D2E097-BI52-A4

AC centrifugal fan

forward-curved, dual-intake

with housing (without flange)

D2E097-BI52-A4 ebmpapst Datasheet

sales@fansco.com

www.fansco.com

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^{-1}	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

AC centrifugal fan

forward-curved, dual-intake

with housing (without flange)

Technical description

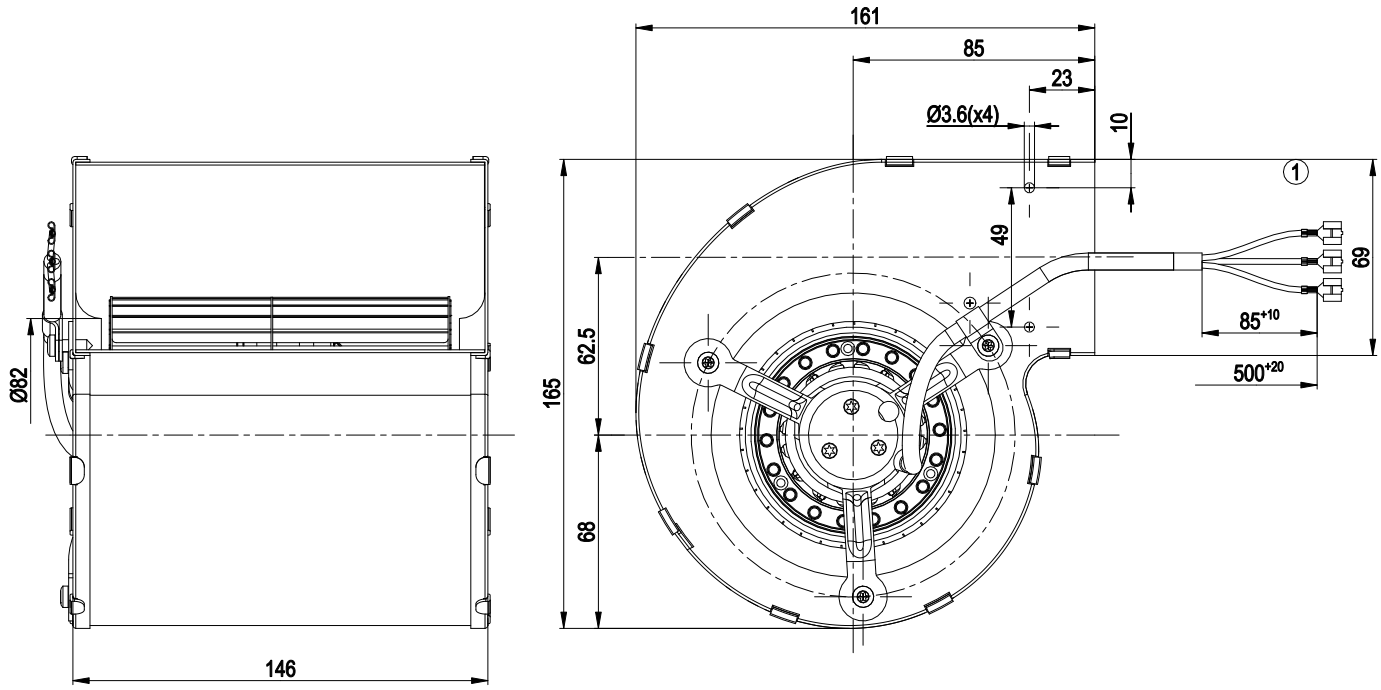
Weight	1.5 kg
Size	97 mm
Motor size	52
Impeller material	Sheet steel, painted black
Housing material	Sheet steel, hot-dip galvanized
Support structure material	Sheet steel, hot-dip galvanized
Motor suspension	Motor mounted with brackets on one side
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP20
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H1
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Any
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Axial
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE
Approval	EAC

AC centrifugal fan

forward-curved, dual-intake

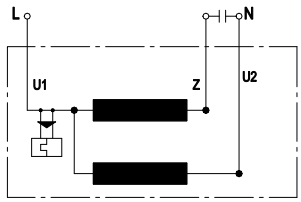
with housing (without flange)

Product drawing



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

Connection diagram



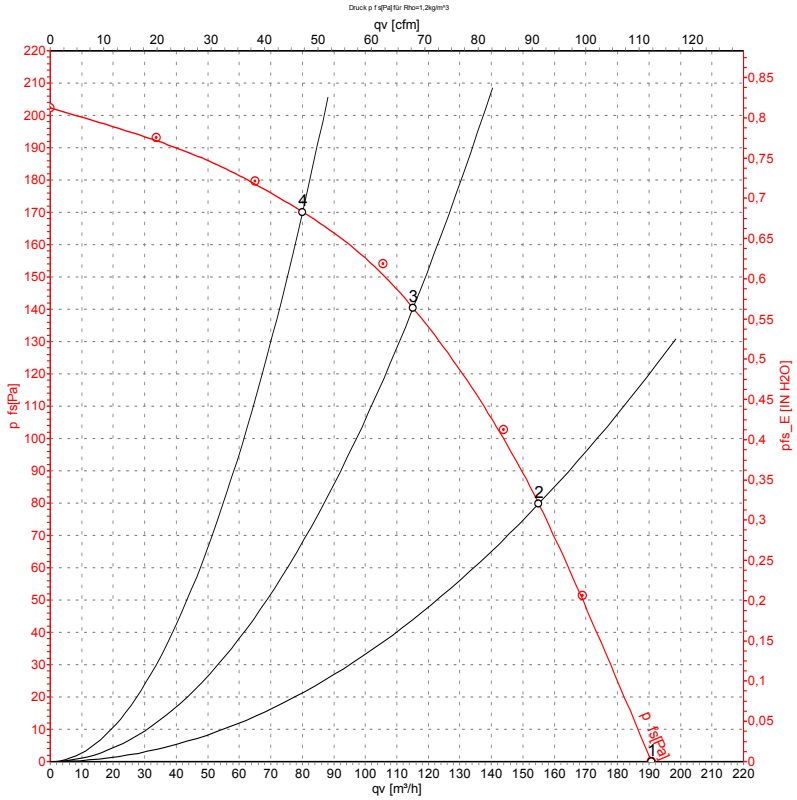
U1	blue	Z	brown	U2	black

AC centrifugal fan

forward-curved, dual-intake

with housing (without flange)

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_e	I	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/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

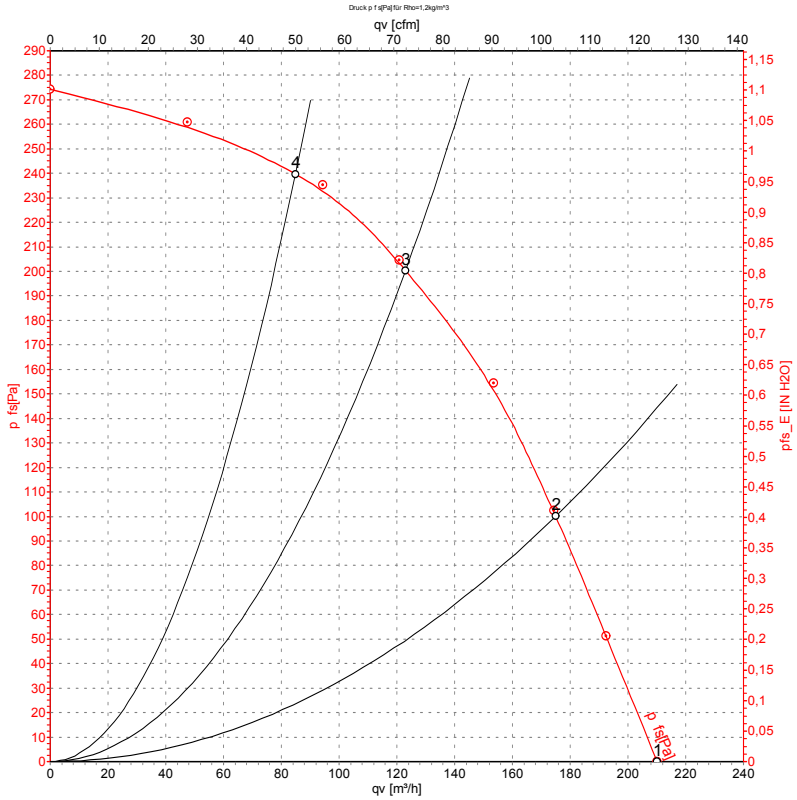
U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

AC centrifugal fan

forward-curved, dual-intake

with housing (without flange)

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_e	I	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/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_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase