K3G097-AK28-20

EC dual centrifugal fan

forward-curved, dual-intake

with housing, Automotive



ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.com

Limited partnership · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**K3G097-AK28-20**	
Motor	**M3G074-CF**	
Nominal voltage	VDC	26
Nominal voltage range	VDC	16 .. 32
Method of obtaining data		fa
Status		prelim.
Speed (rpm)	min^{-1}	3500
Power consumption	W	345
Current draw	A	13.2
Min. back pressure	Pa	0
Min. back pressure	in. wg	0
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	70

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 (EN 17166)

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	49.6	33.2
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		60.4	44
05 Variable speed drive		Yes	

09 Power consumption P_e	kW	0.19
09 Air flow q_v	m^3/h	505
09 Pressure increase p_{fs}	Pa	624
10 Speed (rpm) n	min^{-1}	4765
11 Specific ratio*		1.01

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-208001

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Technical description

Weight	2.18 kg
Size	97 mm
Motor size	74
Impeller material	PA plastic UL94 HB (black)
Housing material	PP plastic (black)
Balancing grade according to DIN ISO 21940-11	G 6.3
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	Motor IP24 KM
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1
Max. permitted ambient temp. for motor (transport/storage)	+85 °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; (sealed)
Life expectancy	40,000 h (typical)
Technical features	- Locked-rotor detection - Power limiter - Load dump (58 V) - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Temperature derating - Thermal overload protection for electronics
Electrical hookup	Plug; Standby current less than 500 µA

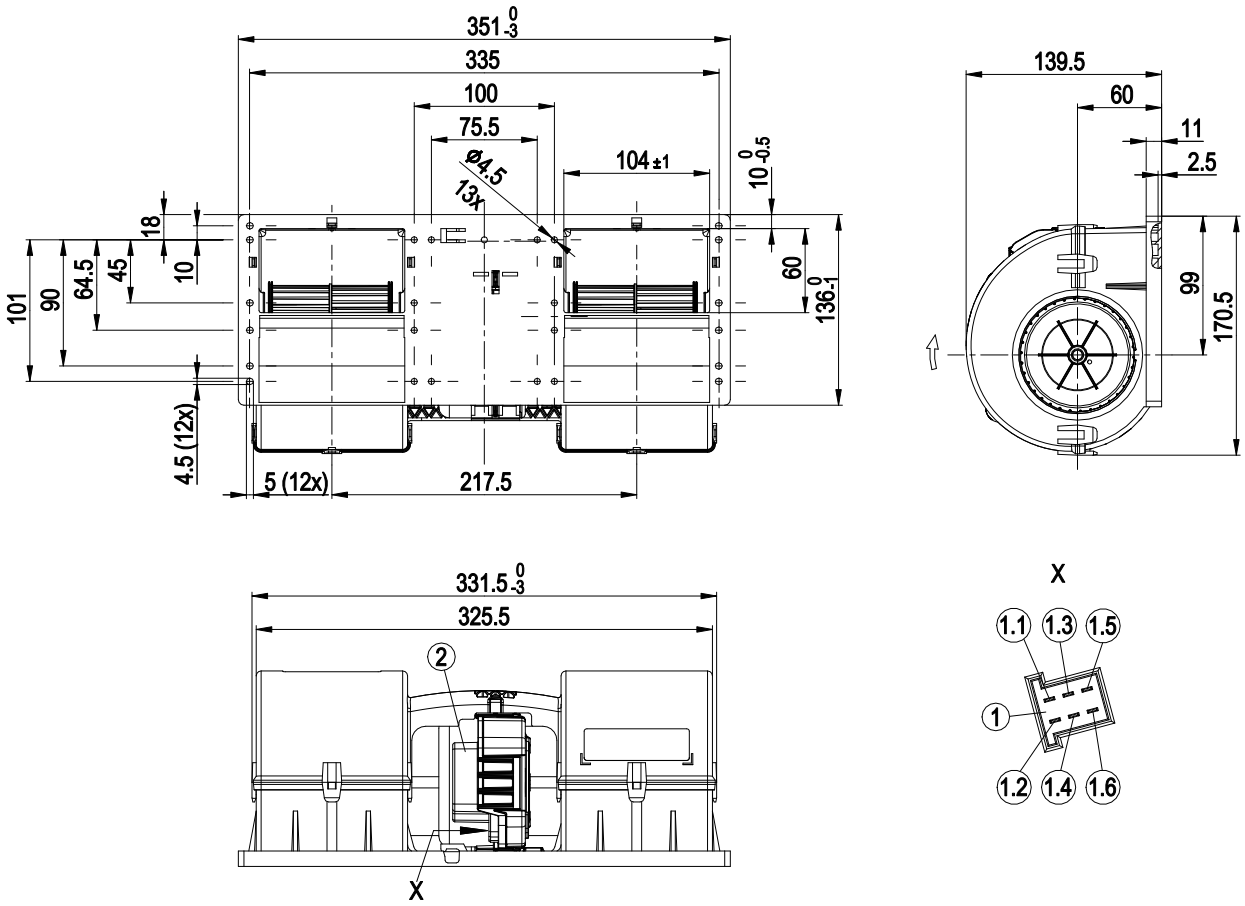
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Product drawing



1	6-pole header TE Junior Power Timer WE_9901118
1.1	+ UB
1.2	GND
1.3	PWM/LIN, 100% speed
1.4	80% speed
1.5	60% speed
1.6	Not used / no function
	Accessory part: Cable (460 mm) with mating connector, part no. 02001-4-1021 not included in scope of delivery 6-pole mating connector TE 929504-2, 4x plug contact TE 927771-1, 2x plug contact TE 927768-1
2	Electronics cover blue (RAL 5015)

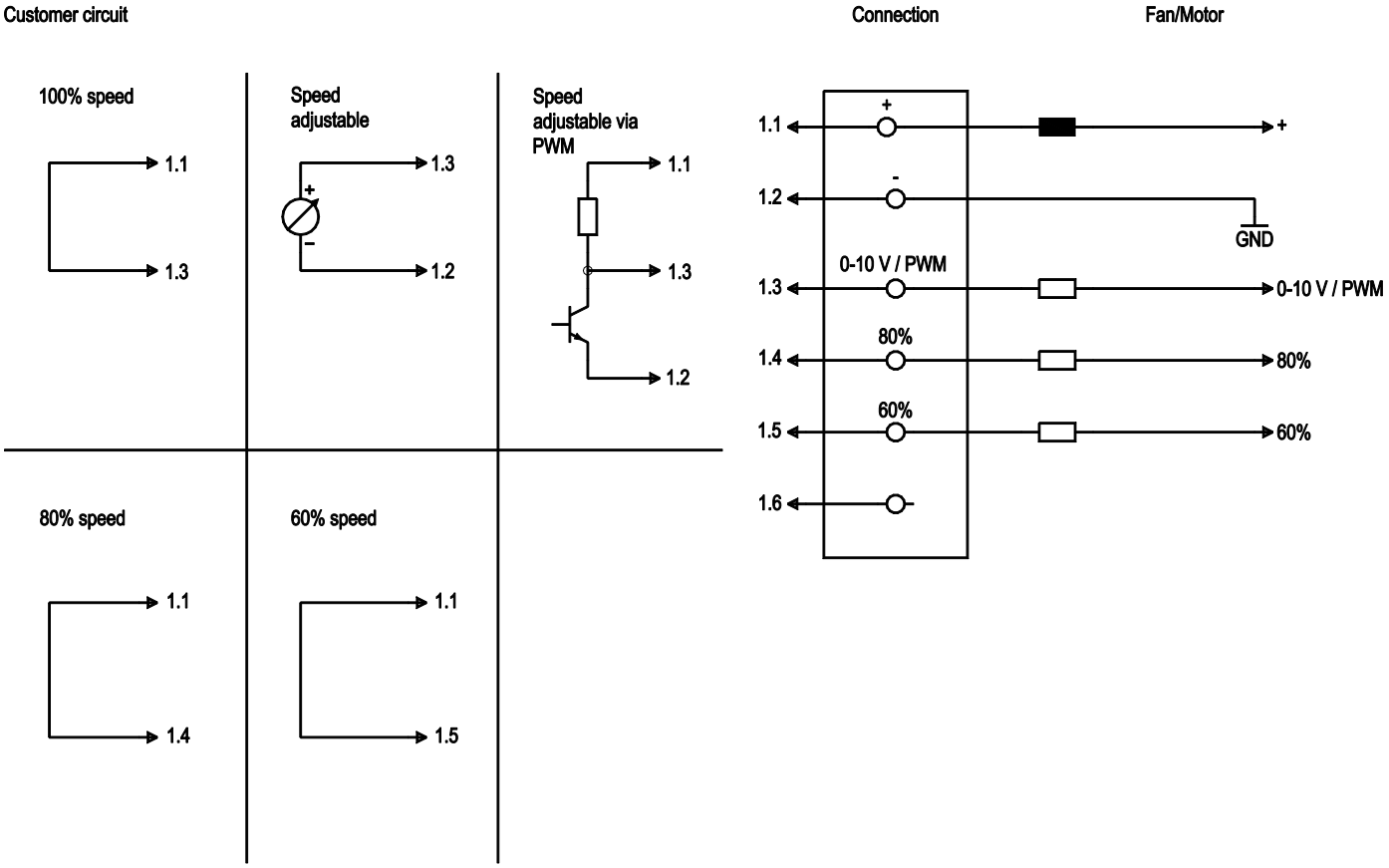
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Connection diagram



No.	Conn.	Designation	Function/assignment
	1.1	+	Power supply
	1.2	-	Power supply
	1.3	0-10 V / PWM	Control input: Ri > 47 kΩ 0-10 V (typ. < 1 V -> n=0; 1.2 V -> n=min; > 10 V -> n=max) or PWM (amplitude = power supply; 10 kHz-50kHz)
	1.4	80%	Control input: Ri > 47 kΩ 80% speed level
	1.5	60%	Control input: Ri > 47 kΩ 60% speed level
	1.6		not used

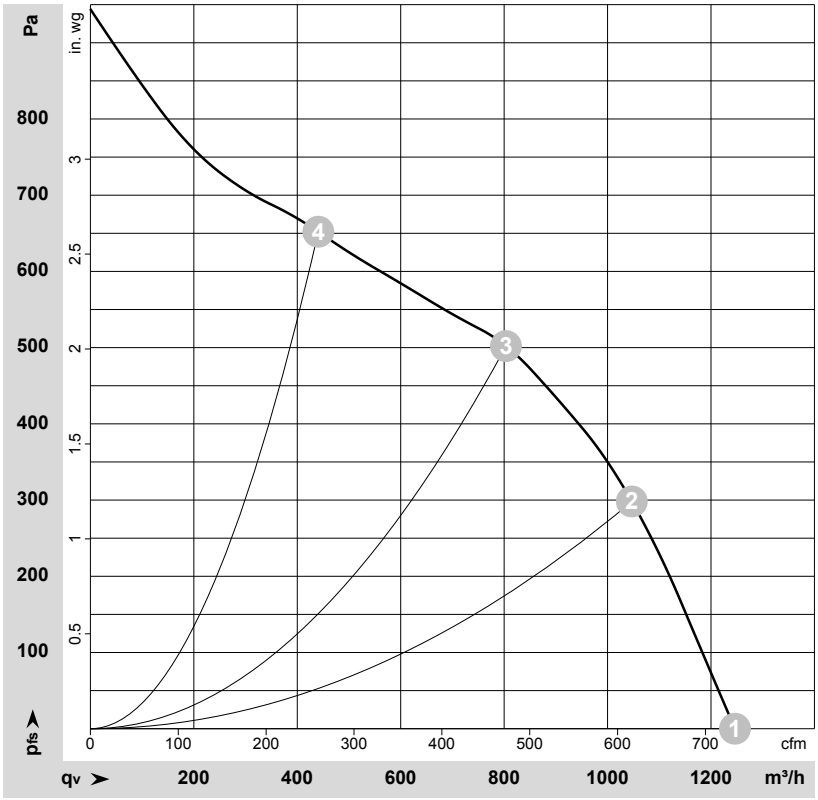
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Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-208001-1

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	n	P_{ed}	I	q_V	p_{fs}	q_V	p_{fs}
	V	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	26	3500	345	13.20	1245	0	735	0.00
2	26	4095	336	12.93	1045	300	615	1.20
3	26	4420	275	10.55	805	500	475	2.01
4	26	4835	186	7.15	440	650	260	2.61

U = Voltage · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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