S3G450-LC28-54

EC axial fan - HyBlade

sickled blades (S series)

with guard grille for short nozzle

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Nominal data

Type	**S3G450-LC28-54**
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}	1300
Power input	W	345
Current draw	A	2.2
Max. back pressure	Pa	125
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}	%	42.6	30.7
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		51.9	40
05 Variable speed drive		Yes	

09 Power input P_{ed}	kW	0.34
09 Air flow q_v	m^3/h	4005
09 Pressure increase p_{fs}	Pa	118
10 Speed (rpm) n	min^{-1}	1305
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-124620

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Technical features

Mass	7.5 kg
Size	450 mm
Surface of rotor	Coated in black
Material of terminal box	PC / ABS plastic
Material of electronics housing	Die-cast aluminium
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	"A"
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Humidity (F)/environmental protection class (H)	F3-1
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 - 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; EAC

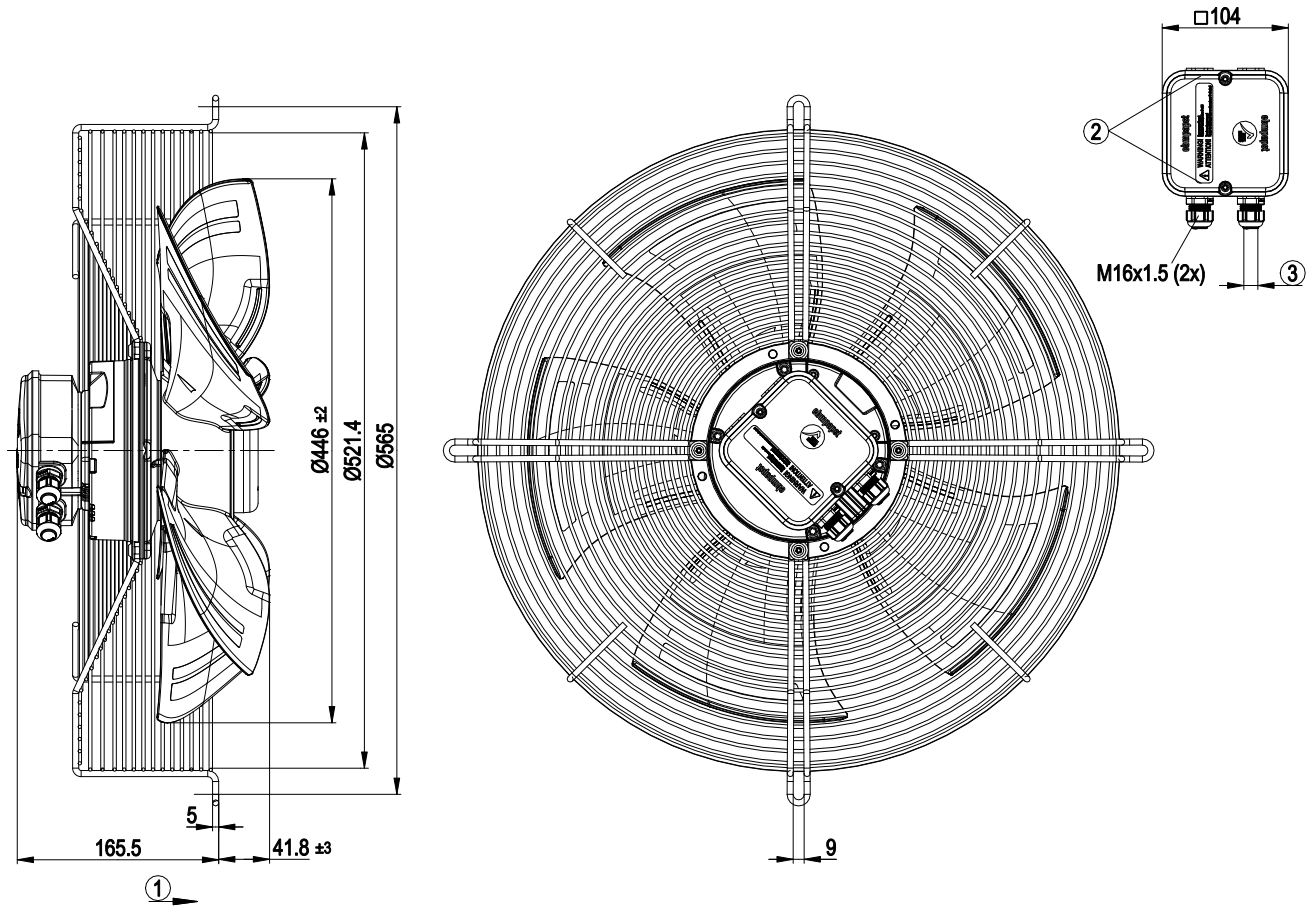
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Product drawing



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

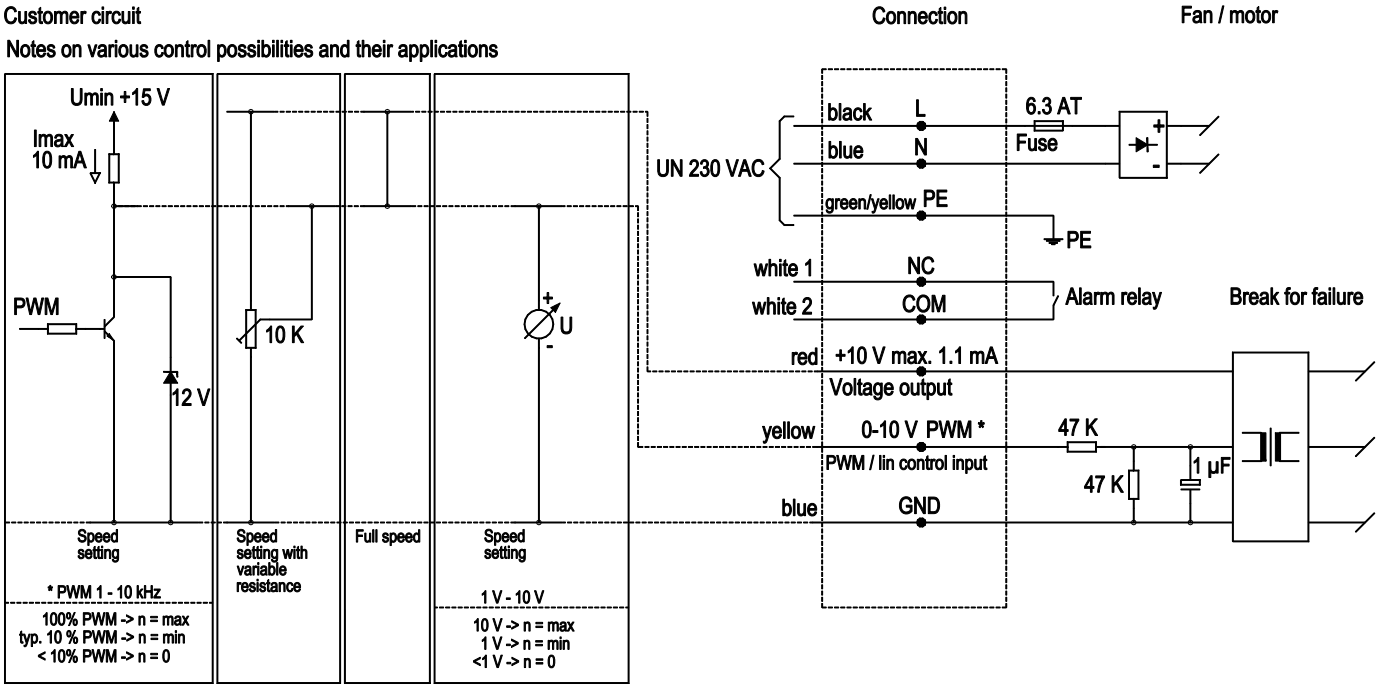
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Connection screen



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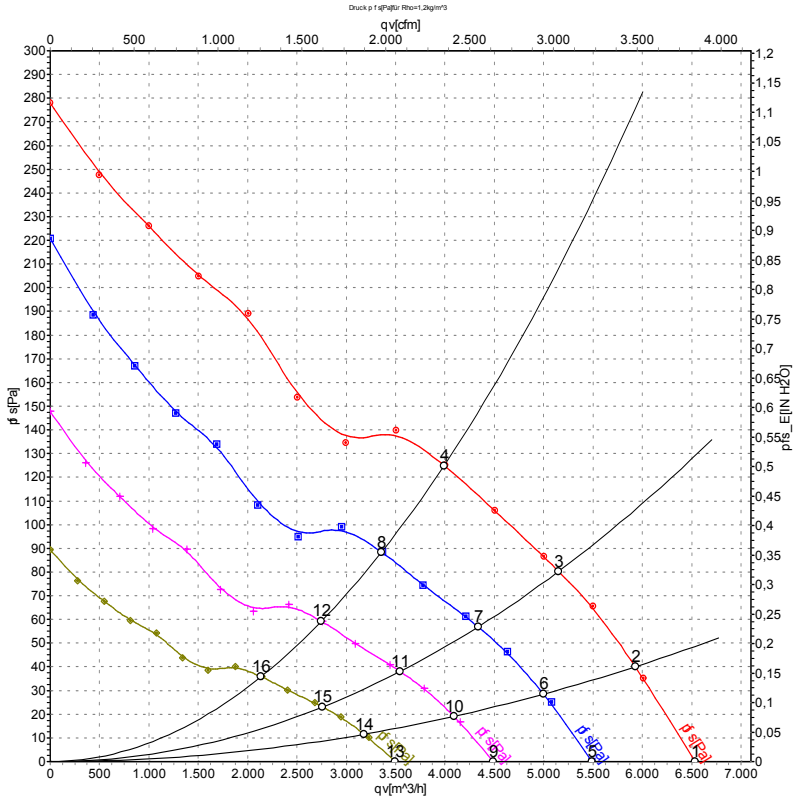
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Charts: Air flow 50 Hz



Measurement: LU-124620-1

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}	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	inH2O
1	230	50	1300	270	1.72	65	71	72	6535	0	3845	0.00
2	230	50	1300	298	1.91	62	68	69	5925	40	3490	0.16
3	230	50	1300	326	2.07	60	65	67	5150	80	3030	0.32
4	230	50	1300	345	2.20	61	67	68	3990	125	2350	0.50
5	230	50	1100	160	1.02	61	67	68	5490	0	3230	0.00
6	230	50	1100	179	1.15	58	64	65	4995	29	2940	0.12
7	230	50	1100	194	1.23	56	62	63	4335	57	2550	0.23
8	230	50	1100	205	1.30	57	63	64	3360	89	1975	0.36
9	230	50	900	87	0.56	57	63	64	4490	0	2645	0.00
10	230	50	900	98	0.63	54	60	61	4090	19	2405	0.08
11	230	50	900	106	0.68	52	57	59	3545	38	2085	0.15
12	230	50	900	112	0.71	53	59	60	2745	60	1615	0.24
13	230	50	700	41	0.26	51	57	58	3490	0	2055	0.00
14	230	50	700	46	0.30	48	55	56	3180	12	1870	0.05
15	230	50	700	50	0.32	46	52	53	2760	23	1625	0.09
16	230	50	700	53	0.34	47	54	54	2135	36	1260	0.14

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 · LwA_{out} = Sound power level outlet side
q_V = Air flow · p_{fs} = Pressure increase

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