D4E180-BA02-02

AC centrifugal fan

forward curved, dual inlet

with housing (flange)



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ErP2013 EXCEEDS THE NORM

Nominal data

Type	**D4E180-BA02-02**
Motor	**M4E068-LA**

Phase		1~	1~
Nominal voltage	VAC	230	230
Nominal voltage range	VAC	208 .. 230	208 .. 230
Frequency	Hz	50	60
Type of data definition		fa	fa
Valid for approval / standard		CE	CE
Speed	min^{-1}	1300	1360
Power input	W	360	460
Current draw	A	1.58	2.02
Motor capacitor	µF	10	10
Capacitor voltage	VDB	400	400
Min. back pressure	Pa	0	0
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	65	40
Starting current	A	3.3	3.1

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}	%	26.9	26.3	33.3
Efficiency grade N		37.6	37	44
Power input P_e	kW	0.2		
Air flow q_v	m^3/h	1000		
Pressure increase p_{fs}	Pa	196		
Speed n	min^{-1}	1420		

Data definition with optimum efficiency. LU-105025
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

Mass	10 kg
Size	180 mm
Surface of rotor	Coated in black
Material of impeller	Sheet steel, hot-galvanised
Housing material	Sheet steel, hot-galvanised
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Humidity class	F3-1
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
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE
Approval	GOST; CCC

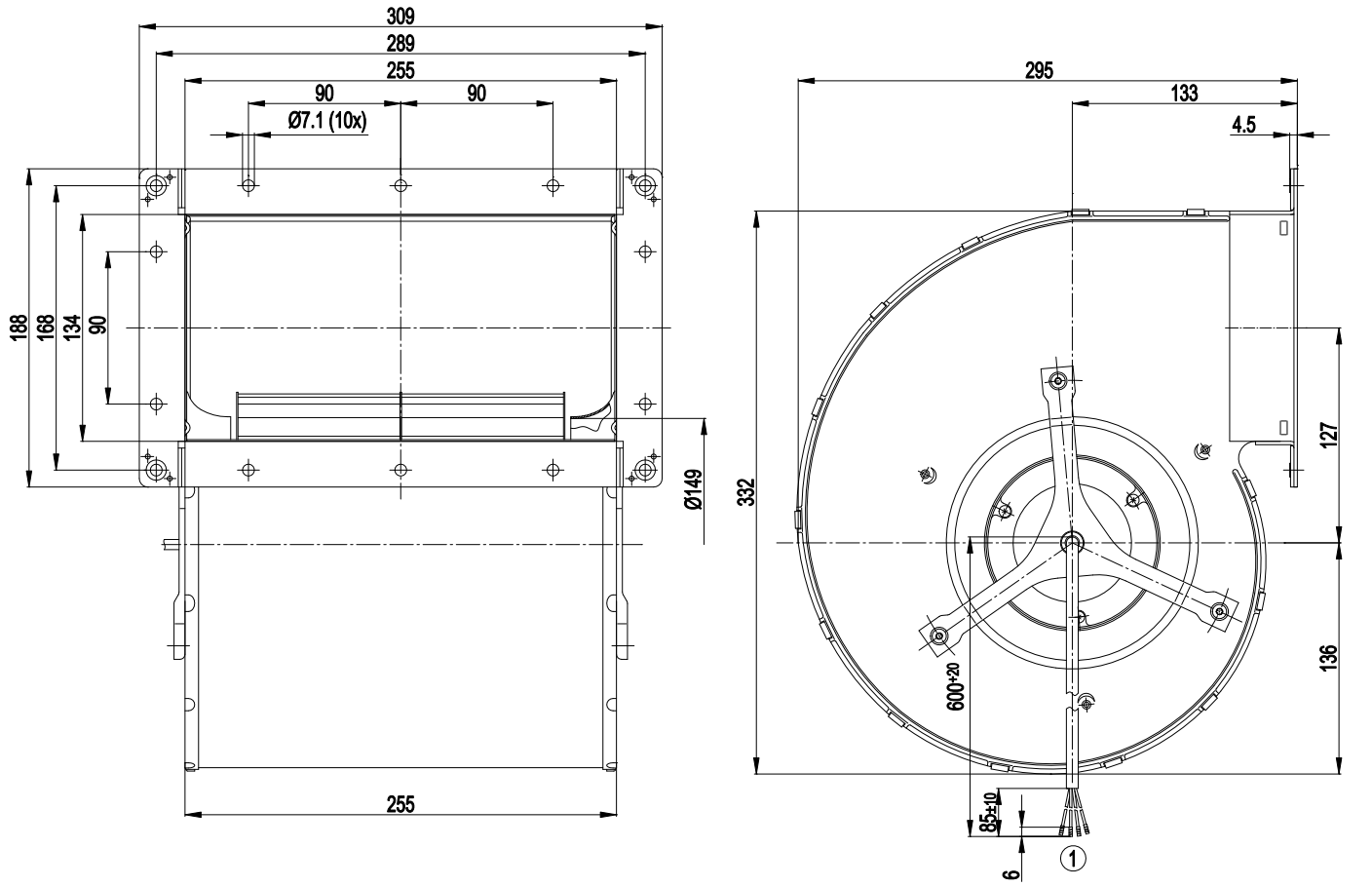
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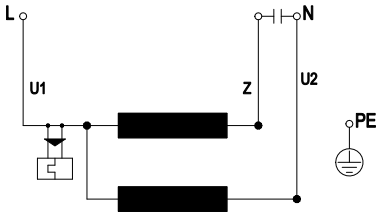
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Product drawing



1	Connection line PVC 4G 0.5 mm², 4x brass lead tips crimped

Connection screen



U1	blue	Z	brown	U2	black
PE	green/yellow				

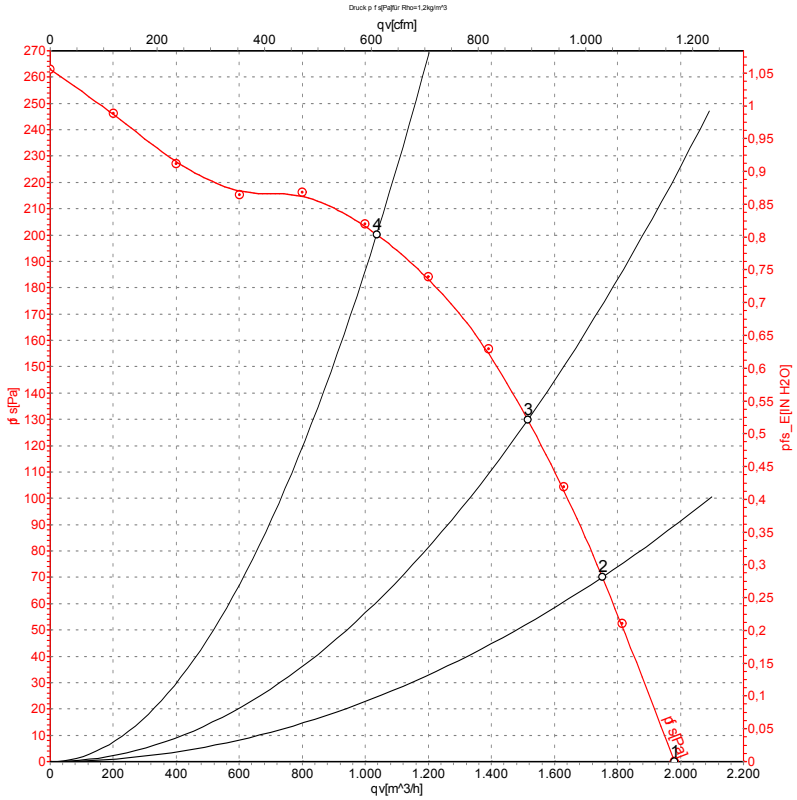
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Charts: Air flow 50 Hz



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_e	I	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	50	1300	360	1.58	1980	0
2	230	50	1345	288	1.28	1750	70
3	230	50	1375	256	1.15	1515	130
4	230	50	1420	206	0.95	1035	200

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

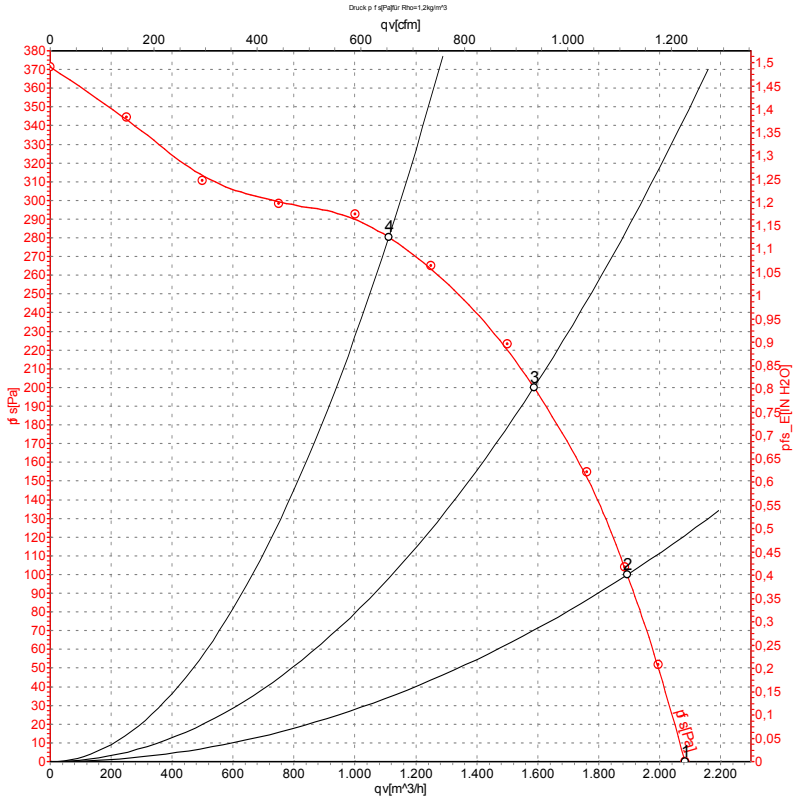
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Charts: Air flow 60 Hz



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_e	I	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	60	1360	460	2.02	2085	0
2	230	60	1475	407	1.77	1895	100
3	230	60	1565	354	1.56	1585	200
4	230	60	1655	285	1.31	1110	280

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

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