S3G350-AK58-15

EC axial fan

sickle-shaped blades (S series)

with guard grille for short nozzle

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**S3G350-AK58-15**
Motor	**M3G074-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Method of obtaining data		me
Speed (rpm)	min^{-1}	1470
Power consumption	W	173
Current draw	A	1.4
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 ErP Directive

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	40	28.8
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		51.2	40
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.17
09 Air flow q_v	m^3/h	2100
09 Pressure increase p_{fs}	Pa	105
10 Speed (rpm) n	min^{-1}	1500
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-136504

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Technical description

Weight	4.2 kg
Fan size	350 mm
Rotor surface	Painted black
Blade material	PA plastic
Guard grille material	Steel, coated with black plastic (RAL 9005)
Number of blades	5
Airflow direction	"V"
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
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
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 - Control interface with SELV potential safely disconnected from the mains - Thermal overload protection for electronics/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

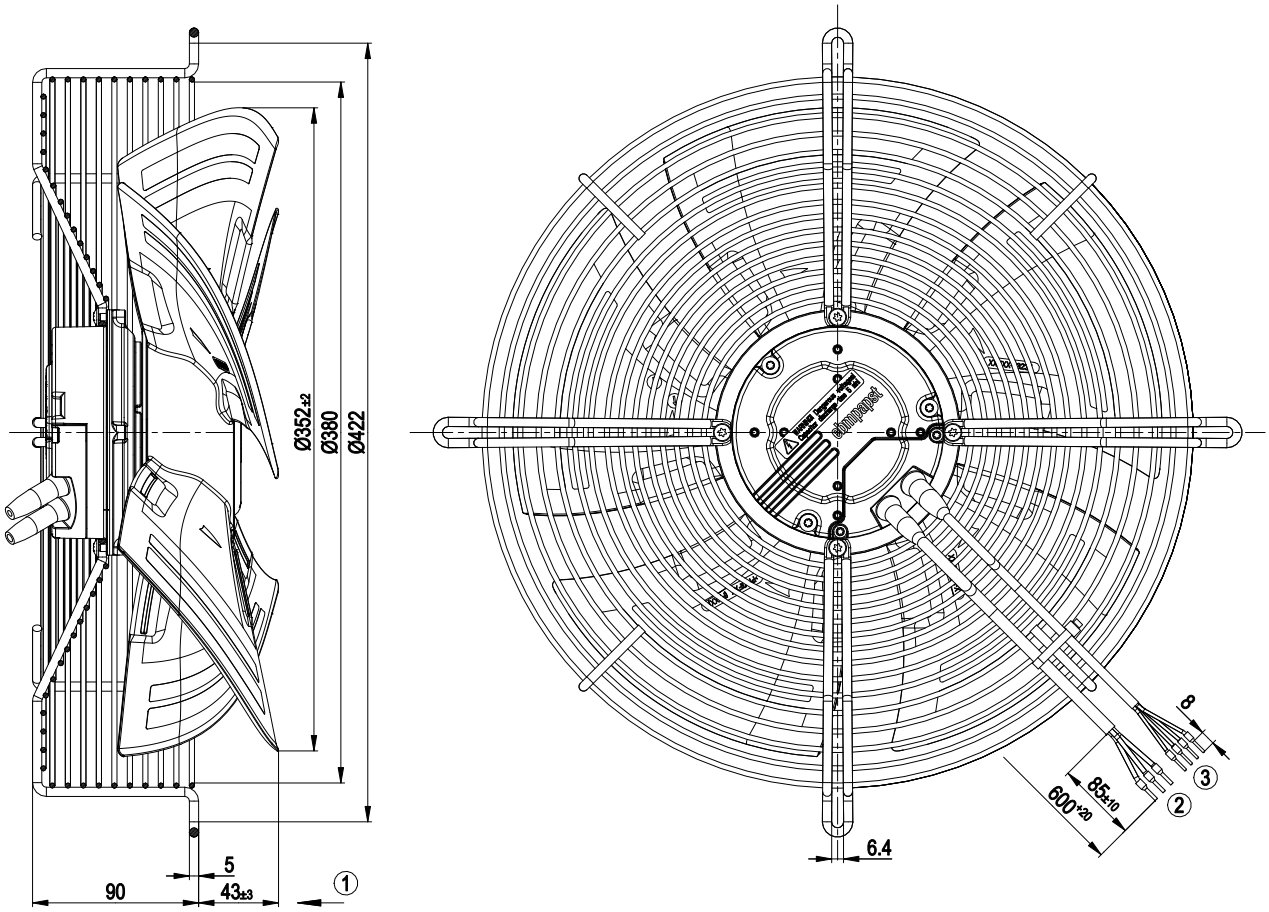
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Product drawing



1	Direction of air flow "V"
2	Cable PVC 3X AWG18, 3x crimped splices
3	Cable PVC 4x AWG22, 4x crimped splices

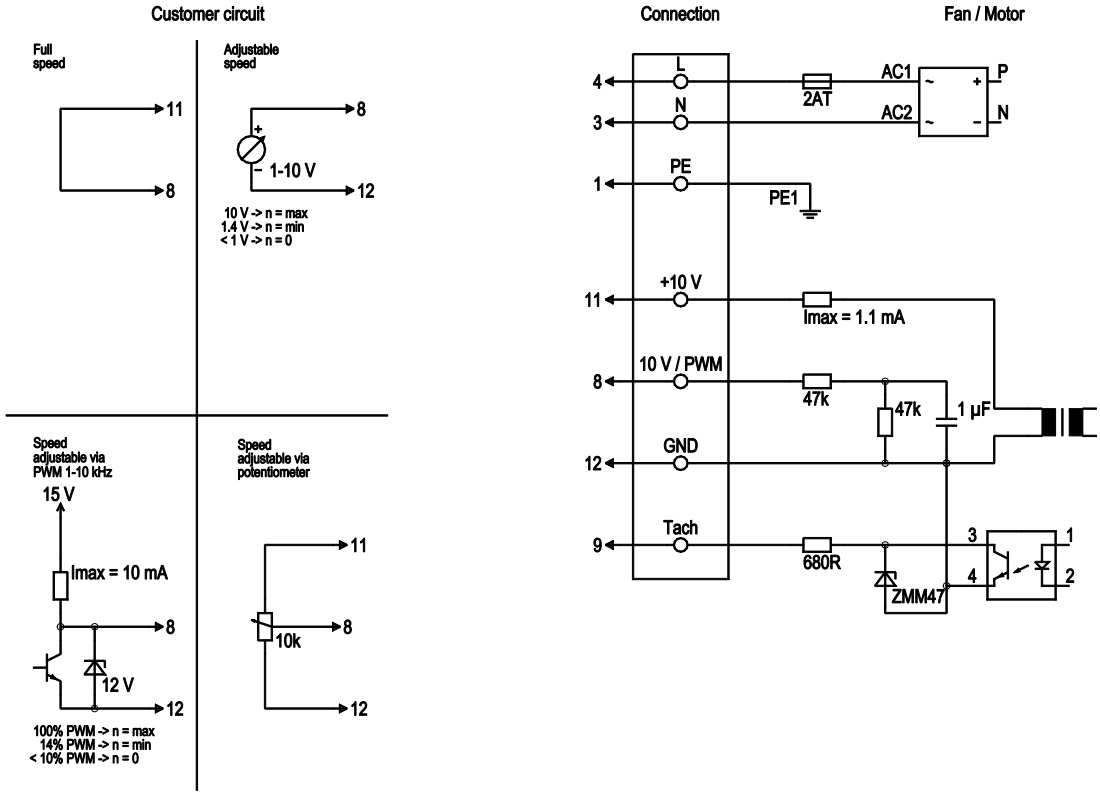
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Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	4	L	black	Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range
	3	N	blue	Neutral conductor
	1	PE	green/yellow	Protective earth
	8	0-10 V PWM	yellow	Control input 0-10 V or PWM, electrically isolated
	9	Tach	white	Tach output: open collector, 1 pulse per revolution, electrically isolated
	11	10V / max 1.1 mA	red	Voltage output 10 V/max. 1.1 mA, electrically isolated
	12	GND	blue	GND connection for control interface

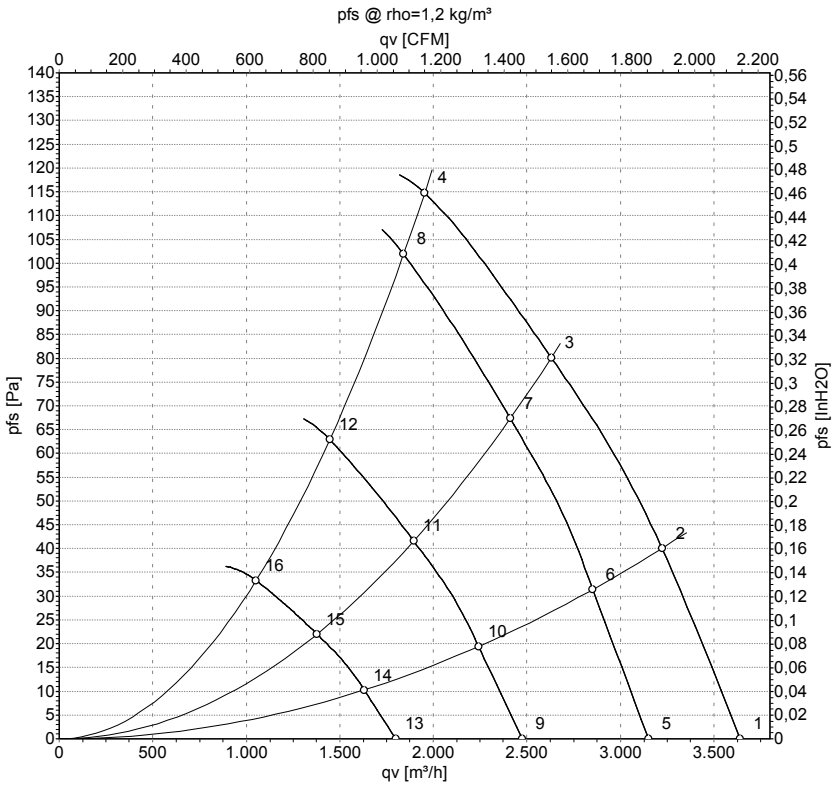
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Curves: Air performance 50 Hz



Measurement: LU-136504-1

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	1620	165	1.34	3640	0	2145	0.00
2	230	50	1585	173	1.39	3225	40	1895	0.16
3	230	50	1525	173	1.40	2630	80	1550	0.32
4	230	50	1470	173	1.40	1955	115	1150	0.46
5	230	50	1400	107	0.87	3150	0	1855	0.00
6	230	50	1400	119	0.96	2855	31	1680	0.12
7	230	50	1400	134	1.08	2410	67	1420	0.27
8	230	50	1400	145	1.17	1840	102	1085	0.41
9	230	50	1100	52	0.42	2475	0	1455	0.00
10	230	50	1100	58	0.47	2240	19	1320	0.08
11	230	50	1100	65	0.52	1895	42	1115	0.17
12	230	50	1100	70	0.57	1445	63	850	0.25
13	230	50	800	20	0.16	1800	0	1060	0.00
14	230	50	800	22	0.18	1630	10	960	0.04
15	230	50	800	25	0.20	1380	22	810	0.09
16	230	50	800	27	0.22	1050	33	620	0.13

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

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