

G1G160-BH29-52

# EC centrifugal fan

forward curved, single inlet  
with housing (flange)

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### Nominal data

Type	G1G160-BH29-52	
Motor	M1G074-BF	
Nominal voltage	VDC	24
Nominal voltage range	VDC	16 .. 28
Type of data definition		fa
Speed	min <sup>-1</sup>	1750
Power input	W	105
Current draw	A	5.8
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	+60

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit  
Subject to alterations



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## Technical features

<b>Mass</b>	2.82 kg
<b>Size</b>	160 mm
<b>Surface of rotor</b>	Coated in black
<b>Material of impeller</b>	Sheet steel, galvanised
<b>Direction of rotation</b>	Clockwise, seen on rotor
<b>Type of protection</b>	IP 42
<b>Insulation class</b>	"B"
<b>Humidity class</b>	F0
<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
<b>Operation mode</b>	S1
<b>Motor bearing</b>	Ball bearing
<b>Technical features</b>	<ul style="list-style-type: none"><li>- Tach output</li><li>- Motor current limit</li><li>- Soft start</li><li>- Control input 0-10 VDC / PWM</li></ul>
<b>EMC interference immunity</b>	Acc. to EN 61000-6-2 (industrial environment)
<b>EMC interference emission</b>	Acc. to EN 55022 (Class B)
<b>Motor protection</b>	Reverse polarity and locked-rotor protection
<b>Cable exit</b>	Axial
<b>Product conforming to standard</b>	EN 60950-1
<b>Approval</b>	GOST; UL 1004-1; CSA C22.2 Nr.77

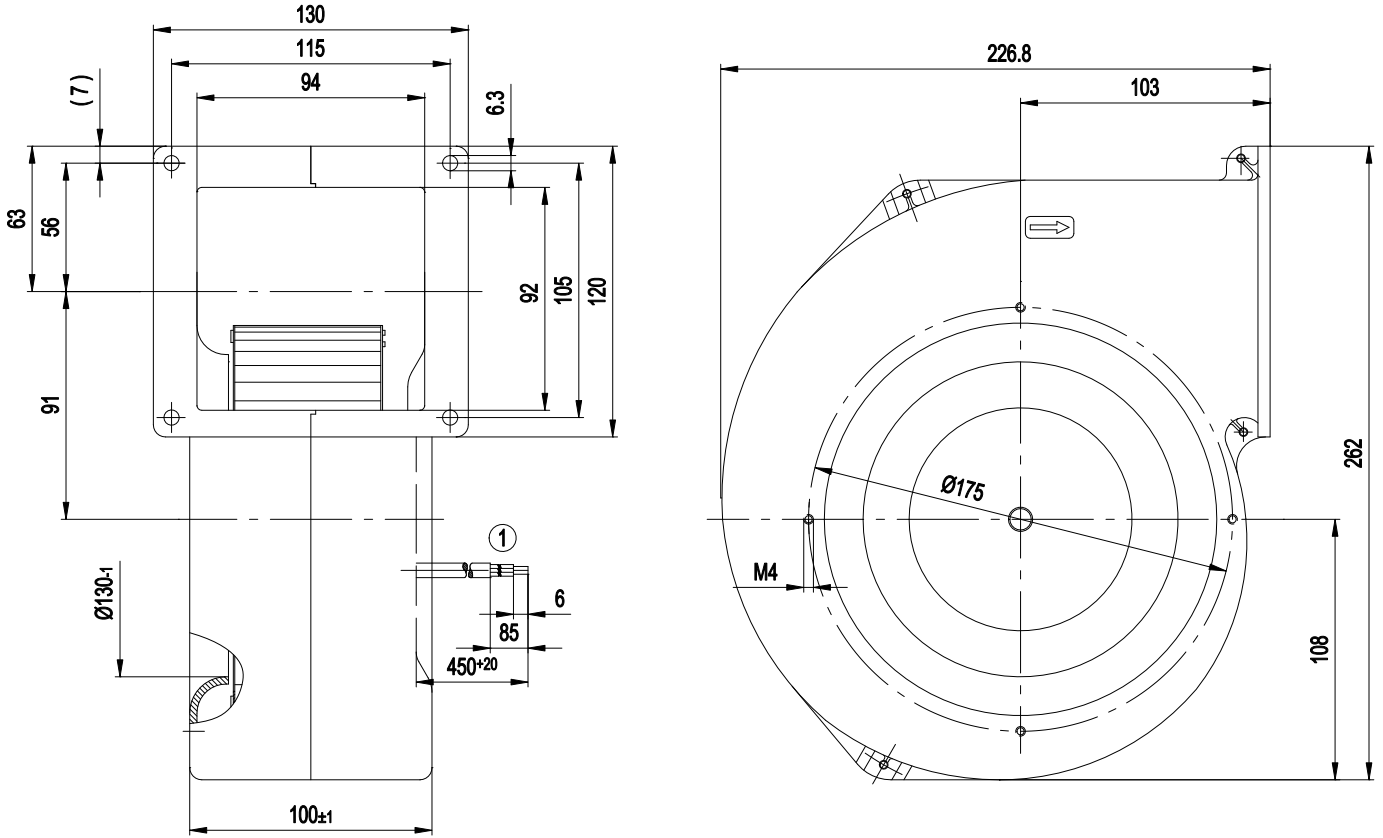


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## Product drawing



1 Connection line AWG 20, 4x brass lead tips crimped



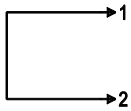
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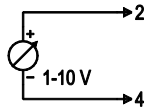
## Connection screen

### Customer circuit

Full speed

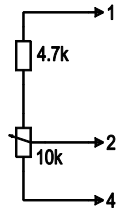


Adjustable speed

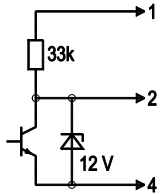


10 V → n = max  
1 V → n = min  
<1 V → n = 0  
Safe start at  
Unom -30%  
from 4 V Ucontr.

Speed adjustable via potentiometer

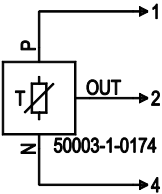


Speed adjustable via PWM 1-10 kHz



100% PWM → n = max  
10% PWM → n = min  
<10% PWM → n = 0  
Safe start at  
Unom -30%  
from 40% PWM

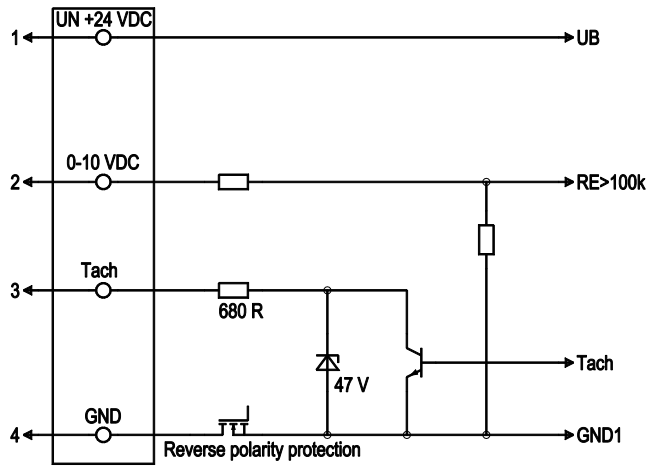
Preset target value via temperature controller



T < 10 °C → n = 0  
T > 45 °C → n = max

### Connection

### Fan/Motor



Line	No.	Signal	Colour	Function / assignment
1	1	Un +24 VDC	red	Power supply 24 VDC, residual ripple 3.5 %
1	2	0-10 VDC	yellow	Control input Re > 100 K
1	3	Tach	white	Speed monitoring output, 3 pulses per revolution, Isink max = 10 mA
1	4	GND	blue	Reference mass

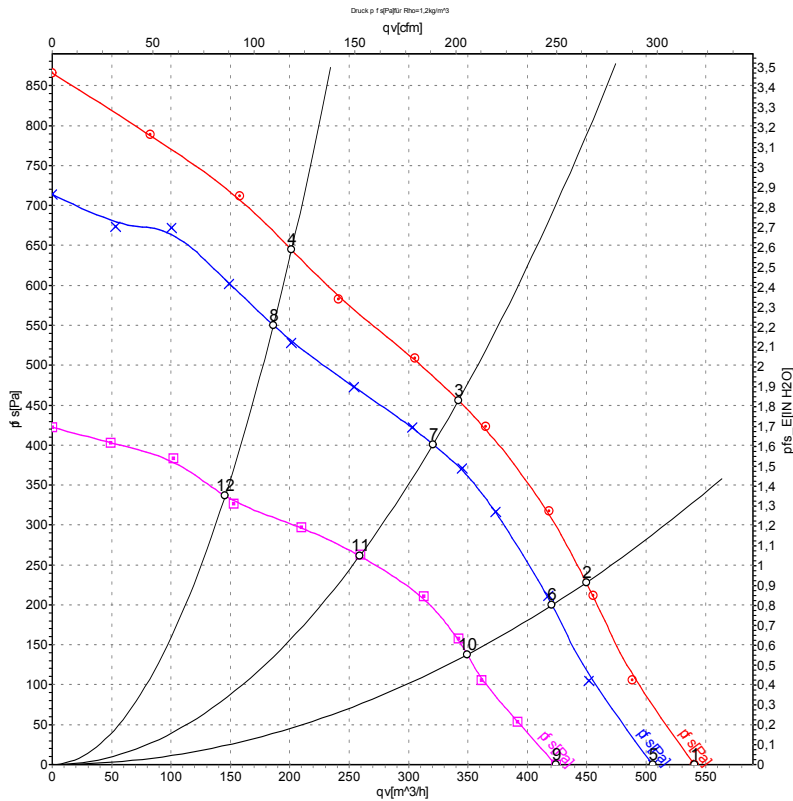


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## Charts: Air flow



Measurement: LU-59980  
 Measurement: LU-59979  
 Measurement: LU-59981

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: L<sub>WA</sub> measured as per ISO 13347 / L<sub>pA</sub> 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	qv	p <sub>fs</sub>
	V	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa
1	28	1870	134	6.43	540	0
2	28	2115	121	5.54	450	229
3	28	2420	110	4.82	340	456
4	28	2825	102	4.20	200	645
5	24	1750	105	5.80	505	0
6	24	1990	99	5.02	420	200
7	24	2275	91	4.43	320	400
8	24	2655	83	3.86	185	550
9	16	1485	63	4.48	425	0
10	16	1670	57	4.01	350	138
11	16	1860	49	3.42	260	263
12	16	2085	41	2.85	145	334

U = Supply voltage · n = Speed · P<sub>ed</sub> = Power input · I = Current draw · qv = Air flow · p<sub>fs</sub> = Pressure increase

