EC axial fan - HyBlade

sickle-shaped blades (S series)

A3G300-AI13-09 ebmpapst Datasheet
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Nominal data

Type	**A3G300-AI13-09**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Method of obtaining data		ml
Status		prelim.
Speed (rpm)	min^{-1}	1480
Power consumption	W	85
Current draw	A	0.66
Max. back pressure	Pa	80
Max. back pressure	inH2O	0.32
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

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Technical description

Weight	1.4 kg
Fan size	300 mm
Rotor surface	Thick-film passivated
Impeller material	PP plastic
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	F3-1
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Any
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Tach output - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Thermal overload protection for motor
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 60335-1; CE

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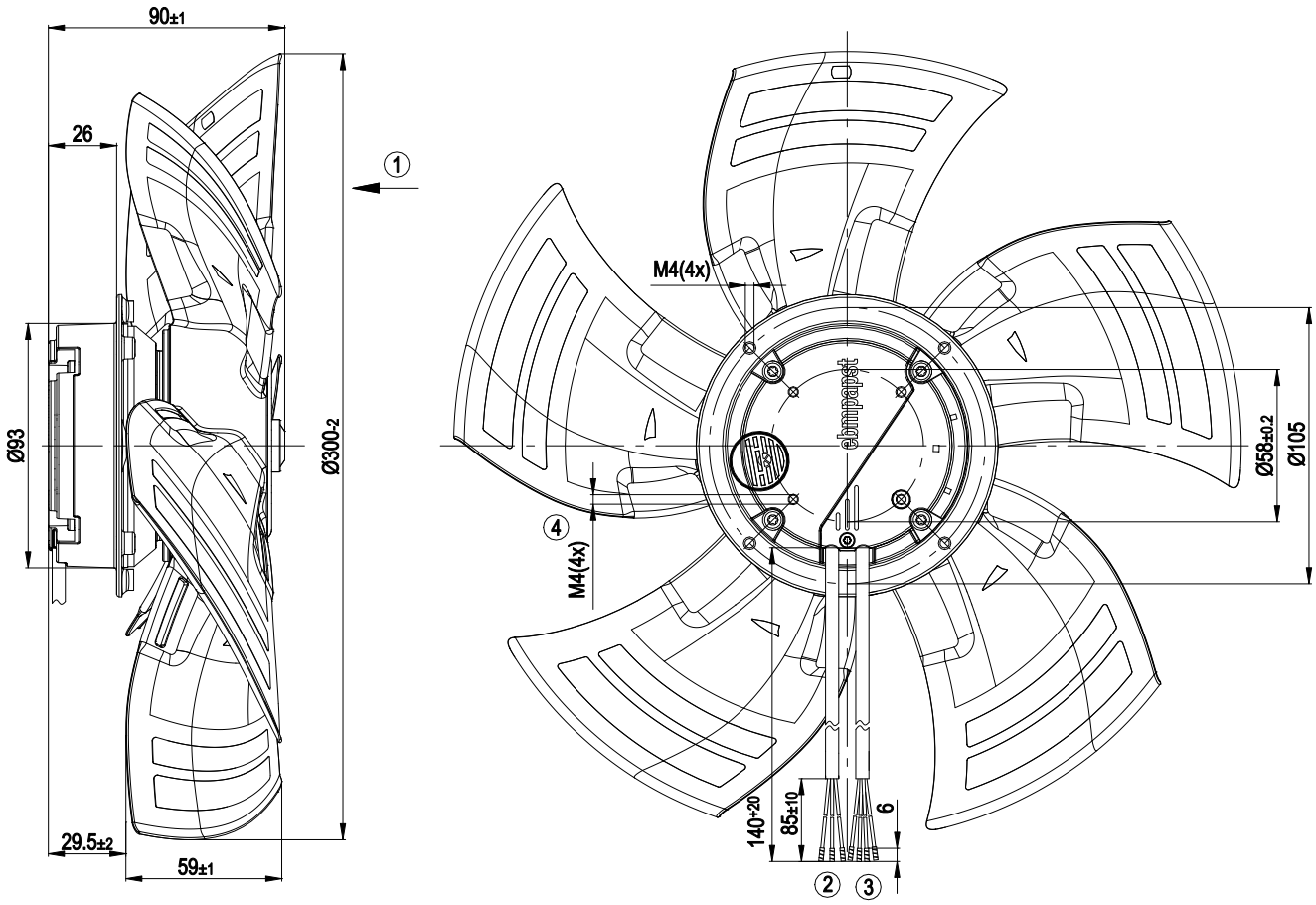
Product drawing



1	Direction of air flow "V"
2	Cable PVC 3G 0.5 mm², 3 x crimped splices
3	Cable PVC 4X 0.25 mm², 4 x crimped splices
4	Max. clearance for screw 6 mm

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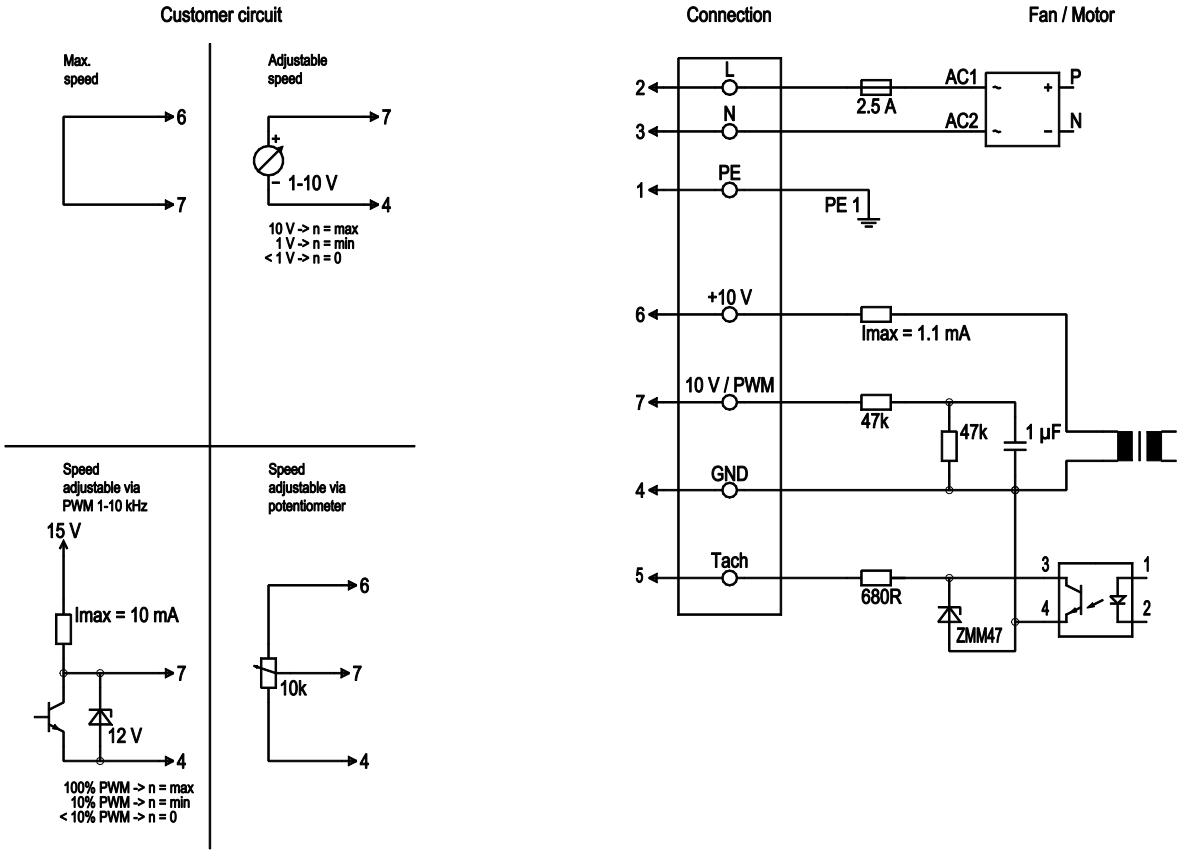
Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	2	L	brown	Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range
	3	N	blue	Neutral conductor
	1	PE	green/yellow	Protective earth
	7	0-10 V PWM	yellow	Control input 0-10 V or PWM, electrically isolated
	5	Tach	white	Tach output: open collector, 1 pulse per revolution, electrically isolated
	6	10V / max. 1.1 mA	red	Voltage output 10 V / 1.1 mA, electrically isolated, not short-circuit-proof
	4	GND	blue	GND connection for control interface

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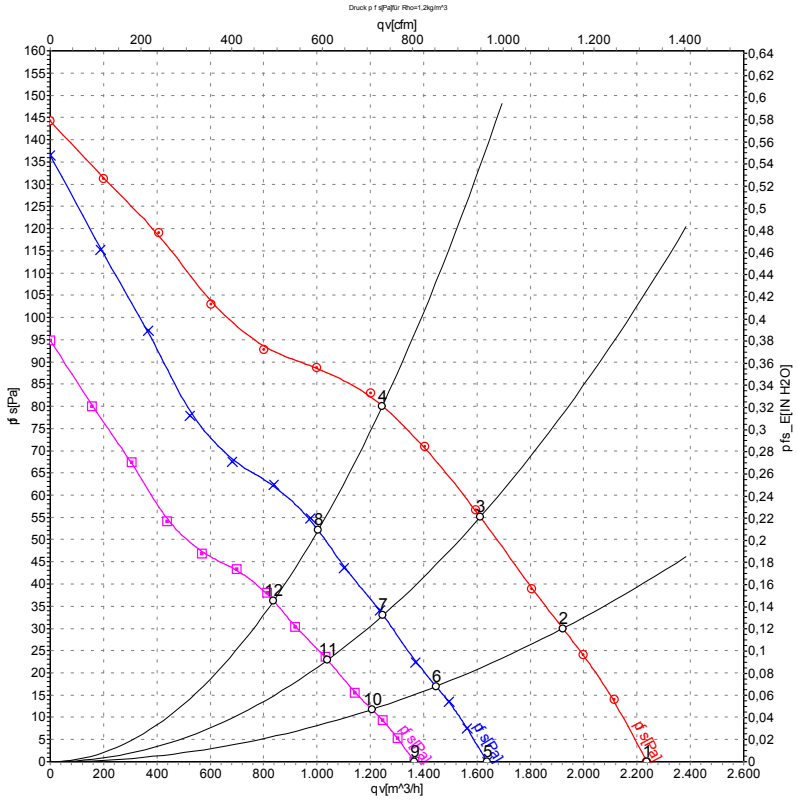
Curves: Air performance 50 Hz



Measurement: LU-132879-1

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	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	230	50	1640	76	0.60	2240	0	1315	0.00
2	230	50	1595	81	0.65	1920	30	1130	0.12
3	230	50	1550	83	0.66	1610	55	950	0.22
4	230	50	1480	85	0.66	1245	80	735	0.32
5	230	50	1200	30	0.23	1635	0	965	0.00
6	230	50	1200	35	0.28	1445	17	850	0.07
7	230	50	1200	39	0.31	1245	33	735	0.13
8	230	50	1200	43	0.35	1005	52	590	0.21
9	230	50	1000	17	0.14	1365	0	805	0.00
10	230	50	1000	20	0.16	1205	12	710	0.05
11	230	50	1000	22	0.18	1040	23	610	0.09
12	230	50	1000	25	0.20	835	36	495	0.14

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