S3G400-KC22-51

EC axial fan - HyBlade

sickle-shaped blades (S series)

with guard grille for full nozzle

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Nominal data

Type	**S3G400-KC22-51**
Motor	**M3G084-FA**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	1630
Power consumption	W	400
Current draw	A	2.6
Max. back pressure	Pa	160
Max. back pressure	in. wg	0.64
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

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

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	39.7	31.1
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		48.6	40
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.39
09 Air flow q_v	m^3/h	3605
09 Pressure increase p_{fs}	Pa	142
10 Speed (rpm) n	min^{-1}	1635
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-124564

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Technical description

Weight	6.1 kg
Size	400 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
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 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 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
Approval	UL 1004-3 + 60730-1; EAC; CSA C22.2 No. 77 + CAN/CSA-E60730-1; CCC

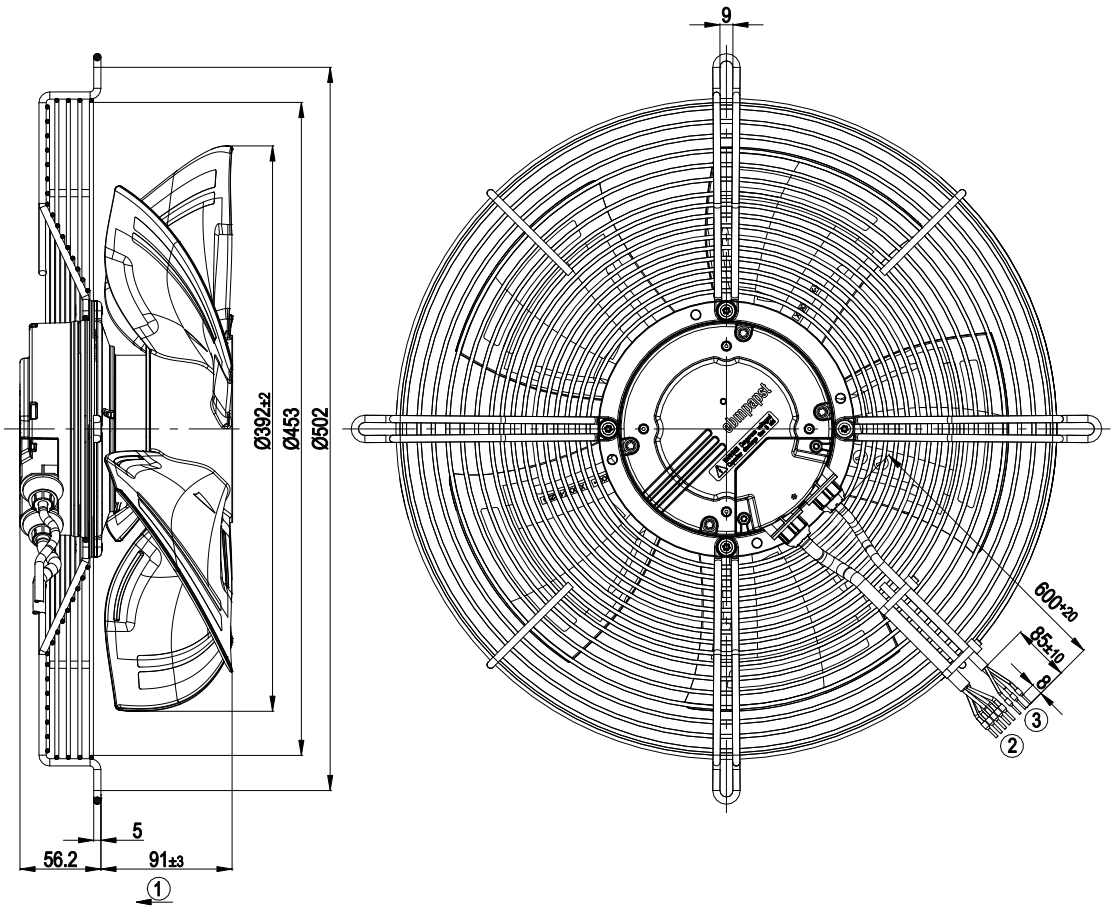
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Product drawing



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

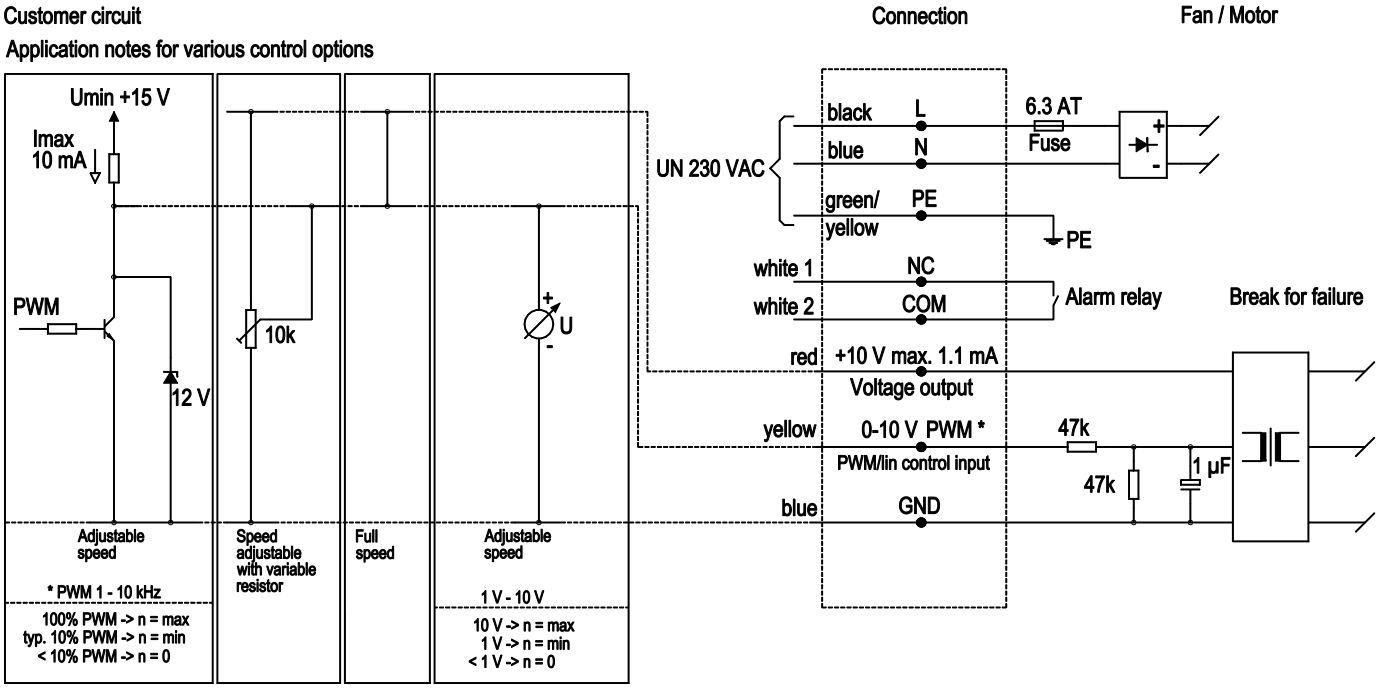
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Connection diagram



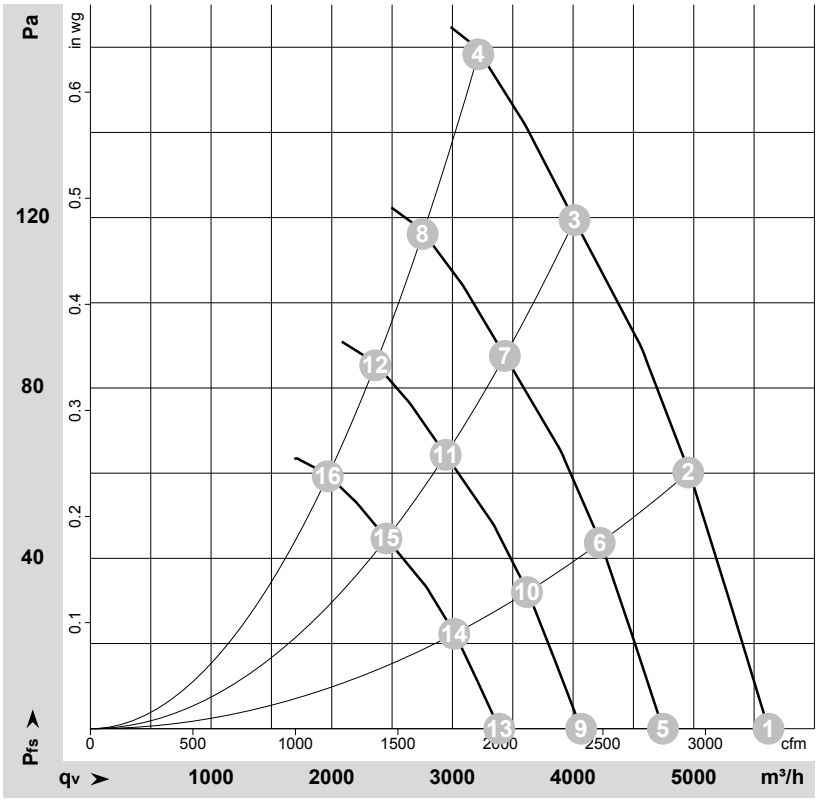
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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-124564-1

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}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	in. wg
1	230	50	1660	350	2.24	71	78	5620	0	3305	0.00
2	230	50	1645	381	2.44	69	76	4955	60	2915	0.24
3	230	50	1635	392	2.50	66	72	4010	120	2360	0.48
4	230	50	1630	400	2.60	71	79	3215	160	1890	0.64
5	230	50	1400	211	1.35	66	73	4745	0	2795	0.00
6	230	50	1400	236	1.51	65	71	4220	44	2485	0.18
7	230	50	1400	246	1.57	62	68	3435	88	2020	0.35
8	230	50	1400	251	1.59	67	75	2755	117	1620	0.47
9	230	50	1200	133	0.85	63	69	4065	0	2395	0.00
10	230	50	1200	148	0.95	61	68	3620	33	2130	0.13
11	230	50	1200	155	0.99	58	64	2945	64	1735	0.26
12	230	50	1200	158	1.00	63	71	2360	86	1390	0.35
13	230	50	1000	77	0.49	58	65	3390	0	1995	0.00
14	230	50	1000	86	0.55	56	63	3015	23	1775	0.09
15	230	50	1000	90	0.57	53	60	2455	45	1445	0.18
16	230	50	1000	91	0.58	59	66	1965	60	1160	0.24

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
q_V = Air flow · p_{fs} = Pressure increase

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