EC centrifugal fan

forward curved, single inlet

R3G140-AF17-12 ebmpapst Datasheet
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Nominal data

Type	**R3G140-AF17-12**
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}	2000
Power input	W	85
Current draw	A	0.72
Min. back pressure	Pa	0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

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	1.2 kg
Size	140 mm
Surface of rotor	Thick layer passivated
Material of electronics housing	Die-cast aluminium
Material of impeller	PP plastic
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
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	- Output 10 VDC, max. 1.1 mA - 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), on account of the installation conditions, ferritic damping in the connection line may be required for the application.
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
Remark	At an ambient temperature of 40°C the fan is only to be operated up to a maximum speed of 2850 rpm (corresponding to a back pressure of 400 Pa).

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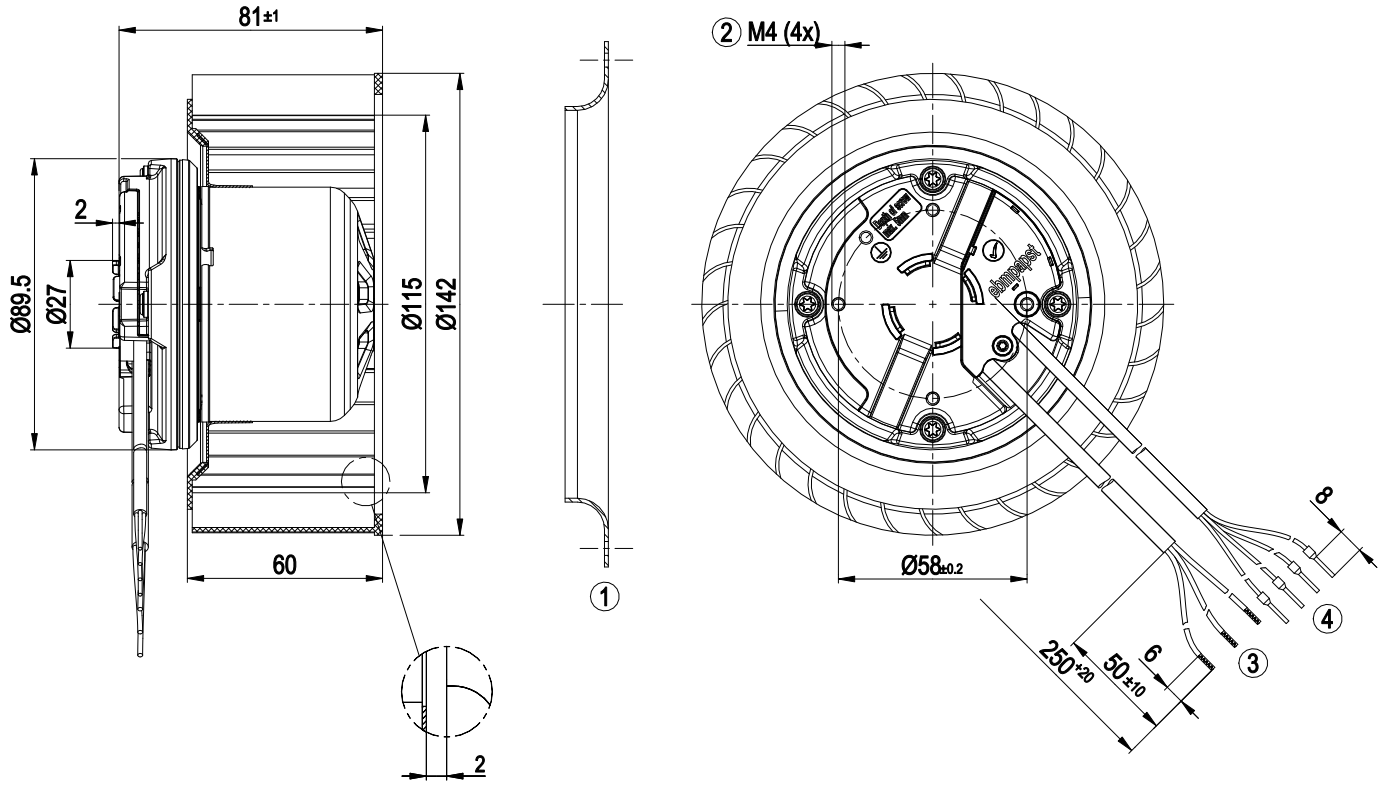
Product drawing



1	Accessory part: Inlet nozzle: 09576-2-4013 not included in scope of delivery
2	Thread reach max. 5 mm
3	Connection line PVC 3G 0.5 mm², 3x lead tips crimped
4	Connection line PVC 4x 0.25 mm², 4x crimped core-end sleeves

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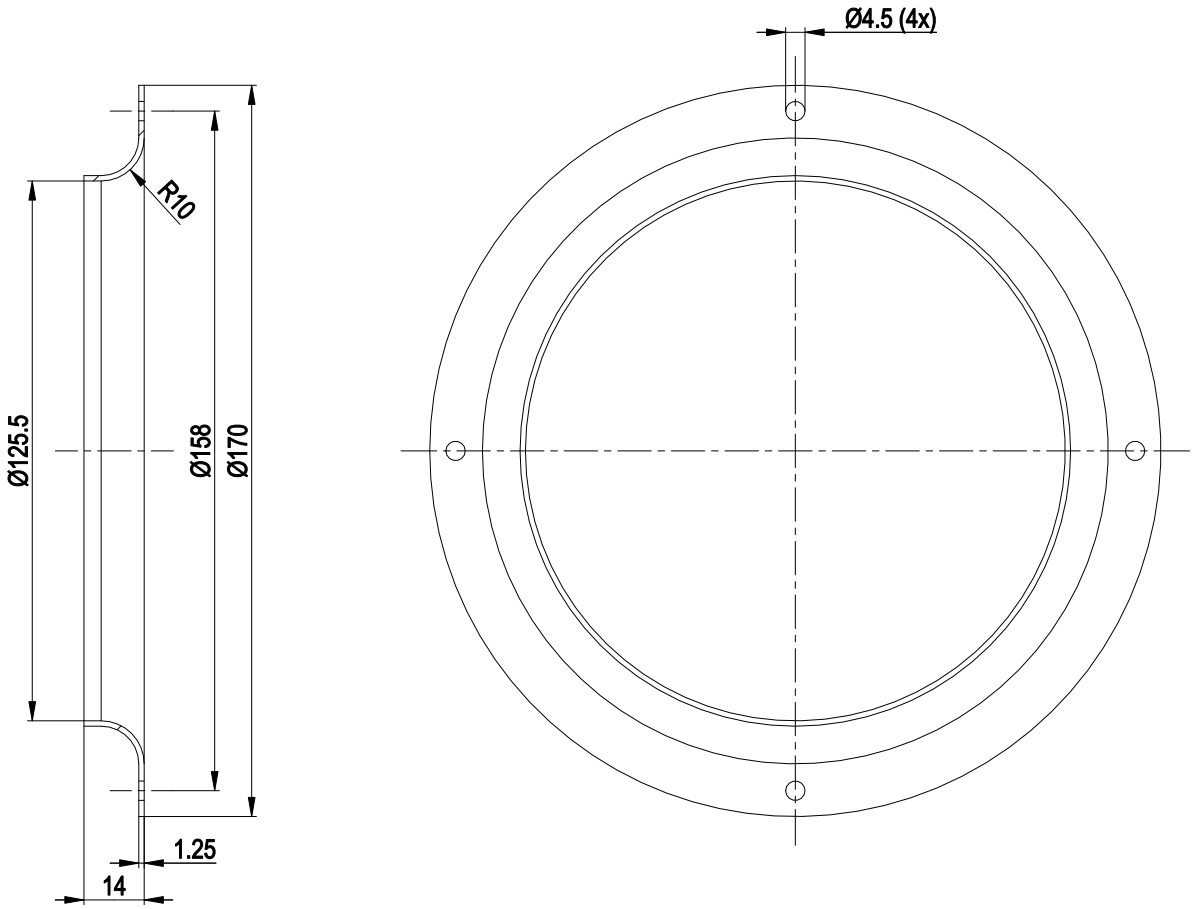
Accessory part



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

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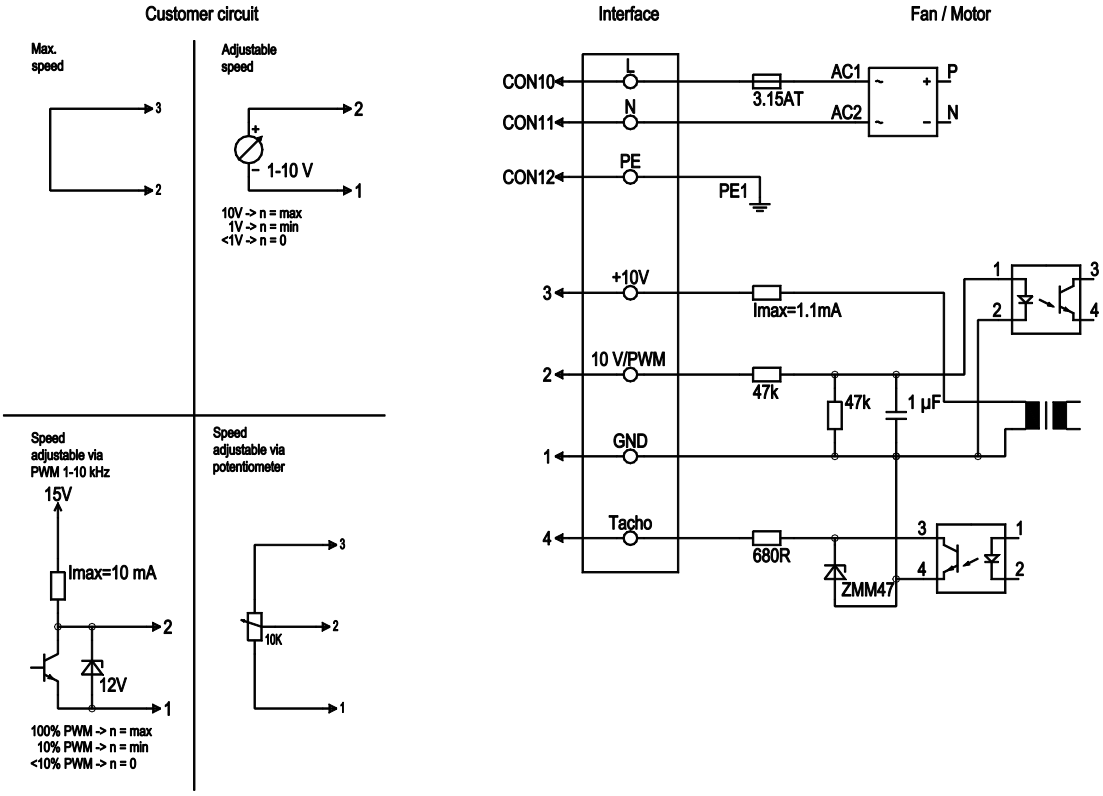
Connection screen



No.	Conn.	Designation	Colour	Function / assignment
	CON10	L	black	Power supply 230 VAC, 50-60 Hz, see type plate for voltage range
	CON11	N	blue	Neutral conductor
	CON12	PE	green/yellow	Protective earth
	1	GND	blue	GND connection for control interface
	2	0-10V PWM	yellow	Control input 0-10 V or PWM, electrically isolated
	3	10 V / max. 1,1 mA	red	Voltage output 10 VDC 1.1 mA, electrically isolated, short-circuit-proof
	4	Tacho	white	Tach output: Open collector, 1 pulse per revolution, electrically isolated

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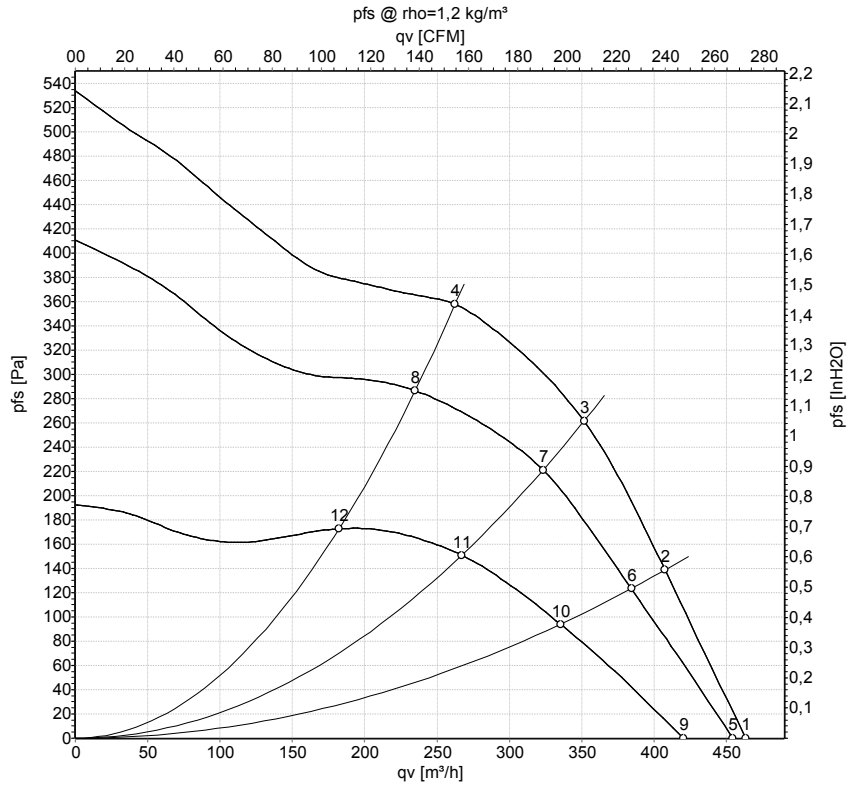
Charts: Air flow 50 Hz



Measurement: LU-160629-1
Measurement: LU-160612-1

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	2000	85	0.72	465	0	275	0.00
2	230	50	2195	85	0.72	410	140	240	0.56
3	230	50	2375	81	0.71	350	260	205	1.04
4	230	50	2600	67	0.60	260	360	155	1.45
5	230	50	1945	78	0.68	455	0	265	0.00
6	230	50	2060	70	0.63	385	123	225	0.49
7	230	50	2180	61	0.56	325	223	190	0.90
8	230	50	2320	51	0.48	235	287	140	1.15
9	230	50	1800	61	0.54	420	0	245	0.00
10	230	50	1800	47	0.42	335	94	195	0.38
11	230	50	1800	35	0.32	265	152	155	0.61
12	230	50	1800	24	0.22	180	173	105	0.69

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