

D2E097-BI52-A4

# AC centrifugal fan

forward-curved, dual-intake  
with housing (without flange)

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## Nominal data

Type	D2E097-BI52-A4		
Motor	M2E052-CA		
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>	2450	2700
Power consumption	W	45	58
Current draw	A	0.2	0.26
Capacitor	µF	1.5	1.5
Capacitor voltage	VDB	400	400
Min. back pressure	Pa	0	0
Min. back pressure	in. wg	0	0
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	85	90

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



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## Technical description

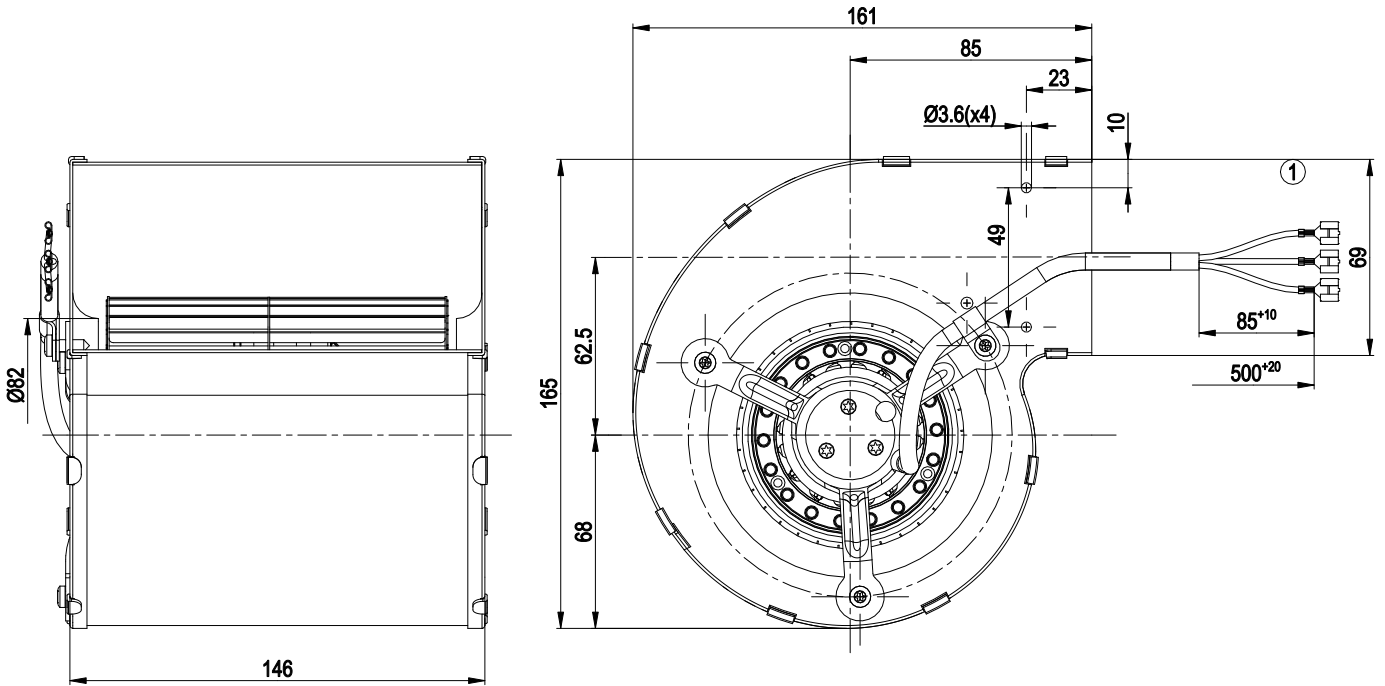
<b>Weight</b>	1.5 kg
<b>Size</b>	97 mm
<b>Motor size</b>	52
<b>Impeller material</b>	Sheet steel, painted black
<b>Housing material</b>	Sheet steel, hot-dip galvanized
<b>Support structure material</b>	Sheet steel, hot-dip galvanized
<b>Motor suspension</b>	Motor mounted with brackets on one side
<b>Direction of rotation</b>	Counterclockwise, viewed toward rotor
<b>Degree of protection</b>	IP20
<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 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>	EAC

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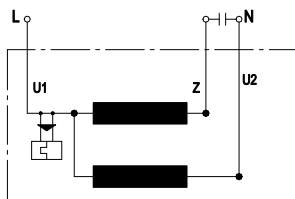
forward-curved, dual-intake  
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## Product drawing



1 Cable ETFE AWG 20, 3x flat push-on receptacle 2.8 x 1

## Connection diagram



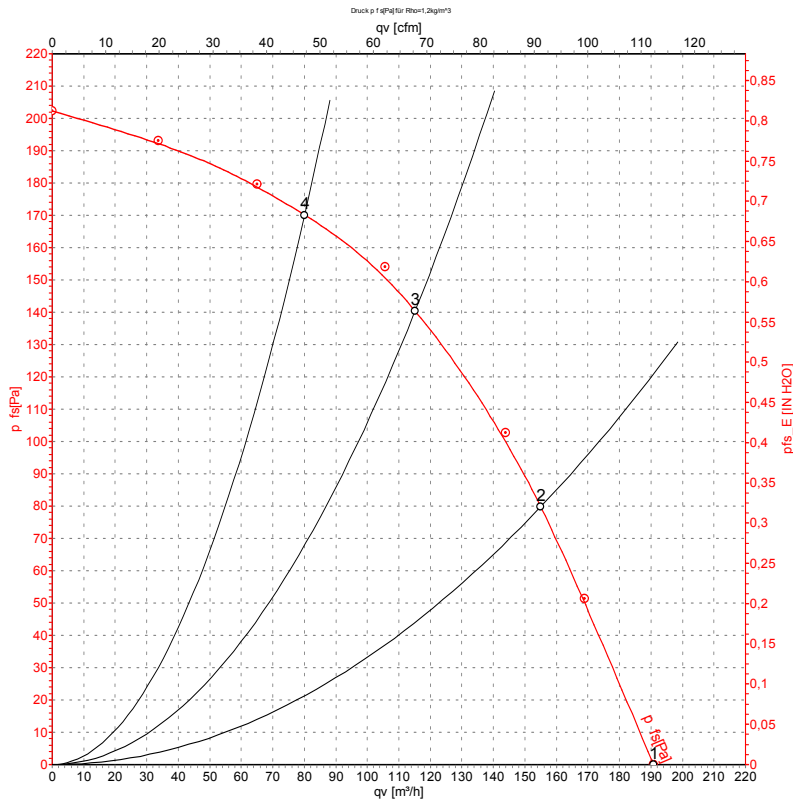
U1	blue	Z	brown	U2	black
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## Curves: Air performance 50 Hz



Measurement: LU-46916-1

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	50	2450	45	0.20	190	0	110	0.00
2	230	50	2580	42	0.19	155	80	90	0.32
3	230	50	2675	40	0.18	115	140	70	0.56
4	230	50	2735	38	0.18	80	170	45	0.68

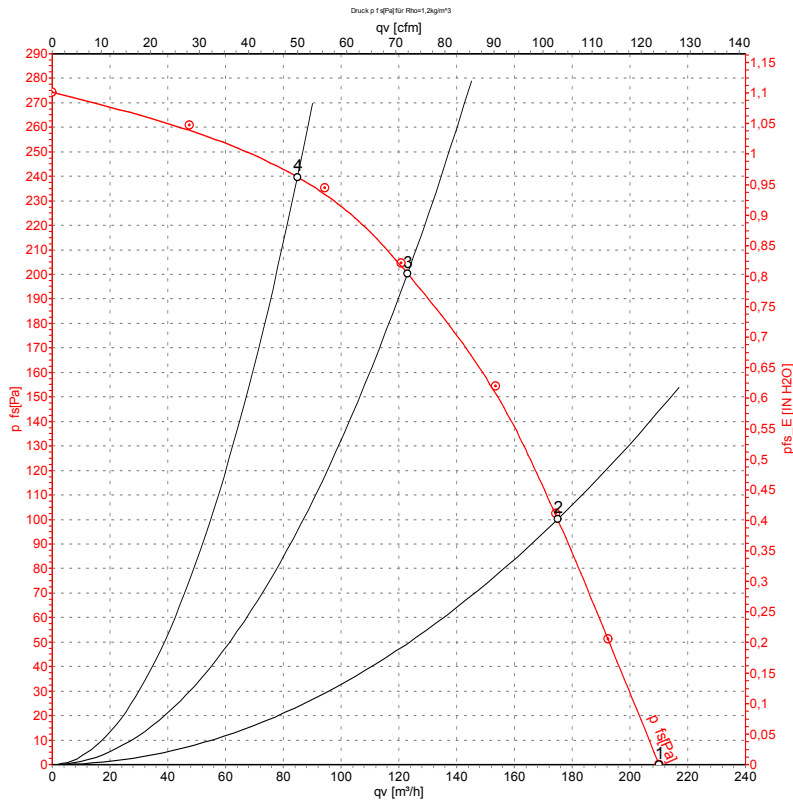
U = Voltage · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power consumption · I = Current draw · q<sub>v</sub> = Air flow · p<sub>fs</sub> = Pressure increase



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## Curves: Air performance 60 Hz



Measurement: LU-47108-1

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	2700	58	0.26	210	0	125	0.00
2	230	60	2895	54	0.24	175	100	105	0.40
3	230	60	3085	49	0.21	125	200	70	0.80
4	230	60	3170	46	0.20	85	240	50	0.96

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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