W3G450-WC28-53

EC axial fan - AxiCool

sickled blades (S series), single inlet

Wall ring with air-guiding system

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Nominal data

Type	**W3G450-WC28-53**
Motor	**M3G084-FA**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 230
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	1300
Power input	W	345
Current draw	A	2.2
Max. back pressure	Pa	125
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 in accordance with ecodesign regulation EU 327/2011

		Actual	Request 2015
01 Overall efficiency η_{es}	%	42.6	30.7
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		51.9	40
05 Variable speed drive		Yes	

09 Power input P_{ed}	kW	0.34
09 Air flow q_v	m^3/h	4005
09 Pressure increase p_{fs}	Pa	118
10 Speed (rpm) n	min^{-1}	1305
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-124620

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Technical features

Mass	10.8 kg
Size	450 mm
Surface of rotor	Coated in black
Material of blades	Press-fitted sheet steel blank, sprayed with PP plastic
Material of wall ring	PP plastic
Number of blades	5
Direction of air flow	"V"
Direction of rotation	Counter-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)	+ 70 °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. 1.1 mA - 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 detection
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC harmonics	Acc. to EN 61000-3-2/3
EMC interference emission	Acc. to EN 61000-6-3 (household environment)
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 60335-1; CE
Approval	C22.2 Nr.77 + CAN/CSA-E60730-1; UL1004-3 +60730; EAC

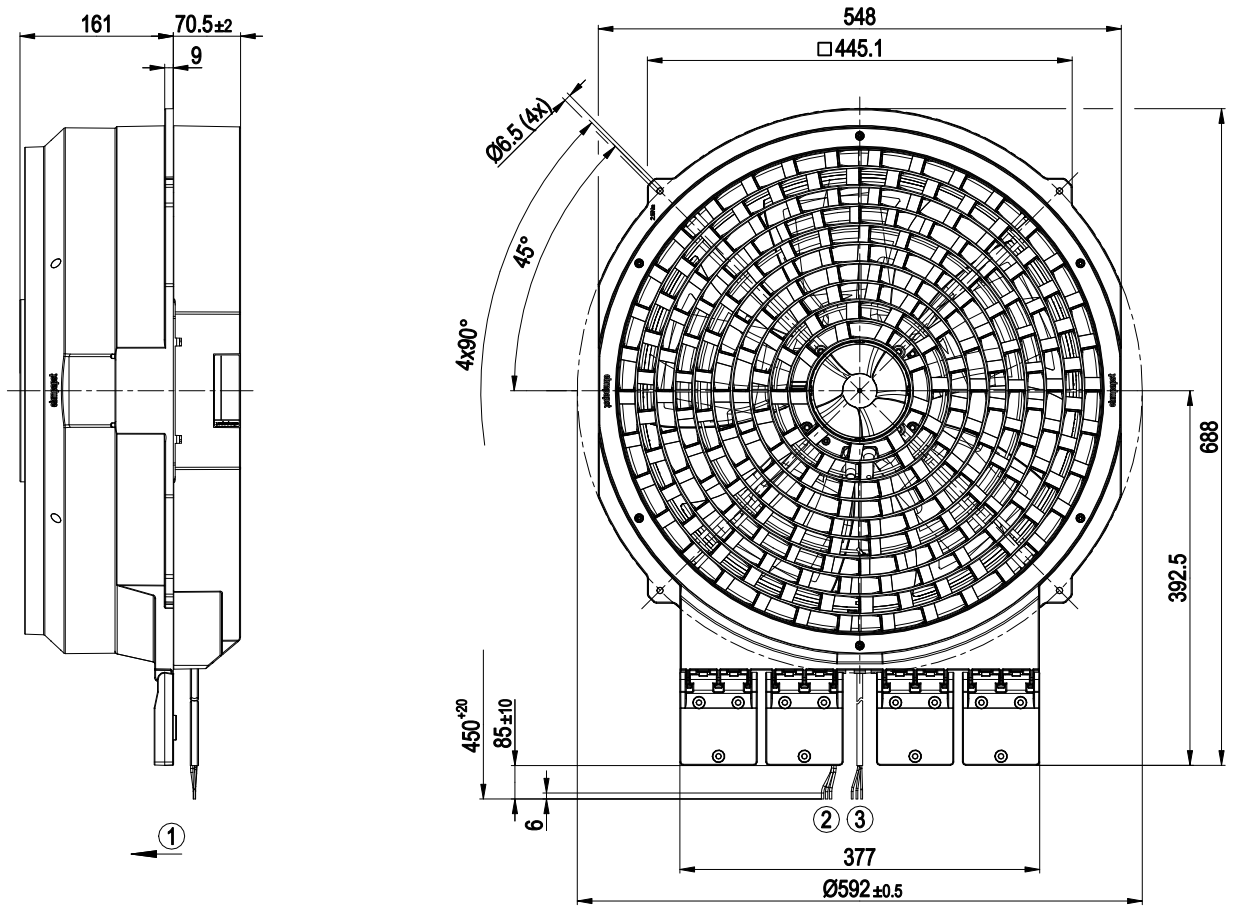
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Product drawing



1	Direction of air flow "V"
2	Connection line PVC AWG18, 3x lead tips crimped
3	Connection line PVC AWG22, 3x lead tips crimped

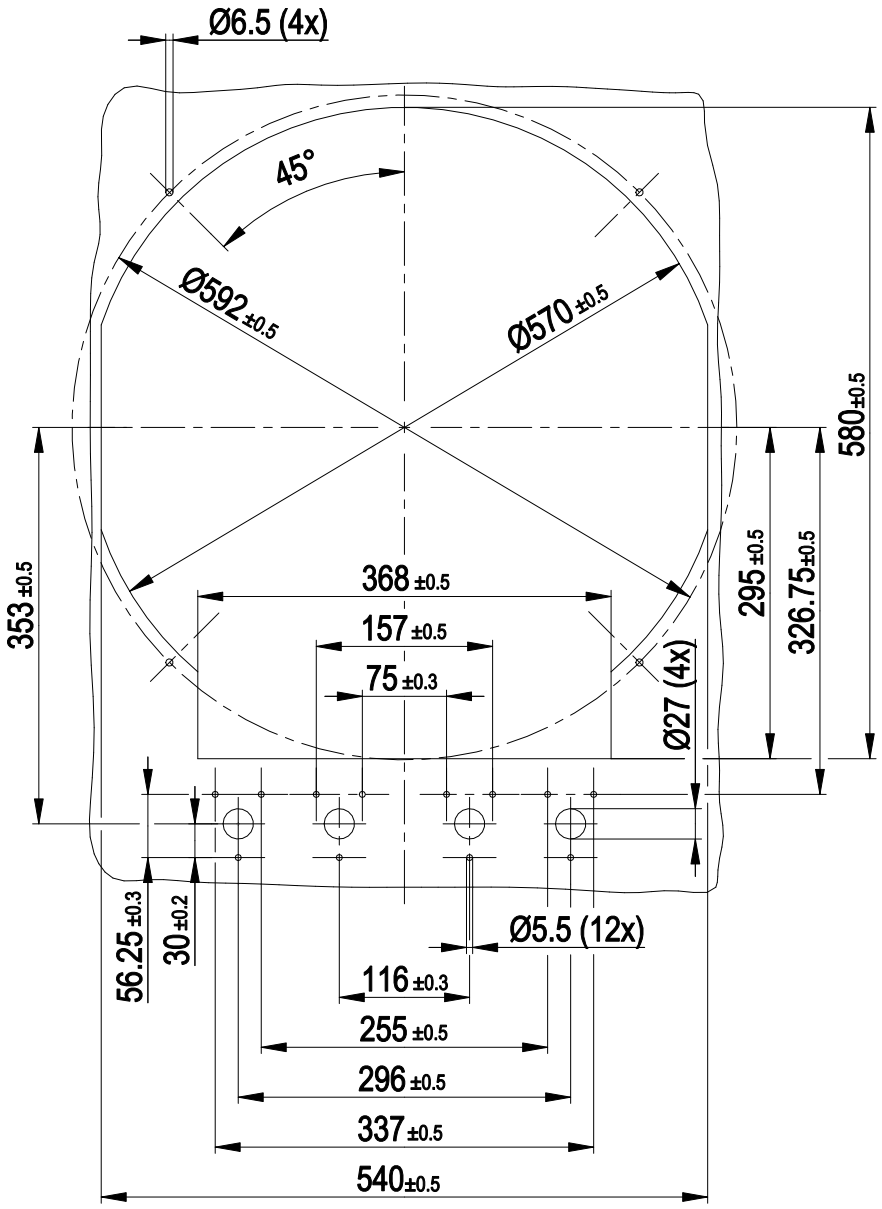
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Mounting dimensions



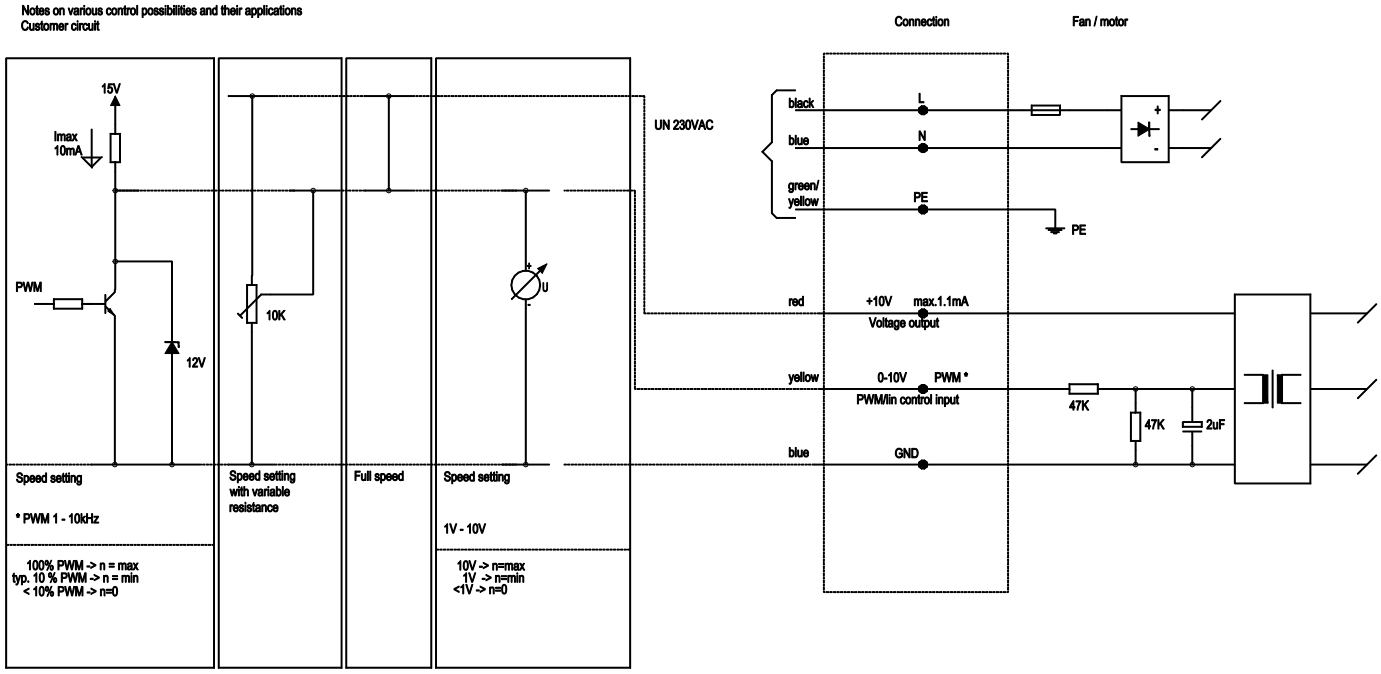
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Connection screen



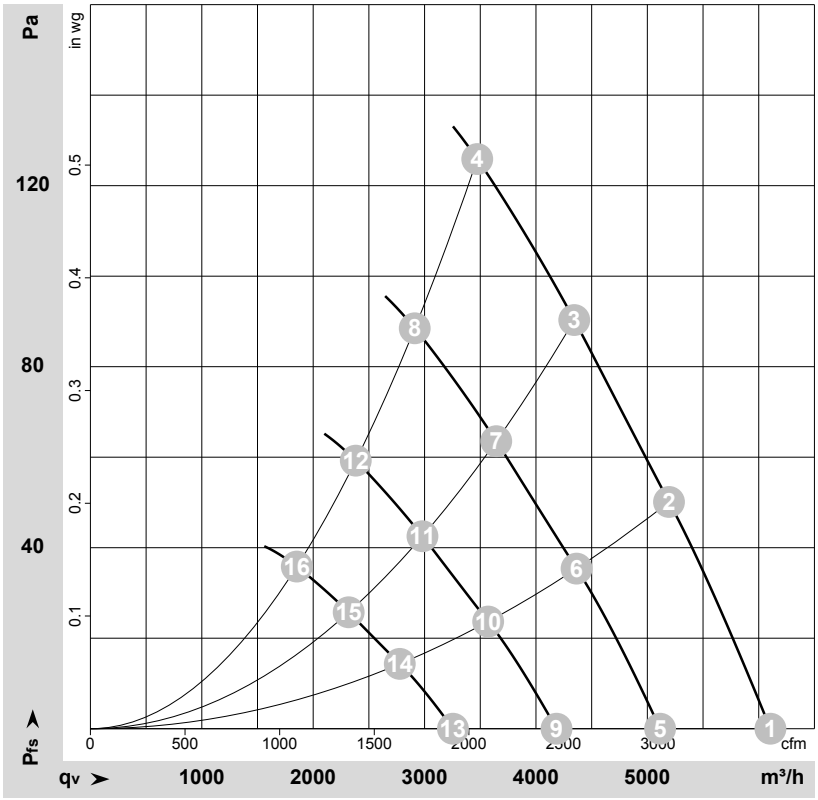
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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-151311-1

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	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 = 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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