K3G097-AS82-07

EC dual centrifugal fan

forward-curved, with brushless DC motor

with housing, Automotive



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Nominal data

Type	**K3G097-AS82-07**	
Motor	**M3G084-BF**	
Nominal voltage	VDC	26
Nominal voltage range	VDC	16 .. 32
Frequency	Hz	DC
Method of obtaining data		ml
Speed (rpm)	min^{-1}	4680
Power consumption	W	740
Current draw	A	28
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

Data according to Commission Regulation (EU) 327/2011

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	45.4	35.2
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		54.2	44
05 Variable speed drive		Yes	

09 Power consumption P_e	kW	0.4
09 Air flow q_v	m^3/h	725
09 Pressure increase p_{fs}	Pa	817
10 Speed (rpm) n	min^{-1}	5510
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-175168

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Technical description

Weight	2 kg
Fan size	97 mm
Impeller material	PA plastic
Housing material	PP plastic
Balancing grade according to DIN ISO 1940-1	G 2.5
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP24 KM; (Motor); electronics IP 6K9K
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H4
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 bearing	Ball bearing; (sealed)
Life expectancy	40,000 h (typical)
Technical features	- Load dump (58 V) - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Temperature derating - Thermal overload protection for electronics
Electrical hookup	With plug; Standby current less than 500 µA
Motor protection	Reverse polarity and locked-rotor protection
Approval	EAC

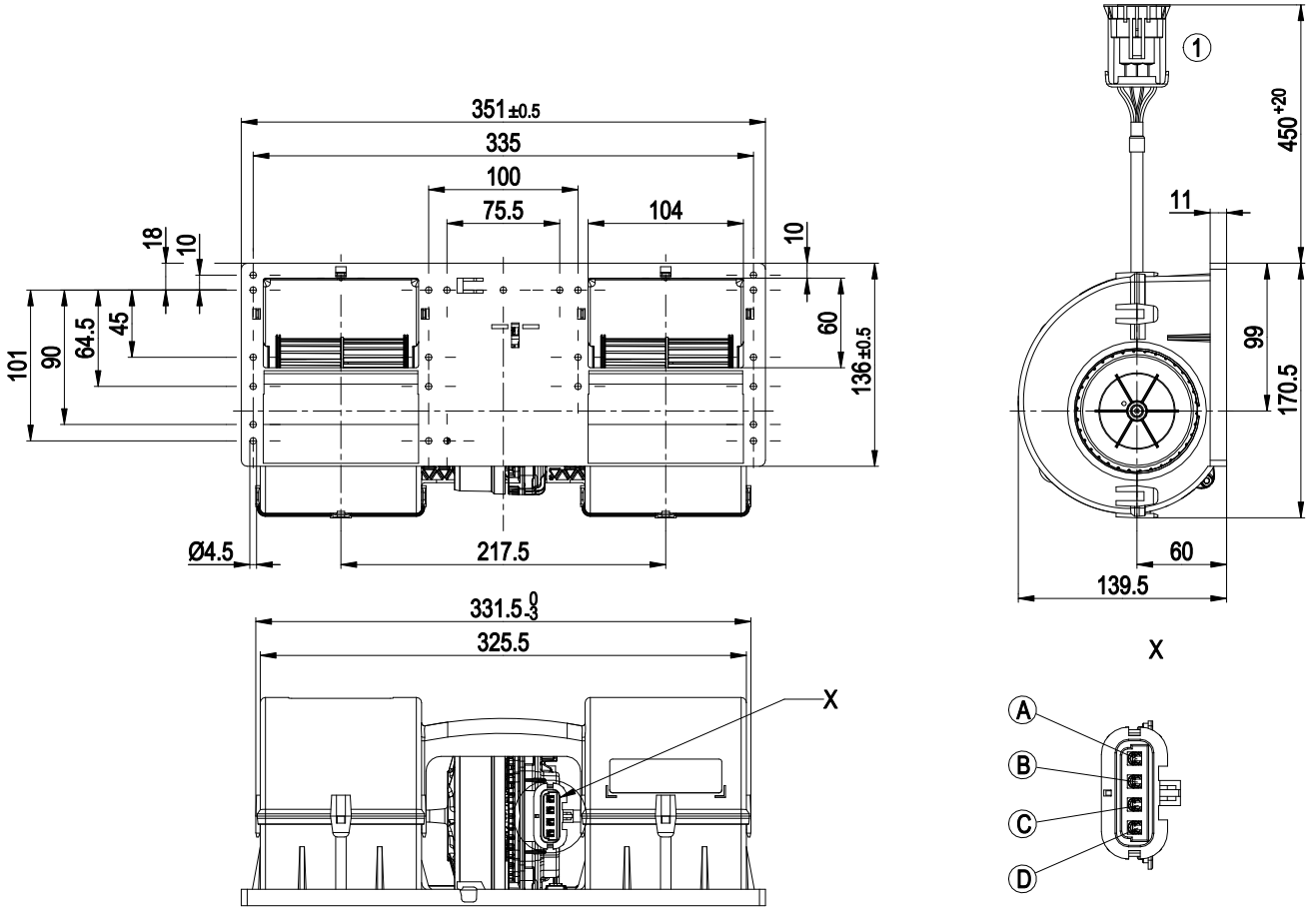
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Product drawing



1	Cable with 4-pole plug Packard Electric 12129600, coded
A	+ UB
D	GND
B	PWM/LIN
C	Diagnostic output

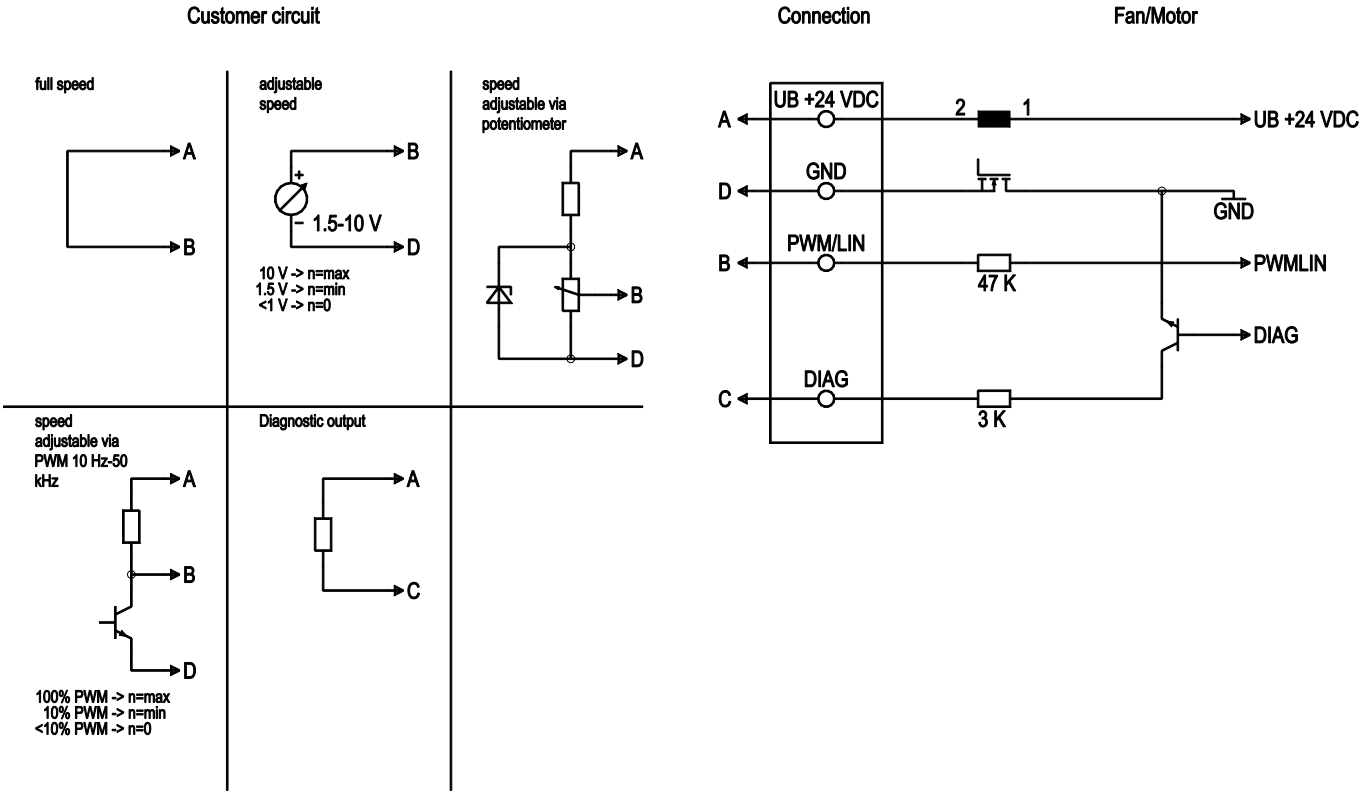
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Connection diagram



No.	Conn.	Designation	Function/assignment
	A	UB +24 VDC	Power supply 24 VDC
	D	GND	Power supply GND, reference ground
	B	PWM/LIN	Analog voltage control input 0-10 V or PWM
	C	DIAG	Fan OK: high, fan error: low, Isink max = 10 mA

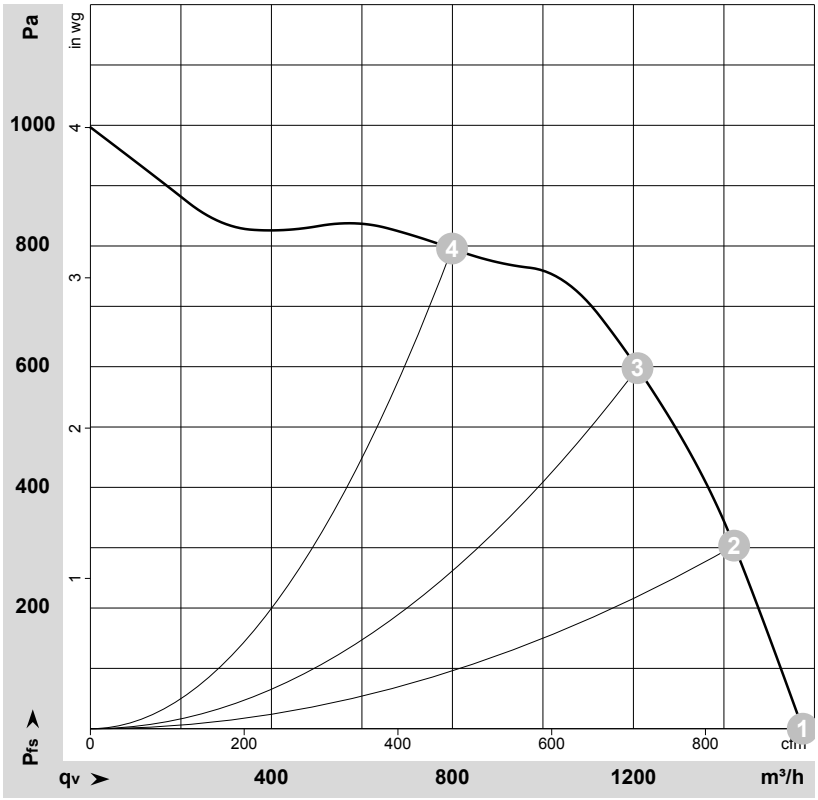
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Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-175168-1

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	4680	740	28.00	78	88	1575	0	925	0.00
2	26	5025	740	28.00	76	87	1425	300	840	1.20
3	26	5380	659	25.31	75	85	1210	600	710	2.41
4	26	5500	441	16.92	73	84	800	800	470	3.21

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

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