EC centrifugal fan

backward-curved, single-intake

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

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**R3G200-BH21-06**
Motor	**M3G055-BI**

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}	3000
Power consumption	W	85
Current draw	A	0.75
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50

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	1.4 kg
Size	200 mm
Motor size	55
Rotor surface	Thick-film passivated
Impeller material	PA plastic
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H0 - dry environment
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, open rotor
Mode	S1
Motor bearing	Ball bearing
Technical features	- Tach output - Power limiter - Motor current limitation - Soft start - PWM control input - 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
Approval	CCC

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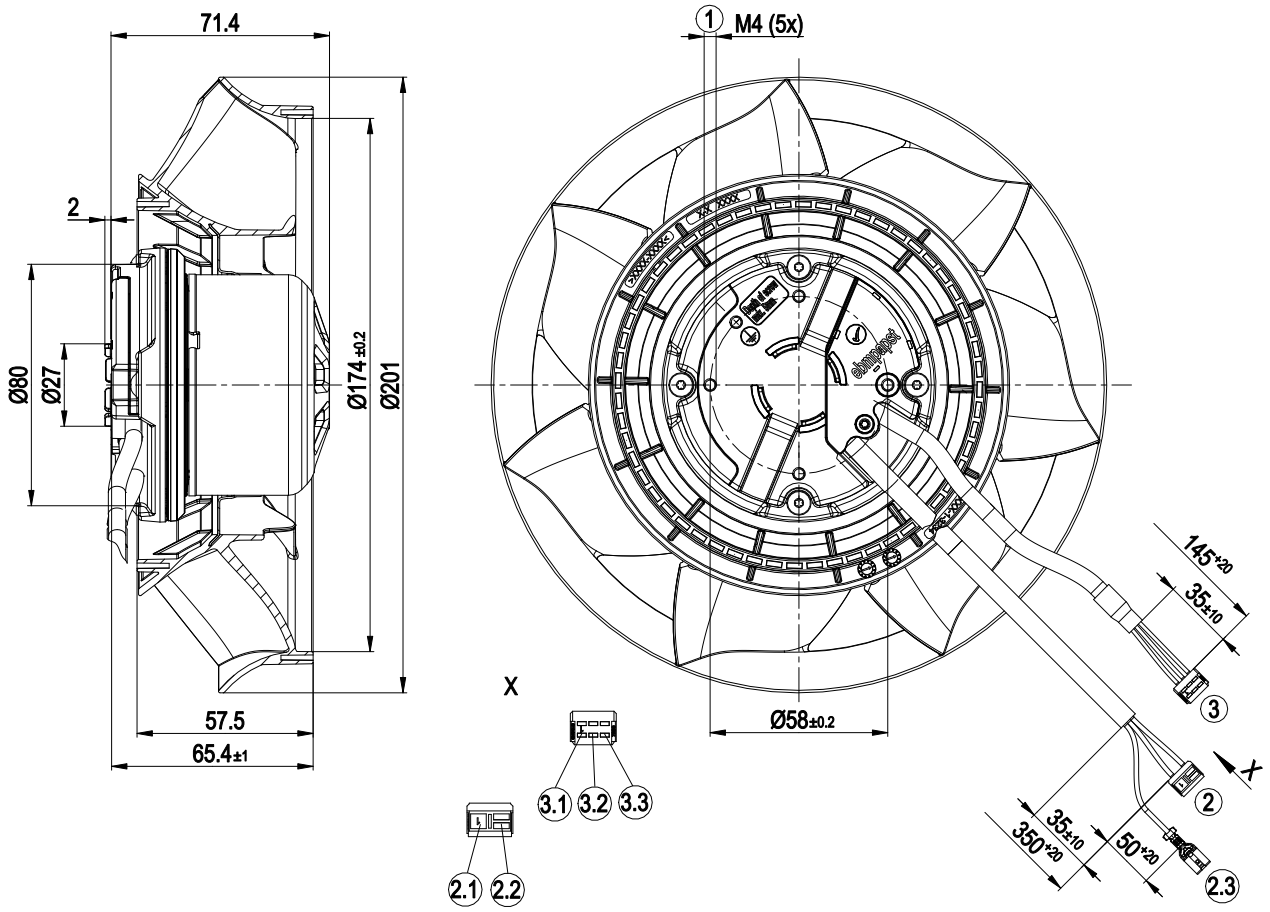
Product drawing



1	Max. clearance for screw 5 mm
	Cable PVC AWG20
2	2-pole connector housing Stocko MFMP 7260-002-008-960-000-AA-G
2.1	N (blue)
2.2	L (black)
2.3	PE (green/yellow), flat push-on receptacle Stocko RSB 8028 F4.8-1
3	Cable PVC AWG22
	3-pole connector housing Stocko MFMP 7238-003-065-960-000-00-G
3.1	Tach (white)
3.2	PWM (yellow)
3.3	GND (blue)

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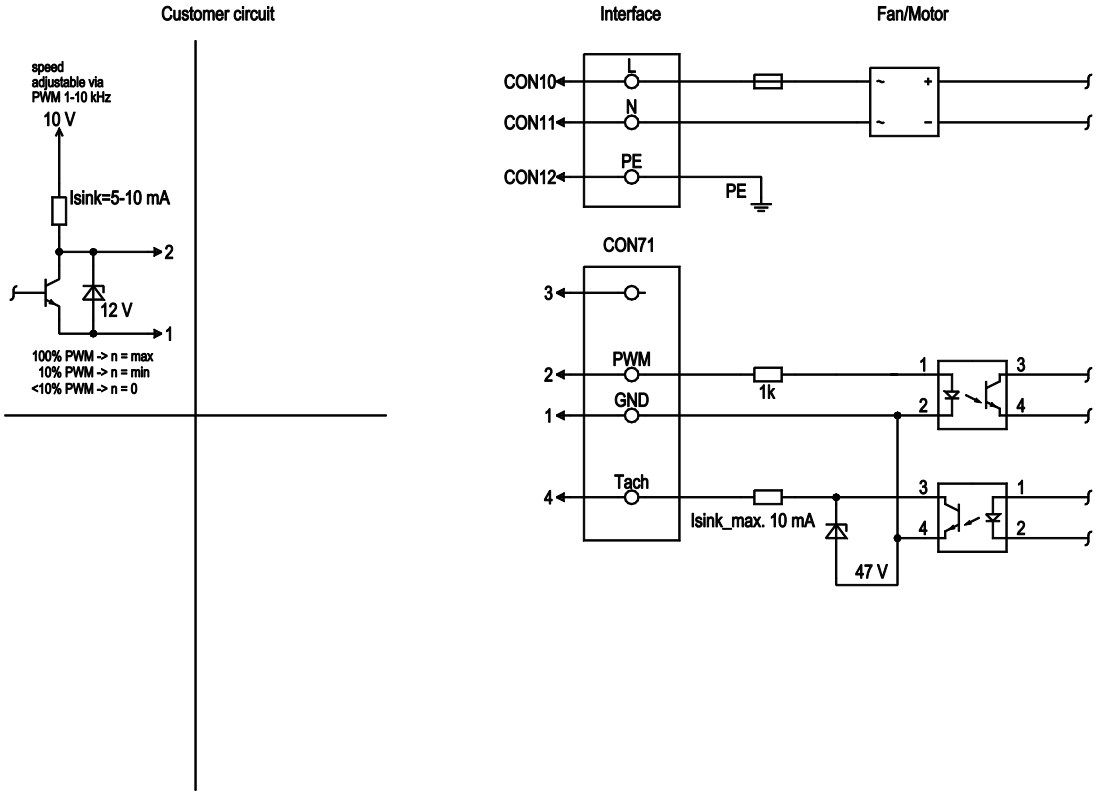
Connection diagram



No.	Conn.	Designation	Color	Function/assignment
	CON10	L	black	Power supply, phase, see nameplate for voltage range
	CON11	N	blue	Power supply, neutral conductor, see nameplate for voltage range
	CON12	PE	green/yellow	Protective earth
CON71	3	leer		not used
CON71	2	PWM	yellow	Control input PWM, Isink = 5-10 mA, SELV, adjustable curve
CON71	4	Tacho	white	Tach output: open collector, 1 pulse per revolution, SELV
CON71	1	GND	blue	Reference ground for interface, SELV

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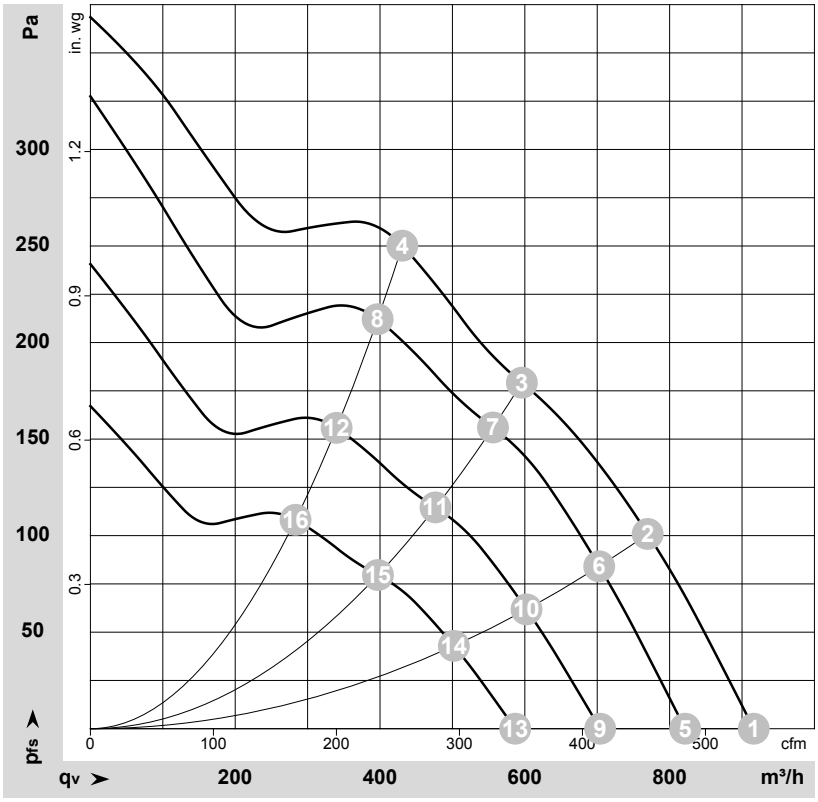
Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-186386-1

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

	Wired	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	in. wg
1	1~	230	50	3125	77	0.69	915	0	540	0.00
2	1~	230	50	3065	82	0.73	770	100	455	0.40
3	1~	230	50	3000	85	0.75	595	180	350	0.72
4	1~	230	50	3040	85	0.75	430	250	255	1.00
5	1~	230	50	2800	55	0.50	820	0	485	0.00
6	1~	230	50	2800	62	0.55	705	84	415	0.34
7	1~	230	50	2800	68	0.60	555	156	325	0.63
8	1~	230	50	2800	66	0.59	395	212	235	0.85
9	1~	230	50	2400	35	0.31	705	0	415	0.00
10	1~	230	50	2400	39	0.35	600	62	355	0.25
11	1~	230	50	2400	43	0.38	475	115	280	0.46
12	1~	230	50	2400	42	0.37	340	156	200	0.63
13	1~	230	50	2000	20	0.18	585	0	345	0.00
14	1~	230	50	2000	23	0.20	500	43	295	0.17
15	1~	230	50	2000	25	0.22	395	80	235	0.32
16	1~	230	50	2000	24	0.21	285	108	165	0.43

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