K3G097-AK34-65

EC dual centrifugal fan

forward-curved, with brushless DC motor

with housing, Automotive

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**K3G097-AK34-65**	
Motor	**M3G074-CF**	
Nominal voltage	VDC	26
Nominal voltage range	VDC	16 .. 32
Method of obtaining data		ml
Speed (rpm)	min^{-1}	3830
Power consumption	W	394
Current draw	A	15.2
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 ErP Directive

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	45.5	33.9
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		55.6	44
05 Variable speed drive		Yes	

09 Power consumption P_e	kW	0.25
09 Air flow q_v	m^3/h	705
09 Pressure increase p_{fs}	Pa	526
10 Speed (rpm) n	min^{-1}	4505
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-74436

ebmpapst

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Technical description

Weight	2 kg
Fan size	97 mm
Impeller material	PA plastic UL94 HB (black)
Housing material	PP plastic (black)
Balancing grade according to DIN ISO 1940-1	G 2.5
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP24 KM
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F3-2
Max. permitted ambient temp. for motor (transport/storage)	+70 °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
Life expectancy	40,000 h (typical)
Technical features	-Start at 85 °C (2 min) permitted - Load dump (58 V) - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Overvoltage detection - Thermal overload protection for electronics - Line undervoltage detection
EMC regulations	According to ECE R10 Rev. 3
Electrical hookup	With plug; Standby current less than 500 µA
Motor protection	Reverse polarity and locked-rotor protection
Approval	E1; EAC
Sound level	76 dB(A), sound power level according to ISO 13347
Comment	Not approved for continuous operation at maximum back pressure and 85 °C; type approval number – 036432

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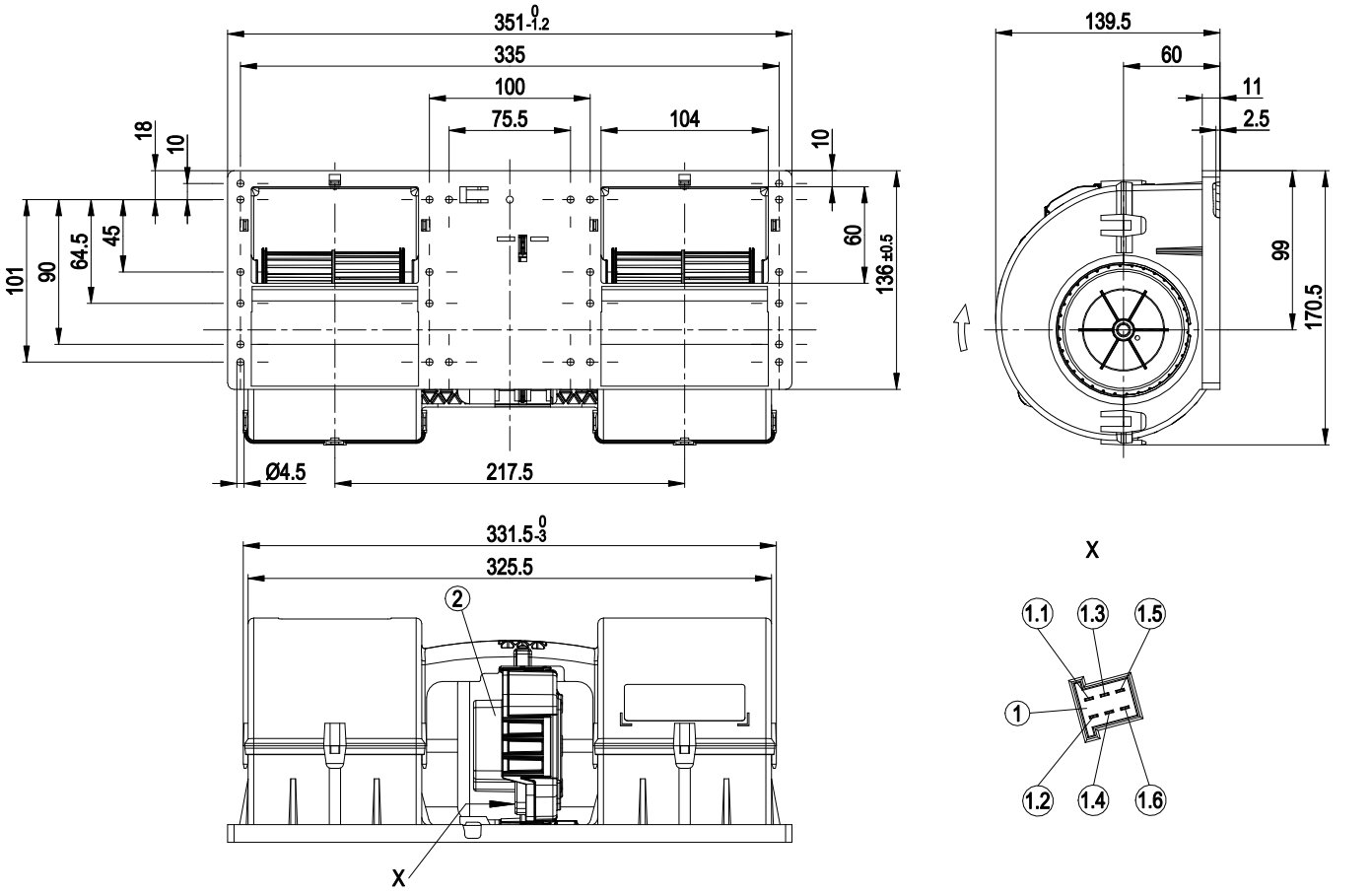
Product drawing



1	6-pole coded header tyco Junior Power Timer
	cable (460 mm) with mating connector, part no. 02001-4-1021 not included in scope of delivery
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
2	Electronics cover blue (RAL 5015)

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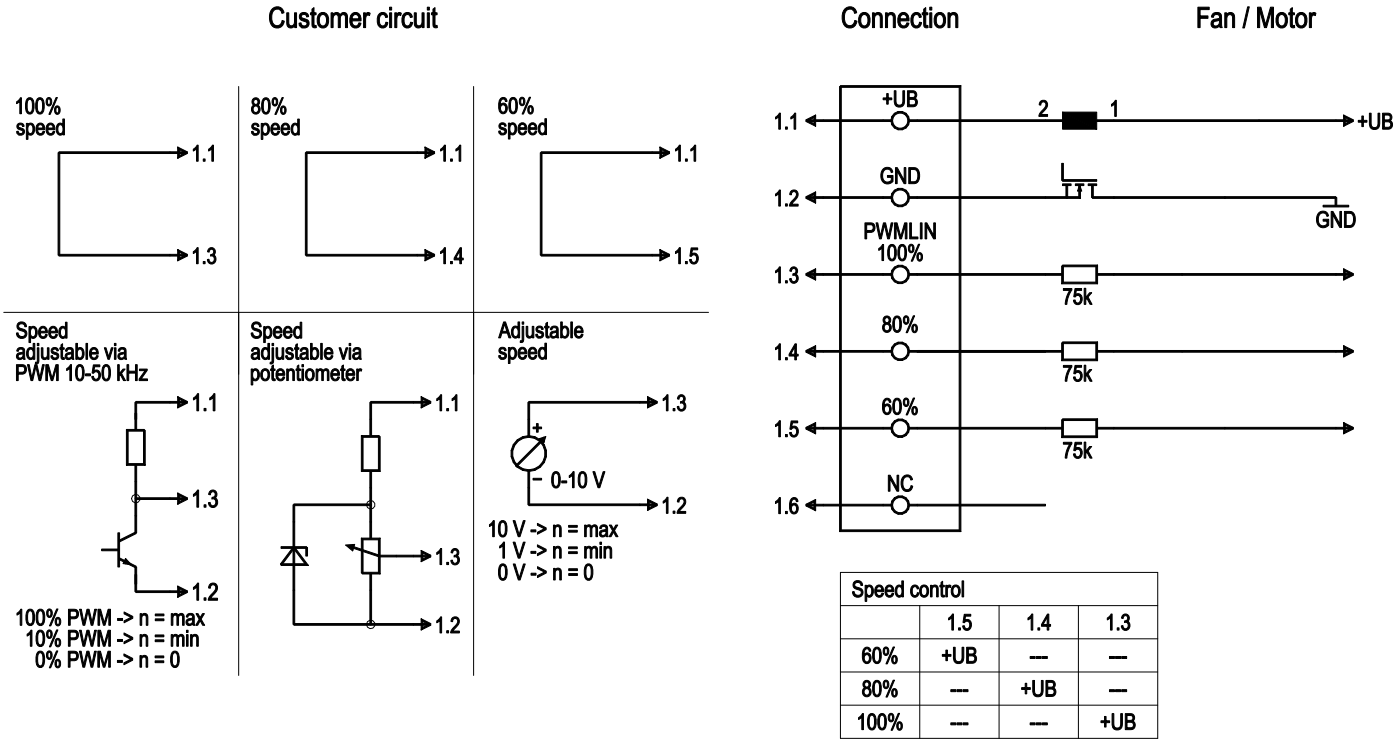
Connection diagram



Speed control			
	1.5	1.4	1.3
60%	+UB	---	---
80%	---	+UB	---
100%	---	---	+UB

No.	Conn.	Designation	Function/assignment
	1.1	+UB	Power supply
	1.2	GND	Power supply GND, reference ground
	1.3	100%, PWM/LIN	100% speed, analog voltage control input 0-10 V or PWM
	1.4	80%	80% speed
	1.5	60%	60% speed
	1.6	NC	Not used / no function

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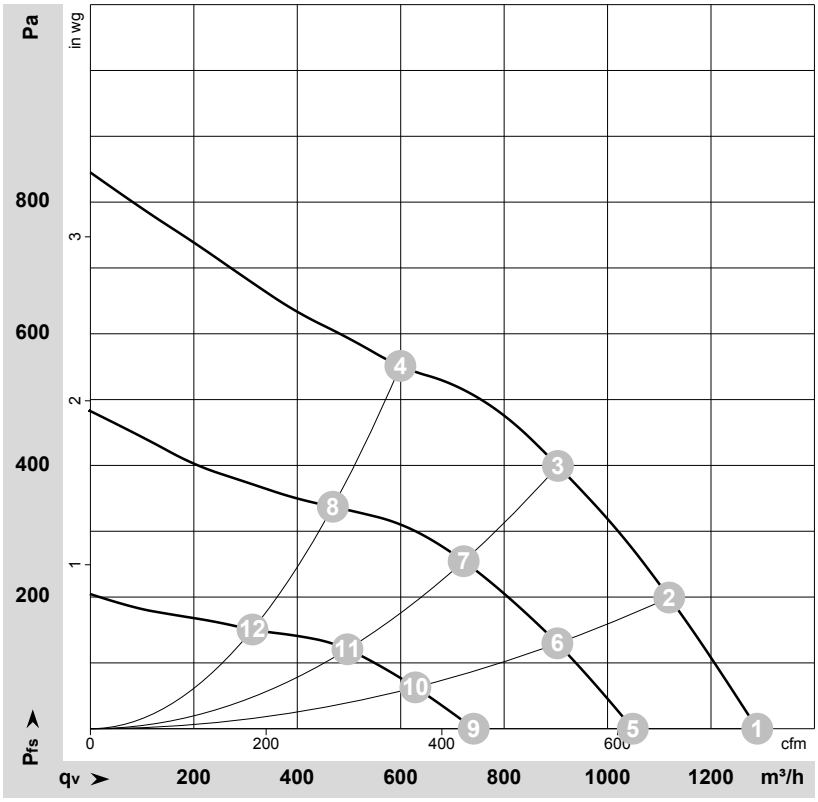
Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-74436-1
Measurement: LU-74437-1
Measurement: LU-74438-1

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

	Stage	U	n	P_{ed}	I	qv	p_{fs}	qv	p_{fs}
		V	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	100%	26	3830	394	15.20	1290	0	760	0.00
2	100%	26	4075	353	13.53	1120	200	660	0.80
3	100%	26	4320	294	11.29	905	400	530	1.61
4	100%	26	4670	233	8.92	600	550	355	2.21
5	80%	26	3145	215	8.28	1050	0	615	0.00
6	80%	26	3315	188	7.24	905	130	530	0.52
7	80%	26	3470	155	5.97	720	255	425	1.02
8	80%	26	3670	118	4.51	470	337	275	1.35
9	60%	26	2245	79	3.06	740	0	435	0.00
10	60%	26	2325	68	2.61	630	63	370	0.25
11	60%	26	2415	56	2.15	495	121	295	0.49
12	60%	26	2490	42	1.63	315	150	185	0.60

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

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