EC centrifugal fan

forward 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	**R3G160-AN01-06**
Motor	**M3G055-DF**

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}	1625
Power input	W	85
Current draw	A	0.7
Min. back pressure	Pa	0
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	1.5 kg
Size	160 mm
Material of impeller	PA plastic
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, open rotor
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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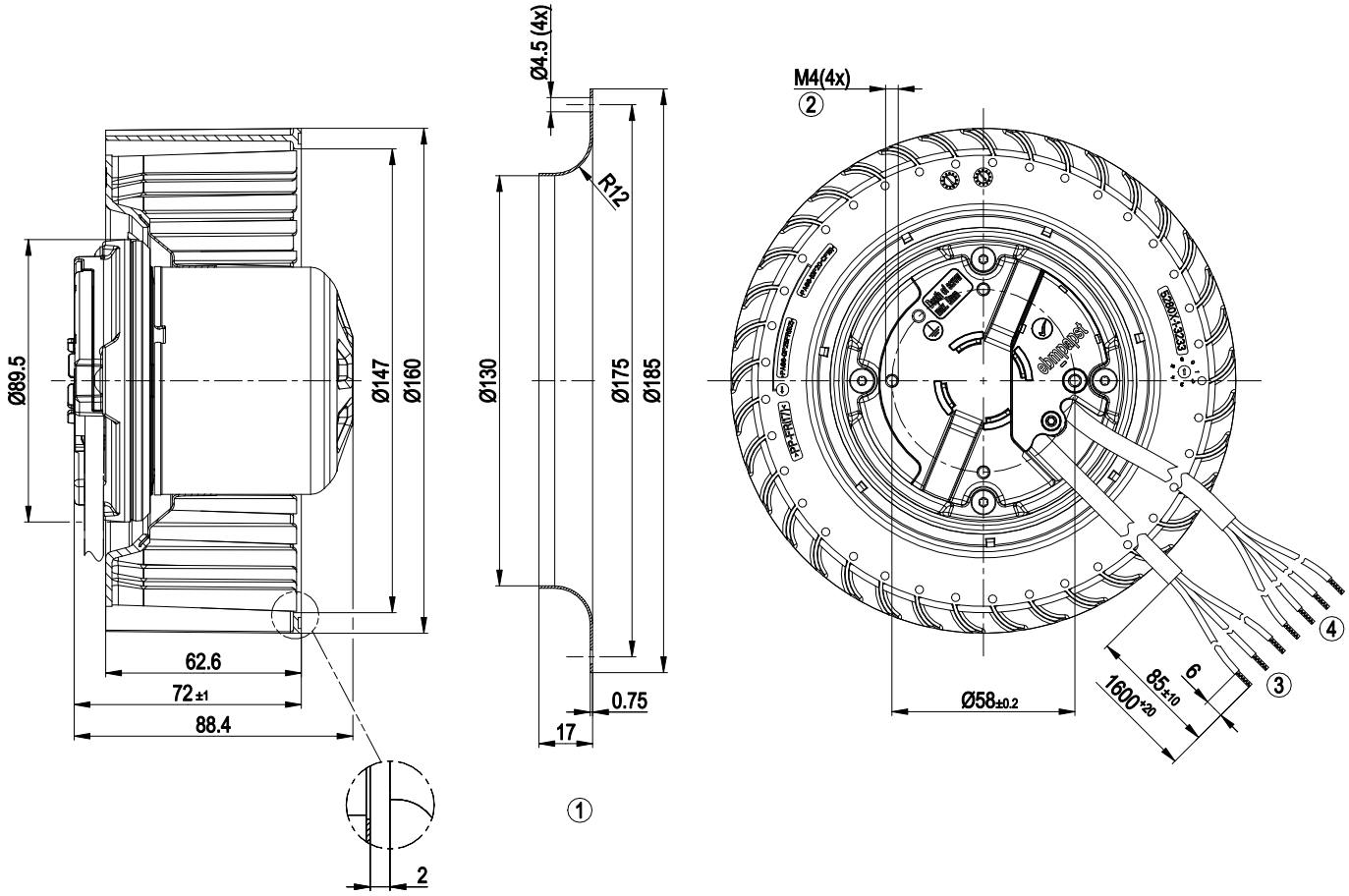
Product drawing



1	Accessory part: Inlet nozzle 09588-2-4013 not included in scope of delivery
2	Thread reach max. 5 mm
3	Connection line PVC 3G AWG20, 3x lead tips crimped
4	Connection line PVC 4x AWG22, 4x lead tips crimped

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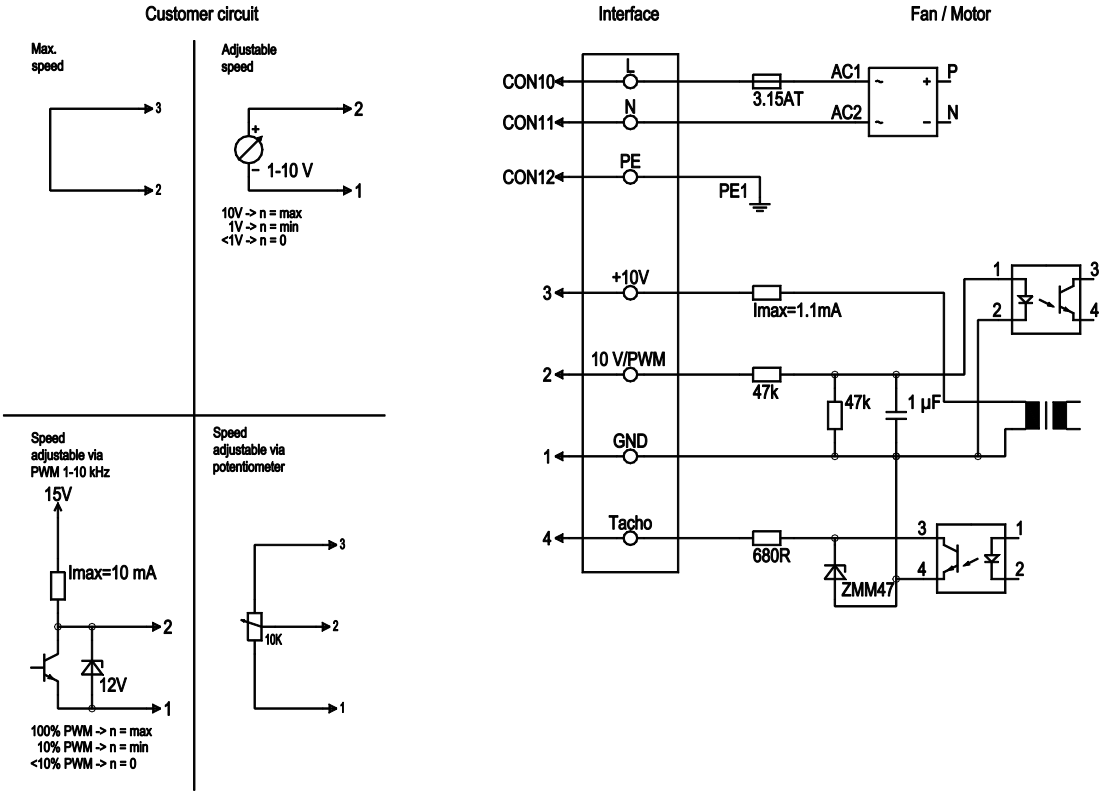
Connection screen



No.	Conn.	Designation	Colour	Function / assignment
	CON10	L	black	Power supply 230 VAC, 50-60 Hz, see type plate for voltage range
	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	10 V / max. 1,1 mA	red	Voltage output 10 VDC 1.1 mA, electrically isolated, short-circuit-proof
	4	Tacho	white	Tach output: Open collector, 1 pulse per revolution, electrically isolated

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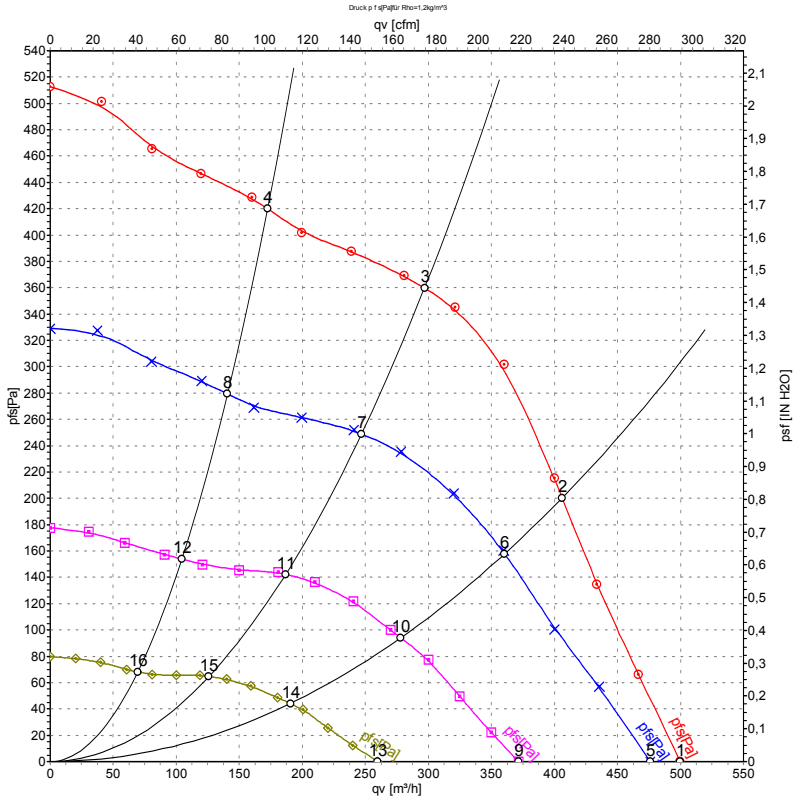
Charts: Air flow 50 Hz



Measurement: LU-138971-1
Measurement: LU-138973-1
Measurement: LU-138977-1
Measurement: LU-138978-1

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	1625	85	0.70	65	71	500	0	295	0.00
2	230	50	1890	82	0.68	62	69	405	200	240	0.80
3	230	50	2190	74	0.64	62	69	295	360	175	1.45
4	230	50	2380	56	0.50	63	70	170	420	100	1.69
5	230	50	1550	71	0.61			475	0	280	0.00
6	230	50	1690	58	0.52			360	160	210	0.64
7	230	50	1830	44	0.43			245	249	145	1.00
8	230	50	1960	33	0.34			140	279	80	1.12
9	230	50	1220	35	0.36			370	0	220	0.00
10	230	50	1310	28	0.30			280	94	165	0.38
11	230	50	1405	21	0.24			185	142	110	0.57
12	230	50	1475	16	0.20			105	154	60	0.62
13	230	50	860	13	0.17			260	0	155	0.00
14	230	50	910	11	0.15			190	44	110	0.18
15	230	50	960	8.9	0.13			125	65	75	0.26
16	230	50	1000	7.4	0.11			70	68	40	0.27

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