EC centrifugal fan

backward curved, single inlet

Limited partnership · Headquarters Mulfingen
County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
County court Stuttgart · HRB 590142

Nominal data

Type	**R3G280-AO41-09**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	230
Type of data definition		ml
Speed (rpm)	min^{-1}	875
Power input	W	37
Current draw	A	0.33
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	2.3 kg
Size	280 mm
Surface of rotor	Thick layer passivated
Material of electronics housing	Die-cast aluminium
Material of impeller	PA plastic
Direction of rotation	Counter-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
Cooling bore / aperture	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
Product conforming to standard	EN 60335-1; CE
Approval	EAC

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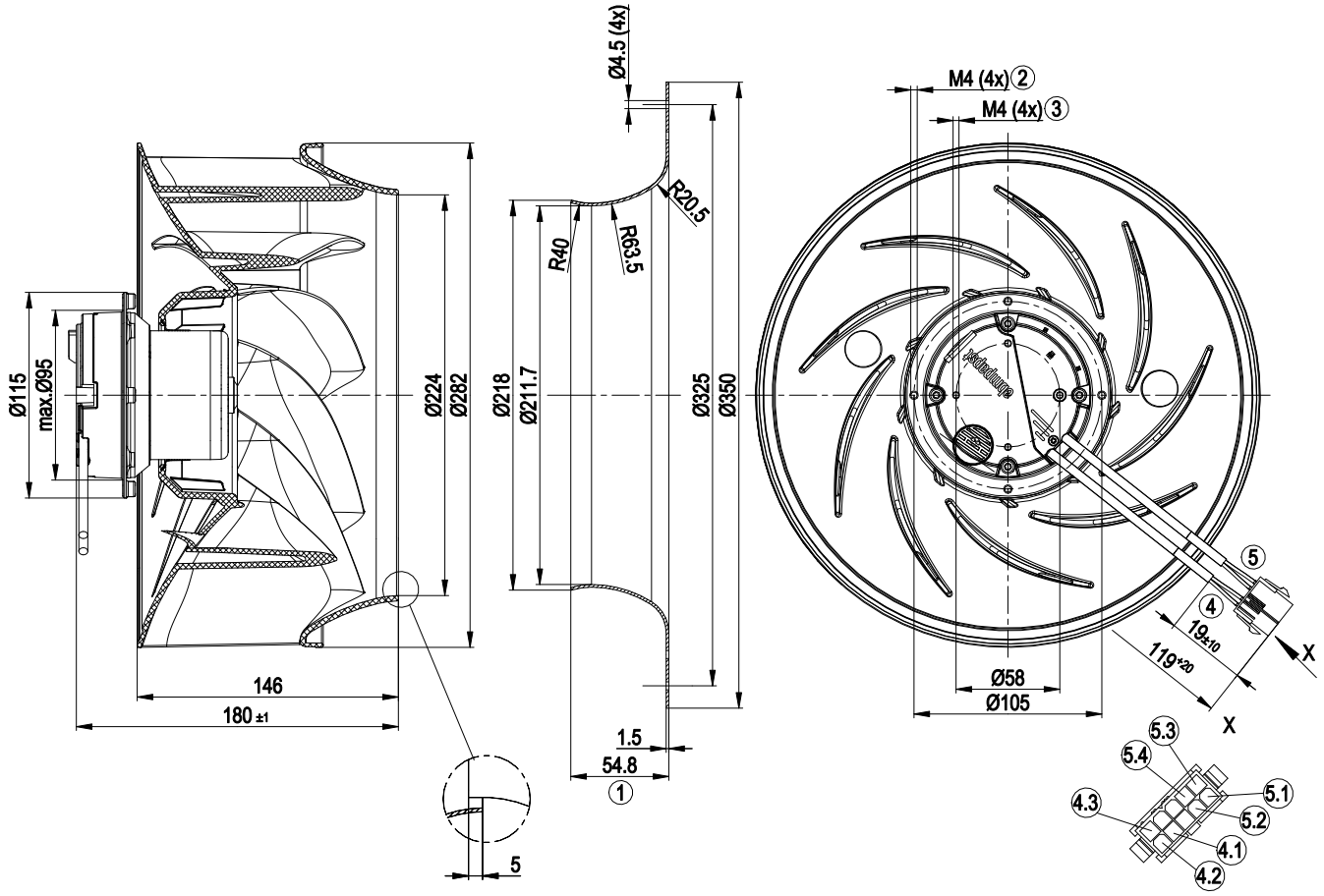
Product drawing



1	Accessory part: Inlet nozzle 31570-2-4013, not included in the standard scope of delivery
2	Depth of screw max. 6 mm
3	Depth of screw max. 6 mm
4	Connection line PVC 3G 0.5 mm² with Molex connector housing 39-01-2101
4.1	green / yellow
4.2	blue
4.3	brown
5	Connection line PVC 4x 0.25 mm²
5.1	blue
5.2	red
5.3	white
5.4	yellow

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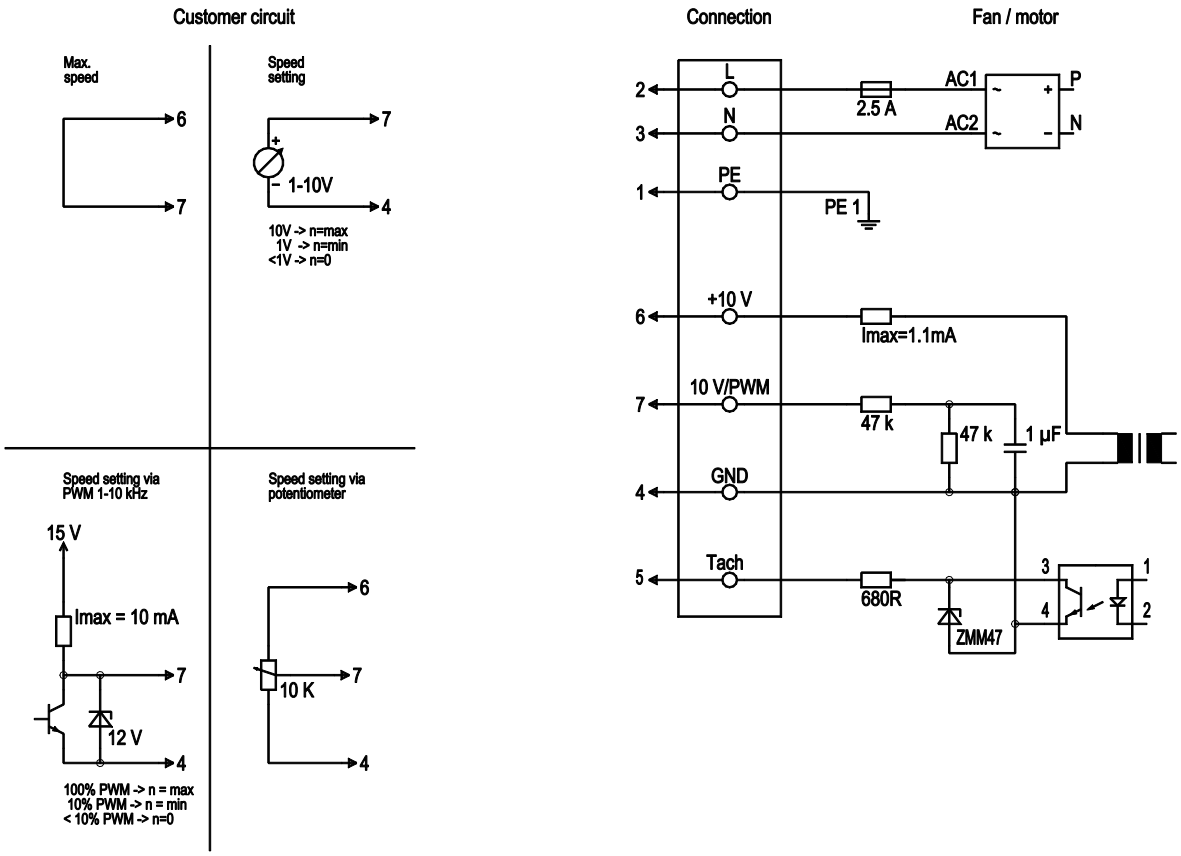
Connection screen



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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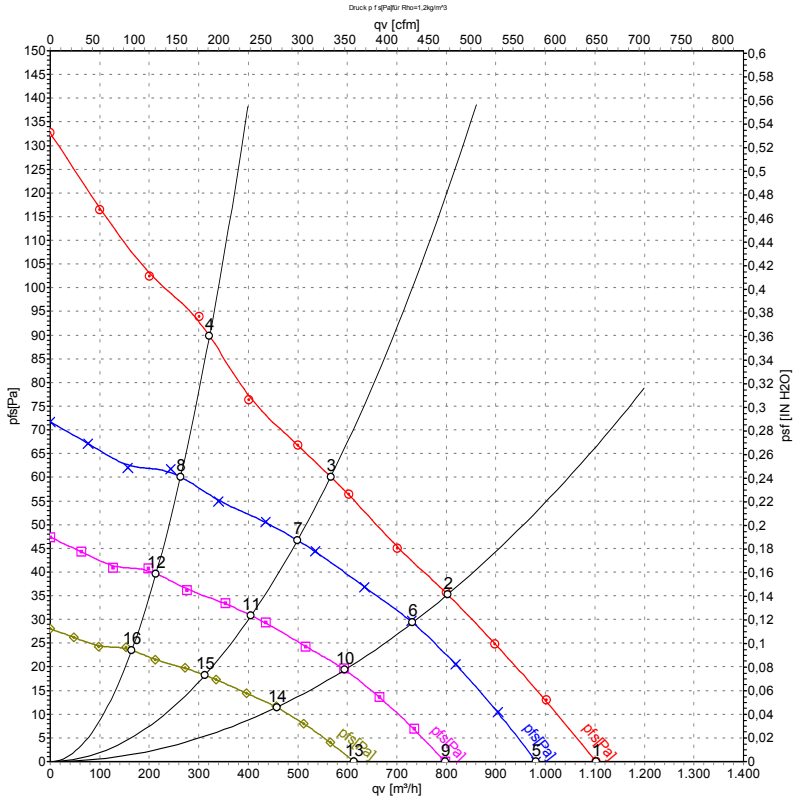
Charts: Air flow 50 Hz



Measurement: LU-134266-1

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	900	36	0.32	1100	0	650	0.00
2	230	50	875	37	0.33	805	35	475	0.14
3	230	50	905	35	0.31	565	60	335	0.24
4	230	50	980	31	0.28	320	90	190	0.36
5	230	50	800	25	0.23	980	0	575	0.00
6	230	50	800	28	0.25	730	30	430	0.12
7	230	50	800	24	0.22	500	47	295	0.19
8	230	50	800	17	0.16	265	60	155	0.24
9	230	50	650	14	0.12	795	0	470	0.00
10	230	50	650	15	0.13	595	20	350	0.08
11	230	50	650	13	0.11	405	31	240	0.12
12	230	50	650	9.0	0.08	215	40	125	0.16
13	230	50	500	6.2	0.06	615	0	360	0.00
14	230	50	500	6.9	0.06	455	12	270	0.05
15	230	50	500	5.8	0.05	310	18	185	0.07
16	230	50	500	4.1	0.04	165	24	95	0.10

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