

EC centrifugal fan

forward curved, single inlet

with housing (flange)

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County court Stuttgart · HRB 590142



Nominal data

Type	G3G146-FK07-02	
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	min ⁻¹	2320
Power input	W	166
Current draw	A	1.3
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

Data according to ErP directive

Installation category	A
Efficiency category	Static
Variable speed drive	Yes
Specific ratio*	1.01

* Specific ratio = $1 + p_{fs} / 100\,000\text{ Pa}$

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}		47.2	25.1	32.1
Efficiency grade N		59.1	37	44
Power input P_{ed}	kW	0.13		
Air flow q_v	m ³ /h	350		
Pressure increase p_{fs}	Pa	569		
Speed n	min ⁻¹	3065		

Data established at point of optimum efficiency



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Technical features

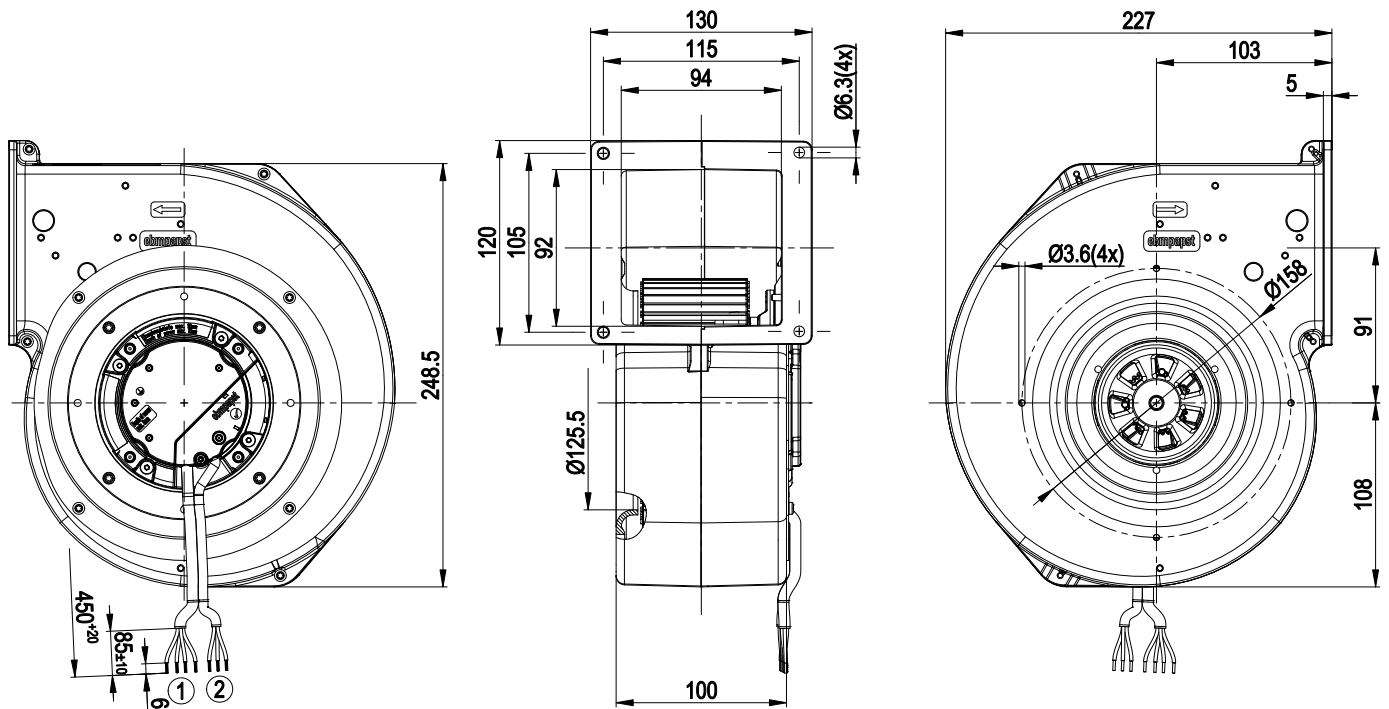
Size	146 mm
Material of impeller	Sheet steel, galvanised
Housing material	Die-cast aluminium
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54; Depending on installation and position
Insulation class	"B"
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible 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 - Motor current limit - Soft start - Control input 0-10 VDC / PWM - 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



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Product drawing

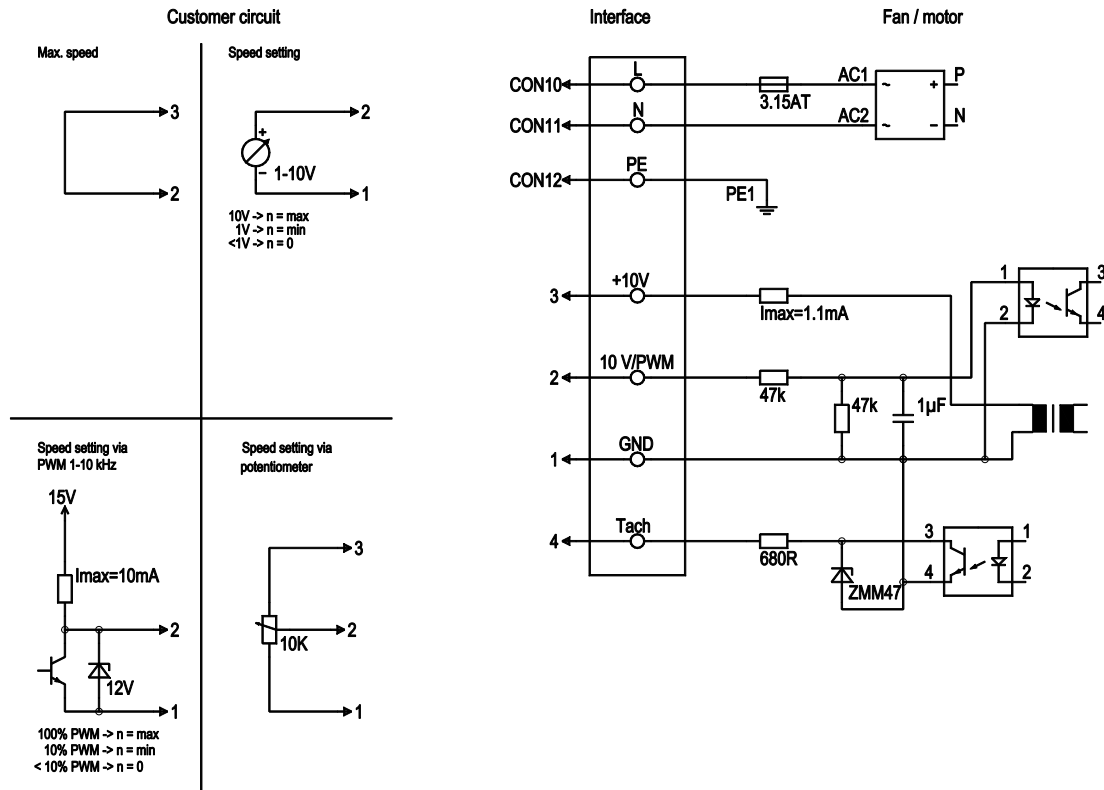


- | | |
|---|--|
| 1 | Connection line PVC 4X AWG22, 4x brass lead tips crimped |
| 2 | Connection line PVC 3X AWG20, 3x brass lead tips crimped |

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Connection screen

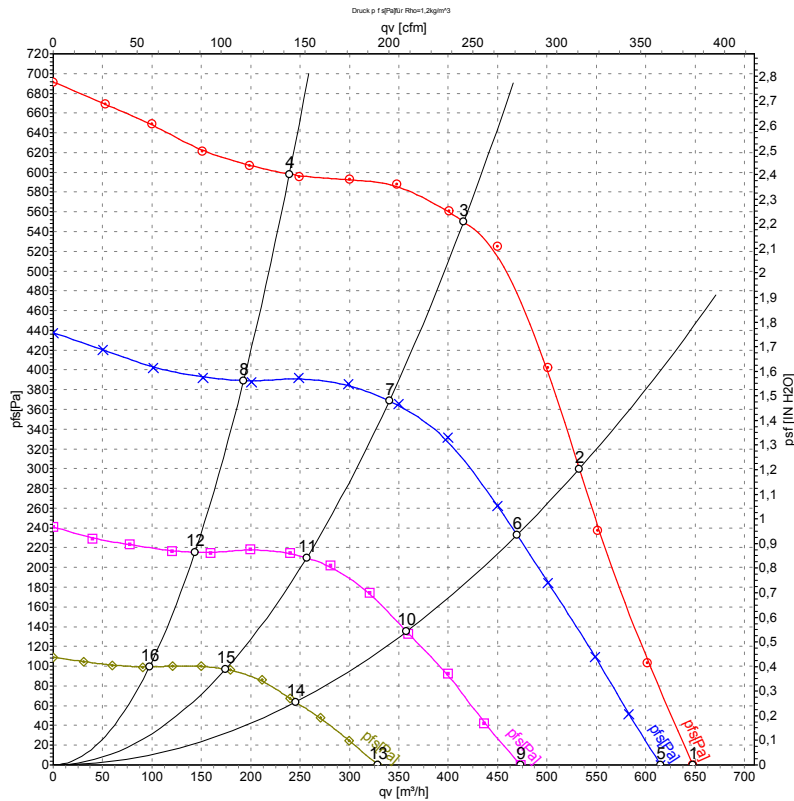


Line	No.	Signal	Colour	Function / assignment
	CON10	L	black	Power supply 230 VAC, 50-60 Hz, see type plate for voltage range
	CON11	N	blue	Neutral conductor
	CON12	PE	green/yellow	Protective earth
	1	GND	blue	GND - Connection for control interface
	2	0- 10V PWM	yellow	Control input 0 - 10 V or PWM, electrically isolated
	3	10V/ max 1.1mA	red	Voltage output 10V/ 1.1mA, electrically isolated, not short-circuit-proof.
	4	Tach	white	Tach output: open collector, 1 pulse per revolution, electrically isolated

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Charts: Air flow 50 Hz



Measurement: LU-138752
 Measurement: LU-138757
 Measurement: LU-138758
 Measurement: LU-138759

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: L_{WA} measured as per ISO 13347 /
 L_{pA} 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}	qv	p _{fs}
	V	Hz	min ⁻¹	W	A	dB(A)	dB(A)	m³/h	Pa
1	230	50	2320	166	1.30	70	76	650	0
2	230	50	2645	166	1.30	69	75	535	300
3	230	50	2990	157	1.20	68	75	415	550
4	230	50	3170	109	0.90	68	75	240	600
5	230	50	2215	147	1.03			615	0
6	230	50	2355	115	0.82			470	233
7	230	50	2475	87	0.63			340	369
8	230	50	2575	63	0.45			195	389
9	230	50	1725	70	0.49			475	0
10	230	50	1810	54	0.39			360	135
11	230	50	1880	42	0.31			255	210
12	230	50	1945	29	0.22			145	215
13	230	50	1210	26	0.20			330	0
14	230	50	1255	21	0.17			245	64
15	230	50	1295	16	0.13			175	97
16	230	50	1335	13	0.11			95	99

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

