G3G146-AB54-01

EC centrifugal fan

forward curved, single inlet

with housing (flange)



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Nominal data

Type	**G3G146-AB54-01**	
Motor	**M3G074-CF**	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Type of data definition		fa
Speed	min^{-1}	2520
Power input	W	175
Current draw	A	1.1
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	3.6 kg
Size	146 mm
Surface of rotor	Thick layer passivated
Material of electronics housing	Die-cast aluminium
Material of impeller	Sheet steel, hot-galvanised
Housing material	Die-cast aluminium
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position
Insulation class	"B"
Humidity class	F3-1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Shaft horizontal or rotor on top; rotor on bottom on request
Condensate discharge holes	None
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 - Over-temperature protected electronics / 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
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; EN 60950-1; EN 61800-5-1; CE
Approval	CCC; UL 2111; CSA C22.2 Nr.77

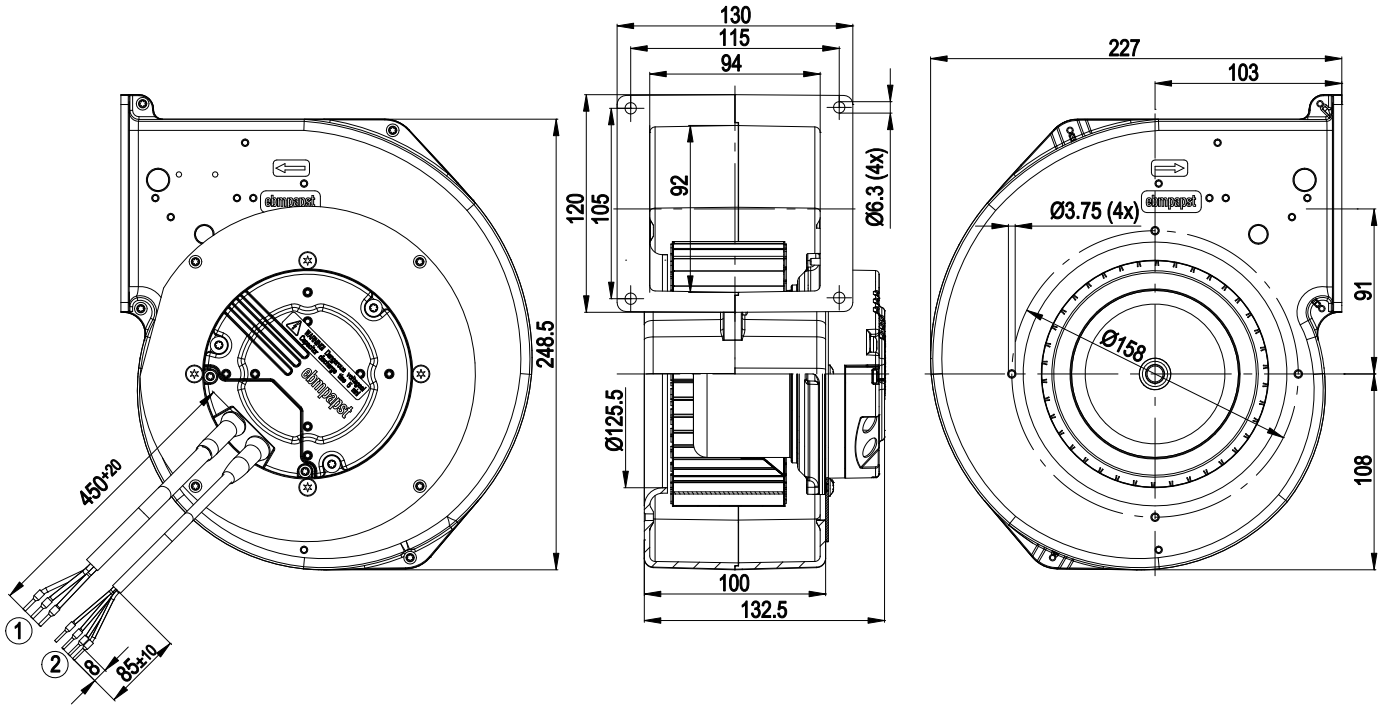
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Product drawing



1	Connection line AWG18, 3 x crimped core-end sleeves
2	Control line AWG22, 4 x crimped core-end sleeves

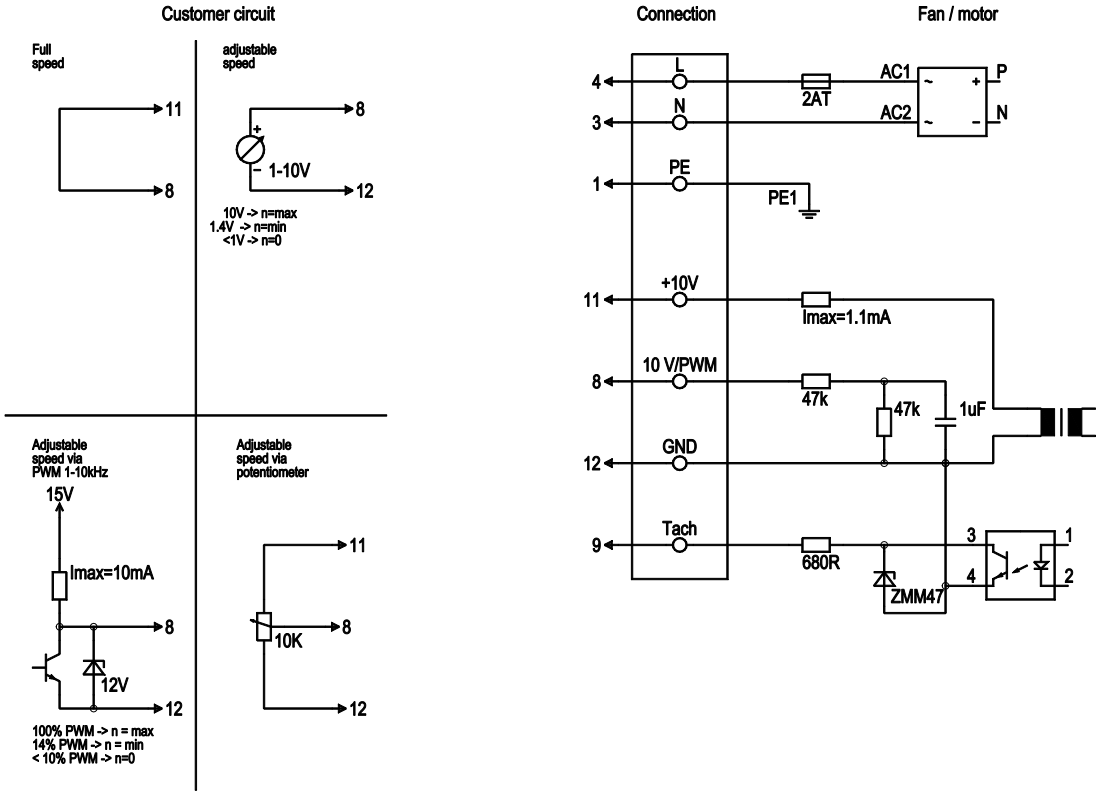
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Connection screen



Line	No.	Signal	Colour	Function / assignment
	4	L	black	Power supply 230 VAC, 50-60 Hz, see type plate for voltage range
	3	N	blue	Neutral conductor
	1	PE	green/yellow	Protective earth
	8	0-10 V PWM	yellow	Control input 0 - 10 V or PWM, electrically isolated
	9	Tach	white	Tach output: open collector, 1 pulse per revolution, electrically isolated
	11	10V / max 1.1 mA	red	Voltage output 10 V / max. 1.1 mA, electrically isolated
	12	GND	blue	GND - Connection for control interface

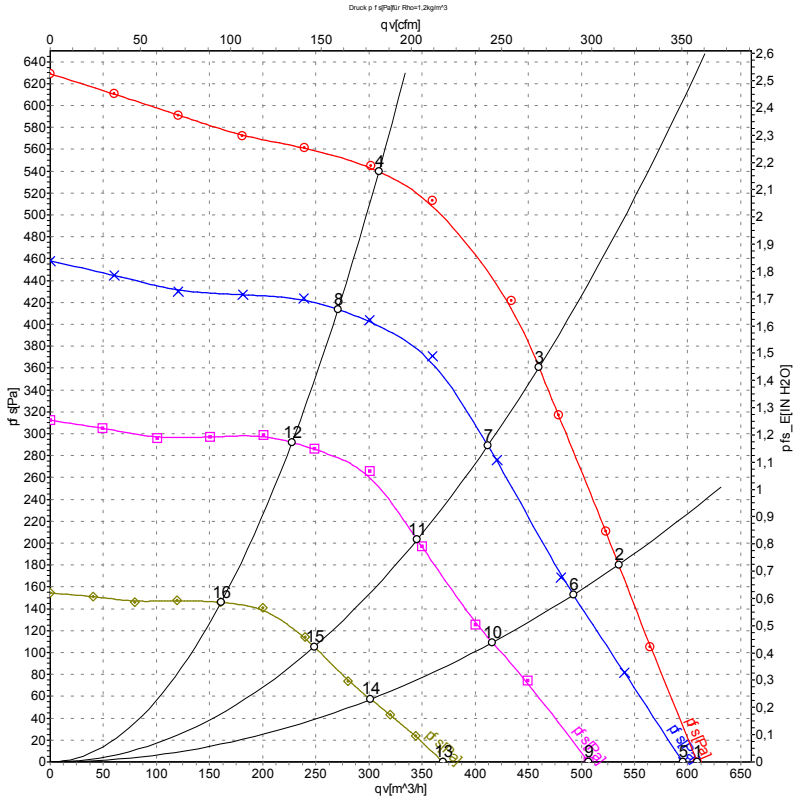
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Charts: Air flow 50 Hz



Measurement: LU-69079
Measurement: LU-67514
Measurement: LU-67515
Measurement: LU-67516

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	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	50	2520	175	1.27	610	0
2	230	50	2775	172	1.24	535	180
3	230	50	2940	161	1.17	460	360
4	230	50	3140	124	0.92	310	540
5	230	50	2430	172	1.24	595	0
6	230	50	2525	142	1.04	490	152
7	230	50	2605	121	0.91	410	290
8	230	50	2735	90	0.67	270	414
9	230	50	2075	108	0.78	505	0
10	230	50	2145	89	0.66	415	109
11	230	50	2195	74	0.55	345	203
12	230	50	2280	57	0.43	230	292
13	230	50	1535	48	0.35	370	0
14	230	50	1565	39	0.30	300	57
15	230	50	1600	33	0.26	250	106
16	230	50	1635	26	0.21	160	146

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

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