

# AC centrifugal fan

forward-curved, single-intake

with housing (flange)

G2E160-AY47-80 ebmpapst Datasheet

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## Nominal data

Type	G2E160-AY47-80		
Motor	M2E068-EC		
Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Method of obtaining data		fa	ml
Valid for approval/standard		-	-
Speed (rpm)	min <sup>-1</sup>	2100	2100
Power consumption	W	240	280
Current draw	A	1.05	1.23
Capacitor	µF	6	6
Capacitor voltage	VDB	400	400
Capacitor standard		S0 (CE)	S0 (CE)
Min. back pressure	Pa	0	50
Min. back pressure	in. wg	0	0.2
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	70	50
Starting current	A	1.9	1.8

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



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## Technical description

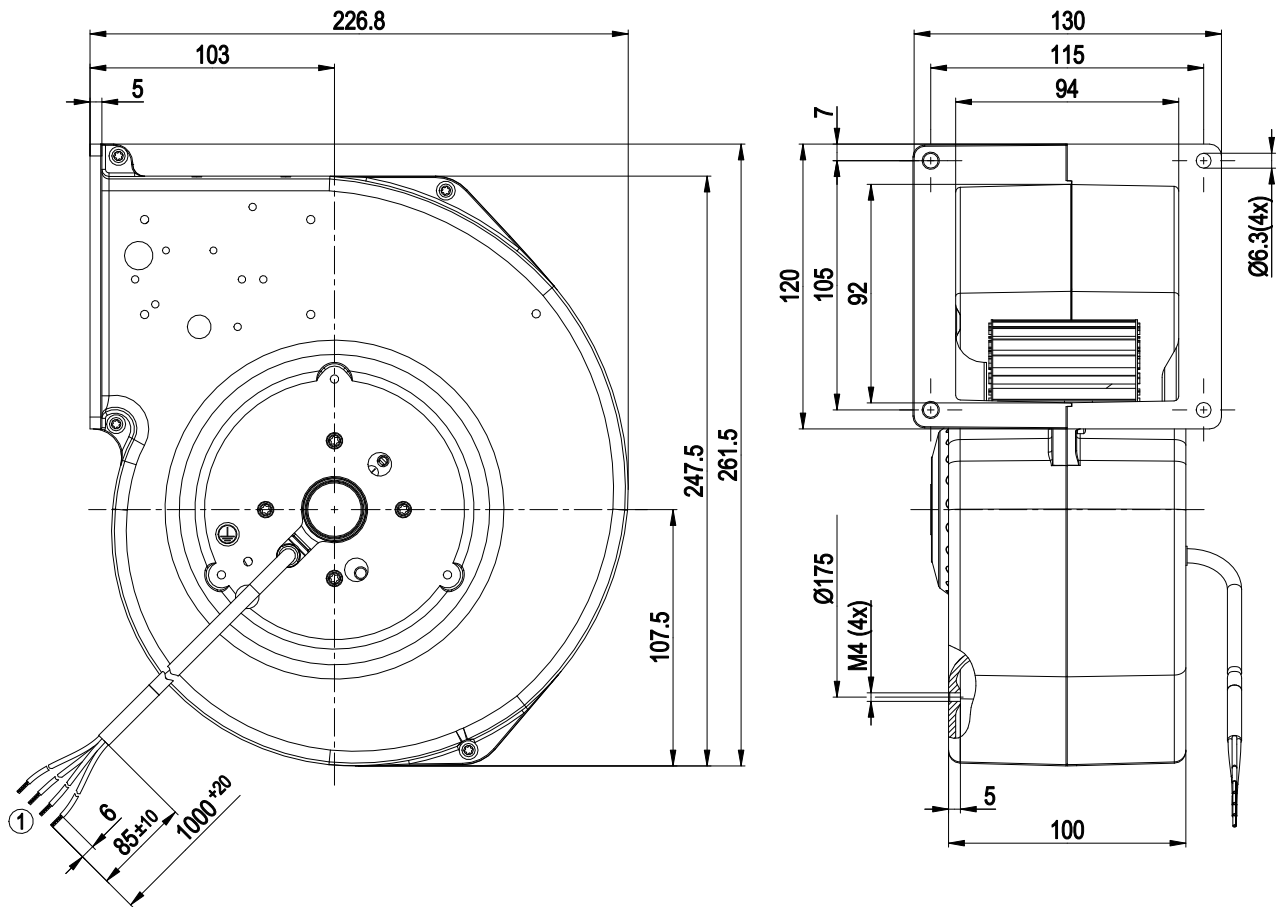
<b>Weight</b>	4.13 kg
<b>Size</b>	160 mm
<b>Motor size</b>	68
<b>Rotor surface</b>	Painted black
<b>Impeller material</b>	Sheet steel, galvanized and painted black
<b>Housing material</b>	Die-cast aluminum
<b>Direction of rotation</b>	Clockwise, viewed toward rotor
<b>Degree of protection</b>	IP44; installation- and position-dependent as per EN 60034-5
<b>Insulation class</b>	"F"
<b>Moisture (F) / Environmental (H) protection class</b>	H0+
<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>	Shaft horizontal or rotor on bottom; rotor on top on request
<b>Condensation drainage holes</b>	On rotor side
<b>Mode</b>	S1
<b>Motor bearing</b>	Ball bearing
<b>Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)</b>	< 0.75 mA
<b>Motor protection</b>	Thermal overload protector (TOP) internally connected
<b>With cable</b>	Variable
<b>Protection class assignment</b>	I; If a protective earth is connected by the customer This component for installation may have several local protection classes. This information relates to this component's basic design. The final protection class is based on the component's intended installation and connection.
<b>Conformity with standards</b>	EN 60034-1; EN 60204-1
<b>Comment on CE</b>	Commissioning not permitted in the European Economic Area



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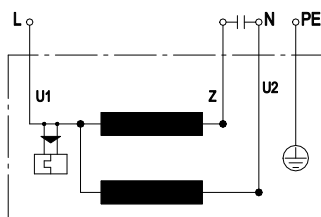
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## Product drawing



- |   |                                       |
|---|---------------------------------------|
| 1 | Cable silicone 4G 0.5 mm <sup>2</sup> |
|   | 4x splice                             |

## Connection diagram



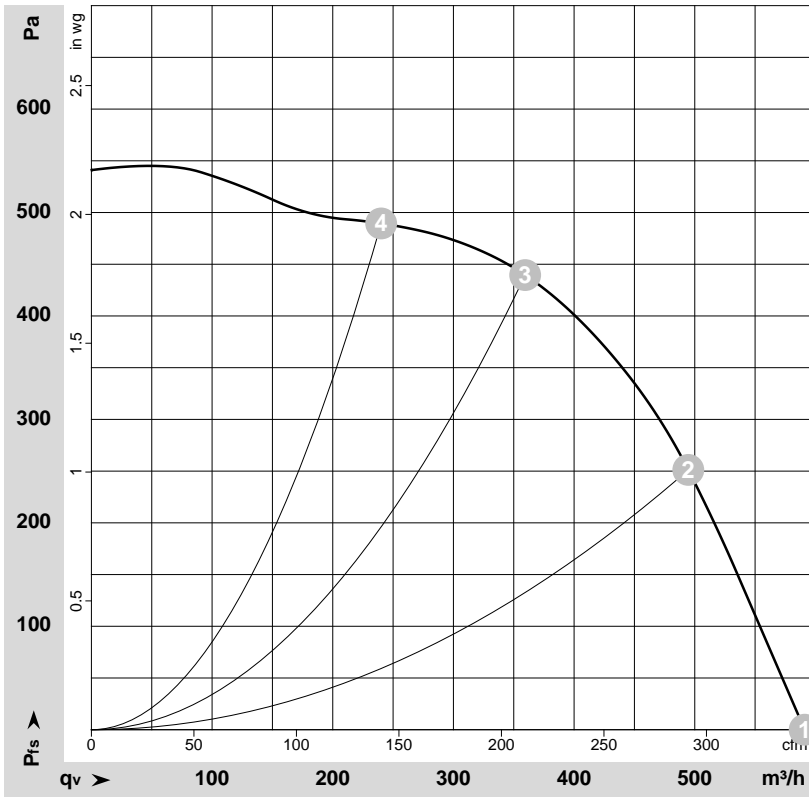
U1	blue	Z	brown	U2	black
PE	green/yellow				



# AC centrifugal fan

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## Curves: Air performance 50 Hz



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

Measurement: LU-104987-1

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	2100	240	1.05	590	0	350	0.00
2	230	50	2385	199	0.86	495	250	290	1.00
3	230	50	2595	161	0.70	360	440	210	1.77
4	230	50	2715	137	0.59	240	490	140	1.97

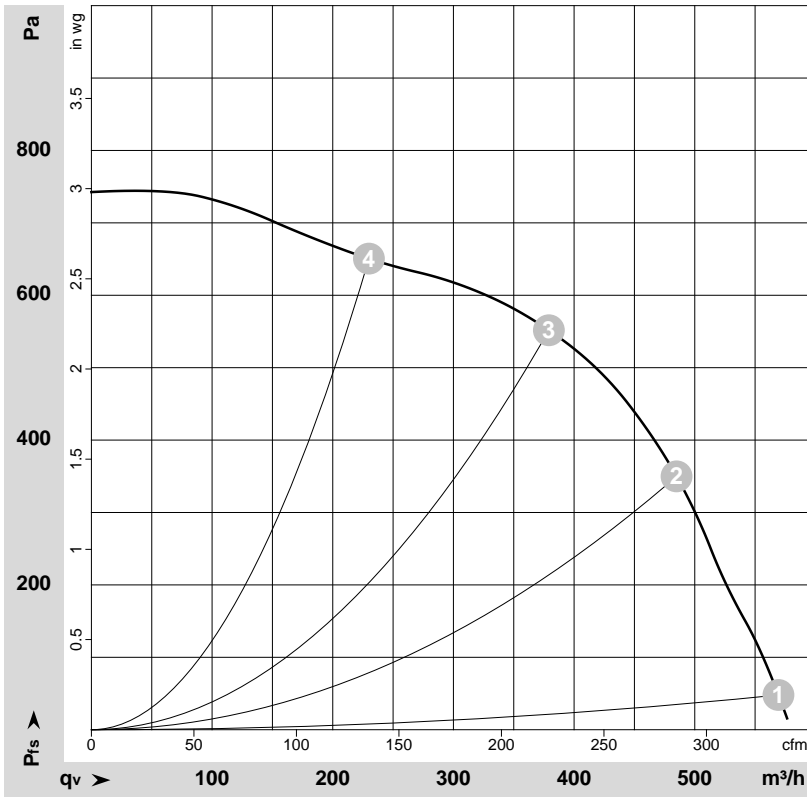
U = Voltage · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power consumption · I = Current draw · q<sub>v</sub> = Air flow · P<sub>fs</sub> = Pressure increase



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## Curves: Air performance 60 Hz



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

Measurement: LU-104989-1

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	2100	280	1.23	570	50	335	0.20
2	230	60	2580	251	1.10	485	350	285	1.41
3	230	60	2890	216	0.96	380	550	225	2.21
4	230	60	3145	178	0.82	230	650	135	2.61

U = Voltage · 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

