AC centrifugal fan

forward curved, dual inlet

D2E146-AP47-B8 ebmpapst Datasheet
sales@fansco.com
www.fansco.com

Nominal data

Type	**D2E146-AP47-B8**
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	0
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	50	45

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

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Technical features

Mass	4.7 kg
Size	146 mm
Surface of rotor	Uncoated
Material of impeller	Sheet steel, hot-galvanised
Housing material	Sheet steel, hot-galvanised
Material of guard grille	Steel, galvanised and plastic-coated in white aluminium (RAL 9006)
Motor suspension	Motor mounted via brackets on one side
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position
Insulation class	"F"
Humidity class	F0
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
Electrical leads	Capacitor mounted; With plug
Motor protection	Thermal overload protector (TOP) brought out
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE
Approval	CCC; UL 1004-1; CSA C22.2 Nr.100

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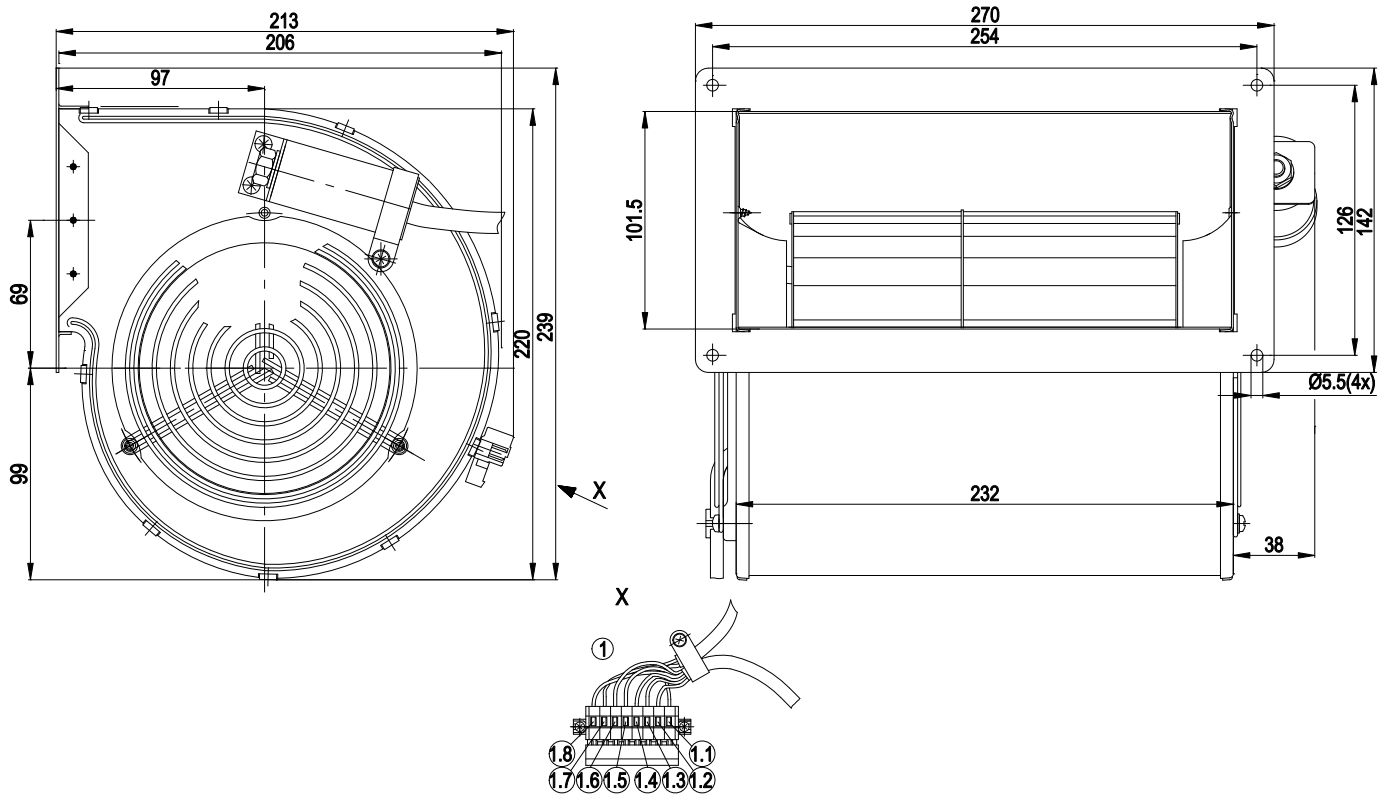
Product drawing



1	Connector housing WAGO No. 231-608/019-000
1.1	Capacitor
1.2	brown
1.3	Blue
1.4	grey
1.5	green/yellow
1.6	grey
1.7	Capacitor
1.8	black

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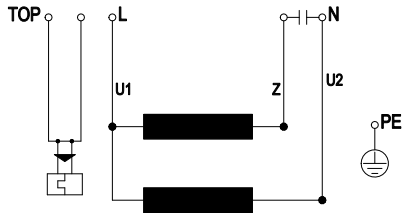
Connection screen



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

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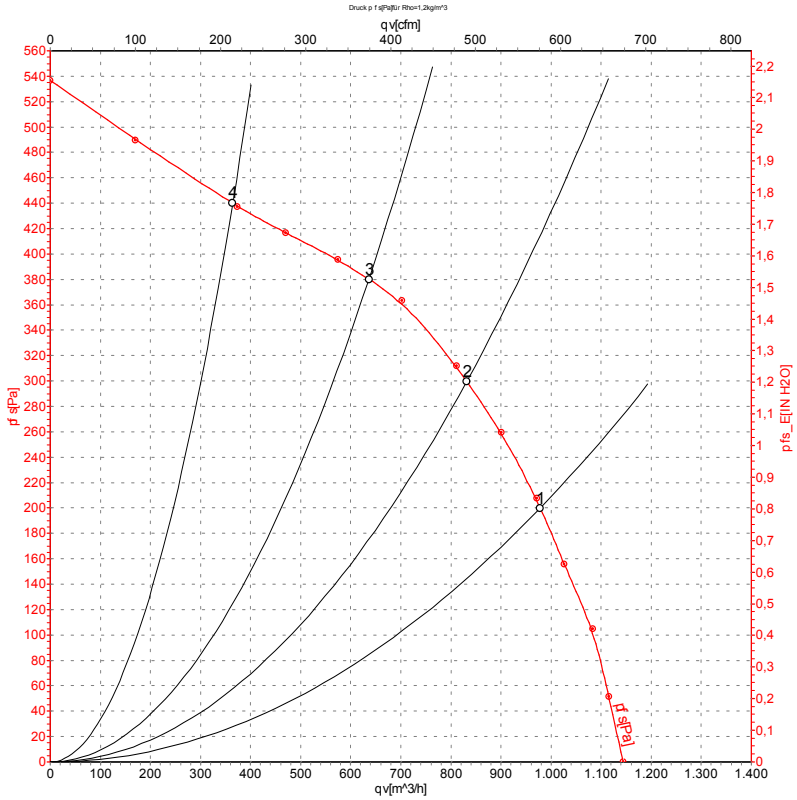
Charts: Air flow 50 Hz Y



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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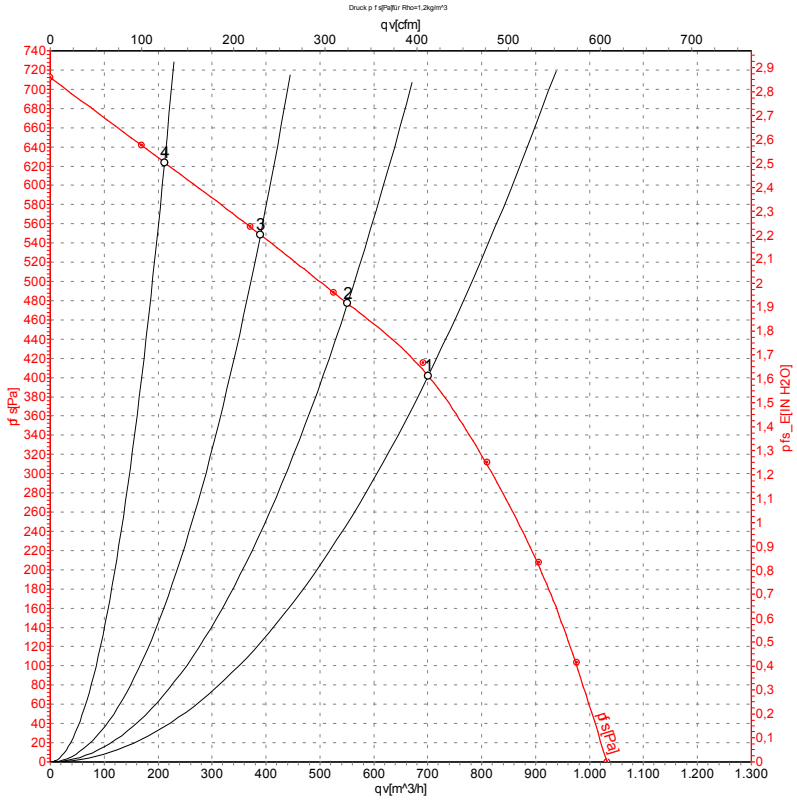
Charts: Air flow 60 Hz Y



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