R3G250-RK55-05

EC centrifugal fan - RadiCal

backward-curved, single-intake

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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	min^{-1}	2250
Power consumption	W	105
Current draw	A	2.3
Min. back pressure	Pa	50
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

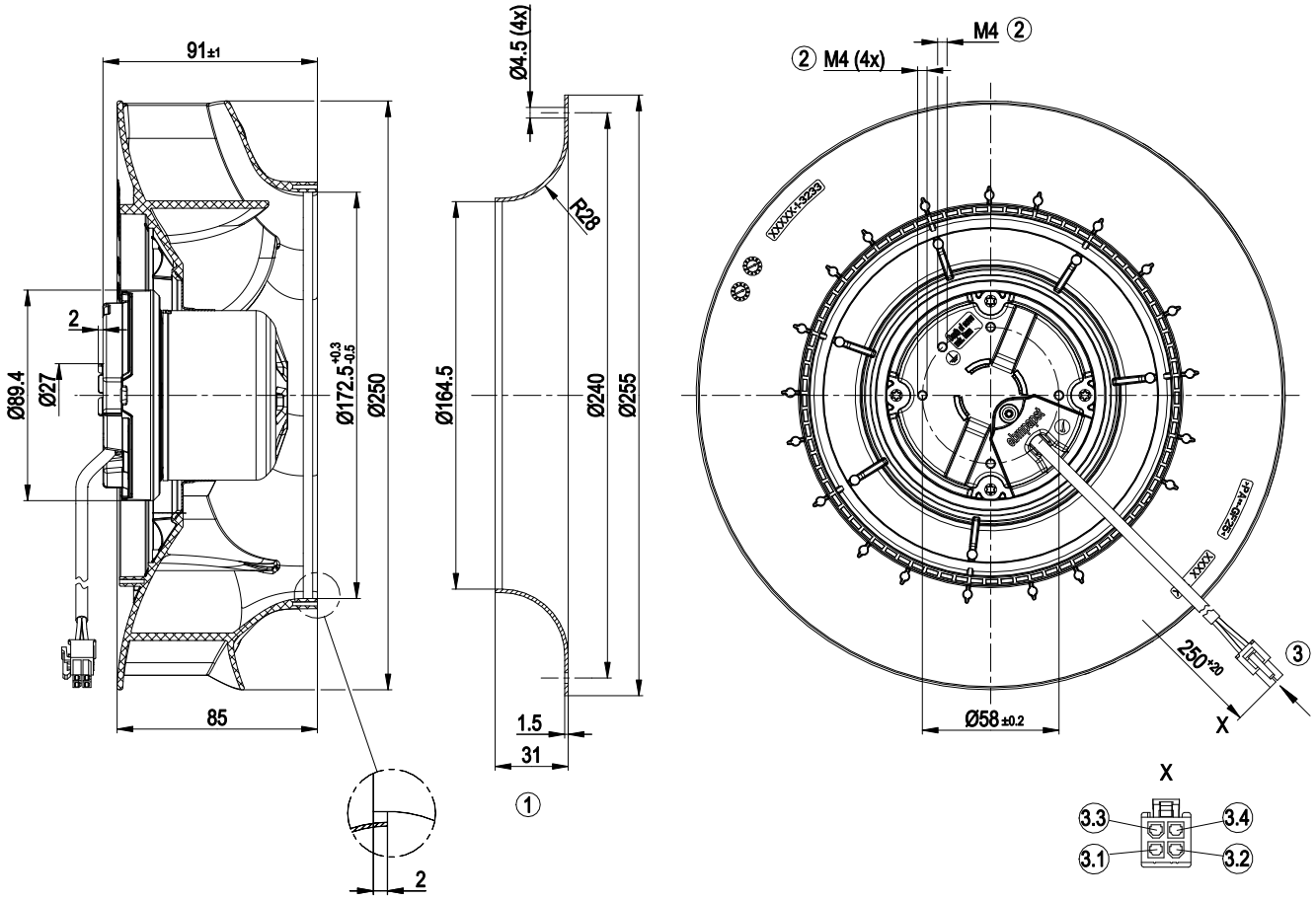
Weight	1.5 kg
Fan size	250 mm
Rotor surface	Thick-film passivated
Electronics housing material	Die-cast aluminum
Impeller material	PA plastic, galvanized sheet-metal plate
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Max. permitted ambient temp. 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 storage	Ball bearing
Technical features	- Cable break detection with control line - Power limiter - Emergency operation - Soft start - Control input 0-10 VDC / PWM - Overvoltage detection - Line undervoltage detection
Motor protection	Locked-rotor protection
With cable	Variable
Protection class	I (if protective earth is connected by customer to the housing's connection point)
Conformity with standards	EN 60335-1; CE
Approval	C22.2 No.77 + CAN/CSA-E60730-1; UL 1004-7 + 60730

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Product drawing



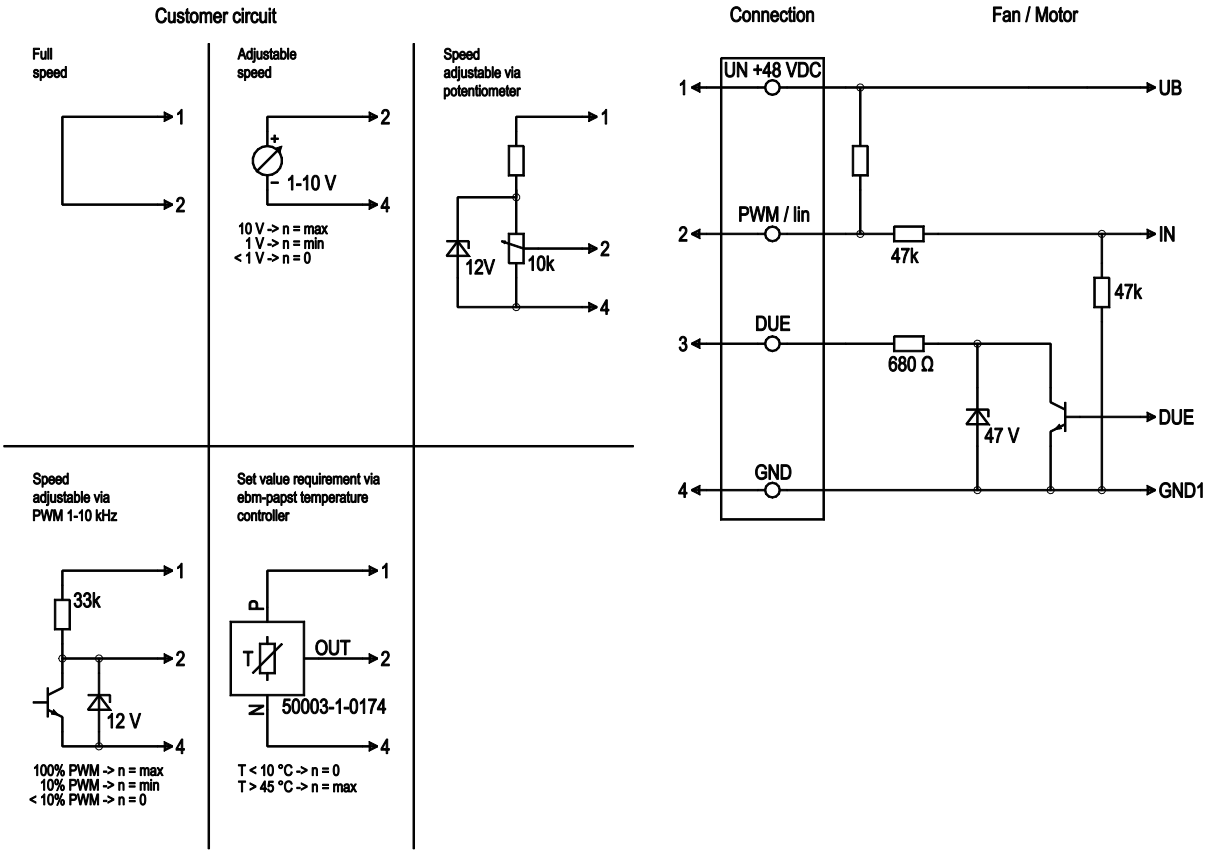
1	Accessory part: inlet ring 96359-2-4013 not included in scope of delivery
2	Max. clearance for screw 5 mm
3	Cable PVC AWG18, 4-pole socket housing Stocko EH 715-004-003-960, 4x socket Stocko RBB 8230.120
3.1	Power supply 48 V
3.2	Reference ground
3.3	Control input with wire break detection with n =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

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Connection diagram



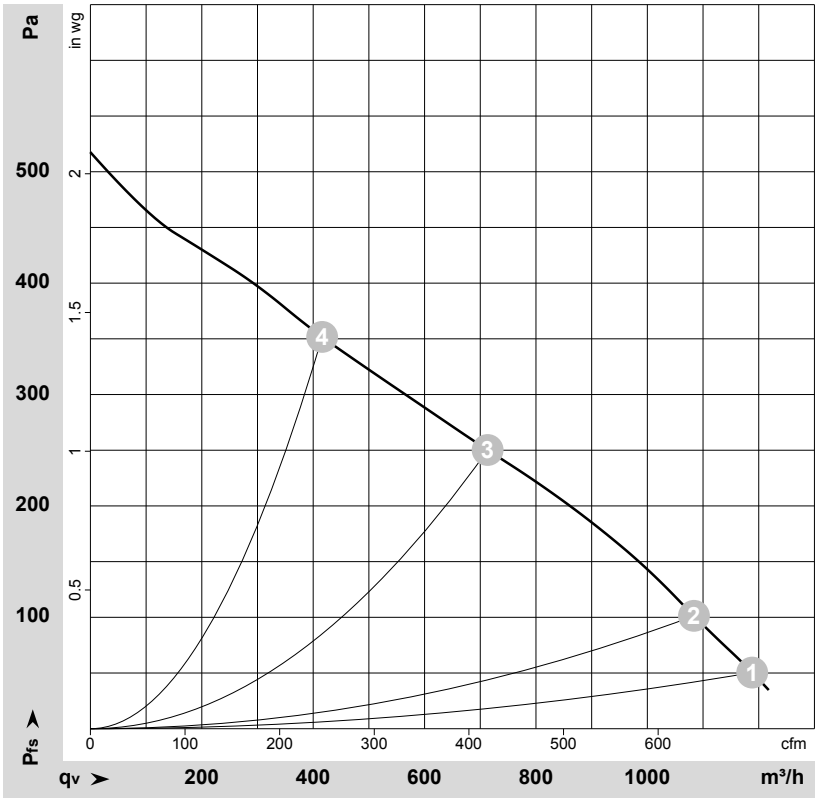
No.	Conn.	Designation	Color	Function/assignment
1	1	Un +48 VDC	red	Power supply 48 VDC
1	2	PWM/LIN	yellow	Control input with wire break detection with n = max
1	3	DUE	white	Tach output, 1 pulse per revolution, Isink max = 10 mA
1	4	GND	blue	Reference ground

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Curves: Air performance



ρ = 1,15 kg/m³ ± 2%

Measurement: LU-172956

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}	qv	p_{fs}
	V	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa
1	48	2300	105	2.30	63	71	1190	50
2	48	2250	105	2.30	62	70	1085	100
3	48	2130	105	2.30	61	69	715	250
4	48	2235	105	2.30	63	71	415	350

U = Power supply · n = Speed · P_{ed} = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side · qv = Air flow
p_{fs} = Pressure increase

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