EC circulation blower for hot air

Limited partnership · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**R3G210-AC73-09**
Motor	**M3G074-CF**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	3000
Power consumption	W	180
Current draw	A	1.4
Min. back pressure	Pa	0
Min. back pressure	in. wg	0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50

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

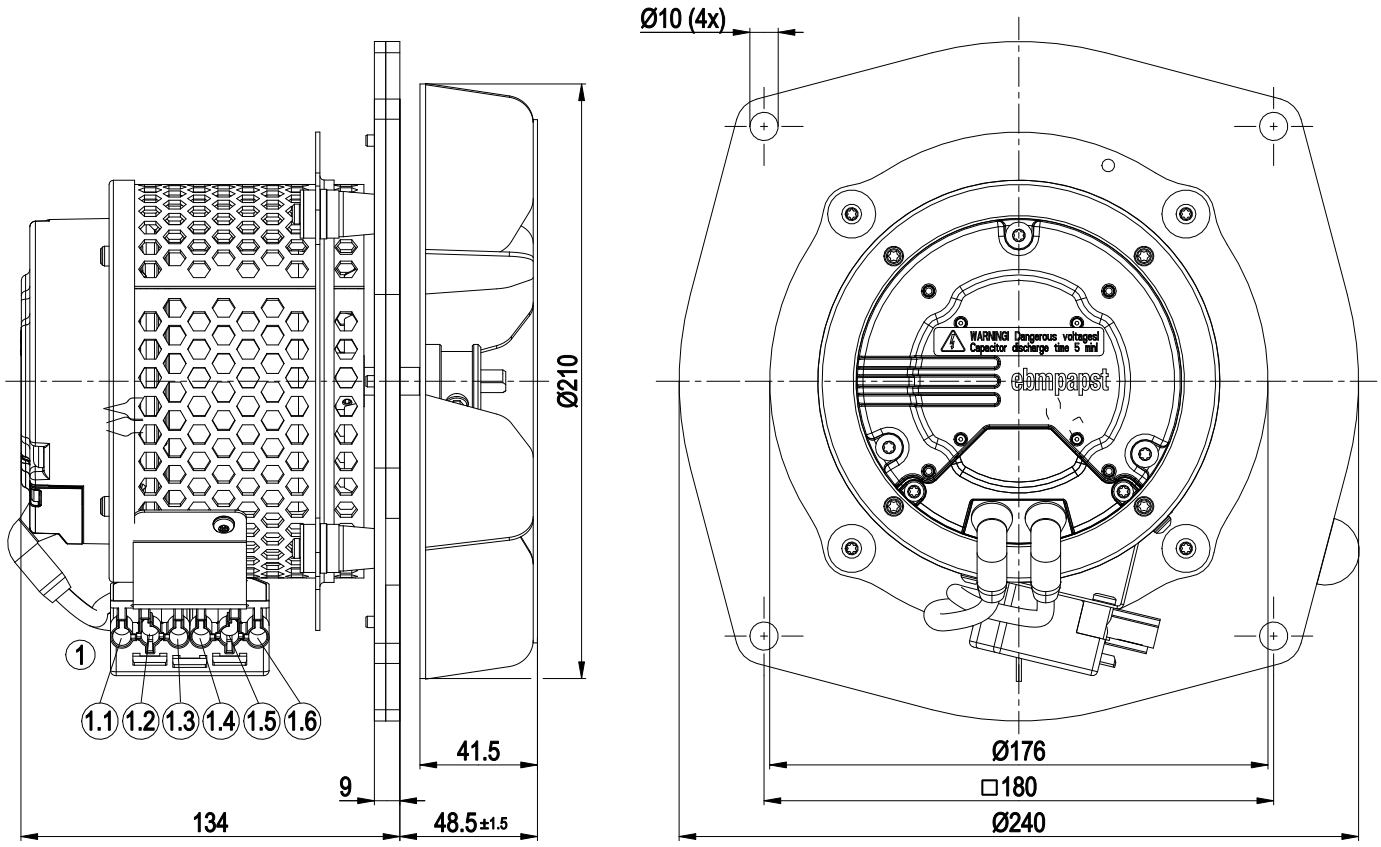
EC circulation blower for hot air

Technical description

Weight	5.0 kg
Size	210 mm
Motor size	74
Rotor surface	Thick-film passivated
Impeller material	Sheet steel, rust-resistant
Number of blades	6
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent
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
Mode	S1
Motor bearing	Ball bearing
Technical features	- Tach output - Power limiter - Motor current limitation - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Thermal overload protection for electronics/motor
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC interference emission	According to EN 61000-6-4 (industrial environment)
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Electrical hookup	Plug
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE

EC circulation blower for hot air

Product drawing



1	6-pole connector housing Wieland 99.401.5168.3
1.1	0-10 V PWM (yellow)
1.2	GND (blue)
1.3	Tach (white)
1.4	N (blue)
1.5	PE (green/yellow)
1.6	L (black)

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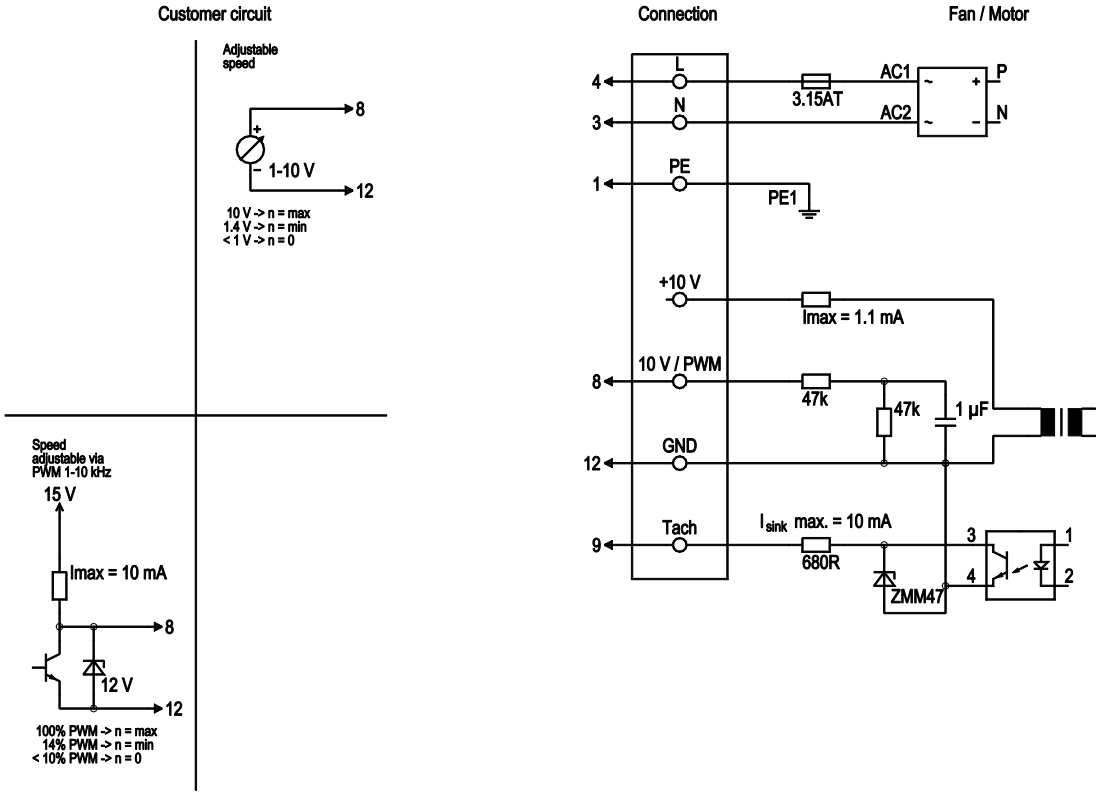
Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	4	L	black	Power supply 230 VAC, 50-60 Hz, see nameplate for voltage range
	3	N	blue	Neutral conductor
	1	PE	green/yellow	Protective earth
	8	0-10 V PWM	yellow	Control input 0-10 V or PWM, electrically isolated
	12	GND	blue	GND connection for control interface
	9	Tach	white	Tach output: Open collector, 1 pulse per revolution, electrically isolated, Isink max = 10 mA

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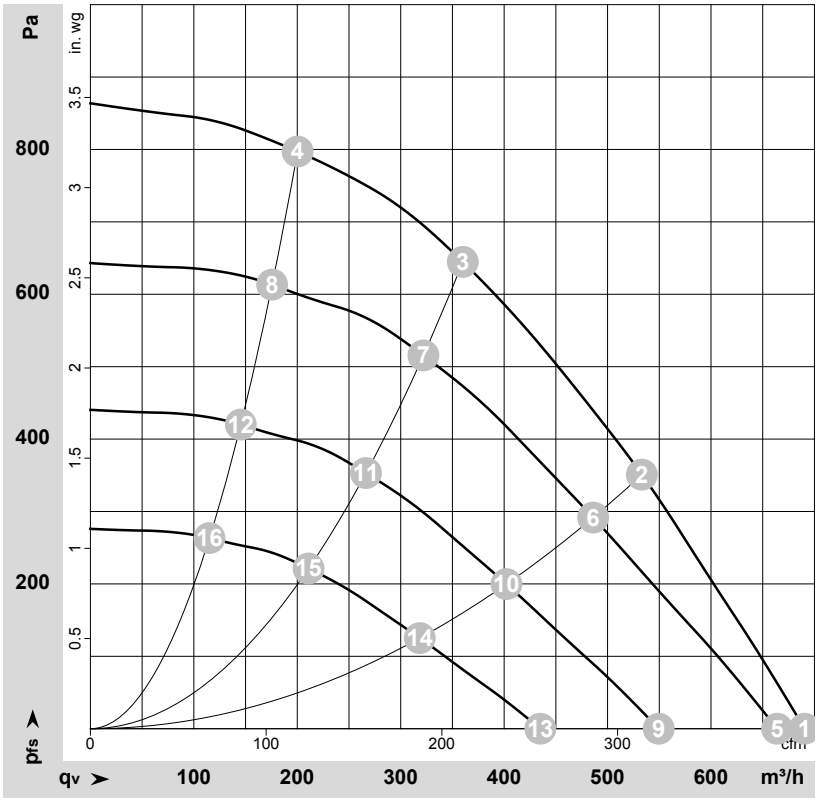
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-187651-1

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

	Wired	U	f	n	P_{ed}	I	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	1~	230	50	3000	180	1.40	690	0	405	0.00
2	1~	230	50	3185	175	1.40	535	350	315	1.41
3	1~	230	50	3245	147	1.20	360	650	210	2.61
4	1~	230	50	3305	110	0.92	200	800	120	3.21
5	1~	230	50	2900	150	1.20	665	0	390	0.00
6	1~	230	50	2900	133	1.06	485	292	285	1.17
7	1~	230	50	2900	105	0.86	320	517	190	2.08
8	1~	230	50	2900	74	0.62	175	614	105	2.46
9	1~	230	50	2400	85	0.68	550	0	325	0.00
10	1~	230	50	2400	75	0.60	400	200	235	0.80
11	1~	230	50	2400	60	0.49	265	354	155	1.42
12	1~	230	50	2400	42	0.35	145	420	85	1.69
13	1~	230	50	1900	42	0.34	435	0	255	0.00
14	1~	230	50	1900	37	0.30	320	125	185	0.50
15	1~	230	50	1900	30	0.24	210	222	125	0.89
16	1~	230	50	1900	21	0.18	115	263	70	1.06

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