

# AC centrifugal fan

forward-curved, single-intake

with housing (flange)

G2E140-BG02-25 ebmpapst Datasheet FansCo

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## Nominal data

Type	G2E140-BG02-25		
Motor	M2E068-DF		
Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Method of obtaining data		fa	fa
Valid for approval/standard		CE	CE
Speed (rpm)	min <sup>-1</sup>	2000	2350
Power consumption	W	200	210
Current draw	A	0.9	0.95
Capacitor	μF	4	4
Capacitor voltage	VDB	400	400
Capacitor standard		S2 (CE)	S2 (CE)
Min. back pressure	Pa	100	300
Min. back pressure	in. wg	0.4	1.2
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	50	50

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment  
Subject to change



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## Technical description

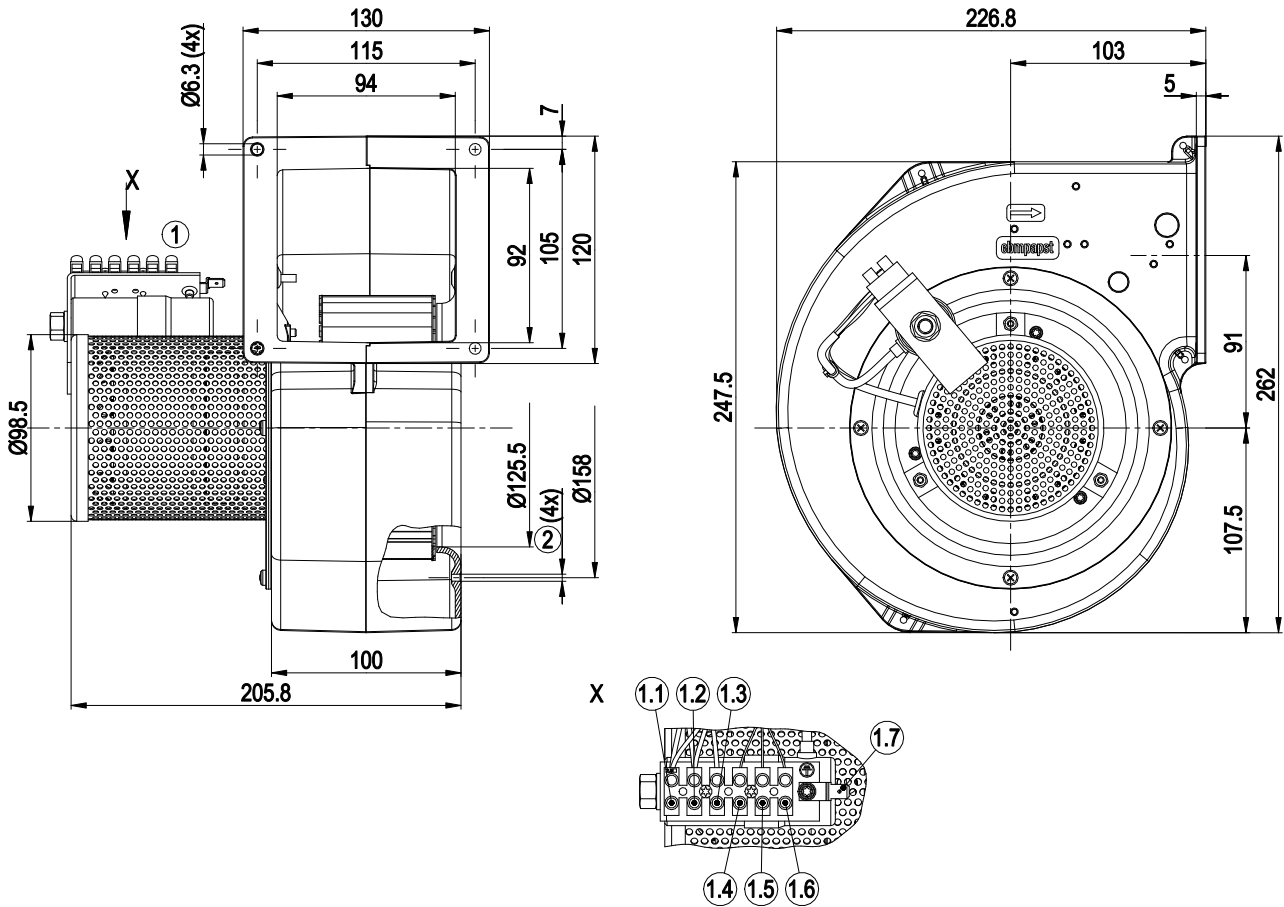
<b>Weight</b>	3.3 kg
<b>Size</b>	140 mm
<b>Motor size</b>	68
<b>Rotor surface</b>	Painted black
<b>Cover material</b>	Sheet steel, painted black
<b>Impeller material</b>	Sheet steel, painted black
<b>Housing material</b>	Die-cast aluminum, painted black
<b>Direction of rotation</b>	Clockwise, viewed toward rotor
<b>Degree of protection</b>	IP44; installation- and position-dependent as per EN 60034-5
<b>Insulation class</b>	"F"
<b>Moisture (F) / Environmental (H) protection class</b>	H1
<b>Max. permitted ambient temp. for motor (transport/storage)</b>	+ 80 °C
<b>Min. permitted ambient temp. for motor (transport/storage)</b>	- 40 °C
<b>Installation position</b>	Any
<b>Condensation drainage holes</b>	On rotor side
<b>Mode</b>	S1
<b>Motor mounting</b>	Ball bearing
<b>Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)</b>	< 0.75 mA
<b>Electrical hookup</b>	Via terminal strip, capacitor connected
<b>Motor protection</b>	Thermal overload protector (TOP) internally connected
<b>With cable</b>	Lateral
<b>Protection class</b>	I (if protective earth is connected by customer to the housing's connection point)
<b>Motor capacitor according to EN 60252-1 in safety protection class</b>	S2
<b>Conformity with standards</b>	EN 60335-1; CE



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## Product drawing



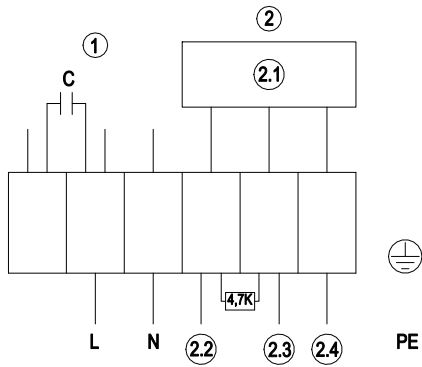
1	Terminal strip
1.1	Z (brown + capacitor)
1.2	L (black + capacitor)
1.3	N (blue)
1.4	+5 V (red)
1.5	out (white)
1.6	0 V (black)
1.7	Flat plug 6.3 x 0.8 (PE)
2	For self-tapping M4 screw, max. clearance for screw 5 mm



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## Connection diagram



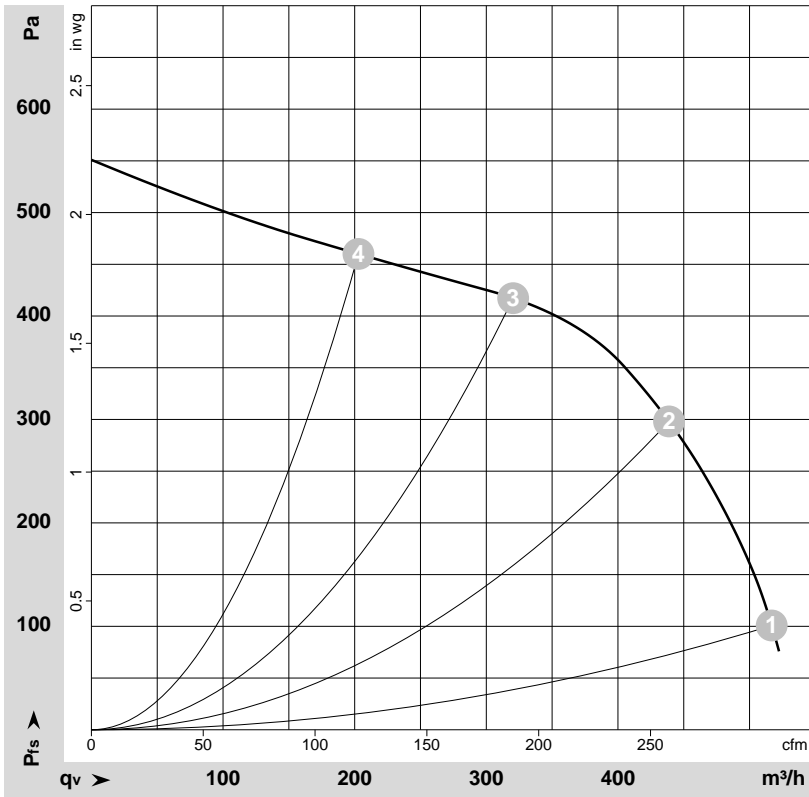
1	Fan connection diagram
L	black
N	blue
2	Hall IC circuit
2.1	Hall IC
2.2	red (+5 V)
2.3	white (out)
2.4	black (0 V)



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## Curves: Air performance 50 Hz



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-4880-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebmpapst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

## Measured values

	U	f	n	P <sub>e</sub>	I	q <sub>v</sub>	p <sub>fs</sub>	q <sub>v</sub>	p <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa	cfm	in. wg
1	230	50	2000	200	0.90	515	100	305	0.40
2	230	50	2375	163	0.71	440	300	260	1.20
3	230	50	2600	129	0.56	320	420	190	1.69
4	230	50	2735	105	0.46	205	460	120	1.85

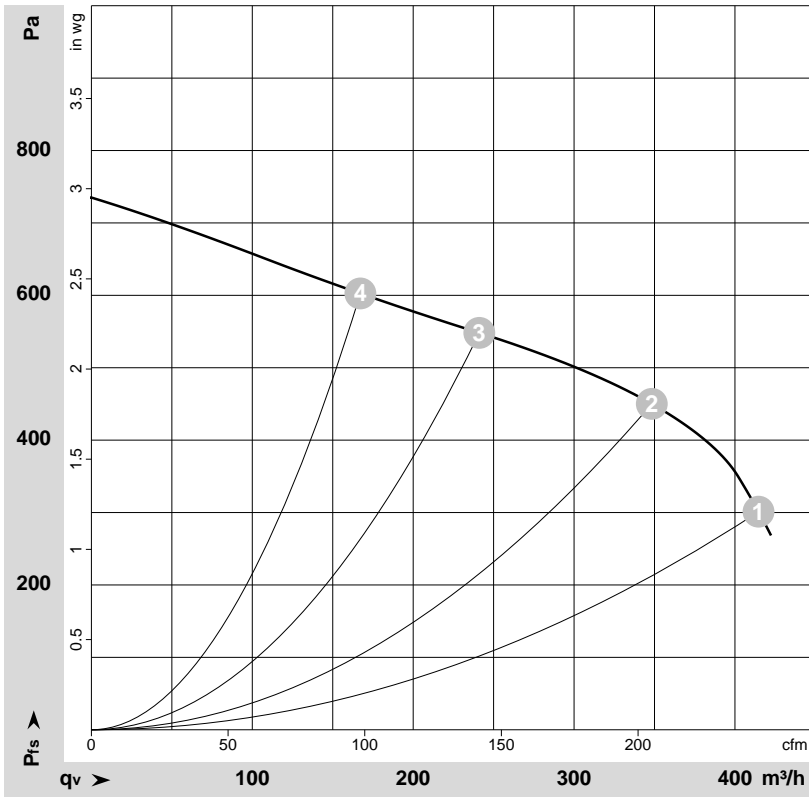
U = Power supply · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power consumption · I = Current draw · q<sub>v</sub> = Air flow · p<sub>fs</sub> = Pressure increase



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## Curves: Air performance 60 Hz



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-4881-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

## Measured values

	U	f	n	P <sub>e</sub>	I	q <sub>v</sub>	P <sub>fs</sub>	q <sub>v</sub>	P <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa	cfm	in. wg
1	230	60	2350	210	0.95	415	300	245	1.20
2	230	60	2715	185	0.81	350	450	205	1.81
3	230	60	3010	157	0.71	240	550	140	2.21
4	230	60	3165	139	0.64	165	600	100	2.41

U = Power supply · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power consumption · I = Current draw · q<sub>v</sub> = Air flow · P<sub>fs</sub> = Pressure increase

