K3G097-AK68-80

EC dual centrifugal fan

forward-curved, dual-intake

with housing, for rail applications



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Nominal data

Type	**K3G097-AK68-80**	
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

Data according to Commission Regulation (EU) 327/2011

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	44	35.4
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		52.6	44
05 Variable speed drive		Yes	

09 Power consumption P_e	kW	0.43
09 Air flow q_v	m³/h	750
09 Pressure increase p_{fs}	Pa	831
10 Speed (rpm) n	min^{-1}	5660
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-127030

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Technical description

Weight	2.6 kg
Fan size	97 mm
Impeller material	PA plastic UL94 V0
Housing material	PA plastic UL94 V0
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	F3-2
Max. permitted ambient temp. for motor (transport/storage)	+85 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Any
Cooling hole/opening	On rotor side
Mode	S1
Motor bearing	Ball bearing
Life expectancy	25,000 h (typical)
Technical features	- Fault output (open collector) - Load dump (58 V) - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Overvoltage detection - Thermal overload protection for electronics - Line undervoltage detection
EMC regulations	ECE R10 Rev. 3
Electrical hookup	Standby current less than 500 µA
Motor protection	Reverse polarity and locked-rotor protection
With cable	Variable
Approval	E1; EAC
Comment	According to EN 50155. Short-duration operation up to 85 °C possible.

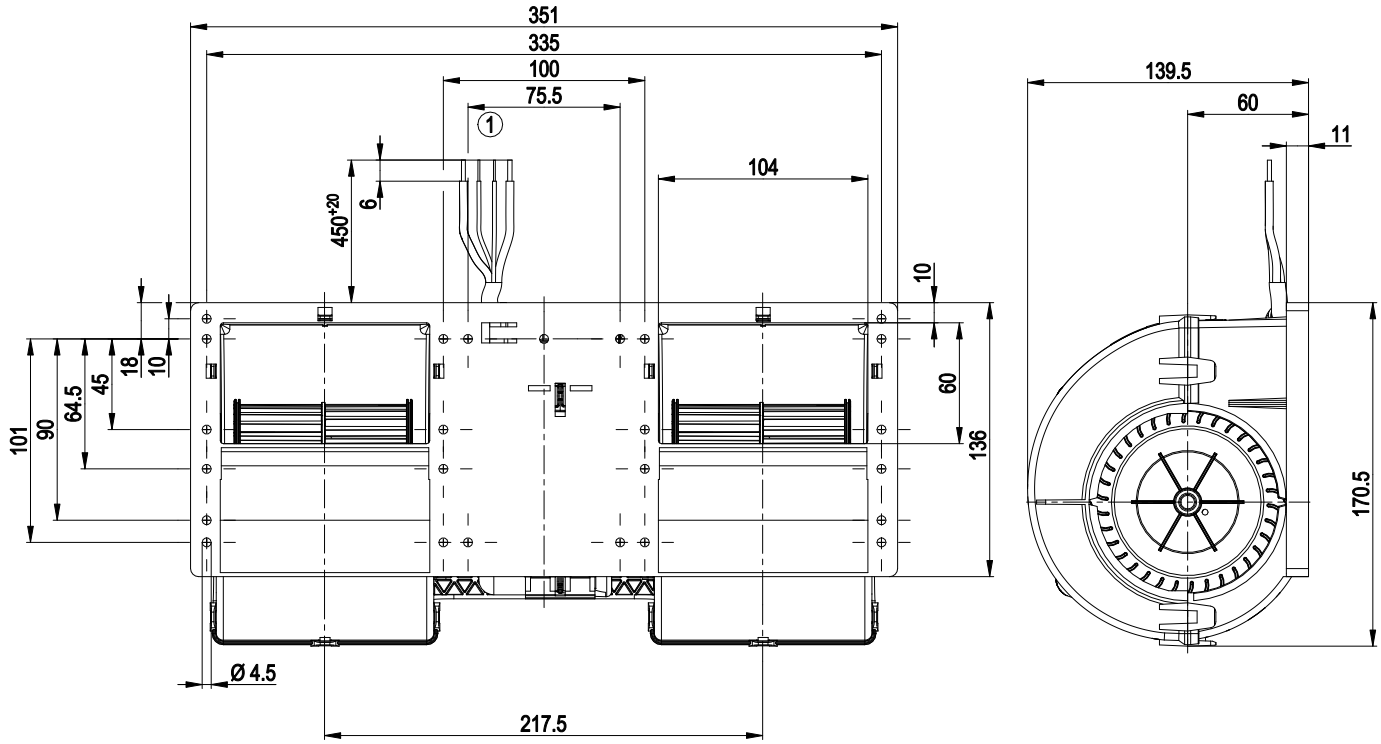
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Product drawing



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

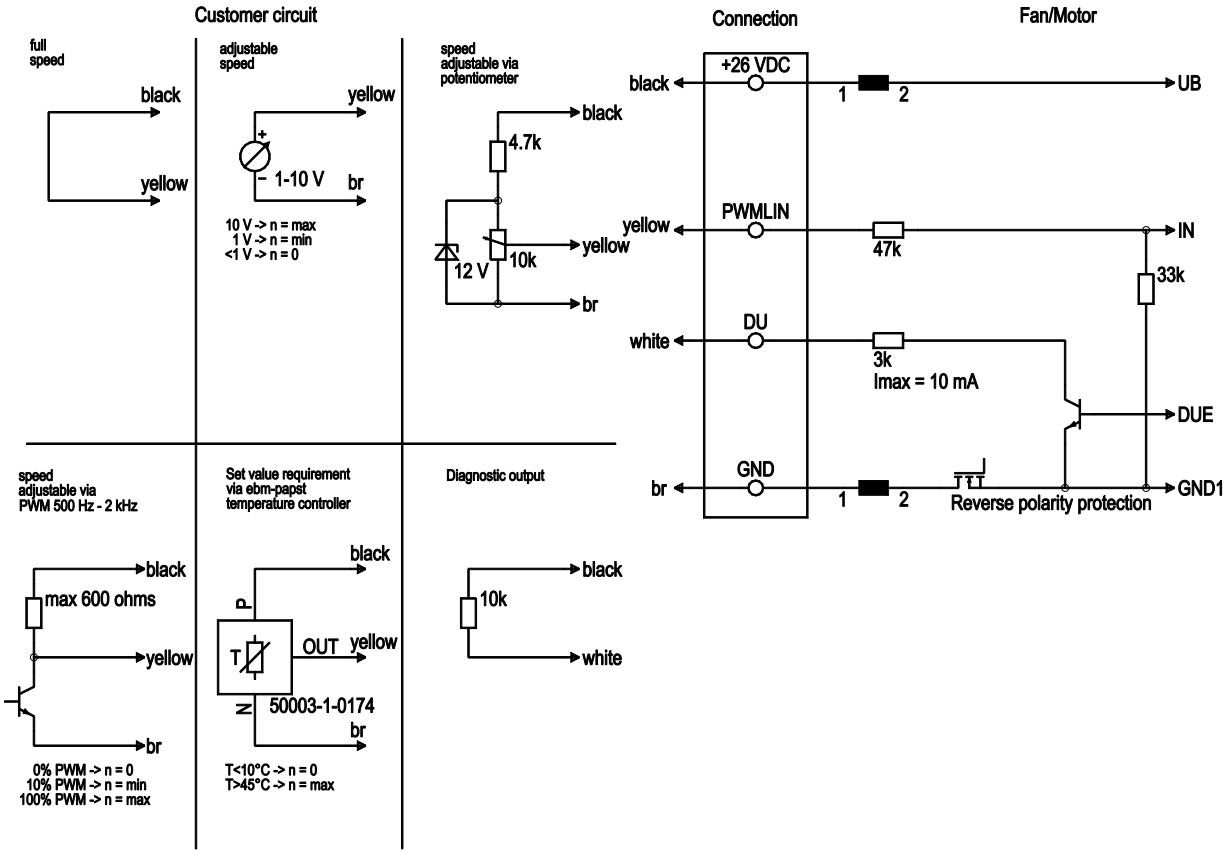
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Connection diagram



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

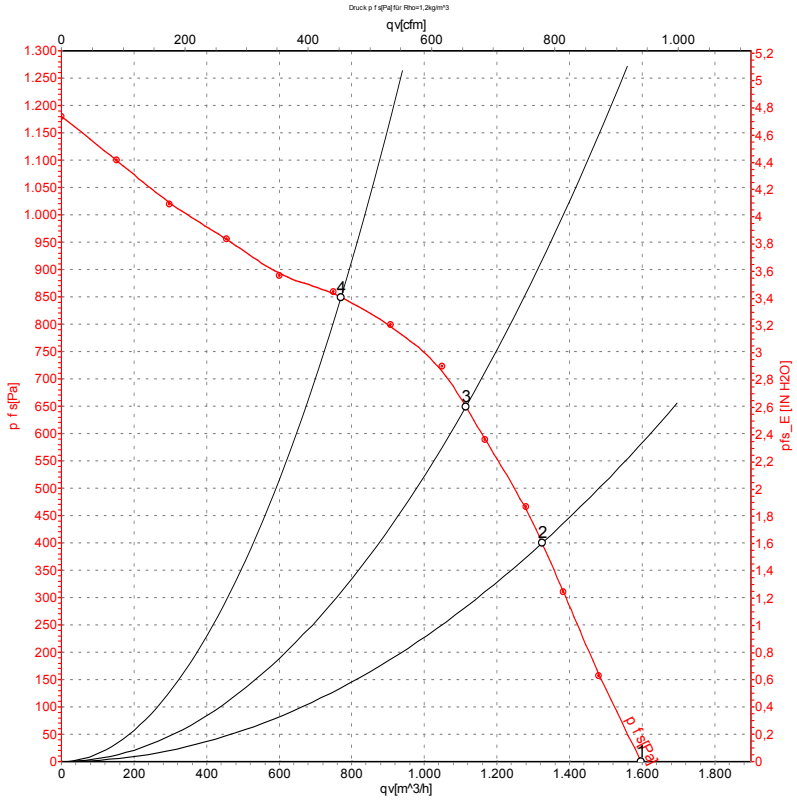
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Curves: Air performance



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	inH2O
1	26	4800	740	28.50	1600	0	940	0.00
2	26	5135	652	25.02	1325	400	780	1.61
3	26	5355	575	22.07	1115	650	655	2.61
4	26	5640	446	17.15	770	850	455	3.41

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

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