S3G400-LC22-53

EC axial fan - HyBlade

sickled blades (S series)

with guard grille for short nozzle

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Nominal data

Type	**S3G400-LC22-53**
Motor	**M3G084-FA**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	1630
Power input	W	400
Current draw	A	2.6
Max. back pressure	Pa	160
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 according to ErP directive

		Actual	Request 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 input 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 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-124564

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Technical features

Mass	6.5 kg
Size	400 mm
Surface of rotor	Coated in black
Material of terminal box	PC / ABS plastic
Material of electronics housing	Die-cast aluminium, coated in black
Material of blades	Press-fitted sheet steel blank, sprayed with PP plastic
Material of guard grille	Stainless steel
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)	F4-2
Max. permissible ambient motor temp. (transp./ storage)	+80 °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 - Alarm relay - 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
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical leads	Via terminal box
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 61800-5-1; CE
Approval	5C; C22.2 Nr.77 + CAN/CSA-E60730-1

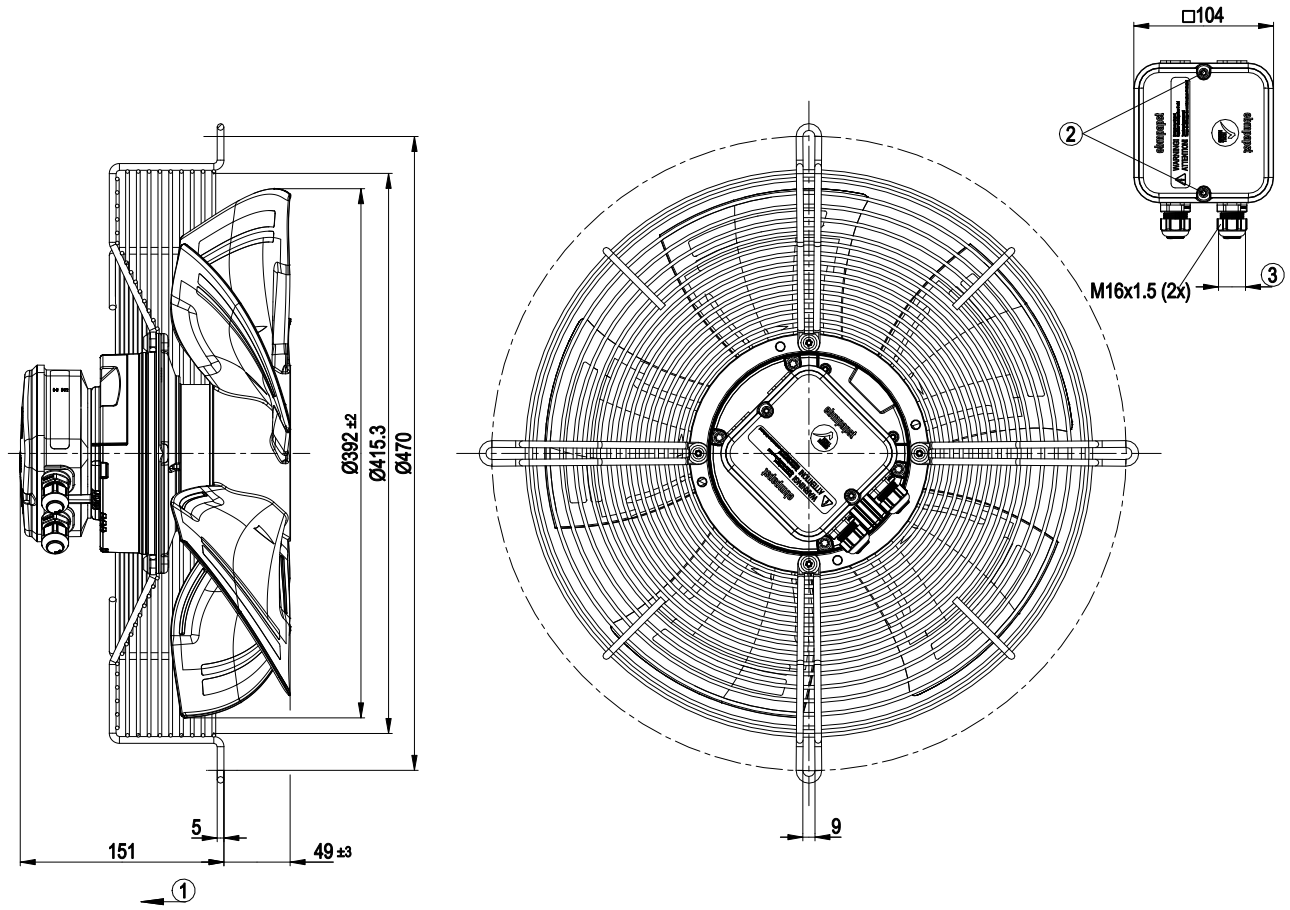
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Product drawing



1	Direction of air flow "V"
2	Tightening torque 1.5±0.2 Nm
3	Cable diameter min. 4 mm, max. 10 mm, tightening torque 2.5±0.4 Nm

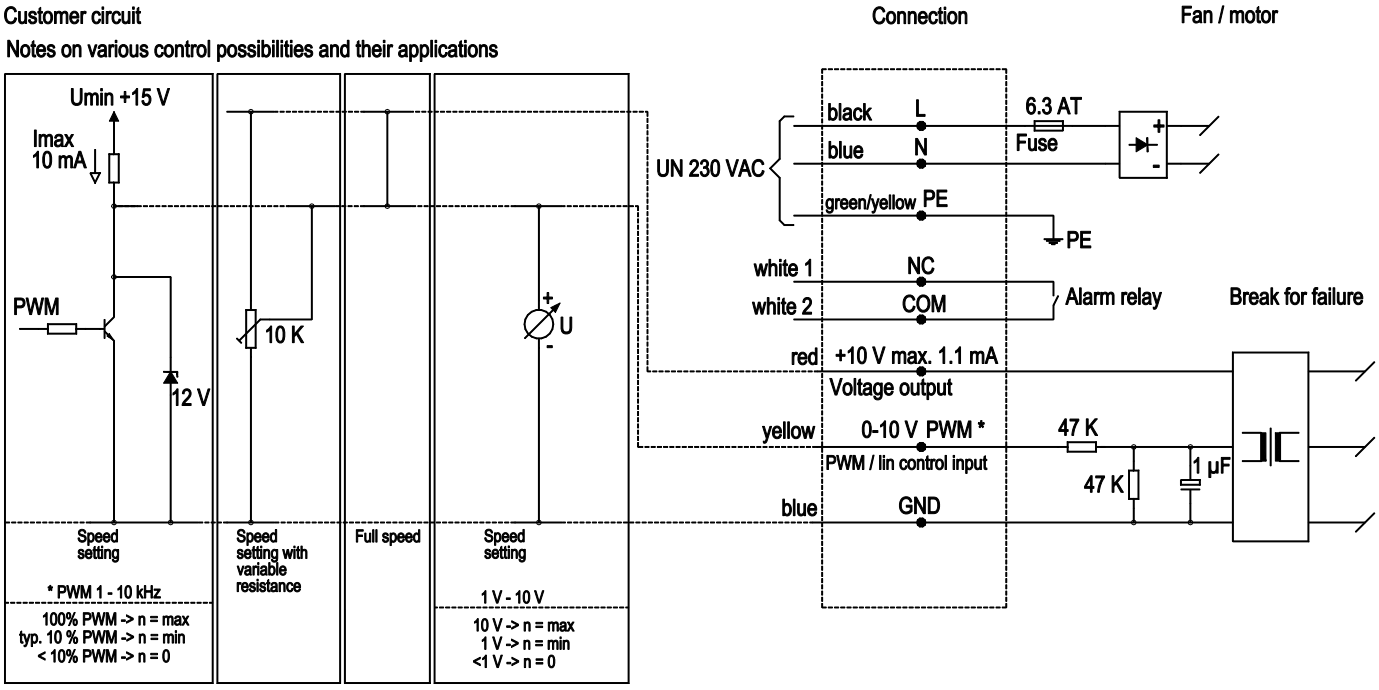
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Connection screen



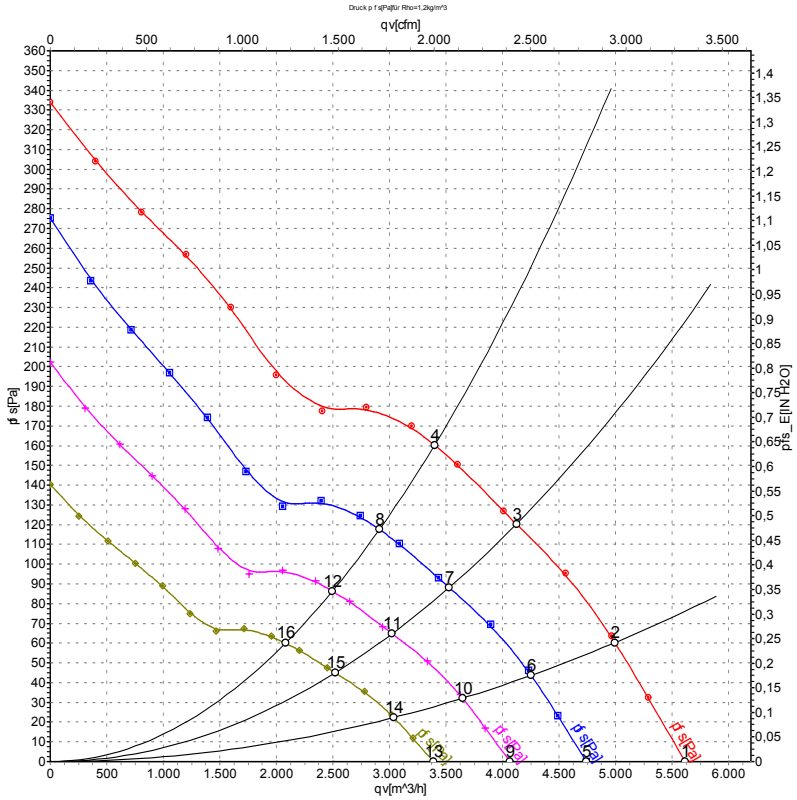
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Charts: Air flow 50 Hz



Measurement: LU-124564-1

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}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
1	230	50	1660	350	2.24	71	78	5620	0	3305	0.00
2	230	50	1645	380	2.43	69	76	4995	60	2940	0.24
3	230	50	1635	391	2.50	66	72	4125	120	2430	0.48
4	230	50	1630	400	2.60	67	74	3400	160	2000	0.64
5	230	50	1400	211	1.35	67	74	4745	0	2790	0.00
6	230	50	1400	235	1.50	65	72	4255	44	2505	0.18
7	230	50	1400	245	1.56	63	69	3530	88	2080	0.35
8	230	50	1400	249	1.59	64	71	2915	118	1715	0.47
9	230	50	1200	133	0.85	64	70	4065	0	2395	0.00
10	230	50	1200	148	0.95	62	69	3645	32	2145	0.13
11	230	50	1200	154	0.99	59	66	3025	65	1780	0.26
12	230	50	1200	157	1.00	61	68	2495	86	1470	0.35
13	230	50	1000	77	0.49	60	67	3390	0	1995	0.00
14	230	50	1000	86	0.55	58	65	3040	23	1790	0.09
15	230	50	1000	89	0.57	55	62	2520	45	1485	0.18
16	230	50	1000	91	0.58	57	64	2080	60	1225	0.24

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

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