R3G190-RG19-41

EC centrifugal fan - RadiCal

backward curved, single inlet

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Nominal data

Type	**R3G190-RG19-41**
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}	3374
Power input	W	96
Current draw	A	0.8
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

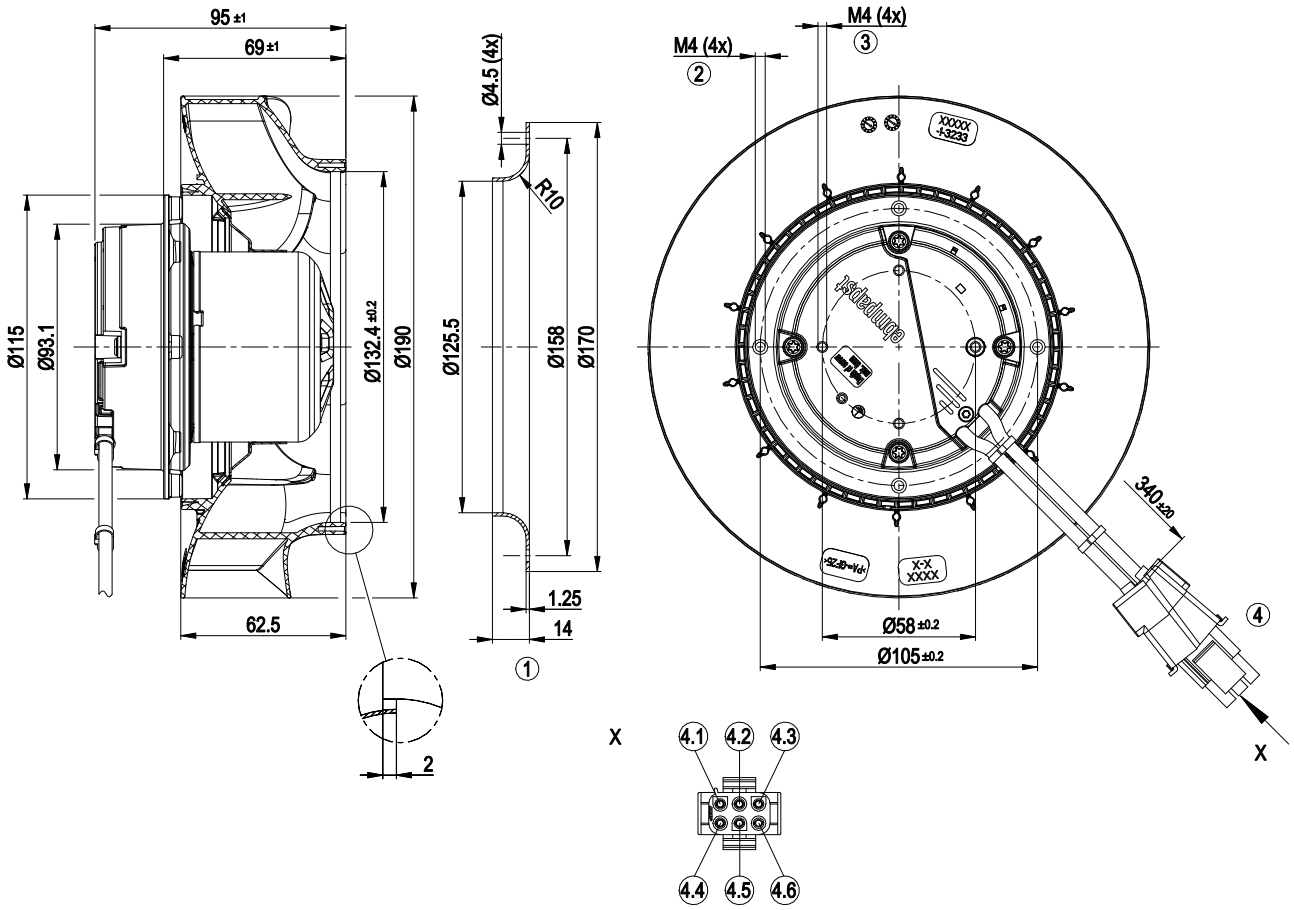
Mass	1.4 kg
Size	190 mm
Surface of rotor	Thick layer passivated
Material of electronics housing	Die-cast aluminium
Material of impeller	PA plastic
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP54
Insulation class	"B"
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	None, open rotor
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Tach output - Output limit - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Overvoltage detection - Over-temperature protected electronics / motor - Line undervoltage detection
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC harmonics	Acc. to EN 61000-3-2/3
EMC interference emission	Acc. to EN 61000-6-3 (household environment)
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	Locked-rotor protection
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE

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Product drawing



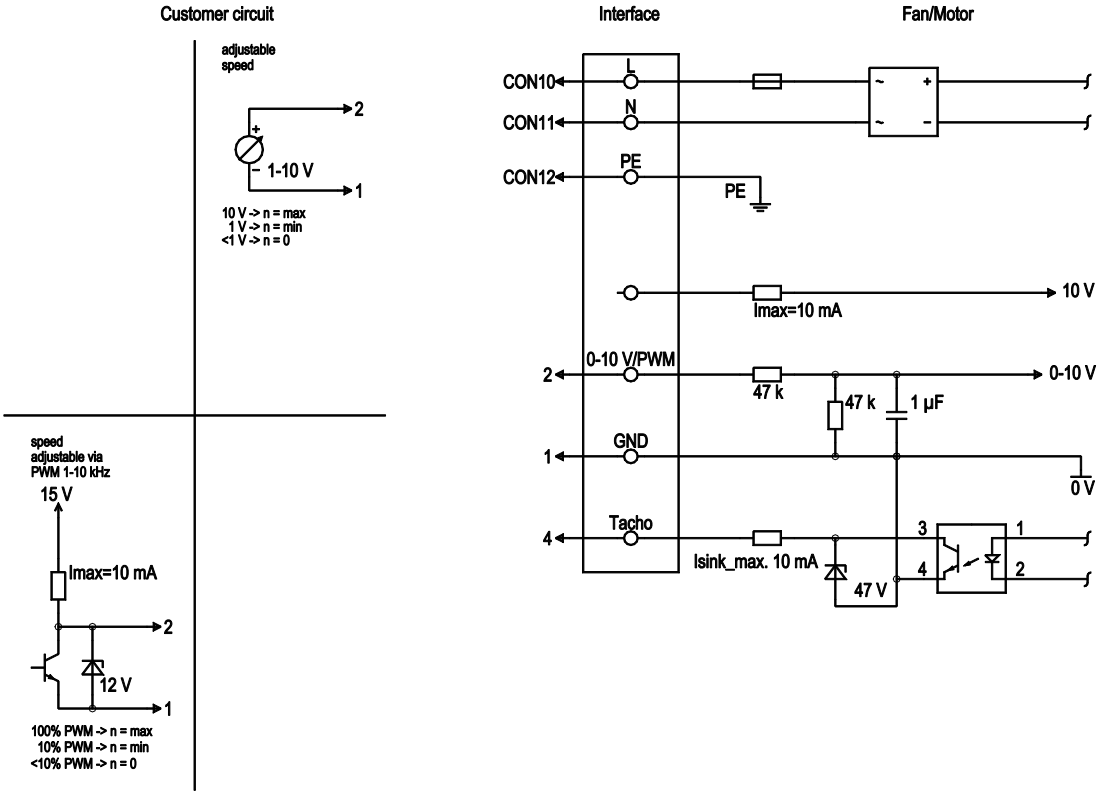
1	Accessory part: Inlet nozzle: 09576-2-4013 not included in scope of delivery
2	Thread reach max. 5 mm
3	Thread reach max. 5 mm
4	Connection line PVC 3G 0.5 mm², connection line PVC 3x 0.25 mm², 6-pole connector housing AMP 1586846-1, 2x strain relief AMP 1-640721-0, 1x plug pin AMP 350654-1 (green/yellow), 5x plug pin AMP 926885-1
4.1	0-10 V PWM (yellow)
4.2	GND (blue)
4.3	Tach (white)
4.4	L (brown)
4.5	N (blue)
4.6	PE (green/yellow)

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Connection screen



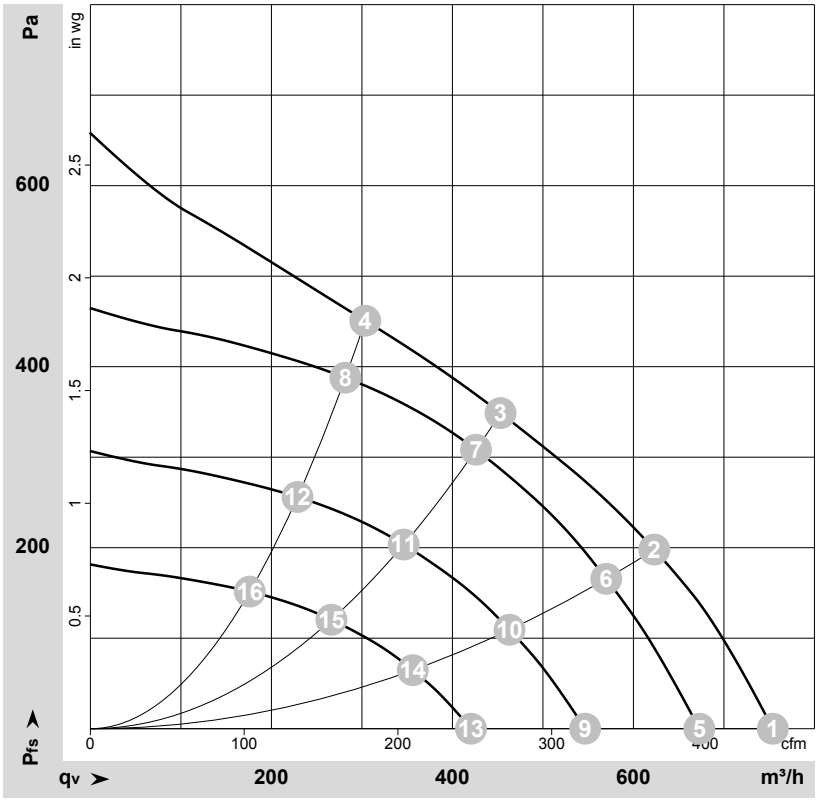
No.	Conn.	Designation	Colour	Function / assignment
	CON10	L	brown	Mains connection, power supply, phase, see type plate for voltage range
	CON11	N	blue	Mains connection, power supply, neutral conductor, see type plate for voltage range
	CON12	PE	green/yellow	Earth connection
	2	0- 10V PWM	yellow	0-10 V/PWM control input, Ri=100 kΩ, SELV
	4	Tach	white	Speed monitoring output, open collector, 1 pulse per revolution, Isink max = 10 mA, SELV
	1	GND	blue	Signal ground for control interface, SELV

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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-170599-1

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	3585	84	0.72	755	0	445	0.00
2	230	50	3500	90	0.77	625	200	365	0.80
3	230	50	3375	96	0.80	455	350	265	1.41
4	230	50	3450	93	0.80	305	450	180	1.81
5	230	50	3200	59	0.51	675	0	395	0.00
6	230	50	3200	68	0.59	570	166	335	0.67
7	230	50	3200	81	0.69	425	308	250	1.24
8	230	50	3200	75	0.64	280	388	165	1.56
9	230	50	2600	32	0.27	545	0	320	0.00
10	230	50	2600	37	0.31	465	110	275	0.44
11	230	50	2600	43	0.37	345	204	205	0.82
12	230	50	2600	40	0.34	230	256	135	1.03
13	230	50	2000	15	0.12	420	0	250	0.00
14	230	50	2000	17	0.14	355	65	210	0.26
15	230	50	2000	20	0.17	265	120	155	0.48
16	230	50	2000	18	0.16	175	152	105	0.61

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

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