R3G140-AV03-13

EC centrifugal fan

forward curved, single inlet

R3G140-AV03-13 ebmpapst Datasheet
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Nominal data

Type	**R3G140-AV03-13**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	1800
Power input	W	66
Current draw	A	0.5
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	1.1 kg
Size	140 mm
Surface of rotor	Uncoated
Material of impeller	Sheet steel, galvanised
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44
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	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 1.1 mA - Tach output - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Over-temperature protected motor
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	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1
Approval	EAC

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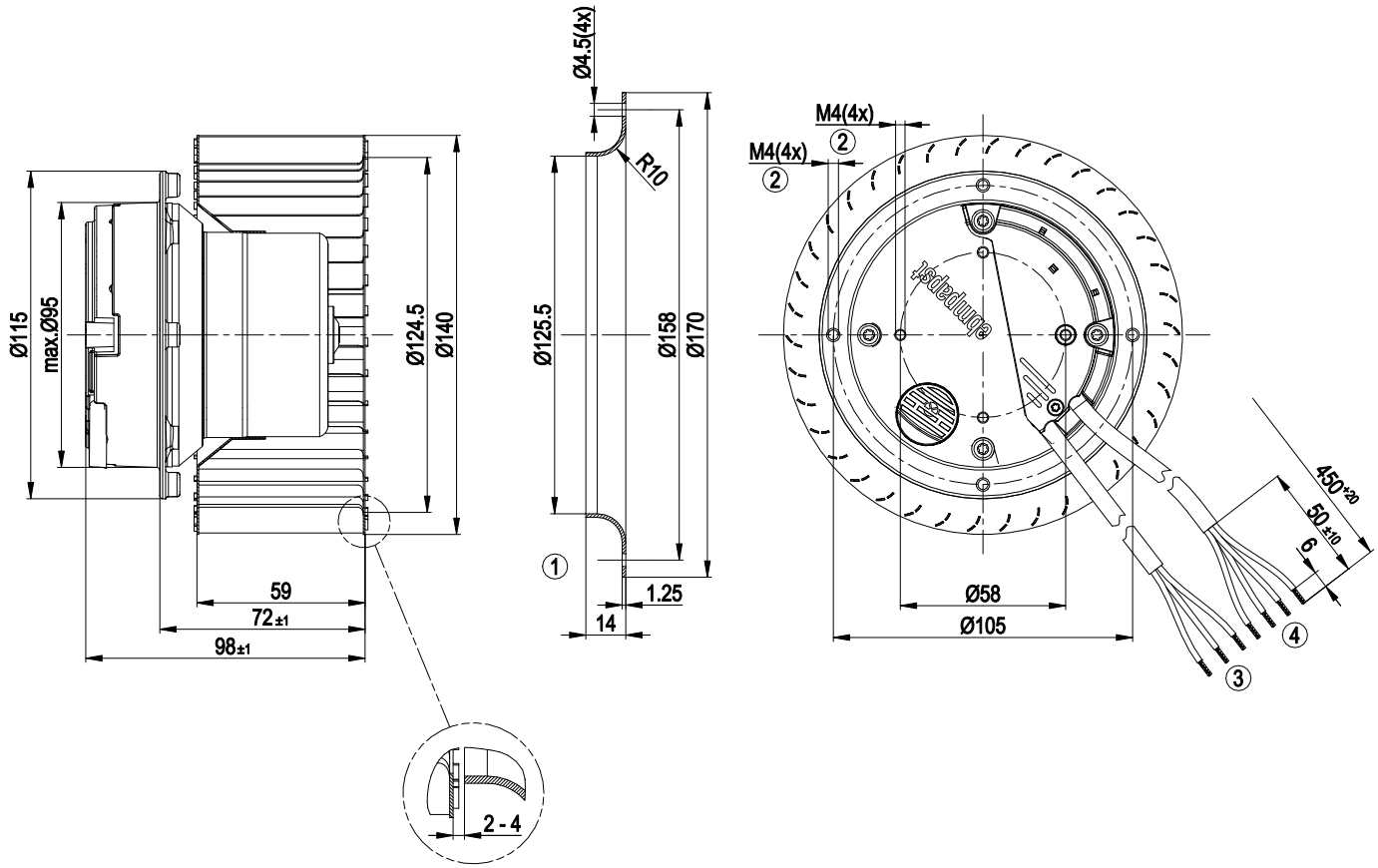
Product drawing



1	Accessory part: Inlet nozzle 09576-2-4013, not included in the standard scope of delivery
2	Depth of screw max. 6 mm
3	Connection line H03VV-F3G0.5, 3x brass lead tips crimped
4	Connection line A03VV-F4x0.25, 4 x brass lead tips crimped

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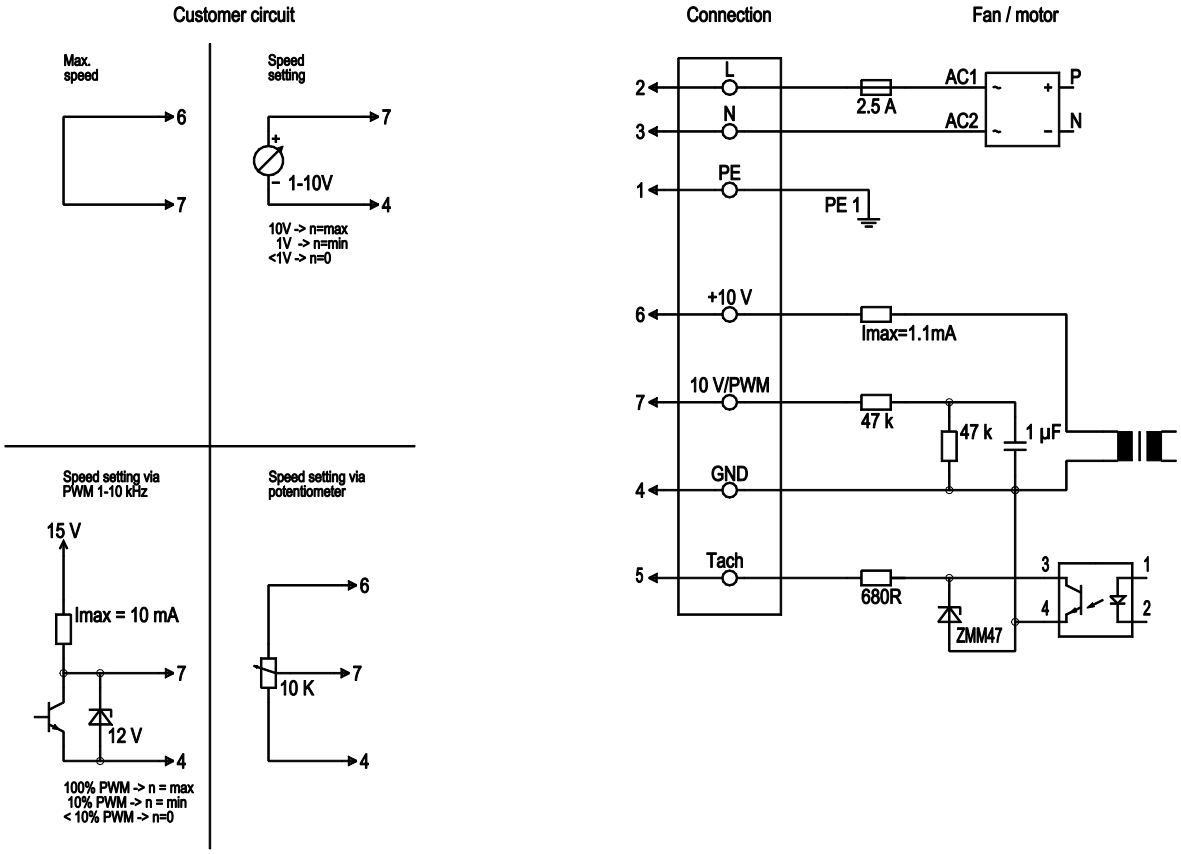
Connection screen



No.	Conn.	Designation	Colour	Function / assignment
	2	L	brown	Power supply 230 VAC, 50-60 Hz, see type plate for voltage range
	3	N	blue	Neutral conductor
	1	PE	green/yellow	Protective earth
	7	0-10 V PWM	yellow	Control input 0 - 10 V or PWM, electrically isolated
	5	Tach	white	Tach output: Open Collector, 1 pulse per revolution, electrically isolated
	6	10V / max. 1.1 mA	red	Voltage output 10V / 1.1mA, electrically isolated, not short-circuit-proof
	4	GND	blue	GND - Connection for control interface

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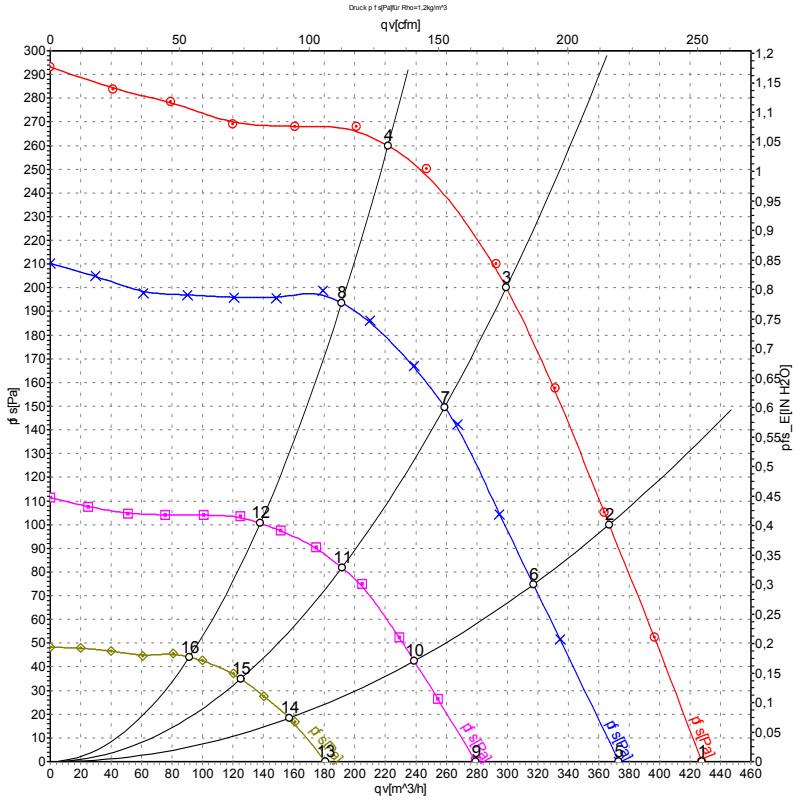
Charts: Air flow 50 Hz



Measurement: LU-65700-1
Measurement: LU-117046-1
Measurement: LU-117047-1
Measurement: LU-117050-1

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	1800	66	0.50	430	0	250	0.00
2	230	50	1855	59	0.43	365	100	215	0.40
3	230	50	1960	50	0.36	300	200	175	0.80
4	230	50	2075	42	0.31	220	260	130	1.04
5	230	50	1580	46	0.35	375	0	220	0.00
6	230	50	1630	40	0.30	315	75	185	0.30
7	230	50	1710	34	0.26	260	150	150	0.60
8	230	50	1780	27	0.21	190	194	110	0.78
9	230	50	1195	22	0.17	280	0	165	0.00
10	230	50	1220	18	0.14	240	42	140	0.17
11	230	50	1265	16	0.13	190	82	115	0.33
12	230	50	1305	13	0.11	140	101	80	0.41
13	230	50	810	9.0	0.08	180	0	105	0.00
14	230	50	830	8.1	0.07	155	19	90	0.08
15	230	50	845	6.9	0.07	125	35	75	0.14
16	230	50	890	6.4	0.06	90	44	55	0.18

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