

K3G097-BF22-02

EC dual centrifugal fan

forward curved, dual inlet
with housing, Automotive



K3G097-BF22-02 ebmpapst Datasheet
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County court Stuttgart · HRA 590344

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Nominal data

Type	K3G097-BF22-02	
Motor	M3G084-BF	
Nominal voltage	VDC	26
Nominal voltage range	VDC	16 .. 32
Type of data definition		ml
Speed (rpm)	min ⁻¹	3700
Power input	W	305
Current draw	A	11.6
Min. back pressure	Pa	0
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	85

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

Data in accordance with ecodesign regulation EU 327/2011 (EN 17166)

		Actual	Request 2015		
01 Overall efficiency η_{es}	%	43.1	33.9	09 Power input P_e	kW
02 Measurement category		A		09 Air flow q_v	m ³ /h
03 Efficiency category		Static		09 Pressure increase p_{fs}	Pa
04 Efficiency grade N		53.2	44	10 Speed (rpm) n	min ⁻¹
05 Variable speed drive		Yes		11 Specific ratio*	

Data definition with optimum efficiency.
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

* Specific ratio = $1 + p_s / 100\,000\text{ Pa}$

LU-173172



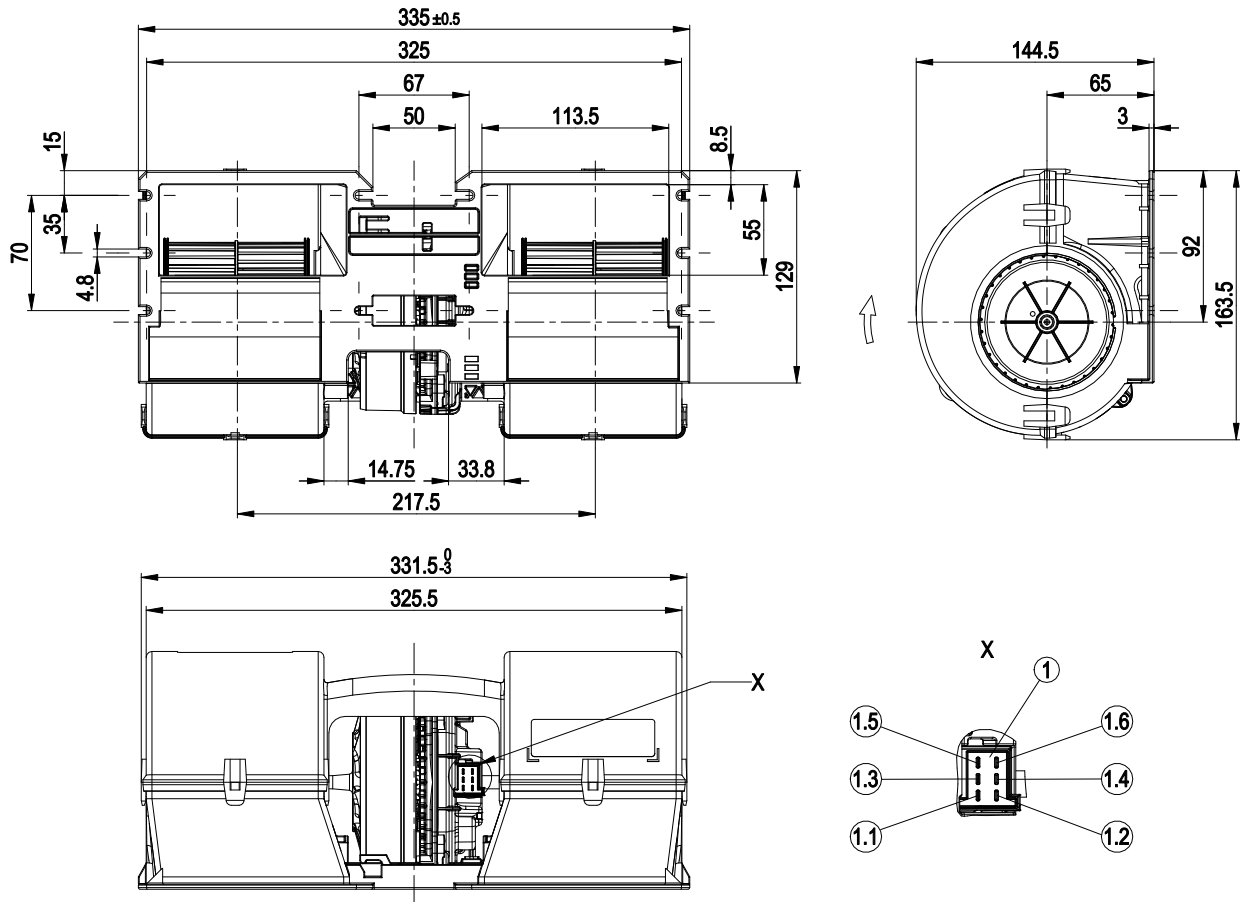
Technical features

Mass	2 kg
Size	97 mm
Motor size	84
Material of impeller	PA plastic
Housing material	PP plastic
Number of blades	34
Balance quality per DIN ISO 21940-11	G 2.5
Direction of rotation	Clockwise, seen on rotor
Type of protection	Motor IP24 KM
Insulation class	"B"
Humidity (F) / environmental protection class (H)	H1
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Any
Condensation drainage holes	None, open rotor
Operation mode	S1
Motor bearing	Ball bearing; (sealed)
Life expectancies	40,000 h (typical)
Technical features	<ul style="list-style-type: none"> - Lowering input - Fault output (high-side switch max. 30 mA) - INVLIN (control input, inverse linear) - Load dump (58 V) - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Temperature derating - Overvoltage detection - Over-temperature protected electronics - Line undervoltage detection
EMC directives	As per ECE R10 Rev. 5
Electrical connection	Plug; Standby current less than 500 µA
Motor protection	Reverse polarity and locked-rotor protection
Approval	EAC; E1
Noise level	81 dB(A), sound power level as per ISO 13347
Remark	Type approval number – 057907

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Product drawing



1	Strip tyco Junior Power Timer, 6-pole, coded, connection line (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
1.4	INVLIN
1.5	ABSENK
1.6	Diagnostic output

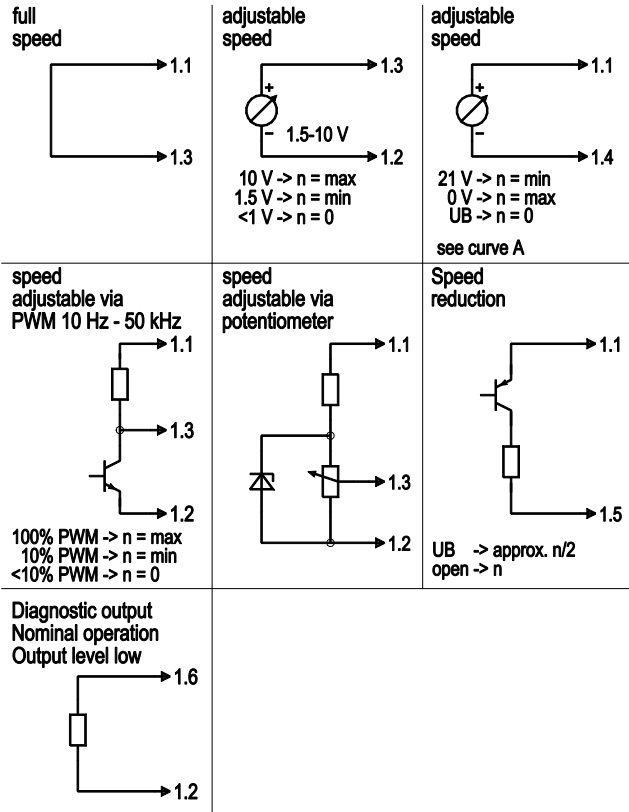


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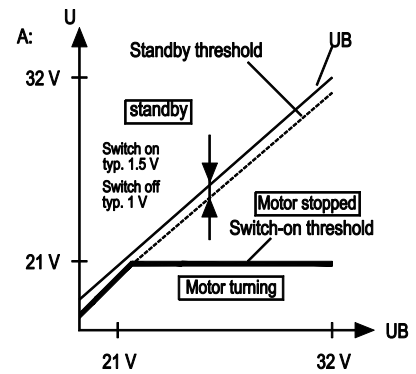
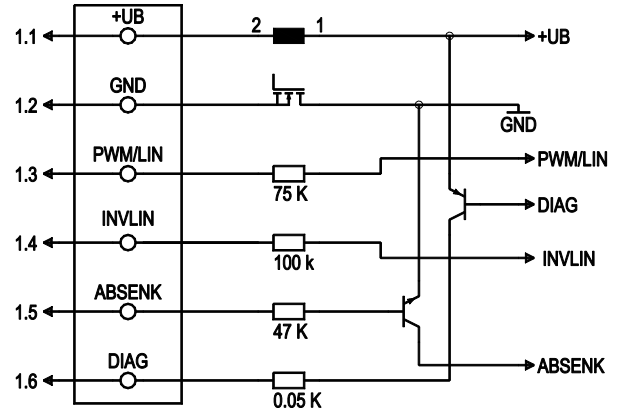
Connection screen

Customer circuit



Connection

Fan/Motor



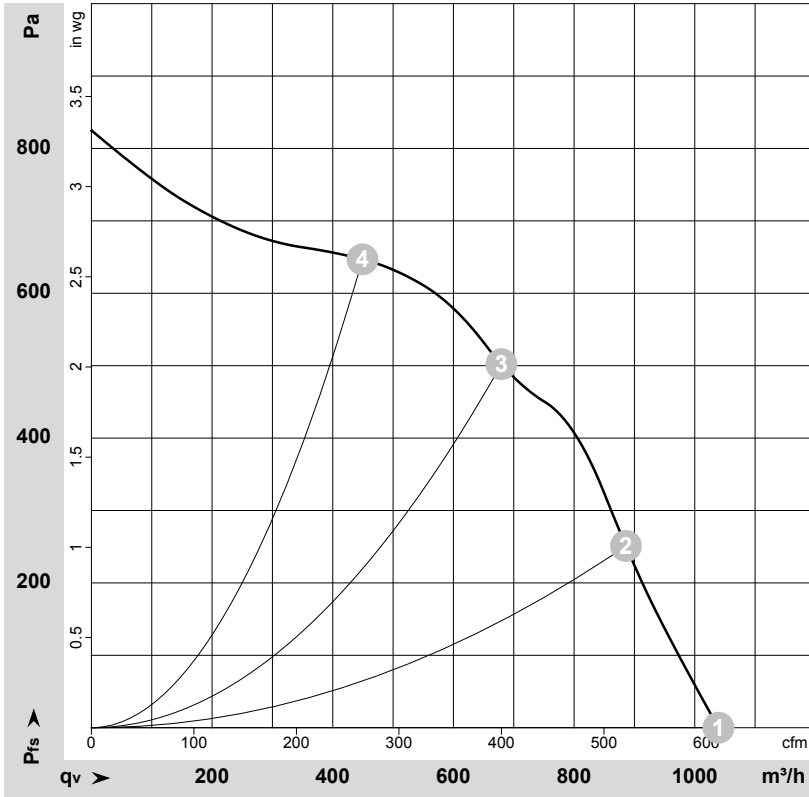
No.	Conn.	Designation	Function / assignment
1.1	+UB		Power supply
1.2	GND		Power supply GND, reference earth
1.3	PWM/LIN		Analogue voltage control input 0-10 V or PWM
1.4	INVLIN		Control input, inverse linear
1.5	ABSENK		Lowering input
1.6	DIAG		Diagnostic output



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Charts: Air flow



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-173172-1

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebmpapst. Suction-side noise levels: L_{wA} measured as per ISO 13347 / L_{pA} measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	U	n	P _{ed}	I	LpA _{in}	LwA _{in}	q _v	P _{fs}	q _v	P _{fs}
	V	min ⁻¹	W	A	dB(A)	dB(A)	m ³ /h	Pa	cfm	in. wg
1	26	3700	305	11.60	69	80	1040	0	610	0.00
2	26	4060	284	10.91	68	78	885	250	520	1.00
3	26	4580	263	10.10	68	78	680	500	400	2.01
4	26	4980	217	8.35	69	80	450	650	265	2.61

U = Supply voltage · n = Speed (rpm) · P_{ed} = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · q_v = Air flow · p_{fs} = Pressure increase

