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-AC73-10**
Motor	**M3G074-CF**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Method of obtaining data		fa
Status		prelim.
Speed (rpm)	min^{-1}	3100
Power consumption	W	170
Current draw	A	1.4
Min. back pressure	Pa	0
Min. back pressure	in. wg	0
Max. ambient temperature	°C	50
Max. temp. of flow medium	°C	200

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

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Technical description

Weight	4.8 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
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

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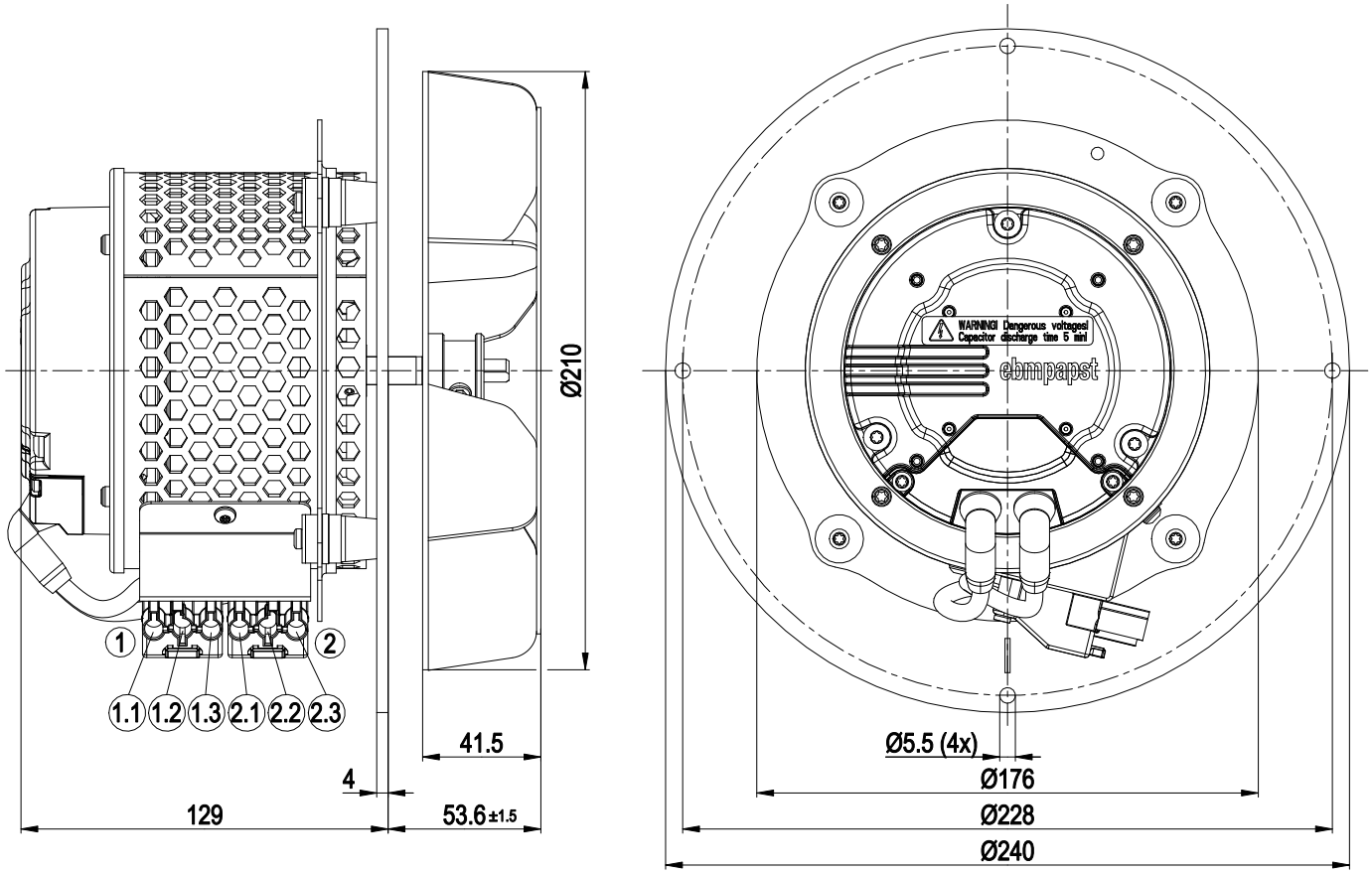
Product drawing



1	3-pole connector housing Wieland 93.631.4757.0
1.1	0-10 V PWM (yellow)
1.2	GND (blue)
1.3	Tach (white)
2	3-pole connector housing Wieland 93.631.4257.0
2.1	N (blue)
2.2	PE (green/yellow)
2.3	L (black)

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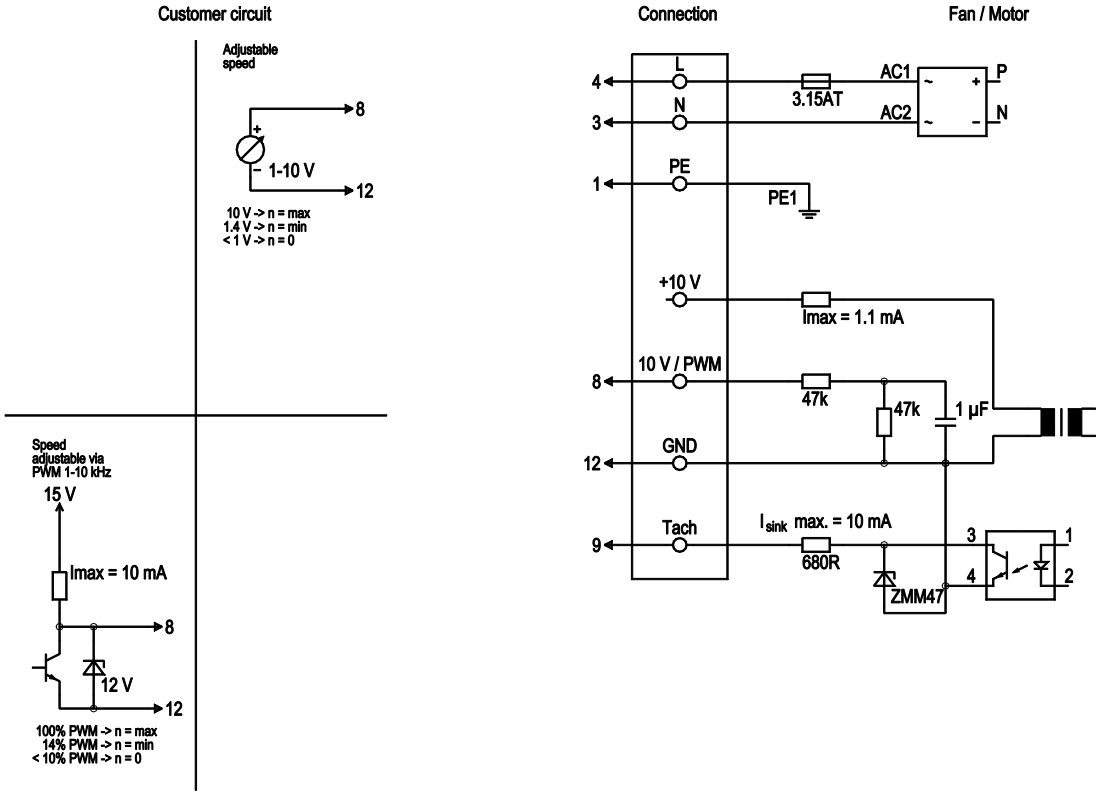
Connection diagram



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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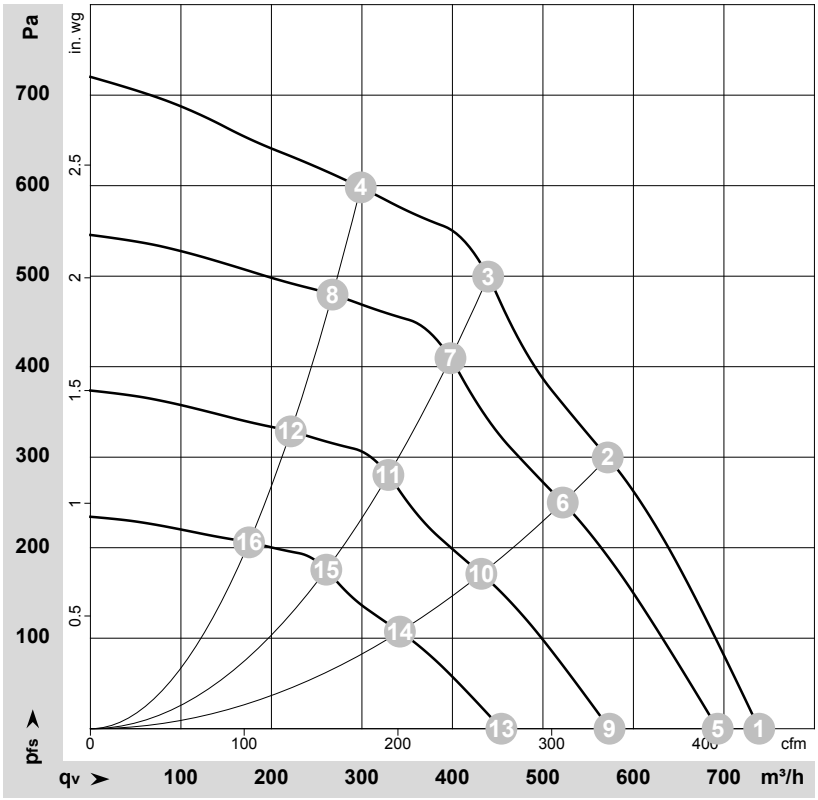
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-191895-1

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	3100	170	1.40	740	0	435	0.00
2	1~	230	50	3175	170	1.40	570	300	335	1.20
3	1~	230	50	3205	159	1.29	440	500	260	2.01
4	1~	230	50	3235	138	1.14	300	600	175	2.41
5	1~	230	50	2900	141	1.14	695	0	410	0.00
6	1~	230	50	2900	128	1.04	520	250	305	1.00
7	1~	230	50	2900	118	0.96	400	411	235	1.65
8	1~	230	50	2900	99	0.82	270	481	160	1.93
9	1~	230	50	2400	80	0.64	575	0	340	0.00
10	1~	230	50	2400	73	0.59	430	171	255	0.69
11	1~	230	50	2400	67	0.54	330	281	195	1.13
12	1~	230	50	2400	56	0.46	220	329	130	1.32
13	1~	230	50	1900	40	0.32	455	0	265	0.00
14	1~	230	50	1900	36	0.29	340	107	200	0.43
15	1~	230	50	1900	33	0.27	260	176	155	0.71
16	1~	230	50	1900	28	0.23	175	206	105	0.83

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