EC centrifugal fan - RadiCal

backward curved

R3G190-RG19-36 ebmpapst Datasheet
sales@fansco.com
www.fansco.com

Limited partnership · Headquarters Mulfingen
County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
County court Stuttgart · HRB 590142

Nominal data

Type	**R3G190-RG19-36**
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}	3760
Power input	W	119
Current draw	A	1
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

EC centrifugal fan - RadiCal

backward curved

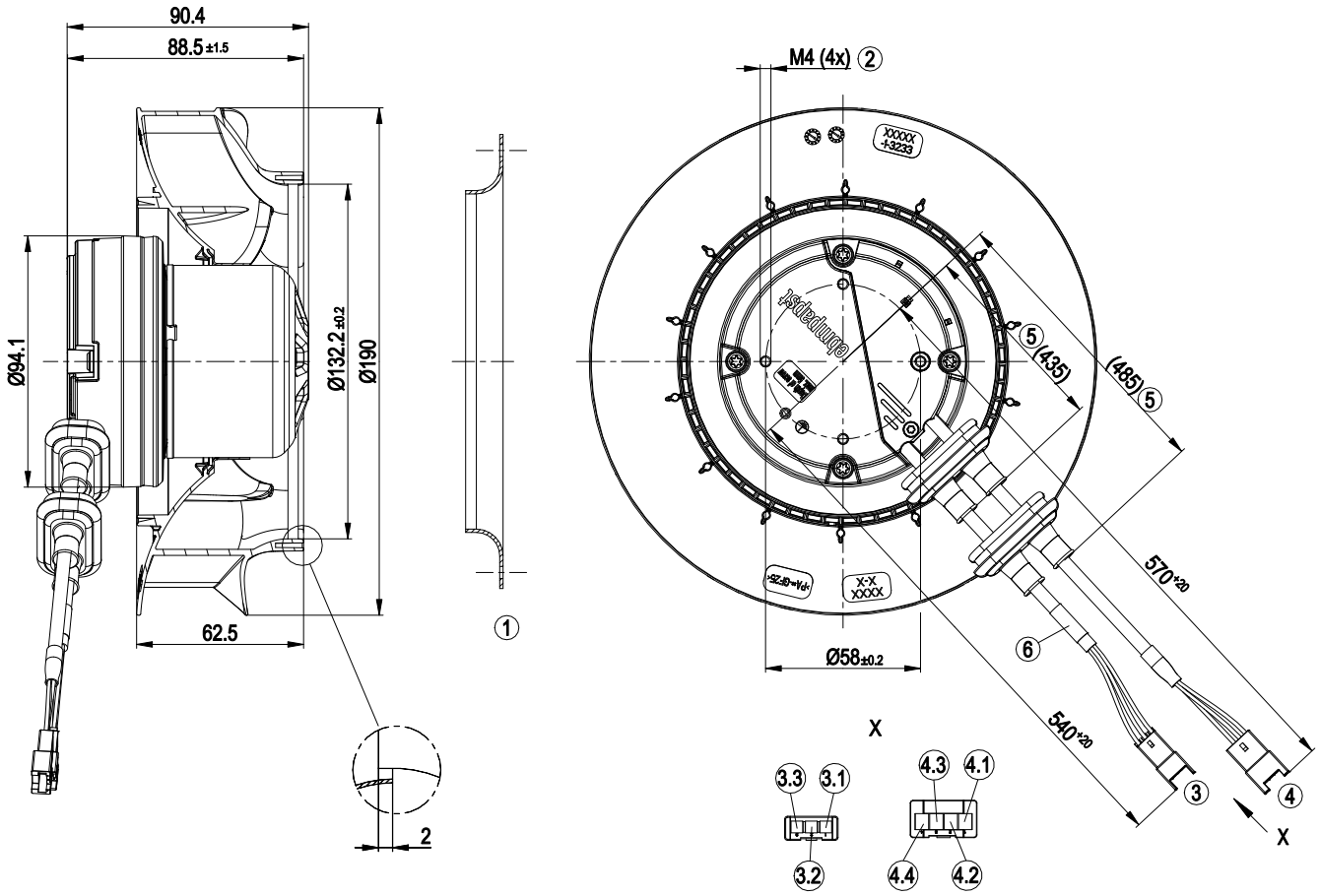
Technical features

Mass	1.3 kg
Size	190 mm
Surface of rotor	Thick layer passivated
Material of impeller	PA plastic
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP54
Insulation class	"B"
Humidity (F)/environmental protection class (H)	F3-1
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

EC centrifugal fan - RadiCal

backward curved

Product drawing

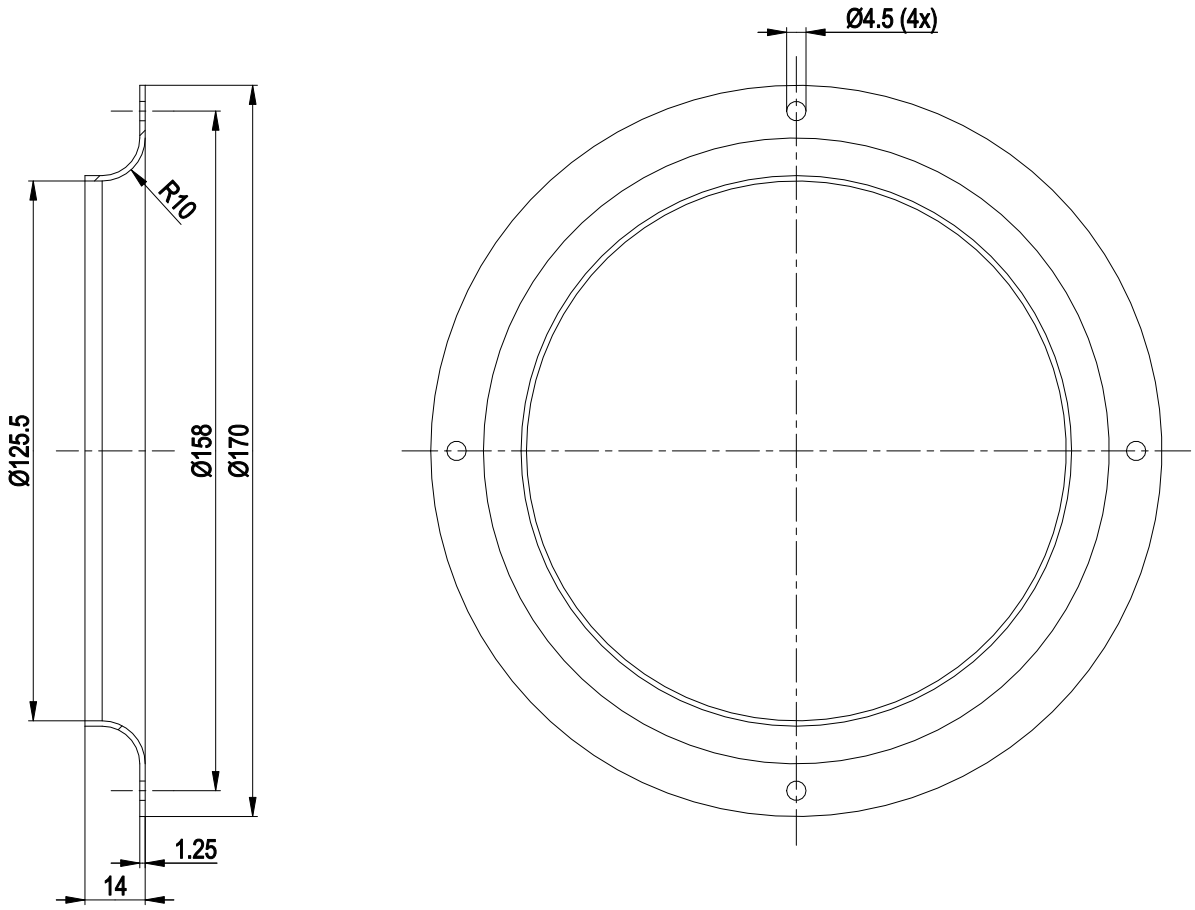


1	Accessory part: Inlet nozzle 09576-2-4013 not included in scope of delivery
2	Thread reach max. 5 mm
3	Connection line PVC 3G 0.5 mm², connector housing 3-pole JST XARR-03VF, 3x plug pin JST SXAM-01T-P0.6
3.1	L (brown)
3.2	N (blue)
3.3	PE (green/yellow)
4	Connection line PVC 3x 0.25 mm², connector housing 4-pole JST XARR-04VF, 3x plug pin JST SXAM-01T-P0.6
4.1	0-10 V PWM (yellow)
4.2	GND (blue)
4.3	Tach (white)
4.4	not used
5	The exact position of the grommet cannot be confirmed
6	Heat shrink tube, red

EC centrifugal fan - RadiCal

backward curved

Accessory part

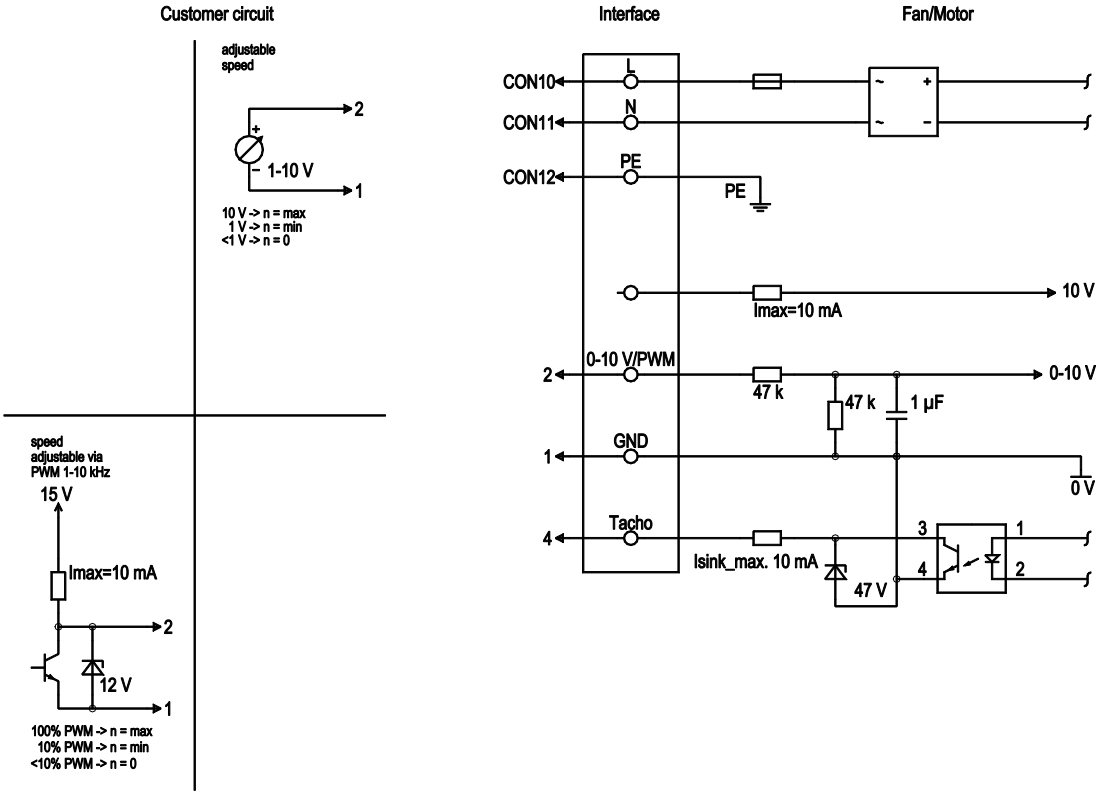


1	Accessory part: Inlet nozzle 09576-2-4013 not included in scope of delivery

EC centrifugal fan - RadiCal

backward curved

Connection screen

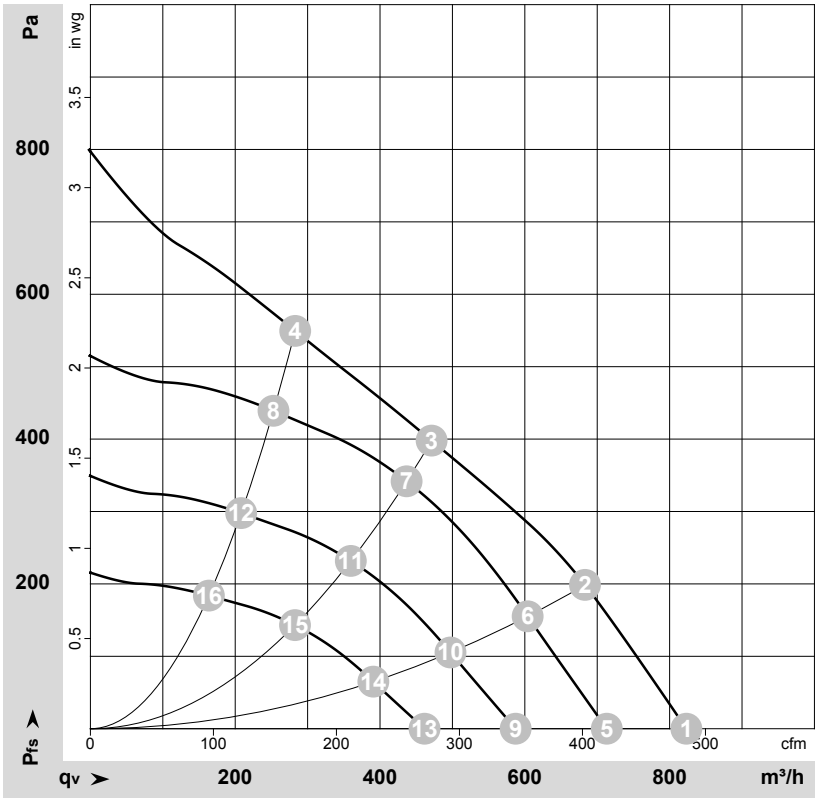


No.	Conn.	Designation	Colour	Function / assignment
	CON10	L	brown	Mains connection, power supply, phase, see type plate for voltage range
	CON11	N	blue	Mains connection, power supply, neutral conductor, see type plate for voltage range
	CON12	PE	green/yellow	Earth connection
	2	0- 10V PWM	yellow	0-10 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

EC centrifugal fan - RadiCal

backward curved

Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-171680-1

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	3925	109	0.92	825	0	485	0.00
2	230	50	3845	115	0.96	685	200	400	0.80
3	230	50	3760	119	1.00	470	400	275	1.61
4	230	50	3800	117	0.98	285	550	165	2.21
5	230	50	3400	71	0.60	715	0	420	0.00
6	230	50	3400	79	0.66	605	155	355	0.62
7	230	50	3400	93	0.78	435	343	255	1.38
8	230	50	3400	84	0.70	255	439	150	1.76
9	230	50	2800	40	0.33	585	0	345	0.00
10	230	50	2800	44	0.37	495	105	295	0.42
11	230	50	2800	52	0.44	360	232	210	0.93
12	230	50	2800	47	0.39	210	298	120	1.20
13	230	50	2200	19	0.16	460	0	270	0.00
14	230	50	2200	21	0.18	390	65	230	0.26
15	230	50	2200	25	0.21	285	144	165	0.58
16	230	50	2200	23	0.19	165	184	95	0.74

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