S3G350-BN01-44

EC axial fan

sickle-shaped blades (S series)

with guard grille for short nozzle

S3G350-BN01-44 ebmpapst Datasheet
sales@fansco.com
www.fansco.com

Nominal data

Type	**S3G350-BN01-44**
Motor	**M3G074-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	1475
Power consumption	W	165
Current draw	A	1.35
Max. back pressure	Pa	100
Max. back pressure	in. wg	0.4
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

Data according to Commission Regulation (EU) 327/2011

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	35.6	28.7
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		46.9	40
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.16
09 Air flow q_v	m^3/h	1805
09 Pressure increase p_{fs}	Pa	103
10 Speed (rpm) n	min^{-1}	1470
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-197848

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Technical description

Weight	3.4 kg
Size	350 mm
Motor size	74
Rotor surface	Galvanized
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	A
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1
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	None, open rotor
Cooling hole/opening	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Tach output - Power limiter - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Overvoltage detection - 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 61000-6-4 (industrial environment)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Electronic motor protection
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE

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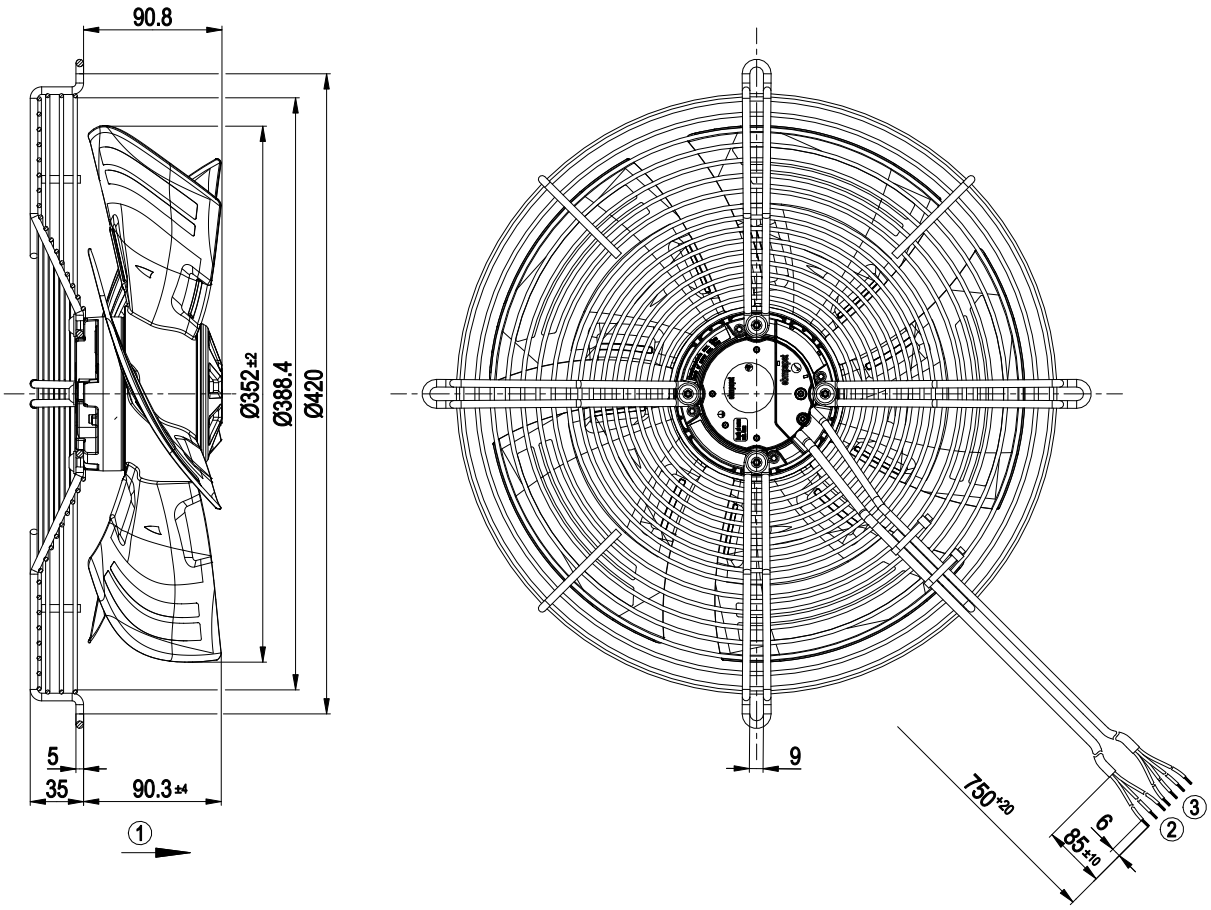
Product drawing



1	Direction of air flow "A"
2	Cable PVC AWG20
	3x splice
3	Cable PVC AWG22
	4x splice

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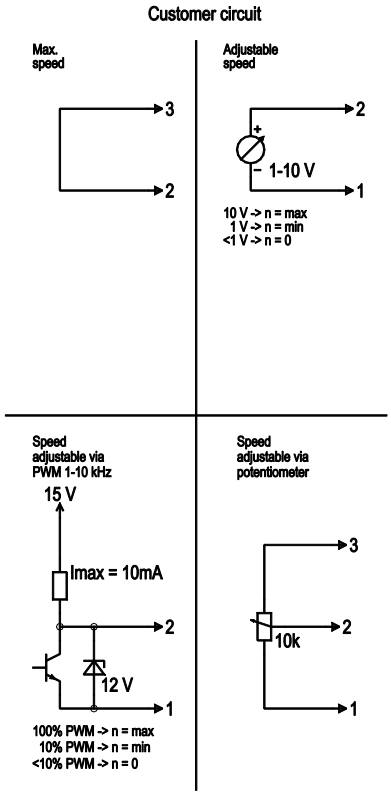
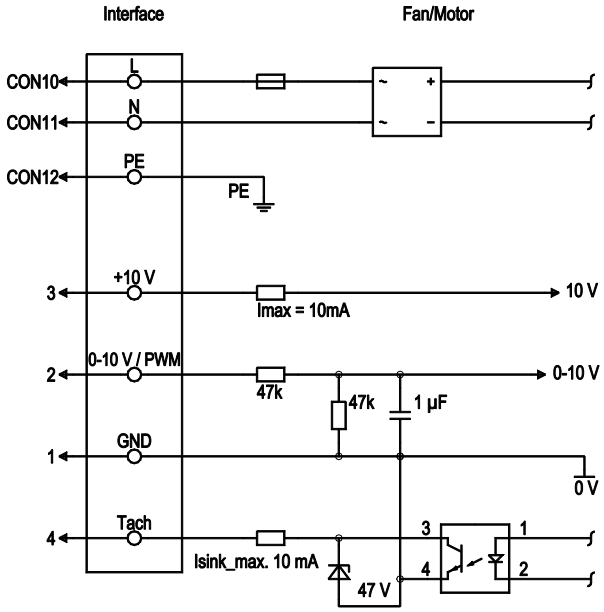
Connection diagram





No.	Conn.	Designation	Color	Function/assignment
	CON10	L	black	Supply connection, power supply, phase, see nameplate for voltage range
	CON11	N	blue	Supply connection, power supply, neutral conductor, see nameplate for voltage range
	CON12	PE	green/yellow	Ground connection
	2	0- 10V PWM	yellow	0-10 V / PWM control input, Ri=100 kΩ, SELV
	4	Tach	white	Tach output, open collector, 1 pulse per revolution, Isink max = 10 mA, SELV
	3	+10 V	red	Fixed voltage output 10 VDC +/-3 %, Imax. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. pot), SELV
	1	GND	blue	Reference ground for control interface, SELV

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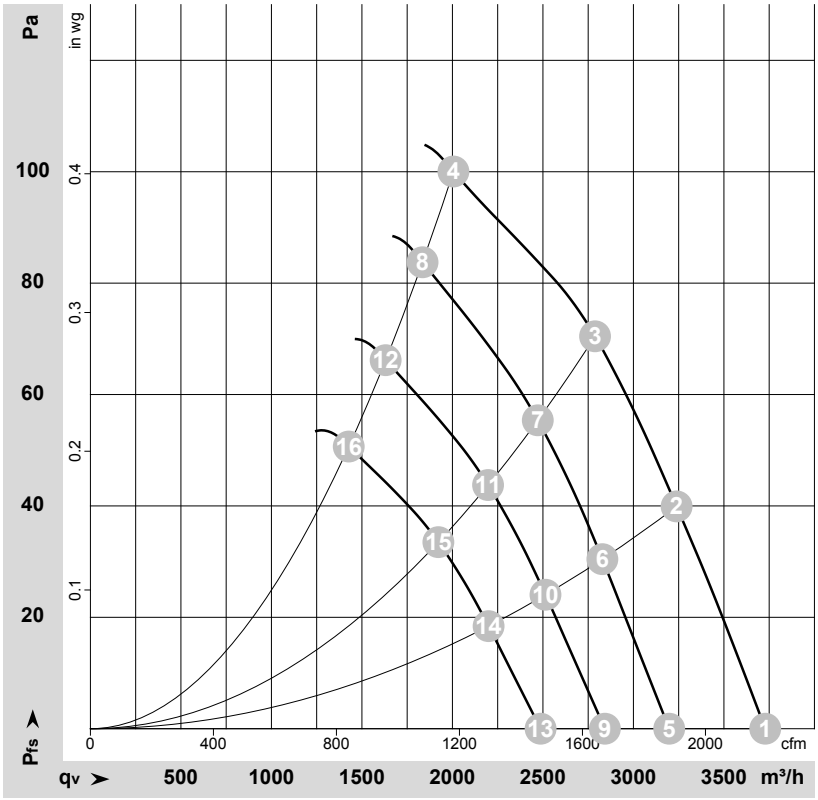
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-134592-1

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	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	in. wg
1	230	50	1575	141	1.15	64	71	3730	0	2195	0.00
2	230	50	1545	155	1.24	61	68	3240	40	1905	0.16
3	230	50	1525	164	1.32	58	66	2790	70	1640	0.28
4	230	50	1475	165	1.35	59	67	2005	100	1180	0.40
5	230	50	1350	89	0.72	60	67	3200	0	1880	0.00
6	230	50	1350	103	0.83	58	65	2830	31	1665	0.12
7	230	50	1350	114	0.92	55	62	2470	55	1455	0.22
8	230	50	1350	127	1.02	56	64	1835	84	1080	0.34
9	230	50	1200	63	0.51	57	64	2840	0	1675	0.00
10	230	50	1200	72	0.58	55	62	2515	24	1480	0.10
11	230	50	1200	80	0.65	52	60	2195	44	1295	0.18
12	230	50	1200	89	0.72	53	61	1630	66	960	0.26
13	230	50	1050	42	0.34	53	60	2485	0	1465	0.00
14	230	50	1050	49	0.39	51	59	2200	19	1295	0.08
15	230	50	1050	54	0.43	49	56	1920	34	1130	0.14
16	230	50	1050	60	0.48	50	58	1425	51	840	0.20

U = Voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
q_V = Air flow · p_{fs} = Pressure increase