K3G097-AF22-02

EC centrifugal fan combination

forward-curved, dual-intake

with housing, Automotive

K3G097-AF22-02 ebmpapst Datasheet

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Nominal data

Type	**K3G097-AF22-02**	
Motor	**M3G084-BF**	
Nominal voltage	VDC	26
Nominal voltage range	VDC	16 .. 32
Method of obtaining data		ml
Speed (rpm)	min-1	3500
Power consumption	W	325
Current draw	A	12.5
Min. back pressure	Pa	0
Min. back pressure	in. wg	0
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	85

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}	%	47.5	34.1
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		57.4	44
05 Variable speed drive		Yes	

09 Power consumption P_e	kW	0.27
09 Air flow q_v	m³/h	700
09 Pressure increase p_{fs}	Pa	599
10 Speed (rpm) n	min-1	4770
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-175827

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Technical description

Weight	2 kg
Size	97 mm
Motor size	84
Impeller material	PA plastic
Housing material	PP 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	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
Mode	S1
Motor mounting	Ball bearing
Motor bearing	(sealed)
Life expectancy	40,000 h (typical)
Technical features	- Lowering input - Fault output (high-side switch max. 30 mA) - INVLIN (inverse linear control input) - 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
EMC regulations	According to ECE R10 Rev. 5
Electrical hookup	Plug; Standby current less than 500 µA
Motor protection	Reverse polarity and locked-rotor protection
Approval	EAC; E1
Sound level	81 dB(A), sound power level according to ISO 13347
Comment	Type approval number – 057907

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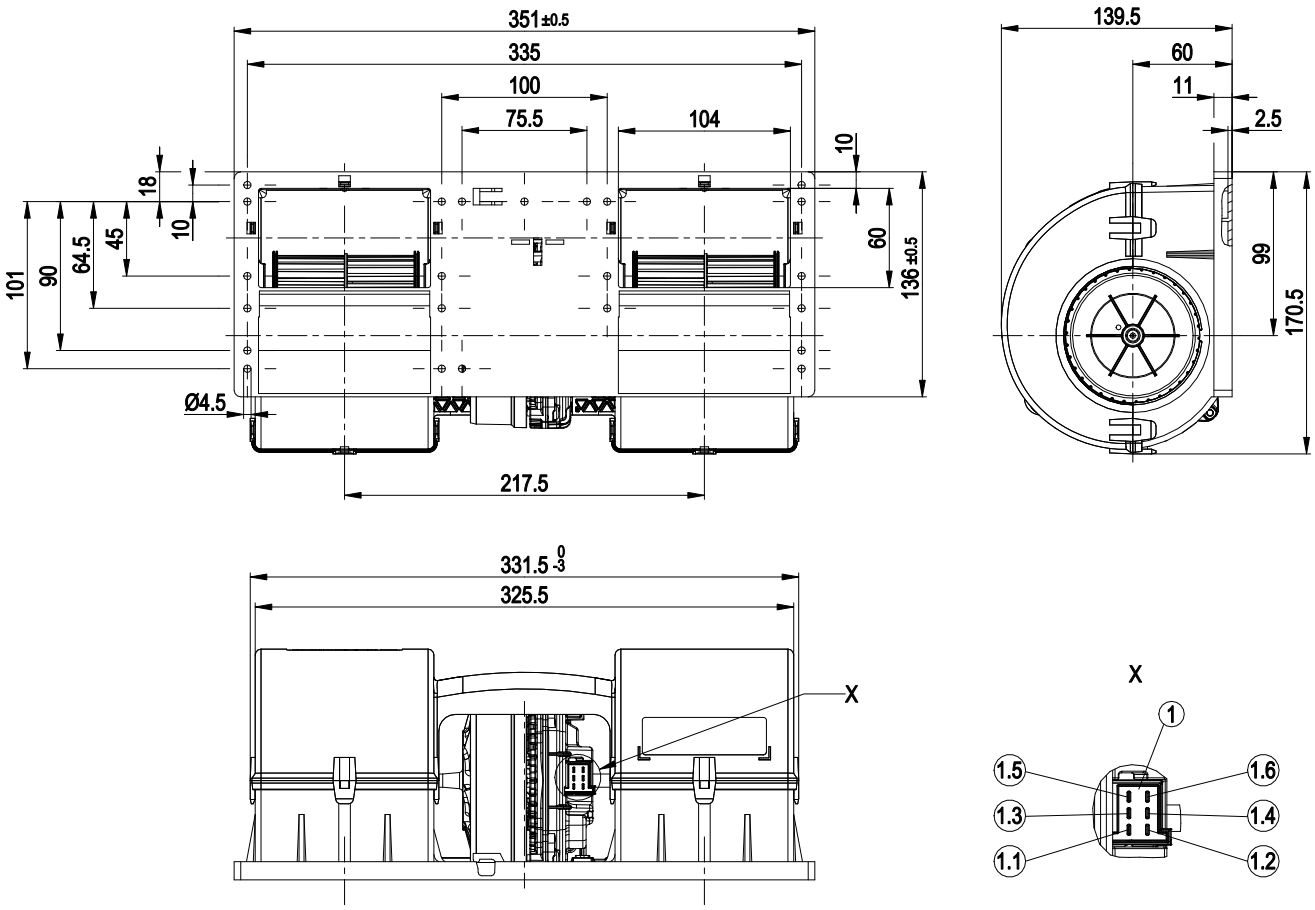
Product drawing



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
1.4	INVLIN
1.5	ABSENK
1.6	Diagnostic output

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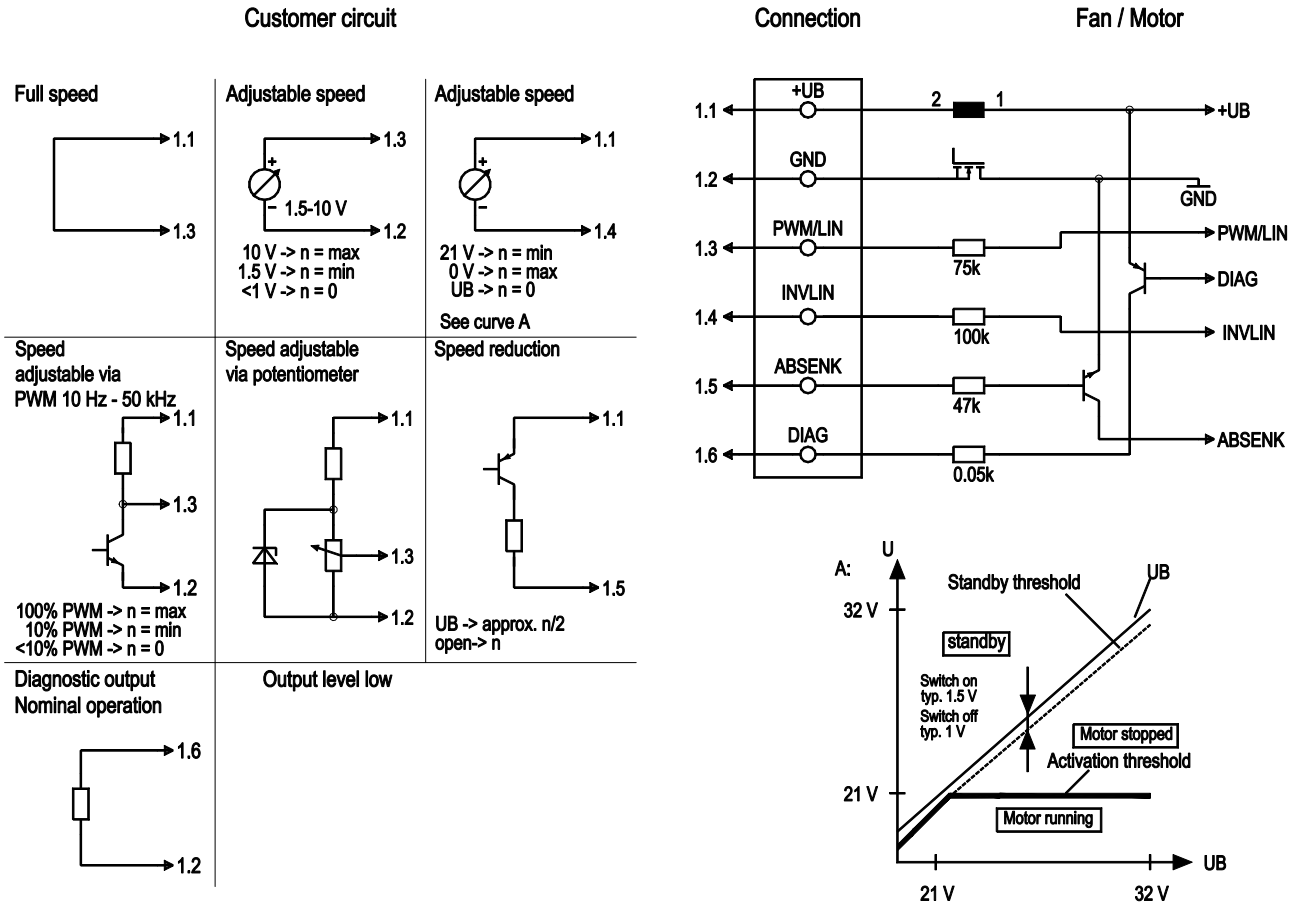
Connection diagram



No.	Conn.	Designation	Function/assignment
	1.1	+UB	Power supply
	1.2	GND	Power supply GND, reference ground
	1.3	PWM/LIN	Analog 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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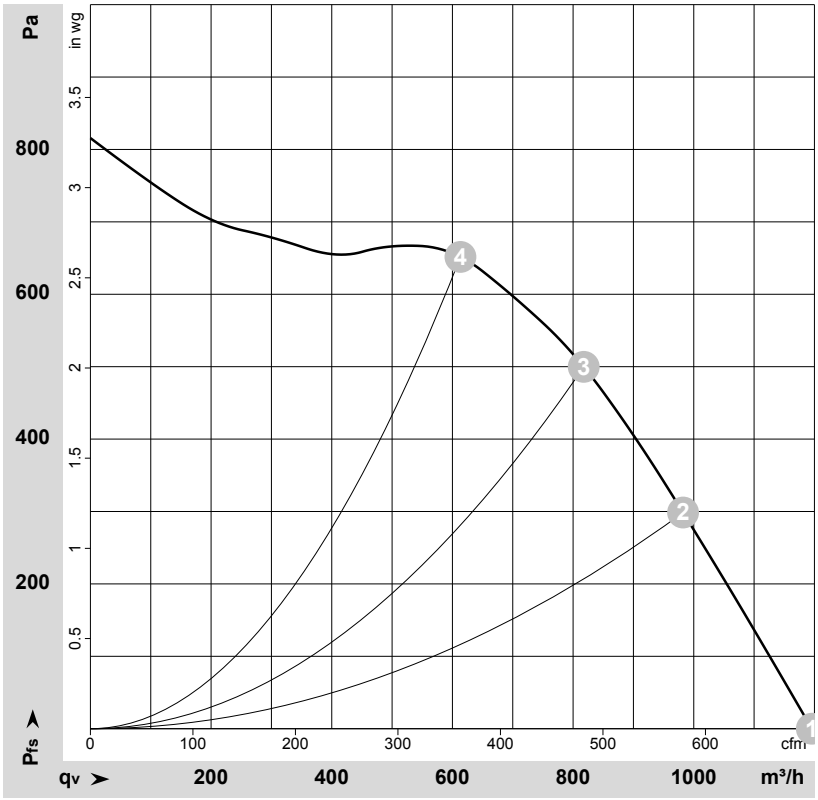
Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-175827-1

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	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	3500	325	12.50	71	81	1195	0	705	0.00
2	26	4045	301	11.55	70	80	980	300	580	1.20
3	26	4460	283	10.87	70	80	820	500	480	2.01
4	26	4965	270	10.37	70	80	615	650	360	2.61

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