R3G140-AV05-39

EC centrifugal fan

forward curved

ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.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	**R3G140-AV05-39**
Motor	**M3G055-CF**

Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 240
Frequency	Hz	50/60
Type of data definition		fa
Speed (rpm)	min^{-1}	1800
Power input	W	66
Current draw	A	0.6
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

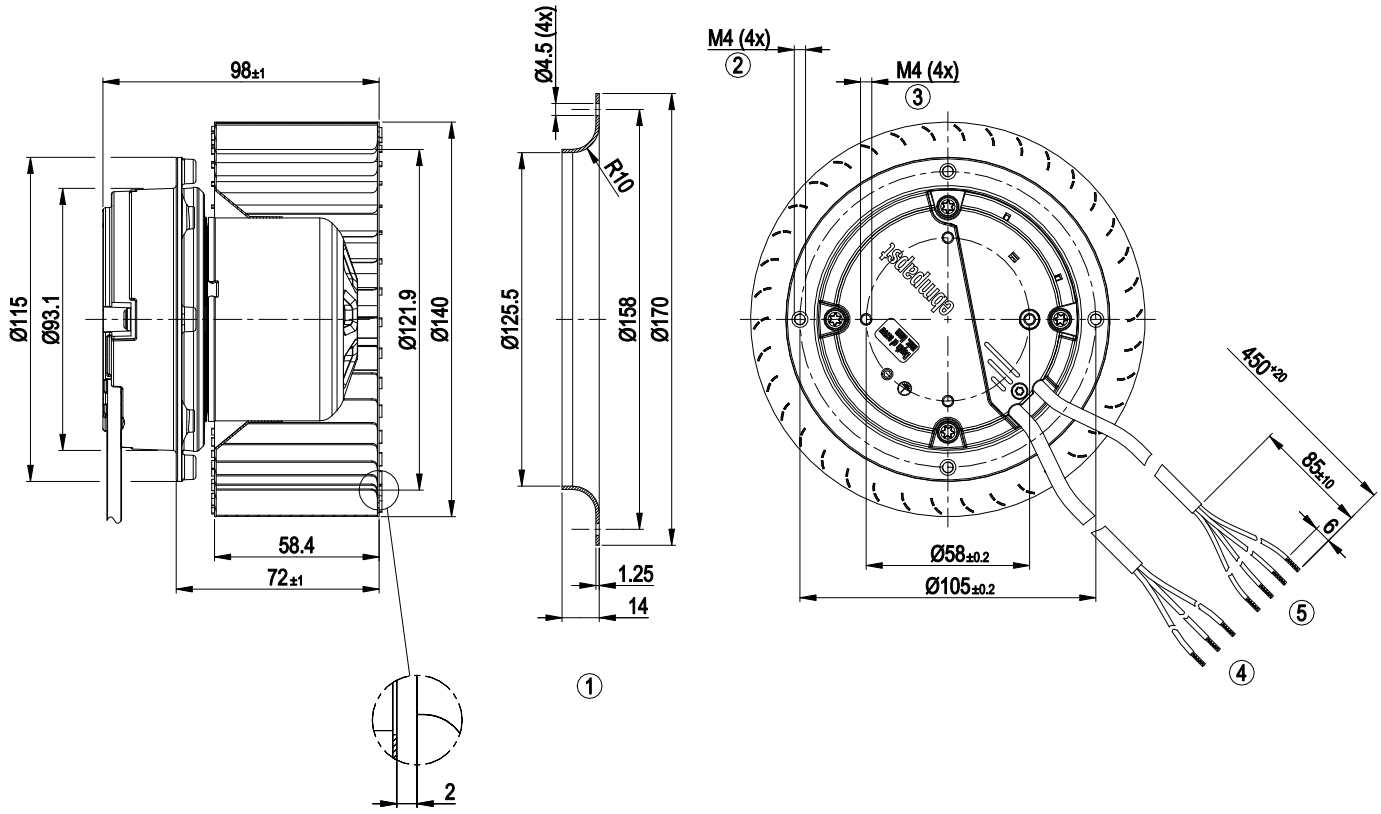
Mass	1.3 kg
Size	140 mm
Surface of rotor	Thick layer passivated
Material of impeller	Sheet steel, galvanised
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (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. 10 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
Approval	EAC

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Product drawing



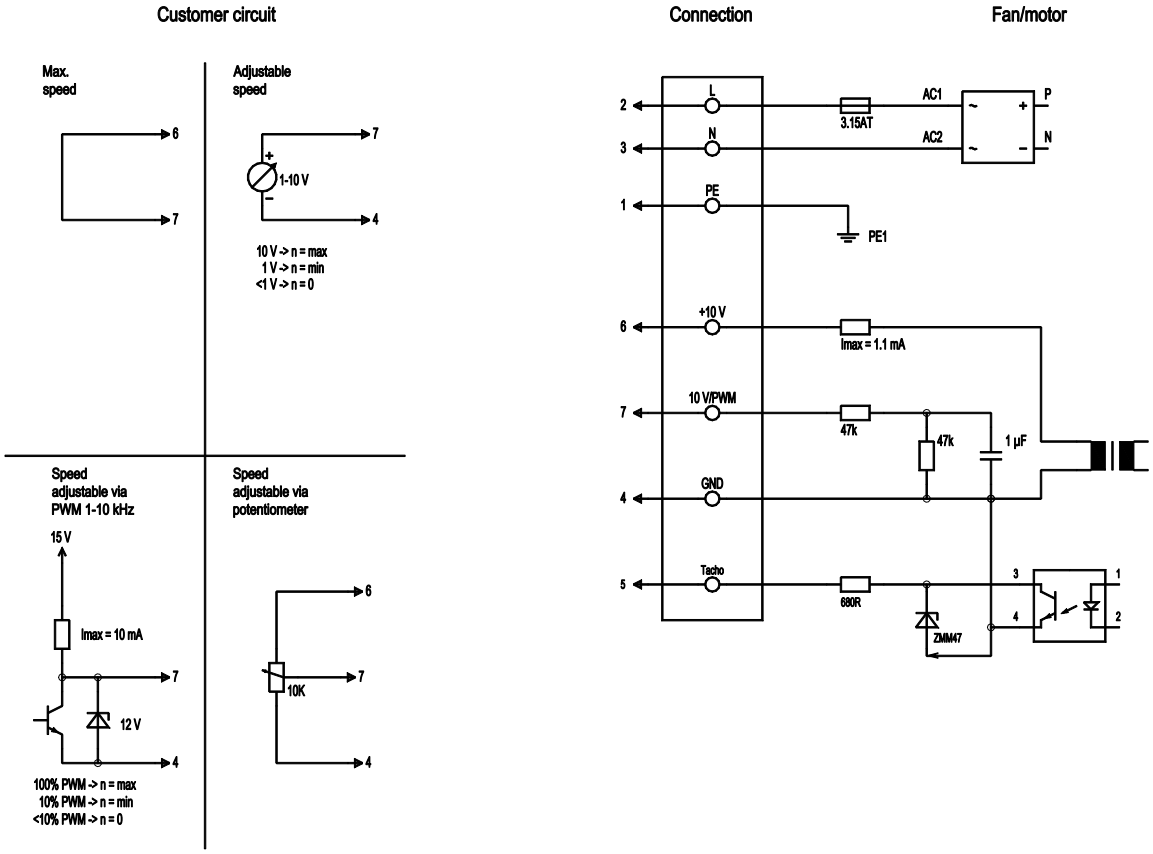
1	Accessory part: Inlet nozzle 09576-2-4013, not included in scope of delivery
2	Thread reach max. 6 mm
3	Thread reach max. 5 mm
4	Connection line PVC 3G 0.5 mm², 3x lead tips crimped
5	Connection line PVC 4x 0.25 mm², 4x lead tips crimped

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Connection screen



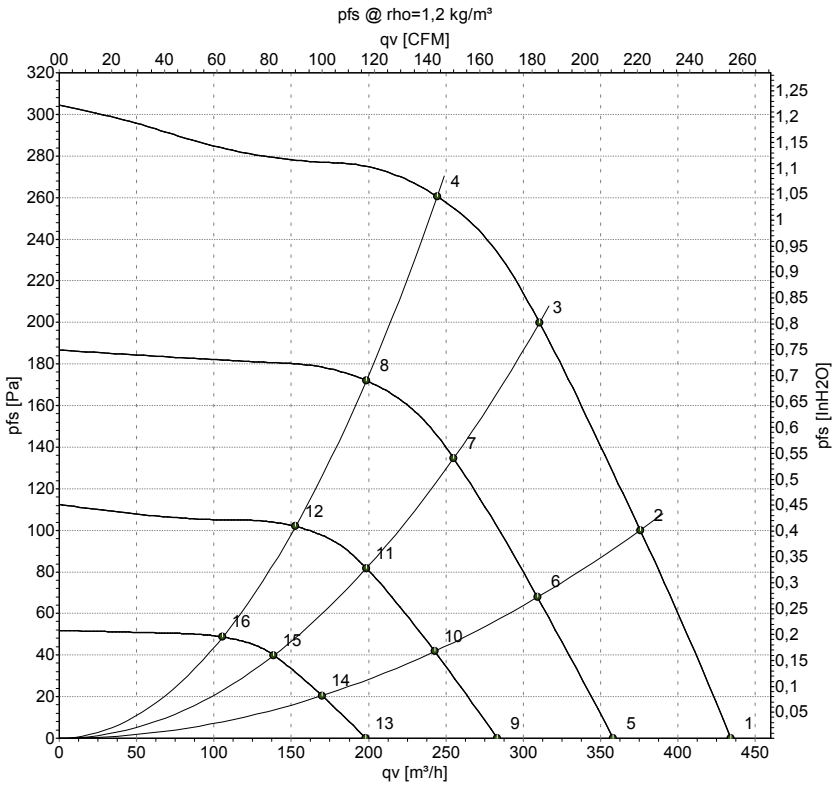
No.	Conn.	Designation	Colour	Function / assignment
	2	L	brown	Power supply 230 VAC, 50-60 Hz, see type plate for voltage range
	3	N	blue	Neutral conductor
	1	PE	green/yellow	Protective earth
	7	0-10V PWM	yellow	Control input 0-10 V or PWM, electrically isolated
	5	Tacho	white	Tach output: Open collector, 1 pulse per revolution, electrically isolated, Isink_max=10 mA
	6	10 V / max. 1,1 mA	red	Voltage output 10 V, 1.1 mA, electrically isolated
	4	GND	blue	GND connection for control interface

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Charts: Air flow 50 Hz



Measurement: LU-155591-1
Measurement: LU-156457-1
Measurement: LU-156459-1
Measurement: LU-156461-1

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	1800	66	0.60	62	68	435	0	255	0.00
2	230	50	1845	61	0.59	61	67	375	100	220	0.40
3	230	50	1955	52	0.52	59	65	310	200	185	0.80
4	230	50	2045	45	0.45	58	64	245	260	145	1.04
5	230	50	1445	38	0.39	58	64	360	0	210	0.00
6	230	50	1525	34	0.37	56	62	310	70	180	0.28
7	230	50	1610	29	0.33	54	60	255	140	150	0.56
8	230	50	1690	24	0.27	52	59	200	178	115	0.71
9	230	50	1140	19	0.23	51	57	285	0	165	0.00
10	230	50	1195	18	0.21	50	56	245	43	145	0.17
11	230	50	1250	16	0.19	48	54	200	86	115	0.35
12	230	50	1310	12	0.16	46	53	155	105	90	0.42
13	230	50	800	8.0	0.13	42	48	200	0	115	0.00
14	230	50	840	8.0	0.11	40	47	170	21	100	0.08
15	230	50	880	7.0	0.09	38	45	140	42	80	0.17
16	230	50	915	6.0	0.10	36	44	105	50	60	0.20

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

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