R3G190-AB23-02

EC centrifugal fan

backward curved, single inlet



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Nominal data

Type	**R3G190-AB23-02**	
Motor	**M3G055-CF**	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50/60
Type of data definition		ml
Speed	min^{-1}	3350
Power input	W	100
Current draw	A	0.74
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

preliminary

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Technical features

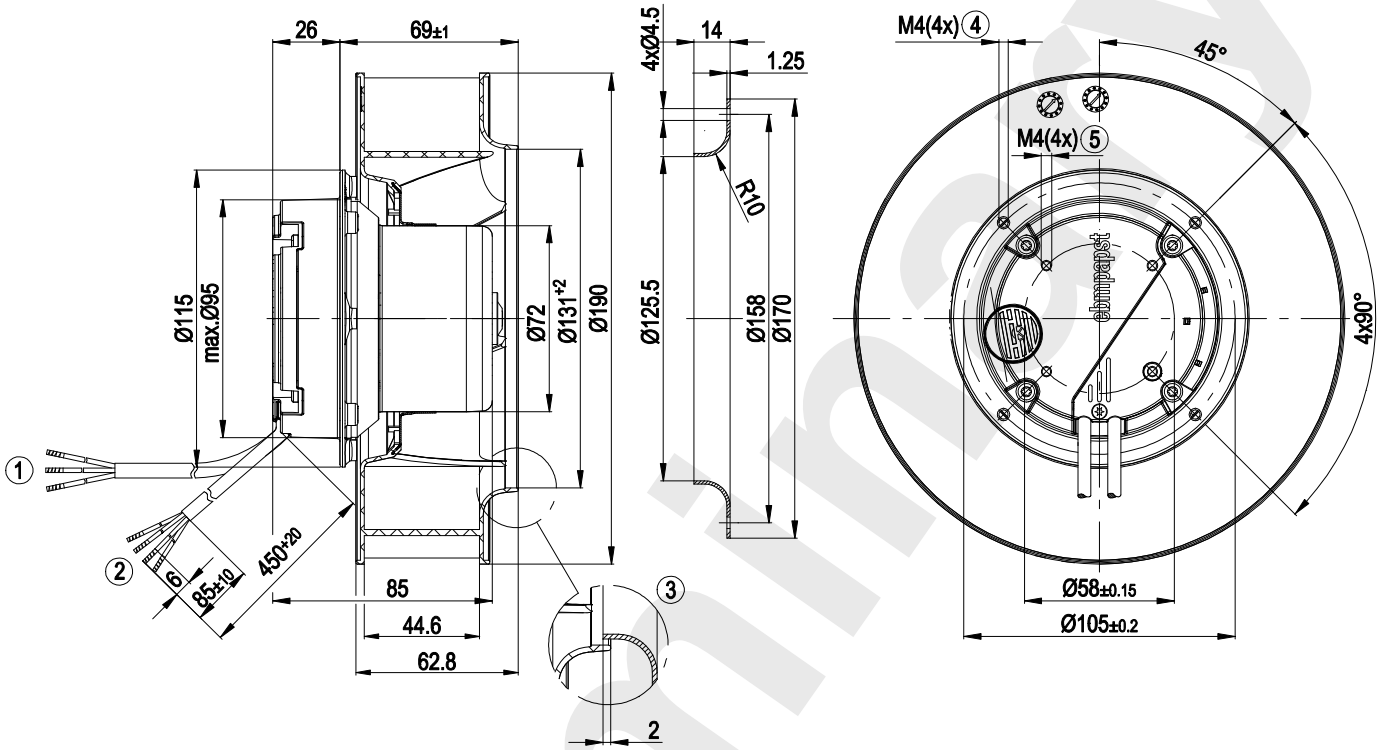
Mass	1.3 kg
Size	190 mm
Surface of rotor	Thick layer passivated
Material of electronics housing	Die-cast aluminium
Material of impeller	PA plastic
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44
Insulation class	"B"
Humidity class	F3-1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
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 - 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; CE
Approval	CCC

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Product drawing



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

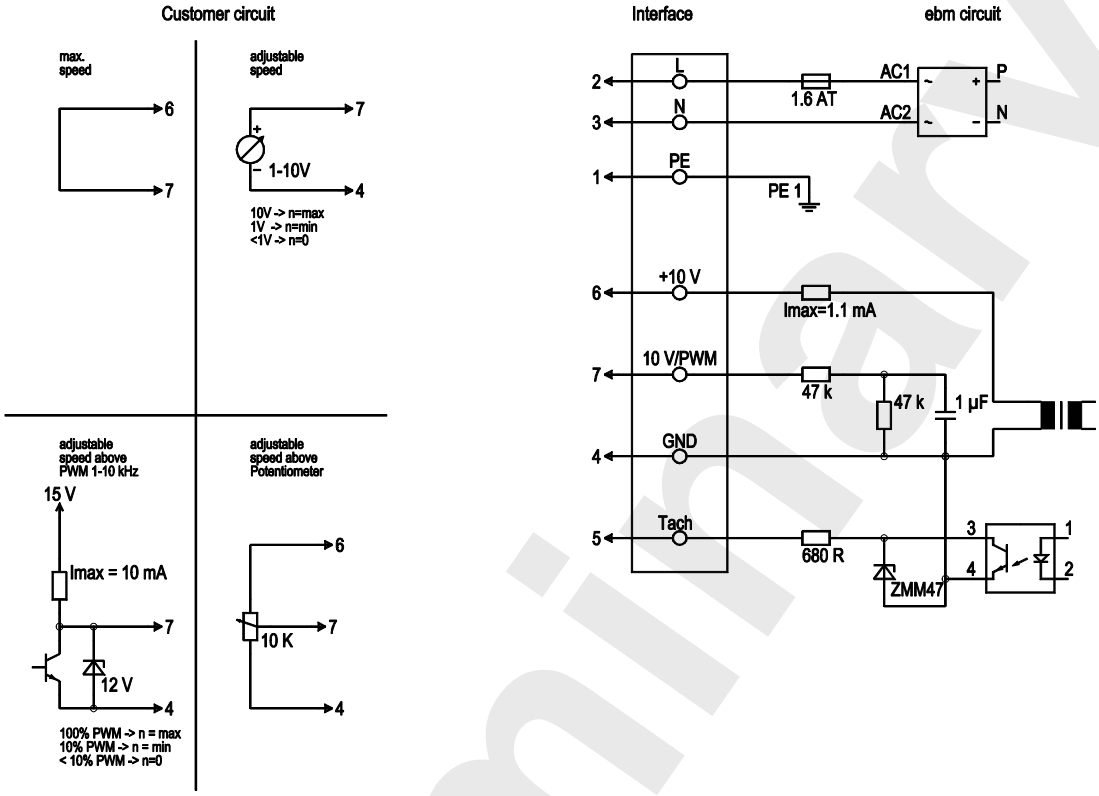
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Connection screen



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

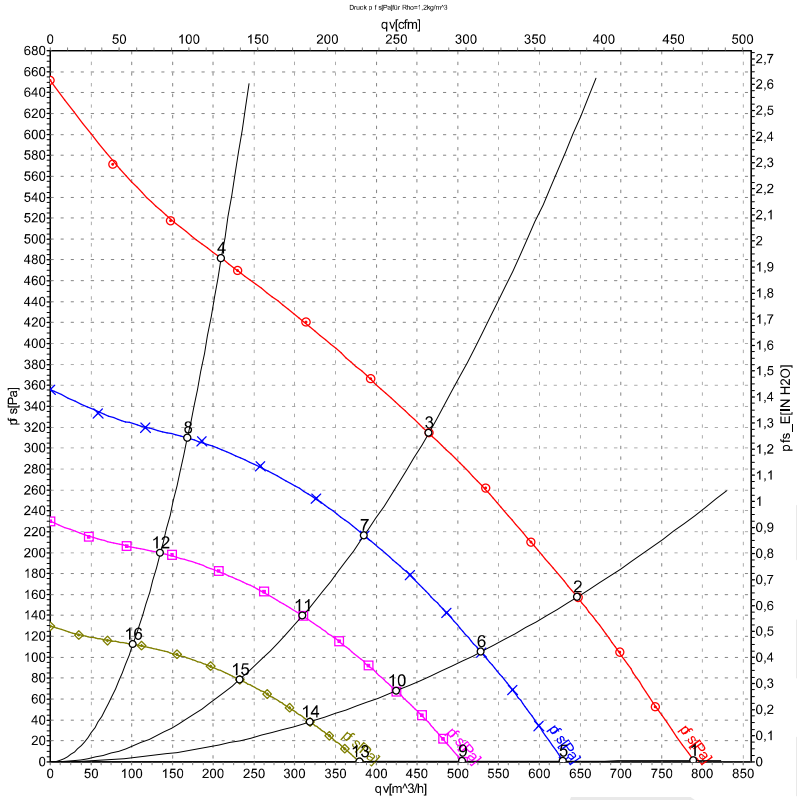
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Charts: Air flow 50 Hz



Measurement: LU-110198

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}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa
1	230	50	3535	88	0.71	71	78	790	0
2	230	50	3455	97	0.74	67	75	645	160
3	230	50	3350	100	0.74	63	71	465	315
4	230	50	3515	90	0.71	64	72	210	480
5	230	50	2820	45	0.36	66	76	630	0
6	230	50	2820	53	0.41	63	74	530	105
7	230	50	2820	58	0.45	59	70	385	217
8	230	50	2820	47	0.37	59	70	170	310
9	230	50	2265	23	0.19	61	68	505	0
10	230	50	2265	27	0.21	58	66	425	68
11	230	50	2265	30	0.24	54	62	310	140
12	230	50	2265	24	0.19	54	62	135	200
13	230	50	1700	9.8	0.08	55	62	380	0
14	230	50	1700	12	0.09	52	60	320	38
15	230	50	1700	13	0.10	48	56	230	79
16	230	50	1700	10	0.08	48	56	100	113

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

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