R3G180-AL11-09

EC circulation blower for hot air

for solid-fuel heating systems

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

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Nominal data

Type	**R3G180-AL11-09**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	2700
Power consumption	W	68
Current draw	A	0.6
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50
Max. temp. of flow medium	°C	250

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	3.0 kg
Fan size	180 mm
Rotor surface	Unpainted
Impeller material	Sheet steel, rust-resistant
Number of blades	6
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP54
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	- Output 10 VDC, max. 10 mA - 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 - Overvoltage detection - Thermal overload protection for electronics/motor - Line undervoltage detection
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Electronic motor protection
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE

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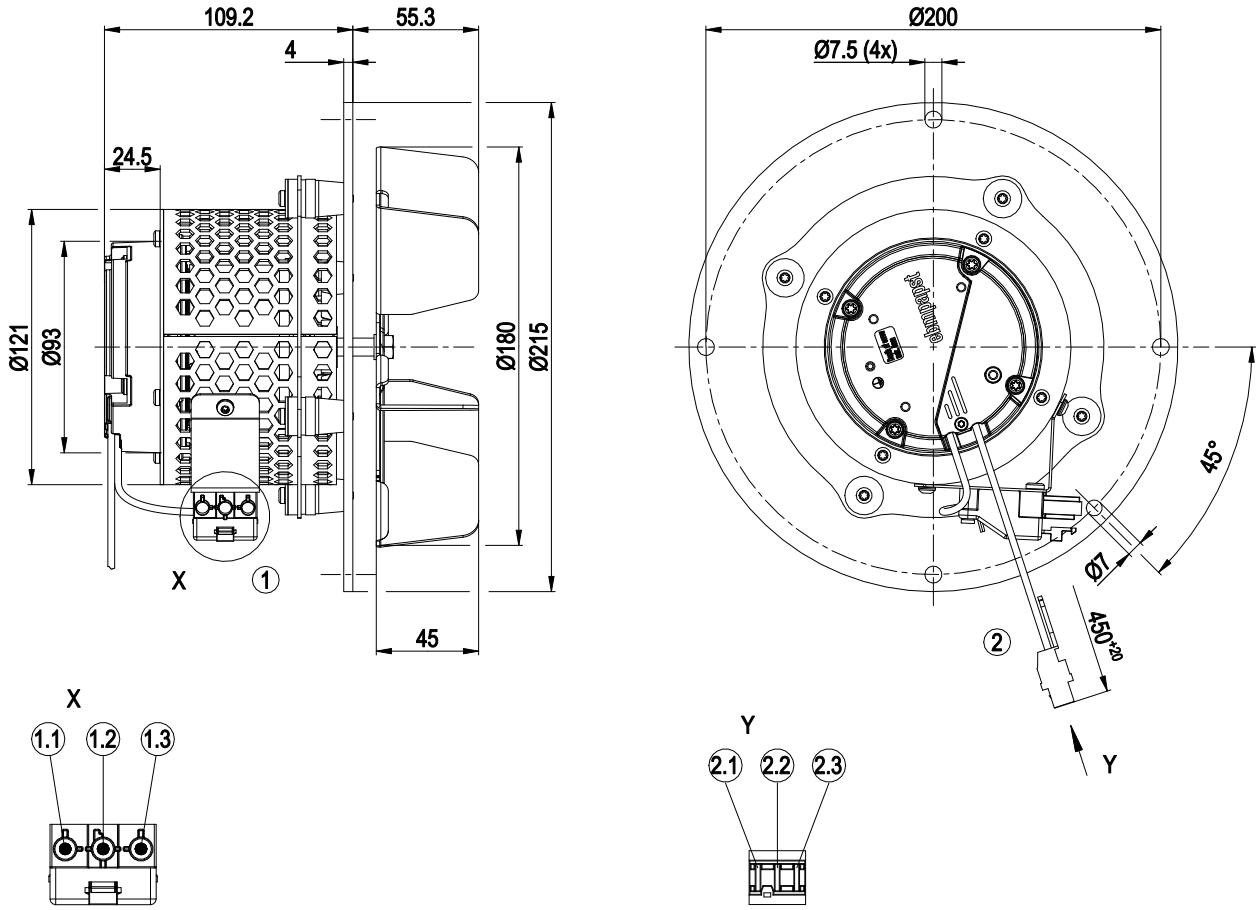
Product drawing



1	3-pole connector housing Wieland 93.832.4357.0
1.1	N (blue)
1.2	PE (green/yellow)
1.3	L (brown)
2	Cable PVC 3x 0.25 mm², 3-pole connector housing Lumberg 3615-1 03 K02
2.1	Tach (white)
2.2	GND (blue)
2.3	0-10 V PWM (yellow)

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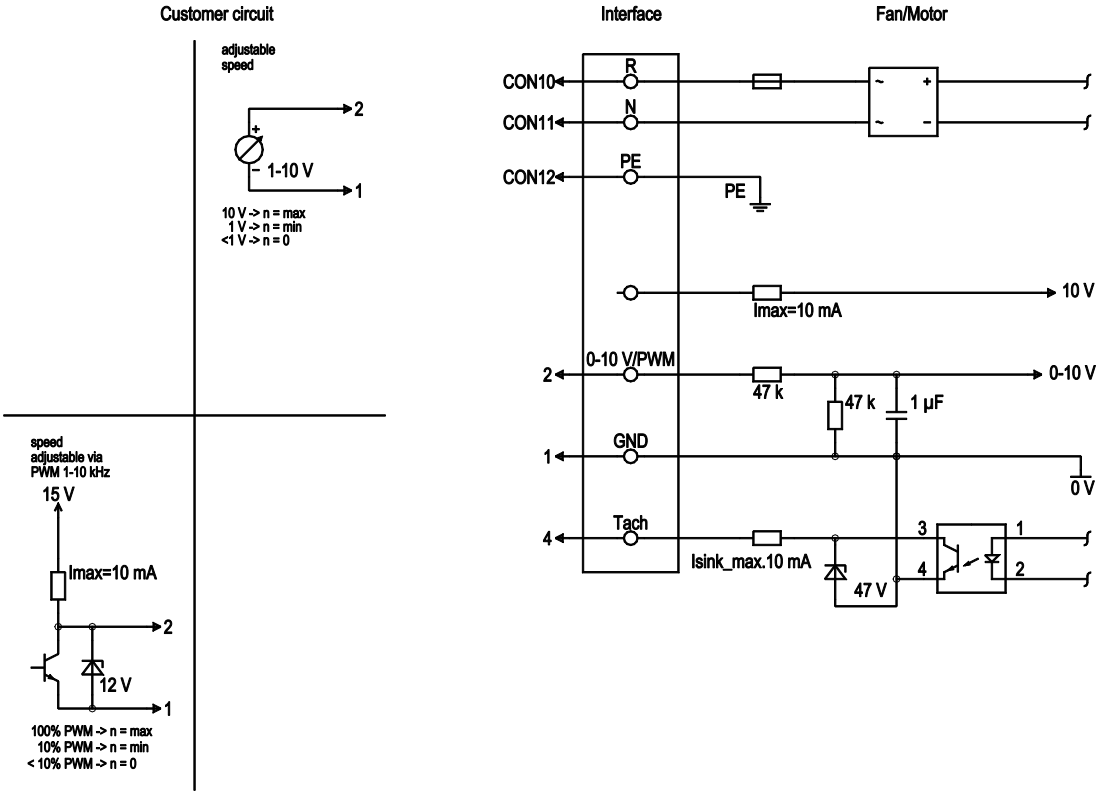
Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	CON10	L	brown	Supply connection, power supply, phase, see nameplate for voltage range
	CON11	N	blue	Supply connection, power supply, neutral conductor, see nameplate for voltage range
	CON12	PE	green/yellow	Ground connection
	2	0- 10V PWM	yellow	0-10 V / PWM control input, Ri=100 kΩ, SELV
	4	Tach	white	Tach output, open collector, 1 pulse per revolution, Isink max = 10 mA, SELV
	1	GND	blue	Reference ground for control interface, SELV

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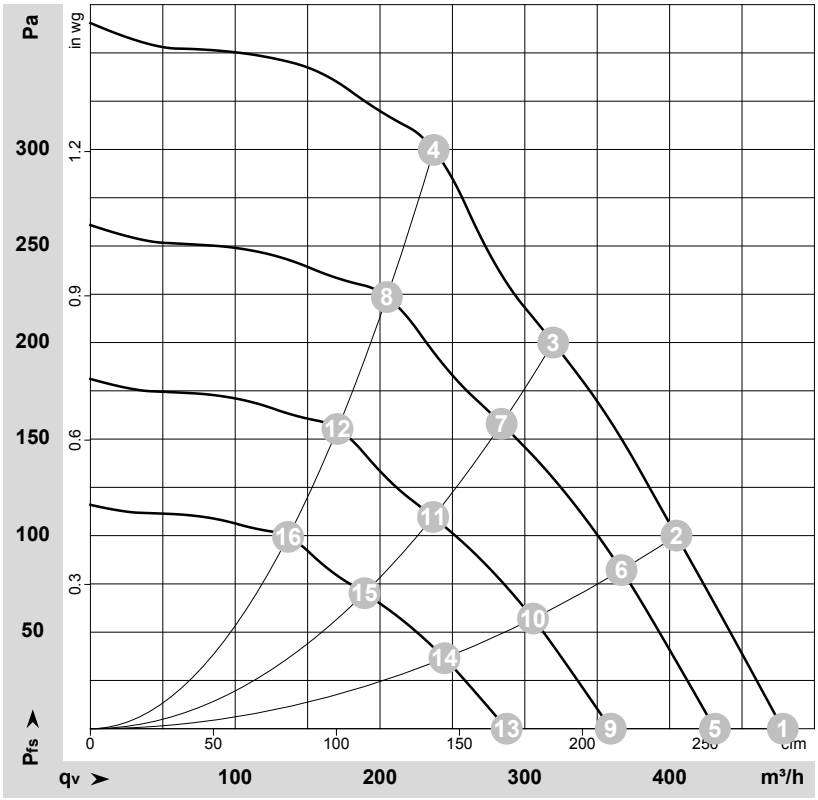
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-184214-1

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	f	n	P_{ed}	I	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	in. wg
1	230	50	2660	68	0.60	64	73	480	0	280	0.00
2	230	50	2645	68	0.60	62	71	405	100	240	0.40
3	230	50	2700	68	0.60	60	68	320	200	190	0.80
4	230	50	2780	59	0.52	62	71	235	300	140	1.20
5	230	50	2400	50	0.44	62	71	430	0	255	0.00
6	230	50	2400	52	0.45	60	68	365	83	215	0.33
7	230	50	2400	46	0.41	57	66	285	158	165	0.63
8	230	50	2400	38	0.34	59	67	205	227	120	0.91
9	230	50	2000	29	0.25	57	66	360	0	210	0.00
10	230	50	2000	30	0.26	55	64	305	58	180	0.23
11	230	50	2000	27	0.24	52	61	235	110	140	0.44
12	230	50	2000	22	0.20	54	63	170	158	100	0.63
13	230	50	1600	15	0.13	52	60	290	0	170	0.00
14	230	50	1600	15	0.13	49	58	245	37	145	0.15
15	230	50	1600	14	0.12	47	55	190	70	110	0.28
16	230	50	1600	11	0.10	49	57	135	101	80	0.41

U = Power supply · f = Frequency · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
q_V = Air flow · p_{fs} = Pressure increase