K3G097-AK68-85

EC dual centrifugal fan

forward-curved, with brushless DC motor

with housing, Automotive

K3G097-AK68-85 ebmpapst Datasheet FansCo

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Nominal data

Type	**K3G097-AK68-85**	
Motor	**M3G074-CF**	
Nominal voltage	VDC	26
Nominal voltage range	VDC	16 .. 32
Method of obtaining data		fa
Speed (rpm)	min^{-1}	4600
Power consumption	W	690
Current draw	A	26.5
Min. ambient temperature	°C	-40
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 Commission Regulation (EU) 327/2011

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	44	35.4
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		52.6	44
05 Variable speed drive		Yes	

09 Power consumption P_e	kW	0.43
09 Air flow q_v	m³/h	750
09 Pressure increase p_{fs}	Pa	831
10 Speed (rpm) n	min^{-1}	5660
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-127030

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Technical description

Weight	2.4 kg
Size	97 mm
Motor size	74
Impeller material	PA plastic
Housing material	PA plastic
Number of blades	34
Balancing grade according to DIN ISO 1940-1	G 2.5
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	Motor IP24 KM, electronics IP6K9K
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
Cooling hole/opening	On rotor side
Mode	S1
Motor bearing	Ball bearing
Life expectancy	25,000 h (typical)
Technical features	- Fault output (open collector) - Load dump (58 V) - Motor current limitation - Soft start - Set value input Lin 0-10 VDC / PWM (1.4 V corresponds to V=min, 10 V corresponds to V=max) - Overvoltage detection - Thermal overload protection for electronics
EMC regulations	According to ECE R10 Rev. 3
Electrical hookup	Connector with cable
Motor protection	Reverse polarity and locked-rotor protection
With cable	Variable
Approval	EAC; E1
Sound level	76 dB(A), sound power level according to ISO 13347
Comment	Type approval number – 036432

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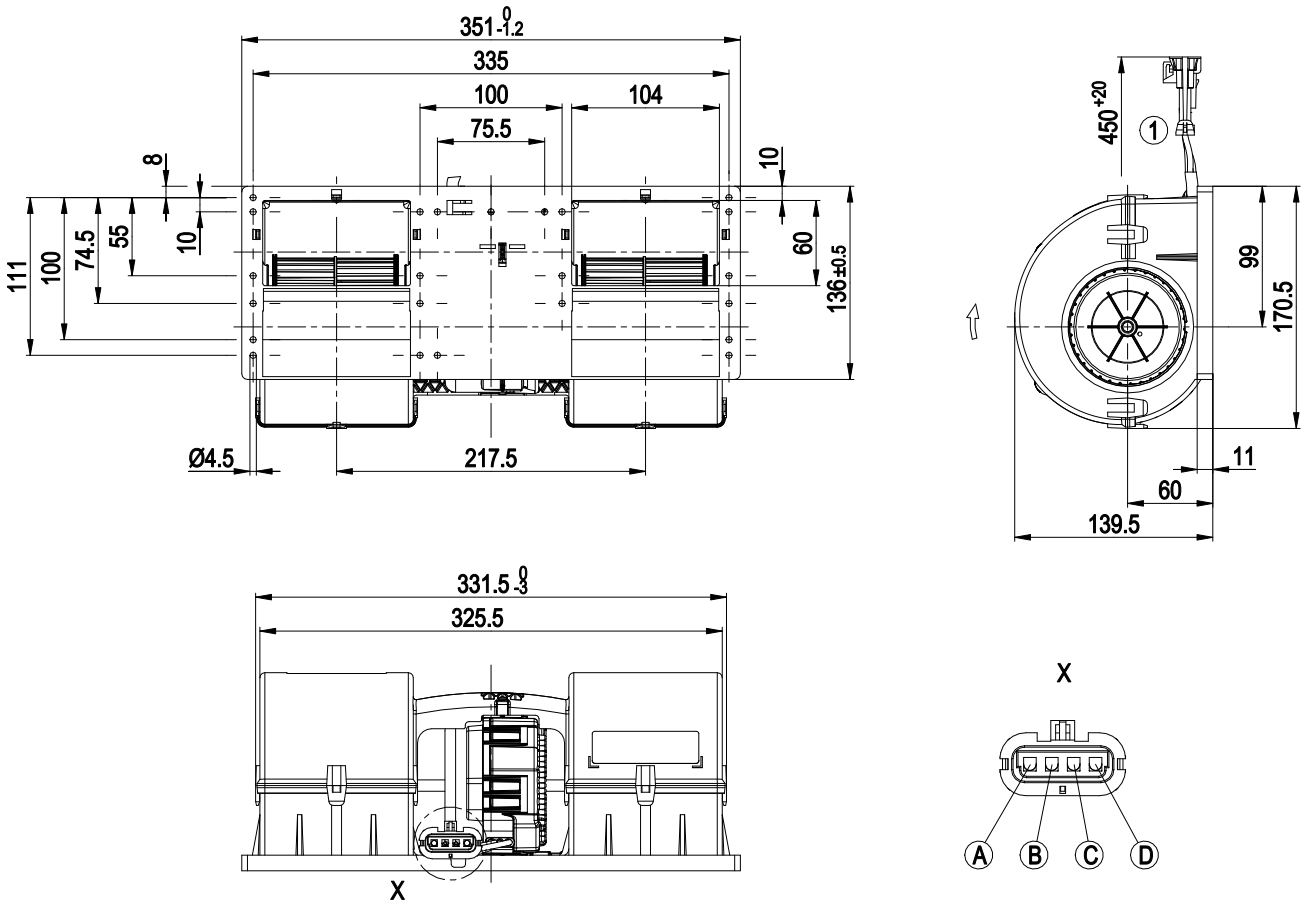
Product drawing



1	Cable with 4-pole coded plug Packard Electric 12010974
A	+ UB
B	PWM/LIN
C	Diagnostic output
D	GND

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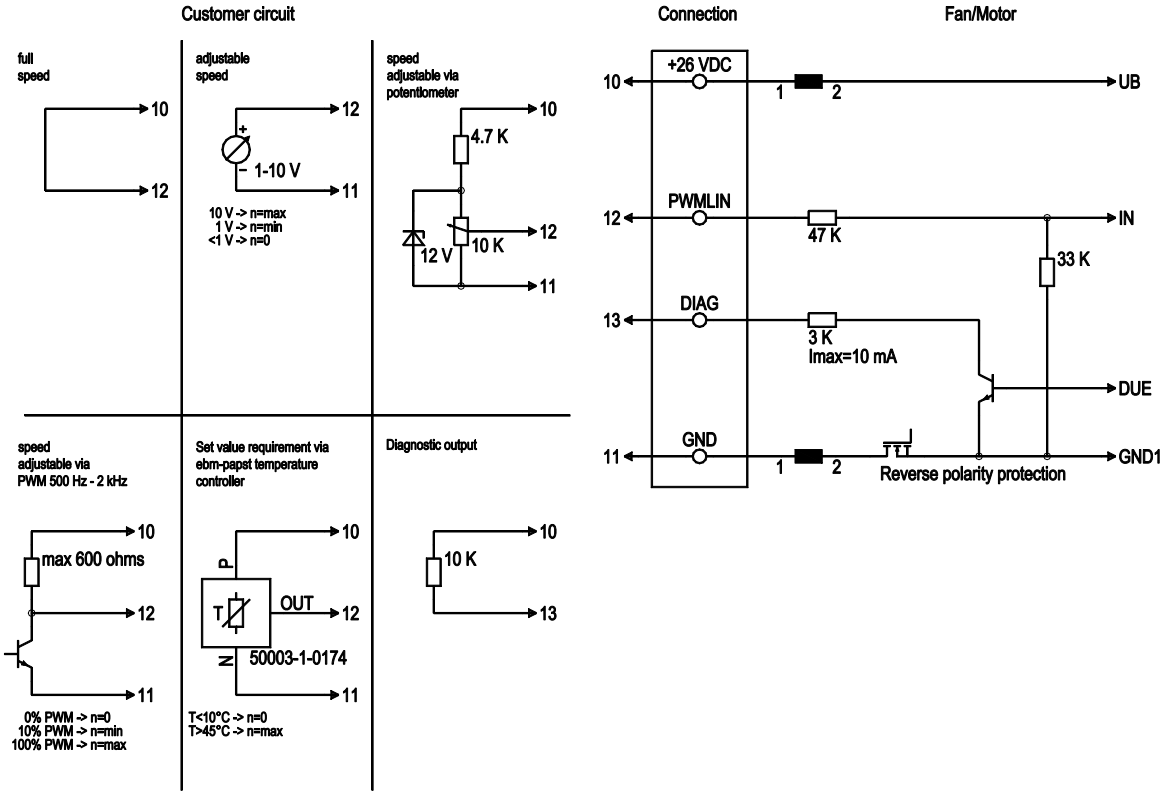
Connection diagram



No.	Conn.	Designation	Color	Function/assignment
10	A	+26 VDC	black	Power supply 26 VDC
11	D	GND	brown	Power supply GND, reference ground
12	B	PWM/LIN	yellow	Control input Re > 100 k
13	C	DIAG	white	Fan OK: high, fan error: low, Isink max=10 mA

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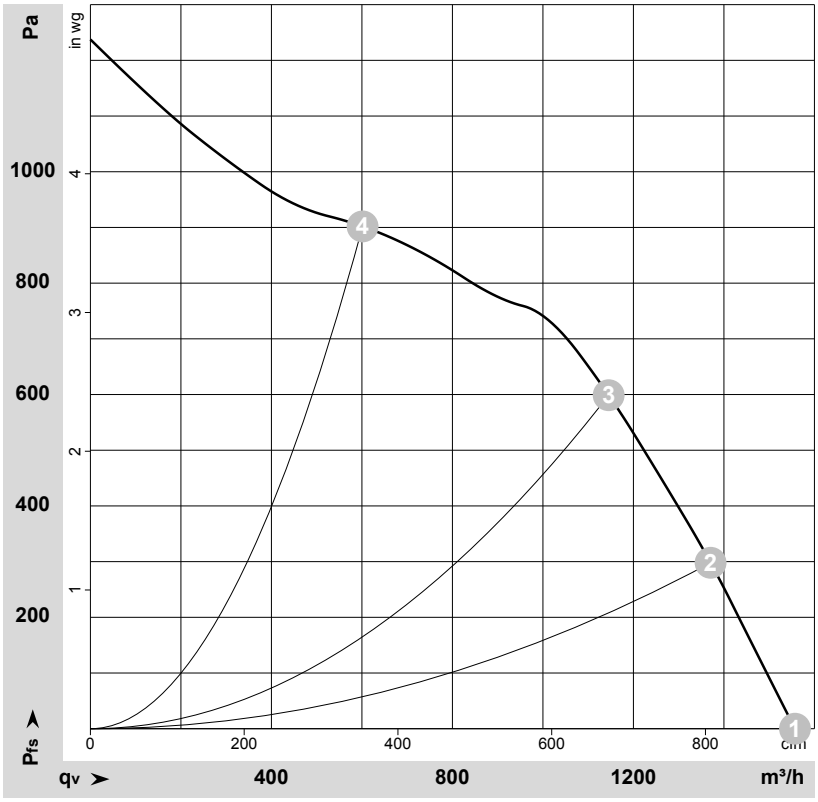
Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-126249-1

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	4600	690	26.50	1555	0	915	0.00
2	26	4940	644	24.70	1370	300	805	1.20
3	26	5265	574	22.01	1145	600	675	2.41
4	26	5715	369	14.17	600	900	355	3.61

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