

EC centrifugal fan

forward-curved, single-intake
with housing (without flange)

G3G097-BE13-10 ebmpapst Datasheet

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Nominal data

Type	G3G097-BE13-10	
Motor	M3G045-AI	
Nominal voltage	VDC	24
Nominal voltage range	VDC	21,6 .. 26,4
Method of obtaining data		fa
Speed (rpm)	min ⁻¹	2900
Power consumption	W	25
Current draw	A	1.05
Min. back pressure	Pa	0
Min. back pressure	in. wg	0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

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



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Technical description

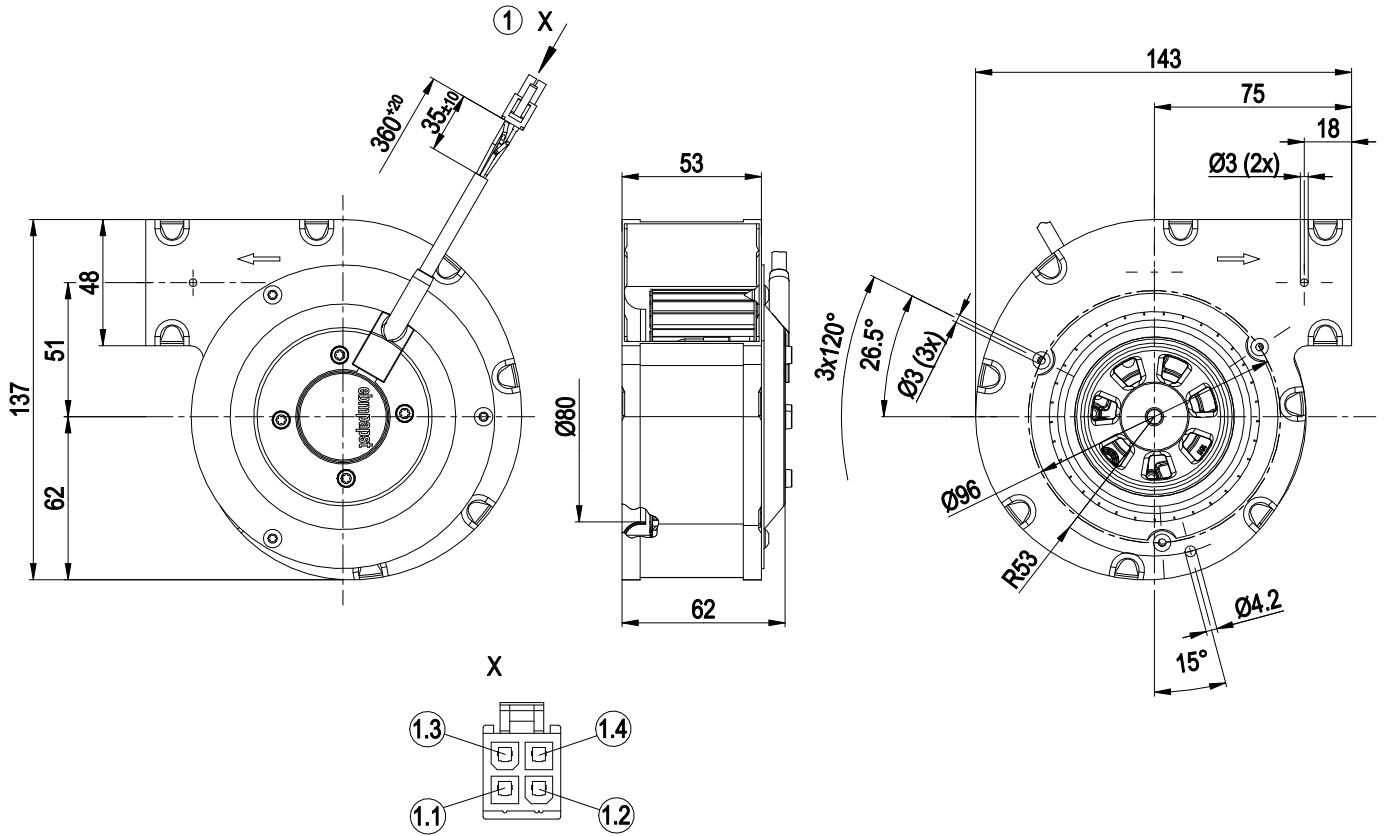
Weight	0.8 kg
Size	97 mm
Motor size	45
Rotor surface	Thick-film passivated
Impeller material	Sheet steel, galvanized
Housing material	Sheet steel, galvanized
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP20
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Any
Condensation drainage holes	None, open rotor
Mode	S1
Motor mounting	Ball bearing
Technical features	- Tach output - Power limiter - Soft start - Control input 0-10 VDC / PWM - Overvoltage detection - Thermal overload protection for motor - Line undervoltage detection
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	III
Conformity with standards	EN 60335-1



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Product drawing



1	Cable PVC AWG22, 4-pole connector housing Molex 46992-0410, 4x socket Molex 39-00-0059
1.1	UN +24 VDC (red)
1.2	DUE (white)
1.3	PWM (yellow)
1.4	GND (blue)

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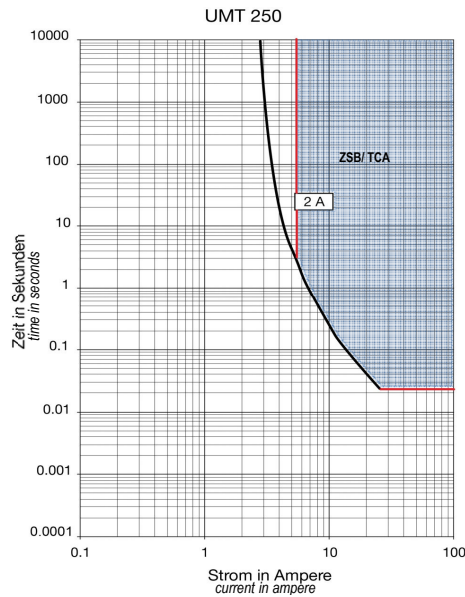
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Anforderungen an das Netzteil
Power supply requirements

Versorgung durch ein SELV Netzteil nach EN 60335-1
Supply by SELV power supply according to EN60335-1

Nennspannung: <i>rated voltage</i>	24VDC	
Spannungsbereich: <i>voltage range</i>	24VDC +/-10%	
Mindeststrom im Fehlerfall: <i>minimum current in case of failure</i>	5,5A für min. 4s oder innerhalb des geforderten Zeit/ Strombereiches (ZSB) im unteren Schaubild (an der Anschlussleitung gemessen) 5,5A for min. 4s or within the required time/ current area (TCA) in the chart below (measured at the connecting line)	Tu=23°C TA=23°C

Es handelt sich bei allen Angaben um typische Werte.
all general information are typical values



Quelle: Datenblatt Schurter UMT 250
source: datasheet Schurter UMT 250

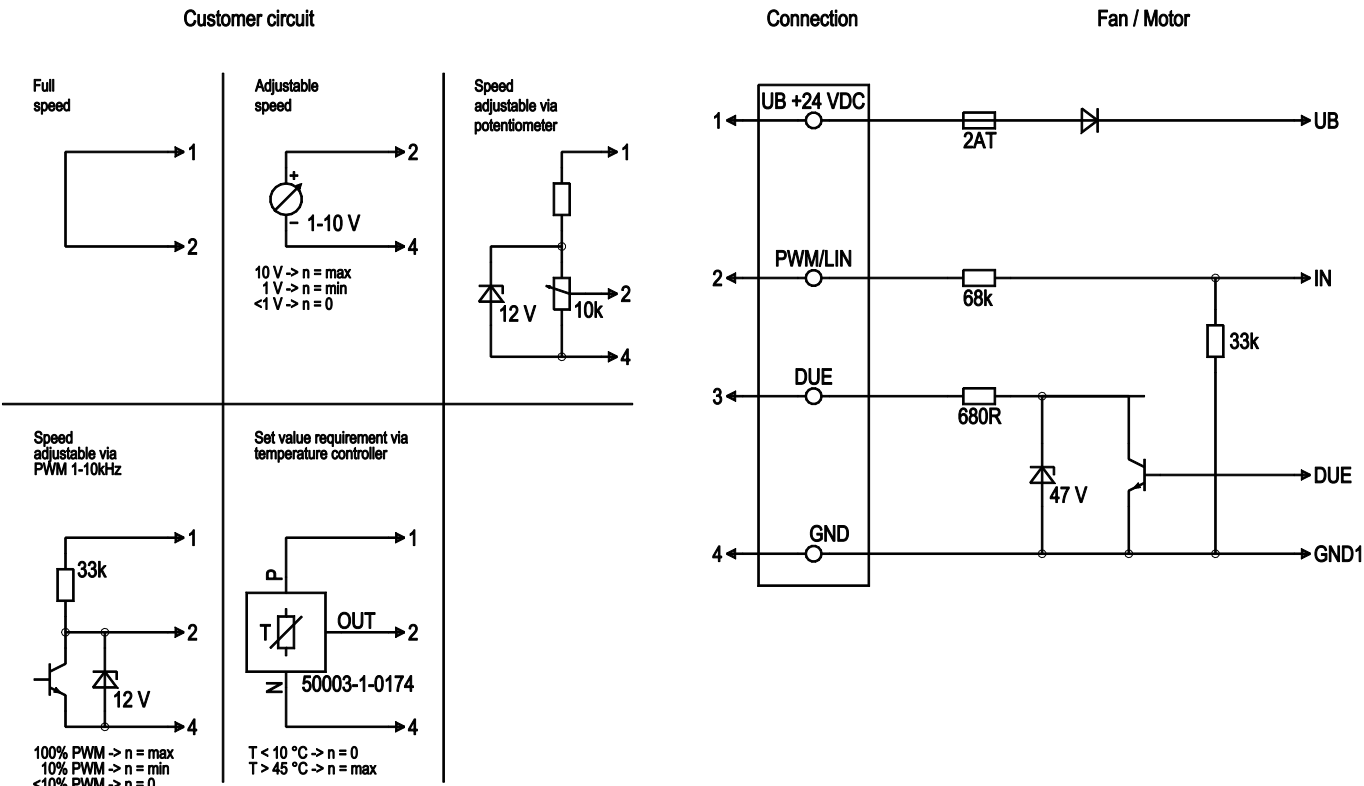
Sicherheit ist in Verbindung mit dem verwendeten Netzteil im Endgerät zu prüfen!
safety has to be checked in the terminal equipment in combination with the used power supply!



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Connection diagram



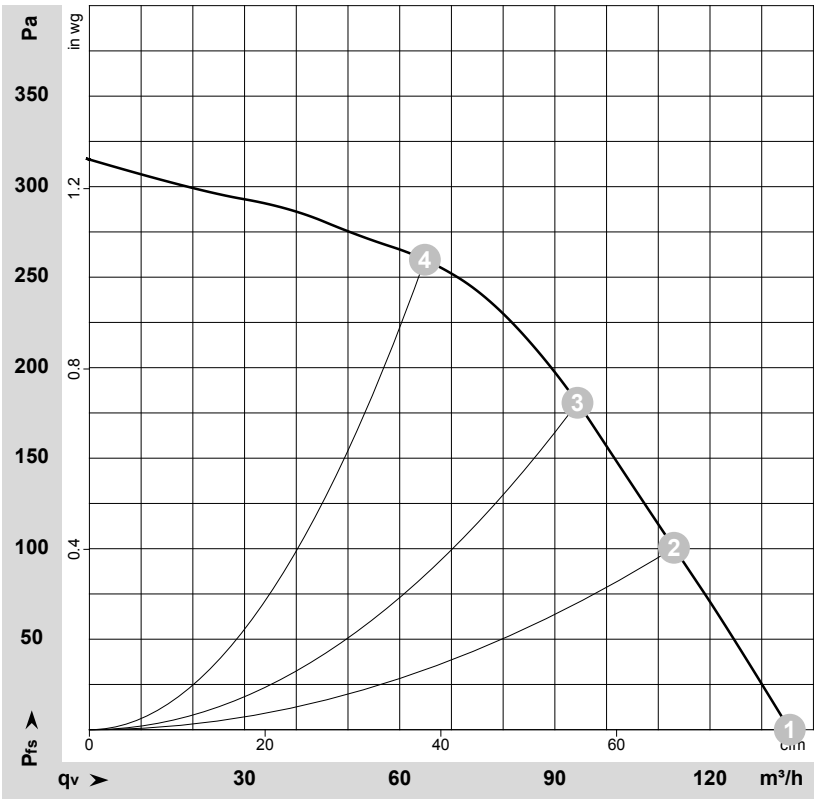
No.	Conn.	Designation	Color	Function/assignment
1		UN +24 VDC	red	Power supply +24 VDC
2		PWM/LIN	yellow	Control input
3		DUE	white	Tach output, 1 pulse per revolution, Isink max = 10 mA
4		GND	blue	Reference ground



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Curves: Air performance



$\rho = 1.191 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-178640-1

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	LpA _{in}	LwA _{in}	q _v	p _{fs}	q _v	p _{fs}
	V	min ⁻¹	W	A	dB(A)	dB(A)	m ³ /h	Pa	cfm	in. wg
1	24	2900	25	1.05	58	65	135	0	80	0.00
2	24	3035	22	0.91	57	64	115	100	65	0.40
3	24	3180	19	0.79	56	63	95	180	55	0.72
4	24	3400	15	0.62	54	61	65	260	40	1.04

U = Power supply · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side · q_v = Air flow
p_{fs} = Pressure increase

