

# AC centrifugal fan

forward-curved, dual-intake  
with housing (flange)

D2E133-BI40-50 ebmpapst Datasheet

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## Nominal data

Type	D2E133-BI40-50			
Motor	M2E068-CF			
Phase		1~	1~	1~
Nominal voltage	VAC	230	230	230
Frequency	Hz	50	60	60
Method of obtaining data		fa	fa	fa
Valid for approval/standard		CE	CE	UL
Speed (rpm)	min <sup>-1</sup>	1700	1850	1850
Power consumption	W	135	140	150
Current draw	A	0.6	0.62	0.64
Capacitor	μF	2	2	2
Capacitor voltage	VDB	450	400	400
Capacitor standard		S0 (CE)	S0 (CE)	UL
Min. back pressure	Pa	0	100	100
Min. back pressure	inH <sub>2</sub> O	0	0.4	0.4
Min. ambient temperature	°C	-25	-25	-25
Max. ambient temperature	°C	45	35	35

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



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## Technical description

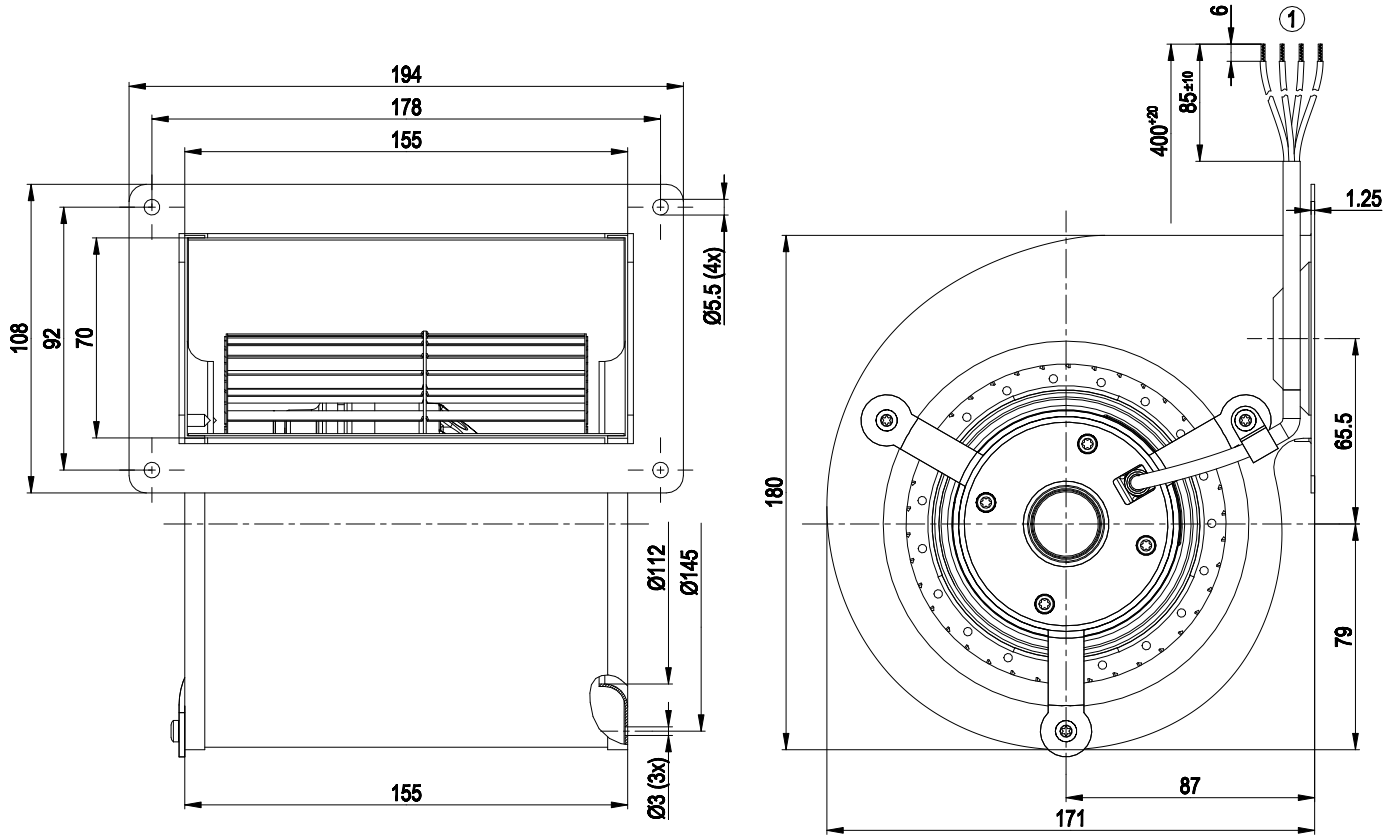
<b>Weight</b>	2.9 kg
<b>Fan size</b>	133 mm
<b>Rotor surface</b>	Unpainted
<b>Impeller material</b>	Sheet steel, galvanized
<b>Housing material</b>	Sheet steel, galvanized
<b>Motor suspension</b>	Motor mounted with brackets on one side
<b>Direction of rotation</b>	Counterclockwise, viewed toward rotor
<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>	Axial
<b>Protection class</b>	I (with customer connection of protective earth)
<b>Conformity with standards</b>	EN 60335-1; CE
<b>Approval</b>	CSA C22.2 No. 77; UL 2111



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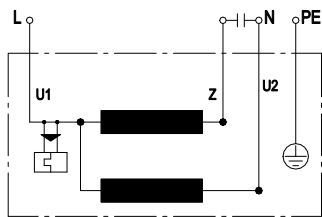
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## Product drawing



1 Cable PVC AWG20, 4x crimped splices

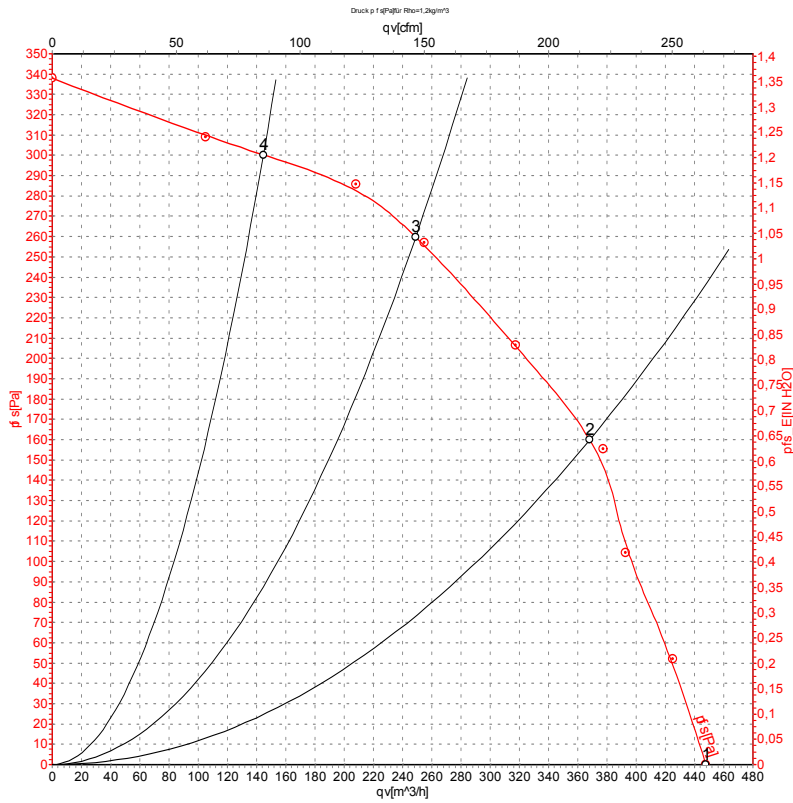
## Connection diagram



U1	blue	Z	brown	U2	black
PE	green/yellow				



## Curves: Air performance 50 Hz



Measurement: LU-37131-1

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.

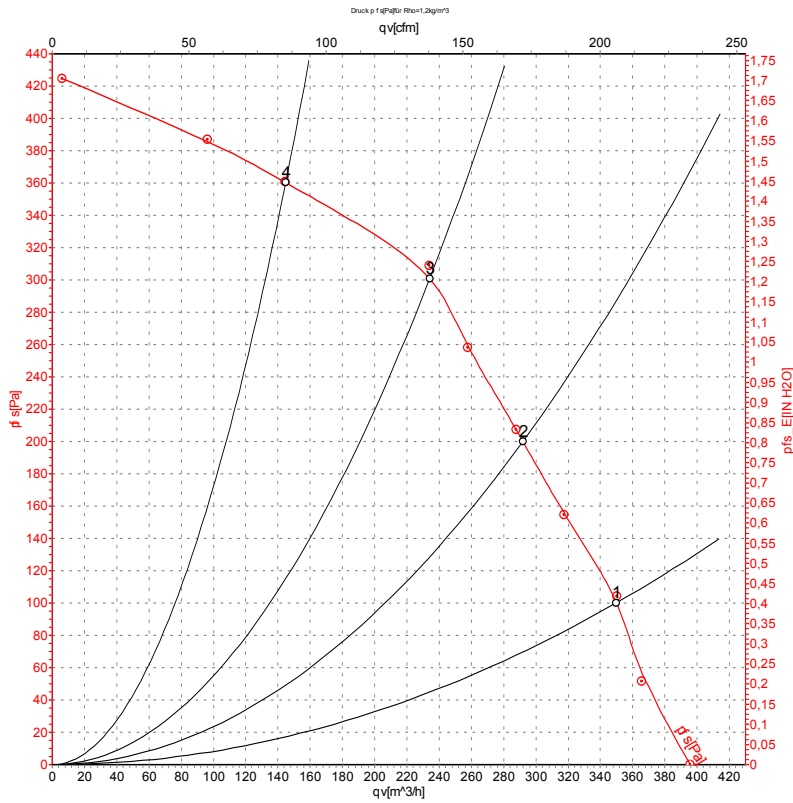
## Measured values

	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	1700	135	0.60	450	0	265	0.00
2	230	50	2160	115	0.50	370	160	215	0.64
3	230	50	2520	94	0.41	250	260	145	1.04
4	230	50	2690	80	0.35	145	300	85	1.20

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



## Curves: Air performance 60 Hz



Measurement: LU-37132-1

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	1850	140	0.62	350	100	205	0.40
2	230	60	2310	131	0.57	290	200	170	0.80
3	230	60	2690	123	0.53	235	300	140	1.20
4	230	60	2965	114	0.50	145	360	85	1.45

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

