K3G097-AK34-65

EC dual centrifugal fan

forward curved, with brushless DC motor

with housing, Automotive



ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.com

Limited partnership · Headquarters Mulfingen
County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
County court Stuttgart · HRB 590142

ErP2015 EXCEEDS THE NORM

Nominal data

Type	**K3G097-AK34-65**	
Motor	**M3G074-CF**	
Nominal voltage	VDC	26
Nominal voltage range	VDC	16 .. 32
Type of data definition		ml
Speed	min^{-1}	3830
Power input	W	394
Current draw	A	15.2
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	70

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

		Actual	Request 2015
01 Overall efficiency η_{es}	%	45.5	33.9
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		55.6	44
05 Variable speed drive		Yes	

09 Power input P_e	kW	0.25
09 Air flow q_v	m^3/h	705
09 Pressure increase p_{fs}	Pa	526
10 Speed n	min^{-1}	4505
11 Specific ratio*		1.01

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

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

LU-74436

EC dual centrifugal fan

forward curved, with brushless DC motor
with housing, Automotive

Technical features

Mass	2 kg
Size	97 mm
Material of impeller	Plastic, PA UL94 HB (black)
Housing material	Plastic, PP (black)
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 (F)/environmental protection class (H)	F3-2
Max. permissible ambient motor temp. (transp./ storage)	+70 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Any
Condensate discharge holes	None, open rotor
Cooling bore / aperture	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Life expectancies	40,000 h (typical)
Technical features	- Start at 85 °C (2 min.) permitted -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	According to ECE R10 Rev. 3
Electrical leads	With plug; Standby current less than 500 µA
Motor protection	Reverse polarity and locked-rotor protection
Approval	E1; EAC
Noise level	76 dB(A), sound power level according to ISO 13347
Remark	Not approved at maximum back pressure for continuous operation at 85°C; type approval number - 036432

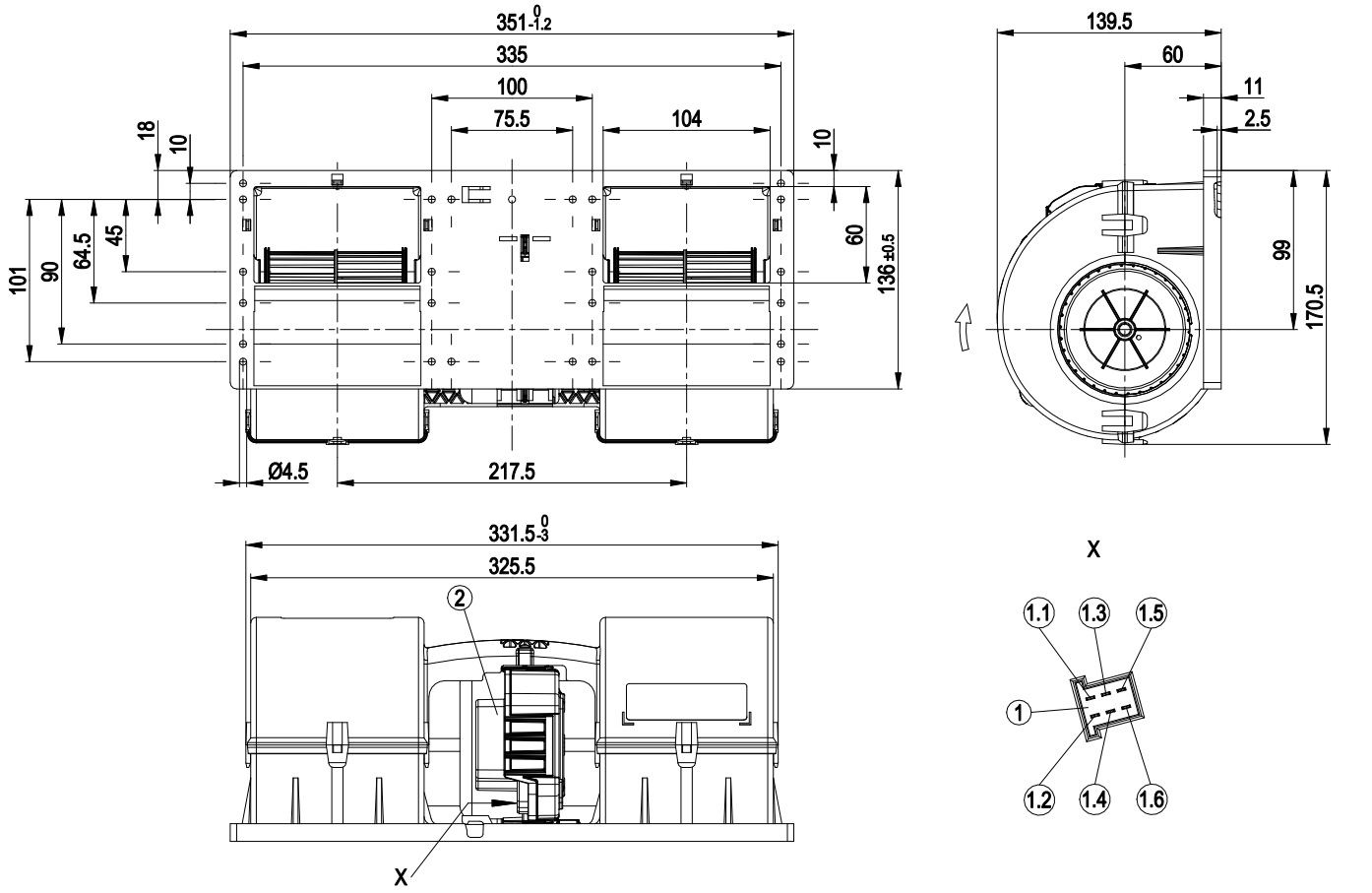
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

EC dual centrifugal fan

forward curved, with brushless DC motor

with housing, Automotive

Product drawing



1	Strip tyco Junior Power Timer, 6-pole, coded
	Connection line (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, 100% speed
1.4	80% speed
1.5	60% speed
1.6	not used / no function
2	Electronics cover blue (RAL 5015)

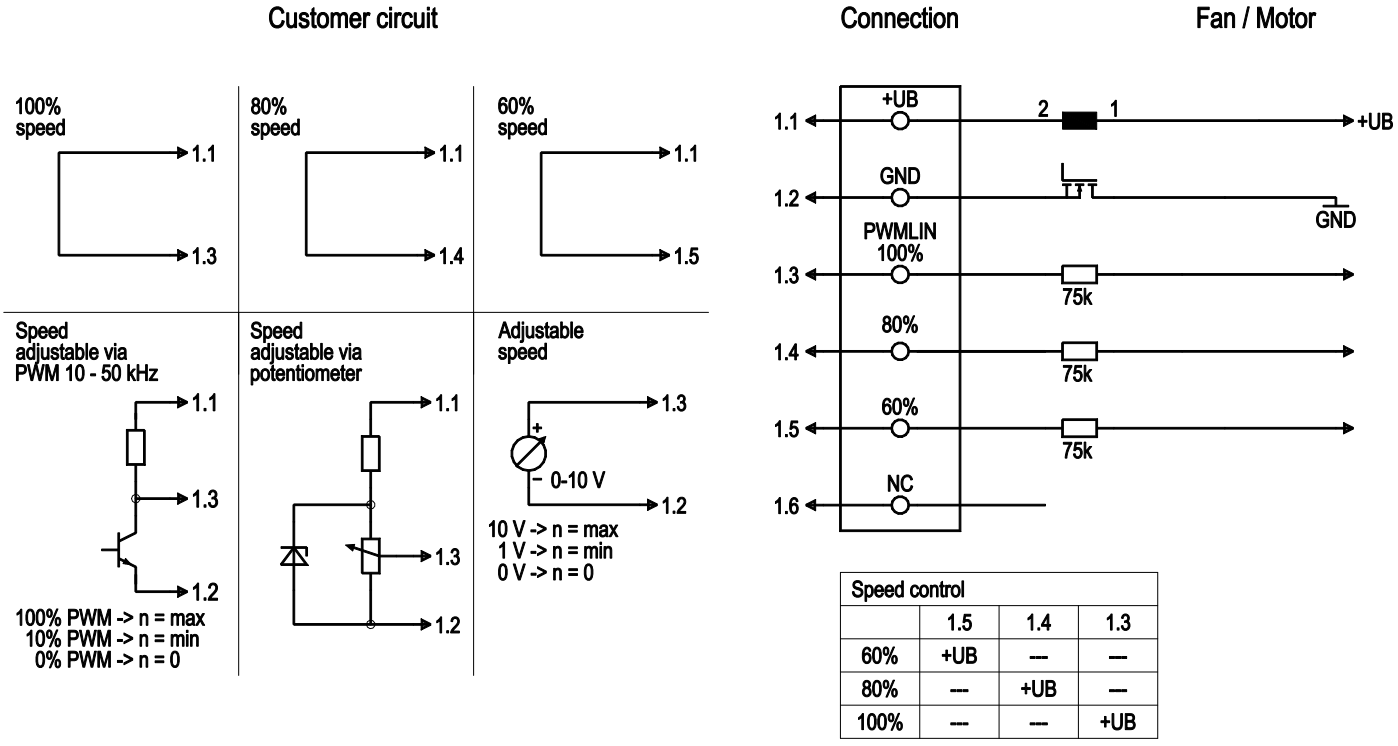
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

EC dual centrifugal fan

forward curved, with brushless DC motor

with housing, Automotive

Connection screen



Speed control			
	1.5	1.4	1.3
60%	+UB	---	---
80%	---	+UB	---
100%	---	---	+UB

No.	Conn.	Designation	Function / assignment
	1.1	+UB	Power supply
	1.2	GND	Power supply GND, reference earth
	1.3	100%, PWM/LIN	100% speed, control input 0-10 V analogue voltage or PWM
	1.4	80%	80% speed
	1.5	60%	60% speed
	1.6	NC	Not used / no function

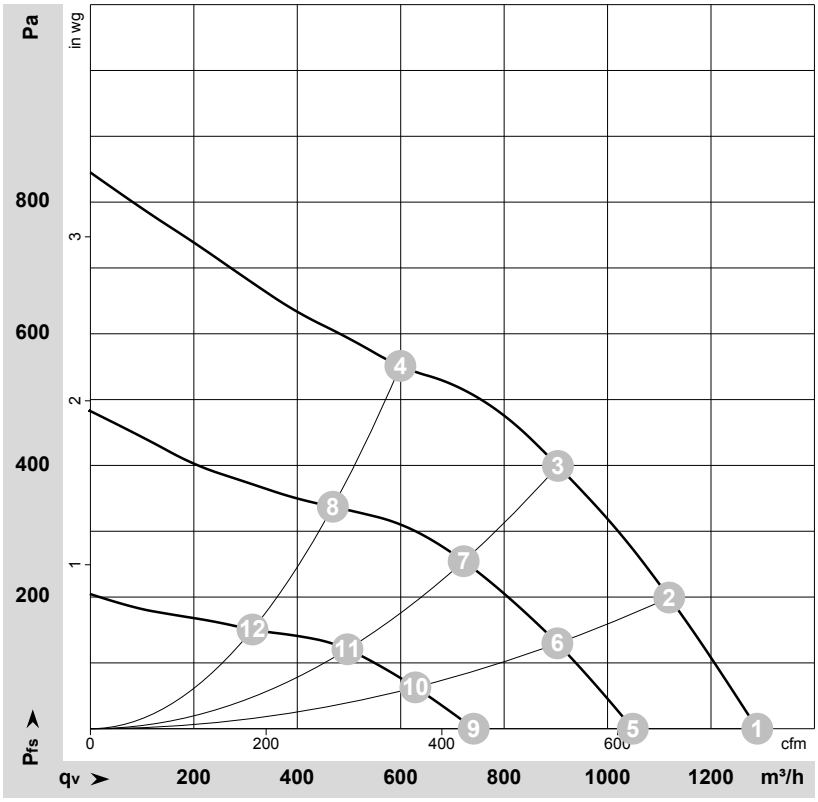
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

EC dual centrifugal fan

forward curved, with brushless DC motor

with housing, Automotive

Charts: Air flow



ρ = 1,15 kg/m³ ± 2%

Measurement: LU-74436
Measurement: LU-74437
Measurement: LU-74438

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

	Stage	U	n	P_{ed}	I	qv	p_{fs}
		V	min^{-1}	W	A	m^3/h	Pa
1	100%	26	3830	394	15.20	1290	0
2	100%	26	4075	353	13.53	1120	200
3	100%	26	4320	294	11.29	905	400
4	100%	26	4670	233	8.92	600	550
5	80%	26	3145	215	8.28	1050	0
6	80%	26	3315	188	7.24	905	130
7	80%	26	3470	155	5.97	720	255
8	80%	26	3670	118	4.51	470	337
9	60%	26	2245	79	3.06	740	0
10	60%	26	2325	68	2.61	630	63
11	60%	26	2415	56	2.15	495	121
12	60%	26	2490	42	1.63	315	150

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

ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com