K3G097-AK68-84

EC dual centrifugal fan

forward-curved, with brushless DC motor

with housing, for rail applications

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**K3G097-AK68-84**	
Motor	**M3G074-CF**	
Nominal voltage	VDC	26
Nominal voltage range	VDC	16 .. 32
Method of obtaining data		fa
Speed (rpm)	min^{-1}	4800
Power consumption	W	740
Current draw	A	28.5
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

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Technical description

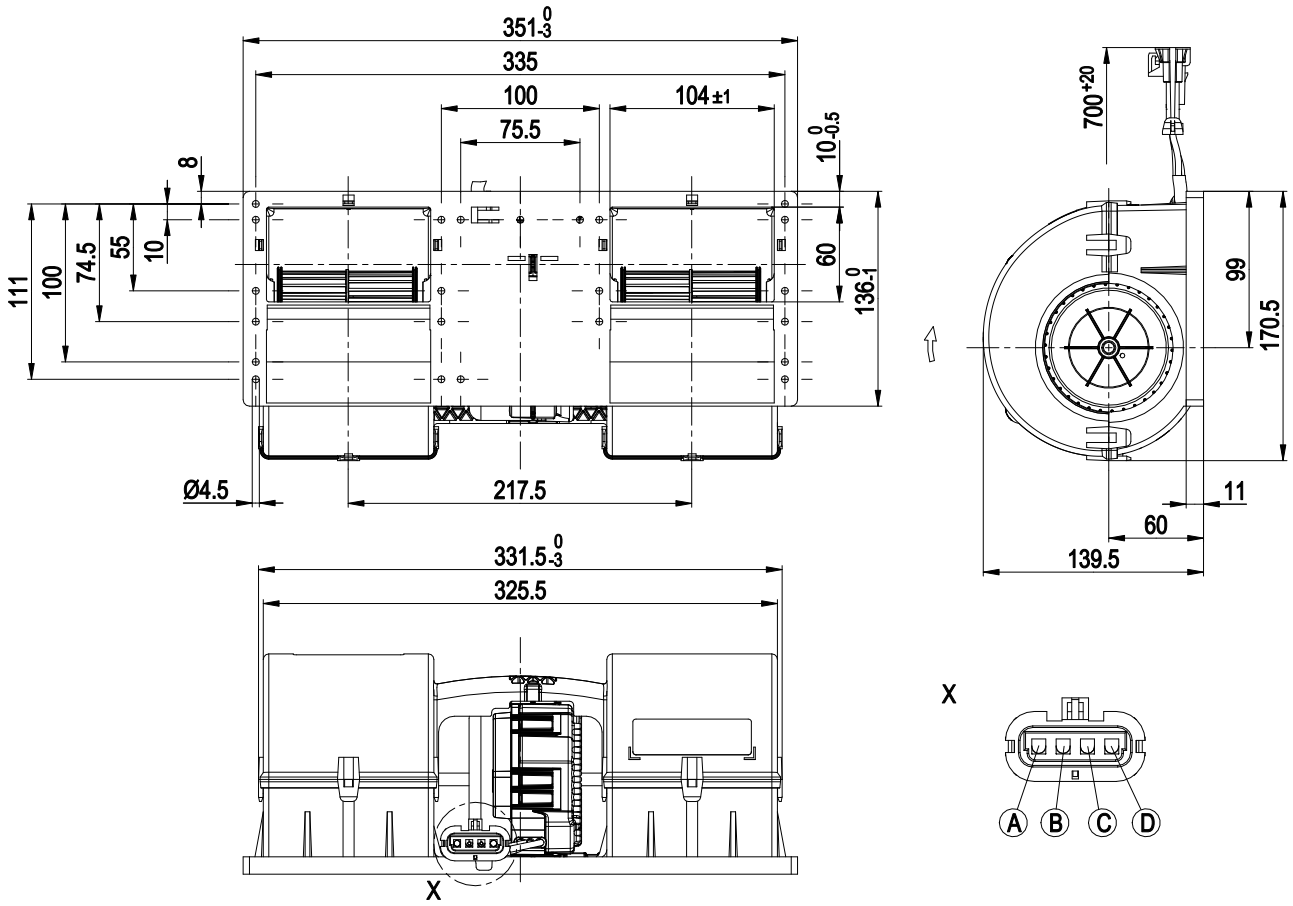
Weight	2.6 kg
Size	97 mm
Motor size	74
Impeller material	PA plastic
Housing material	PA plastic
Number of blades	34
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	Motor IP24 KM, electronics IP6K9K
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1
Ambient temperature note	Occasional start-up at temperatures between -40°C and -25°C is permitted. For continuous operation at ambient temperatures below -25°C (such as refrigeration applications), use must be made of a fan design with special low-temperature bearings.
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Any
Condensation drainage holes	None
Cooling hole/opening	On rotor side
Mode	S1
Motor bearing	Ball bearing; (sealed)
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	E1
Comment	Type approval number – 036432

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Product drawing



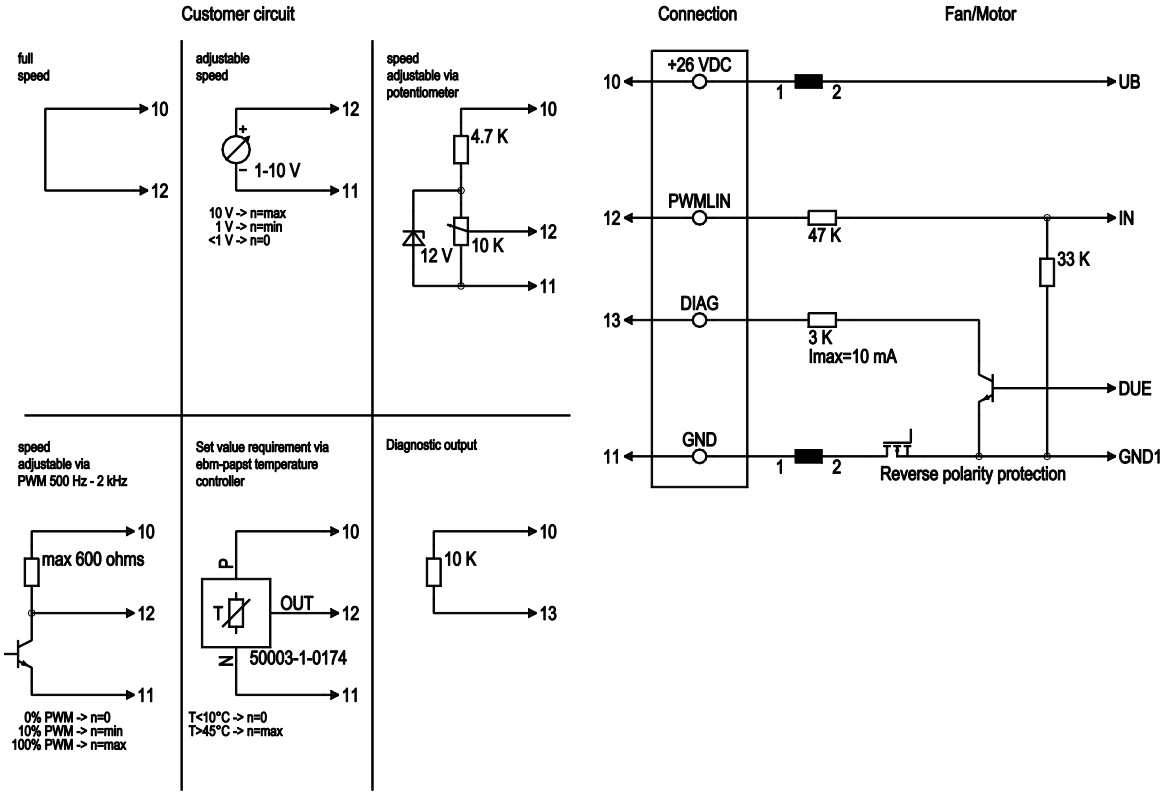
1	Cable Betatherm 2x 0.75 mm², 2x 4 mm²
	4-pole connector housing Aptiv 12129600
A	+ UB
B	PWM/LIN
C	Diagnostic output
D	GND

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Connection diagram



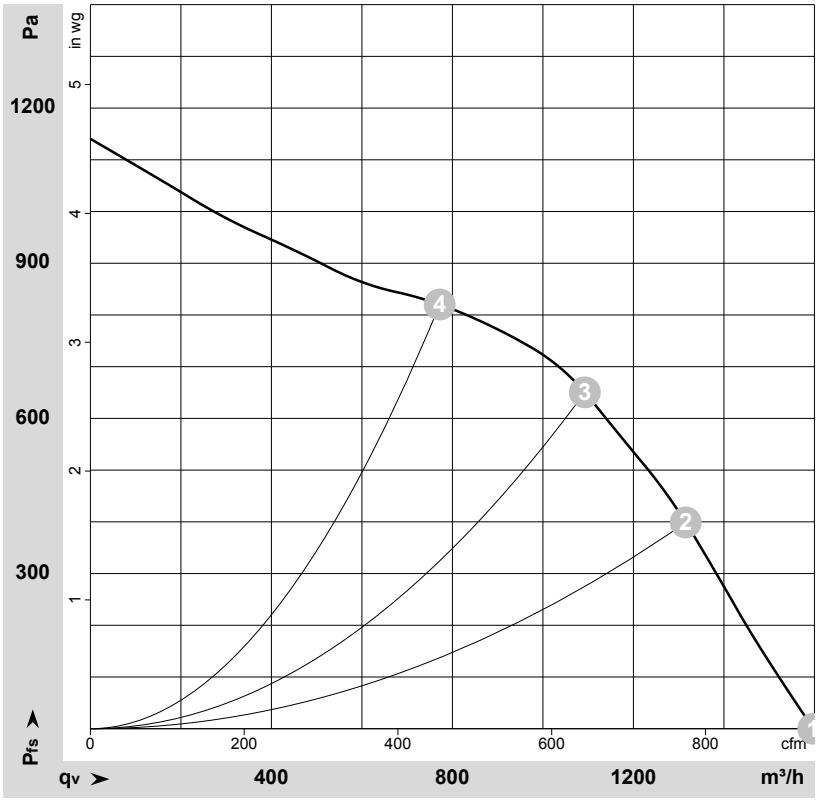
No.	Conn.	Designation	Color	Function/assignment
10	A	+26 VDC	black	Power supply 26 VDC
11	D	GND	brown	Power supply GND, reference ground
12	B	PWM/LIN	yellow	Control input Re > 100 k
13	C	DIAG	white	Fan OK: high, fan error: low, Isink max=10 mA

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Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-127030-1

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	4800	740	28.50	1595	0	940	0.00
2	26	5150	650	24.93	1315	400	775	1.61
3	26	5385	569	21.84	1095	650	645	2.61
4	26	5640	447	17.17	770	820	455	3.29

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

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