EC hot-air circulation blower

R3G180-AI17-10 ebmpapst Datasheet
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Nominal data

Type	**R3G180-AI17-10**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	3000
Power input	W	77
Current draw	A	0.73
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50

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	2.65 kg
Size	180 mm
Surface of rotor	Uncoated
Material of terminal box	PA plastic
Material of impeller	Sheet steel, rust-resistant
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	None
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 motor
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical leads	With plug
Motor protection	Locked-rotor protection
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	CE

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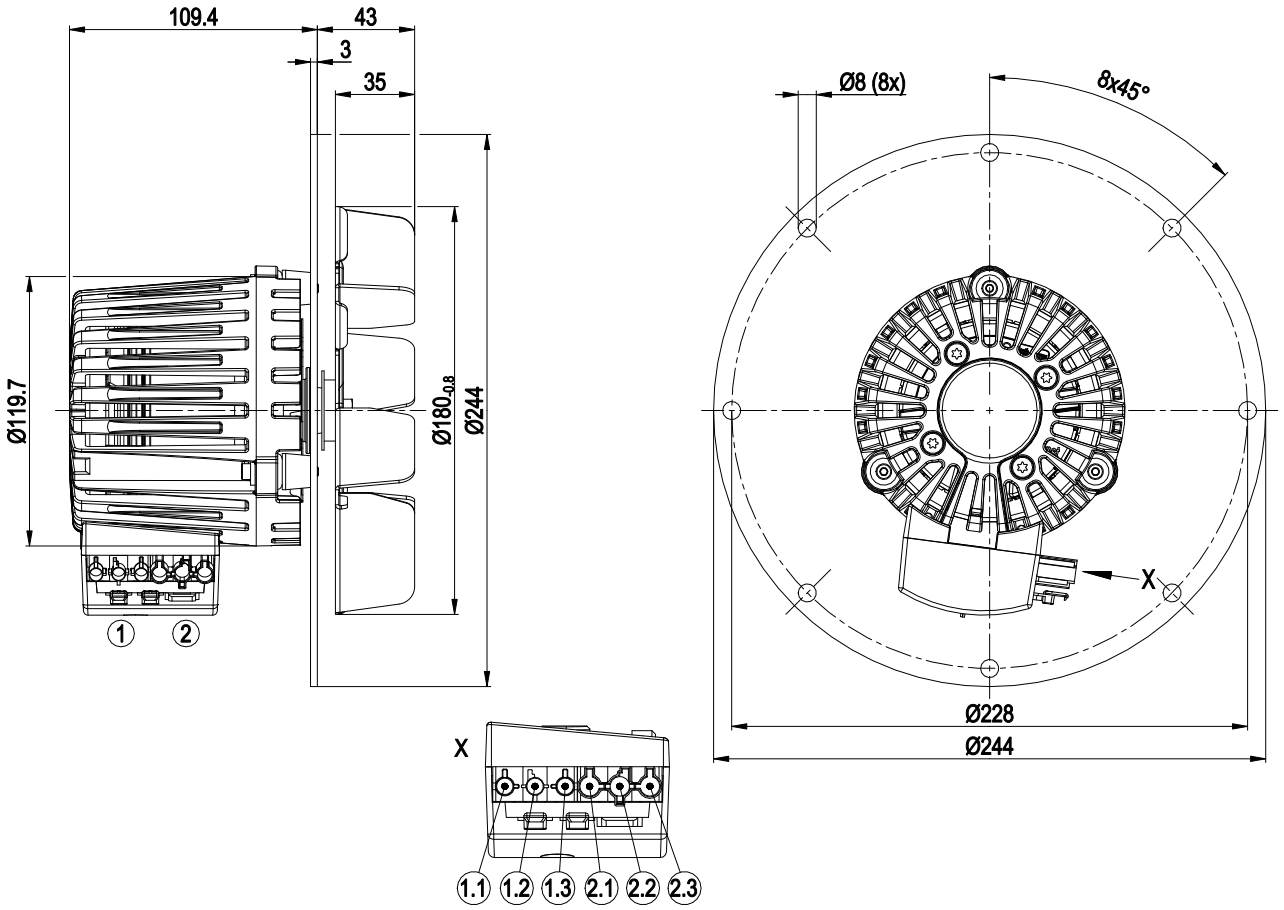
Product drawing



1	Connector housing 3-pole Wieland 93.032.3357.0
1.1	N (blue)
1.2	PE (green/yellow)
1.3	L (black)
2	Connector housing 3-pole Wieland 93.031.3257.0
2.1	0-10 V PWM (yellow)
2.2	GND (blue)
2.3	Tach (white)

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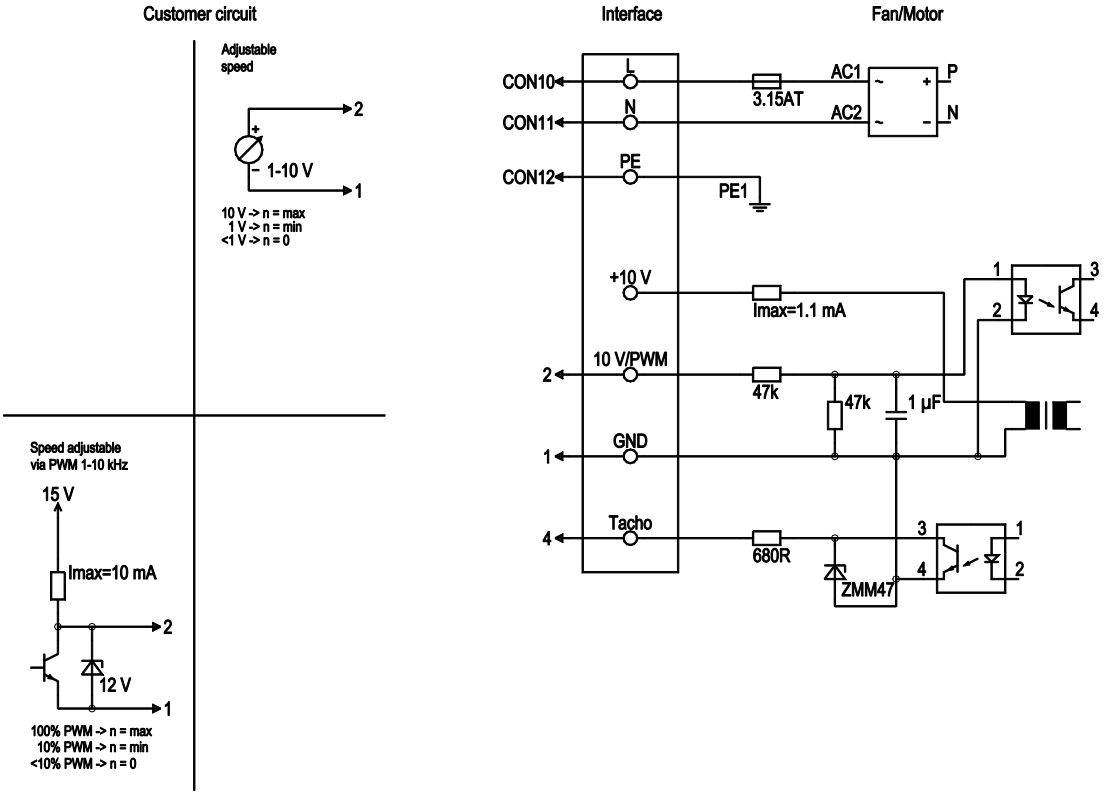
Connection screen



No.	Conn.	Designation	Colour	Function / assignment
	CON10	L	black	Power supply 230 VAC, 50-60 Hz, see type plate for voltage range
	CON11	N	blue	Neutral conductor
	CON12	PE	green/yellow	Protective earth
	1	GND	blue	GND connection for control interface
	2	0- 10V PWM	yellow	Control input 0-10 V or PWM, electrically isolated
	4	Tach	white	Tach output: open collector, 1 pulse per revolution, electrically isolated

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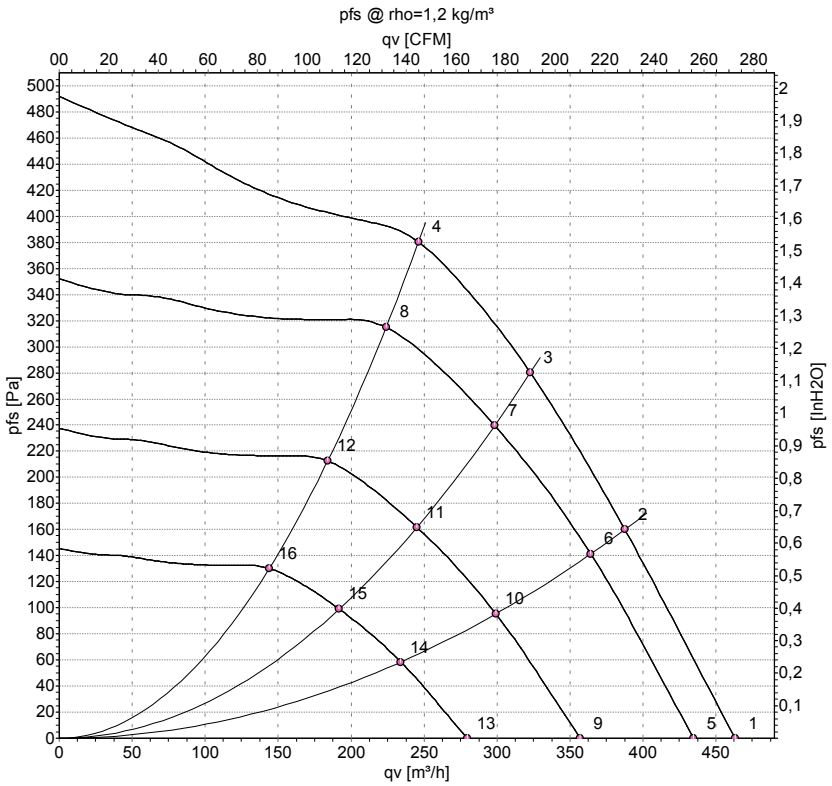
Charts: Air flow 50 Hz



Measurement: LU-156445-1

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	3000	77	0.73	465	0	275	0.00
2	230	50	2980	77	0.73	390	160	230	0.64
3	230	50	3030	75	0.71	325	280	190	1.12
4	230	50	3075	70	0.67	245	380	145	1.53
5	230	50	2800	64	0.60	435	0	255	0.00
6	230	50	2800	64	0.60	365	141	215	0.57
7	230	50	2800	59	0.56	300	240	175	0.96
8	230	50	2800	53	0.51	225	317	130	1.27
9	230	50	2300	36	0.33	355	0	210	0.00
10	230	50	2300	35	0.33	300	95	175	0.38
11	230	50	2300	33	0.31	245	162	145	0.65
12	230	50	2300	29	0.28	185	214	110	0.86
13	230	50	1800	17	0.16	280	0	165	0.00
14	230	50	1800	17	0.16	235	58	140	0.23
15	230	50	1800	16	0.15	190	99	115	0.40
16	230	50	1800	14	0.13	145	131	85	0.53

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