

# AC centrifugal fan

forward-curved, single-intake

with housing (flange)

G2E160-BY47-02 ebmpapst Datasheet FansCo

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## Nominal data

<b>Type</b>	<b>G2E160-BY47-02</b>		
<b>Motor</b>	<b>M2E068-EC</b>		
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		S2 (CE)	S2 (CE)
Min. back pressure	Pa	0	50
Min. back pressure	inH <sub>2</sub> O	0	0.2
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	50	30

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



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## Technical description

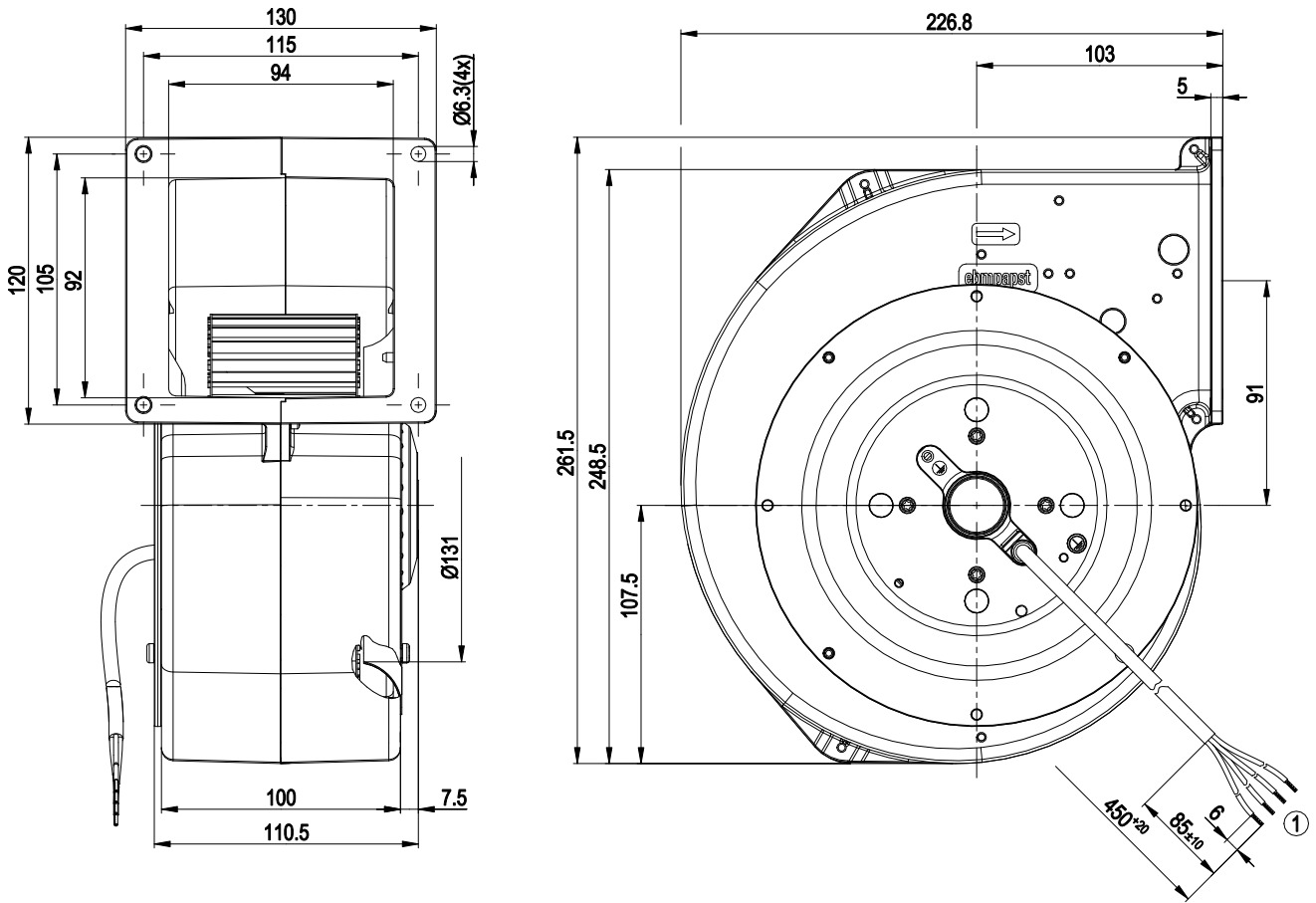
<b>Weight</b>	4.08 kg
<b>Fan size</b>	160 mm
<b>Impeller material</b>	Sheet steel, galvanized
<b>Housing material</b>	Die-cast aluminum
<b>Direction of rotation</b>	Counterclockwise, viewed toward rotor
<b>Degree of protection</b>	IP44; installation- and position-dependent
<b>Insulation class</b>	"B"
<b>Moisture (F) / Environmental (H) protection class</b>	H0 - dry environment
<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>	None
<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</b>	I (with customer connection of protective earth)
<b>Conformity with standards</b>	EN 60335-1
<b>Approval</b>	CCC



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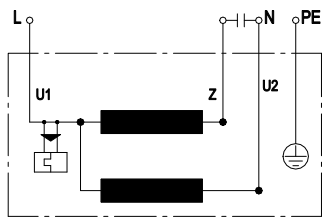
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## Product drawing



1 Cable PVC 4G 0.5 mm<sup>2</sup>, 4x crimped splices

## Connection diagram



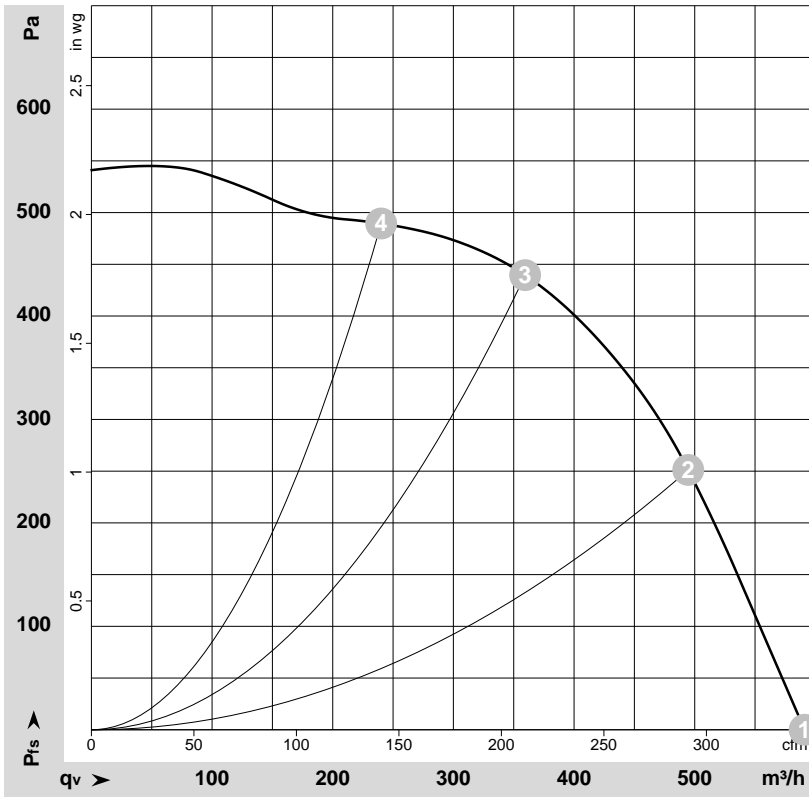
U1	blue	Z	brown	U2	black
PE	green/yellow				



# 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	inH <sub>2</sub> O
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

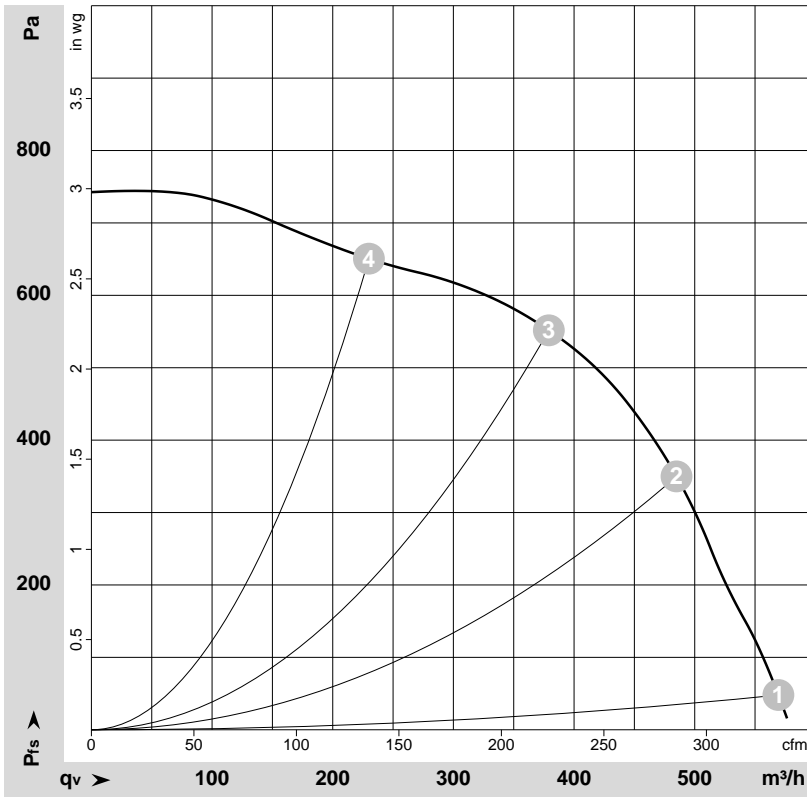
U = Power supply · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power consumption · I = Current draw · q<sub>v</sub> = Air flow · P<sub>fs</sub> = Pressure increase



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## Curves: Air performance 60 Hz



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

Measurement: LU-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	inH <sub>2</sub> O
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 = 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

