R3G180-AM17-10

EC circulation blower for hot air

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Nominal data

Type	**R3G180-AM17-10**
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}	3050
Power consumption	W	85
Current draw	A	0.75
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60
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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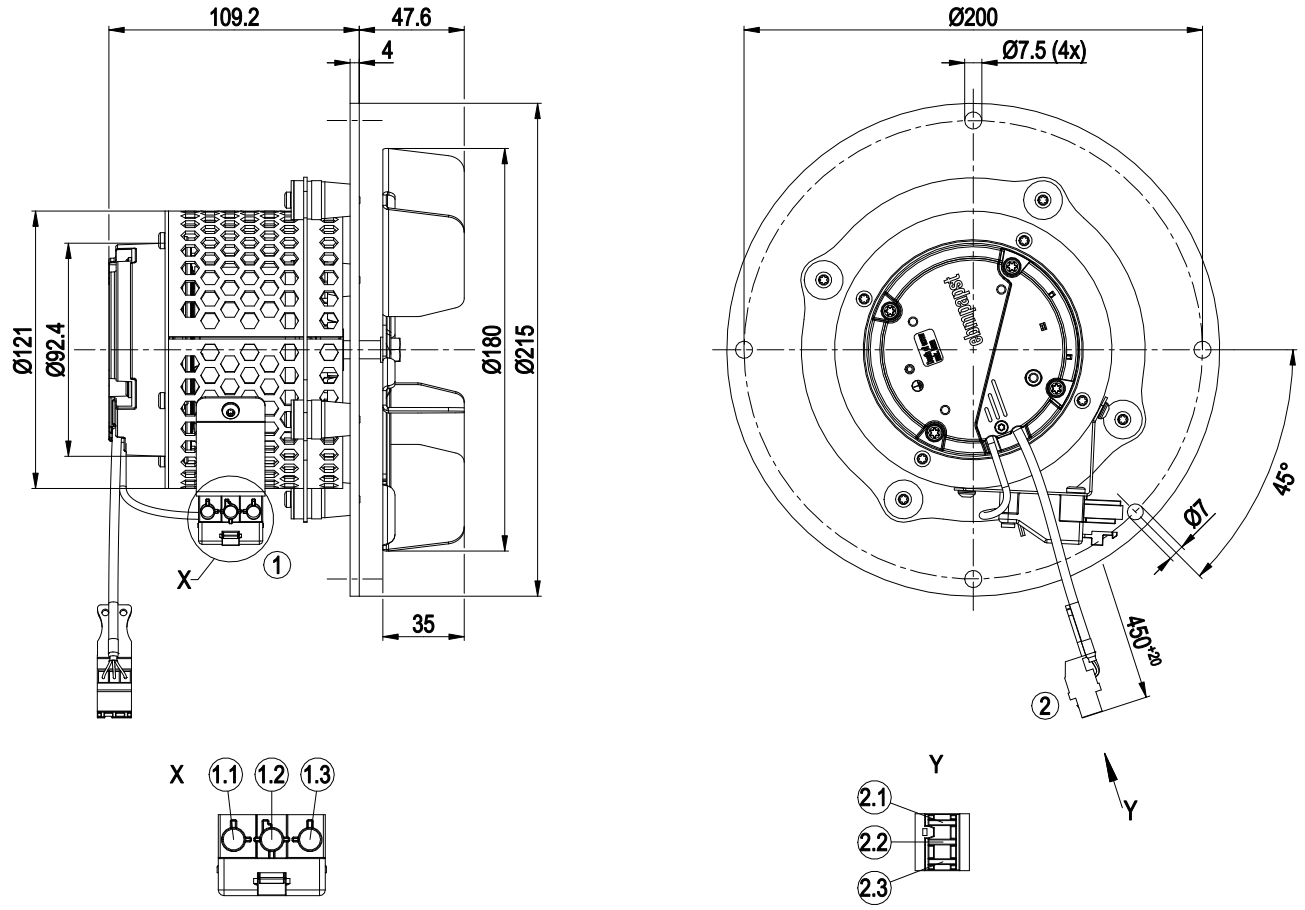
Technical description

Weight	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	- 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
EMC immunity to interference	According to EN 61000-6-2 (industrial environment)
EMC circuit feedback	According to EN 61000-3-2/3
EMC interference emission	According to EN 61000-6-3 (household environment)
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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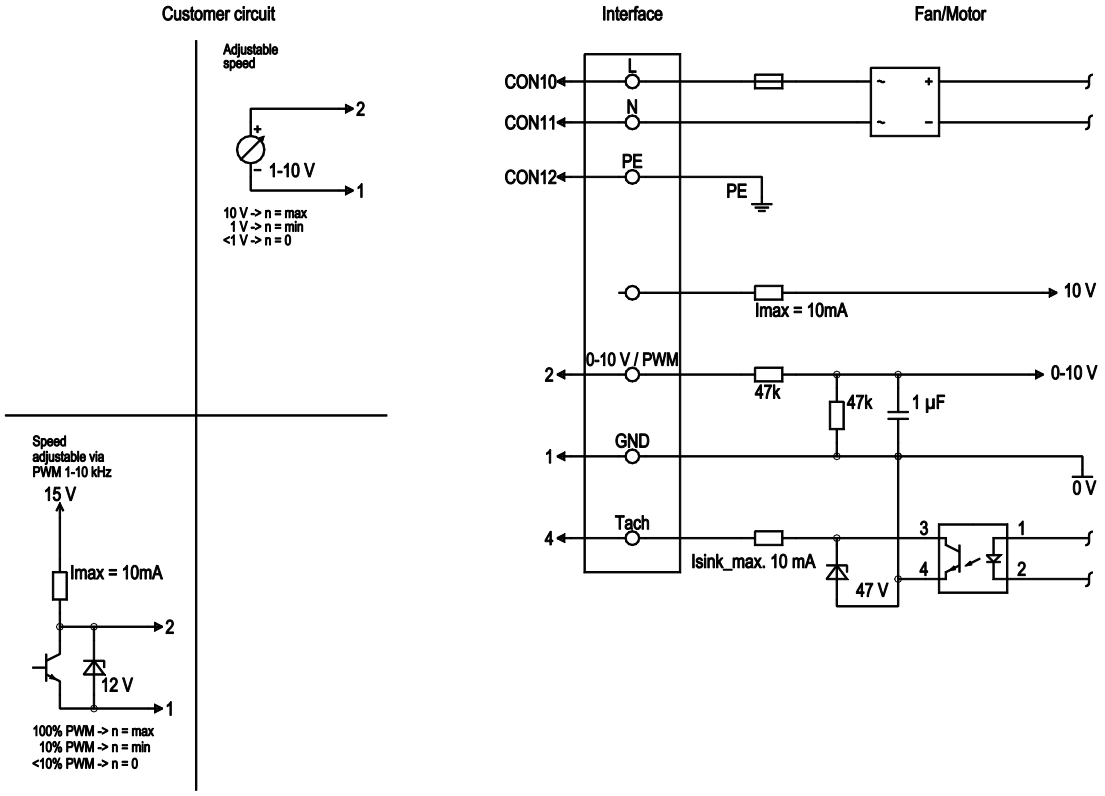
Product drawing



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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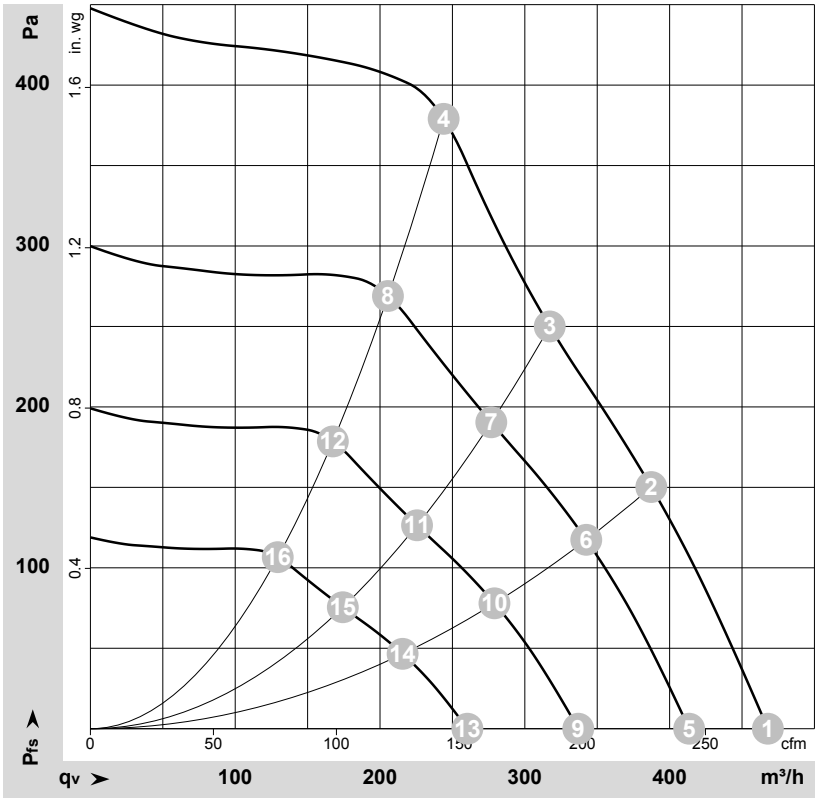
Connection diagram



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-184897-1

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	3050	85	0.75	67	76	470	0	275	0.00
2	230	50	3055	84	0.72	64	72	385	150	230	0.60
3	230	50	3090	81	0.70	63	72	315	250	185	1.00
4	230	50	3210	73	0.64	63	72	245	380	145	1.53
5	230	50	2700	57	0.49	64	73	415	0	245	0.00
6	230	50	2700	58	0.50	61	69	340	118	200	0.47
7	230	50	2700	54	0.47	60	68	275	190	165	0.76
8	230	50	2700	43	0.38	59	67	205	272	120	1.09
9	230	50	2200	31	0.27	59	67	335	0	200	0.00
10	230	50	2200	31	0.27	56	64	280	78	165	0.31
11	230	50	2200	29	0.25	54	63	225	126	135	0.51
12	230	50	2200	23	0.21	54	62	165	180	100	0.72
13	230	50	1700	14	0.12	52	61	260	0	155	0.00
14	230	50	1700	14	0.12	49	58	215	47	125	0.19
15	230	50	1700	13	0.12	48	56	175	75	100	0.30
16	230	50	1700	11	0.09	47	56	130	108	75	0.43

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

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