K3G097-AK68-80

EC dual centrifugal fan

forward curved, dual inlet

with housing, for railway applications

K3G097-AK68-80 ebmpapst Datasheet
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County court Stuttgart · HRA 590344

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County court Stuttgart · HRB 590142

ErP2015 EXCEEDS THE NORM

Nominal data

Type	**K3G097-AK68-80**	
Motor	**M3G074-CF**	
Nominal voltage	VDC	26
Nominal voltage range	VDC	16 .. 32
Type of data definition		fa
Speed	min^{-1}	4800
Power input	W	740
Current draw	A	28.5
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	60

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

Data according to ErP directive

Installation category	A
Efficiency category	Static
Variable speed drive	Yes
Specific ratio*	1.01

* Specific ratio = 1 + p_{fs} / 100 000 Pa

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	44	28.4	35.4
Efficiency grade N		52.6	37	44
Power input P_e	kW	0.43		
Air flow q_v	m^3/h	750		
Pressure increase p_{fs}	Pa	831		
Speed n	min^{-1}	5660		

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

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Technical features

Mass	2.6 kg
Size	97 mm
Material of impeller	PA UL94 V0 plastic
Housing material	PA UL94 V0 plastic
Number of blades	34
Balance quality according to DIN ISO 1940-1	G 2.5
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 24 KM
Insulation class	"B"
Humidity class	F3-2
Max. permissible ambient motor temp. (transp./ storage)	+85 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Any
Cooling bore / aperture	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Life expectancies	25,000 h (typical)
Technical features	- Fault output (open collector) -Load dump (58 V) - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Overvoltage detection - Over-temperature protected electronics - Line undervoltage detection
EMC directives	ECE R10 Rev.3
Electrical leads	Standby current less than 500 µA
Motor protection	Reverse polarity and locked-rotor protection
Cable exit	Variable
Approval	GOST; E1
Remark	According to EN 50155. Short-duration operation up to 85 °C possible.

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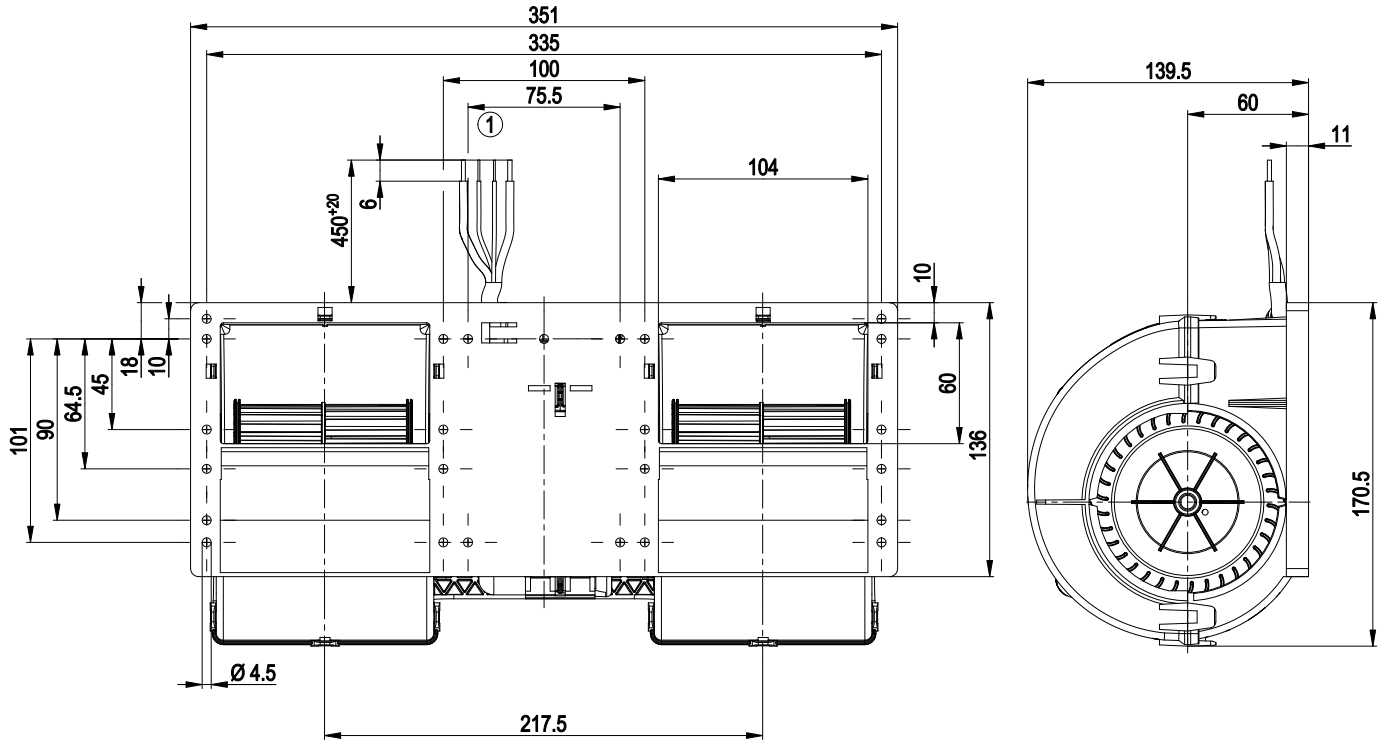
Product drawing



1	Lead wire Betatherm (6 mm bared and tin-plated) 2x 4.0 mm², 2x 0.75 mm²
	+ UB (black)
	PWM/LIN (yellow)
	Diagnostic output (white)
	GND (brown)

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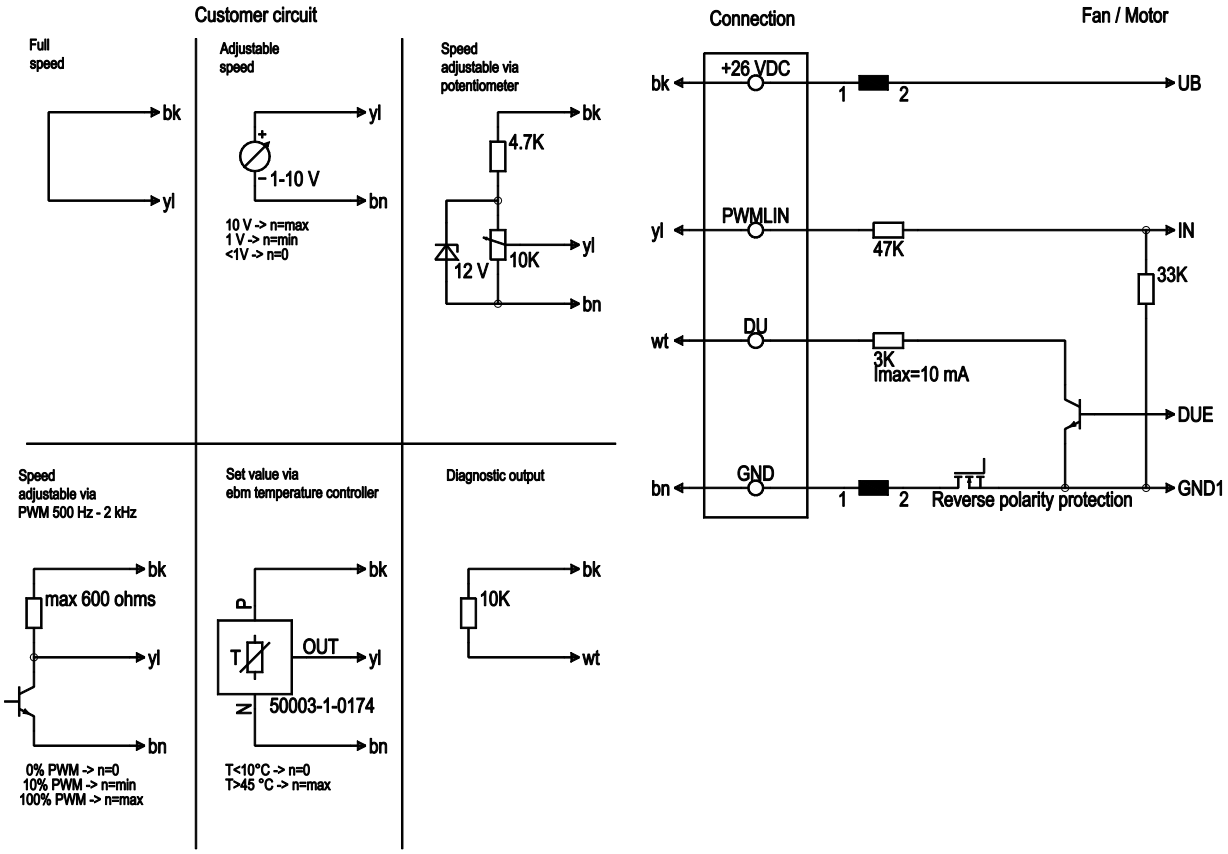
Connection screen



No.	Conn.	Designation	Colour	Function / assignment
	-	+26 VDC	black	Power supply 26 VDC
	-	GND	brown	Power supply GND, reference ground
	-	PWM/LIN	yellow	Control input Re > 100k
	-	DU	white	Fan OK: high, fan error: low, Isink max=10 mA

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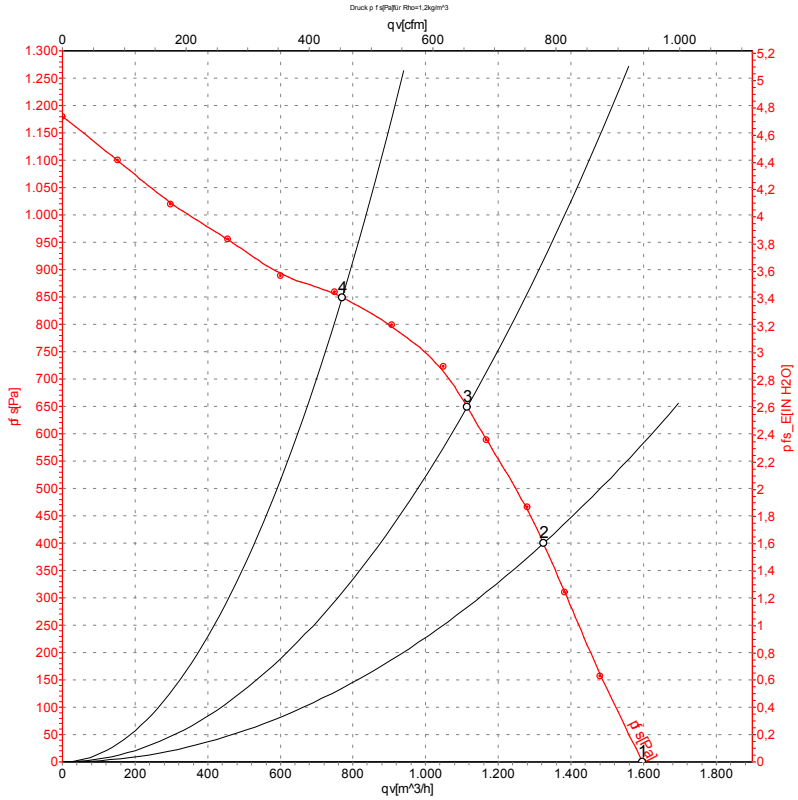
Charts: Air flow



Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA 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	qv	p_{fs}
	V	min^{-1}	W	A	m^3/h	Pa
1	26	4800	740	28.50	1600	0
2	26	5135	652	25.02	1325	400
3	26	5355	575	22.07	1115	650
4	26	5640	446	17.15	770	850

U = Supply voltage · n = Speed · P_{ed} = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase