D2E146-AP47-53

AC centrifugal fan

forward curved, dual inlet

with housing (without flange)

D2E146-AP47-53 ebmpapst Datasheet
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ErP2013 EXCEEDS THE NORM

Nominal data

Type	**D2E146-AP47-53**
Motor	**M2E068-EC**

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^{-1}	2050	2550
Power input	W	300	330
Current draw	A	1.31	1.45
Motor capacitor	µF	8	8
Capacitor voltage	VDB	400	400
Min. back pressure	Pa	200	400
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	30	25

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}		28.2	26.8	33.8
Efficiency grade N		38.4	37	44
Power input P_e	kW	0.24		
Air flow q_v	m^3/h	705		
Pressure increase p_{fs}	Pa	351		
Speed n	min^{-1}	2435		

Data established at point of optimum efficiency

ebmpapst

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Technical features

Size	146 mm
Surface of rotor	Coated in black
Material of impeller	Sheet steel, sendzimir galvanised
Housing material	Sheet steel, hot-dip galvanised
Motor suspension	Motor mounted with anti-vibration on both sides
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 44
Insulation class	"B"
Humidity class	F2-2
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	Rotor-side
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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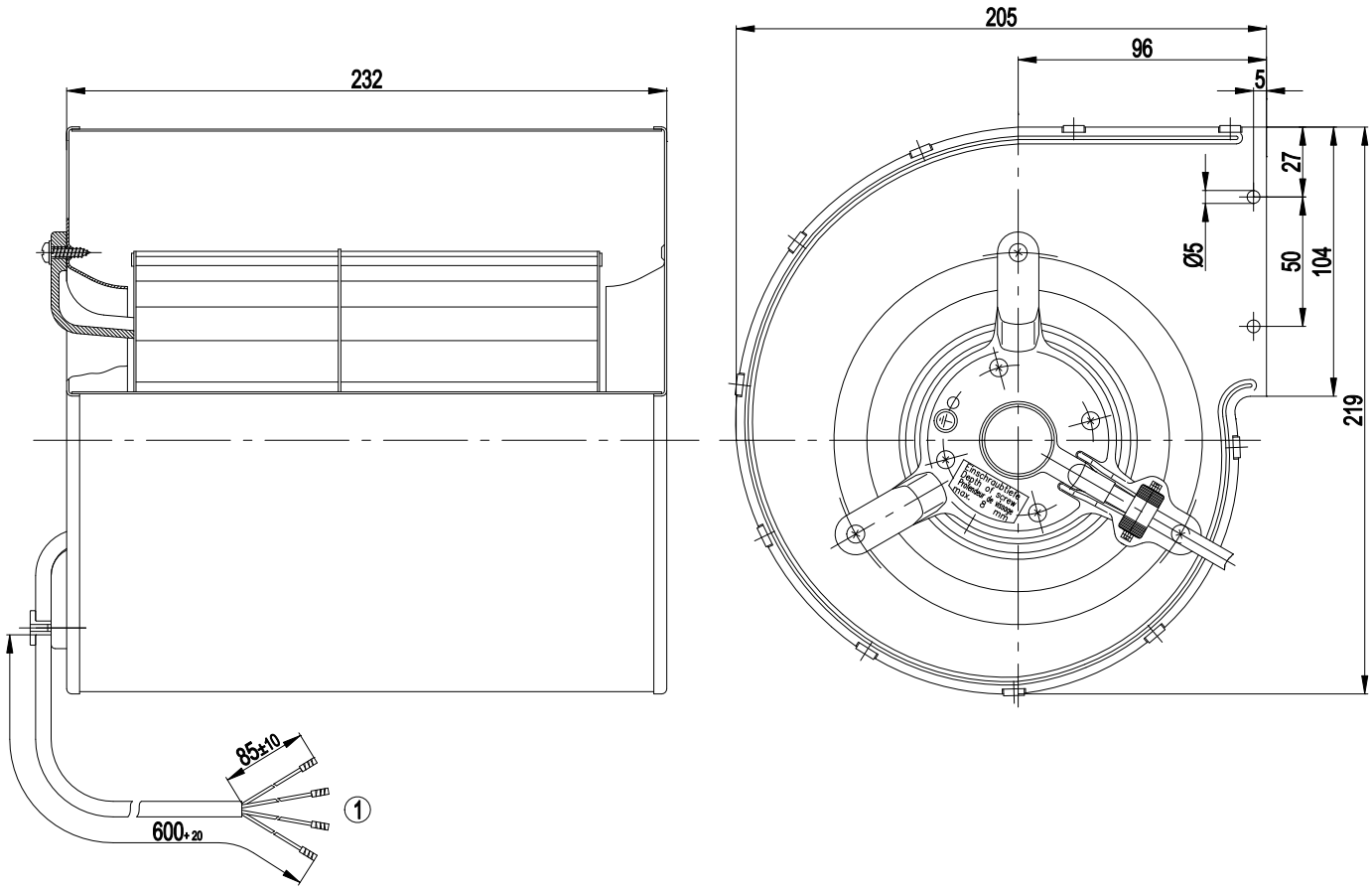
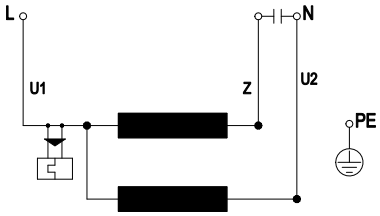
Product drawing



1	Connection line silicone, 4x brass lead tips crimped

Connection screen



U1	blue	Z	brown	U2	black
PE	green/yellow				

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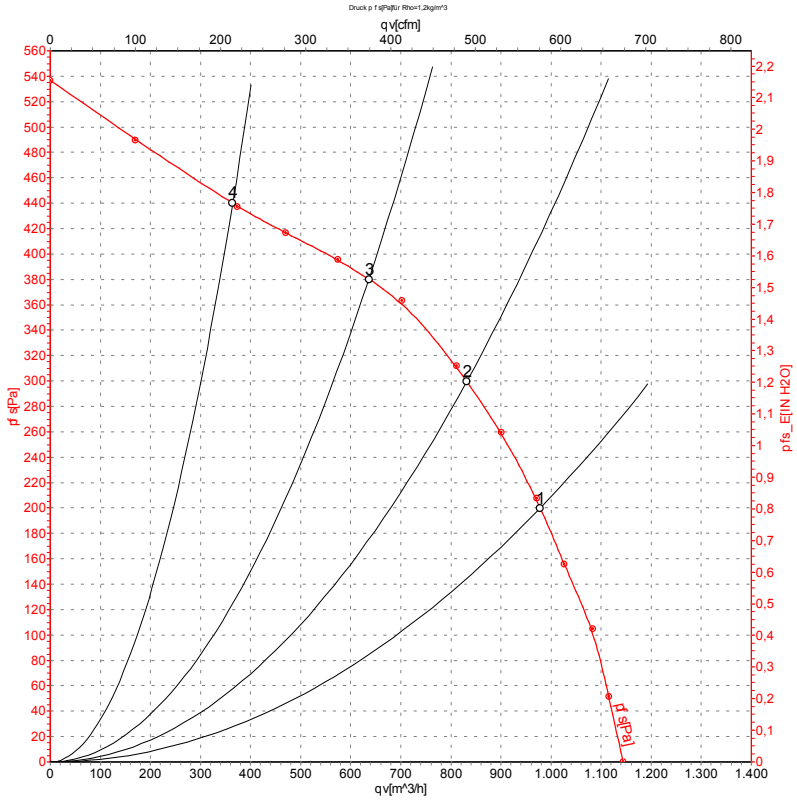
Charts: Air flow 50 Hz Y



Measurement: LU-32744

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

	Conn.	U	f	n	P_e	I	qv	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa
1	Y	230	50	2050	300	1.31	970	200
2	Y	230	50	2265	267	1.18	830	300
3	Y	230	50	2490	232	1.02	635	380
4	Y	230	50	2675	191	0.84	365	440

Conn. = Connection · 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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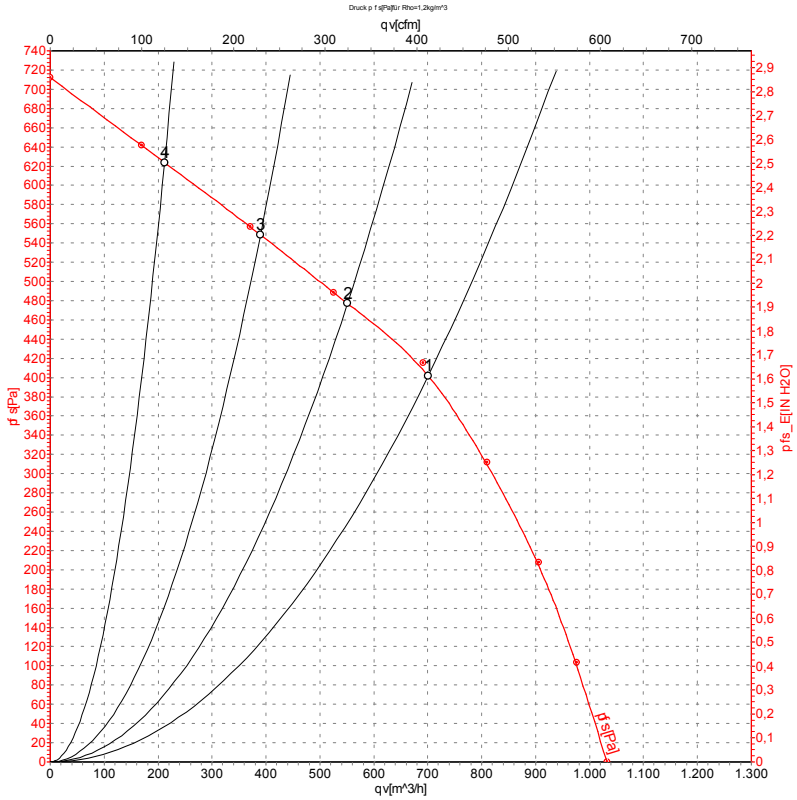
Charts: Air flow 60 Hz Y



Measurement: LU-32745

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

	Conn.	U	f	n	P_e	I	qv	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa
1	Y	230	60	2550	330	1.45	700	400
2	Y	230	60	2770	300	1.36	550	475
3	Y	230	60	2975	277	1.28	390	550
4	Y	230	60	3095	260	1.22	210	625

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