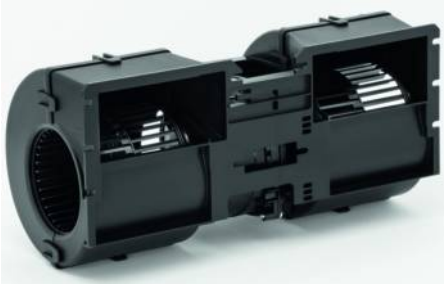
K3G097-BF24-01

EC centrifugal fan

forward curved, dual inlet

with housing (flange), Automotive



K3G097-BF24-01 ebmpapst Datasheet
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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**K3G097-BF24-01**	
Motor	**M3G084-BF**	
Nominal voltage	VDC	26
Nominal voltage range	VDC	16 .. 32
Type of data definition		fa
State		prelim.
Speed	min^{-1}	3960
Power input	W	375
Current draw	A	14.4
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}		43.8	27	34
Efficiency grade N		53.8	37	44
Power input P_e	kW	0.26		
Air flow q_v	m^3/h	605		
Pressure increase p_{fs}	Pa	618		
Speed n	min^{-1}	4875		

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 kg
Size	97 mm
Material of impeller	PA plastic
Housing material	PP plastic
Direction of air flow	"V"
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 24 KM
Insulation class	"B"
Humidity class	F4-1
Max. permissible ambient motor temp. (transp./ storage)	+80 °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
Technical features	- Lowering input - Tach output - INVLIN (control input, inverse linear) - Motor current limit - Soft start - Control input 0-10 VDC / PWM
Electrical leads	With plug
Motor protection	Reverse polarity and locked-rotor protection
Protection class	I (if protective earth is connected by customer)

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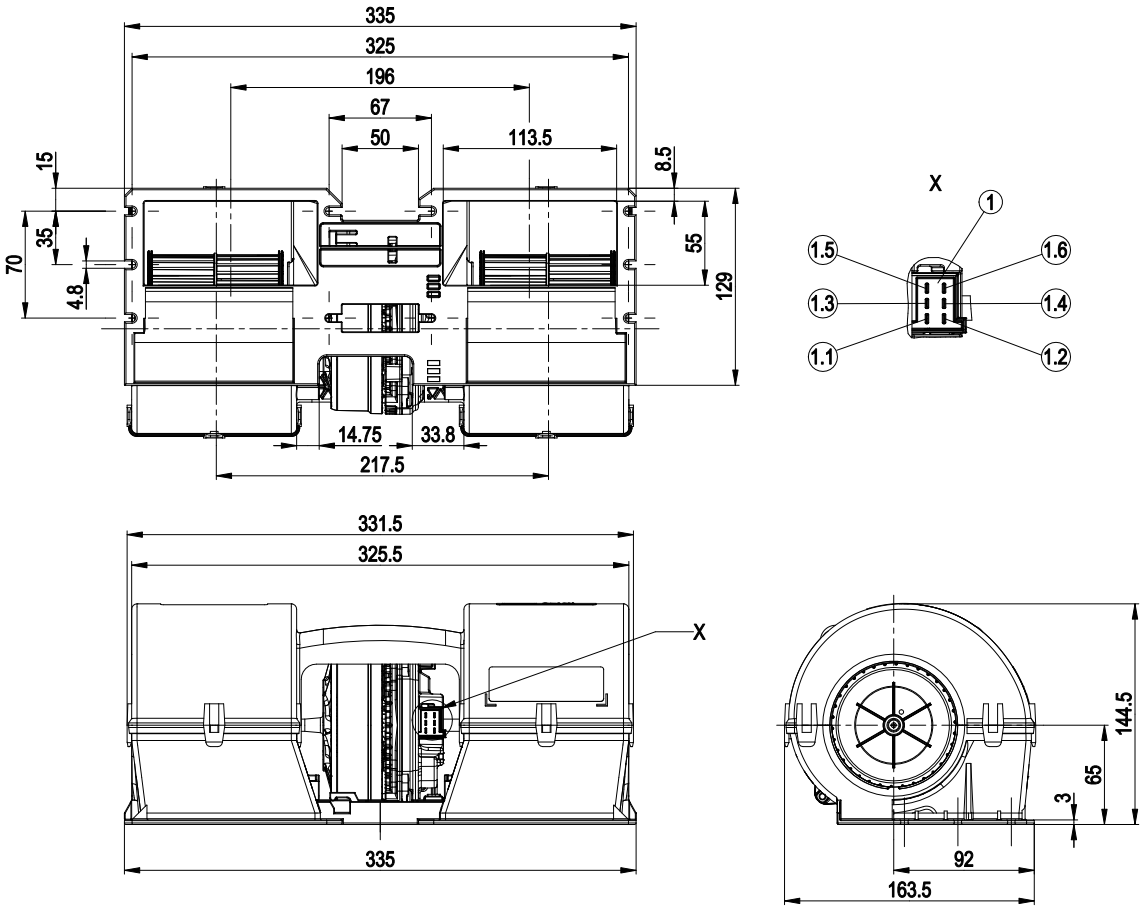
Product drawing



1	6-pole strip, 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

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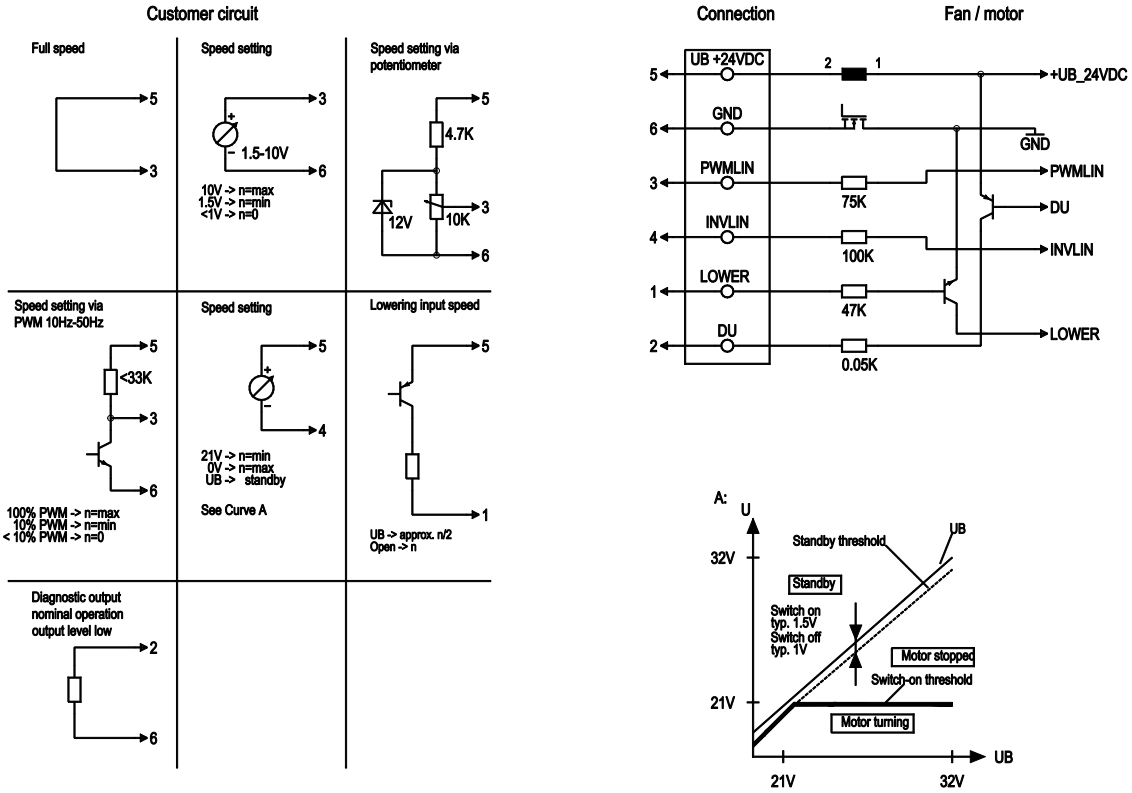
Connection screen



No.	Pin	Signal	Function / assignment
	1	Absenk	Lowering input
	2	DU	Diagnostic output
	3	PWMLIN	Analogue voltage control input 0 -10 V or PWM
	4	INVLIN	Control input, inverse linear
	5	+UB 24VDC	Supply voltage 24 VDC, for voltage range refer to rating plate
	6	-UB 0VDC	Power supply GND, reference ground

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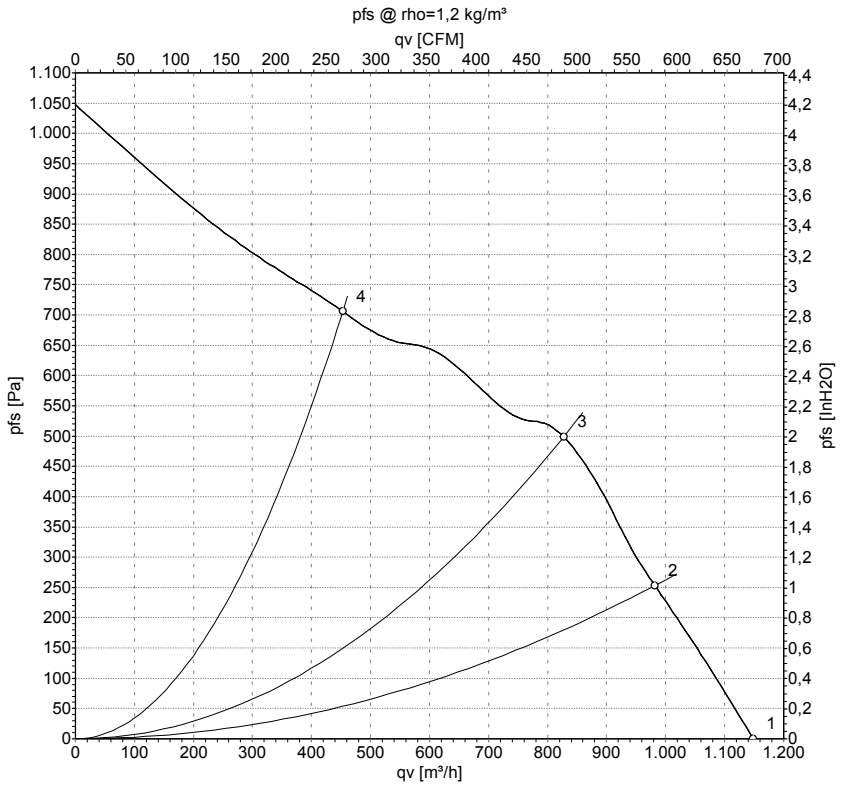
Charts: Air flow



Measurement: LU-146032

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	LpA_{in}	LwA_{in}	qv	p_{fs}
	V	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa
1	26	3960	375	14.40	70	81	1150	0
2	26	4265	345	13.27	69	80	980	250
3	26	4535	309	11.89	69	79	825	500
4	26	5090	223	8.59	71	81	455	700

U = Supply voltage · n = Speed · P_{ed} = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · qv = Air flow · p_{fs} = Pressure increase