EC centrifugal fan

forward curved, single inlet

R3G140-AF05-13 ebmpapst Datasheet
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Nominal data

Type	**R3G140-AF05-13**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		fa
Speed (rpm)	min^{-1}	2030
Power input	W	83
Current draw	A	0.74
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	- Speed adjustment input (230 V) - Output limit - Motor current limit - Soft start - 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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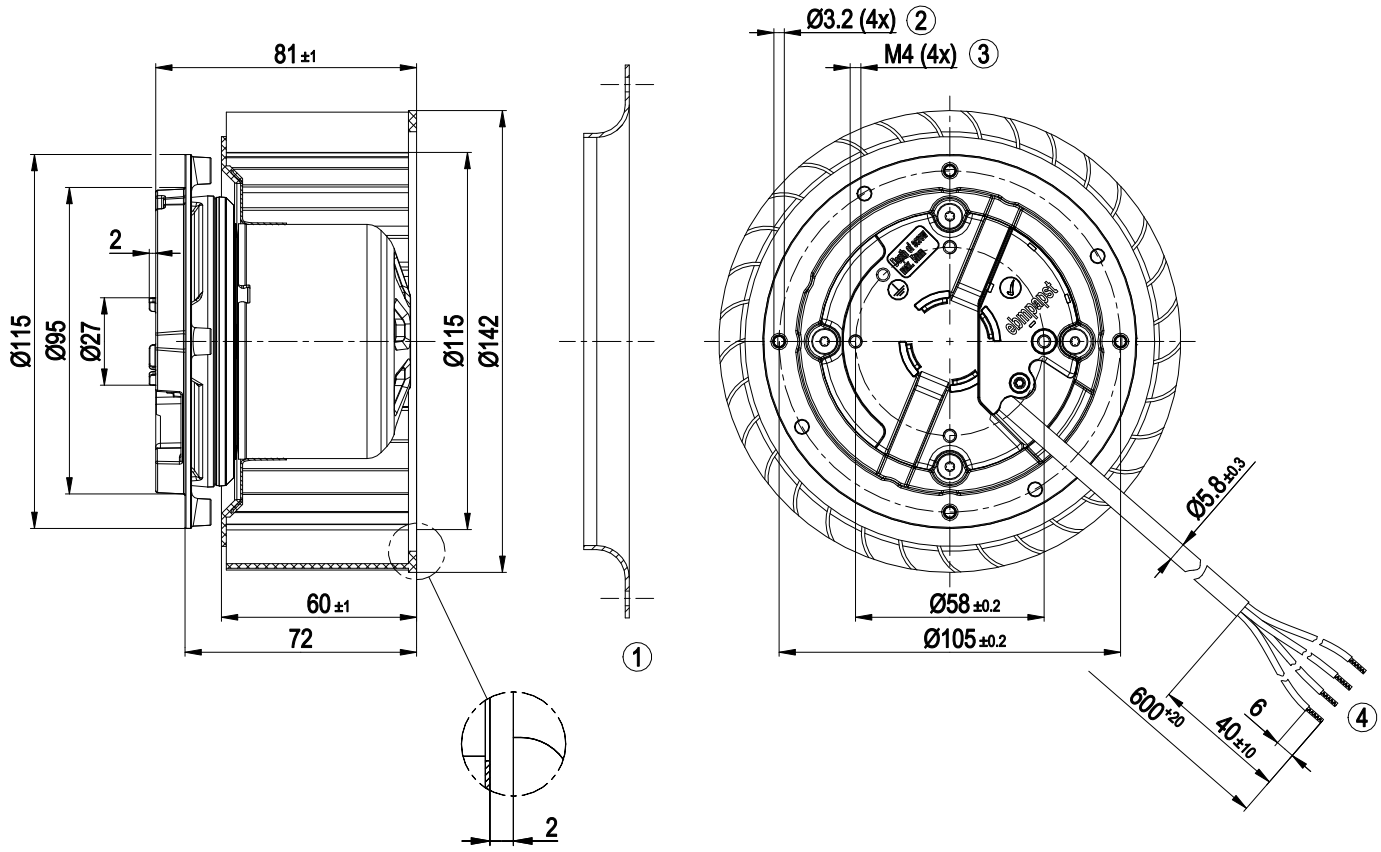
Product drawing



1	Accessory part: Inlet nozzle: 09576-2-4013 not included in scope of delivery
2	Pilot hole prepared for self-tapping plastic screw, Ø 4 mm, depth of screw max. 10 mm
3	Depth of screw max. 5 mm
4	Connection line PVC 4G 0.5 mm², 4x lead tips crimped

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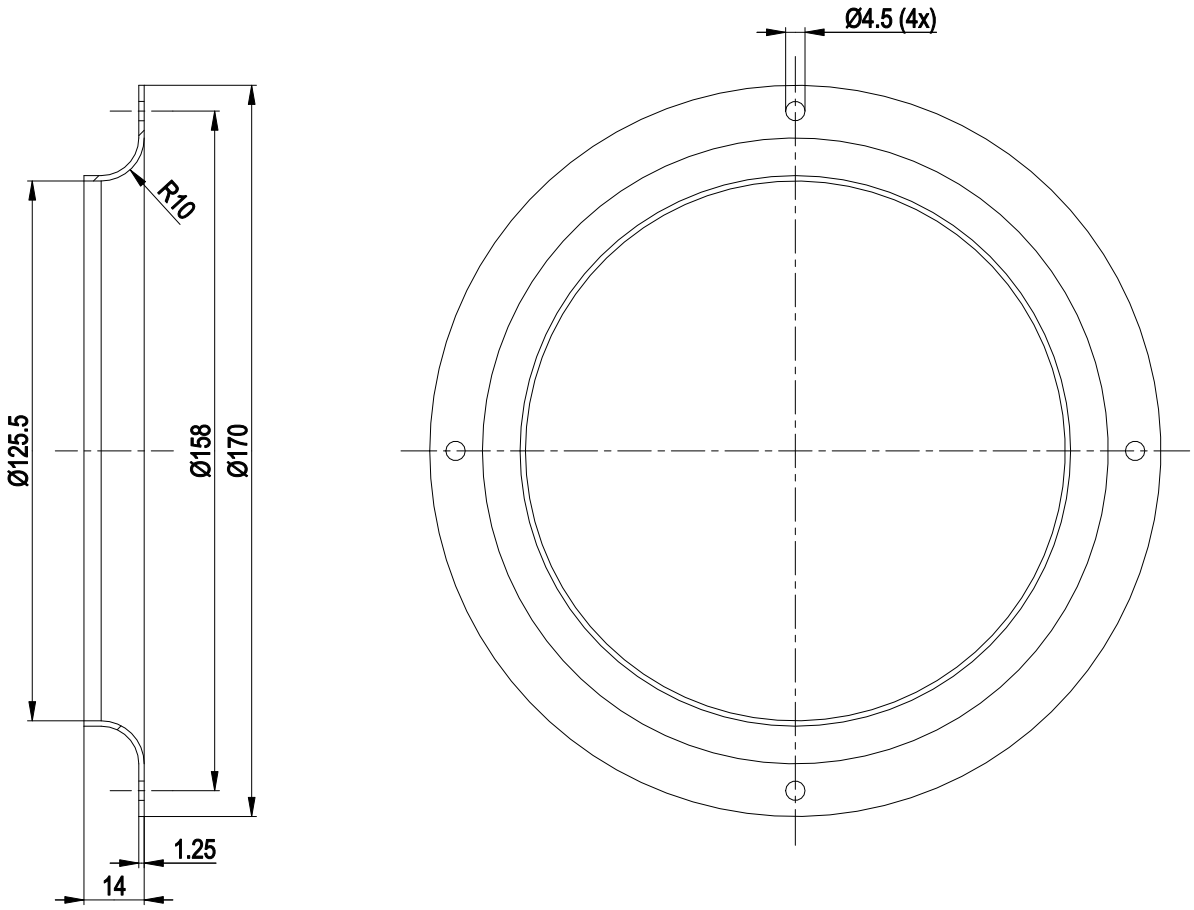
Accessory part



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

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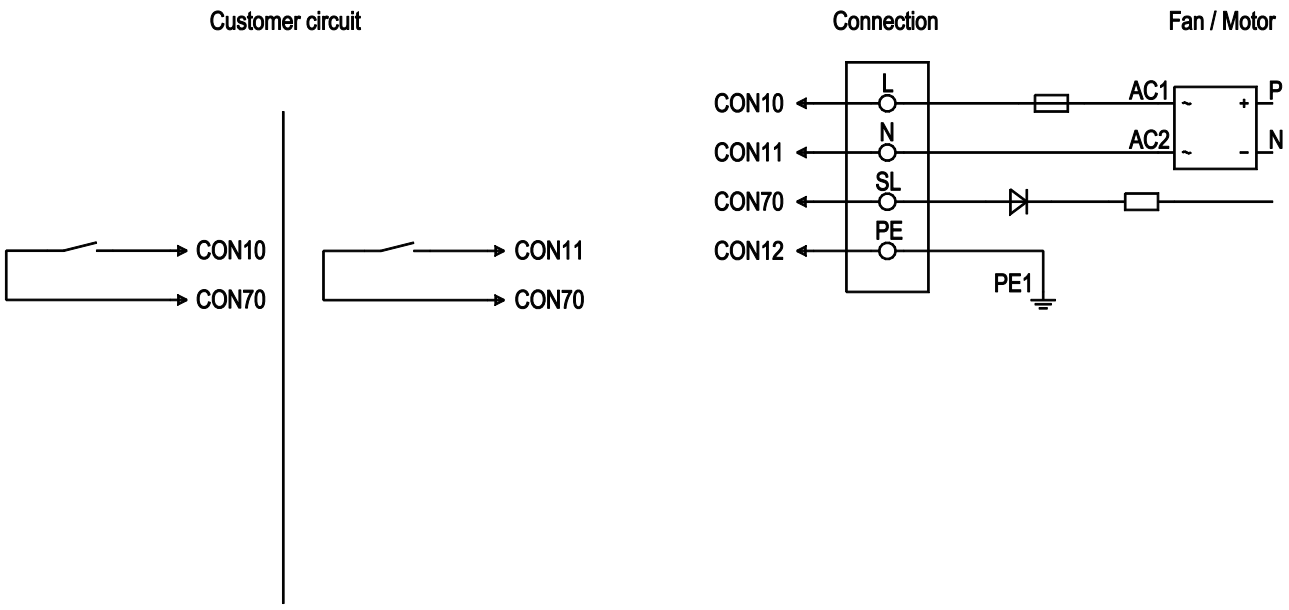
Connection screen



No.	Conn.	Designation	Colour	Function / assignment
	CON 10	L	black	Power supply 230 VAC, 50-60 Hz, see type plate for voltage range
	CON 11	N	blue	Neutral conductor
	CON 12	PE	green/yellow	Protective earth
	CON 70	SL	brown	Speed selection: switch open = speed 1 (slow); switch closed = speed 2 (fast)

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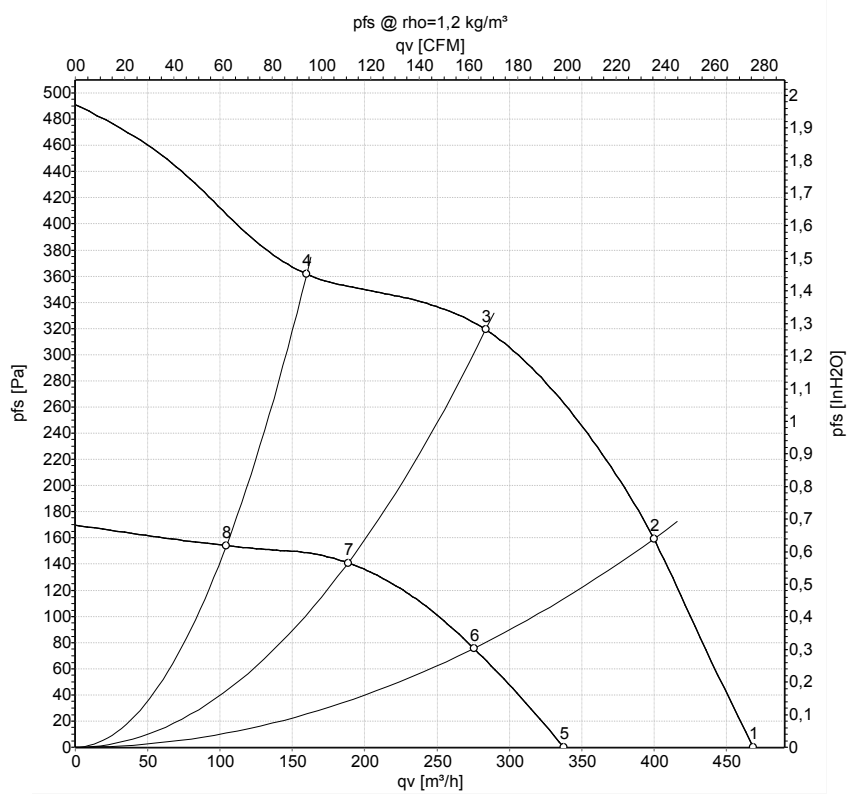
Charts: Air flow 50 Hz



Measurement: LU-156213-1
Measurement: LU-161634-1

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	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
1	230	50	2030	83	0.74	65	71	470	0	275	0.00
2	230	50	2235	83	0.74	64	70	400	160	235	0.64
3	230	50	2455	66	0.63	62	68	285	320	165	1.28
4	230	50	2700	48	0.47	62	68	160	360	95	1.45
5	230	50	1460	32	0.30	57	63	340	0	200	0.00
6	230	50	1535	26	0.25	54	61	275	83	160	0.33
7	230	50	1670	20	0.20	51	58	190	148	110	0.59
8	230	50	1740	14	0.16	50	57	105	152	60	0.61

U = Supply voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · q_V = Air flow
p_{fs} = Pressure increase