1200	596	0.95	65	71	70	7870	94	4630	0.38
8	400	50	1200	648	1.02	67	74	73	6465	141	3805	0.57
9	400	50	1000	266	0.44	60	67	67	8400	0	4945	0.00
10	400	50	1000	311	0.50	59	66	66	7520	32	4425	0.13
11	400	50	1000	345	0.55	60	66	66	6560	65	3860	0.26
12	400	50	1000	375	0.59	62	69	69	5385	98	3170	0.39
13	400	50	800	136	0.23	54	61	61	6720	0	3955	0.00
14	400	50	800	159	0.26	54	60	60	6015	21	3540	0.08
15	400	50	800	177	0.28	54	61	60	5245	42	3090	0.17
16	400	50	800	192	0.30	57	64	63	4310	63	2535	0.25

U = Supply voltage · f = Frequency · n = Speed (rpm) · P_{ed} = 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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