D2E146-AP47-97

AC centrifugal fan

forward curved, dual inlet

with housing (flange)

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ErP2013 EXCEEDS THE NORM

Nominal data

Type	**D2E146-AP47-97**
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	UL 2111
Speed	min^{-1}	2050	2550
Power input	W	300	345
Current draw	A	1.31	1.45
Motor capacitor	µF	8	8
Capacitor voltage	VDB	400	400
Capacitor standard		P0 (CE)	UL
Min. back pressure	Pa	200	400
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	50	45
Starting current	A	1.53	

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

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Technical features

Mass	4.6 kg
Size	146 mm
Surface of rotor	Uncoated
Material of impeller	Sheet steel, galvanised
Housing material	Sheet steel, galvanised
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
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	UL 2111; CSA C22.2 Nr.77; CCC

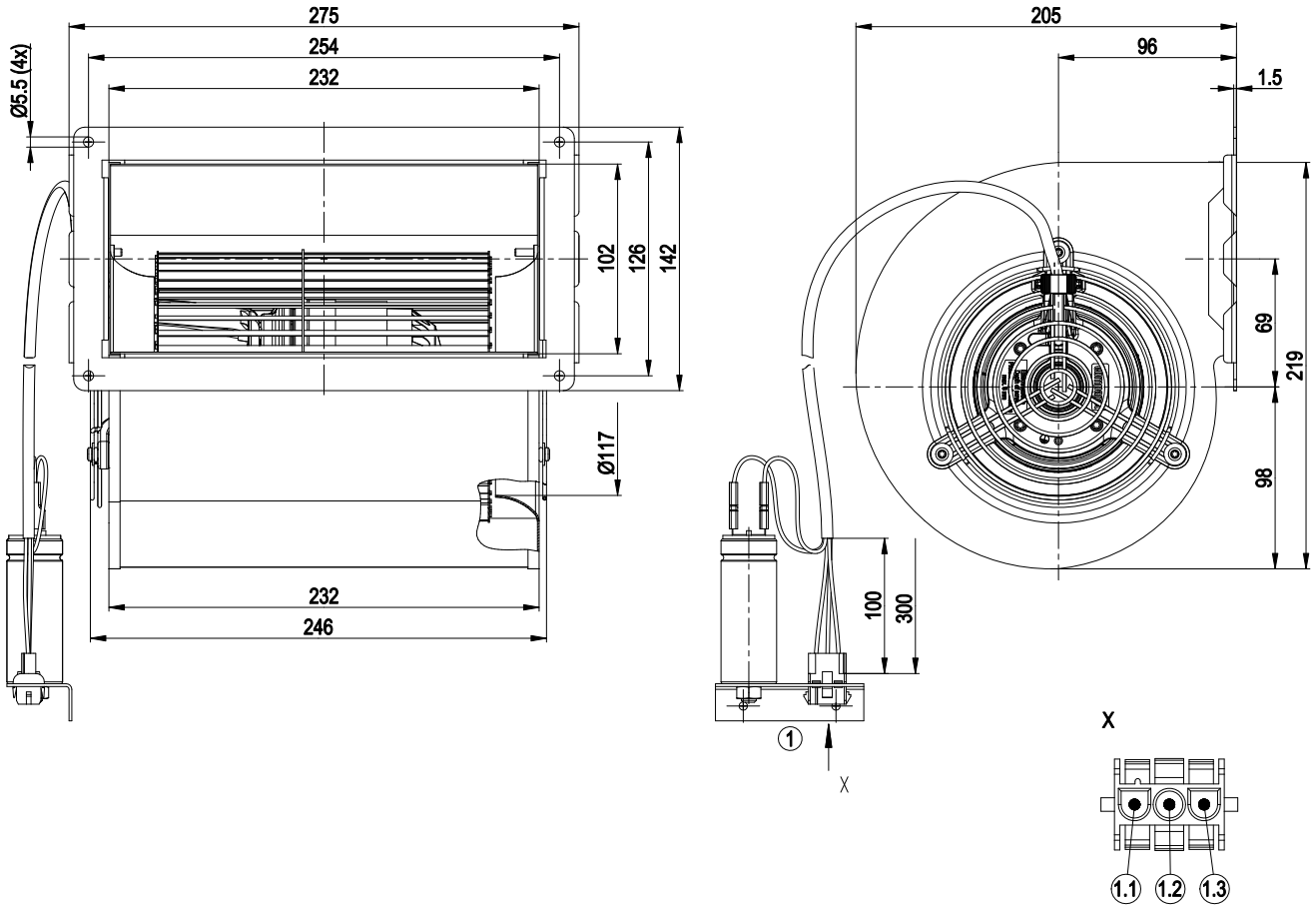
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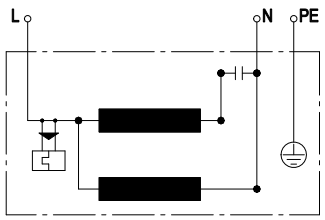
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Product drawing



1	Connection line PFA AWG20, connector housing 3-pole Tyco 350767, 3x female connector Tyco 926884, 2x threaded pin 6.3-0.8, 2x insulating sleeve SES 10501
1.1	black
1.2	green/yellow
1.3	blue

Connection screen



L	blue	N	black	PE	green/yellow

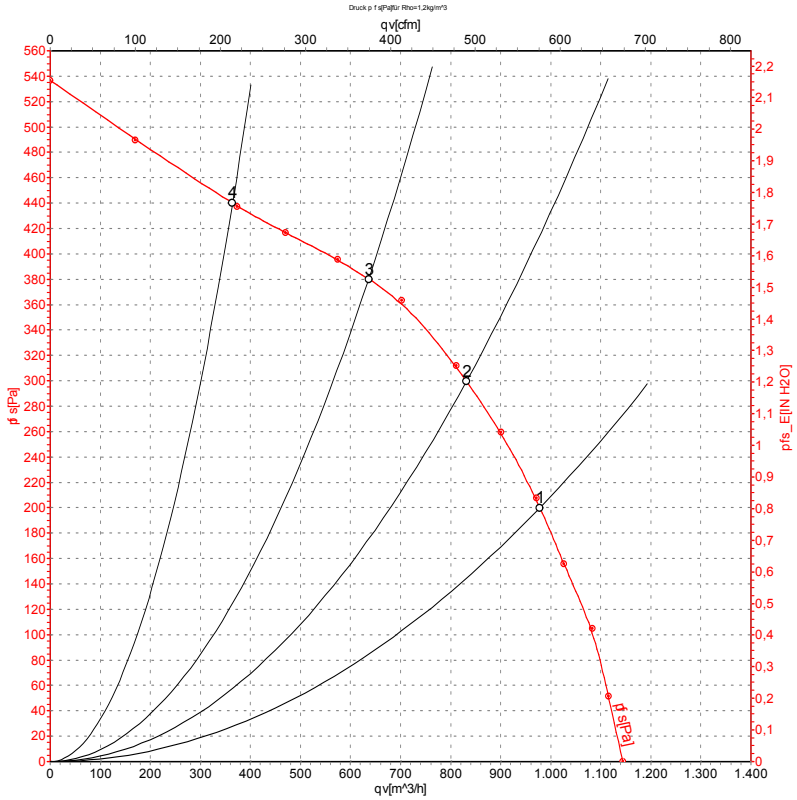
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Charts: Air flow 50 Hz Y



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

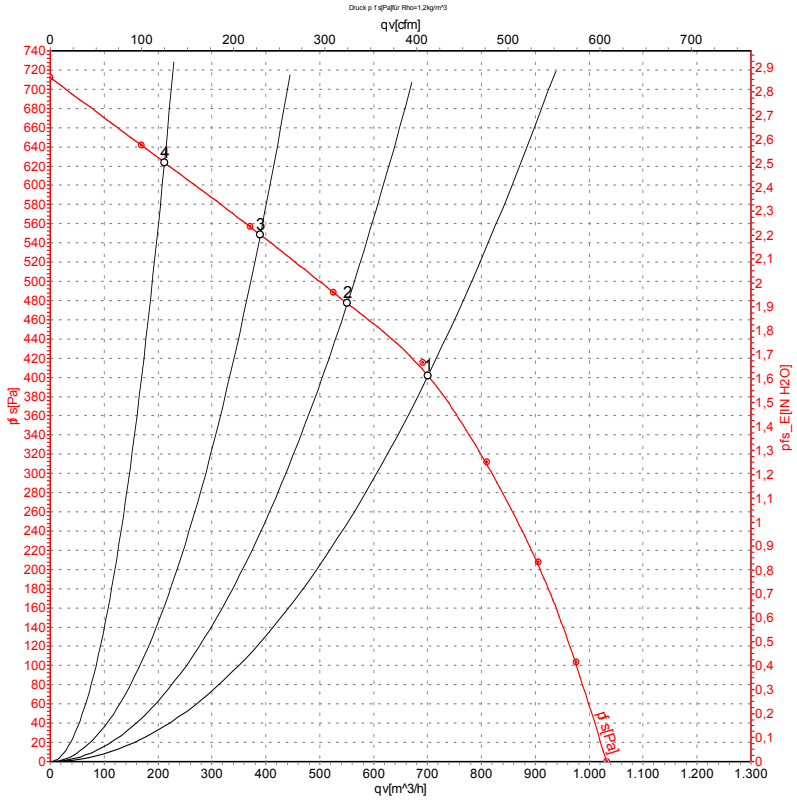
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Charts: Air flow 60 Hz Y



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

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