

# AC centrifugal fan

forward curved, dual inlet  
with housing (large flange)

D4E225-CA02-42 ebmpapst Datasheet  
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County court Stuttgart · HRB 590142



## Nominal data

Type	D4E225-CA02-42		
Motor	M4E068-LA		
Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Type of data definition		ml	ml
Valid for approval / standard		CE	CE
Speed	min <sup>-1</sup>	1100	1300
Power input	W	455	465
Current draw	A	2.0	2.05
Motor capacitor	µF	10	10
Capacitor voltage	VDB	400	400
Min. back pressure	Pa	200	300
Max. ambient temperature	°C	30	30

ml = max. load · me = max. efficiency · fa = running at free air · cs = customer specs · cu = customer unit  
Subject to alterations

## Data according to ErP directive

		Actual	Request 2013	Request 2015
Installation category	B			
Efficiency category	Total			
Variable speed drive	No			
Specific ratio <sup>*</sup>	1.00			
Overall efficiency $\eta_e$		36.5	32.8	39.8
Efficiency grade N		45.7	42	49
Power input $P_e$	kW	0.35		
Air flow $q_v$	m <sup>3</sup> /h	1465		
Pressure increase $p_f$	Pa	319		
Speed n	min <sup>-1</sup>	1270		

Data established at point of optimum efficiency

<sup>\*</sup> Specific ratio =  $1 + p_f / 100\,000\text{ Pa}$



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## Technical features

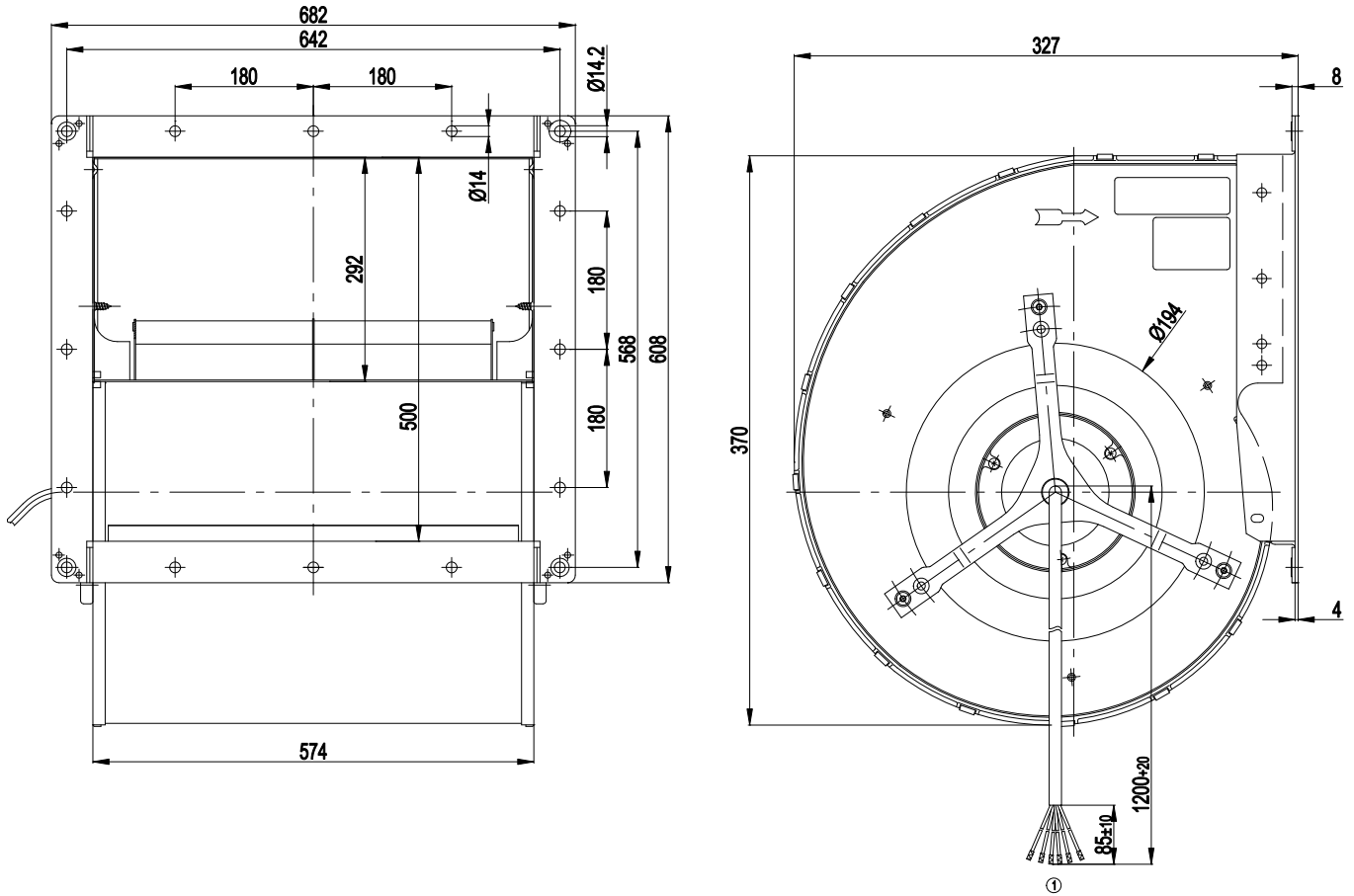
<b>Mass</b>	11.4 kg
<b>Size</b>	225 mm
<b>Surface of rotor</b>	Coated in black
<b>Material of impeller</b>	Sheet steel, sendzimir galvanised
<b>Housing material</b>	Sheet steel, hot-dip galvanised
<b>Motor suspension</b>	Motor mounted with anti-vibration on both sides
<b>Direction of rotation</b>	Counter-clockwise, seen on rotor
<b>Type of protection</b>	IP 54
<b>Insulation class</b>	"B"
<b>Humidity class</b>	F3-1
<b>Max. permissible ambient motor temp. (transp./ storage)</b>	+ 80 °C
<b>Min. permissible ambient motor temp. (transp./storage)</b>	- 40 °C
<b>Mounting position</b>	Any
<b>Condensate discharge holes</b>	None, open rotor
<b>Operation mode</b>	S1
<b>Motor bearing</b>	Ball bearing
<b>Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)</b>	< 0.75 mA
<b>Motor protection</b>	Thermal overload protector (TOP) brought out
<b>Cable exit</b>	Axial
<b>Protection class</b>	I (if protective earth is connected by customer)
<b>Product conforming to standard</b>	EN 60335-1; CE



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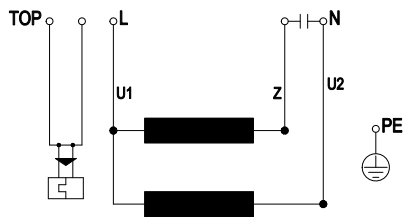
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## Product drawing



1 Connection line, ETFE, AWG20, 6x brass lead tips crimped

## Connection screen



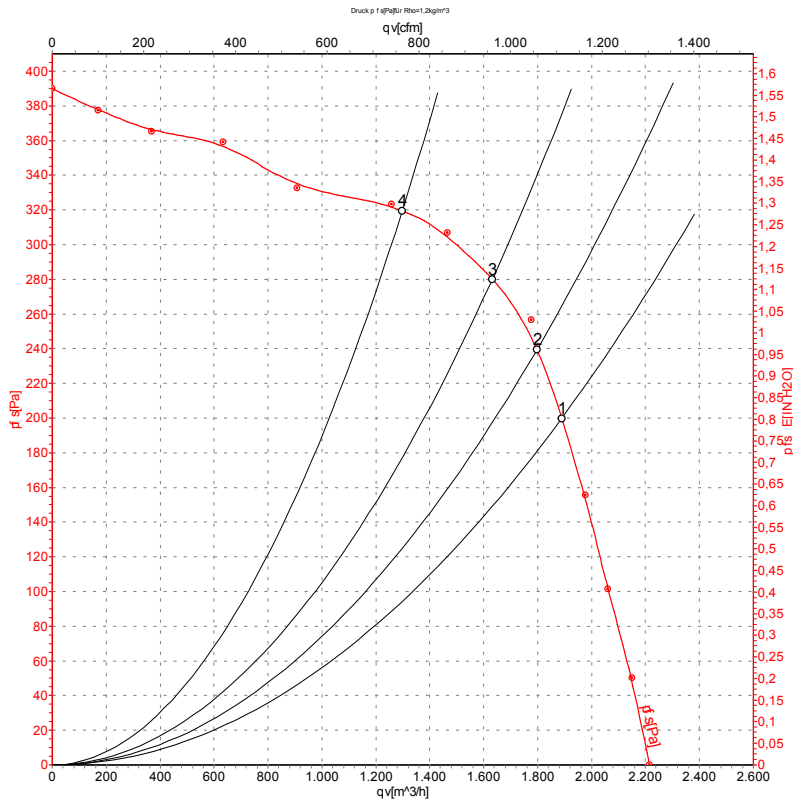
TOP	2 x grey	U1	blue	Z	brown
U2	black	PE	green / yellow		



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## Charts: Air flow 50 Hz



Measurement: LU-4884

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

## Measured values

	U	f	n	P <sub>e</sub>	I	qv	P <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa
1	230	50	1080	458	2.02	1890	200
2	230	50	1155	425	1.86	1795	246
3	230	50	1215	389	1.70	1630	280
4	230	50	1300	326	1.42	1300	320

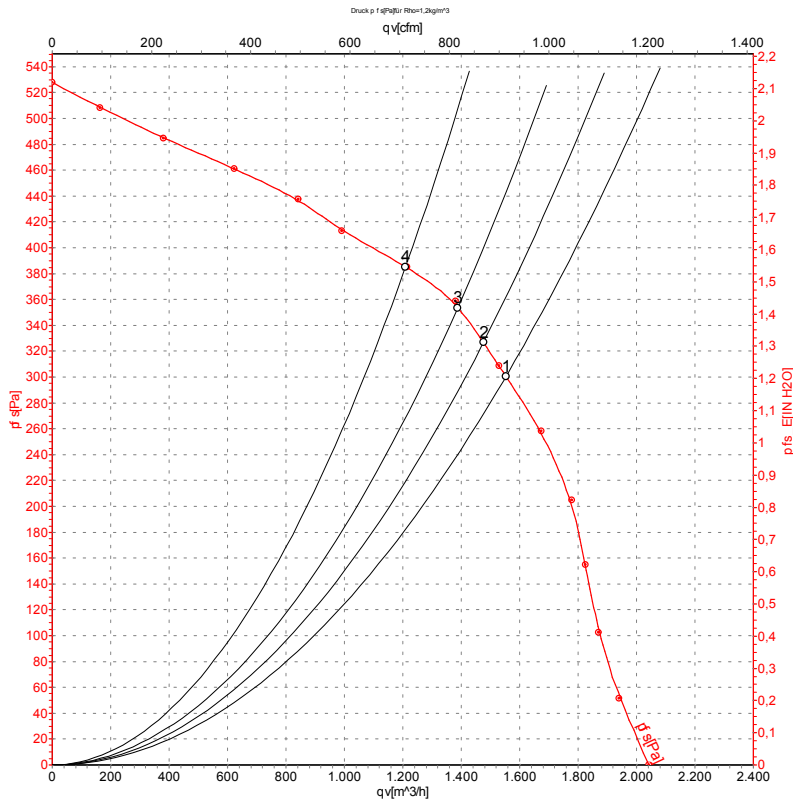
U = Supply voltage · f = Frequency · n = Speed · P<sub>e</sub> = Power input · I = Current draw · qv = Air flow · P<sub>fs</sub> = Pressure increase



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## Charts: Air flow 60 Hz



Measurement: LU-4885

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

## Measured values

	U	f	n	P <sub>e</sub>	I	qv	P <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa
1	230	60	1265	471	2.05	1555	300
2	230	60	1315	456	1.98	1475	327
3	230	60	1370	439	1.90	1390	357
4	230	60	1440	412	1.78	1210	386

U = Supply voltage · f = Frequency · n = Speed · P<sub>e</sub> = Power input · I = Current draw · qv = Air flow · P<sub>fs</sub> = Pressure increase

