K3G097-AK28-75

EC dual centrifugal fan

forward-curved, with brushless DC motor

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-AK28-75**
Motor	**M3G074-CF**

Nominal voltage	VDC	26
Nominal voltage range	VDC	16 .. 32
Method of obtaining data		fa
Status		prelim.
Speed (rpm)	min^{-1}	3600
Power consumption	W	352
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

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Technical description

Weight	2.2 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
Ambient temperature note	Occasional start-up at temperatures between -40°C and -25°C is permitted. For continuous operation at ambient temperatures below -25°C (such as refrigeration applications), use must be made of a fan design with special low-temperature bearings.
Max. permitted ambient temp. for motor (transport/storage)	+85 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Any
Cooling hole/opening	On rotor side
Mode	S1
Motor bearing	Ball bearing; (sealed)
Life expectancy	40,000 h (depending on load profile and ambient conditions)
Technical features	- Locked-rotor detection - Power limiter - Load dump (58 V) - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Temperature derating - Overvoltage detection - Thermal overload protection for electronics - Line undervoltage detection
Electrical hookup	Plug; Standby current less than 500 µA
Motor protection	Passive reverse polarity and locked-rotor protection
Protection class assignment	III; Requires supply with safety extra-low voltage SELV. This component for installation may have several local protection classes. This information relates to this component's basic design. The final protection class is based on the component's intended installation and connection.

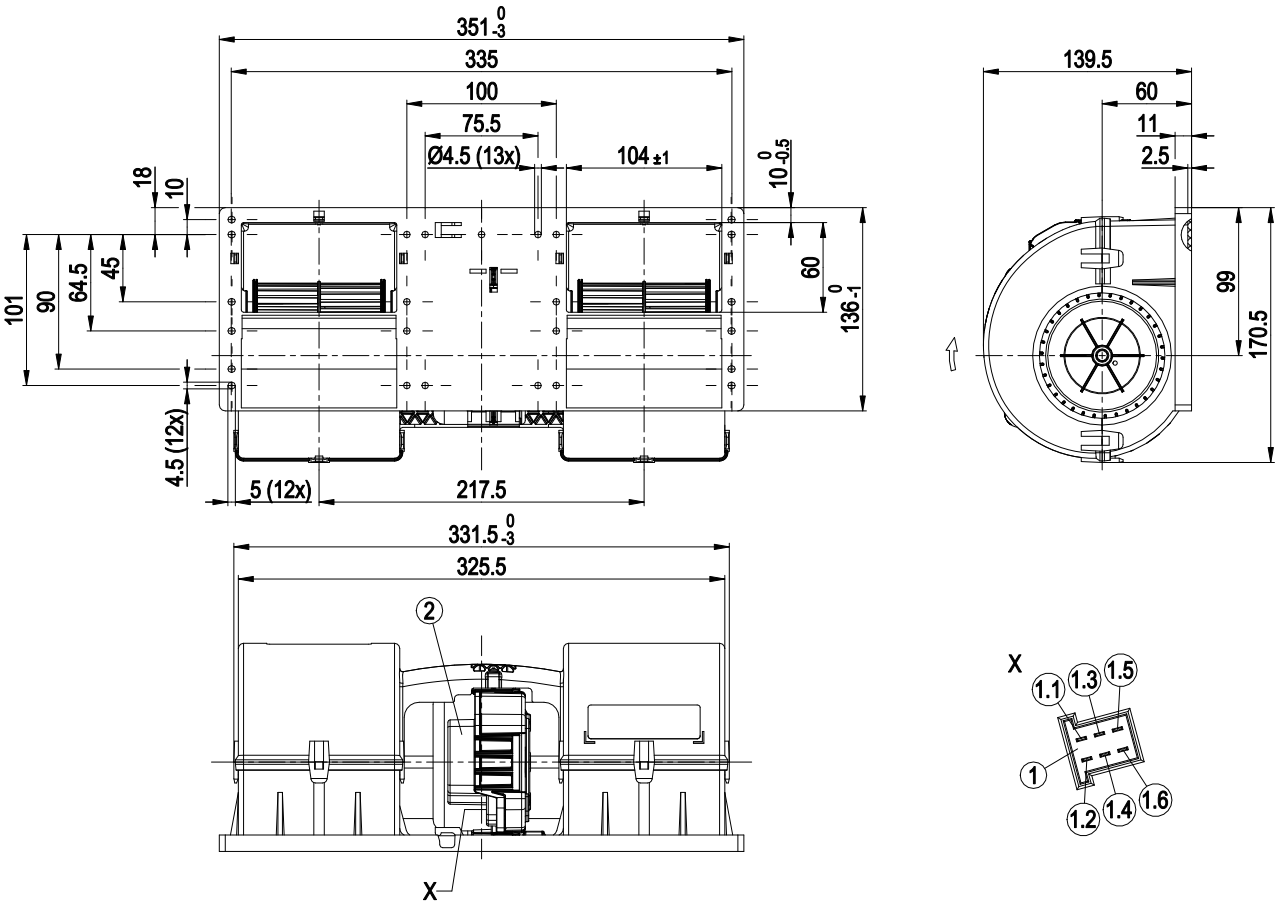
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Product drawing



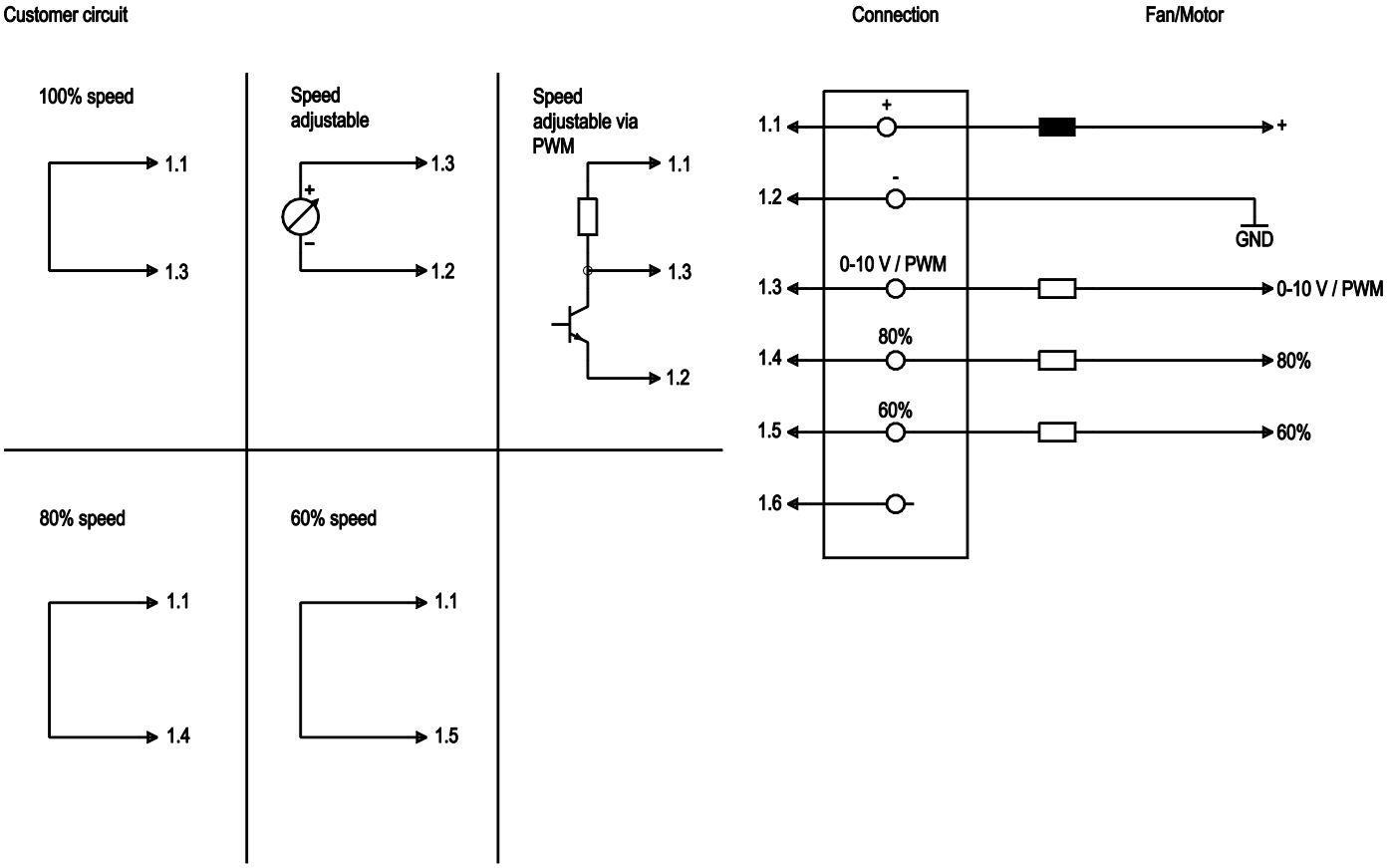
1	6-pole header TE Junior Power Timer WE_9901118
1.1	+ UB
1.2	GND
1.3	PWM/LIN, 100% speed
1.4	80% speed
1.5	60% speed
1.6	not used
	Accessory part: Cable (460 mm) with mating connector, part no. 02001-4-1021 not included in scope of delivery 6-pole mating connector TE 929504-2, 4x plug contact TE 927771-1,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

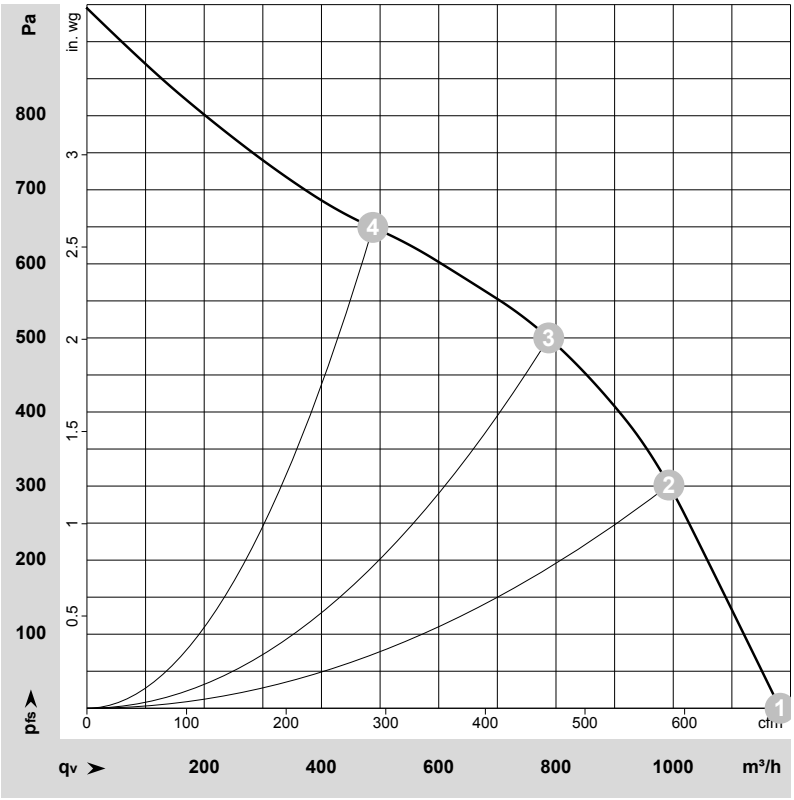
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Curves: Air performance



ρ = 1.191 kg/m³ ± 2 %

Measurement: LU-10663-2

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	LpA_{in}	LwA_{in}	LwA_{out}	LwA	q_V	p_{fs}	q_V	p_{fs}
	V	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	dB	m^3/h	Pa	cfm	in. wg
1	26	3600	352	13.20	72	82	83	85	1180	0	695	0.00
2	26	4170	345	13.20	70	80	81	84	995	300	585	1.20
3	26	4445	291	11.21	70	80	80	83	790	500	465	2.01
4	26	4795	211	8.11	71	80	79	83	490	650	285	2.61

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

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