EC centrifugal fan

forward curved, single inlet

R3G160-AH01-10 ebmpapst Datasheet
sales@fansco.com
www.fansco.com

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-AH01-10**
Motor	**M3G055-BD**

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}	1030
Power input	W	48
Current draw	A	0.45
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	40

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	0.9 kg
Size	160 mm
Surface of rotor	Thick layer passivated
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 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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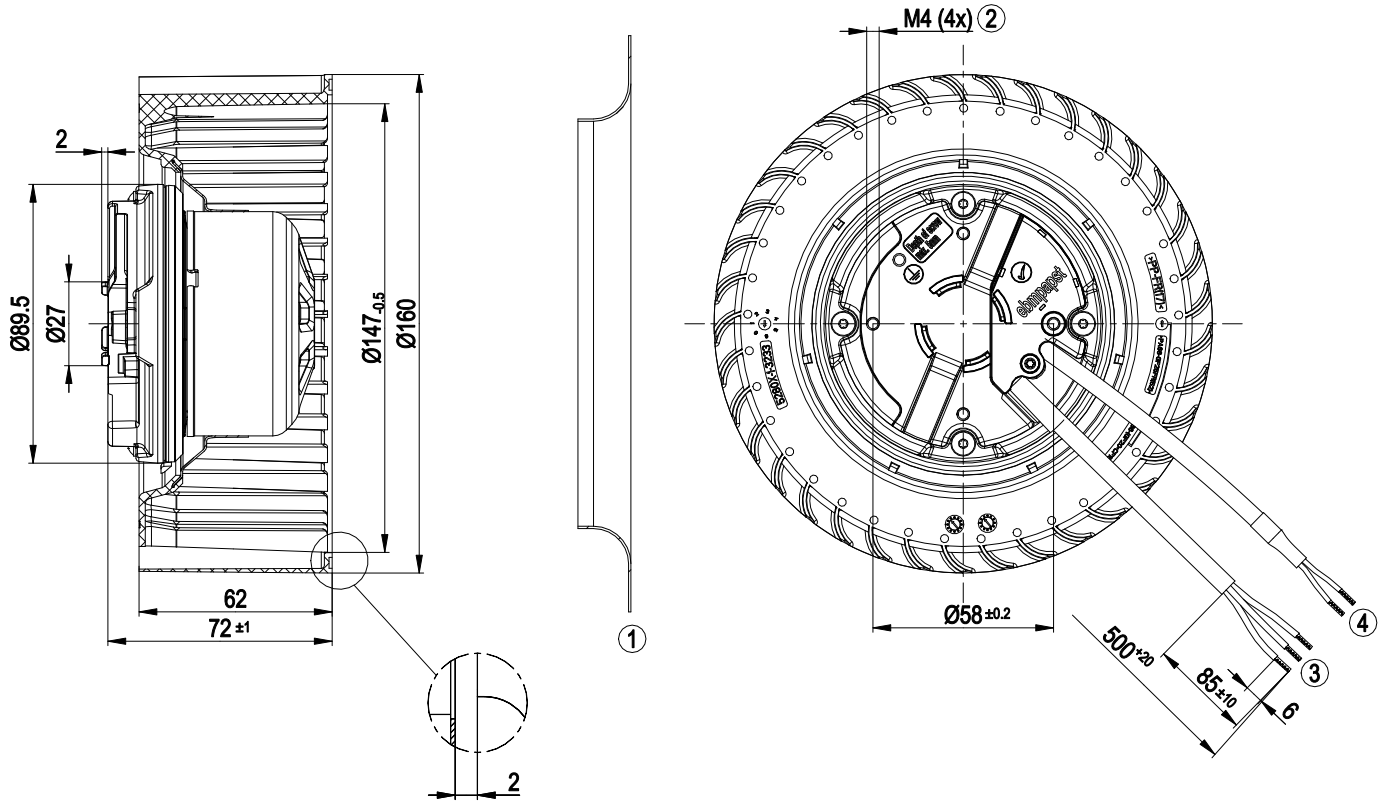
Product drawing



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

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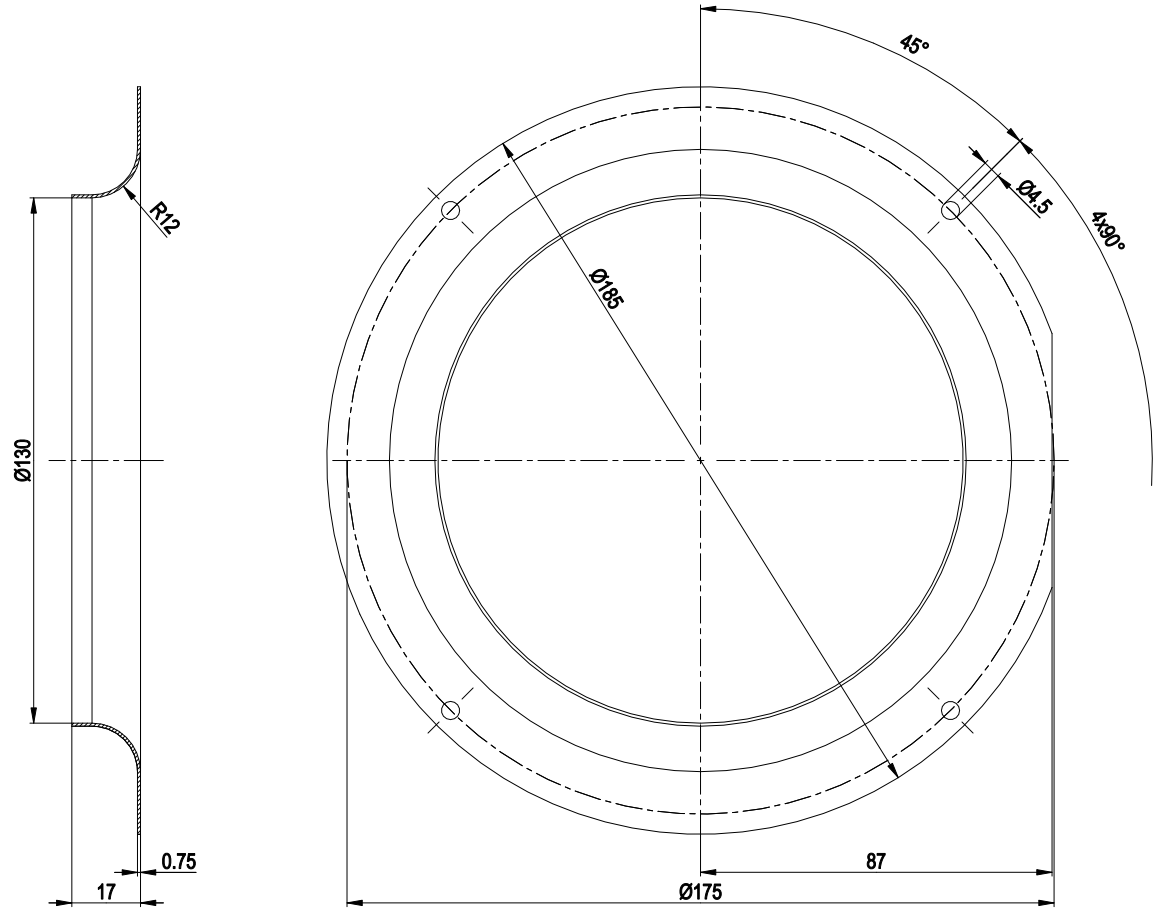
Accessory part



Accessory part: inlet nozzle 09588-2-4013 not included in scope of delivery

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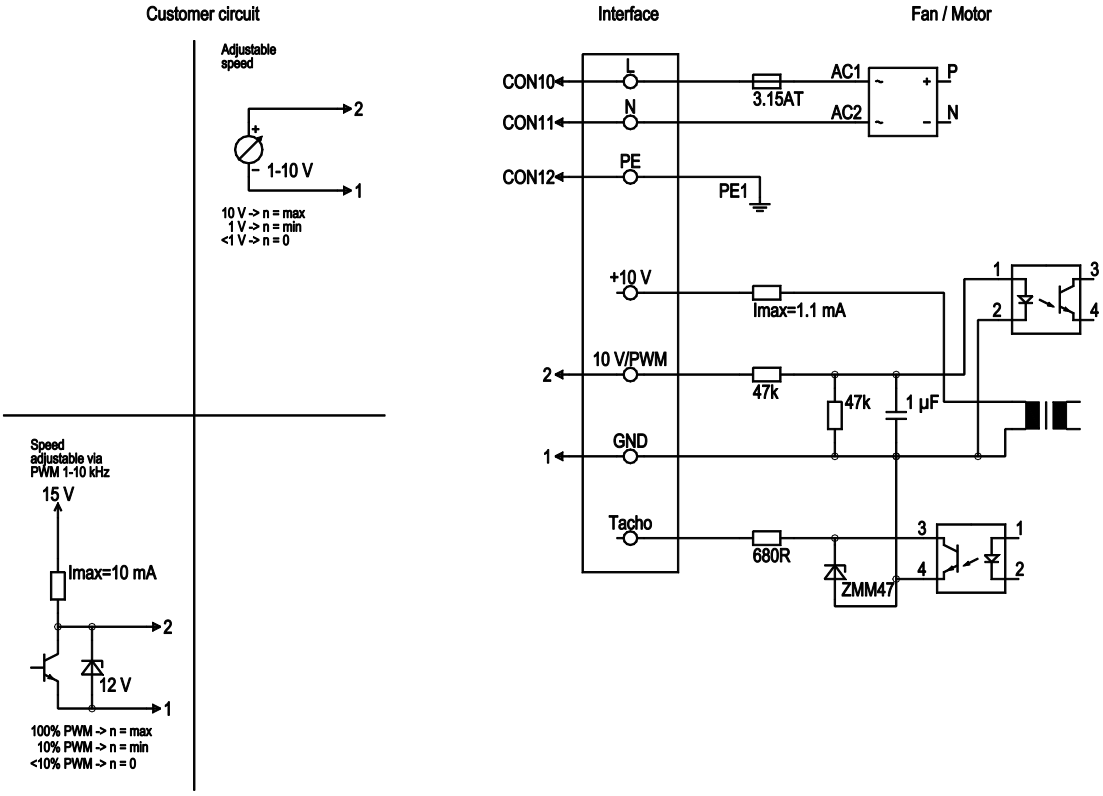
Connection screen



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

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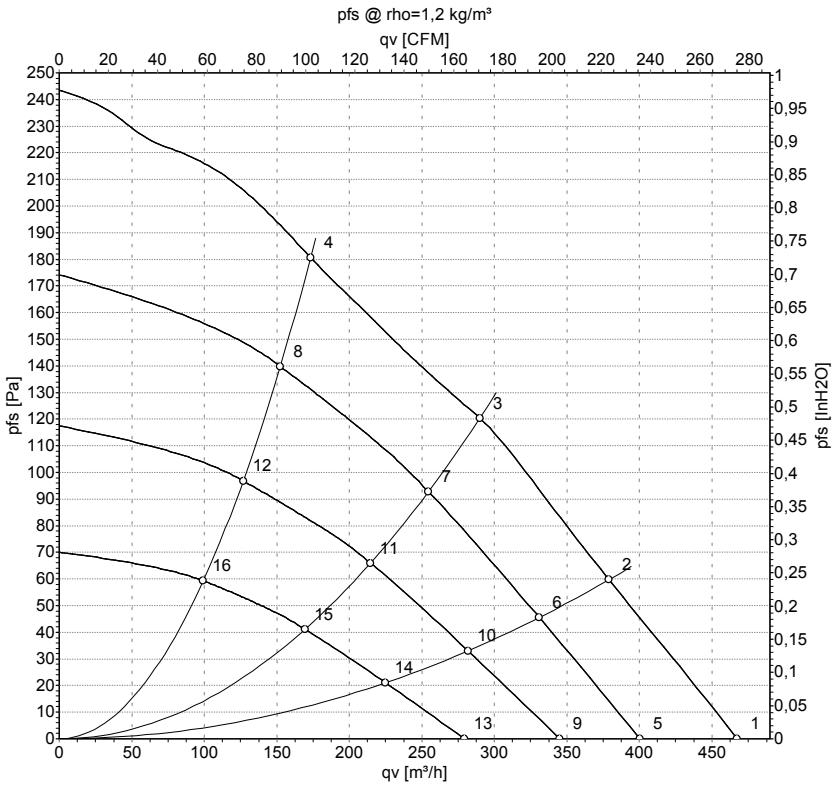
Charts: Air flow 50 Hz



Measurement: LU-144127-1
Measurement: LU-151977-1
Measurement: LU-151979-1
Measurement: LU-151981-1

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	1030	48	0.45	55	61	465	0	275	0.00
2	230	50	1175	43	0.42	54	60	380	60	225	0.24
3	230	50	1325	36	0.38	53	60	290	120	170	0.48
4	230	50	1520	29	0.30	53	60	175	180	100	0.72
5	230	50	910	31	0.32	52	58	400	0	235	0.00
6	230	50	1035	27	0.28	51	57	330	46	195	0.18
7	230	50	1175	23	0.24	50	57	255	95	150	0.38
8	230	50	1350	18	0.20	50	57	150	140	90	0.56
9	230	50	785	19	0.21	48	54	345	0	205	0.00
10	230	50	885	17	0.19	47	53	280	34	165	0.14
11	230	50	995	14	0.17	46	53	215	68	125	0.27
12	230	50	1125	11	0.14	45	53	125	97	75	0.39
13	230	50	635	11	0.13	42	49	280	0	165	0.00
14	230	50	710	9.0	0.12	41	48	225	21	130	0.08
15	230	50	790	8.0	0.11	39	46	170	42	100	0.17
16	230	50	885	7.0	0.10	39	47	100	59	60	0.24

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