K3G097-AF25-01

EC centrifugal fan

forward curved, dual inlet

with housing (flange), Automotive



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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**K3G097-AF25-01**	
Motor	**M3G084-BF**	
Nominal voltage	VDC	26
Type of data definition		fa
State		prelim.
Speed	min^{-1}	3930
Power input	W	430
Current draw	A	16.4
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}	%	47.8	27.4	34.4
Efficiency grade N		57.4	37	44
Power input P_e	kW	0.3		
Air flow q_v	m^3/h	605		
Pressure increase p_{fs}	Pa	773		
Speed n	min^{-1}	5415		

Data definition with optimum efficiency. LU-159053
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
Remark	E1 approval in preparation

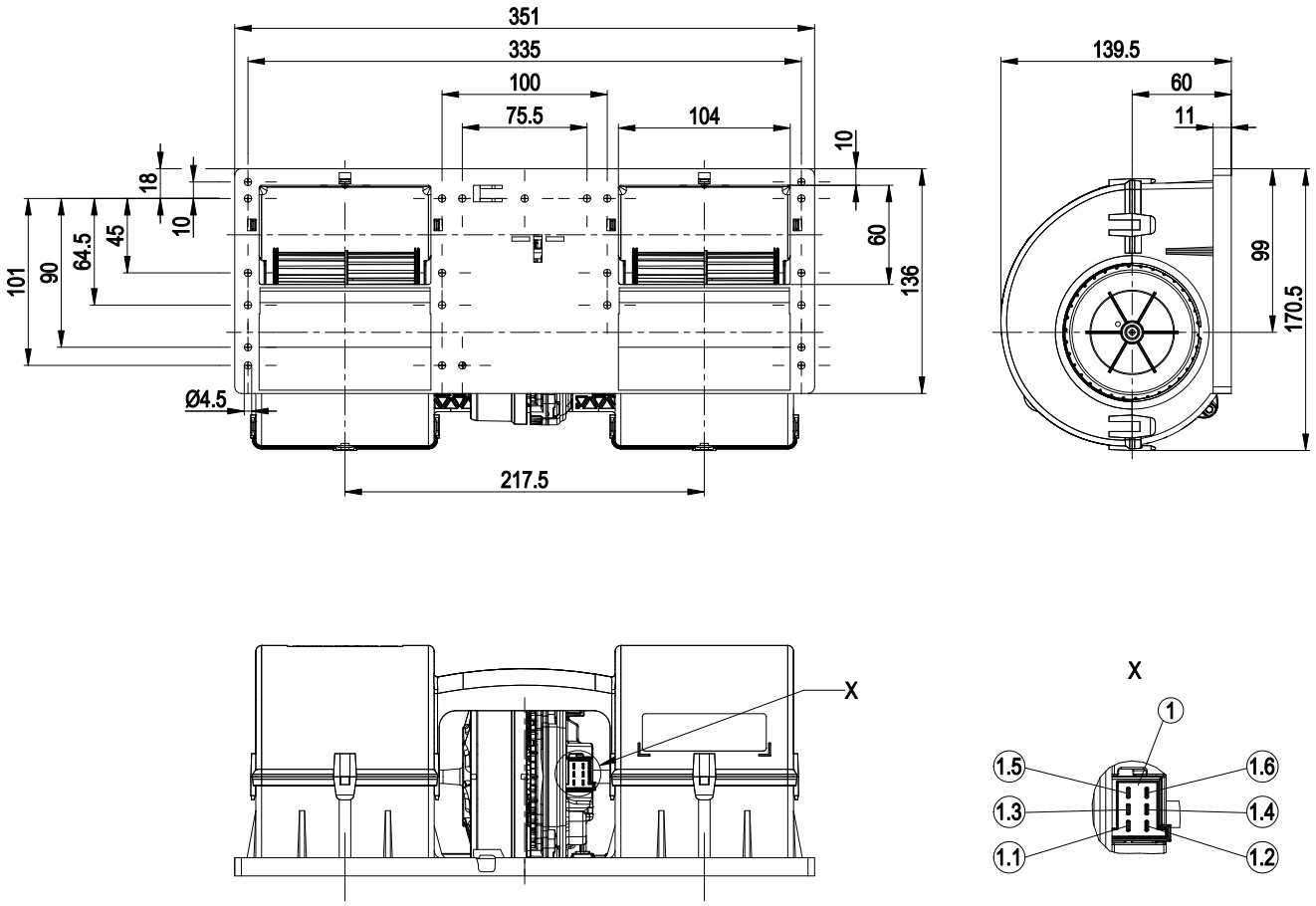
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Product drawing



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)

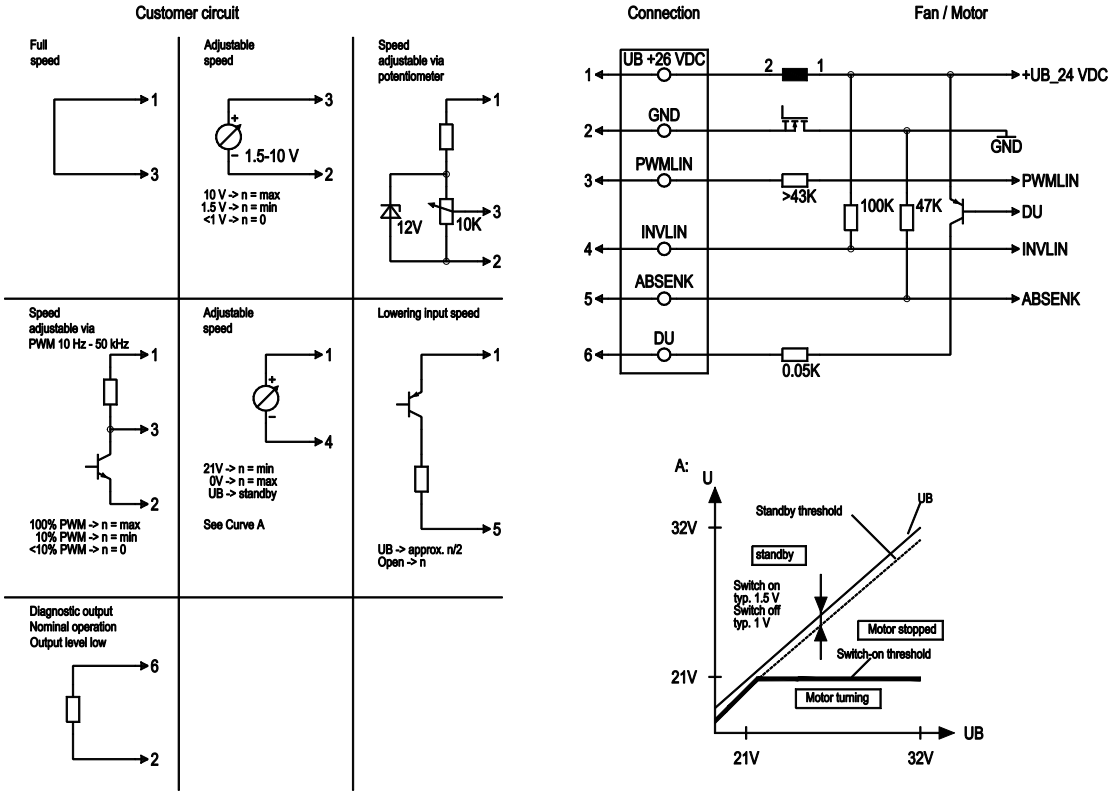
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Connection screen



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

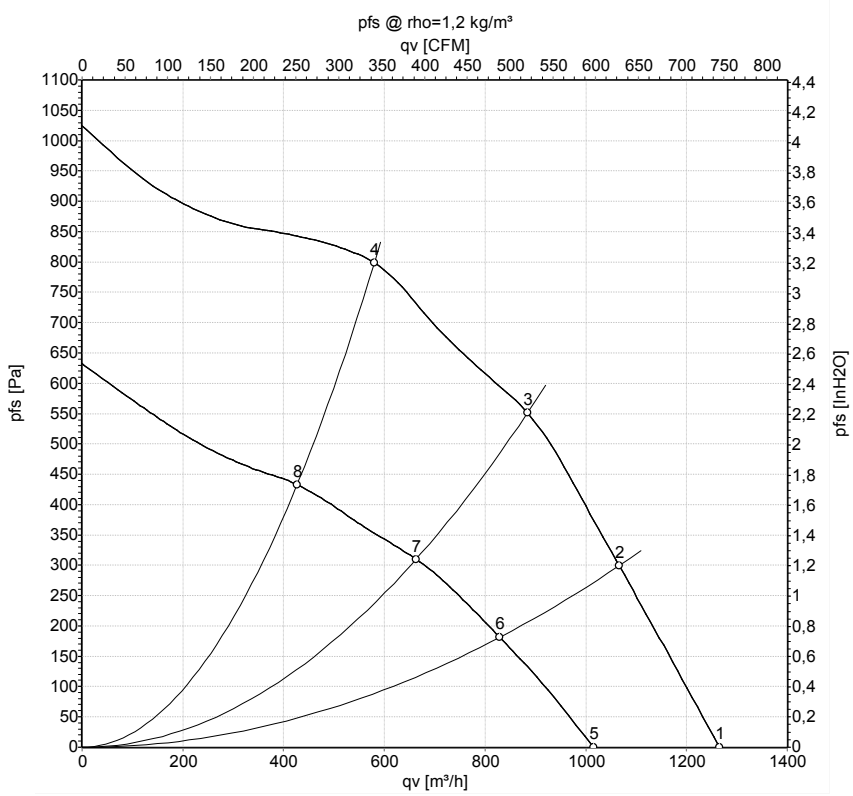
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Charts: Air flow



Measurement: LU-161339
Measurement: LU-159284

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	26-32	3930	430	16.4*	72	83	1265	0
2	26-32	4220	376	14.5*	70	81	1065	300
3	26-32	4665	348	13.4*	70	80	885	550
4	26-32	5330	308	11.8*	71	81	580	800
5	16	3075	205	12.81			1015	0
6	16	3340	172	10.77			830	181
7	16	3575	149	9.33			665	310
8	16	3960	121	7.53			425	434

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

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