W3G450-SC28-30

EC axial panel fan - AxiCool

sickle-shaped blades (S series)

Fan housing with guide vanes

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
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**W3G450-SC28-30**
Motor	**M3G084-FA**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	1300
Power consumption	W	345
Current draw	A	2.2
Max. back pressure	Pa	125
Max. back pressure	in. wg	0.5
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

Data according to Commission Regulation (EU) 327/2011 (prEN 17166)

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	38.5	30.8
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		47.7	40
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.35
09 Air flow q_v	m^3/h	4010
09 Pressure increase p_{fs}	Pa	109
10 Speed (rpm) n	min^{-1}	1305
11 Specific ratio*		1.00

Data obtained at optimum efficiency level.

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

LU-197599

The efficiency values displayed for achieving conformity with the Ecodesign Regulation EU 327/2011 has been reached with defined air duct components (e.g. inlet rings).
The dimensions must be requested from ebm-papst. If other air conduction geometries are used on the installation side, the ebm-papst evaluation loses its validity/the conformity must be confirmed again.

The product does not fall within the scope of Regulation (EU) 2019/1781 due to the exception specified in Article 2 (2a) (motors completely integrated into a product).

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Technical description

Weight	10.6 kg
Size	450 mm
Motor size	84
Rotor surface	Painted black
Blade material	Press-fitted sheet steel blank, sprayed with PP plastic
Fan housing material	PP plastic
Airflow direction	V
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H2
Max. permitted ambient temp. for motor (transport/storage)	+ 70 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing with low-temperature lubricant
Technical features	- Output 10 VDC, max. 1.1 mA - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from supply - Thermal overload protection for electronics/motor - Line undervoltage detection
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC circuit feedback	According to EN 61000-3-2/3
EMC interference emission	According to EN 61000-6-3 (household environment)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal switch auto reset, internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1; CE

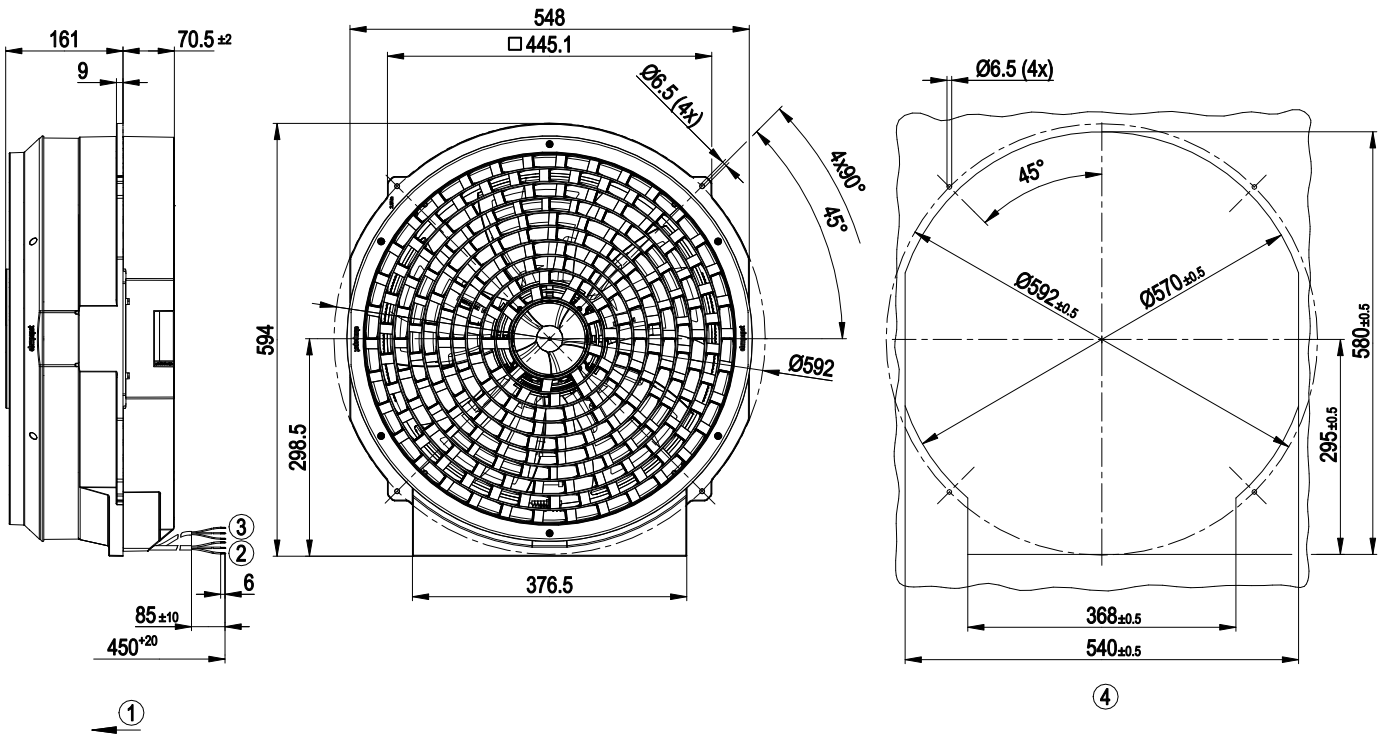
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Product drawing



1	Direction of air flow "V"
2	Cable PVC AWG18, 3x crimped splices
3	Control cable PVC AWG22, 3x crimped splices
4	Mounting dimensions

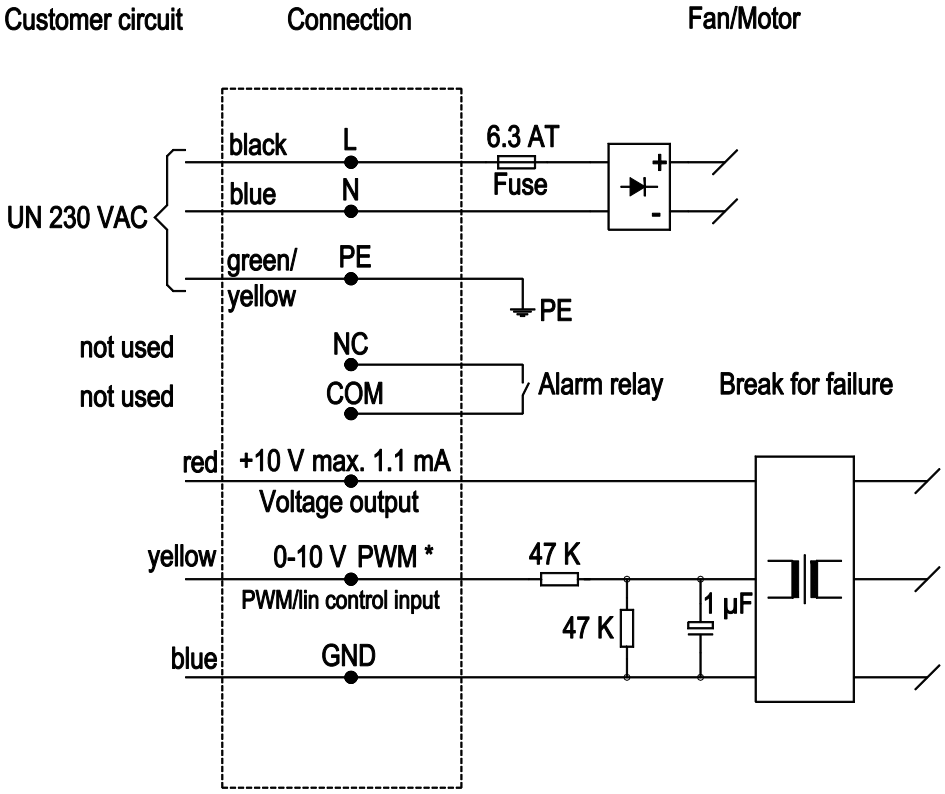
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Connection diagram



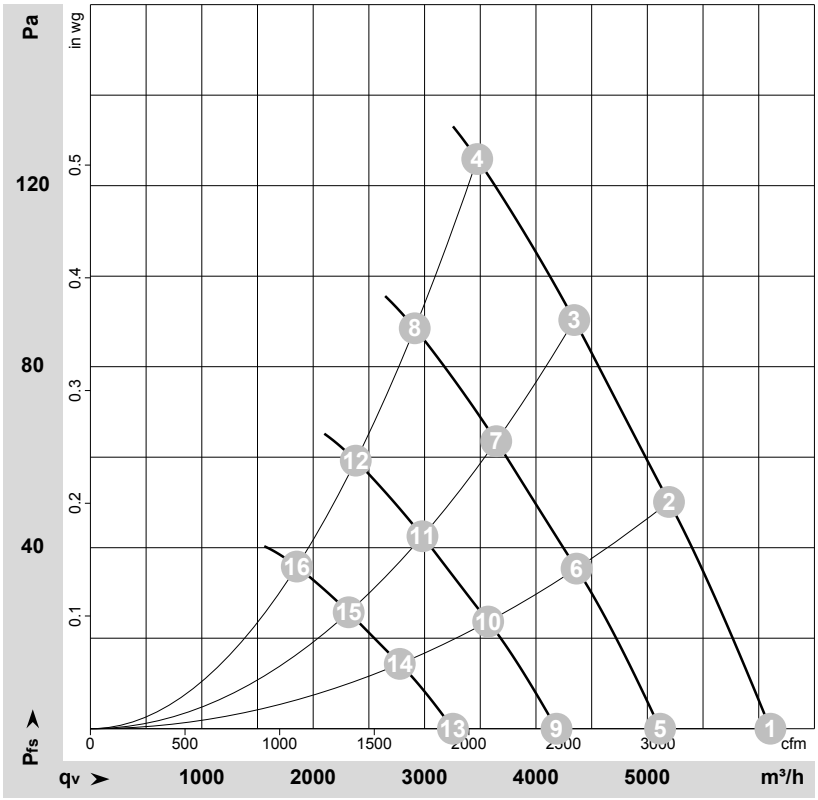
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-151311-1
Date: 2012-12-11
Housing: 45023-2-2922

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

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	in. wg
1	230	50	1300	267	1.77	66	73	76	6105	0	3595	0.00
2	230	50	1300	303	2.00	64	71	74	5195	50	3055	0.20
3	230	50	1300	332	2.18	64	71	75	4345	90	2555	0.36
4	230	50	1300	345	2.20	67	74	77	3475	125	2045	0.50
5	230	50	1100	157	1.04	62	69	71	5115	0	3010	0.00
6	230	50	1100	180	1.19	59	66	69	4365	35	2570	0.14
7	230	50	1100	196	1.29	60	67	70	3645	64	2145	0.26
8	230	50	1100	208	1.36	63	70	73	2910	89	1715	0.36
9	230	50	900	86	0.57	57	63	66	4185	0	2465	0.00
10	230	50	900	99	0.65	54	61	64	3570	24	2100	0.10
11	230	50	900	107	0.71	54	62	65	2980	43	1755	0.17
12	230	50	900	114	0.74	58	65	68	2380	59	1400	0.24
13	230	50	700	40	0.27	50	57	60	3255	0	1915	0.00
14	230	50	700	46	0.31	48	55	58	2775	14	1635	0.06
15	230	50	700	50	0.33	48	55	59	2320	26	1365	0.10
16	230	50	700	54	0.35	52	59	61	1855	36	1090	0.14

U = Voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
LwA_{out} = Sound power level outlet side · q_V = Air flow · p_{fs} = Pressure increase

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