S3G630-AD05-53

EC axial fan - HyBlade

sickle-shaped blades (S series)

with guard grille for full nozzle

S3G630-AD05-53 ebmpapst Datasheet
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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**S3G630-AD05-53**
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	inH2O	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 ErP Directive

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	37.6	29.1
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		48.5	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	9.7 kg
Fan size	630 mm
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	F4-1
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
Technical features	- Shake-loose function - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Thermal overload protection for electronics/motor - Line undervoltage detection
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	With plug
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE

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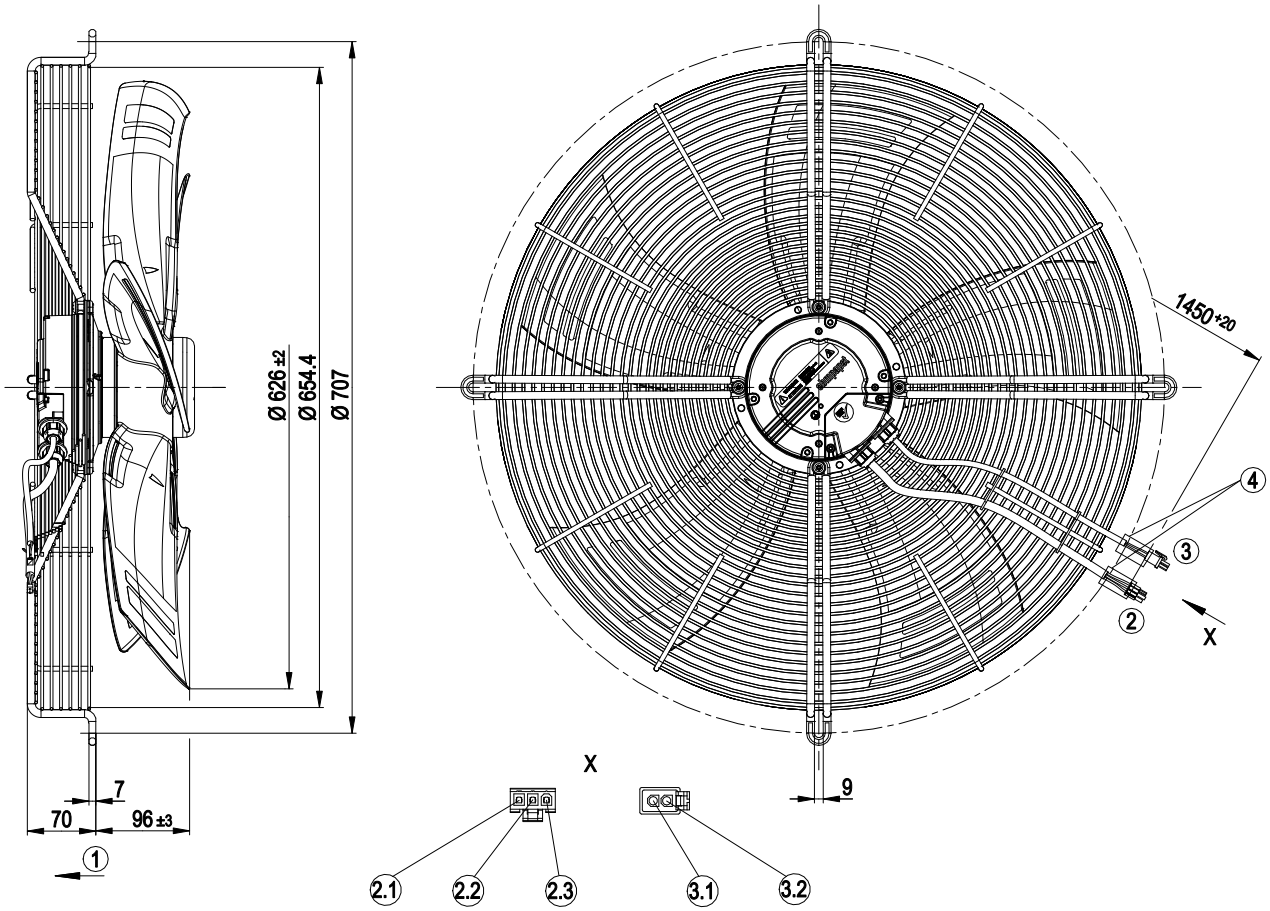
Product drawing



1	Direction of air flow "V"
2	Cable PVC AWG18 with 3-pole connector housing Molex 39-01-4030, 3x socket Molex 39-00-0038
2.1	N (blue)
2.2	PE (green/yellow)
2.3	L (black)
3	Cable PVC AWG22 with 2-pole connector housing AMP 794894-1, 2x socket contact 170362-1
3.1	0-10 V PWM (yellow)
3.2	GND (blue)
4	Sealing hose

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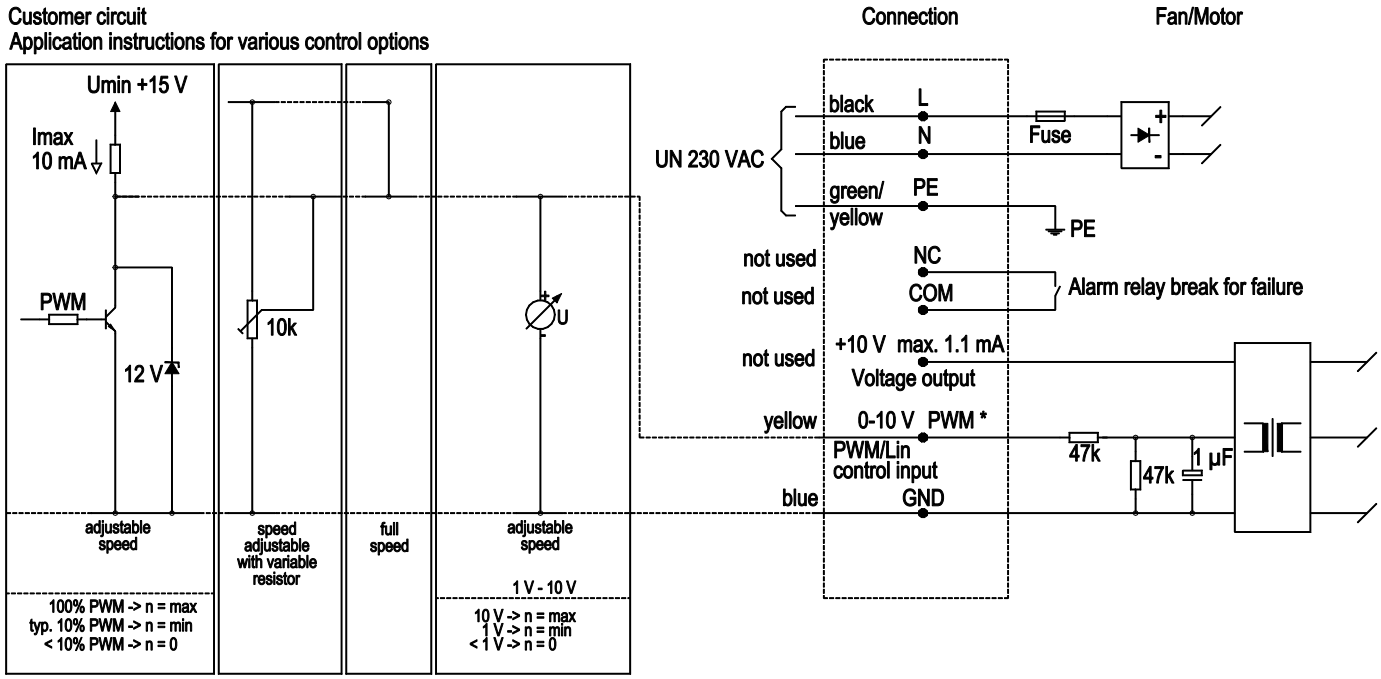
Connection diagram



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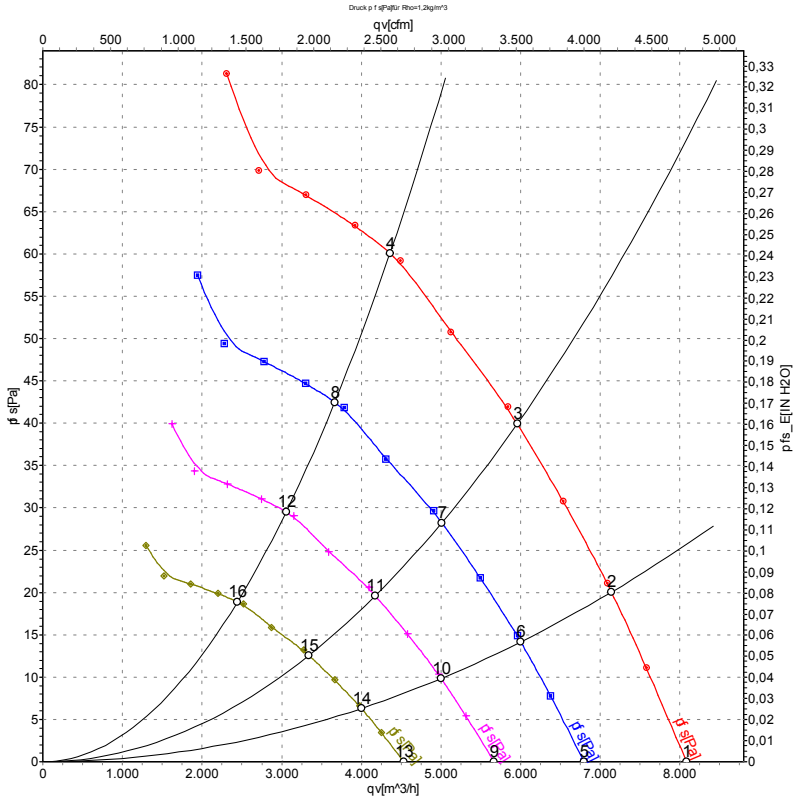
Curves: Air performance 50 Hz



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

	U	f	n	P_{ed}	I	LpA_{in}	LwA_{in}	LwA_{out}	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa	CFM	inH2O
1	230	50	710	135	0.88	53	60	59	8080	0	4755	0.00
2	230	50	710	167	1.06	54	60	59	7140	20	4200	0.08
3	230	50	710	195	1.22	54	60	59	5955	40	3505	0.16
4	230	50	710	230	1.40	58	65	65	4360	60	2565	0.24
5	230	50	600	80	0.52	49	56	55	6800	0	4000	0.00
6	230	50	600	99	0.63	50	56	55	6000	14	3530	0.06
7	230	50	600	116	0.73	51	57	55	5010	28	2950	0.11
8	230	50	600	133	0.83	54	61	61	3665	43	2155	0.17
9	230	50	500	47	0.30	46	52	51	5665	0	3335	0.00
10	230	50	500	57	0.37	46	52	51	5000	10	2945	0.04
11	230	50	500	67	0.42	47	53	51	4175	20	2455	0.08
12	230	50	500	77	0.48	50	57	57	3055	30	1800	0.12
13	230	50	400	24	0.15	41	47	46	4530	0	2665	0.00
14	230	50	400	29	0.19	42	47	46	4000	6	2355	0.02
15	230	50	400	34	0.22	42	48	47	3340	13	1965	0.05
16	230	50	400	39	0.25	45	52	52	2445	19	1440	0.08

U = Power supply · 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 · qv = Air flow · p_{fs} = Pressure increase