

D2E097-CB01-02

# AC centrifugal fan

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

## ebm-papst Mulfingen GmbH & Co. KG

Bachmühle 2 · D-74673 Mulfingen

Phone +49 7938 81-0

Fax +49 7938 81-110

sales@fansco.com

www.fansco.com

Limited partnership · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen

Amtsgericht (court of registration) Stuttgart · HRB 590142

## Nominal data

Type	D2E097-CB01-02		
Motor	M2E042-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>	1650	1650
Power consumption	W	42	42
Current draw	A	0.19	0.20
Capacitor	µF	1.5	1.5
Capacitor voltage	VDB	400	400
Capacitor standard		S2 (CE)	S2 (CE)
Min. back pressure	Pa	0	0
Min. back pressure	in. wg	0	0
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	50	55

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

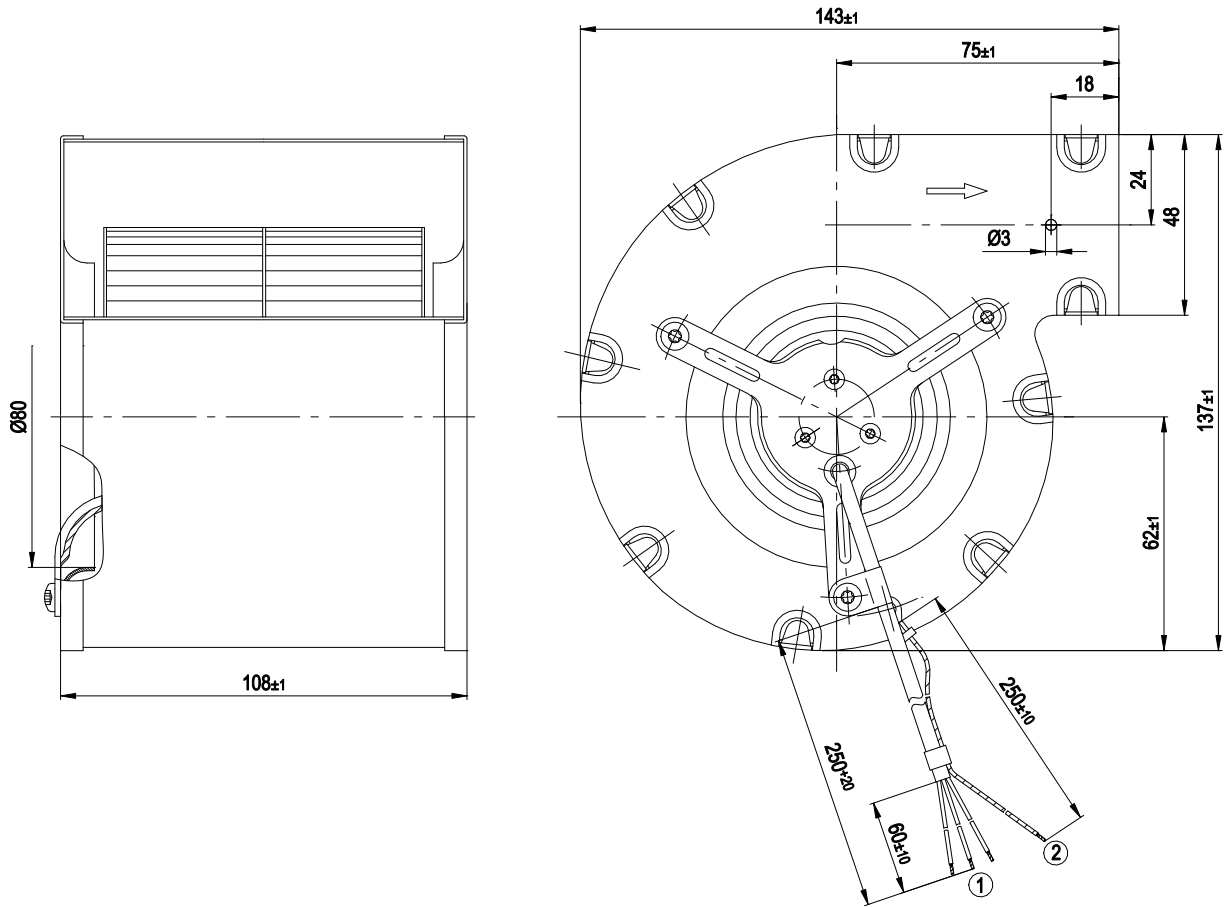
<b>Weight</b>	1.1 kg
<b>Fan size</b>	97 mm
<b>Impeller material</b>	Sheet steel, hot-dip galvanized
<b>Housing material</b>	Sheet steel, hot-dip galvanized
<b>Direction of rotation</b>	Counterclockwise, viewed toward rotor
<b>Degree of protection</b>	IP44; installation- and position-dependent
<b>Insulation class</b>	"B"
<b>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>Protection class</b>	I (with customer connection of protective earth)
<b>Conformity with standards</b>	EN 60335-1; CE
<b>Approval</b>	CCC



# AC centrifugal fan

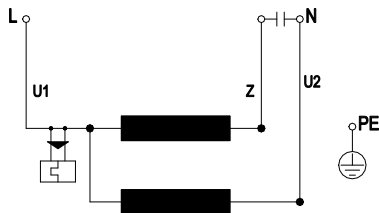
forward-curved, dual-intake  
with housing (without flange)

## Product drawing



- |   |   |
|---|---|
| 1 | Wire PVC 3X 0.25 mm <sup>2</sup> , 3x crimped splices |
| 2 | Wire AWG 20, 1x crimped splice                        |

## Connection diagram



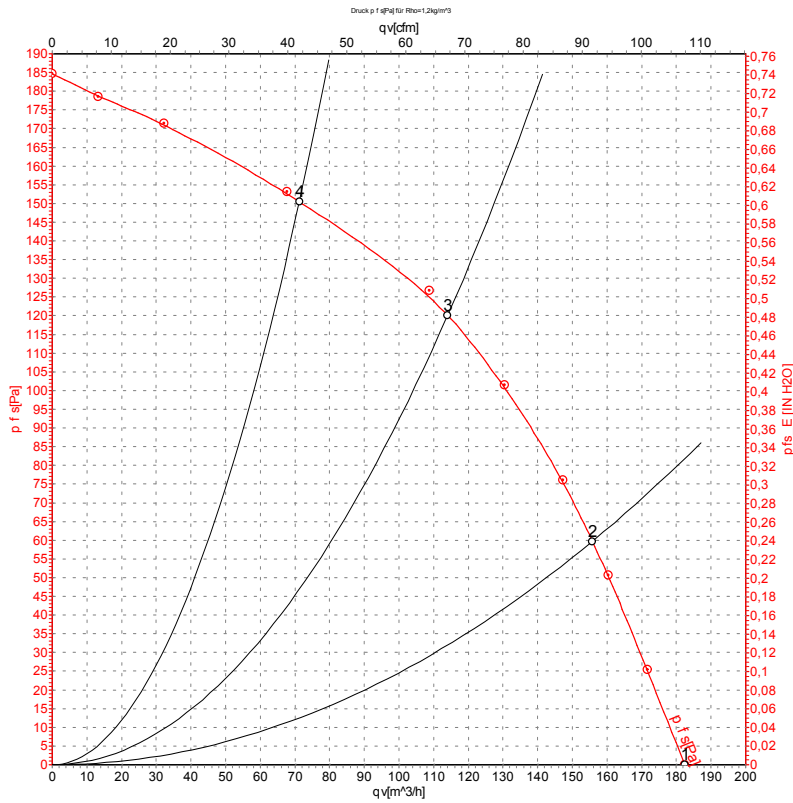
U1	blue	Z	brown	U2	black
PE	green/yellow				



# AC centrifugal fan

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

## Curves: Air performance 50 Hz



Measurement: LU-4570-1

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	1650	42	0.19	180	0	105	0.00
2	230	50	1860	37	0.17	155	60	90	0.24
3	230	50	2190	35	0.16	115	120	65	0.48
4	230	50	2405	34	0.15	70	150	40	0.60

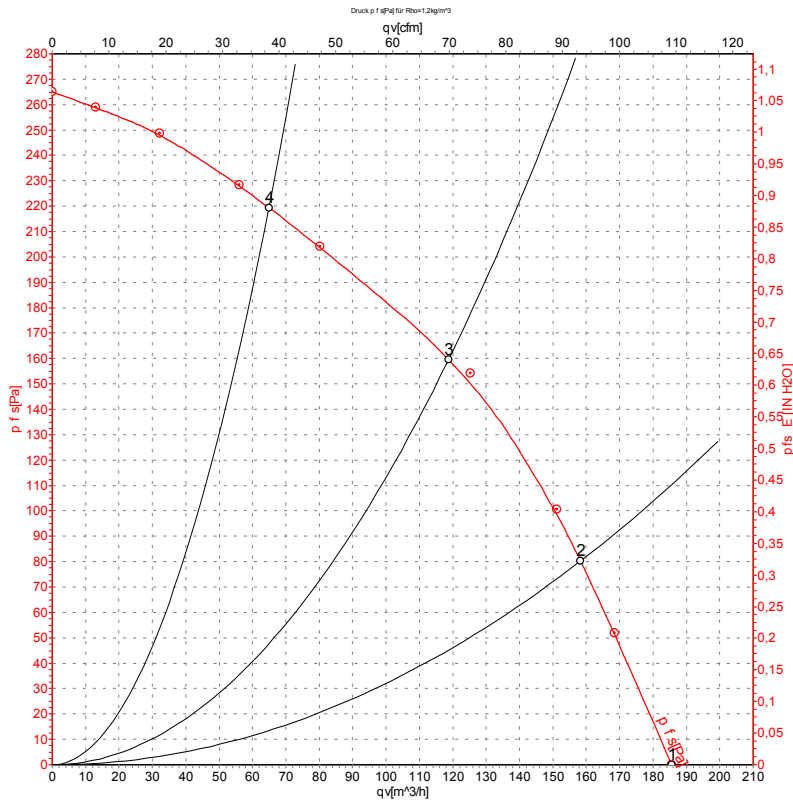
U = Power supply · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power consumption · I = Current draw · q<sub>v</sub> = Air flow · p<sub>fs</sub> = Pressure increase



# AC centrifugal fan

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

## Curves: Air performance 60 Hz



Measurement: LU-4574-1

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	1650	42	0.20	185	0	110	0.00
2	230	60	2040	40	0.19	160	80	95	0.32
3	230	60	2530	37	0.17	120	160	70	0.64
4	230	60	2920	34	0.16	65	220	40	0.88

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

