EC centrifugal fan

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	**R3G160-AO17-11**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	3040
Power input	W	75
Current draw	A	0.7
Max. ambient temperature	°C	55

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	2.1 kg
Size	160 mm
Surface of rotor	Thick layer passivated
Material of impeller	Sheet steel, galvanised
Material of mounting plate	Sheet steel, galvanised
Number of blades	11
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 - Output limit - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Overvoltage detection - Over-temperature protected electronics / motor - Line undervoltage detection
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
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; CE

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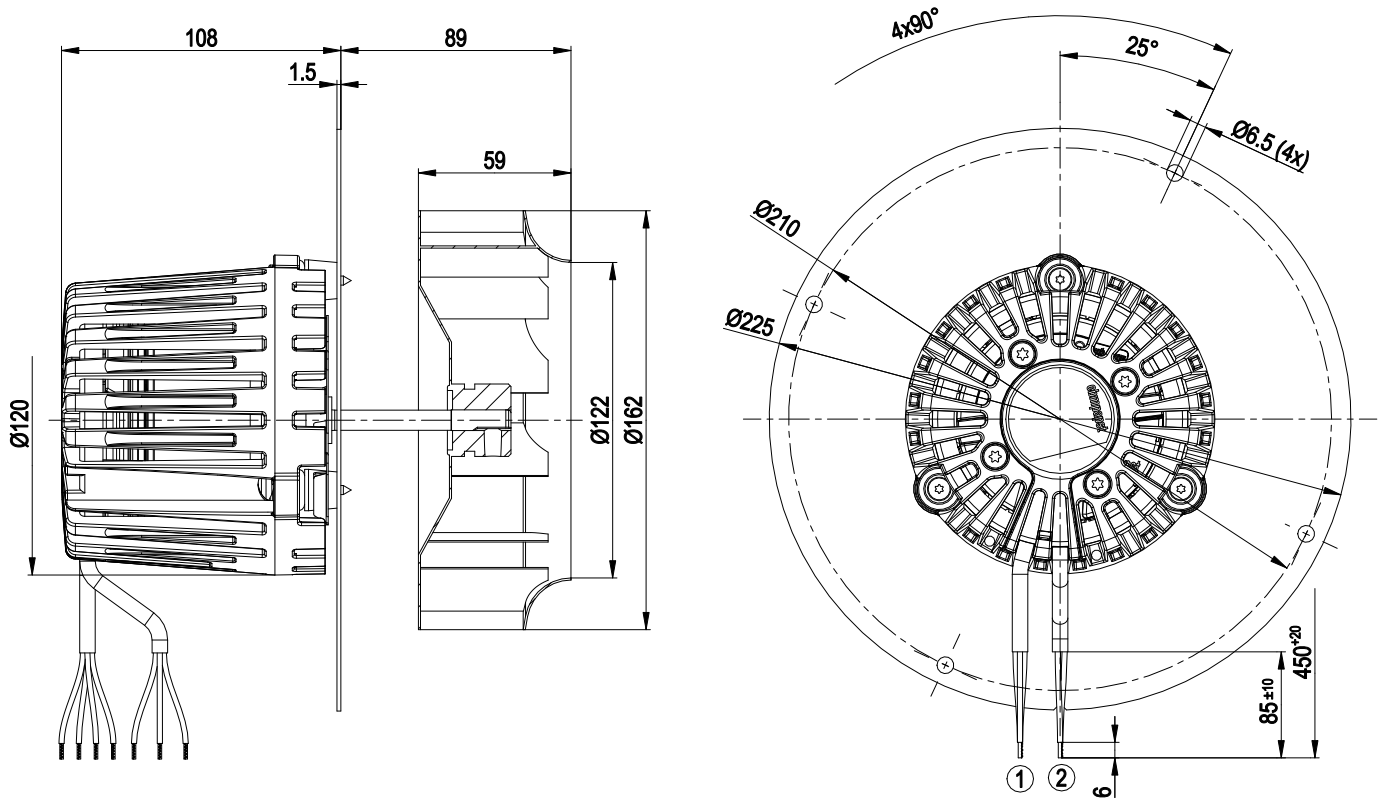
Product drawing



1	Connection line PVC AWG22, 4x lead tips crimped
2	Connection line PVC AWG20, 3x lead tips crimped

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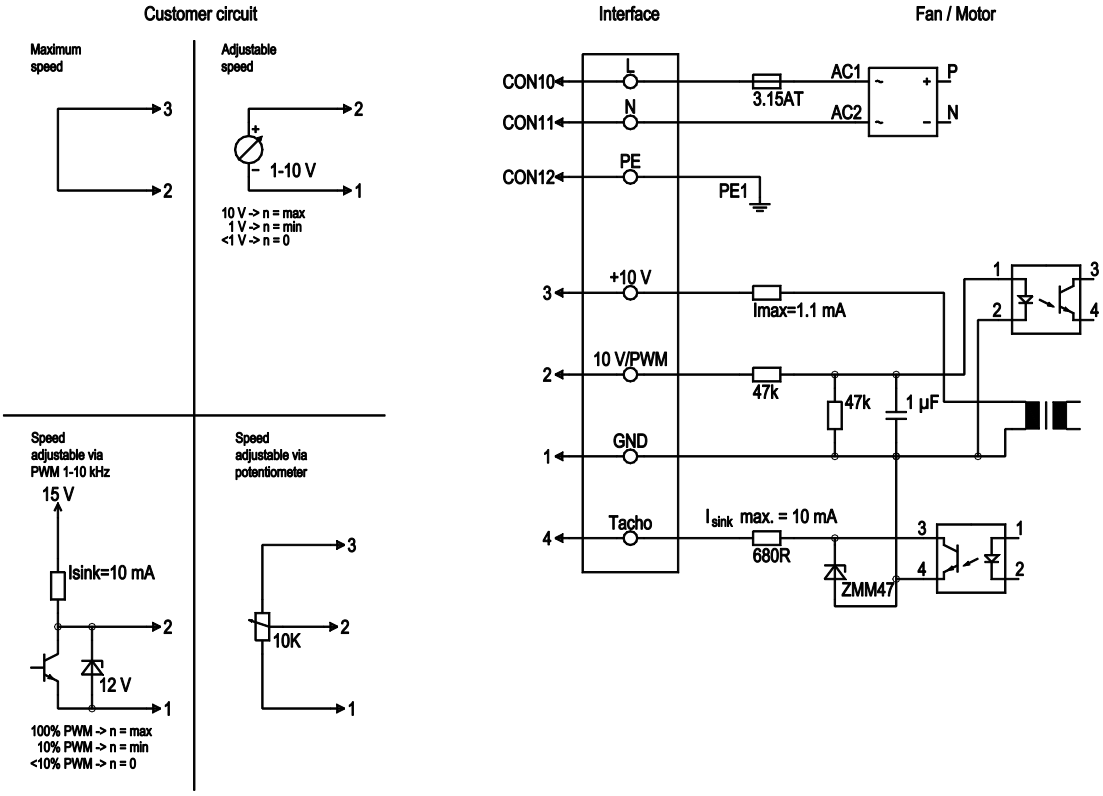
Connection screen



No.	Conn.	Designation	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 10 V / 1.1 mA, electrically isolated, not short-circuit-proof
	4	Tach	white	Tach output: open collector, 1 pulse per revolution, electrically isolated, Isink max = 10 mA

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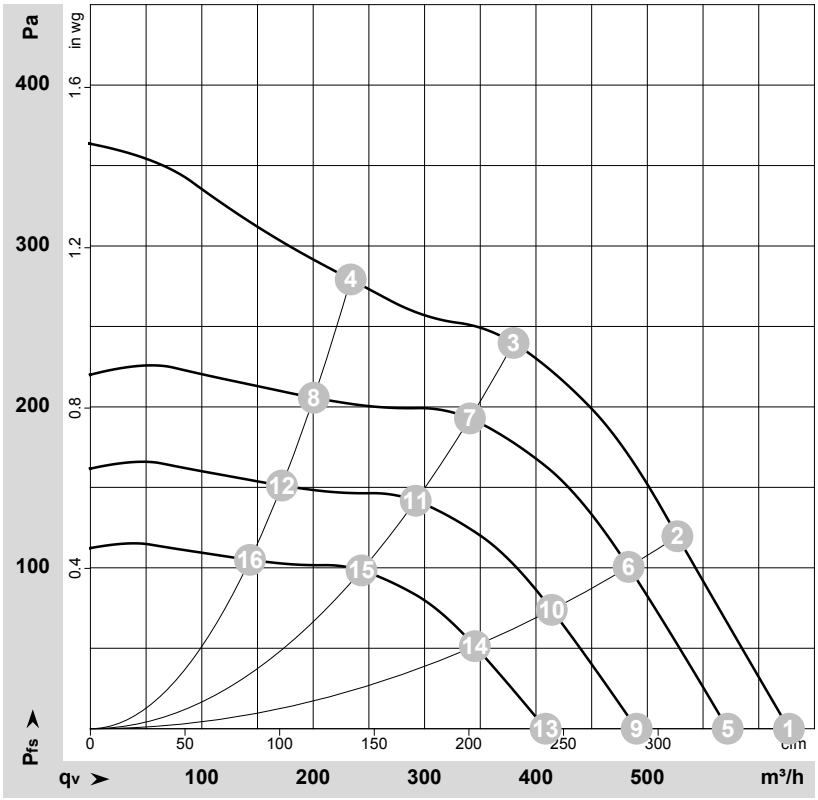
Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-170091-1

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	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	inH2O
1	230	50	3040	75	0.70	67	75	625	0	370	0.00
2	230	50	3050	72	0.65	64	72	525	120	310	0.48
3	230	50	3120	68	0.60	61	69	380	240	225	0.96
4	230	50	3265	58	0.50	62	70	235	280	140	1.12
5	230	50	2800	55	0.46	65	73	570	0	335	0.00
6	230	50	2800	55	0.46	62	70	485	101	285	0.41
7	230	50	2800	49	0.42	59	66	340	193	200	0.77
8	230	50	2800	37	0.31	59	66	200	205	120	0.82
9	230	50	2400	34	0.29	61	69	490	0	290	0.00
10	230	50	2400	34	0.29	58	66	415	74	245	0.30
11	230	50	2400	31	0.26	55	62	290	142	170	0.57
12	230	50	2400	23	0.20	55	62	170	151	100	0.61
13	230	50	2000	20	0.17	57	64	410	0	240	0.00
14	230	50	2000	20	0.17	54	62	345	51	205	0.20
15	230	50	2000	18	0.15	50	58	245	99	145	0.40
16	230	50	2000	13	0.11	50	58	145	105	85	0.42

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