

R1G225-AF07-29

EC centrifugal fan

backward-curved, single-intake



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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	R1G225-AF07-29	
Motor	M1G074-BF	
Nominal voltage	VDC	24
Nominal voltage range	VDC	16 .. 28
Method of obtaining data		fa
Speed (rpm)	min ⁻¹	2600
Power consumption	W	100
Current draw	A	4.6
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



Technical description

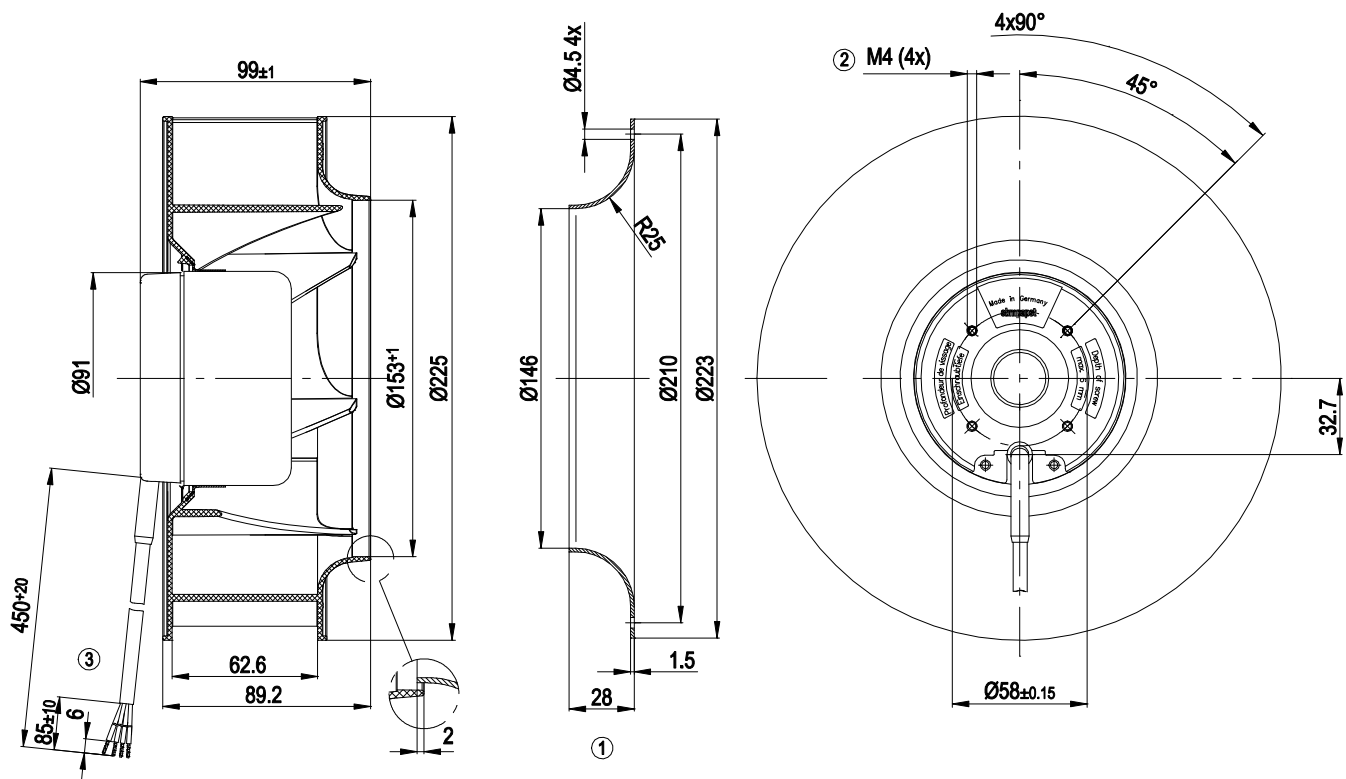
Weight	1.6 kg
Size	225 mm
Motor size	74
Rotor surface	Painted black
Impeller material	PA66 plastic, sheet-metal plate painted black
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H2+
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
Mode	S1
Motor bearing	Ball bearing
Technical features	- Tach output - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Reverse polarity protection
EMC immunity to interference	According to EN 61000-6-2
EMC interference emission	According to EN 61000-6-3
With cable	Variable
Protection class assignment	III; Requires supply with safety extra-low voltage SELV. This component for installation may have several local protection classes. This information relates to this component's basic design. The final protection class is based on the component's intended installation and connection.
Conformity with standards	EN 62368-1
Approval	EAC; UL 1004-1; CSA C22.2 No. 77



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Product drawing



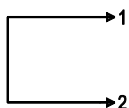
- | | |
|---|---|
| 1 | Accessory part: inlet ring 96358-2-4013 not included in scope of delivery |
| 2 | Max. clearance for screw 6 mm |
| 3 | Cable AWG20, 4x crimped splices |



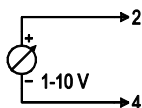
Connection diagram

Customer circuit

Full speed

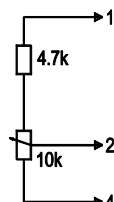


Adjustable speed

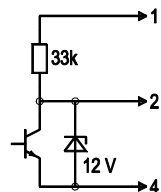


10 V $\rightarrow$ n = max
1 V $\rightarrow$ n = min
< 1 V $\rightarrow$ n = 0
Safe start
at Unom -30%
from 4 V Ucontr.

Speed adjustable via potentiometer

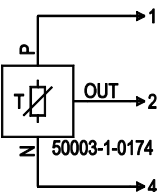


Speed adjustable via PWM 1-10 kHz



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

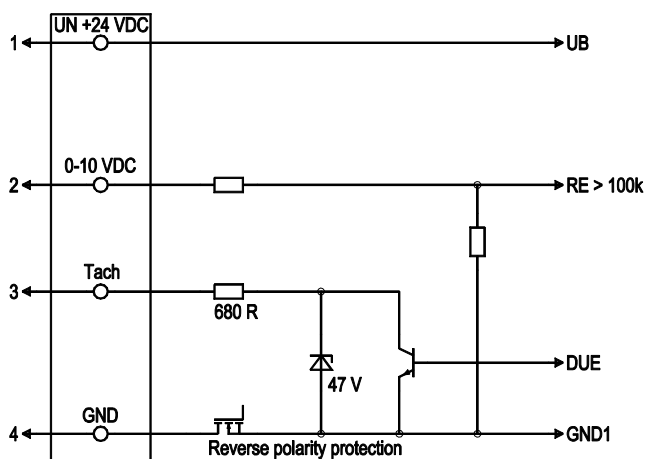
Set value requirement via temperature controller



$T < 10^\circ\text{C} \rightarrow$ n = 0
 $T > 45^\circ\text{C} \rightarrow$ n = max

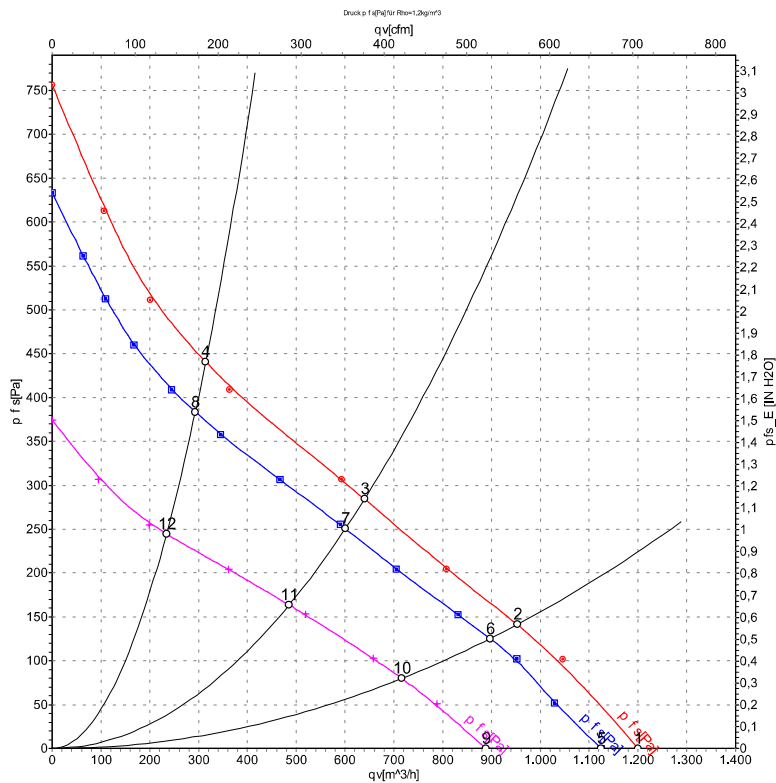
Connection

Fan / Motor



No.	Conn.	Designation	Color	Function/assignment
1	1	Un +24 VDC	red	Power supply 24 VDC, maximum ripple 3.5 %
1	2	0-10 VDC	yellow	Control input Re > 100k
1	3	Tach	white	Tach output, 3 pulses per revolution, Isink max = 10 mA
1	4	GND	blue	Reference ground

Curves: Air performance



Measurement: LU-52036-1
 Measurement: LU-52035-1
 Measurement: LU-52037-1

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	m³/h	Pa	cfm	in. wg
1	28	2795	116	4.87	1200	0	705	0.00
2	28	2630	120	5.14	955	142	560	0.57
3	28	2560	122	5.26	640	284	375	1.14
4	28	2745	118	4.96	315	440	185	1.77
5	24	2600	100	4.60	1125	0	660	0.00
6	24	2480	100	4.76	895	125	530	0.50
7	24	2390	101	4.89	600	250	355	1.00
8	24	2570	98	4.63	295	385	170	1.55
9	16	2065	48	3.35	890	0	525	0.00
10	16	1980	52	3.60	715	80	420	0.32
11	16	1940	54	3.72	485	164	285	0.66
12	16	2050	49	3.42	235	244	140	0.98

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

