D2E160-GL27-24

AC centrifugal fan

forward curved, dual inlet

with housing (flange)

D2E160-GL27-24 ebmpapst Datasheet
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County court Stuttgart · HRA 590344

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ErP2013 EXCEEDS THE NORM

Nominal data

Type	**D2E160-GL27-24**	
Motor	**M2E074-HA**	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50
Type of data definition		ml
Valid for approval / standard		CE
Speed	min^{-1}	2080
Power input	W	310
Current draw	A	1.36
Motor capacitor	µF	8
Capacitor voltage	VDB	400
Min. back pressure	Pa	300
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	65

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

Installation category	A
Efficiency category	Static
Variable speed drive	No
Specific ratio*	1.00

* Specific ratio = 1 + p_{fs} / 100 000 Pa

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}		29.6	27	34
Efficiency grade N		39.6	37	44
Power input P_e	kW	0.26		
Air flow q_v	m^3/h	700		
Pressure increase p_{fs}	Pa	400		
Speed n	min^{-1}	2435		

Data established at point of optimum efficiency

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Technical features

Mass	6.9 kg
Size	160 mm
Surface of rotor	Uncoated
Material of impeller	Sheet steel, galvanised
Housing material	PP plastic
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"F"
Humidity class	F5
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	None
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	< 0.75 mA
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Axial
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE

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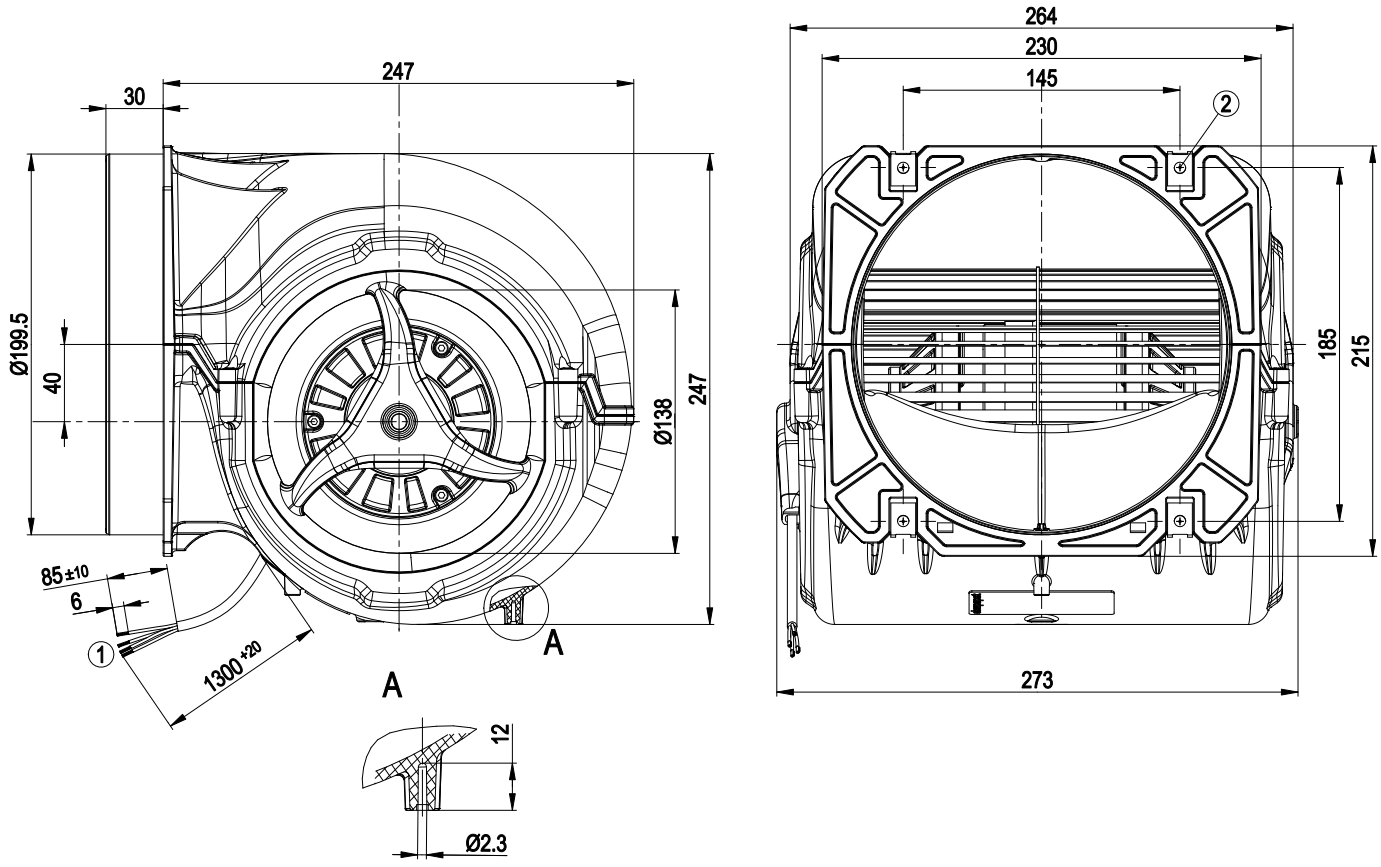
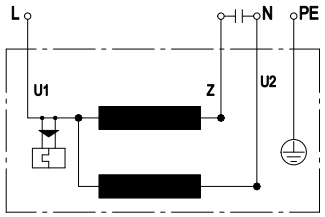
Product drawing



1	Connection line ETFE AWG20, 4 x brass lead tips crimped
2	4x sheet metal nut for thread EN ISO 1478-ST4.8 (min. screw length 14.5 mm plus thickness of mounting material)

Connection screen



U1	blue	Z	brown	U2	black
PE	green/yellow				

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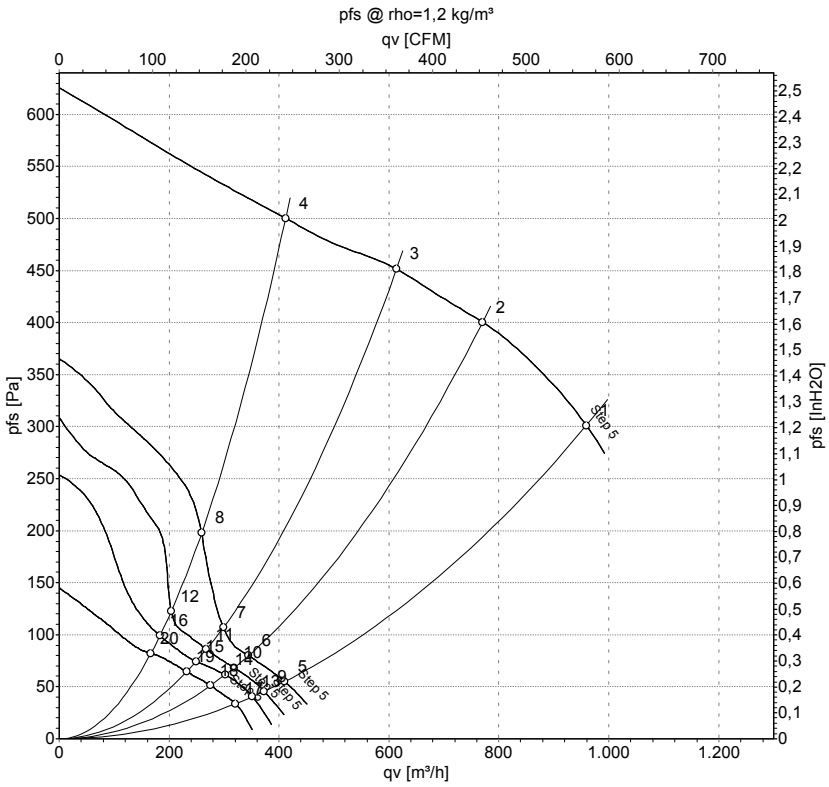
Charts: Air flow 50 Hz



Measurement: LU-112270
Measurement: LU-112272
Measurement: LU-112273
Measurement: LU-112274
Measurement: LU-112275

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

	Stage	U	f	n	P_e	I	qv	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa
1	5	230	50	2080	310	1.36	960	300
2	5	230	50	2345	274	1.24	770	400
3	5	230	50	2480	253	1.18	615	450
4	5	230	50	2600	232	1.12	410	500
5	5	230	50	895	184	0.84	410	55
6	5	230	50	1055	181	0.83	345	80
7	5	230	50	1225	180	0.83	300	103
8	5	230	50	1655	167	0.80	260	198
9	5	230	50	835	176	0.81	375	46
10	5	230	50	990	172	0.80	320	68
11	5	230	50	1105	171	0.80	270	86
12	5	230	50	1295	170	0.80	205	111
13	5	230	50	790	170	0.79	350	41
14	5	230	50	935	168	0.77	300	62
15	5	230	50	1040	167	0.77	250	74
16	5	230	50	1200	165	0.77	185	99
17	5	230	50	715	162	0.75	320	34
18	5	230	50	865	160	0.74	275	51
19	5	230	50	965	159	0.74	230	64
20	5	230	50	1085	157	0.73	165	82

U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase