S3G910-CN46-29

EC axial fan

sickle-shaped blades (S series)

with guard grille for full nozzle

S3G910-CN46-29 ebmpapst Datasheet
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Amtsgericht (court of registration) Stuttgart · HRA 590344

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Nominal data

Type	**S3G910-CN46-29**
Motor	**M3G112-GA**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Method of obtaining data		ml/ce
Speed (rpm)	min^{-1}	485
Power consumption	W	290
Current draw	A	1.3
Max. back pressure	Pa	35
Max. back pressure	inH2O	0.14
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	65

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}	%	43.9	30.2
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		53.7	40
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.28
09 Air flow q_v	m^3/h	10955
09 Pressure increase p_{fs}	Pa	37
10 Speed (rpm) n	min^{-1}	485
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-125219

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Technical description

Weight	17.5 kg
Fan size	910 mm
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum, painted black
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	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	F4-1
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
Technical features	- Bus terminating resistor 120 Ohm - Selection of direction of rotation left/right - External 24 V input (parameter setting) - Shake-loose function - Motor current limitation - PFC, active - RS-485 MODBUS-RTU - Soft start - Control interface with SELV potential safely disconnected from the mains - Thermal overload protection for electronics/motor - Line undervoltage / phase failure 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
Electrical hookup	Via terminal box
Motor protection	Thermal overload protector (TOP) internally connected
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1; CE
Approval	EAC

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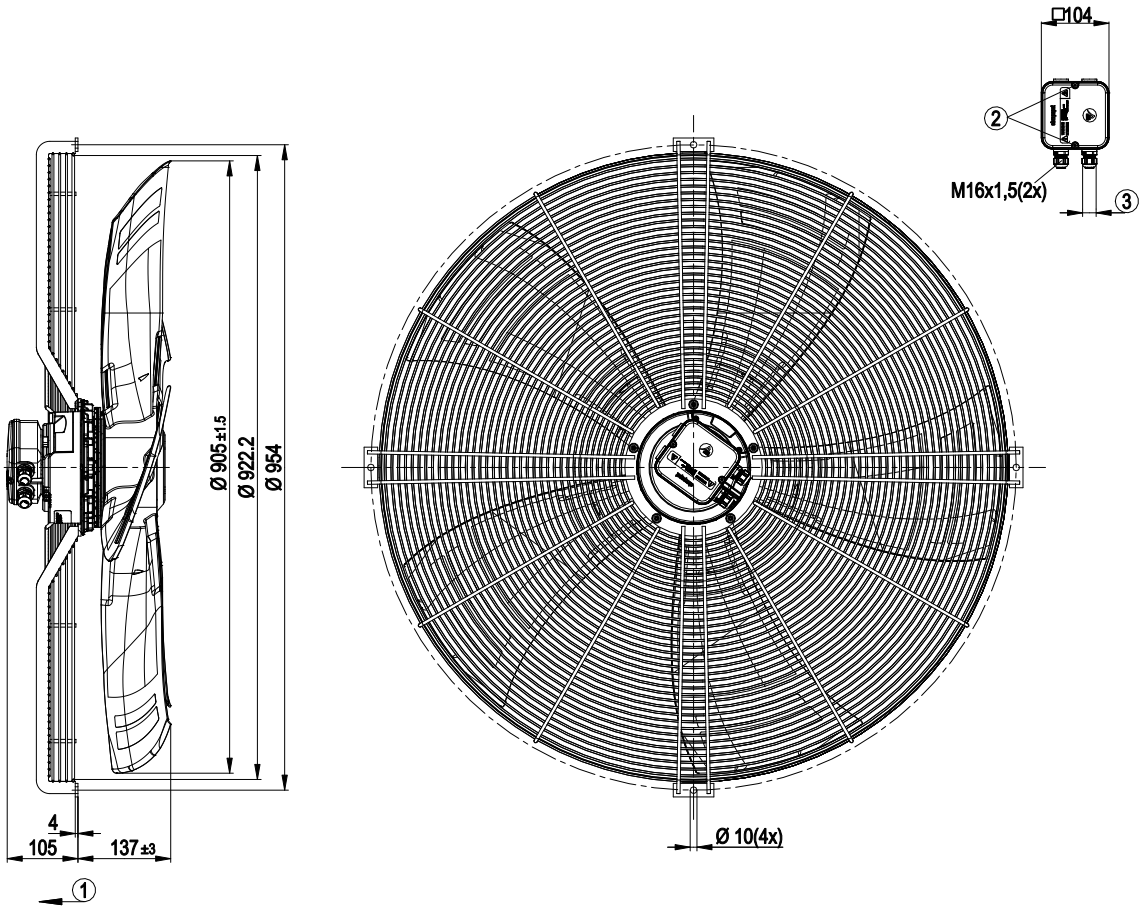
Product drawing



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 diagram

No.	Conn.	Designation	Function/assignment
KL 1	1, 2	L1, N	Power supply 50/60 Hz
KL 1	3, 4	PE	Protective earth terminal
KL 2	1	+24 V	Parameter-setting input 24 VDC ±15%, Isink max. 40 mA, external feed
KL 2	2	GND	Reference ground for interface SELV
KL 3	1	RSA	RS485 interface for MODBUS, RSA
KL 3	2	RSB	RS485 interface for MODBUS, RSB

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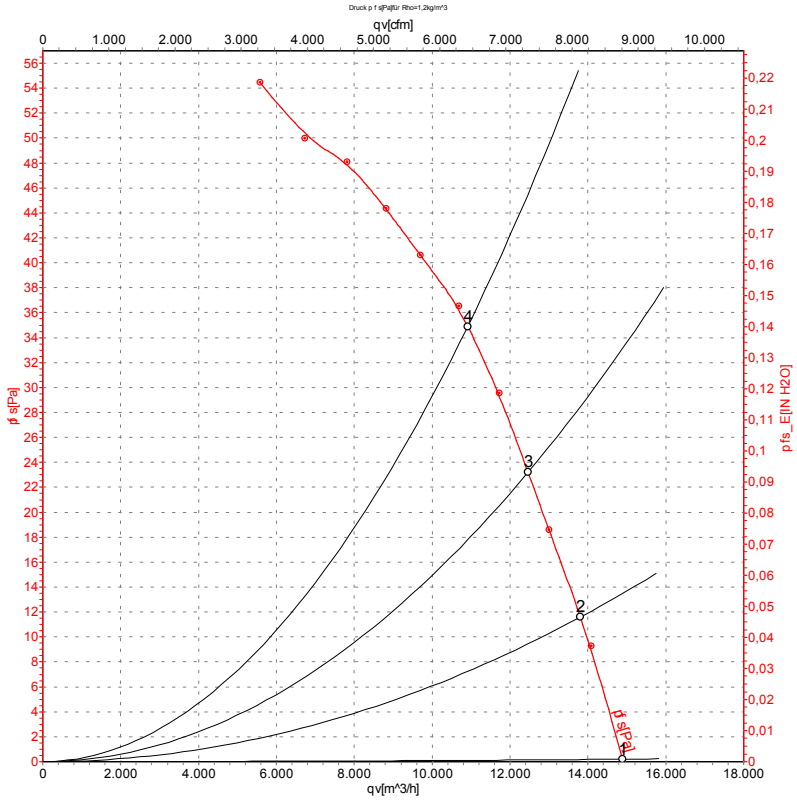
Curves: Air performance 50 Hz



Measurement: LU-115741-1

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	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	230	50	485	214	0.96	14890	0	8765	0.00
2	230	50	485	239	1.06	13810	12	8130	0.05
3	230	50	485	258	1.14	12460	23	7335	0.09
4	230	50	485	290	1.30	10910	35	6420	0.14

U = Power supply · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase