

D4E225-BC01-23

# AC centrifugal fan

forward-curved, dual-intake

with housing (flange)



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## Nominal data

Type	D4E225-BC01-23			
Motor	M4E074-LA			
Phase		1~	1~	1~
Nominal voltage	VAC	230	230	230
Frequency	Hz	50	60	60
Method of obtaining data		ml	ml	ml
Valid for approval/standard		CE	UL	CE
Speed (rpm)	min <sup>-1</sup>	1250	1300	1300
Power consumption	W	520	670	630
Current draw	A	2.28	2.8	2.75
Capacitor	µF	16	16	16
Capacitor voltage	VDB	400	400	400
Capacitor standard		S0 (CE)	UL	S2 (CE)
Min. back pressure	Pa	200	250	250
Min. back pressure	inH <sub>2</sub> O	0.8	1	1
Min. ambient temperature	°C	-25	-25	-25
Max. ambient temperature	°C	40	30	30

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 $\eta_{es}$	%	34.9	34.9
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		44	44
05 Variable speed drive		No	

Data obtained at optimum efficiency level.

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

09 Power consumption $P_e$	kW	0.37
09 Air flow $q_v$	m <sup>3</sup> /h	1520
09 Pressure increase $p_{fs}$	Pa	300
10 Speed (rpm) n	min <sup>-1</sup>	1365
11 Specific ratio*		1.00

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

LU-17127



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## Technical description

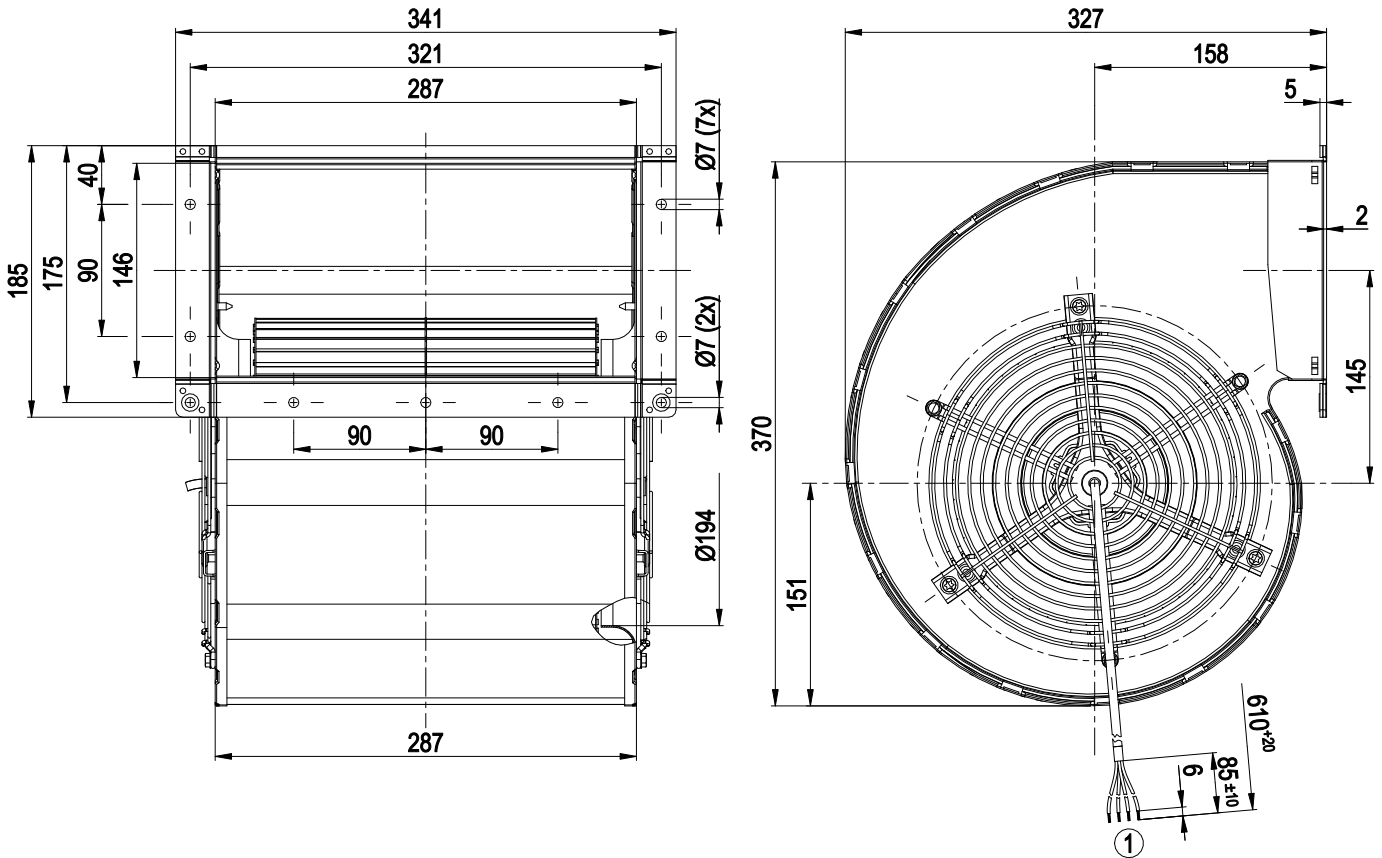
<b>Weight</b>	12.6 kg
<b>Fan size</b>	225 mm
<b>Rotor surface</b>	Painted black
<b>Impeller material</b>	Sheet steel, galvanized
<b>Housing material</b>	Sheet steel, galvanized
<b>Support structure material</b>	Sheet steel, galvanized
<b>Guard grille material</b>	Steel, phosphated and coated with black plastic
<b>Motor suspension</b>	Motor mounted on brackets for one-sided vibration damping
<b>Direction of rotation</b>	Counterclockwise, viewed toward rotor
<b>Degree of protection</b>	IP22
<b>Insulation class</b>	"B"
<b>Moisture (F) / Environmental (H) protection class</b>	F2-1
<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>	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. 100; UL 1004-1



# AC centrifugal fan

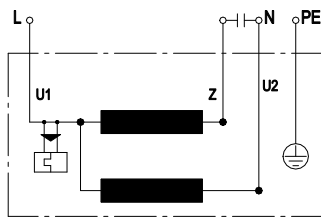
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## Product drawing



1 Cable PVC 4G AWG20, 4x crimped splices

## Connection diagram



U1	blue	Z	brown	U2	black
PE	green/yellow				

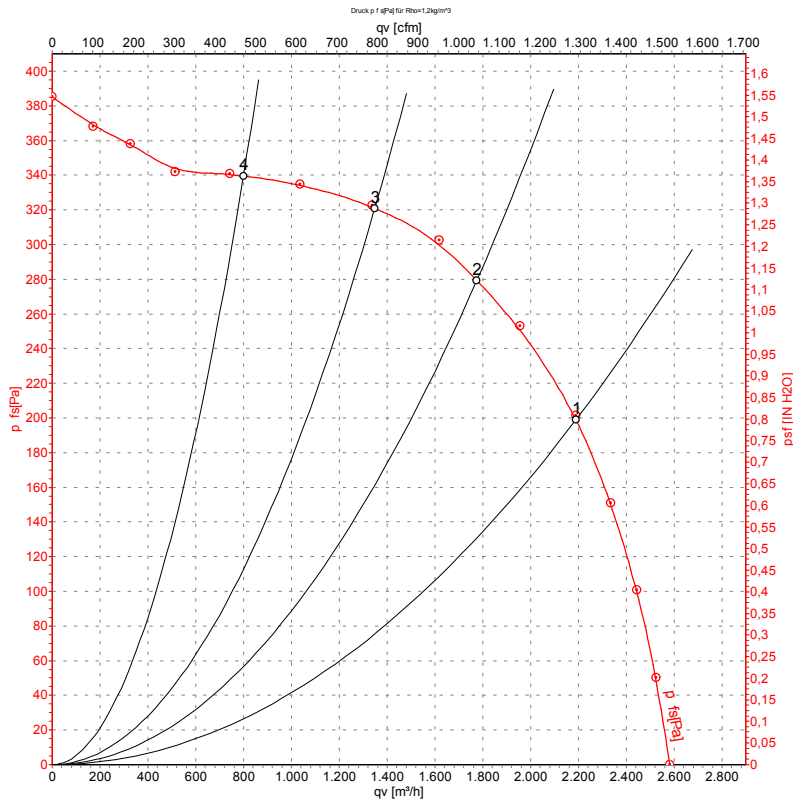


# AC centrifugal fan

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## Curves: Air performance 50 Hz



Measurement: LU-35318-1

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	50	1250	520	2.28	2190	200	1290	0.80
2	230	50	1315	437	1.94	1775	280	1045	1.12
3	230	50	1375	358	1.63	1350	320	795	1.28
4	230	50	1415	292	1.37	800	340	470	1.36

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

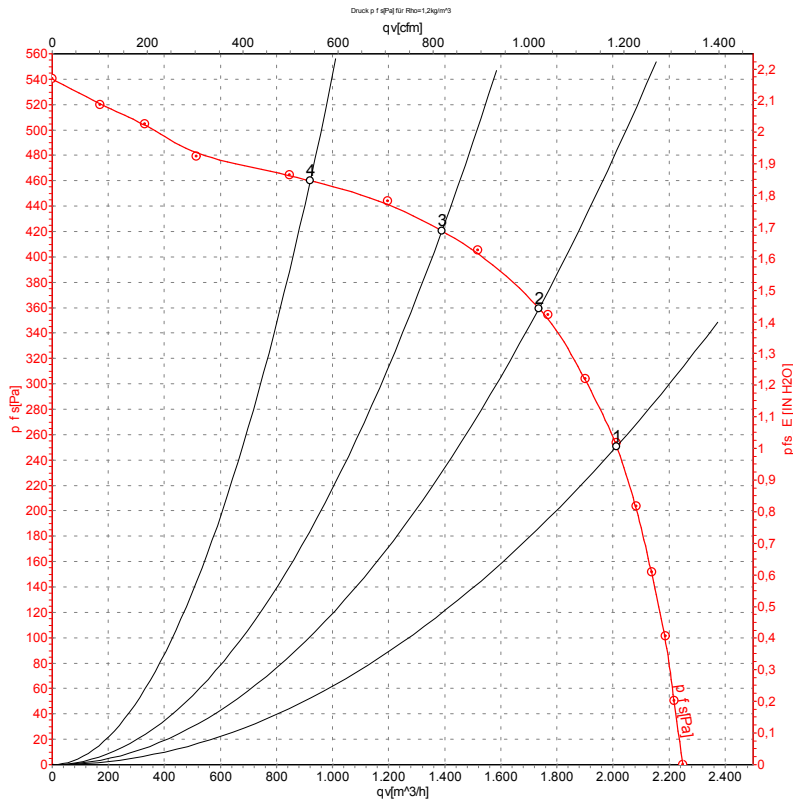


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## Curves: Air performance 60 Hz



Measurement: LU-35319-1

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>st</sub>	q <sub>v</sub>	P <sub>st</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa	cfm	inH <sub>2</sub> O
1	230	60	1300	630	2.75	2015	250	1185	1.00
2	230	60	1460	556	2.44	1735	360	1020	1.45
3	230	60	1565	479	2.14	1390	420	820	1.69
4	230	60	1640	402	1.87	920	460	540	1.85

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>st</sub> = Pressure increase

