

# EC centrifugal fan

forward curved, single inlet  
with housing (without flange)

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### Nominal data

Type	G3G225-AD29-71	
Motor	M3G084-FA	
Phase		1~
Nominal voltage	VAC	230
Nominal voltage range	VAC	200 .. 277
Frequency	Hz	50/60
Type of data definition		ml
Valid for approval / standard		UL
Speed	min <sup>-1</sup>	1815
Power input	W	545
Current draw	A	3.5
Min. back pressure	Pa	300
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	45

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

		Actual	Request 2013	Request 2015
Installation category	A			
Efficiency category	Static			
Variable speed drive	Yes			
Specific ratio*	1.01			
Overall efficiency $\eta_{es}$		48.1	27.7	34.7
Efficiency grade N		57.4	37	44
Power input $P_{ed}$	kW	0.34		
Air flow $q_v$	m <sup>3</sup> /h	910		
Pressure increase $p_{fs}$	Pa	583		
Speed n	min <sup>-1</sup>	2020		

Data established at point of optimum efficiency

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



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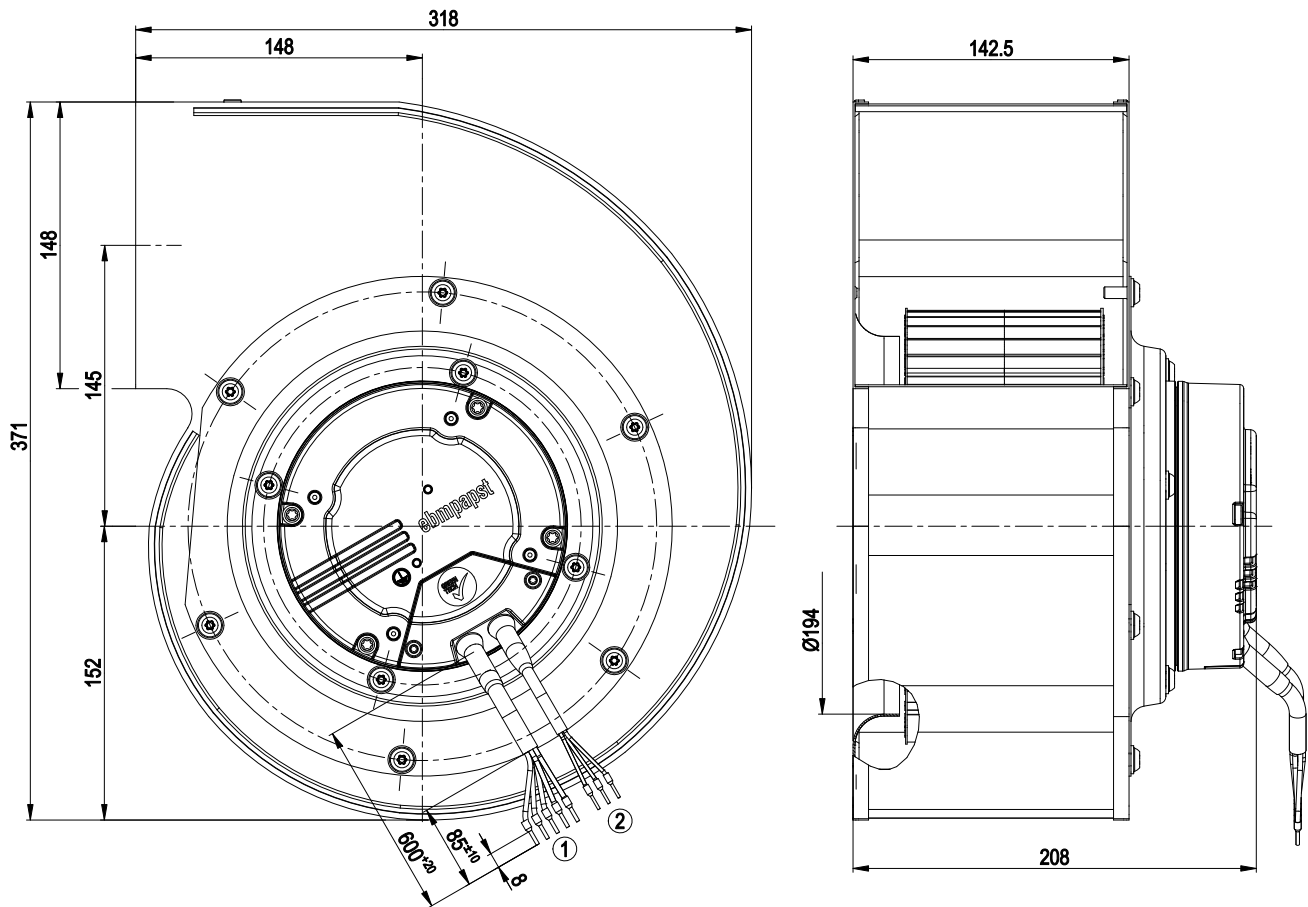
## Technical features

<b>Mass</b>	8.2 kg
<b>Size</b>	225 mm
<b>Surface of rotor</b>	Coated in black
<b>Material of electronics housing</b>	Die-cast aluminium
<b>Material of impeller</b>	Sheet steel, galvanised
<b>Housing material</b>	Sheet steel, galvanised
<b>Direction of rotation</b>	Clockwise, seen on rotor
<b>Type of protection</b>	IP 54
<b>Insulation class</b>	"B"
<b>Humidity class</b>	F3-1
<b>Max. permissible ambient motor temp. (transp./ storage)</b>	+ 80 °C
<b>Min. permissible ambient motor temp. (transp./storage)</b>	- 40 °C
<b>Mounting position</b>	Shaft horizontal or rotor on top; rotor on bottom on request
<b>Condensate discharge holes</b>	None
<b>Operation mode</b>	Continuous operation (S1)
<b>Motor bearing</b>	Ball bearing
<b>Technical features</b>	<ul style="list-style-type: none"> <li>- Output 10 VDC, max. 1.1 mA</li> <li>- Alarm relay</li> <li>- Motor current limit</li> <li>- Soft start</li> <li>- Control input 0-10 VDC / PWM</li> <li>- Control interface with SELV potential safely disconnected from the mains</li> <li>- Over-temperature protected electronics / motor</li> <li>- Line undervoltage detection</li> </ul>
<b>EMC interference immunity</b>	Acc. to EN 61000-6-2 (industrial environment)
<b>EMC harmonics</b>	Acc. to EN 61000-3-2/3
<b>EMC interference emission</b>	Acc. to EN 61000-6-3 (household environment)
<b>Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)</b>	<= 3.5 mA
<b>Motor protection</b>	Thermal overload protector (TOP) wired internally
<b>Cable exit</b>	Variable
<b>Protection class</b>	I (if protective earth is connected by customer)
<b>Product conforming to standard</b>	EN 60335-1; CE
<b>Approval</b>	UL 2111; CCC; CSA C22.2 Nr.77

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## Product drawing



- |   |  |
|---|--|
| 1 | Connection line PVC AWG18, 5x crimped core-end sleeves |
| 2 | Connection line PVC AWG22, 3x crimped core-end sleeves |

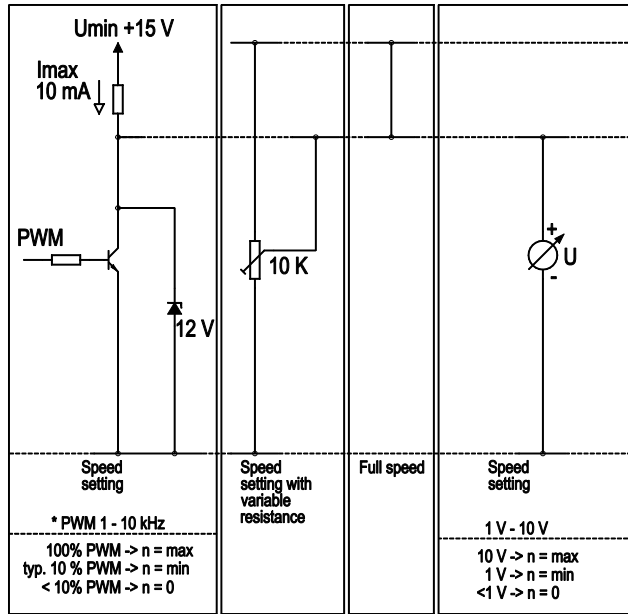
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## Connection screen

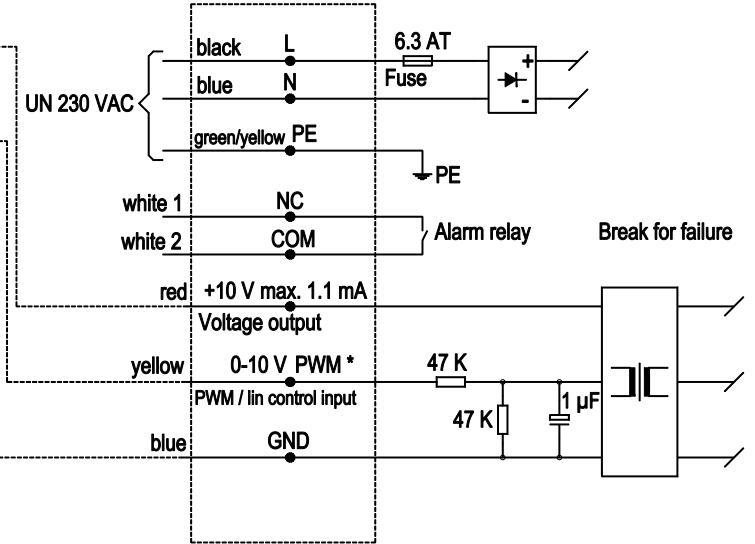
### Customer circuit

Notes on various control possibilities and their applications



### Connection

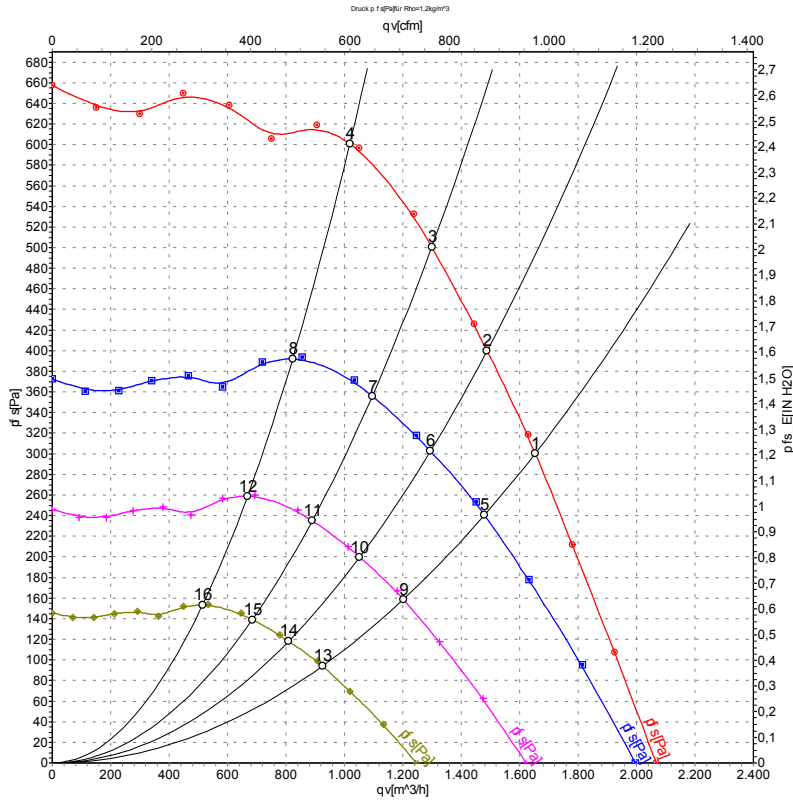
### Fan / motor



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## Charts: Air flow



Measurement: LU-111997

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	n	P <sub>ed</sub>	I	Lp <sub>Ain</sub>	Lw <sub>Ain</sub>	qv	p <sub>fs</sub>
	V	min <sup>-1</sup>	W	A	dB(A)	dB(A)	m <sup>3</sup> /h	Pa
1	230	1815	545	3.50	75	80	1655	300
2	230	1840	502	3.33	74	79	1490	400
3	230	1895	457	3.01	73	79	1300	500
4	230	1980	385	2.52	73	79	1020	600
5	230	1600	393	2.61	72	78	1480	242
6	230	1600	331	2.19	71	76	1295	303
7	230	1600	275	1.81	70	75	1095	356
8	230	1600	204	1.33	69	74	825	393
9	230	1300	211	1.40	68	73	1200	160
10	230	1300	178	1.18	66	71	1050	200
11	230	1300	147	0.97	65	71	890	235
12	230	1300	109	0.71	64	70	670	259
13	230	1000	96	0.64	62	67	925	94
14	230	1000	81	0.54	60	66	810	118
15	230	1000	67	0.44	59	65	685	139
16	230	1000	50	0.33	58	64	515	154

U = Supply voltage · n = Speed · P<sub>ed</sub> = Power input · I = Current draw · Lp<sub>Ain</sub> = Sound pressure level inlet side · Lw<sub>Ain</sub> = Sound power level inlet side · qv = Air flow · p<sub>fs</sub> = Pressure increase

