K3G097-AS81-86

Konvekta AG

H11-003-222

EC dual centrifugal fan

forward-curved, dual-intake

with housing, for rail applications



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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**K3G097-AS81-86**
Motor	**M3G084-BF**

Nominal voltage	VDC	26
Nominal voltage range	VDC	16 .. 32
Method of obtaining data		fa
Speed (rpm)	min^{-1}	3580
Power consumption	W	320
Current draw	A	12.3
Min. back pressure	Pa	0
Min. back pressure	inH2O	0
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	85

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

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Technical description

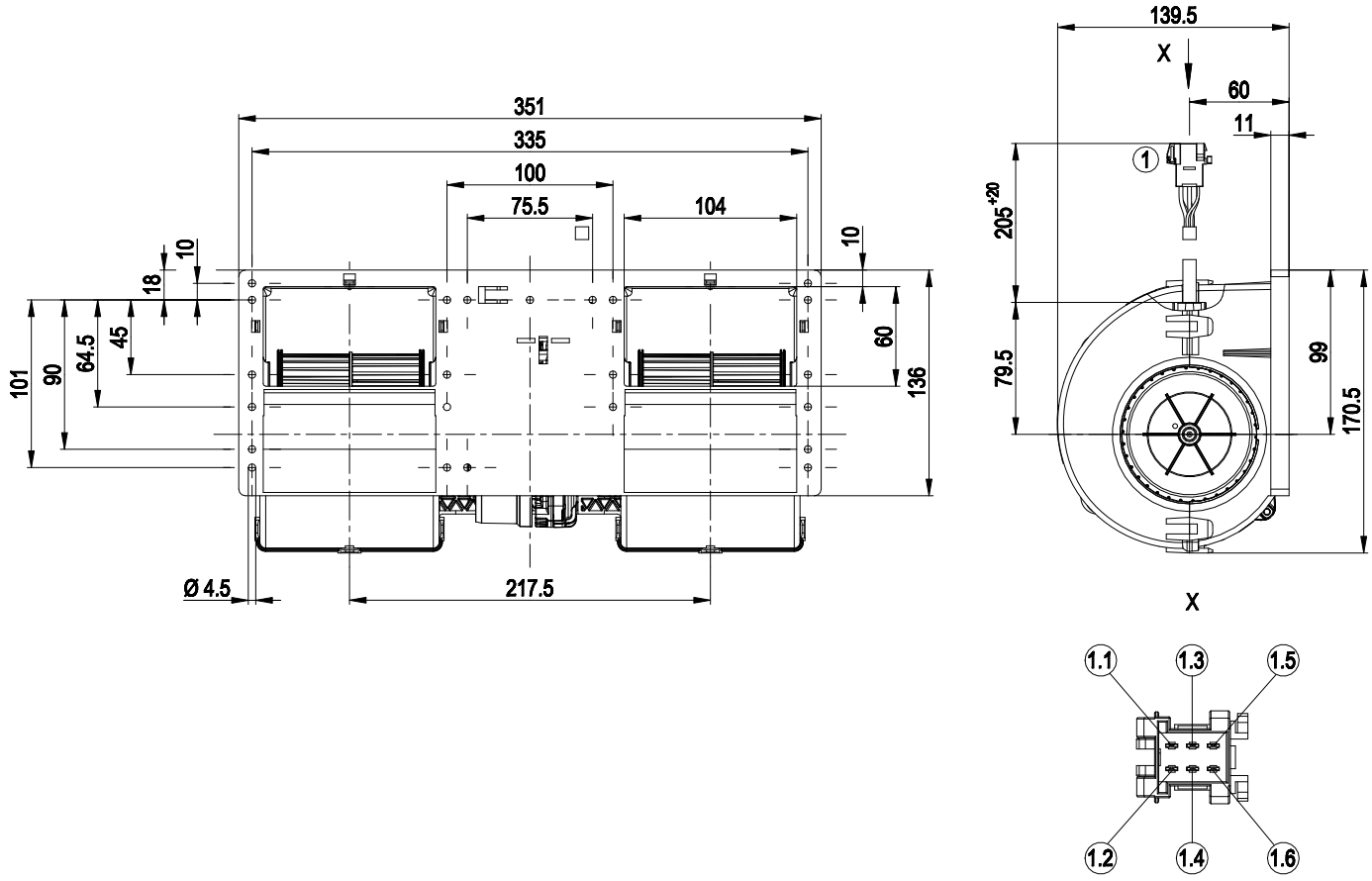
Weight	2 kg
Fan size	97 mm
Impeller material	PA plastic UL94 V0
Housing material	PA plastic UL94 V0
Number of blades	34
Balancing grade according to DIN ISO 1940-1	G 2.5
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP24 KM; (motor); electronics IP 6K9K; customer plug not sealed
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H3
Ambient temperature note	Over +70 °C with power derating
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
Mode	S1
Motor bearing	Ball bearing; (sealed)
Life expectancy	40,000 h (typical)
Technical features	- Lowering input - Fault output (high-side switch max. 30 mA) - INVLIN (inverse linear control input) - Power limiter - Load dump (58 V) - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Temperature derating - Overvoltage detection - Thermal overload protection for electronics - Line undervoltage detection
Electrical hookup	With plug; Standby current less than 500 µA
Motor protection	Reverse polarity and locked-rotor protection
Conformity with standards	EN 45545-2, HL3: 2013; EN 50155: 2008; EN 61373, Cat. 1B: 2010
Comment	EN 50121-3-2: 2015 in preparation

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Product drawing



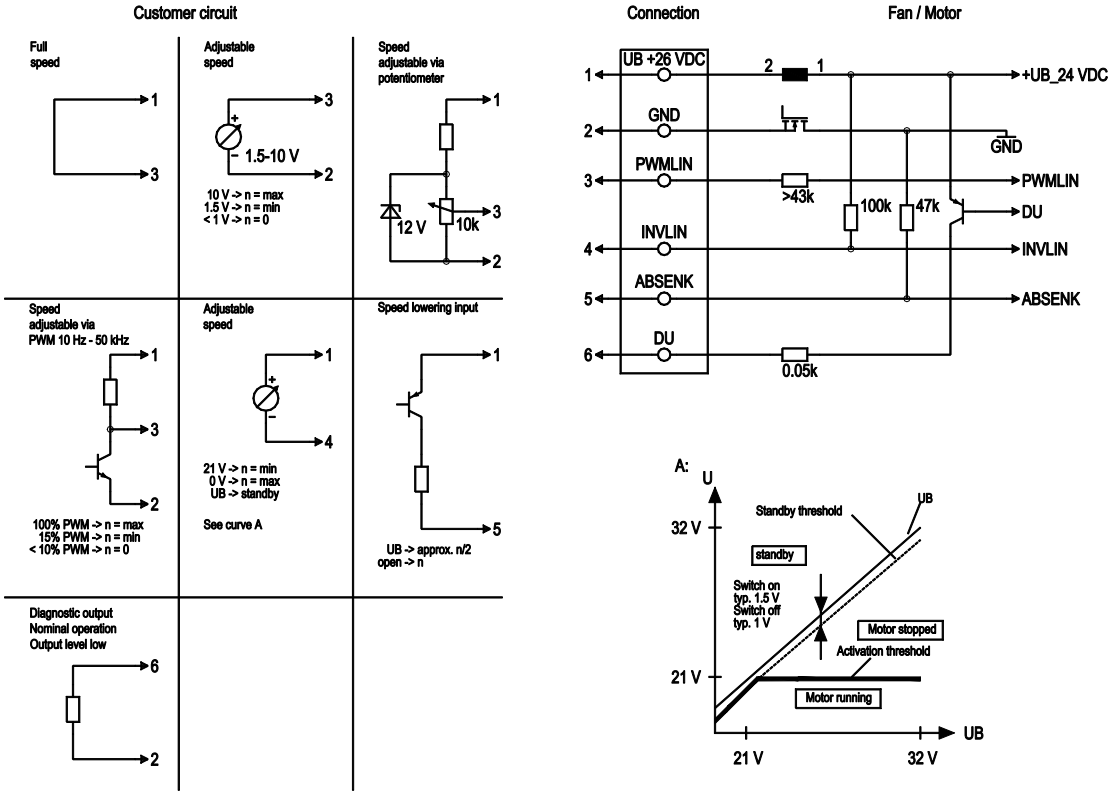
1	Cable with 6-pole coded plug tyco Junior Power Timer 929505-2
1.1	+ UB (black)
1.2	GND (brown)
1.3	PWM/LIN (yellow)
1.4	INVLIN (orange)
1.5	ABSENK (blue)
1.6	Diagnostic output (white)
	Mating connector tyco 929504-2 (not included in scope of delivery)

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Connection diagram



No.	Conn.	Designation	Function/assignment
	1	UB +26 VDC	Power supply 26 VDC
	2	GND	Power supply GND, reference ground
	3	PWMLIN	Analog 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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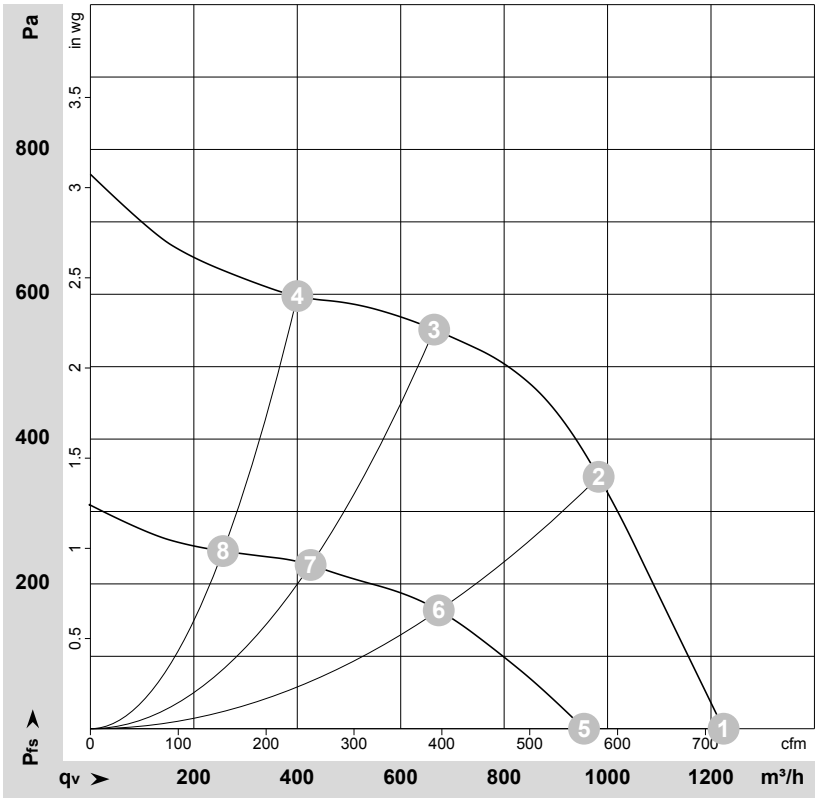
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Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-168702-1
Measurement: LU-168794-1

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	inH2O
1	26-32	3580	320		1225	0	720	0.00
2	26-32	4230	318		985	350	580	1.41
3	26-32	4605	251		665	550	390	2.21
4	26-32	4705	172		400	600	235	2.41
5	16	2825	158	9.89	955	0	560	0.00
6	16	2920	106	6.61	675	164	395	0.66
7	16	2985	74	4.61	425	227	250	0.91
8	16	3025	54	3.46	255	245	150	0.98

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

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