

G1G120-AB67-02

EC centrifugal fan

forward curved, single inlet
with housing (flange)



ebm-papst Mulfingen GmbH & Co. KG

Bachmühle 2

D-74673 Mulfingen

Phone: +49(0)7938/81-0

Fax: +49(0)7938/81-110

info1@de.ebmpapst.com

www.ebmpapst.com

Nominal data

Type	G1G120-AB67-02	
Motor	M1G055-BD	
Nominal voltage	[VDC]	24
Nominal voltage range	[VDC]	16 .. 28
Type of data definition		rfa
Speed	[min ⁻¹]	2200
Power input	[W]	40
Current draw	[A]	1.9
Min. ambient temperature	[°C]	- 25
Max. ambient temperature	[°C]	+60

ml = max. load · me = max. efficiency · rfa = running at free air · cs = customer specs · cu = customer unit
Subject to alterations

EC centrifugal fan

forward curved, single inlet
with housing (flange)

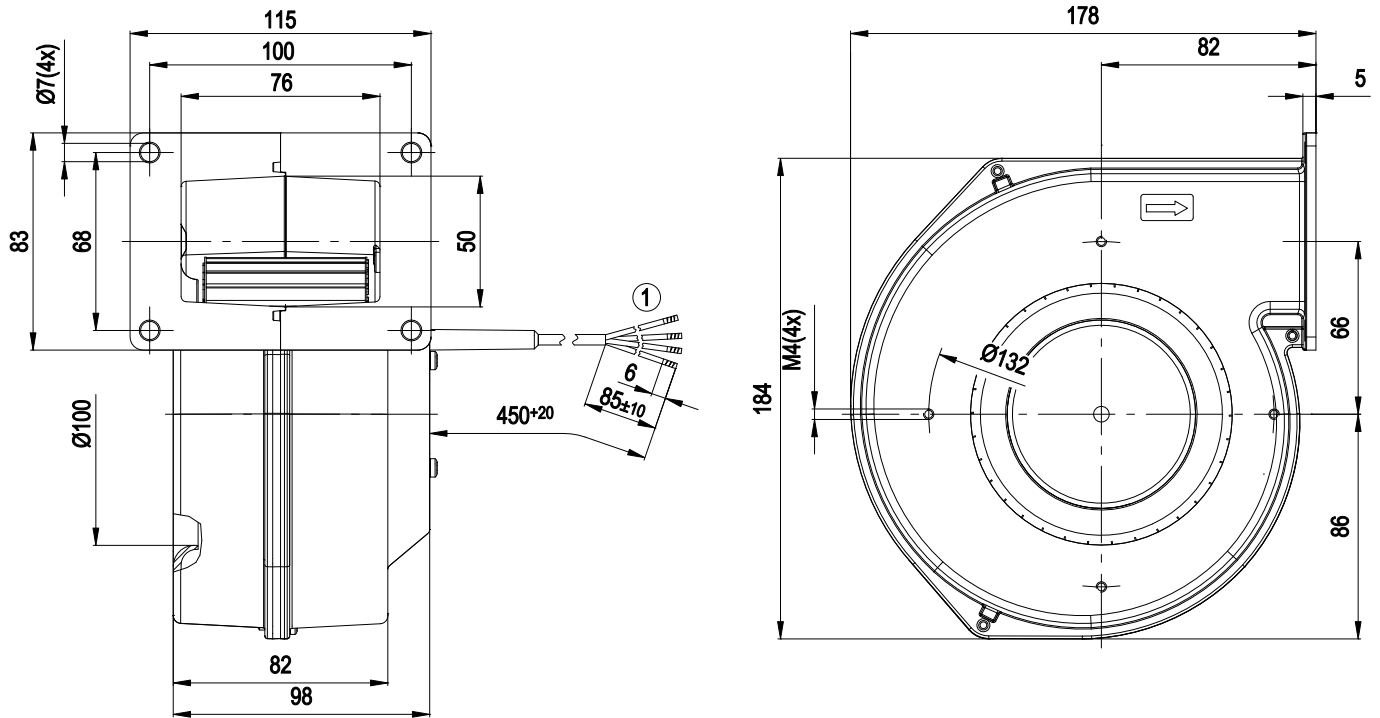
Technical features

Size	120 mm
Operation mode	S1
Direction of rotation	Clockwise, seen on rotor
Mounting position	Any
EMC interference emission	Acc. to EN 61000-6-3 (household environment)
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
Insulation class	"B"
Cable exit	Axial
Condensate discharge holes	None
Bearing motor	Ball bearing
Mass	1.57 kg
Housing material	Die-cast aluminium
Material of impeller	Sheet steel, hot-galvanised
Motor protection	Reverse polarity and locked-rotor protection
Product conforming to standard	EN 60950-1
Surface of rotor	Thick layer passivated
Type of protection	IP 22
Technical features	- Control input 0-10 VDC / PWM - Tach output - Motor current limit - Soft start
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Approval	CSA C22.2 Nr.77; UL 1004-1

EC centrifugal fan

forward curved, single inlet
with housing (flange)

Product drawing



1 Connection line AWG20, 4x brass lead tips crimped

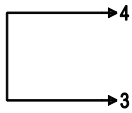
EC centrifugal fan

forward curved, single inlet
with housing (flange)

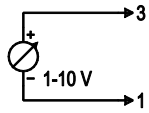
Connection screen

Customer circuit

Full speed

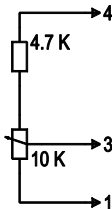


Speed setting

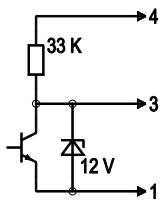


10 V → n = max
1 V → n = min
<1 V → n = 0
Safe start-up at Unom -30 %
from 4 V Ucontr.

Speed setting with fixed resistance

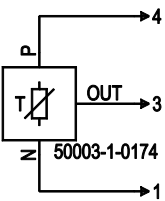


Speed setting via PWM 1-10 kHz



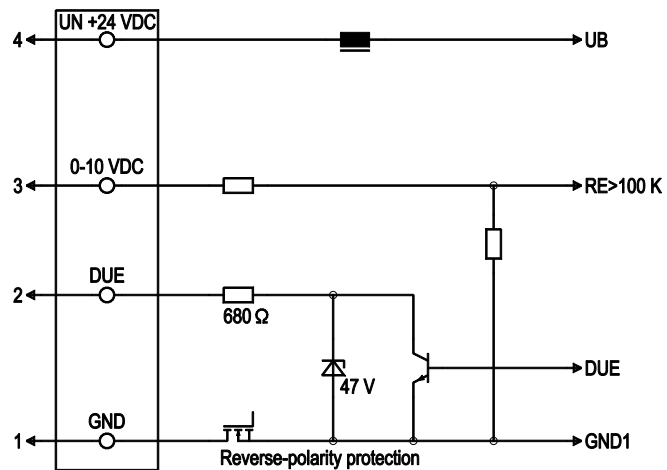
100 % PWM → n = max
10 % PWM → n = min
< 10 % PWM → n = 0
Safe start-up at Unom -30 %
from 40 % PWM

Setting of values via temperature controller



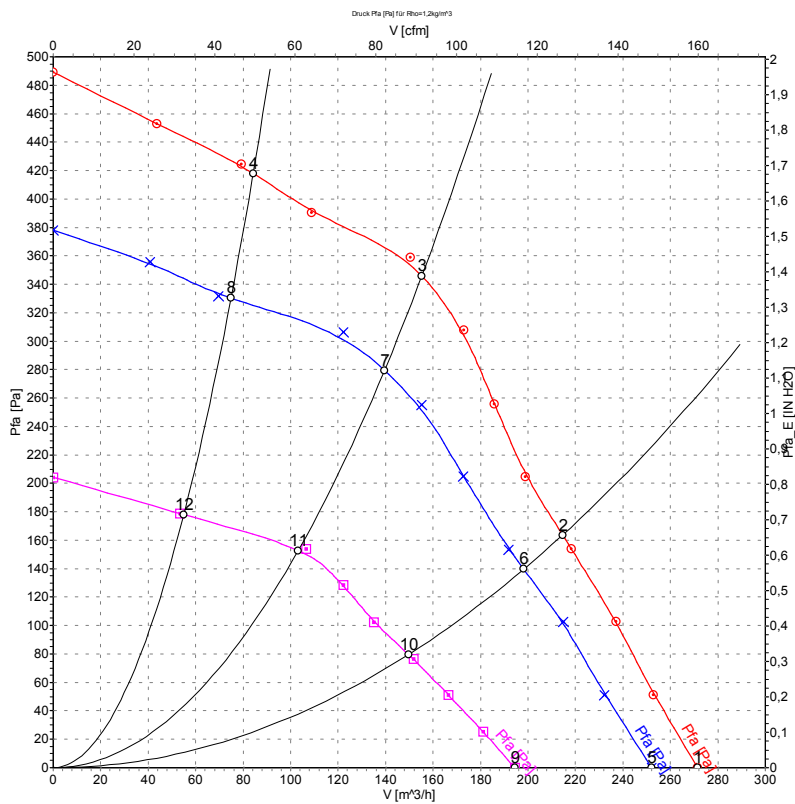
Connection

Fan / motor



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

Charts: Air flow



Measurement: LU-48521
 Measurement: LU-48520
 Measurement: LU-48522

Measured values

	U	n	P ₁	I	$\hat{V}$	p _{fa}
	[V]	[min ⁻¹]	[W]	[A]	[m³/h]	[Pa]
1	28	2380	49	2.09	270	0
2	28	2675	45	1.82	215	164
3	28	3025	39	1.54	155	348
4	28	3315	31	1.23	85	418
5	24	2200	40	1.90	250	0
6	24	2480	36	1.64	200	140
7	24	2730	29	1.34	140	280
8	24	2940	24	1.10	75	330
9	16	1750	19	1.32	195	0
10	16	1895	16	1.11	150	80
11	16	2050	13	0.92	105	155
12	16	2215	9.94	0.78	55	178