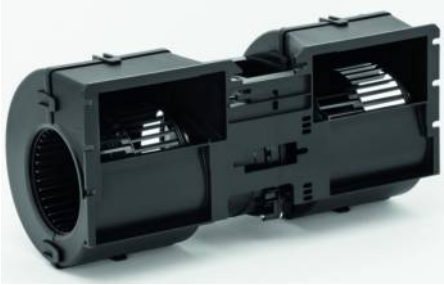
K3G097-BF25-01

EC centrifugal fan

forward curved, dual inlet

with housing (flange), Automotive



K3G097-BF25-01 ebmpapst Datasheet
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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**K3G097-BF25-01**	
Motor	**M3G084-BF**	
Nominal voltage	VDC	26
Type of data definition		fa
Speed	min^{-1}	4020
Power input	W	425
Current draw	A	16.3
Min. back pressure	Pa	0
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	85

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}	%	43.4	27.6	34.6
Efficiency grade N		52.8	37	44
Power input P_e	kW	0.33		
Air flow q_v	m^3/h	630		
Pressure increase p_{fs}	Pa	739		
Speed n	min^{-1}	5400		

Data definition with optimum efficiency. LU-160736
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

Mass	2 kg
Size	97 mm
Material of impeller	PA plastic
Housing material	PP 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
Condensate discharge holes	None, open rotor
Operation mode	S1
Motor bearing	Ball bearing; (sealed)
Life expectancies	40,000 h (typical)
Technical features	- Lowering input - Fault output (high-side switch max. 30 mA) - INVLIN (control input, inverse linear) - Output limit - Load dump (58 V) - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Overvoltage detection - Excess temperature protection for electronics - Undervoltage detection
Electrical leads	With plug; Standby current less than 500 µA
Motor protection	Reverse polarity and locked-rotor protection
Approval	EAC
Remark	E1 approval in preparation

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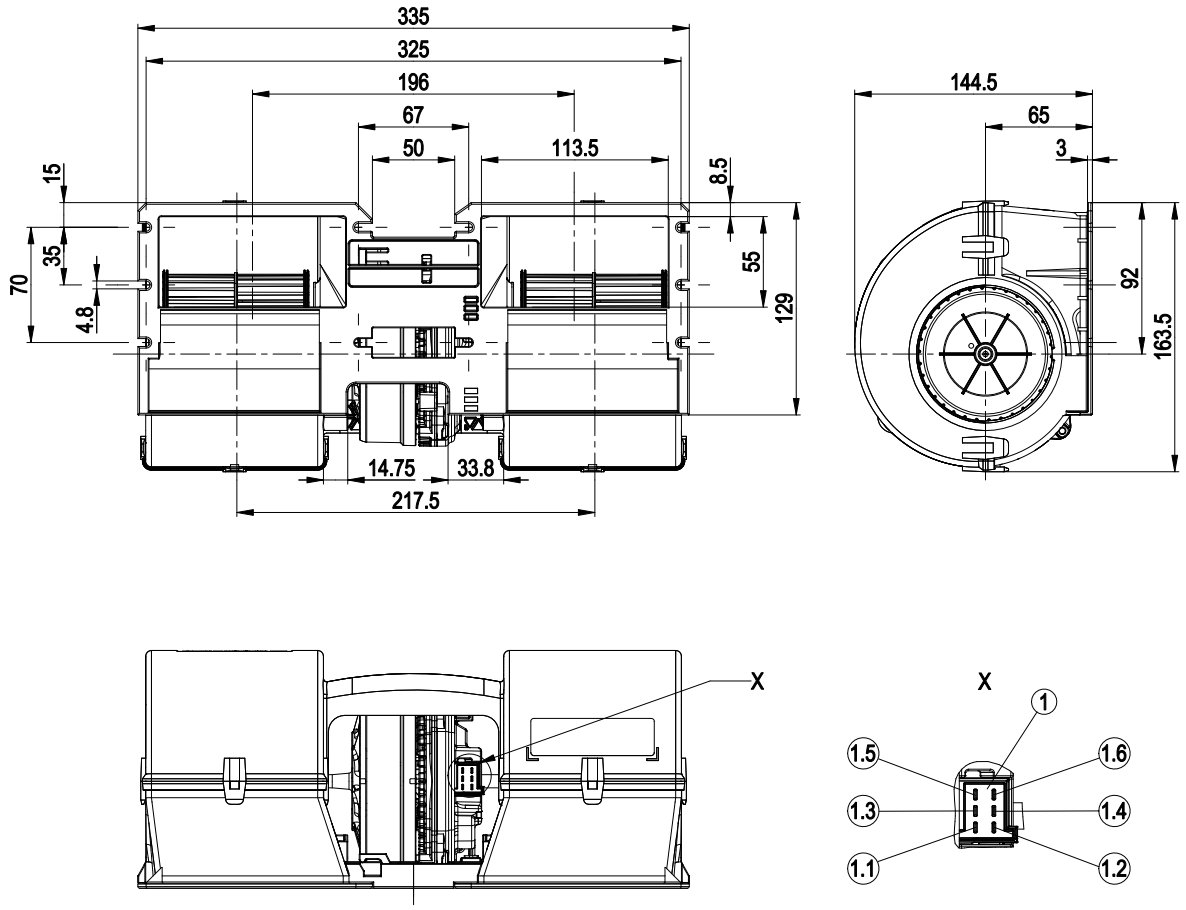
Product drawing



1	Strip 6-pole, mating connector Tyco 929504-2 (not included in scope of delivery)
1.1	+ UB (black)
1.2	GND (brown)
1.3	PWM/LIN (yellow)
1.4	INVLIN (orange)
1.5	ABSENK (blue)
1.6	Diagnostic output (white)

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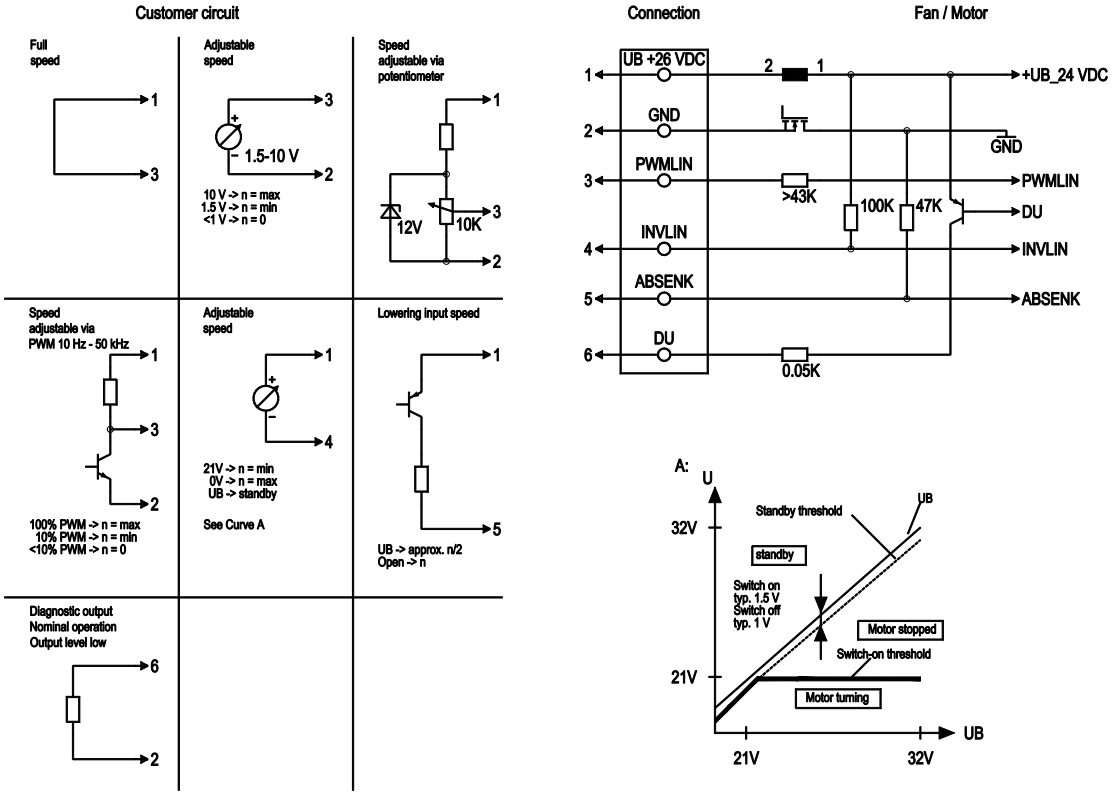
Connection screen



No.	Conn.	Designation	Function / assignment
	1	UB +26 VDC	Power supply 26 VDC
	2	GND	Power supply GND, reference ground
	3	PWMLIN	Analogue voltage control input 0 -10 V or PWM
	4	INVLIN	Control input, inverse linear
	5	ABSENK	Lowering input
	6	DU	Diagnostic output

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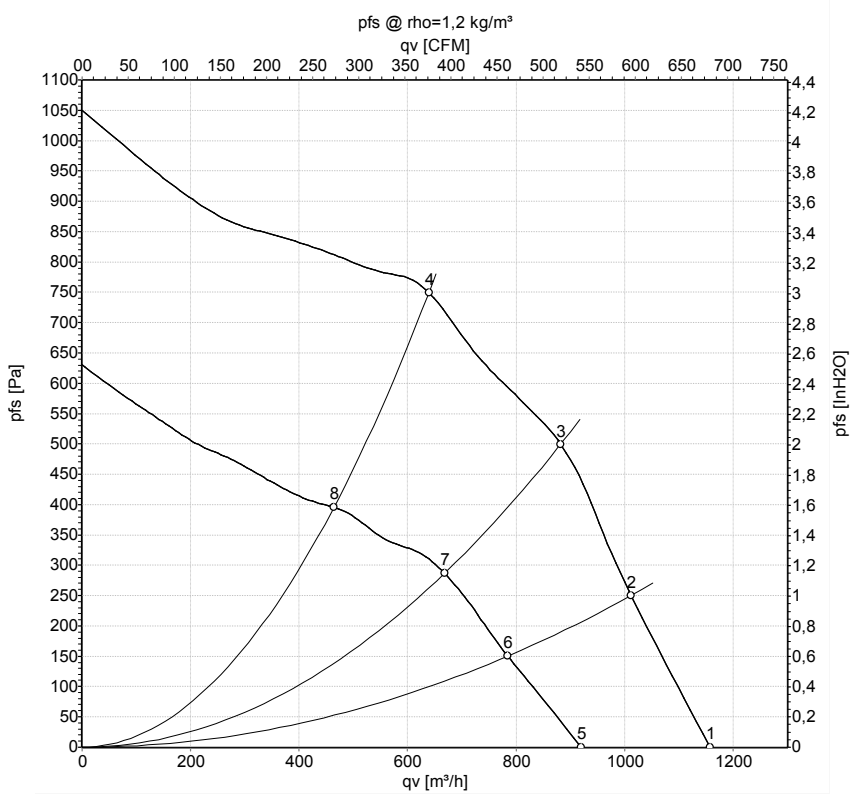
Charts: Air flow



Measurement: LU-160736

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	26-32	4020	425	16.3*	1160	0
2	26-32	4360	390	15.0*	1010	250
3	26-32	4660	367	14.1*	880	500
4	26-32	5360	336	12.9*	640	750
5	16	3185	196	12.19	920	0
6	16	3375	176	10.94	785	150
7	16	3530	156	9.72	670	287
8	16	3870	134	8.39	465	396

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