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Nominal data

Type	R3G250-RK55-05	
Motor	M3G055-CF	
Nominal voltage	VDC	48
Nominal voltage range	VDC	43 .. 53
Method of obtaining data		ml
Speed (rpm)	min ⁻¹	2250
Power consumption	W	105
Current draw	A	2.3
Min. back pressure	Pa	50
Min. back pressure	in. wg	0.2
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60

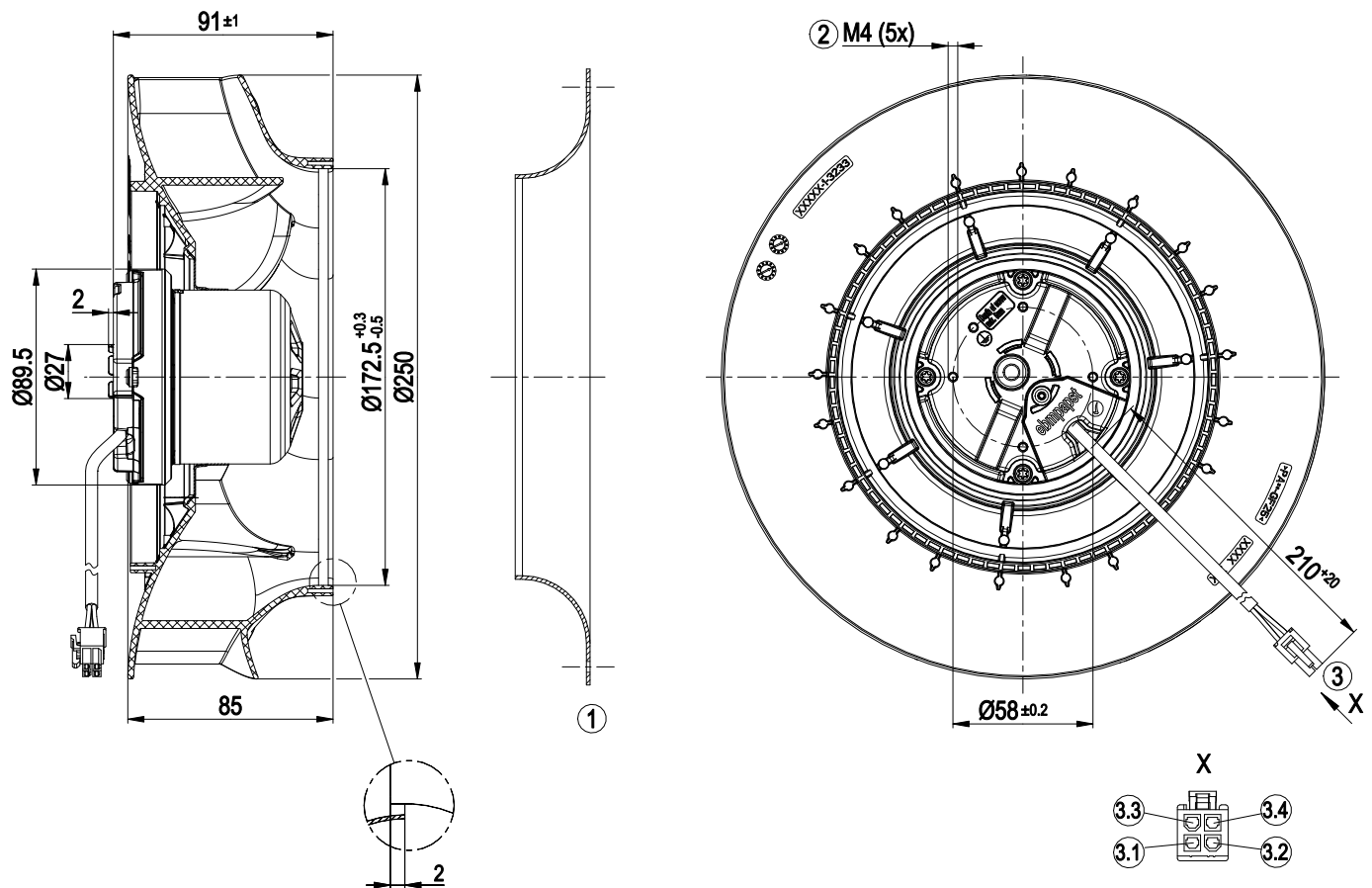
ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change



Technical description

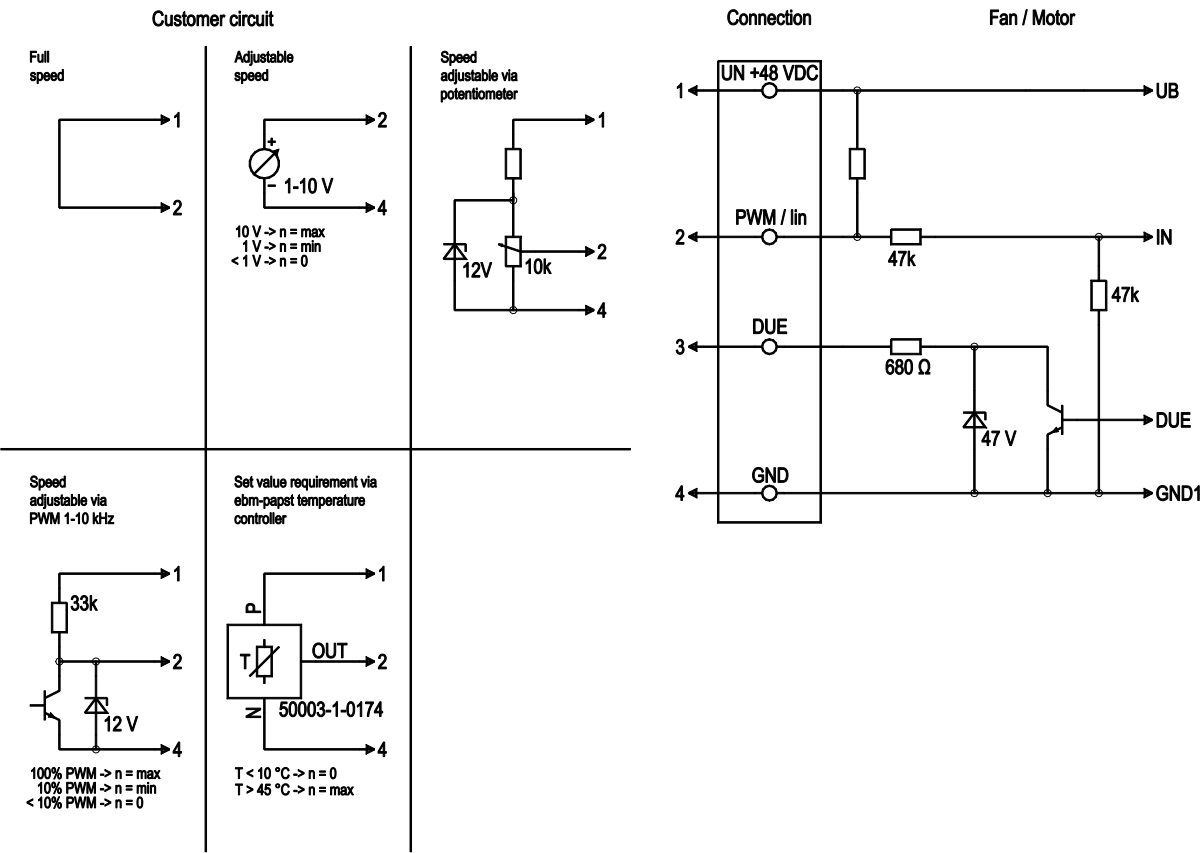
Weight	1.52 kg
Size	250 mm
Motor size	55
Rotor surface	Thick-film passivated
Electronics housing material	Die-cast aluminum
Impeller material	PA plastic, galvanized sheet-metal plate
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (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, open rotor
Mode	S1
Motor bearing	Ball bearing
Technical features	- Tach output - Cable break detection with control line - Power limiter - Motor current limitation - Emergency operation - Soft start - Control input 0-10 VDC / PWM - Overvoltage detection - Thermal overload protection for motor - Line undervoltage detection
Electrical hookup	Connector with cable
Motor protection	Locked-rotor protection
With cable	Variable
Protection class assignment	III; Requires supply with safety extra-low voltage SELV. This component to be built-in can have several local protection classes. This specification relates to the basic design of this component. The final protection class is based on the intended installation and connection of the components.
Conformity with standards	EN 60335-1
Approval	CSA C22.2 No. 77 + CAN/CSA-E60730-1; UL 1004-7 + 60730-1

Product drawing



1	Accessory part: inlet ring 96359-2-4013 not included in scope of delivery
2	Max. clearance for screw 5 mm
3	Cable PVC AWG18
	4-pole socket housing Stocko EH 715-004-003-960
	4x socket Stocko RBB 8230.120
3.1	Power supply 48 V
3.2	Reference ground
3.3	Control input with wire break detection with n = max
3.4	Tach output, 1 pulse per revolution, Isink max = 10 mA

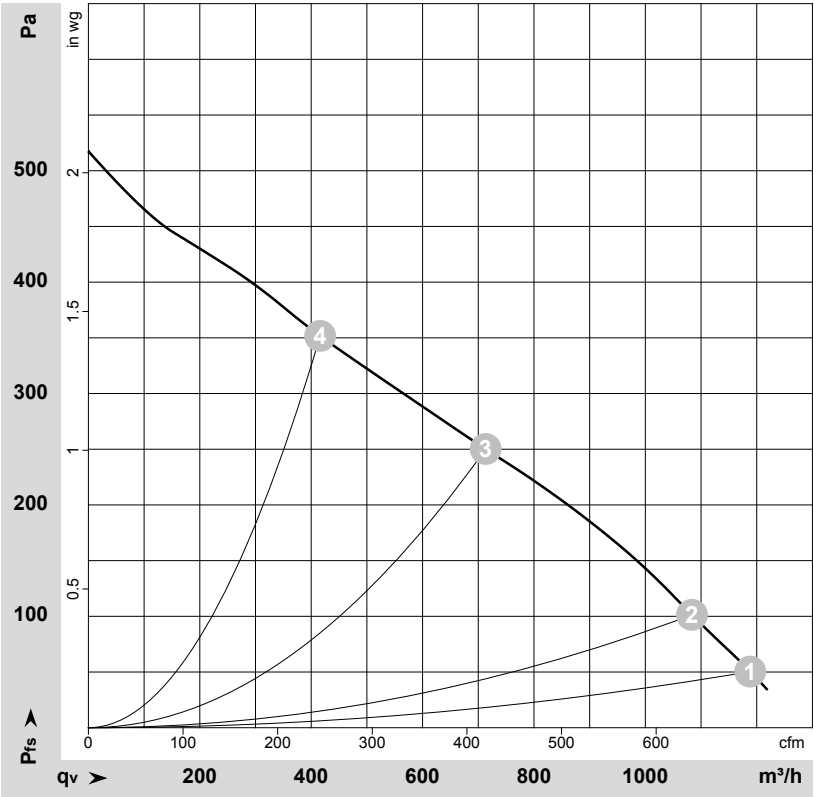
Connection diagram



No.	Conn.	Designation	Color	Function/assignment
1	1	Un +48 VDC	red	Power supply 48 VDC
1	2	PWM/LIN	yellow	Control input with wire break detection with n = max
1	3	DUE	white	Tach output, 1 pulse per revolution, Isink max = 10 mA
1	4	GND	blue	Reference ground



Curves: Air performance



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-172956-1

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	n	P _{ed}	I	LpA _{in}	LwA _{in}	q _v	p _{fs}	q _v	p _{fs}
	V	min ⁻¹	W	A	dB(A)	dB(A)	m ³ /h	Pa	cfm	in. wg
1	48	2300	105	2.30	63	71	1190	50	700	0.20
2	48	2250	105	2.30	62	70	1085	100	640	0.40
3	48	2130	105	2.30	61	69	715	250	420	1.00
4	48	2235	105	2.30	63	71	415	350	245	1.41

U = Voltage · 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

