EC hot-air circulation blower

R3G210-AA73-09 ebmpapst Datasheet
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Nominal data

Type	**R3G210-AA73-09**
Motor	**M3G074-CF**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	3230
Power input	W	180
Current draw	A	1.45
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

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Technical features

Mass	4.8 kg
Size	210 mm
Surface of rotor	Thick layer passivated
Material of terminal box	PA plastic
Material of impeller	Sheet steel, rust-resistant
Number of blades	6
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44
Insulation class	"B"
Humidity (F)/environmental protection class (H)	F3-1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Tach output - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Over-temperature protected electronics / motor
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC interference emission	Acc. to EN 61000-6-3 (household environment), except EN 61000-3-2
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	CE

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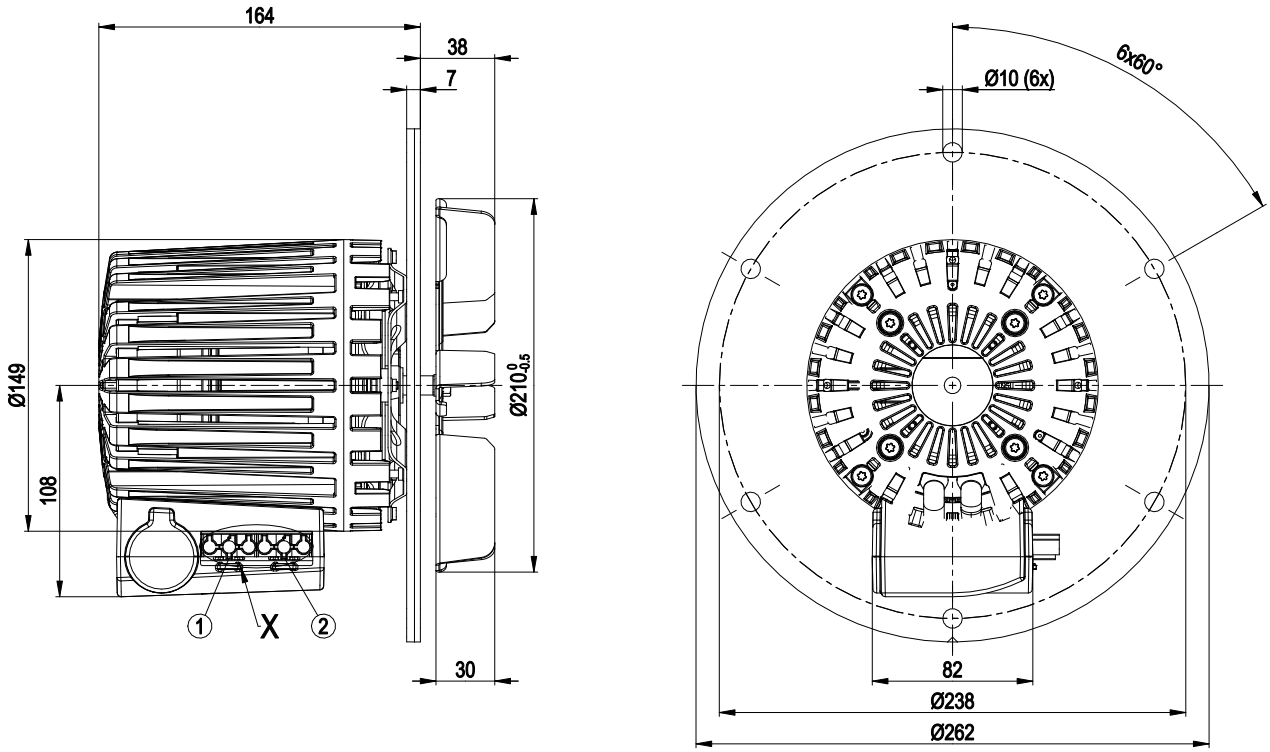
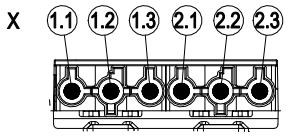
Product drawing





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

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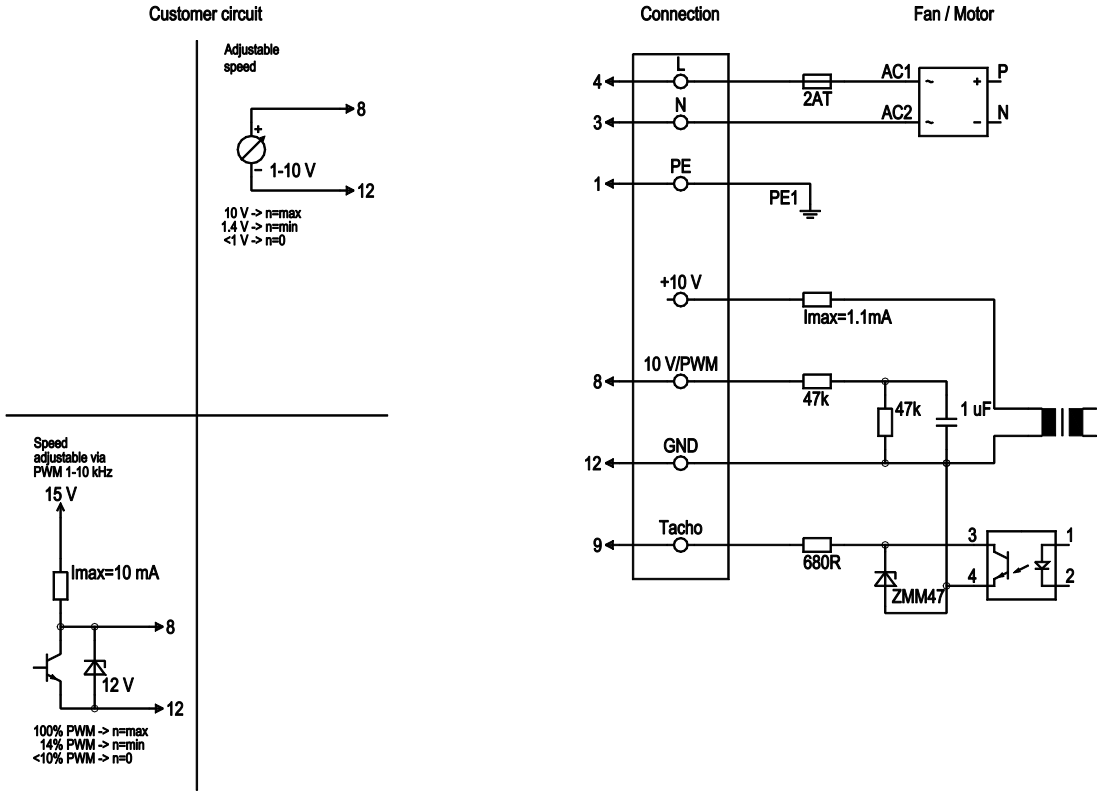
Connection screen



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

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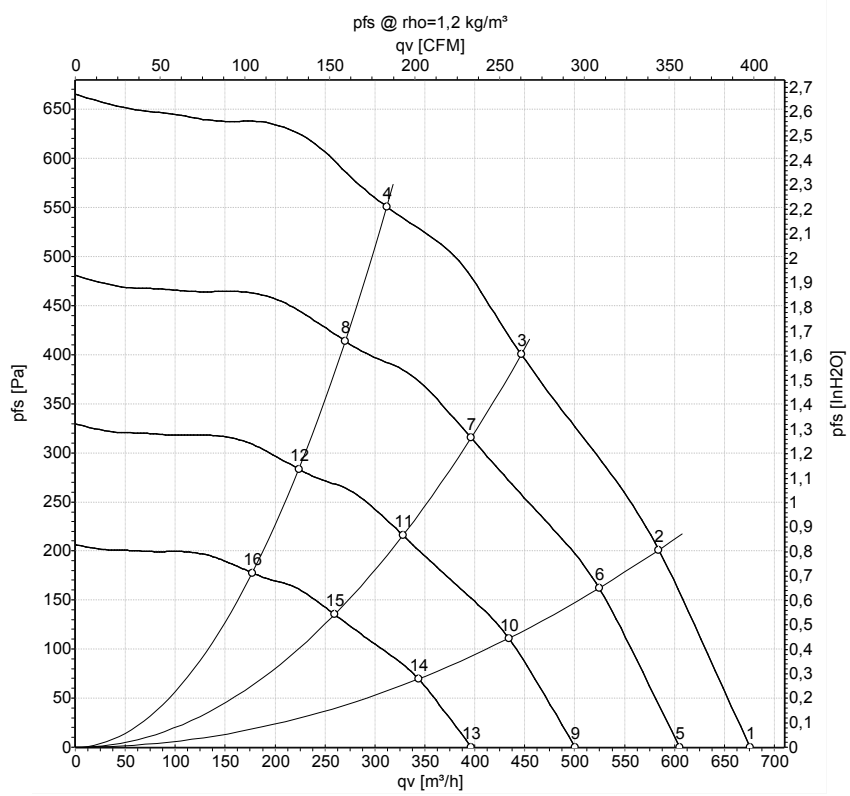
Charts: Air flow 50 Hz



Measurement: LU-163499-1

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

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