S3G630-AD02-54

EC axial fan - HyBlade

sickle-shaped blades (S series)

with guard grille for short nozzle

S3G630-AD02-54 ebmpapst Datasheet
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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**S3G630-AD02-54**
Motor	**M3G084-GF**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	750
Power consumption	W	250
Current draw	A	1.6
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 ErP Directive

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	45.5	29.1
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		56.4	40
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.19
09 Air flow q_v	m^3/h	6220
09 Pressure increase p_{fs}	Pa	46
10 Speed (rpm) n	min^{-1}	755
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-119952

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Technical description

Weight	11.2 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	"A"
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54; installation- and position-dependent
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F3-1
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; (sealed)
Technical features	- Output 10 VDC, max. 1.1 mA - Alarm relay - 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
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 overload protector (TOP) 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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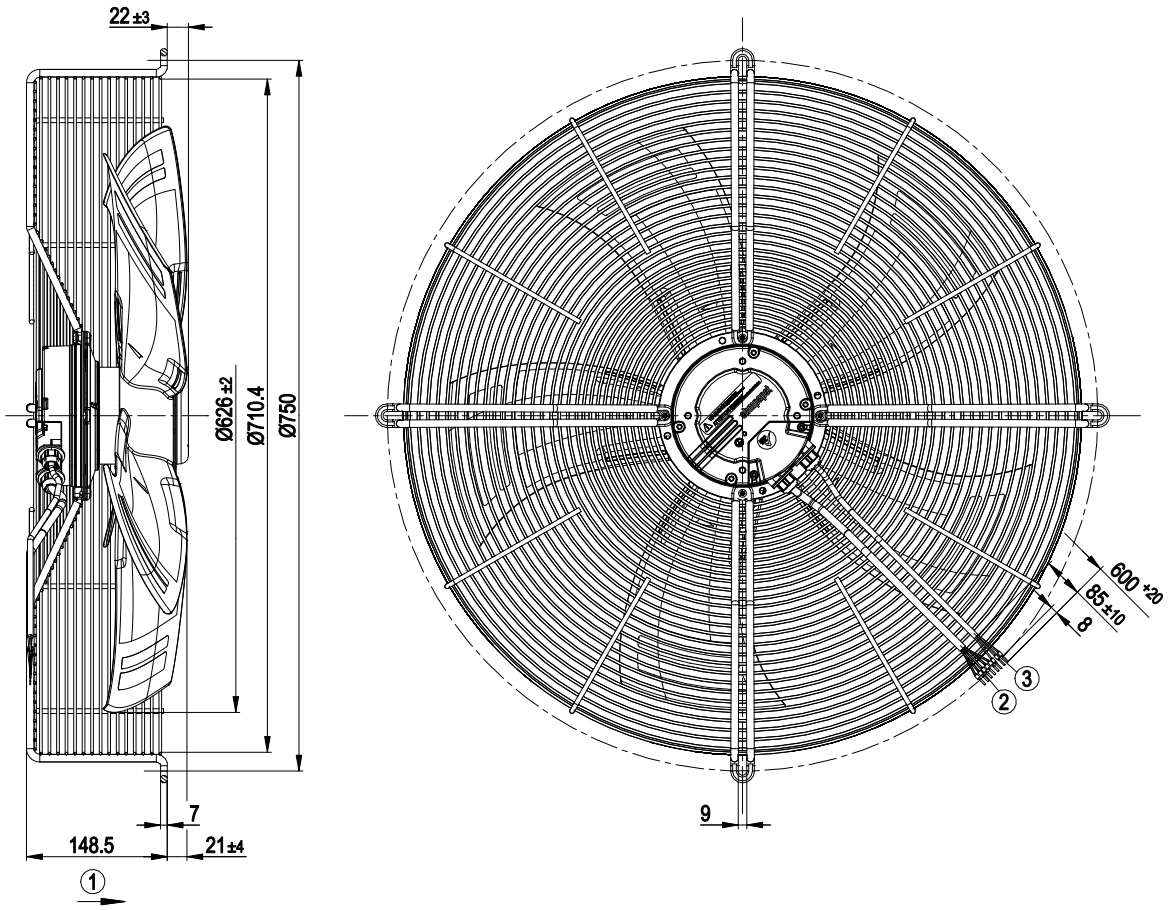
Product drawing



1	Direction of air flow "A"
2	Cable PVC AWG18, 5x crimped ferrules
3	Cable PVC AWG22, 3x crimped ferrules

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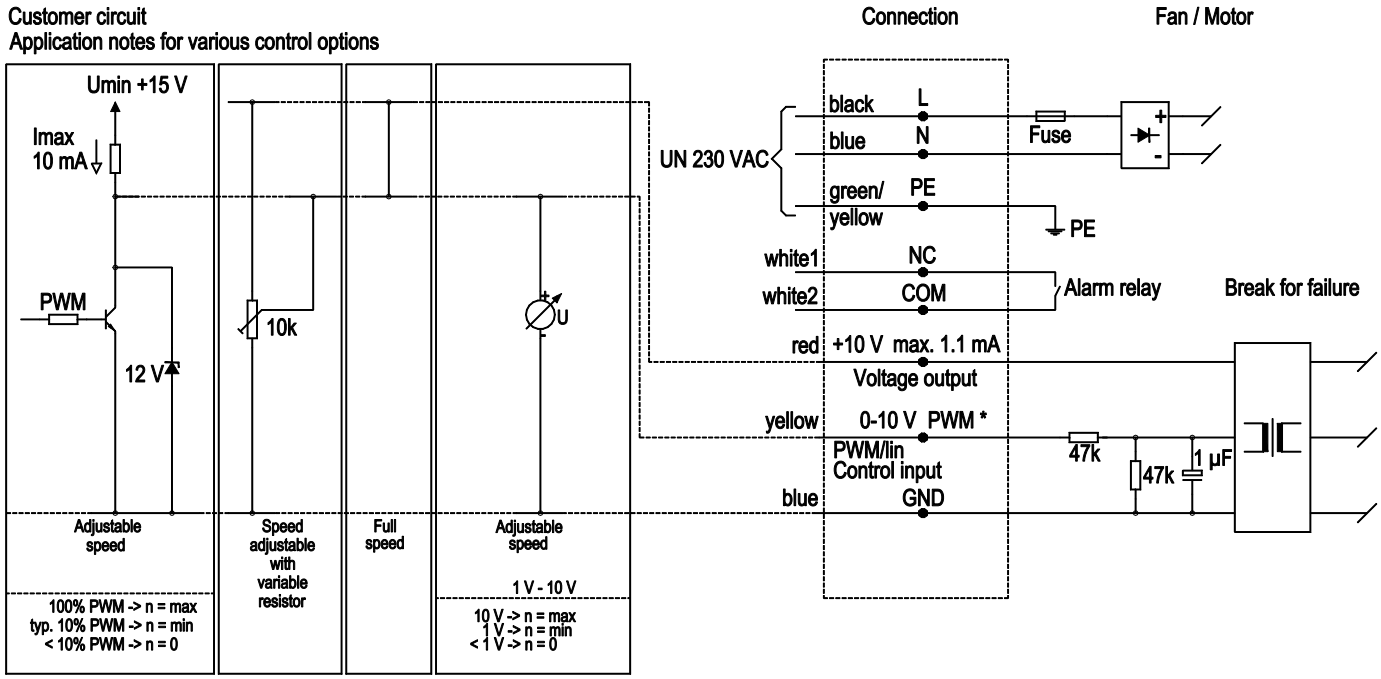
Connection diagram



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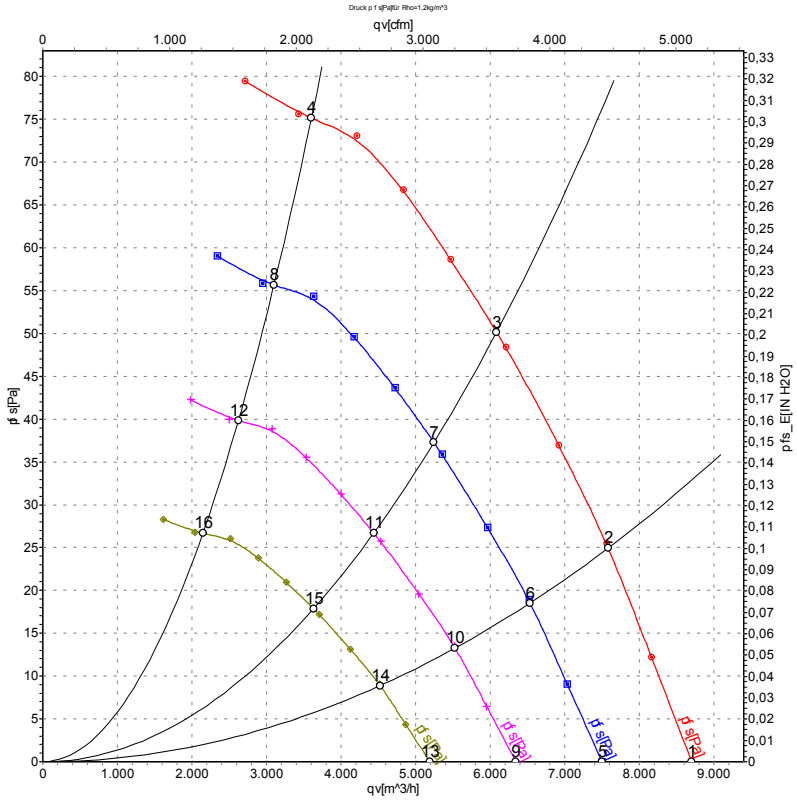
Curves: Air performance 50 Hz



Measurement: LU-119952-1

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	750	139	0.90	55	62	62	8700	0	5120	0.00
2	230	50	750	177	1.12	56	62	62	7580	25	4460	0.10
3	230	50	750	201	1.26	56	63	62	6085	50	3580	0.20
4	230	50	750	250	1.60	64	71	71	3600	75	2120	0.30
5	230	50	650	89	0.58	52	59	59	7500	0	4415	0.00
6	230	50	650	113	0.72	53	59	59	6535	19	3845	0.08
7	230	50	650	129	0.81	53	59	59	5245	37	3085	0.15
8	230	50	650	149	0.93	60	68	68	3100	56	1825	0.22
9	230	50	550	54	0.35	49	55	55	6345	0	3735	0.00
10	230	50	550	69	0.44	49	55	55	5530	14	3255	0.06
11	230	50	550	78	0.49	49	56	56	4440	27	2610	0.11
12	230	50	550	90	0.56	57	65	65	2625	40	1545	0.16
13	230	50	450	30	0.19	44	51	51	5190	0	3055	0.00
14	230	50	450	38	0.24	45	51	51	4525	9	2660	0.04
15	230	50	450	43	0.27	45	51	51	3630	18	2135	0.07
16	230	50	450	49	0.31	52	60	60	2145	27	1265	0.11

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