EC circulation blower for hot air

Nominal data

Type	**R3G210-AA73-11**
Motor	**M3G074-CF**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Method of obtaining data		ml
Speed (rpm)	min^{-1}	3230
Power consumption	W	180
Current draw	A	1.45
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

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Technical description

Weight	4.8 kg
Fan size	210 mm
Rotor surface	Thick-film passivated
Terminal box material	PA plastic
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 as per EN 60034-5
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F3-1
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Shaft horizontal or rotor on bottom
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 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 - 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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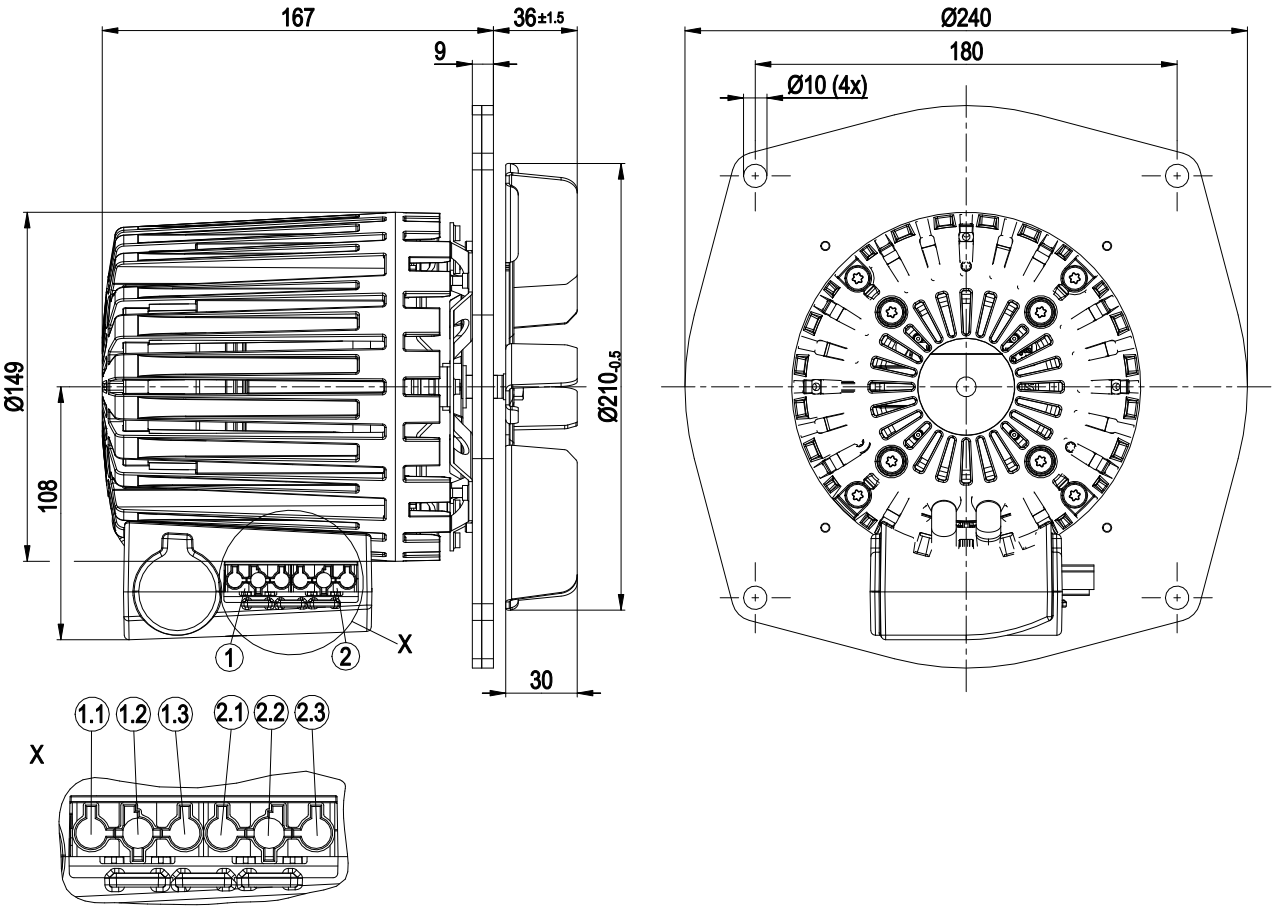
Product drawing



1	3-pole connector housing Wieland 93.031.3757.0
1.1	0-10 V PWM (yellow)
1.2	GND (blue)
1.3	Tach (white)
2	3-pole connector housing Wieland 93.031.3257.0
2.1	N (blue)
2.2	PE (green/yellow)
2.3	L (black)

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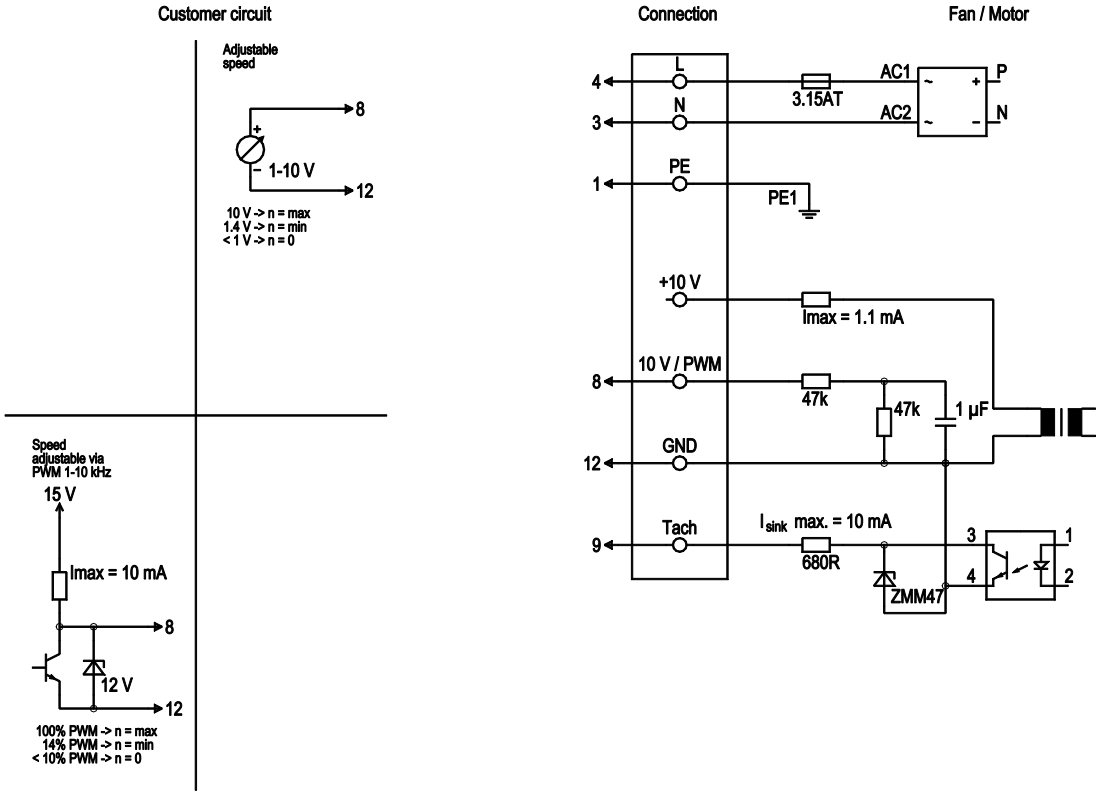
Connection diagram



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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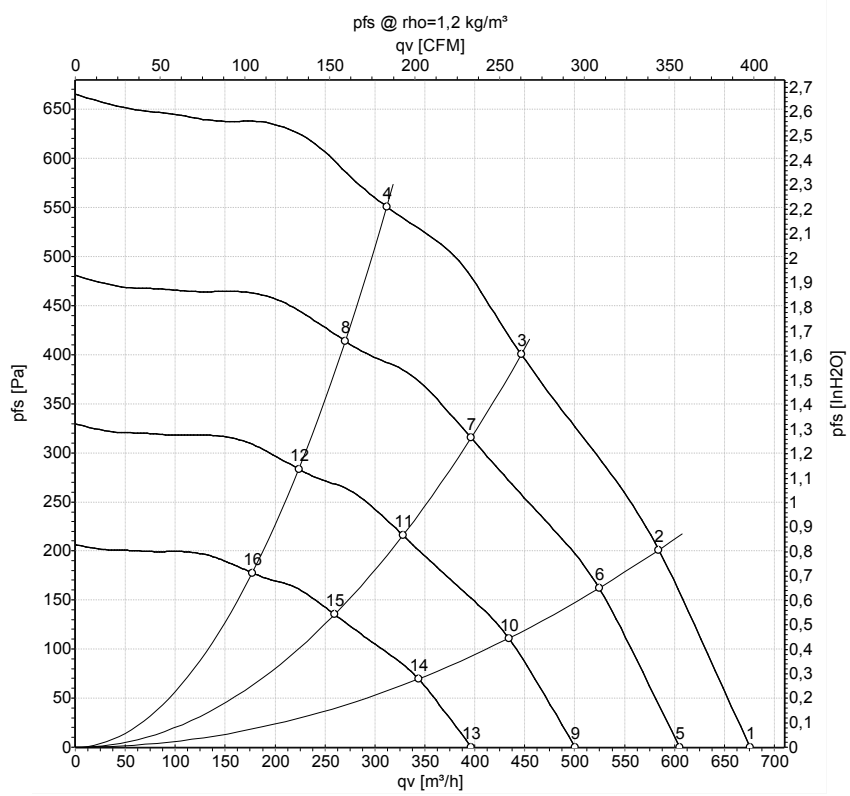
Curves: Air performance 50 Hz



Measurement: LU-163499-1

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	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	230	50	3230	180	1.45	675	0	395	0.00
2	230	50	3230	180	1.45	585	200	345	0.80
3	230	50	3265	173	1.38	445	400	265	1.61
4	230	50	3345	141	1.17	310	550	185	2.21
5	230	50	2900	130	1.04	605	0	355	0.00
6	230	50	2900	132	1.05	525	164	310	0.66
7	230	50	2900	121	0.97	395	315	235	1.26
8	230	50	2900	92	0.76	270	414	160	1.66
9	230	50	2400	74	0.59	500	0	295	0.00
10	230	50	2400	75	0.59	435	112	255	0.45
11	230	50	2400	68	0.55	330	216	195	0.87
12	230	50	2400	52	0.43	225	283	130	1.14
13	230	50	1900	37	0.29	395	0	235	0.00
14	230	50	1900	37	0.29	345	70	200	0.28
15	230	50	1900	34	0.27	260	135	155	0.54
16	230	50	1900	26	0.21	175	178	105	0.71

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