S3G800-CN36-28

EC axial fan - HyBlade

sickled blades (S series)

with guard grille for full nozzle

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Nominal data

Type	**S3G800-CN36-28**
Motor	**M3G112-GA**

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}	600
Power input	W	440
Current draw	A	1.9
Max. back pressure	Pa	70
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	31.1
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		51.5	40
05 Variable speed drive		Yes	

09 Power input P_{ed}	kW	0.39
09 Air flow q_v	m^3/h	9565
09 Pressure increase p_{fs}	Pa	58
10 Speed (rpm) n	min^{-1}	590
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-126143

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Technical features

Mass	18 kg
Size	800 mm
Surface of rotor	Coated in black
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	Steel, coated in black plastic (RAL9005)
Number of blades	5
Direction of air flow	"A"
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Humidity (F)/environmental protection class (H)	F4-1
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. 10 mA - Alarm relay - Motor current limit - PFC, active - Soft start - Control input 0-10 VDC - Control interface with SELV potential safely disconnected from the mains - Over-temperature protected electronics / motor - Line undervoltage / phase failure detection
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
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	EAC

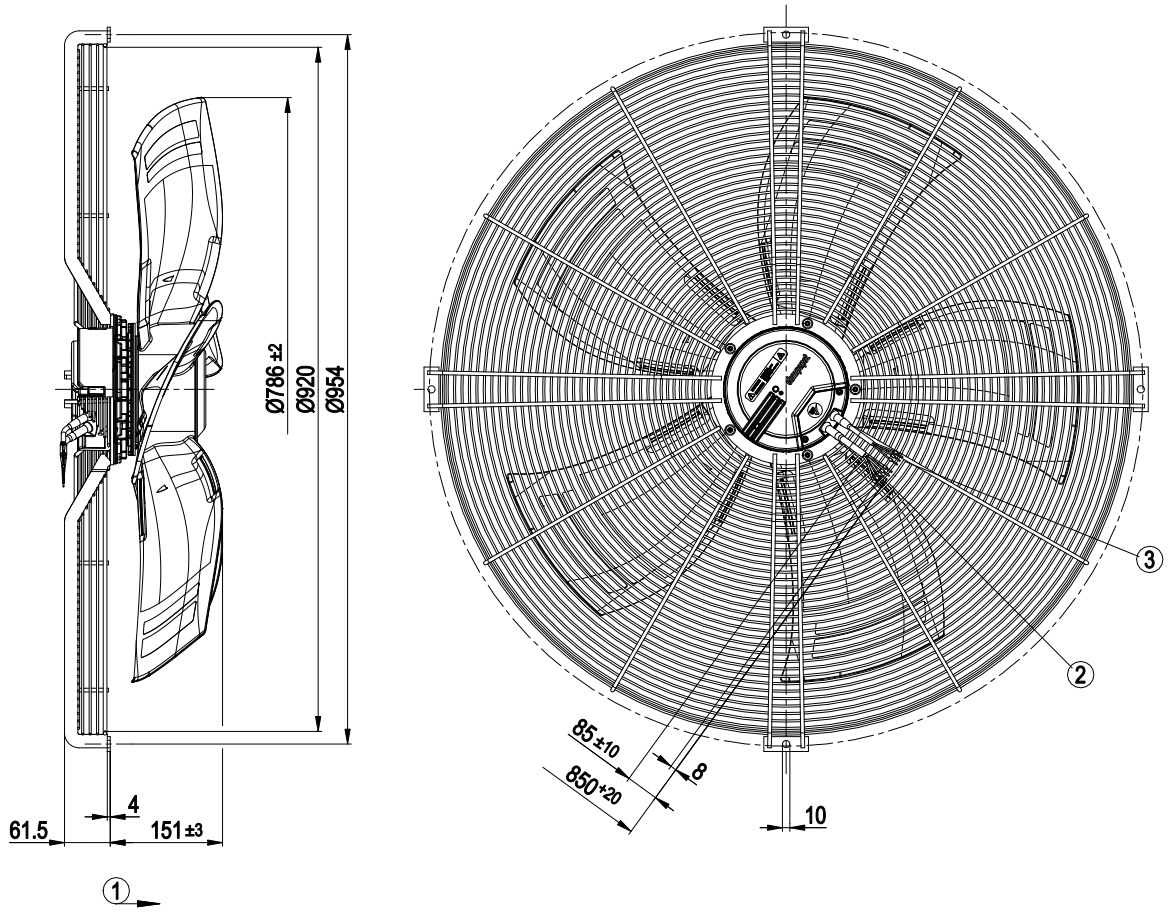
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Product drawing



1	Direction of air flow "A"
2	Connection line PVC AWG18, 5x crimped core-end sleeves
3	Connection line PVC AWG22, 3x crimped core-end sleeves

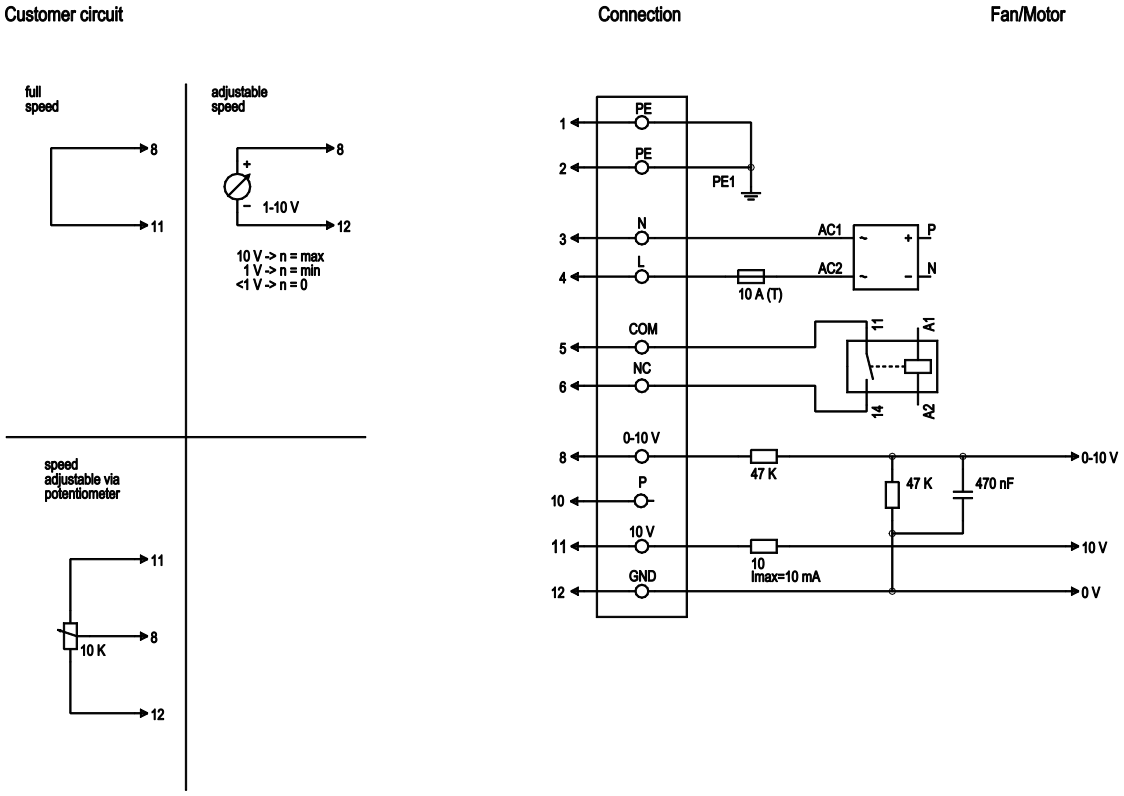
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Connection screen



No.	Conn.	Designation	Colour	Function / assignment
1	1,2	PE	green/yellow	Protective earth
1	3	N	blue	Power supply, neutral conductor, 50/60 Hz
1	4	L	black	Power supply, phase, 50/60 Hz
1	5	COM	white 1	Floating status contact, break for failure (2 A, max. 250 VAC, min. 10 mA, AC1)
1	6	NC	white 2	Floating status contact, break for failure
2	8	0-10 V	yellow	Control input, set value 0-10 VDC, impedance 100 kΩ, SELV
2	10	P	orange	not used
2	11	10 VDC	red	Voltage output 10 VDC (+/-3%), max. 10 mA, power supply for external devices (e.g. potentiometer), SELV
2	12	GND	blue	Reference earth for control interface, SELV

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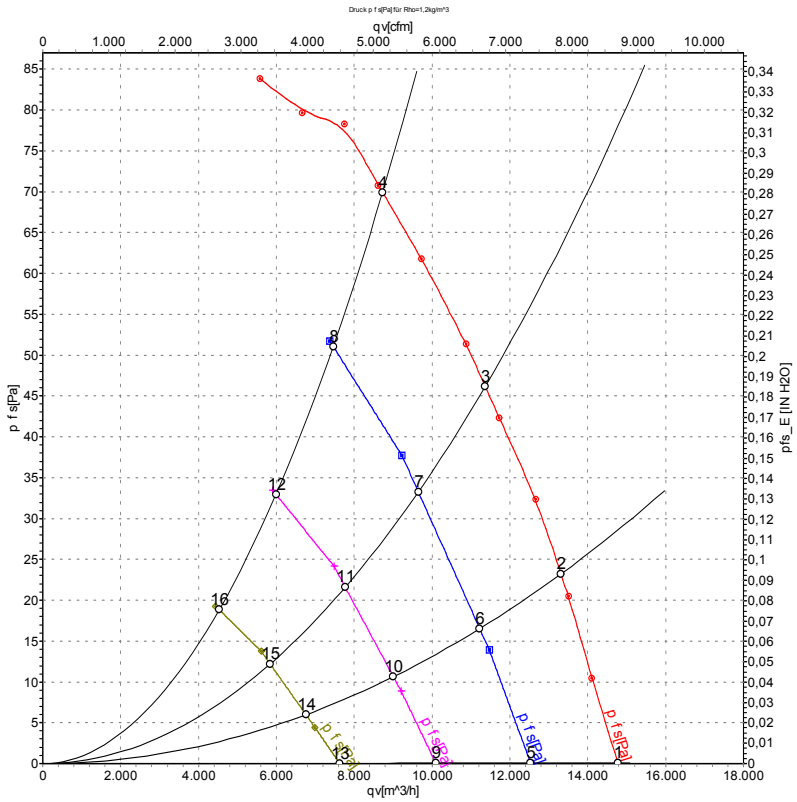
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Charts: Air flow 50 Hz



Measurement: LU-119388-1
Measurement: LU-120591-1
Measurement: LU-120592-1
Measurement: LU-120593-1

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	600	288	1.27	57	64	63	14770	0	8695	0.00
2	230	50	600	342	1.50	55	61	61	13310	23	7835	0.09
3	230	50	600	382	1.68	53	59	59	11370	46	6690	0.18
4	230	50	600	440	1.90	56	64	64	8730	70	5140	0.28
5	230	50	500	171	0.77	53	60	59	12530	0	7375	0.00
6	230	50	500	200	0.90	52	58	57	11230	16	6610	0.06
7	230	50	500	228	1.01	49	56	55	9645	33	5680	0.13
8	230	50	500	257	1.14	52	60	59	7460	51	4390	0.20
9	230	50	400	95	0.47	49	55	54	10100	0	5945	0.00
10	230	50	400	109	0.53	47	53	53	9005	11	5300	0.04
11	230	50	400	123	0.58	44	51	51	7770	22	4575	0.09
12	230	50	400	137	0.64	46	53	54	5990	33	3525	0.13
13	230	50	300	48	0.30	41	48	49	7625	0	4485	0.00
14	230	50	300	53	0.32	39	47	48	6760	6	3980	0.02
15	230	50	300	60	0.34	39	45	47	5840	12	3440	0.05
16	230	50	300	67	0.36	38	46	47	4530	19	2665	0.08

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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