

Product Change Notice

Date:	March 19, 2021
Overview:	Obsolescence of part number K3G097-AK34-65
Reason for Change:	A component needed to manufacture it is being discontinued
Affected Part No(s):	K3G097-AK34-65
Design Change Detail:	Part number K3G097-AK34-65 is being obsoleted due to the discontinuation of a component needed to manufacture it. The suggested replacement is K3G097-AK28-20.
Effective Date:	Orders can be placed through June 25, 2021 after which this product will no longer be available
Last Time Buy Deadline:	June 25, 2021
Pricing:	No change
ebm-papst employee:	Jeannine Zenobi
Attachments:	Datasheets for part number K3G097-AK34-65 and suggested replacement part number K3G097-AK28-20
Comments:	N/A

Form No: 1274	Quality Record - No	Page 1 of 1
Rev. – Orig, Released 08/28/14	Retention Period – 1 year	Dept. Owner – Sales/Marketing

K3G097-AK28-20

EC dual centrifugal fan

forward-curved, dual-intake

with housing, Automotive



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Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	K3G097-AK28-20	
Motor	M3G074-CF	
Nominal voltage	VDC	26
Nominal voltage range	VDC	16 .. 32
Method of obtaining data		fa
Status		prelim.
Speed (rpm)	min ⁻¹	3500
Power consumption	W	345
Current draw	A	13.2
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 (EN 17166)

		Actual	Req. 2015			
01 Overall efficiency η_{es}	%	49.6	33.2	09 Power consumption P_e	kW	0.19
02 Measurement category		A		09 Air flow q_v	m ³ /h	505
03 Efficiency category		Static		09 Pressure increase p_{fs}	Pa	624
04 Efficiency grade N		60.4	44	10 Speed (rpm) n	min ⁻¹	4765
05 Variable speed drive		Yes		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 = $1 + p_{fs} / 100\,000\text{ Pa}$

LU-208001



EC dual centrifugal fan

forward-curved, dual-intake

with housing, Automotive

Technical description

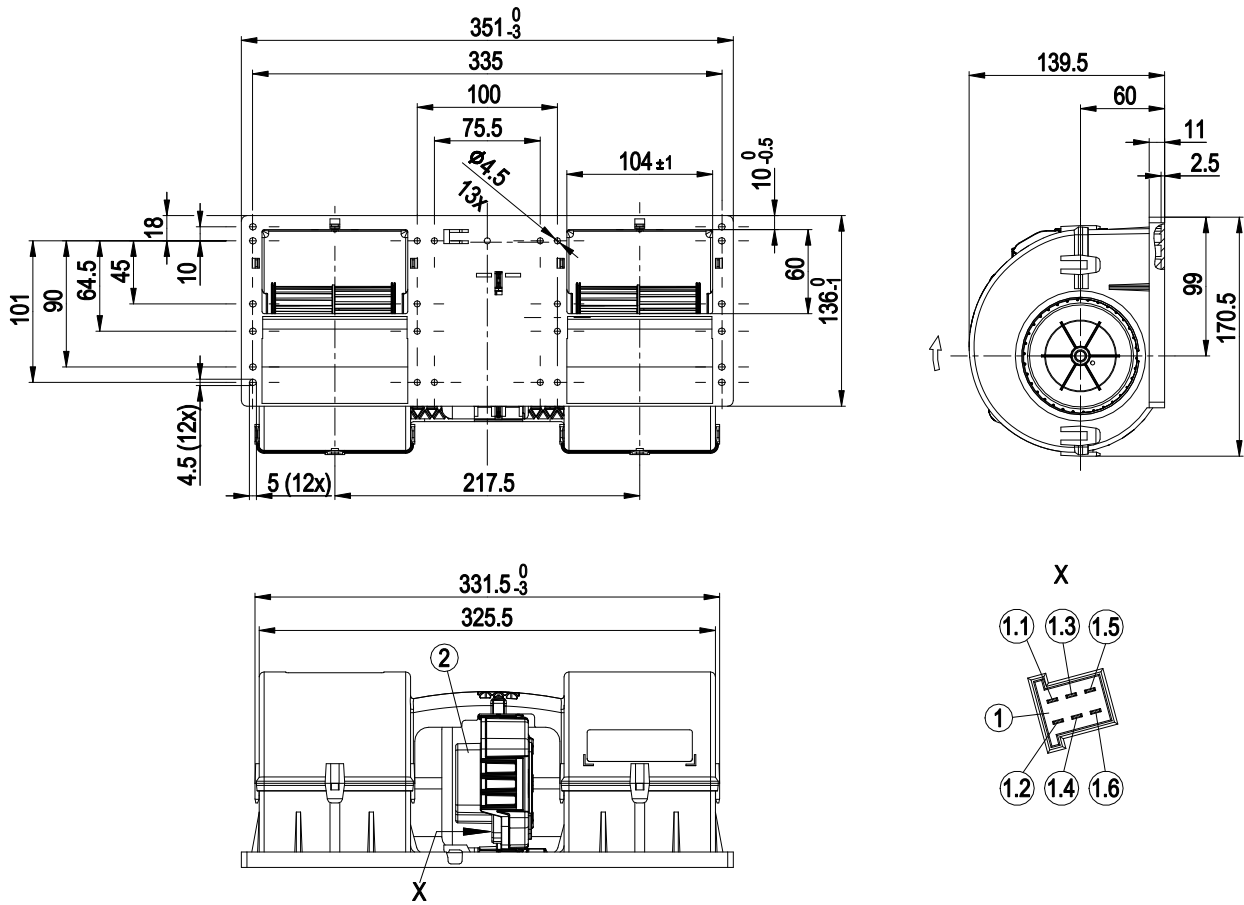
Weight	2.18 kg
Size	97 mm
Motor size	74
Impeller material	PA plastic UL94 HB (black)
Housing material	PP plastic (black)
Balancing grade according to DIN ISO 21940-11	G 6.3
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	Motor IP24 KM
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1
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
Cooling hole/opening	On rotor side
Mode	S1
Motor bearing	Ball bearing; (sealed)
Life expectancy	40,000 h (typical)
Technical features	<ul style="list-style-type: none"> - Locked-rotor detection - Power limiter - Load dump (58 V) - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Temperature derating - Thermal overload protection for electronics
Electrical hookup	Plug; Standby current less than 500 µA



EC dual centrifugal fan

forward-curved, dual-intake
with housing, Automotive

Product drawing



1	6-pole header TE Junior Power Timer WE_9901118
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
	Accessory part: Cable (460 mm) with mating connector, part no. 02001-4-1021 not included in scope of delivery 6-pole mating connector TE 929504-2, 4x plug contact TE 927771-1, 2x plug contact TE 927768-1
2	Electronics cover blue (RAL 5015)

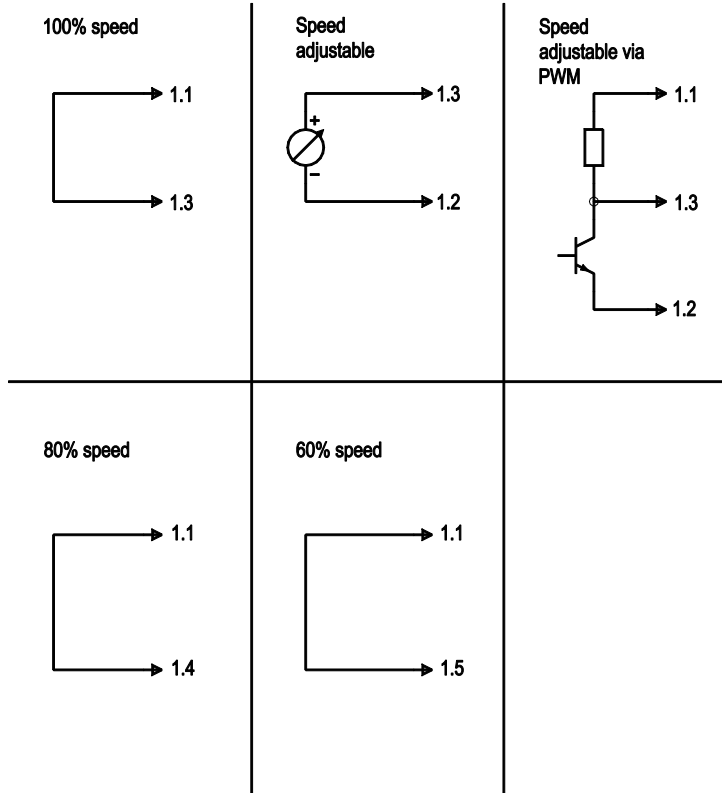


EC dual centrifugal fan

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with housing, Automotive

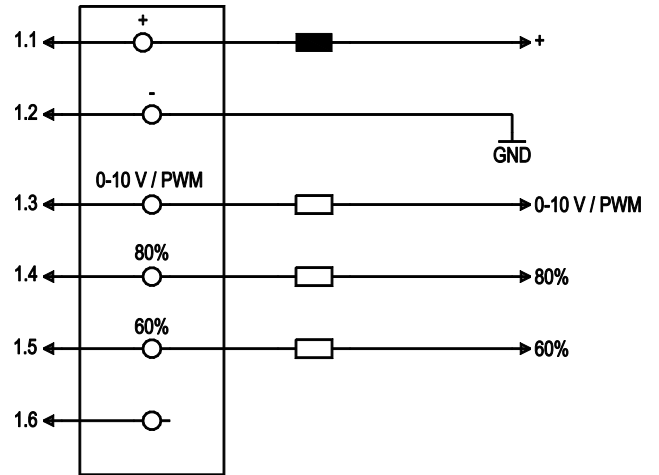
Connection diagram

Customer circuit



Connection

Fan/Motor



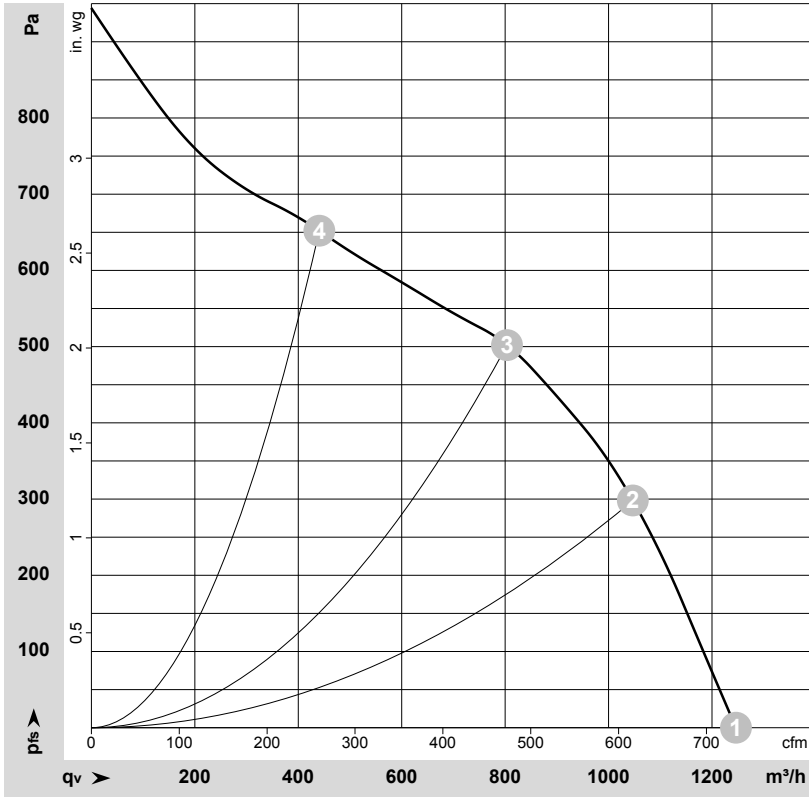
No.	Conn.	Designation	Function/assignment
	1.1	+	Power supply
	1.2	-	Power supply
	1.3	0-10 V / PWM	Control input: $R_i > 47\text{ k}\Omega$ 0-10 V (typ. $< 1\text{ V} \rightarrow n=0$; $1.2\text{ V} \rightarrow n=\text{min}$; $> 10\text{ V} \rightarrow n=\text{max}$) or PWM (amplitude = power supply; 10 kHz-50kHz)
	1.4	80%	Control input: $R_i > 47\text{ k}\Omega$ 80% speed level
	1.5	60%	Control input: $R_i > 47\text{ k}\Omega$ 60% speed level
	1.6		not used



EC dual centrifugal fan

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Curves: Air performance



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-208001-1

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	3500	345	13.20	1245	0	735	0.00
2	26	4095	336	12.93	1045	300	615	1.20
3	26	4420	275	10.55	805	500	475	2.01
4	26	4835	186	7.15	440	650	260	2.61

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



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Nominal data

Type	K3G097-AK34-65	
Motor	M3G074-CF	
Nominal voltage	VDC	26
Nominal voltage range	VDC	16 .. 32
Method of obtaining data		fa
Speed (rpm)	min ⁻¹	3830
Power consumption	W	394
Current draw	A	15.2
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 (EN 17166)

		Actual	Req. 2015			
01 Overall efficiency η_{es}	%	45.5	33.9	09 Power consumption P_e	kW	0.25
02 Measurement category		A		09 Air flow q_v	m ³ /h	705
03 Efficiency category		Static		09 Pressure increase p_{fs}	Pa	526
04 Efficiency grade N		55.6	44	10 Speed (rpm) n	min ⁻¹	4505
05 Variable speed drive		Yes		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 = $1 + p_{fs} / 100\,000\text{ Pa}$

LU-74436



K3G097-AK34-65

EC dual centrifugal fan

forward-curved, dual-intake

with housing, Automotive

Technical description

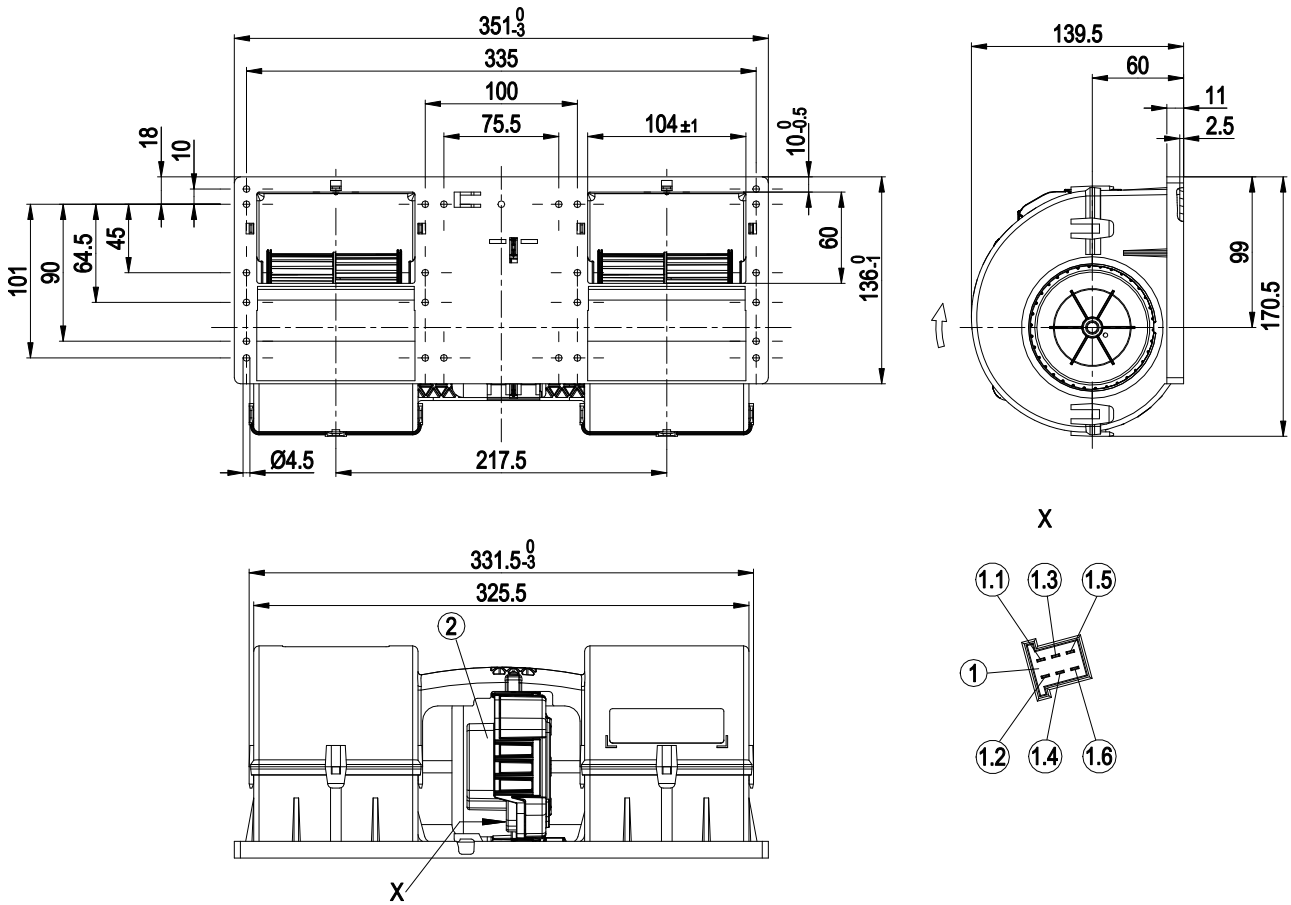
Weight	2.1 kg
Size	97 mm
Motor size	74
Impeller material	PA plastic UL94 HB (black)
Housing material	PP plastic (black)
Balancing grade according to DIN ISO 21940-11	G 6.3
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	Motor IP24 KM
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1
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
Cooling hole/opening	On rotor side
Mode	S1
Motor bearing	Ball bearing
Life expectancy	40,000 h (typical)
Technical features	<ul style="list-style-type: none">-Start at 85 °C (2 min) permitted- 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	According to ECE R10 Rev. 3
Electrical hookup	Plug; Standby current less than 500 µA
Motor protection	Passive reverse polarity and locked-rotor protection
Approval	E1; EAC
Sound level	76 dB(A), sound power level according to ISO 13347
Comment	Not approved for continuous operation at maximum back pressure and 85 °C; type approval number – 036432



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Product drawing



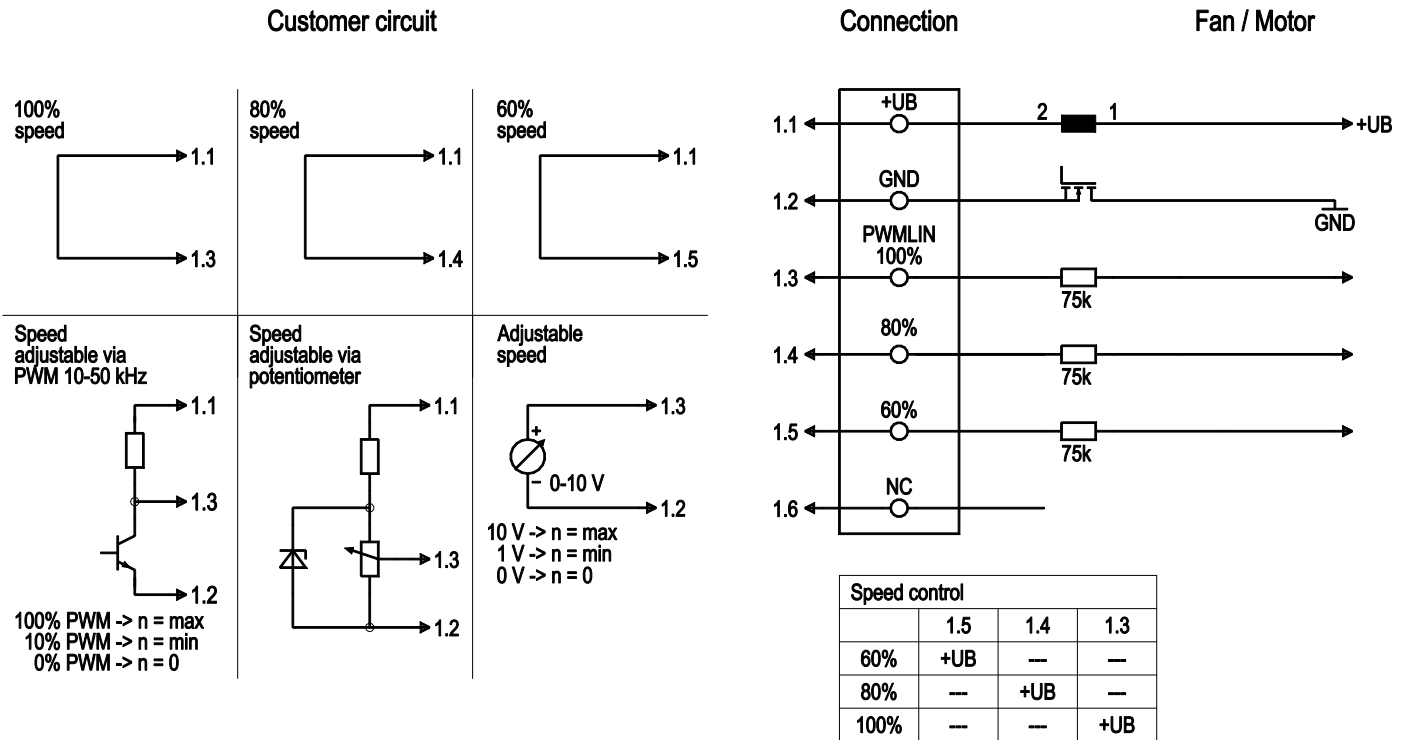
1	6-pole header TE Junior Power Timer WE_9901118
1.1	+ UB
1.2	GND
1.3	PWM/LIN, 100% speed
1.4	80% speed
1.5	60% speed
1.6	Not used / no function
	Accessory part: Cable (460 mm) with mating connector, part no. 02001-4-1021 not included in scope of delivery 6-pole mating connector TE 929504-2, 4x plug contact TE 927771-1, 2x plug contact TE 927768-1
2	Electronics cover blue (RAL 5015)



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Connection diagram



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

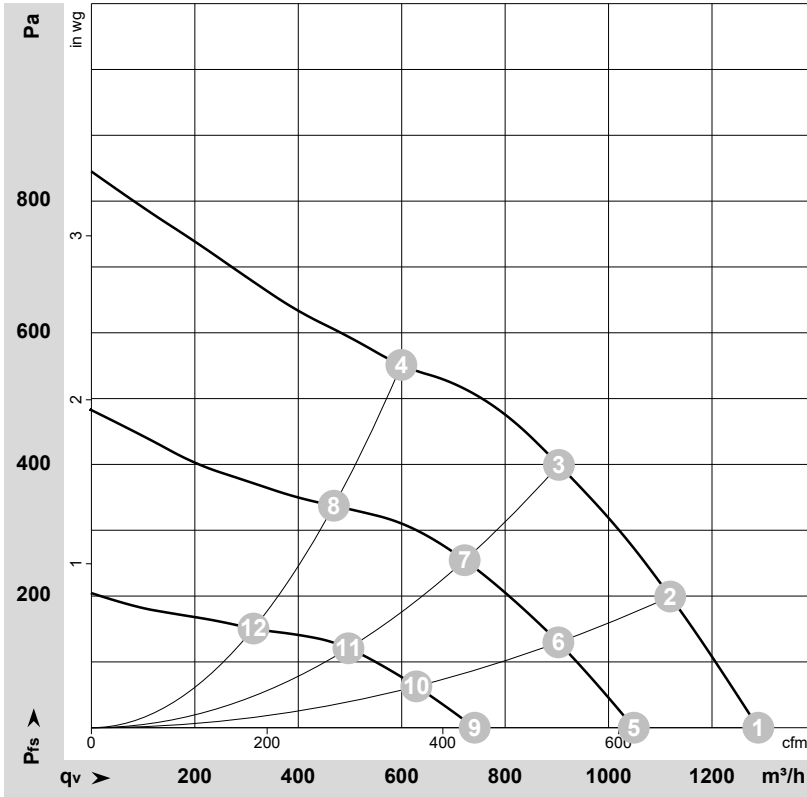


EC dual centrifugal fan

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Curves: Air performance



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-74436-1
 Measurement: LU-74437-1
 Measurement: LU-74438-1

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

	Stage	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	100%	26	3830	394	15.20	1290	0	760	0.00
2	100%	26	4075	353	13.53	1120	200	660	0.80
3	100%	26	4320	294	11.29	905	400	530	1.61
4	100%	26	4670	233	8.92	600	550	355	2.21
5	80%	26	3145	215	8.28	1050	0	615	0.00
6	80%	26	3315	188	7.24	905	130	530	0.52
7	80%	26	3470	155	5.97	720	255	425	1.02
8	80%	26	3670	118	4.51	470	337	275	1.35
9	60%	26	2245	79	3.06	740	0	435	0.00
10	60%	26	2325	68	2.61	630	63	370	0.25
11	60%	26	2415	56	2.15	495	121	295	0.49
12	60%	26	2490	42	1.63	315	150	185	0.60

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

