W3G350-CA58-02

EC axial fan

sickle-shaped blades (S series)

with round full nozzle

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**W3G350-CA58-02**
Motor	**M3G074-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Method of obtaining data		fa
Speed (rpm)	min^{-1}	1540
Power consumption	W	150
Current draw	A	1.2
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}	%	41.6	28.6
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		53	40
05 Variable speed drive		Yes	

09 Power consumption P_{ed}	kW	0.16
09 Air flow q_v	m^3/h	2195
09 Pressure increase p_{fs}	Pa	100
10 Speed (rpm) n	min^{-1}	1450
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-71540

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Technical description

Weight	2.9 kg
Fan size	350 mm
Electronics housing material	Die-cast aluminum
Impeller material	Sheet steel, painted black
Number of blades	5
Direction of rotation	"A"
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
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 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	CE
Approval	CSA C22.2 No. 77; UL 2111

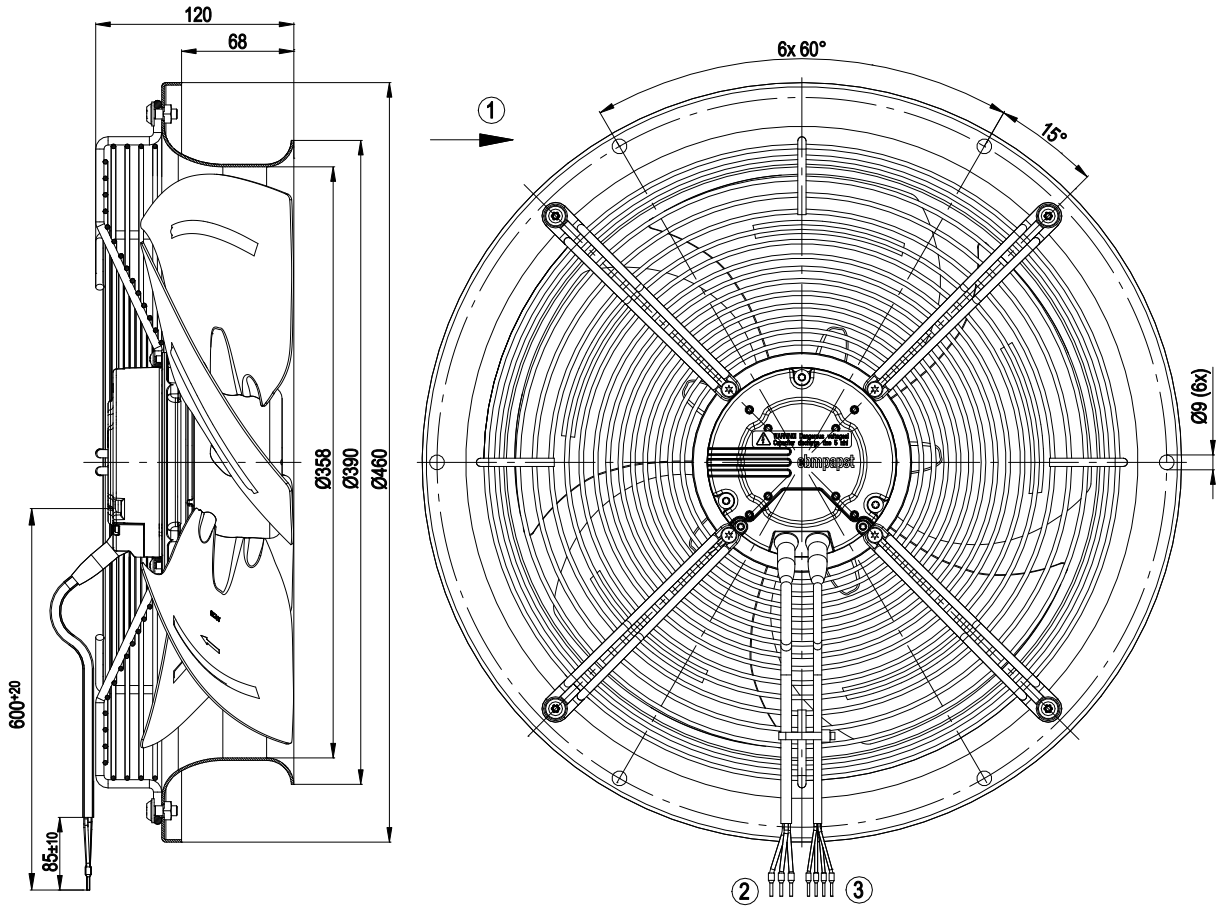
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Product drawing



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

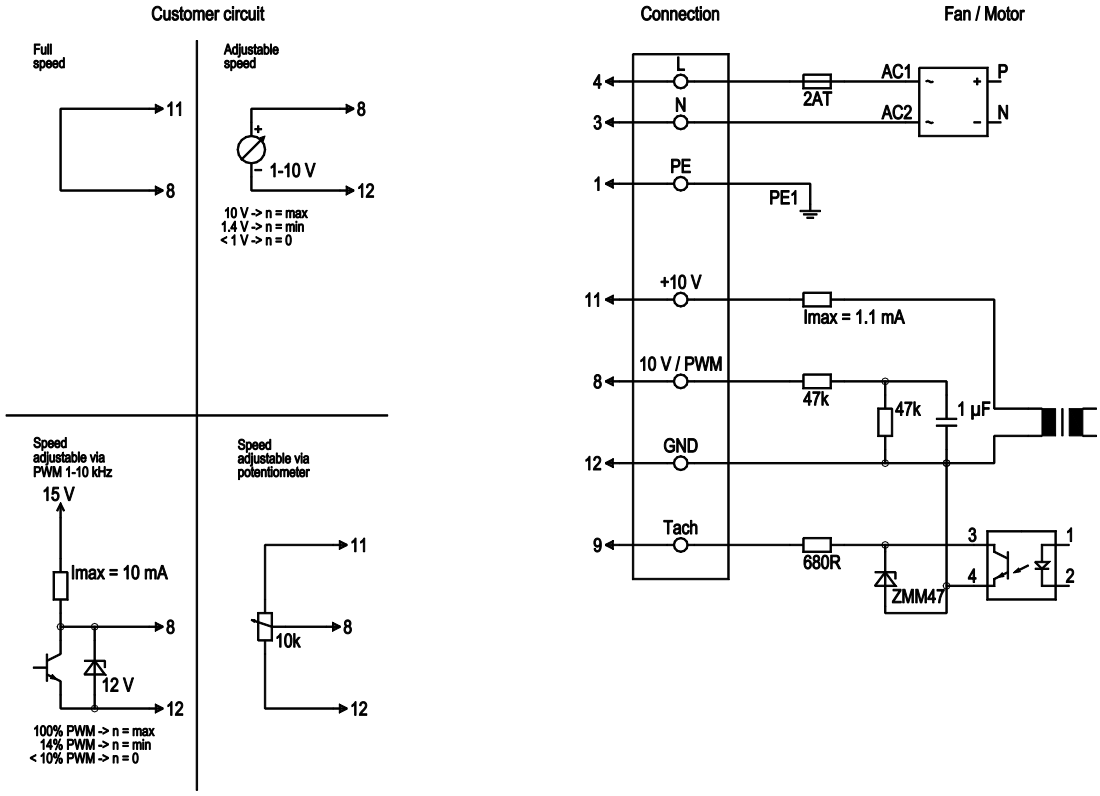
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Connection diagram



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

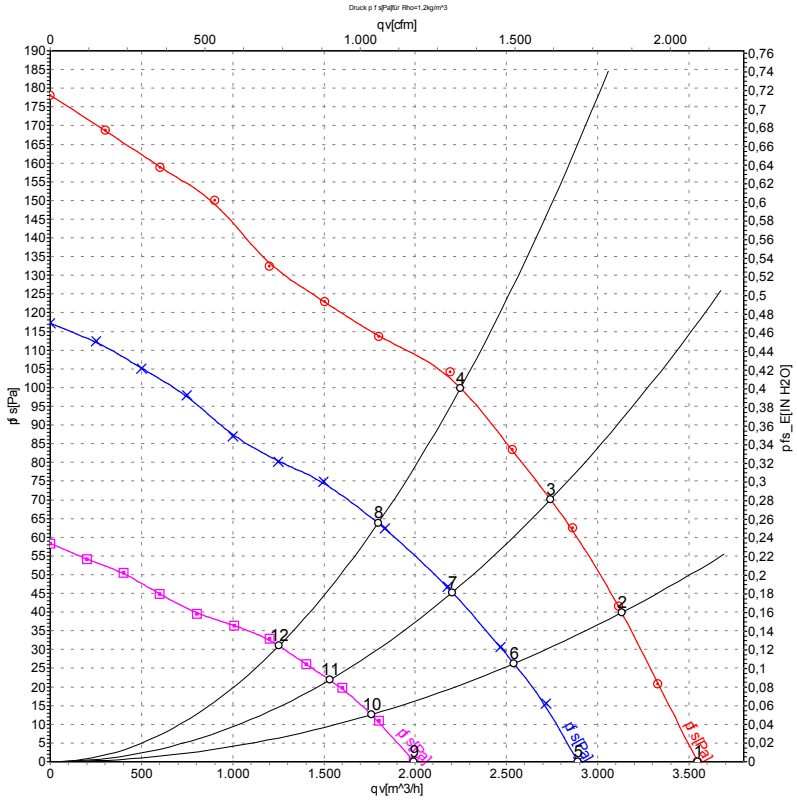
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Curves: Air performance 50 Hz



Measurement: LU-71540-1
Measurement: LU-71541-1
Measurement: LU-71542-1

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	1540	150	1.20	3545	0	2090	0.00
2	230	50	1510	166	1.24	3130	40	1845	0.16
3	230	50	1485	167	1.25	2740	70	1615	0.28
4	230	50	1455	167	1.23	2250	100	1325	0.40
5	230	50	1255	87	0.66	2890	0	1700	0.00
6	230	50	1225	90	0.69	2540	26	1495	0.10
7	230	50	1190	89	0.69	2205	46	1295	0.18
8	230	50	1165	91	0.69	1795	64	1055	0.26
9	230	50	870	33	0.27	1995	0	1175	0.00
10	230	50	845	35	0.28	1760	13	1035	0.05
11	230	50	830	34	0.28	1530	22	900	0.09
12	230	50	815	34	0.27	1255	31	735	0.12

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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