

# EC axial fan

sickle-shaped blades (S series)

Fan housing with guard grille

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## Nominal data

Type	W3G400-CA22-73	
Motor	M3G084-FA	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min <sup>-1</sup>	1630
Power consumption	W	410
Current draw	A	2.6
Max. back pressure	Pa	180
Max. back pressure	inH <sub>2</sub> O	0.72
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	55

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 $\eta_{es}$	%	44.8	31.2	09 Power consumption $P_{ed}$	kW	0.4
02 Measurement category		A		09 Air flow $q_v$	m <sup>3</sup> /h	3265
03 Efficiency category		Static		09 Pressure increase $p_{fs}$	Pa	181
04 Efficiency grade N		53.6	40	10 Speed (rpm) n	min <sup>-1</sup>	1630
05 Variable speed drive		Yes		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 =  $1 + p_s / 100\,000\text{ Pa}$ 

LU-71911



### Technical description

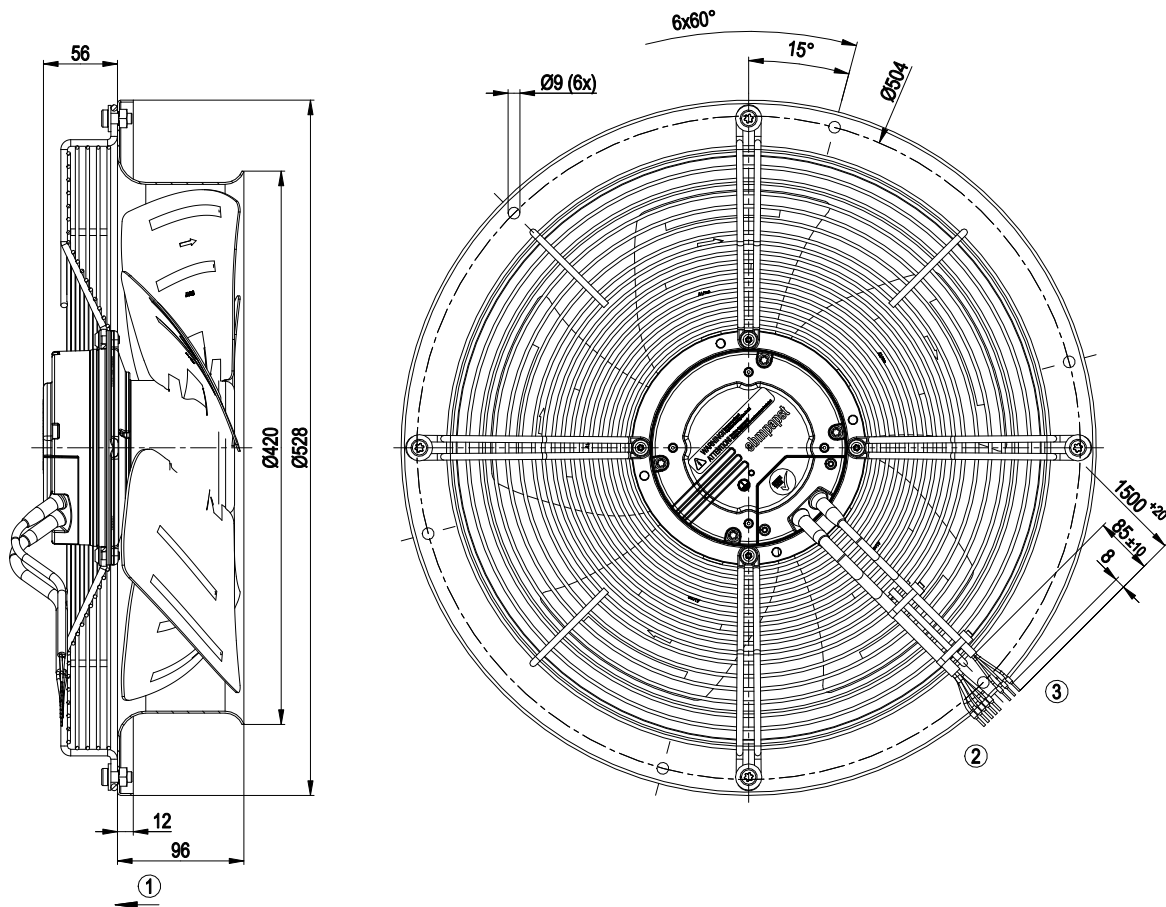
<b>Weight</b>	9.1 kg
<b>Fan size</b>	400 mm
<b>Rotor surface</b>	Painted black
<b>Electronics housing material</b>	Die-cast aluminum
<b>Blade material</b>	Sheet steel, painted black
<b>Fan housing material</b>	Sheet steel, galvanized and coated with black plastic (RAL 9005)
<b>Guard grille material</b>	Steel, coated with black plastic (RAL 9005)
<b>Number of blades</b>	5
<b>Direction of rotation</b>	"V"
<b>Degree of protection</b>	IP54
<b>Insulation class</b>	"B"
<b>Moisture (F) / Environmental (H) protection class</b>	H1
<b>Max. permitted ambient temp. for motor (transport/storage)</b>	+80 °C
<b>Min. permitted ambient temp. for motor (transport/storage)</b>	-40 °C
<b>Installation position</b>	Shaft horizontal or rotor on bottom; rotor on top on request
<b>Condensation drainage holes</b>	On rotor side
<b>Mode</b>	S1
<b>Motor bearing</b>	Ball bearing
<b>Technical features</b>	<ul style="list-style-type: none"> <li>- Output 10 VDC, max. 1.1 mA</li> <li>- Alarm relay</li> <li>- Motor current limitation</li> <li>- Soft start</li> <li>- Control input 0-10 VDC / PWM</li> <li>- Control interface with SELV potential safely disconnected from the mains</li> <li>- Thermal overload protection for electronics/motor</li> <li>- Line undervoltage detection</li> </ul>
<b>EMC immunity to interference</b>	According to EN 61000-6-2 (industrial environment)
<b>EMC interference emission</b>	According to EN 61000-6-3 (household environment)
<b>Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)</b>	<3.5 mA
<b>Motor protection</b>	Thermal overload protector (TOP) internally connected
<b>With cable</b>	Variable
<b>Protection class</b>	I (with customer connection of protective earth)
<b>Conformity with standards</b>	EN 61800-5-1; CE
<b>Approval</b>	C22.2 No.77 + CAN/CSA-E60730-1; UL1004-3 +60730; CCC

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## Product drawing



1	Direction of air flow "V"
2	Cable PVC AWG18, 5x crimped ferrules
3	Cable PVC AWG22, 3x crimped ferrules



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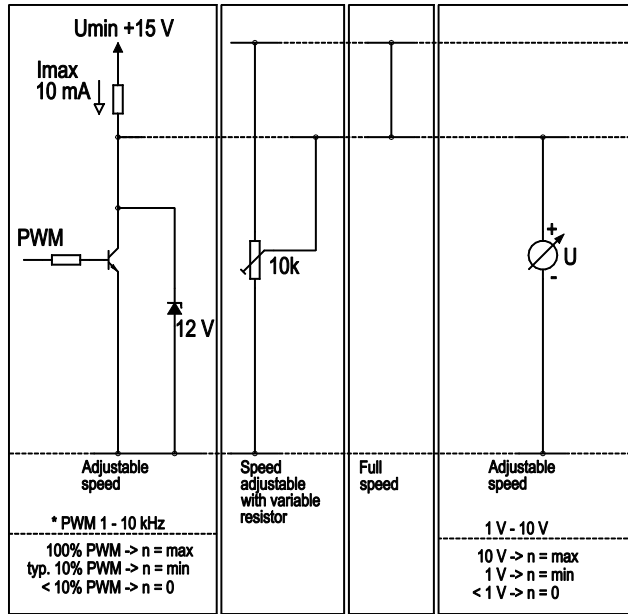
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## Connection diagram

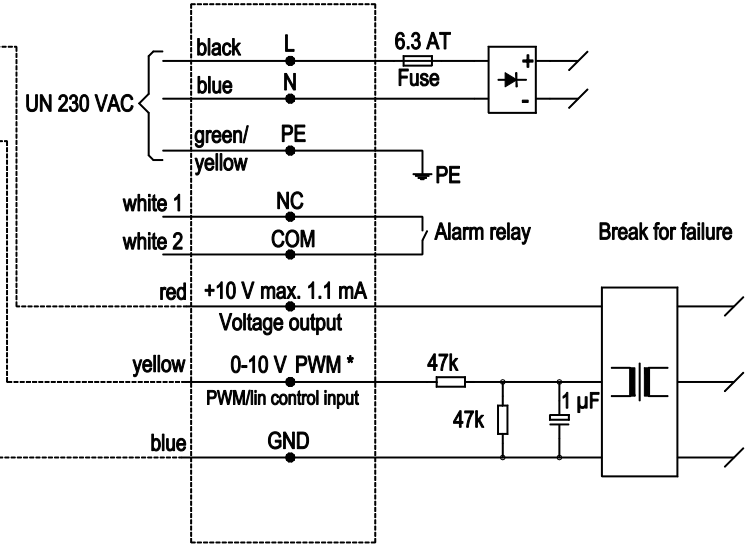
### Customer circuit

#### Application notes for various control options



### Connection

### Fan / Motor

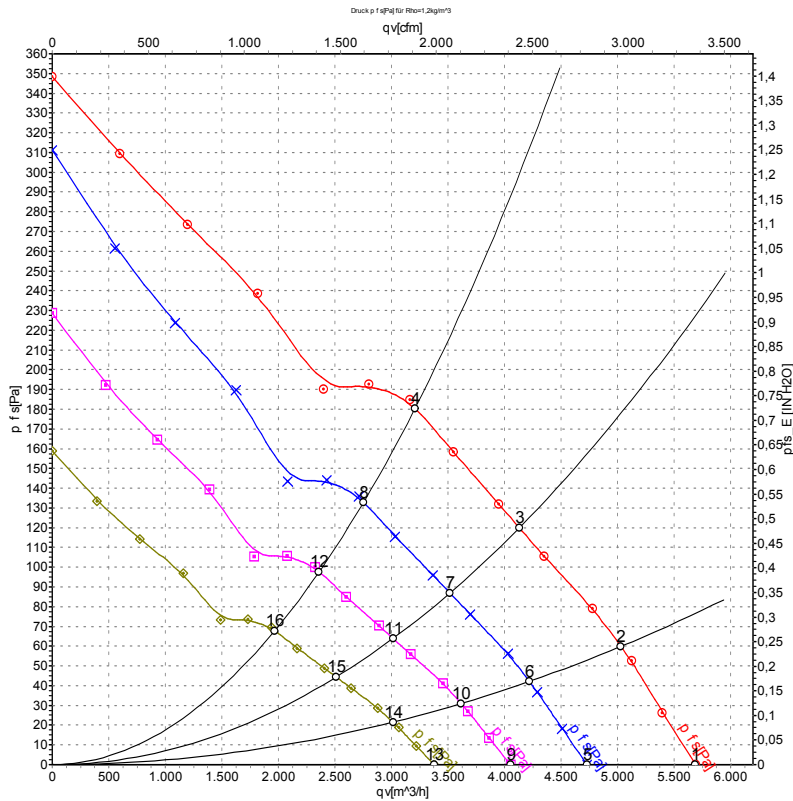


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## Curves: Air performance 50 Hz



Measurement: LU-63198-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebmpapst. 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 <sub>ed</sub>	I	q <sub>V</sub>	P <sub>is</sub>	q <sub>V</sub>	P <sub>is</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa	cfm	inH <sub>2</sub> O
1	230	50	1685	341	2.08	5690	0	3350	0.00
2	230	50	1670	369	2.24	5030	60	2960	0.24
3	230	50	1645	379	2.31	4130	120	2430	0.48
4	230	50	1630	410	2.60	3210	180	1890	0.72
5	230	50	1400	196	1.20	4730	0	2785	0.00
6	230	50	1400	218	1.32	4220	42	2485	0.17
7	230	50	1400	234	1.43	3520	87	2070	0.35
8	230	50	1400	246	1.49	2755	134	1620	0.54
9	230	50	1200	123	0.75	4055	0	2385	0.00
10	230	50	1200	137	0.83	3620	31	2130	0.12
11	230	50	1200	148	0.90	3015	64	1775	0.26
12	230	50	1200	155	0.94	2360	98	1390	0.39
13	230	50	1000	71	0.44	3380	0	1990	0.00
14	230	50	1000	79	0.48	3015	22	1775	0.09
15	230	50	1000	85	0.52	2515	44	1480	0.18
16	230	50	1000	90	0.54	1965	68	1160	0.27

U = Power supply · f = Frequency · n = Speed (rpm) · P<sub>ed</sub> = Power consumption · I = Current draw · q<sub>V</sub> = Air flow · P<sub>is</sub> = Pressure increase

