R3G310-AO52-15

EC centrifugal fan

backward curved, single inlet

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**R3G310-AO52-15**	
Motor	**M3G074-CF**	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Type of data definition		fa
Speed	min^{-1}	1925
Power input	W	150
Current draw	A	1.1
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

Data according to ErP directive

Installation category	A
Efficiency category	Static
Variable speed drive	Yes
Specific ratio*	1.00

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	59.8	39.4	43.4
Efficiency grade N		78.4	58	62
Power input P_{ed}	kW	0.17		
Air flow q_v	m^3/h	1300		
Pressure increase p_{fs}	Pa	250		
Speed n	min^{-1}	1705		

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

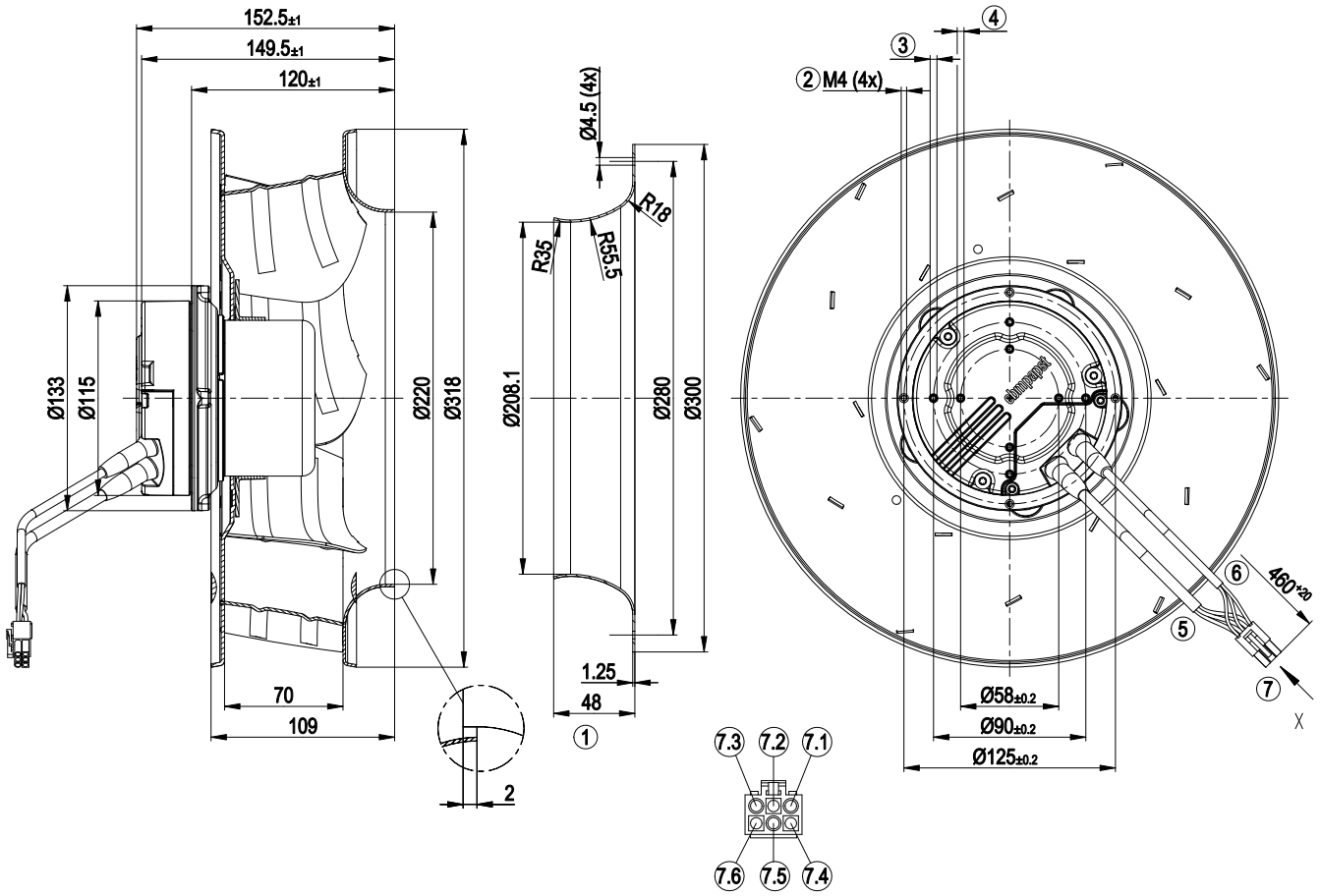
Mass	3.1 kg
Size	310 mm
Surface of rotor	Coated in black
Material of electronics housing	Die-cast aluminium
Material of impeller	Aluminium sheet
Number of blades	6
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44
Insulation class	"B"
Humidity class	F3-1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	None
Operation mode	S1
Motor bearing	Ball bearing
Technical features	- 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 electronics / 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; CE
Approval	UL 2111; CSA C22.2 Nr.77

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Product drawing



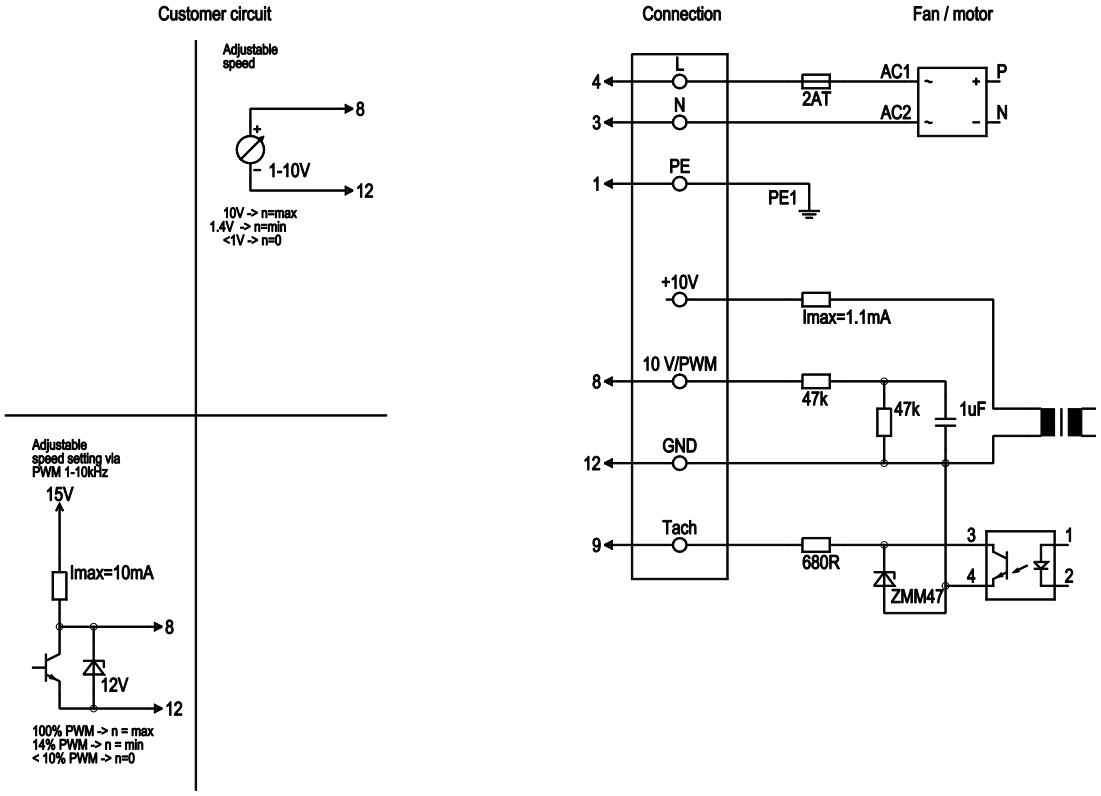
1	Accessory part: inlet nozzle 31050-2-4013 not included in scope of delivery, other inlet nozzles on request
2	Depth of screw 8-10 mm; tightening torque 2.5±0.2 Nm; gluing the screws is recommended
3	Pilot hole prepared for self-tapping screw M4, depth of screw max. 6 mm
4	Pilot hole prepared for self-tapping screw M4, depth of screw max. 8 mm
5	Connection line PVC AWG18, 3x female connector JST SLF-41T-P1.3E crimped
6	Connection line PVC AWG22, 3x female connector JST SLF-01T-P1.3E crimped
7	Connector housing JST ELP-06V
7.1	Tach (white)
7.2	0-10 V / PWM (yellow)
7.3	- (blue)
7.4	L (black)
7.5	N (blue)
7.6	PE (green/yellow)

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Connection screen

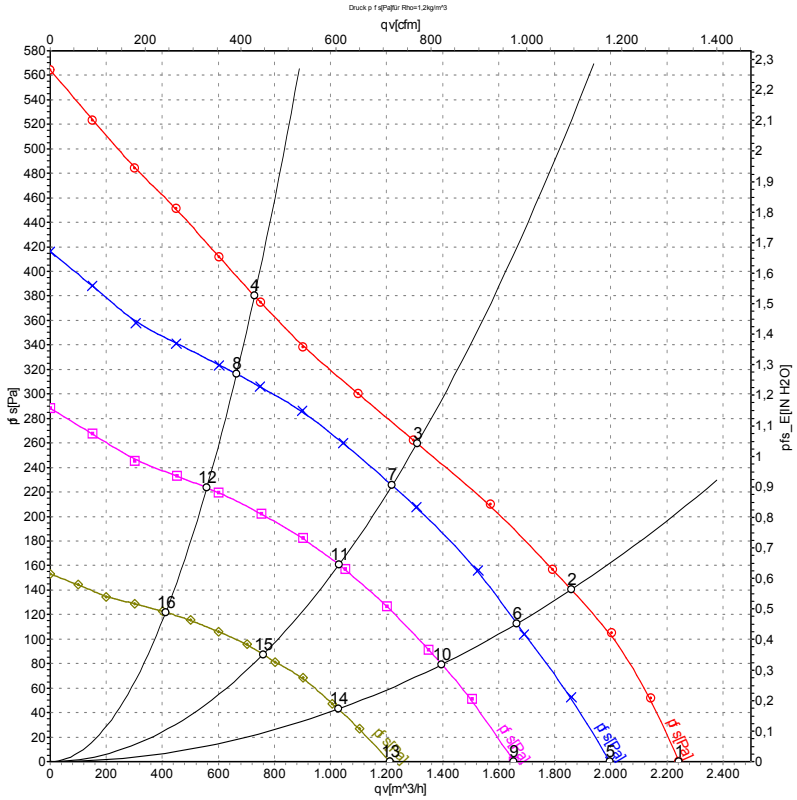


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Charts: Air flow 50 Hz



Measurement: LU-69203
Measurement: LU-67778
Measurement: LU-67779
Measurement: LU-67780

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	1925	150	1.10	2245	0
2	230	50	1815	174	1.29	1860	140
3	230	50	1705	172	1.27	1310	260
4	230	50	1775	175	1.29	730	380
5	230	50	1670	100	0.75	1995	0
6	230	50	1610	131	0.96	1665	112
7	230	50	1585	140	1.01	1220	226
8	230	50	1610	135	0.99	665	316
9	230	50	1395	60	0.47	1655	0
10	230	50	1355	78	0.59	1395	79
11	230	50	1340	85	0.64	1030	161
12	230	50	1350	82	0.61	560	224
13	230	50	1025	28	0.23	1210	0
14	230	50	1005	36	0.28	1030	43
15	230	50	990	40	0.31	760	87
16	230	50	1000	38	0.30	410	122

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

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