A3G400-AA37-89

EC axial fan

sickle-shaped blades (S series)

A3G400-AA37-89 ebmpapst Datasheet
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Nominal data

Type	**A3G400-AA37-89**
Motor	**M3G084-FA**

Phase		1~
Nominal voltage	VAC	115
Nominal voltage range	VAC	100 .. 130
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	1550
Power consumption	W	350
Current draw	A	4.0
Max. back pressure	Pa	140
Max. back pressure	inH2O	0.56
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

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	5.2 kg
Fan size	400 mm
Rotor surface	Painted black
Electronics housing material	Die-cast aluminum, painted black
Blade material	Sheet steel
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	Shaft horizontal or rotor on bottom; rotor on top on request
Mode	S1
Motor bearing	Ball bearing
Technical features	- Tach output - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Thermal overload protection for electronics/motor - Line undervoltage detection
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
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	With plug
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1
Approval	CCC; CSA C22.2 No. 77; UL 2111

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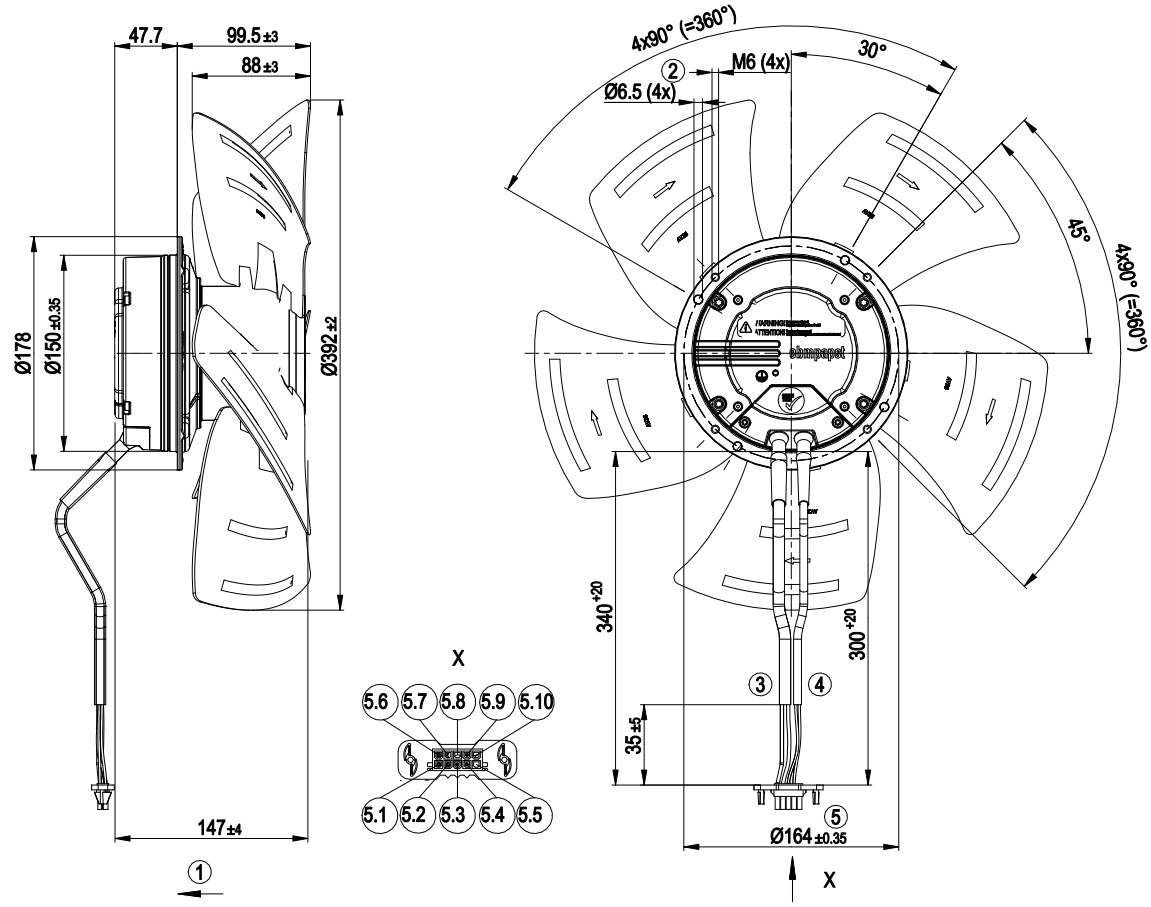
Product drawing



1	Direction of air flow "V"
2	Clearance for screw 8-10 mm
3	Cable PVC AWG18, 3x socket Molex 39-00-0428 crimped
4	Cable PVC AWG22, 3x socket Molex 39-00-0428 crimped
5	Connector housing Molex 15-06-0101
5.1	L (black)
5.2	PE (green-yellow)
5.3	GND (blue)
5.4	0-10 V PWM; PWM/Lin control input (yellow)
5.5	not used
5.6	N (blue)
5.7	not used
5.8	not used
5.9	Speed monitoring, 1 pulse per revolution (white)
5.10	not used

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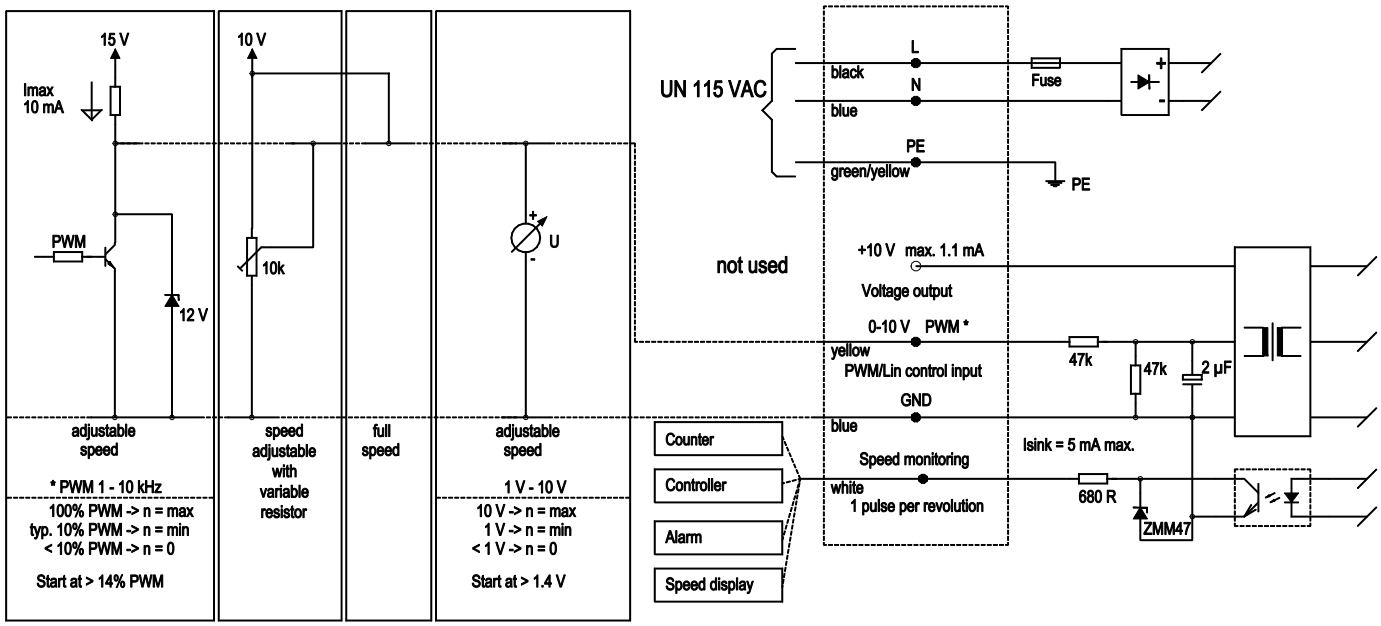
Connection diagram

Customer circuit | Connection | Fan/Motor

Application instructions for various control options



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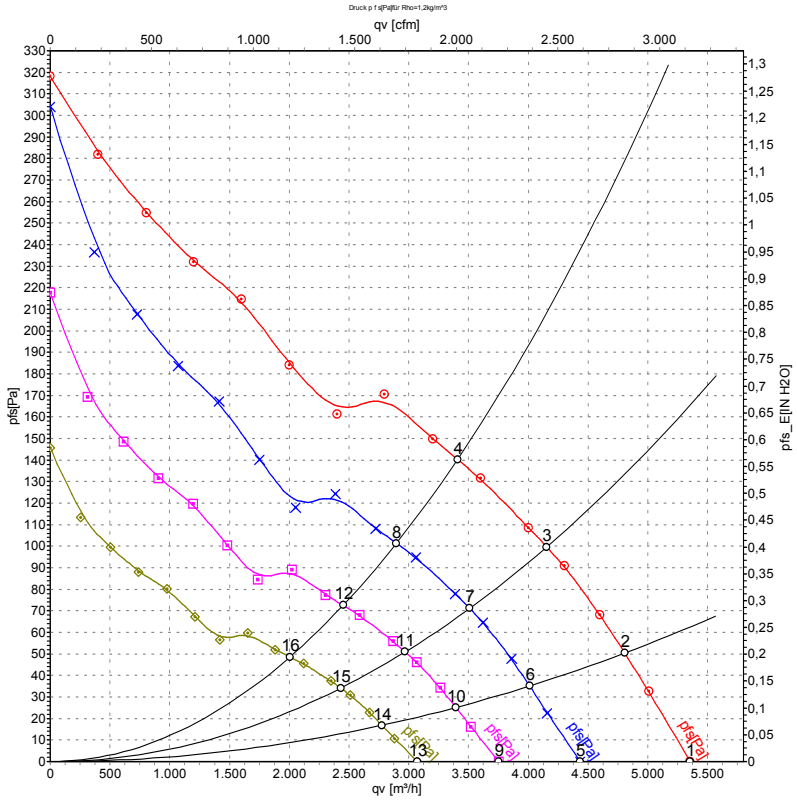
Curves: Air performance 50 Hz



Measurement: LU-74679-1

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	115	50	1570	275	3.24	5355	0	3150	0.00
2	115	50	1560	298	3.48	4805	50	2830	0.20
3	115	50	1550	315	3.66	4155	100	2445	0.40
4	115	50	1550	350	4.00	3410	140	2005	0.56
5	115	50	1300	156	1.84	4435	0	2610	0.00
6	115	50	1300	173	2.02	4010	35	2360	0.14
7	115	50	1300	190	2.21	3510	71	2065	0.29
8	115	50	1300	200	2.31	2895	101	1705	0.41
9	115	50	1100	94	1.11	3750	0	2210	0.00
10	115	50	1100	105	1.22	3395	25	2000	0.10
11	115	50	1100	115	1.34	2970	51	1750	0.20
12	115	50	1100	121	1.40	2450	73	1445	0.29
13	115	50	900	52	0.61	3070	0	1805	0.00
14	115	50	900	57	0.67	2775	17	1635	0.07
15	115	50	900	63	0.73	2430	34	1430	0.14
16	115	50	900	66	0.77	2005	49	1180	0.20

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