R3G140-AD07-10

EC centrifugal fan

forward curved

R3G140-AD07-10 ebmpapst Datasheet
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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**R3G140-AD07-10**	
Motor	**M3G055-DF**	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		ml
State		prelim.
Speed	min^{-1}	2670
Power input	W	165
Current draw	A	1.3
Min. back pressure	Pa	100
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	+50

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

Data according to ErP directive

Installation category	A
Efficiency category	Static
Variable speed drive	Yes
Specific ratio*	1.01

* Specific ratio = 1 + p_{fs} / 100 000 Pa

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}		43.5	25.1	32.1
Efficiency grade N		55.4	37	44
Power input P_{ed}	kW	0.13		
Air flow q_v	m^3/h	355		
Pressure increase p_{fs}	Pa	515		
Speed n	min^{-1}	3085		

Data definition with optimum efficiency.
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

Mass	1.7 kg
Size	140 mm
Material of impeller	Sheet steel, galvanised
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
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 - Over-temperature protected electronics / motor - Line undervoltage detection
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

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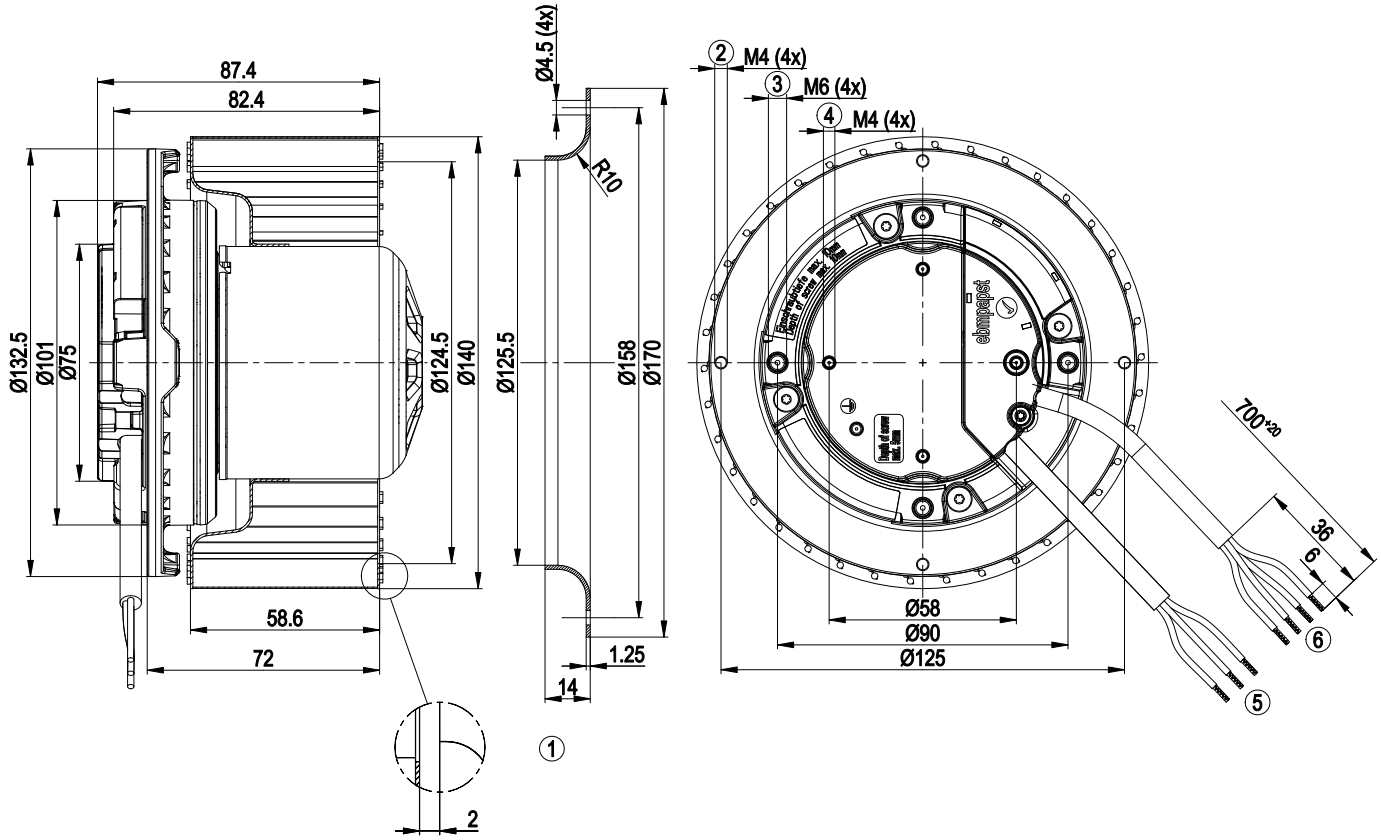
Product drawing



1	Accessory part: Inlet nozzle 09576-2-4013, not included in the standard scope of delivery
2	Depth of screw max. 6 mm
3	Depth of screw max. 10 mm
4	Depth of screw max. 6 mm
5	Connection line PVC 3G 0.5 mm², 3x brass lead tips crimped
6	Connection line PVC 4x 0.25 mm²; 4 x brass lead tips crimped

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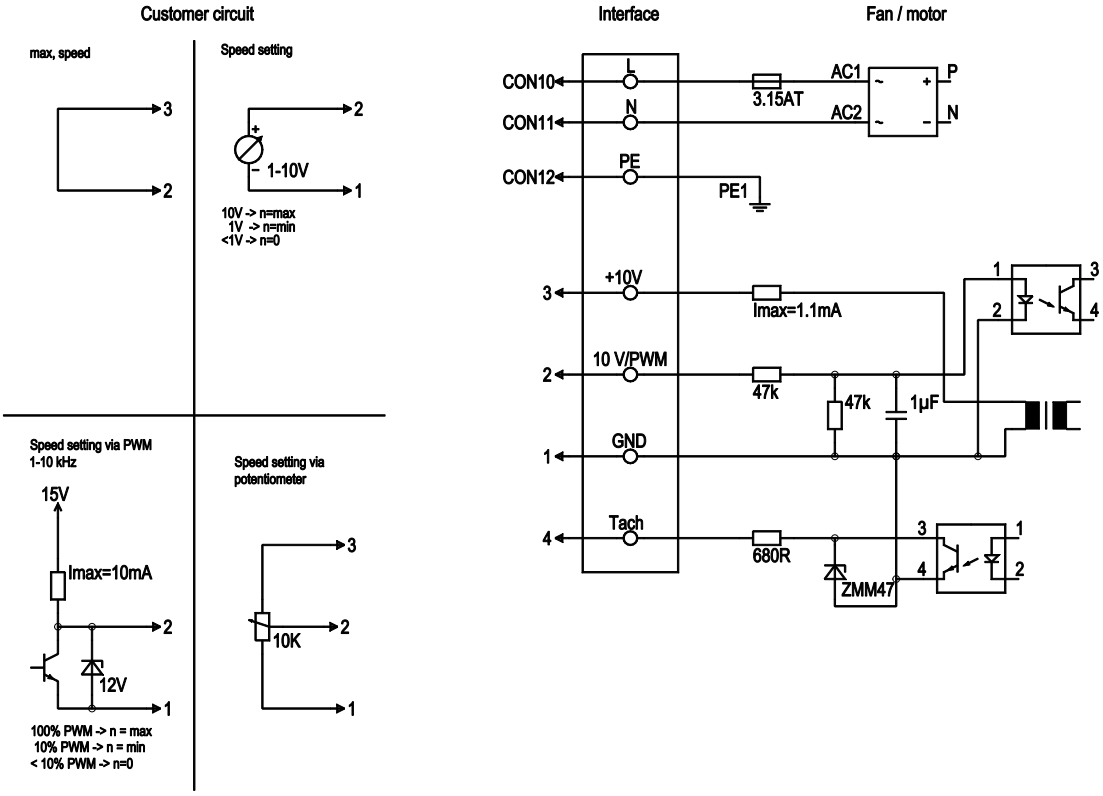
Connection screen



Line	No.	Signal	Colour	Function / assignment
	CON10	L	black	Power supply 230 VAC, 50-60 Hz, for voltage range refer to rating plate
	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	10V/ max 1.1mA	red	Voltage output 10V/ 1.1mA, electrically isolated, not short-circuit-proof.
	4	Tach	white	Tach output: open collector, 1 pulse per revolution, electrically isolated

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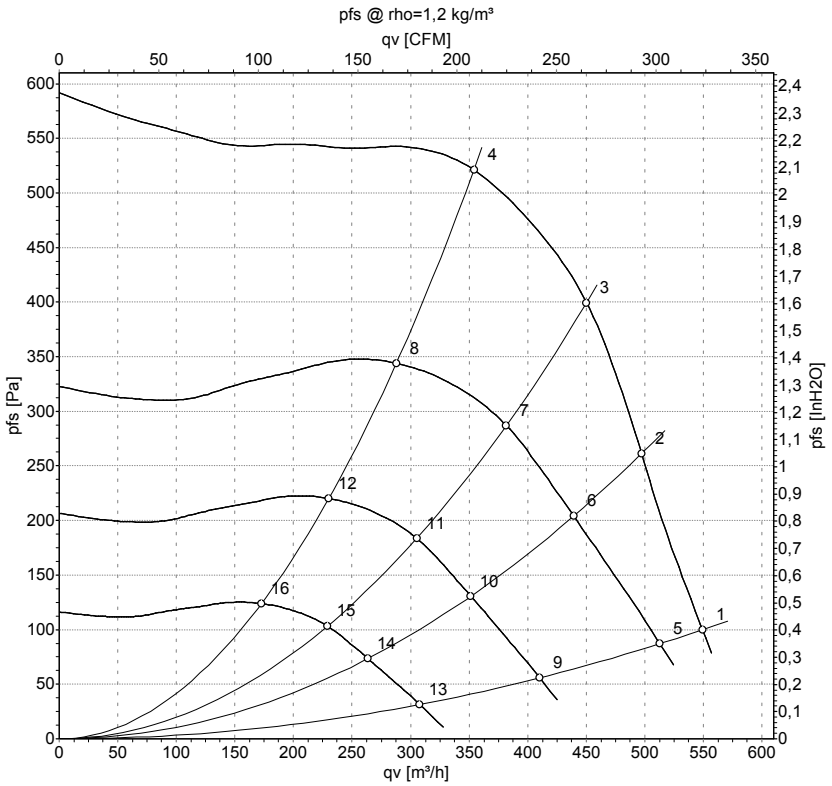
Charts: Air flow 50 Hz



Measurement: LU-139791

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	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	50	2670	165	1.30	550	100
2	230	50	2830	165	1.30	495	260
3	230	50	2955	160	1.28	450	400
4	230	50	3080	134	1.08	355	520
5	230	50	2500	135	1.07	515	89
6	230	50	2500	113	0.90	440	204
7	230	50	2500	97	0.78	380	290
8	230	50	2500	72	0.58	290	345
9	230	50	2000	69	0.55	410	57
10	230	50	2000	58	0.46	350	131
11	230	50	2000	50	0.40	305	186
12	230	50	2000	37	0.30	230	221
13	230	50	1500	29	0.23	310	32
14	230	50	1500	24	0.19	265	73
15	230	50	1500	21	0.17	230	104
16	230	50	1500	15	0.13	175	124

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