S3G630-AD05-49

EC axial fan - HyBlade

sickle-shaped blades (S series)

with guard grille for full nozzle

S3G630-AD05-49 ebmpapst Datasheet
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Nominal data

Type	**S3G630-AD05-49**
Motor	**M3G084-GF**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	710
Power consumption	W	230
Current draw	A	1.4
Max. back pressure	Pa	61
Max. back pressure	in. wg	0.24
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50

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 (EN 17166)

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	35.7	29.2
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		46.5	40
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.19
09 Air flow q_v	m^3/h	5840
09 Pressure increase p_{fs}	Pa	41
10 Speed (rpm) n	min^{-1}	715
11 Specific ratio*		1.00

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

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

LU-118956

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Technical description

Weight	9.4 kg
Size	630 mm
Motor size	84
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum
Blade material	Press-fitted sheet steel blank, sprayed with PP plastic
Guard grille material	Steel, coated with black plastic (RAL 9005)
Number of blades	5
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)	+80 °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 made of stainless steel; (sealed)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Connector with cable
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1; EN 60335-1; CE
Approval	EAC

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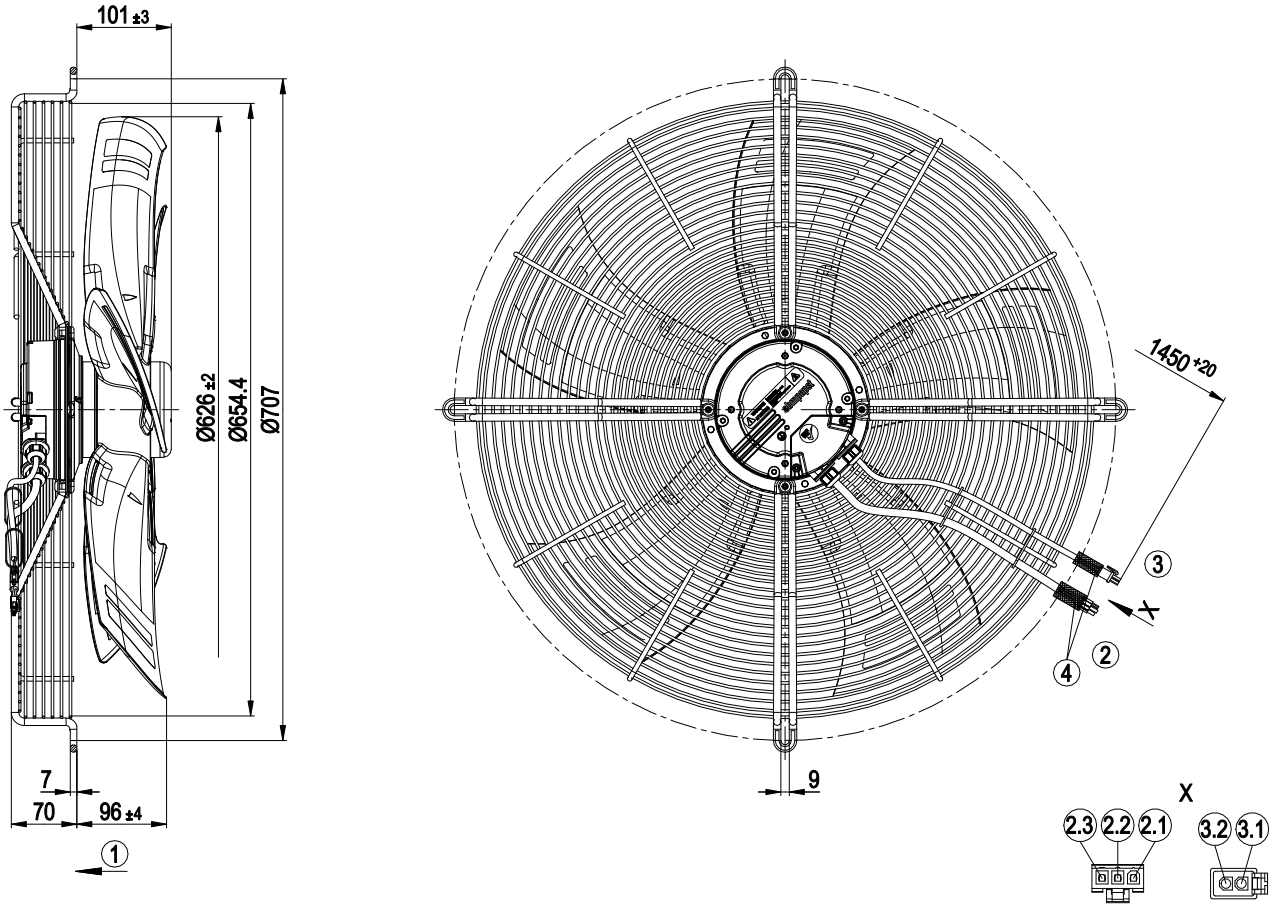
Product drawing



1	Airflow direction "V"
2	Cable PVC AWG18
	3-pole connector housing Molex 39-01-4030, 3x socket Molex 39-00-0038
2.1	L
2.2	PE
2.3	N
3	Cable PVC AWG22
	2-pole connector housing TE 794894-3, 2x socket TE 170362-1
3.1	GND
3.2	0-10 V/PWM
4	Sealing hose

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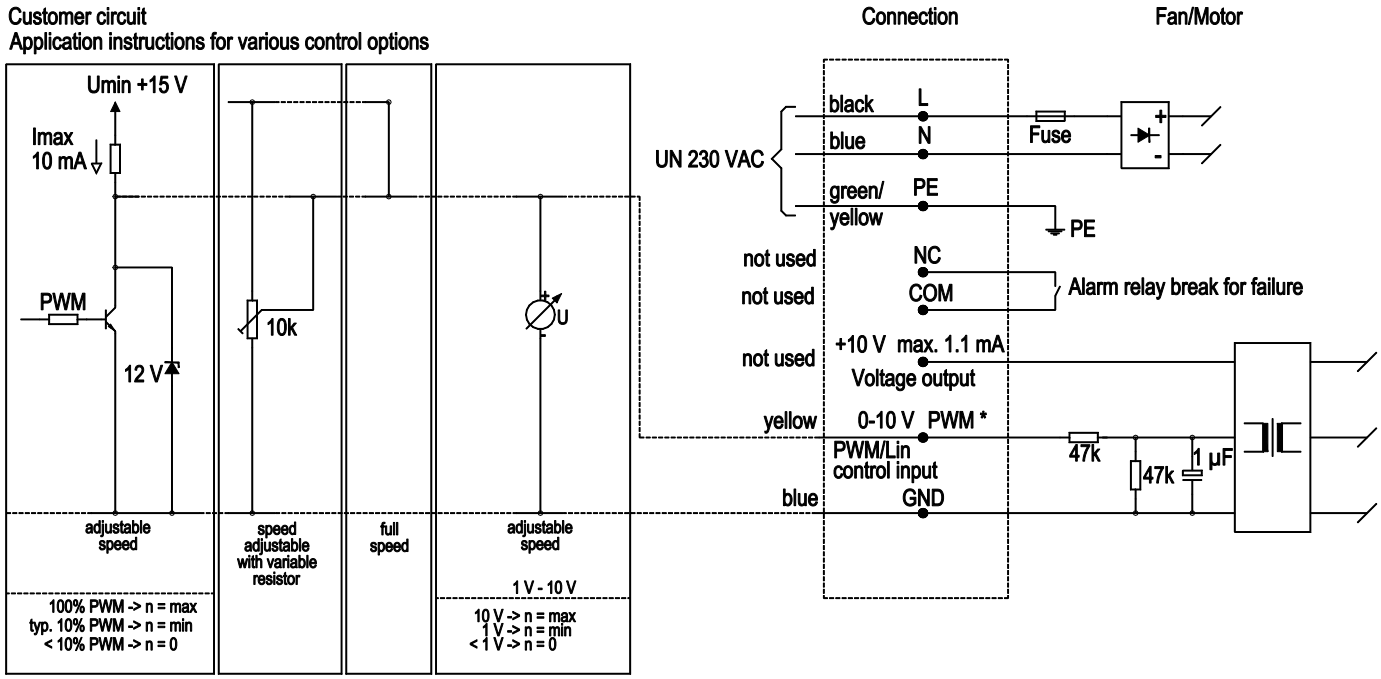
Connection diagram



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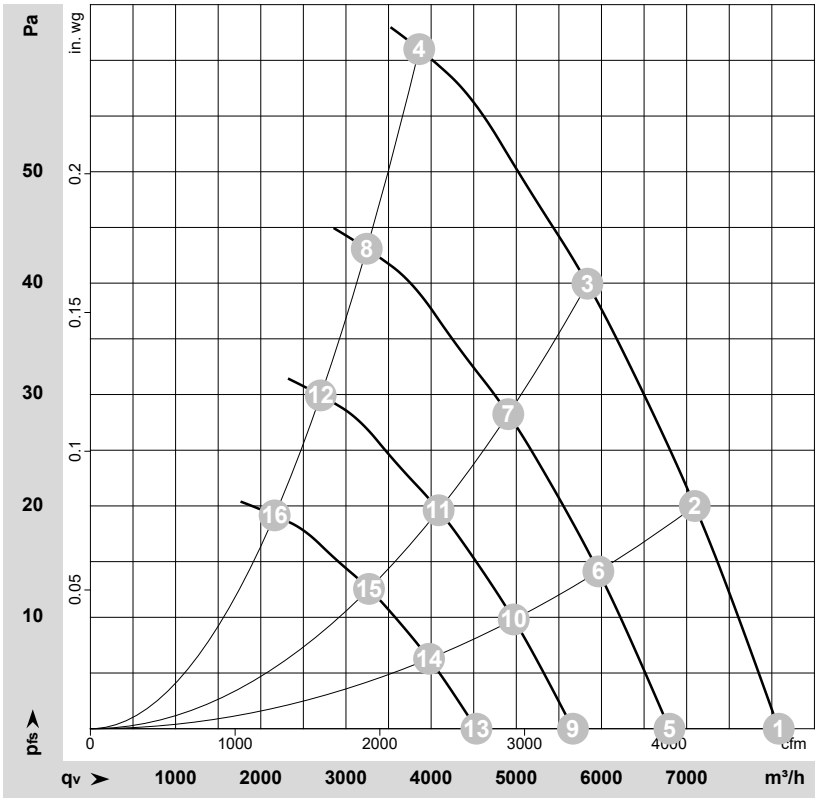
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-118956-1

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

	Wired	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	1~	230	50	710	135	0.88	53	60	59	8080	0	4755	0.00
2	1~	230	50	710	168	1.07	54	60	59	7095	20	4175	0.08
3	1~	230	50	710	197	1.24	54	60	59	5835	40	3435	0.16
4	1~	230	50	710	230	1.40	60	68	68	3860	61	2270	0.24
5	1~	230	50	600	80	0.52	49	55	55	6800	0	4000	0.00
6	1~	230	50	600	100	0.64	50	56	55	5965	14	3510	0.06
7	1~	230	50	600	117	0.74	50	56	55	4905	28	2890	0.11
8	1~	230	50	600	136	0.84	56	63	63	3245	43	1910	0.17
9	1~	230	50	500	47	0.30	44	51	50	5665	0	3335	0.00
10	1~	230	50	500	58	0.37	45	51	50	4970	10	2925	0.04
11	1~	230	50	500	68	0.43	46	52	50	4090	20	2405	0.08
12	1~	230	50	500	79	0.49	51	59	59	2705	30	1590	0.12
13	1~	230	50	400	24	0.15	39	45	44	4530	0	2665	0.00
14	1~	230	50	400	30	0.19	40	45	44	3975	6	2340	0.02
15	1~	230	50	400	35	0.22	40	46	45	3270	13	1925	0.05
16	1~	230	50	400	40	0.25	46	53	53	2165	19	1275	0.08

Wired = Wiring · 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