

G2E160-AY50-93

# AC centrifugal fan

forward-curved, single-intake

with housing (flange)



G2E160-AY50-93 ebmpapst Datasheet

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## Nominal data

Type	G2E160-AY50-93	
Motor	M2E068-EC	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50
Method of obtaining data		ml
Valid for approval/standard		CE
Speed (rpm)	min <sup>-1</sup>	2280
Power consumption	W	270
Current draw	A	1.18
Capacitor	μF	6
Capacitor voltage	VDB	400
Capacitor standard		S0 (CE)
Min. back pressure	Pa	100
Min. back pressure	inH <sub>2</sub> O	0.4
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60
Starting current	A	4.0

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

## Data according to ErP Directive

		Actual	Req. 2015			
01 Overall efficiency $\eta_{es}$	%	32.6	32.6	09 Power consumption $P_e$	kW	0.16
02 Measurement category		A		09 Air flow $q_v$	m <sup>3</sup> /h	355
03 Efficiency category		Static		09 Pressure increase $p_{fs}$	Pa	518
04 Efficiency grade N		44	44	10 Speed (rpm) n	min <sup>-1</sup>	2725
05 Variable speed drive		No		11 Specific ratio*		1.01

Data obtained at optimum efficiency level.

The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

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

LU-140170



# AC centrifugal fan

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with housing (flange)

## Technical description

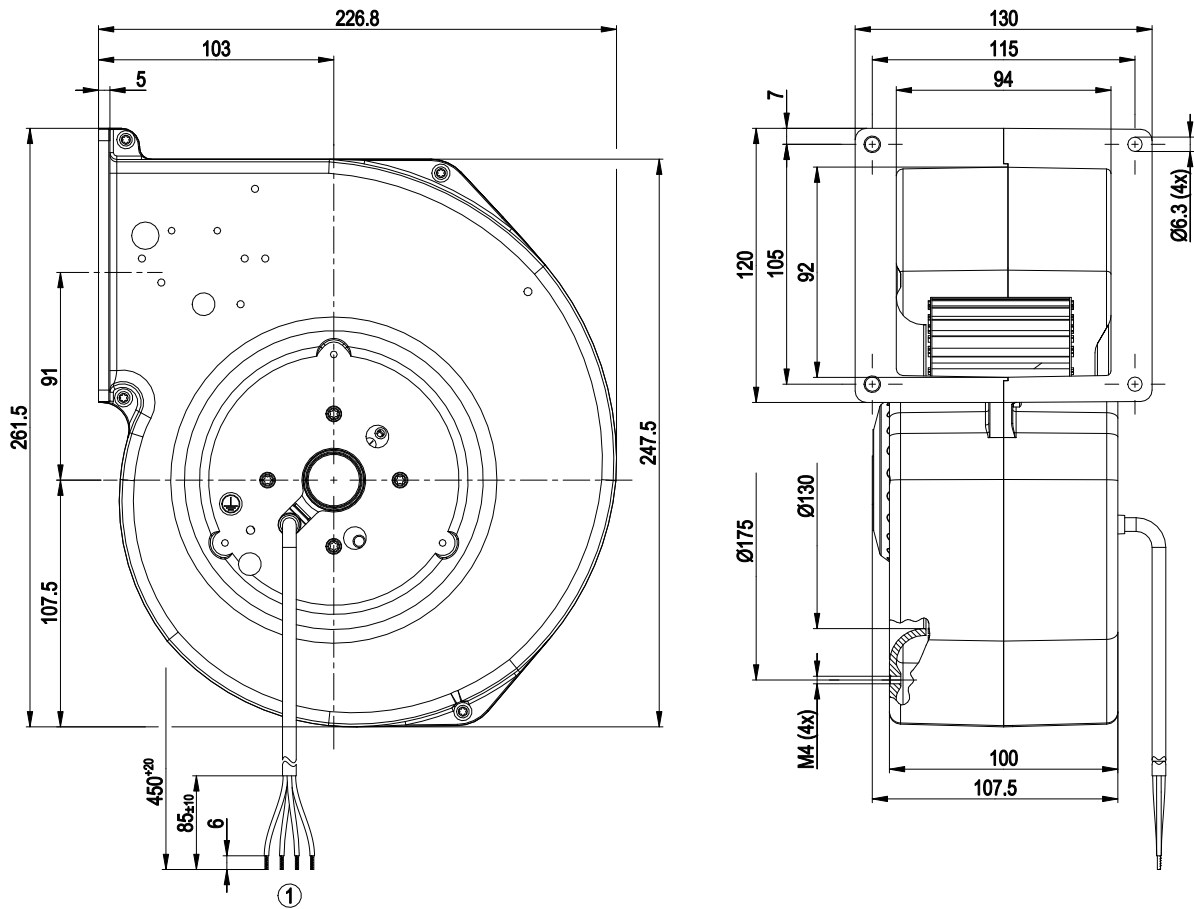
<b>Weight</b>	4 kg
<b>Fan size</b>	160 mm
<b>Rotor surface</b>	Unpainted
<b>Impeller material</b>	Sheet steel, galvanized
<b>Housing material</b>	Die-cast aluminum
<b>Direction of rotation</b>	Clockwise, viewed toward rotor
<b>Degree of protection</b>	IP44; installation- and position-dependent as per EN 60034-5
<b>Insulation class</b>	"F"
<b>Moisture (F) / Environmental (H) protection class</b>	F1-1
<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</b>	I (with customer connection of protective earth)
<b>Conformity with standards</b>	EN 60335-1; CE



# AC centrifugal fan

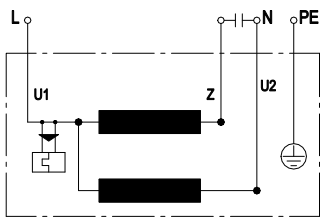
forward-curved, single-intake  
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## Product drawing



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

## Connection diagram



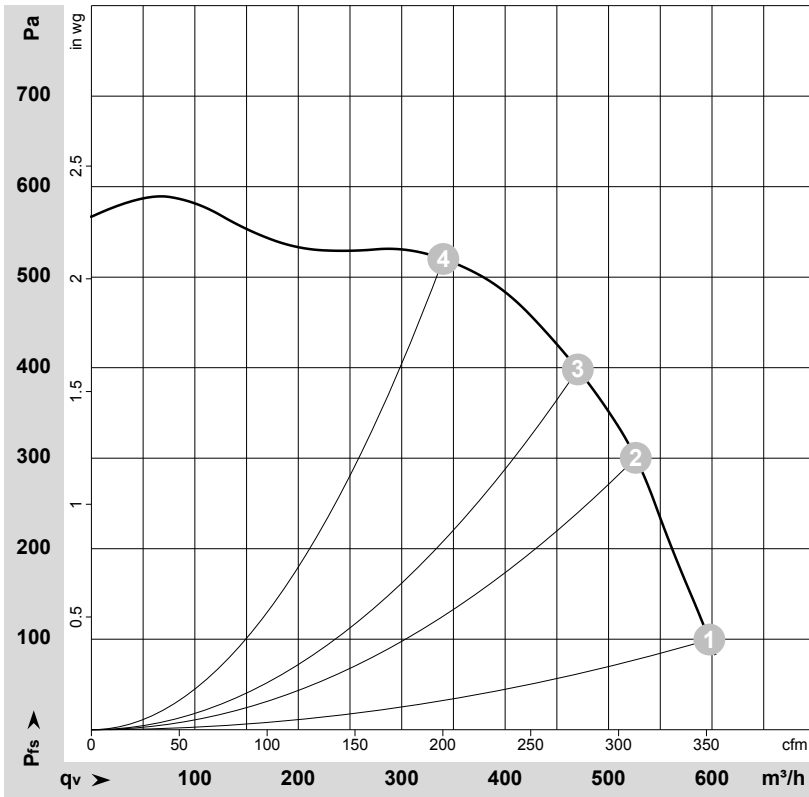
U1	blue	Z	brown	U2	black
PE	green/yellow				



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## Curves: Air performance 50 Hz



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

Measurement: LU-140170-1

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	2280	270	1.18	595	100	350	0.40
2	230	50	2485	226	0.98	525	300	310	1.20
3	230	50	2580	202	0.88	470	400	275	1.61
4	230	50	2730	159	0.69	340	520	200	2.09

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

