

K3G097-AF24-01

# EC centrifugal fan

forward curved, dual inlet  
with housing (flange), Automotive



K3G097-AF24-01 ebmpapst Datasheet  
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Limited partnership · Headquarters Muldingen  
County court Stuttgart · HRA 590344

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



## Nominal data

Type	K3G097-AF24-01	
Motor	M3G084-BF	
Nominal voltage	VDC	26
Nominal voltage range	VDC	16 .. 32
Type of data definition		ml
State		prelim.
Speed	min <sup>-1</sup>	3730
Power input	W	390
Current draw	A	15
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 =  $1 + p_b / 100\,000\text{ Pa}$

	Actual	Request 2013	Request 2015
Overall efficiency $\eta_{es}$	43.7	26.8	33.8
Efficiency grade N	53.9	37	44
Power input $P_e$	kW	0.24	
Air flow $q_v$	m <sup>3</sup> /h	500	
Pressure increase $p_{fs}$	Pa	676	
Speed n	min <sup>-1</sup>	4990	

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

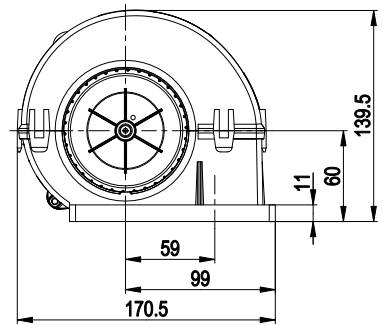
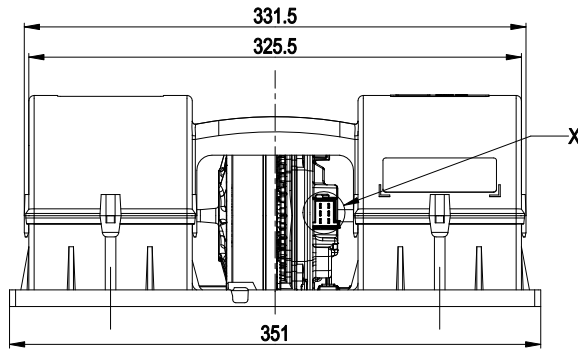
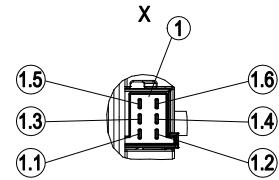
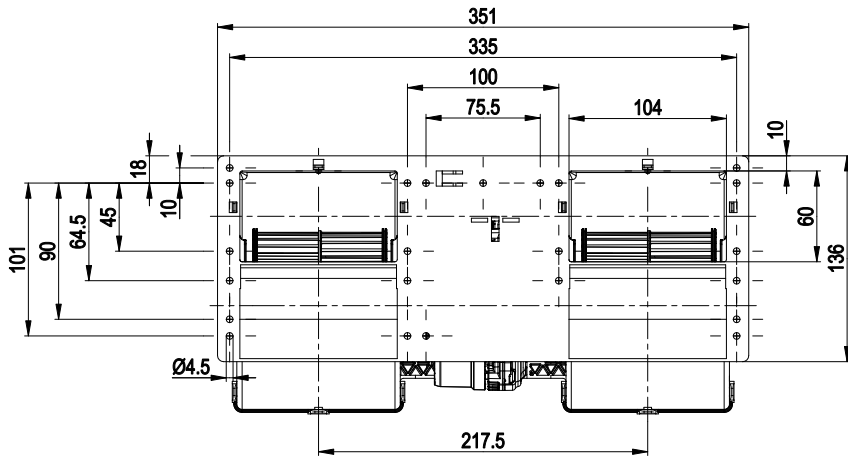
<b>Mass</b>	2 kg
<b>Size</b>	97 mm
<b>Material of impeller</b>	PA plastic
<b>Housing material</b>	PP plastic
<b>Direction of rotation</b>	Clockwise, seen on rotor
<b>Type of protection</b>	IP 24 KM
<b>Insulation class</b>	"B"
<b>Humidity class</b>	F4-1
<b>Max. permissible ambient motor temp. (transp./ storage)</b>	+80 °C
<b>Min. permissible ambient motor temp. (transp./storage)</b>	-40 °C
<b>Mounting position</b>	Any
<b>Condensate discharge holes</b>	None, open rotor
<b>Operation mode</b>	S1
<b>Motor bearing</b>	Ball bearing
<b>Technical features</b>	<ul style="list-style-type: none"><li>- Lowering input</li><li>- Tacho output</li><li>- INVLIN (control input, inverse linear)</li><li>- Motor current limit</li><li>- Soft start</li><li>- Control input 0-10 VDC / PWM</li></ul>
<b>Electrical leads</b>	With plug
<b>Motor protection</b>	Reverse polarity and locked-rotor protection
<b>Protection class</b>	I (if protective earth is connected by customer)



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## Product drawing



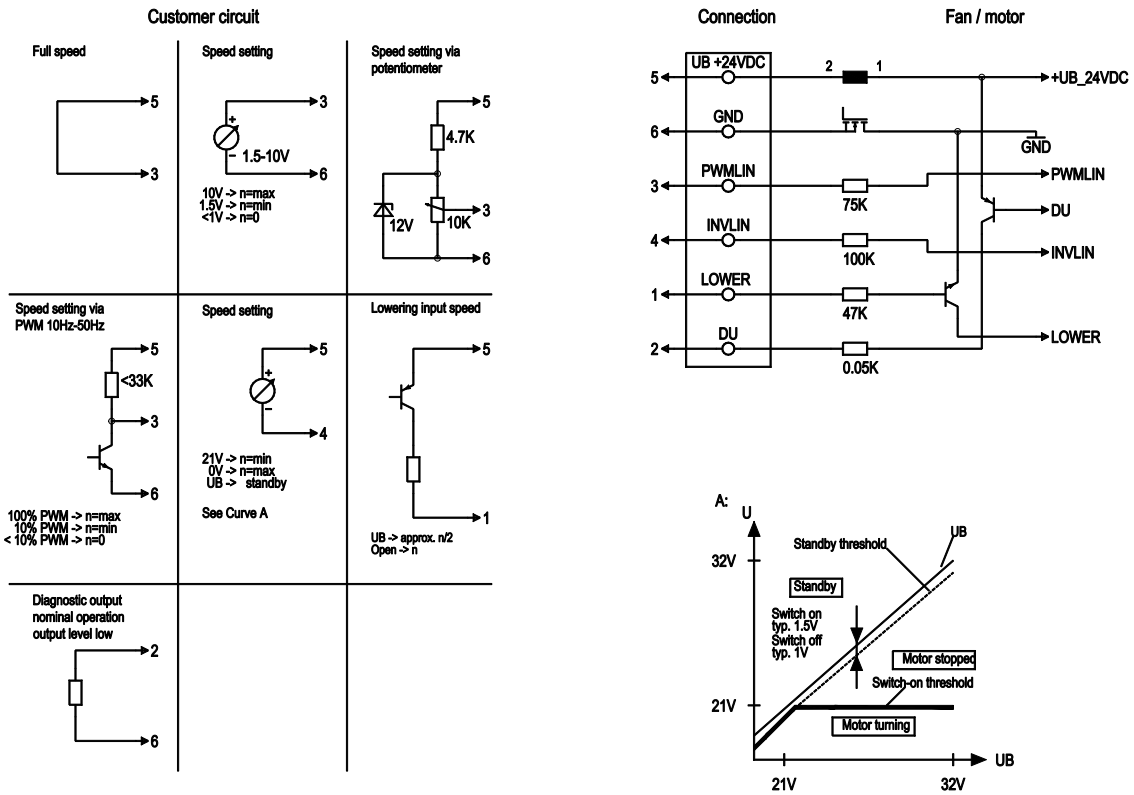
1	Strip 6-pole, WE 9901118
1.1	+ UB
1.2	GND
1.3	PWM/LIN, 100% speed
1.4	80% speed
1.5	60% speed
1.6	Not assigned



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## Connection screen



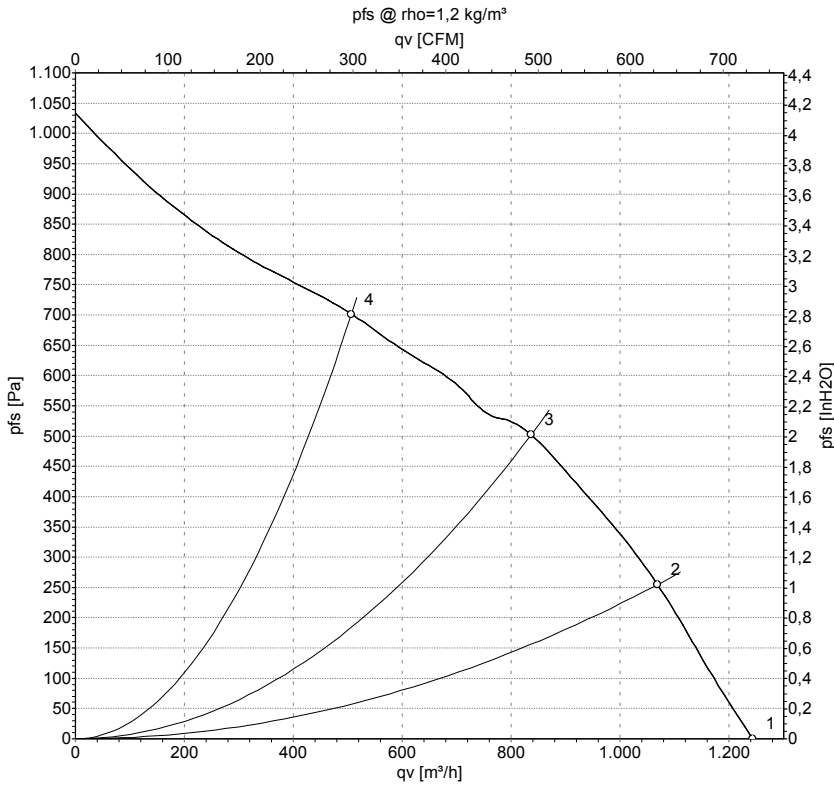
No.	Pin	Signal	Function / assignment
	1	Absenk	Lowering input
	2	DU	Diagnostic output
	3	PWMLIN	Analogue voltage control input 0 -10 V or PWM
	4	INVLIN	Control input, inverse linear
	5	+UB 24VDC	Supply voltage 24 VDC, for voltage range refer to rating plate
	6	-UB 0VDC	Power supply GND, reference ground



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## Charts: Air flow



Measurement: LU-146316

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 <sub>ed</sub>	I	LpA <sub>in</sub>	LwA <sub>in</sub>	qv	p <sub>fs</sub>
	V	min <sup>-1</sup>	W	A	dB(A)	dB(A)	m <sup>3</sup> /h	Pa
1	26	3730	390	15.00	70	83	1245	0
2	26	4125	363	13.94	69	81	1070	250
3	26	4490	309	11.86	69	79	835	500
4	26	4985	245	9.41	70	80	505	700

U = Supply voltage · n = Speed · P<sub>ed</sub> = Power input · I = Current draw · LpA<sub>in</sub> = Sound pressure level inlet side · LwA<sub>in</sub> = Sound power level inlet side · qv = Air flow · p<sub>fs</sub> = Pressure increase

