

R1G133-AA17-02

EC centrifugal fan

backward curved, single inlet



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Nominal data

Type	R1G133-AA17-02	
Motor	M1G055-BD	
Nominal voltage	VDC	24
Nominal voltage range	VDC	16 .. 28
Type of data definition		fa
Speed	min ⁻¹	3900
Power input	W	28
Current draw	A	1.3
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



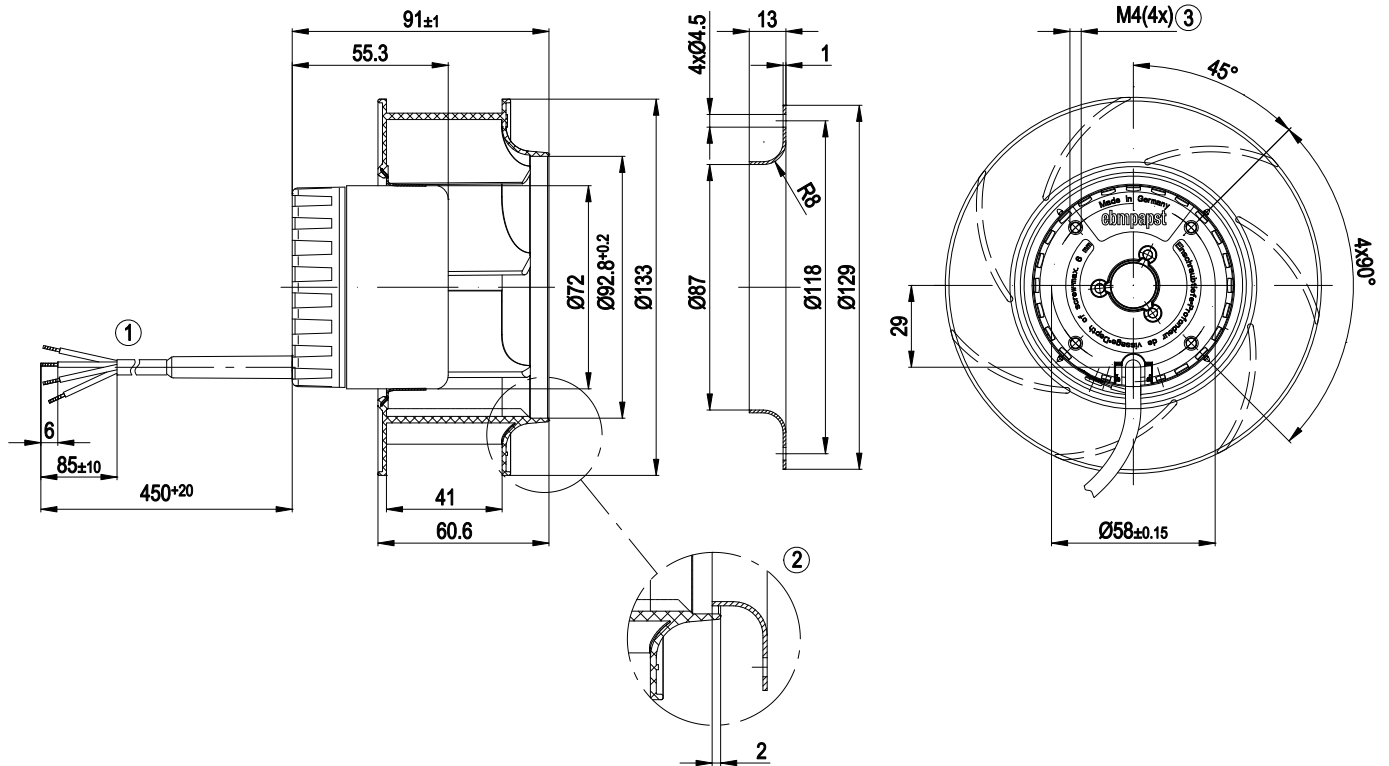
Technical features

Mass	0.65 kg
Size	133 mm
Surface of rotor	Thick layer passivated
Material of electronics housing	Die-cast aluminium
Material of impeller	Plastic PA66, fibreglass-reinforced
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 20
Insulation class	"B"
Humidity class	F0
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Any
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Control input 0-10 VDC / PWM - Tach output - Motor current limit - Soft start
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC interference emission	Acc. to EN 61000-6-3 (household environment)
Motor protection	Reverse polarity and locked-rotor protection
Cable exit	Variable
Approval	CSA C22.2 Nr.77; EAC; UL 1004-1

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Product drawing

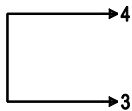


1	Connection line AWG20; 4 x brass lead tips crimped
2	Accessory part: Inlet nozzle 09566-2-4013, not included in the standard scope of delivery
3	Depth of screw max. 6 mm

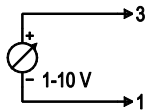
Connection screen

Customer circuit

Full speed

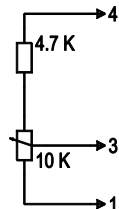


Speed setting

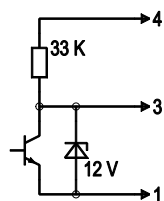


10 V → n = max
1 V → n = min
<1 V → n = 0
Safe start-up at Unom -30 %
from 4 V Ucontr.

Speed setting with fixed resistance

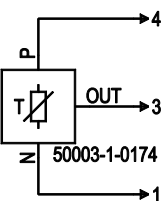


Speed setting via PWM 1-10 kHz



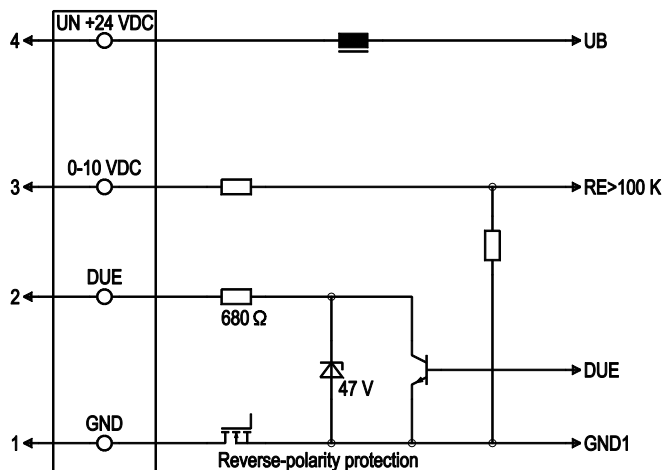
100 % PWM → n = max
10 % PWM → n = min
<10 % PWM → n = 0
Safe start-up at Unom -30 %
from 40 % PWM

Setting of values via temperature controller



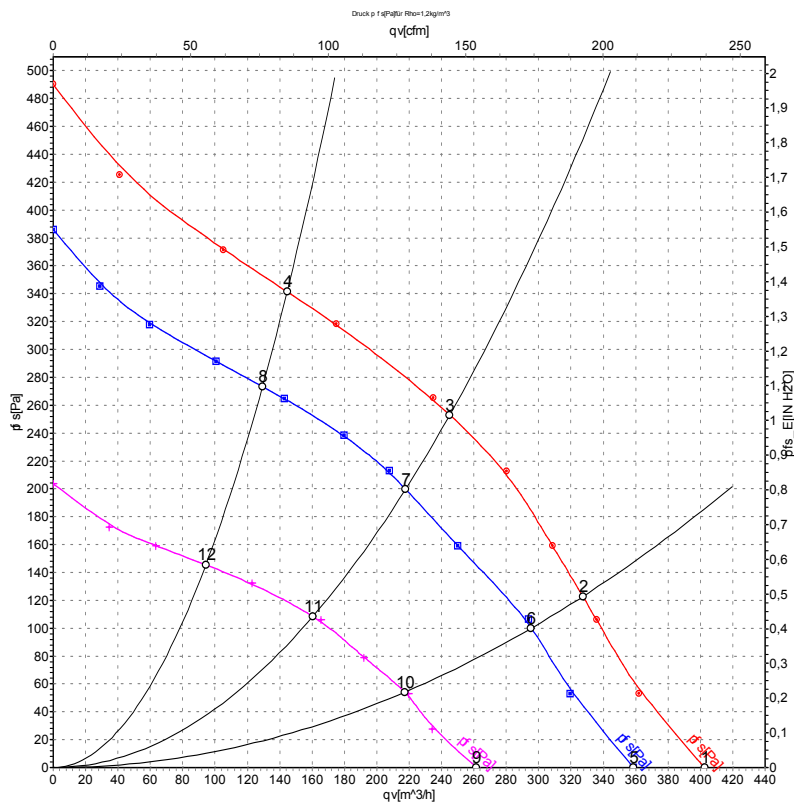
Connection

Fan / motor



No.	Conn.	Designation	Colour	Function / assignment
1	1	GND	blue	Reference mass
1	2	Tach	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



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_{WA} measured as per ISO 13347 /
L_{pA} 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	qv	p _{fs}
	V	min ⁻¹	W	A	m ³ /h	Pa
1	28	4345	36	1.43	405	0
2	28	4170	40	1.60	325	123
3	28	4155	41	1.61	245	253
4	28	4255	38	1.51	145	342
5	24	3900	28	1.30	360	0
6	24	3725	30	1.39	295	100
7	24	3710	30	1.40	220	200
8	24	3800	28	1.32	130	275
9	16	2830	11	0.88	260	0
10	16	2750	13	0.95	215	55
11	16	2745	13	0.95	160	109
12	16	2795	12	0.91	95	145

U = Supply voltage · n = Speed · P_{ed} = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase