K4E310-AB05-09

AC centrifugal module

backward curved

with support plate

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ErP2013 EXCEEDS THE NORM

Nominal data

Type	**K4E310-AB05-09**
Motor	**M4E074-EI**

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}	1390	1580
Power input	W	150	205
Current draw	A	0.72	0.90
Motor capacitor	µF	4	4
Capacitor voltage	VDB	400	400
Min. back pressure	Pa	0	0
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	70	80
Starting current	A	1.88	1.8

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}	%	38.5	38.5	42.5
Efficiency grade N		58	58	62
Power input P_e	kW	0.14		
Air flow q_v	m^3/h	1105		
Pressure increase p_{fs}	Pa	179		
Speed n	min^{-1}	1390		

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	7.7 kg
Size	310 mm
Surface of rotor	Coated in black
Material of impeller	Aluminium sheet, joined by tabs
Material of distancing profiles	Aluminium
Material of inlet nozzle	Aluminium sheet
Material of guard grille	Steel, phosphated and coated in black plastic
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 00
Insulation class	"B"
Humidity class	F1-2
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	None
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	< 0.75 mA
Electrical leads	Via terminal strips, integrated capacitor connected via terminal strips
Motor protection	Thermal overload protector (TOP) brought out
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE

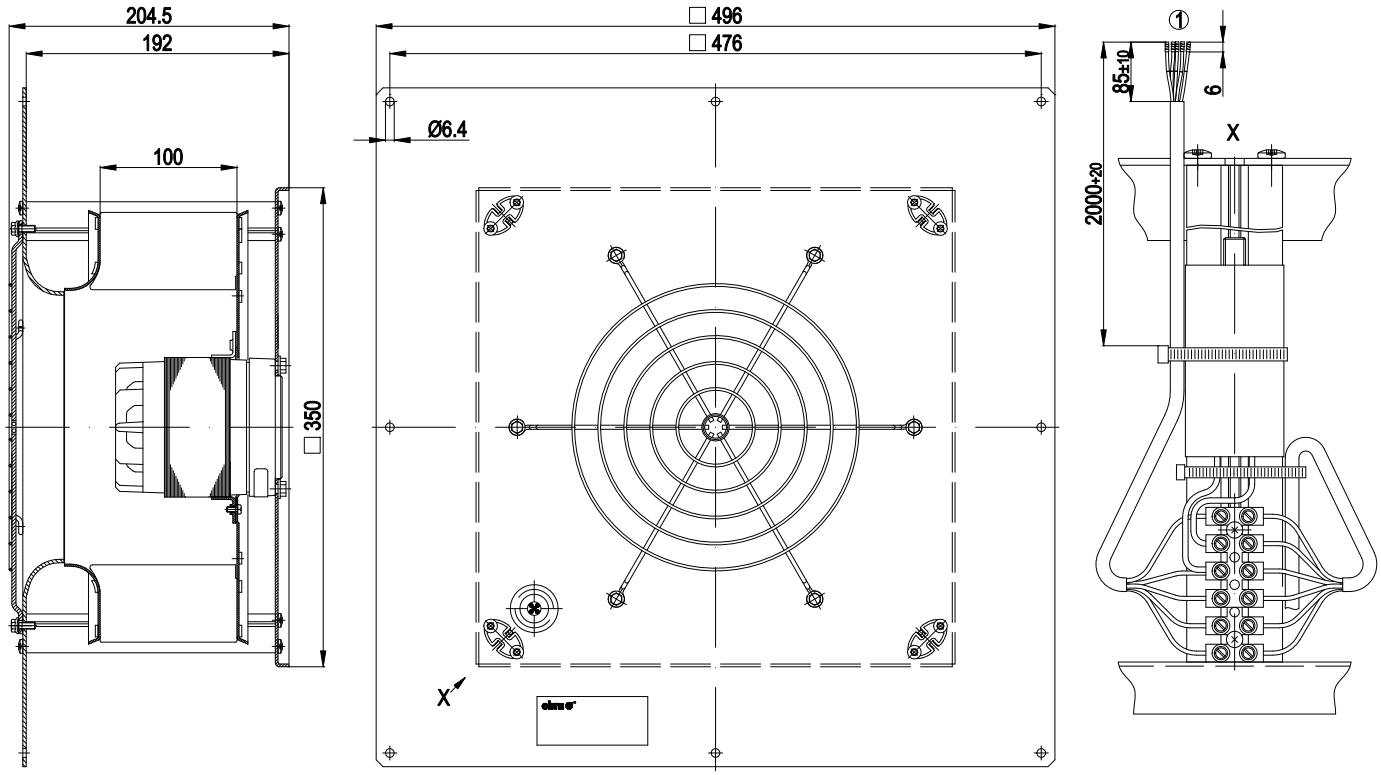
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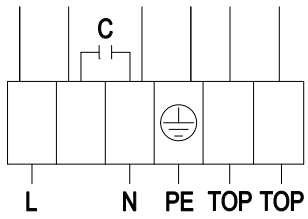
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Product drawing



1	Plastic sheathed flexible cable, 5x brass lead tips crimped

Connection screen



L	blue	N	black	PE	green/yellow
TOP	grey				

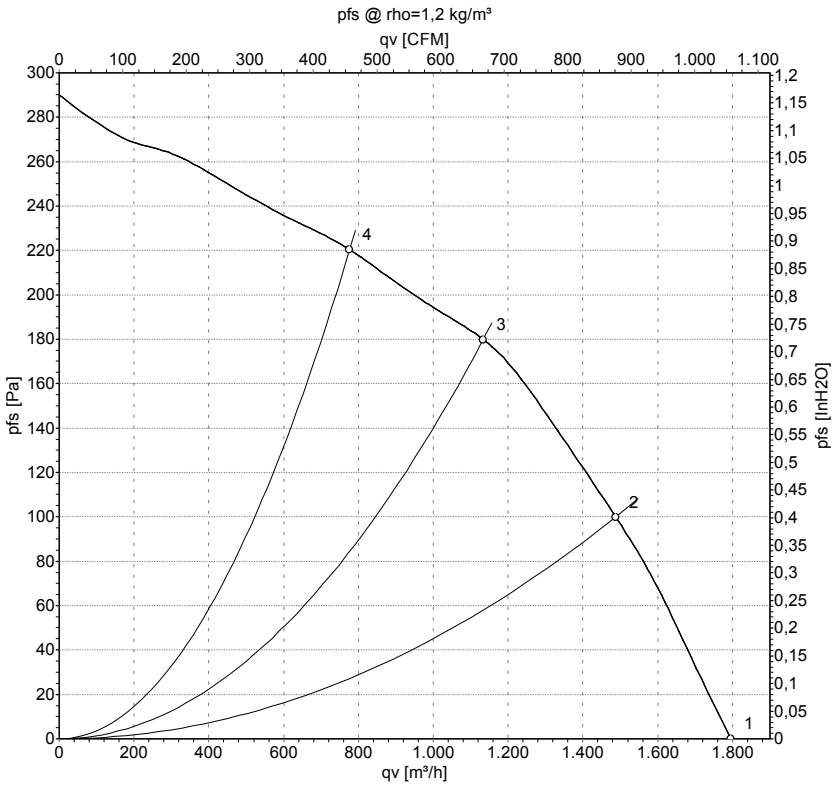
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Charts: Air flow 50 Hz



Measurement: LU-144769

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	1415	132	0.67	1795	0
2	230	50	1400	144	0.70	1490	100
3	230	50	1390	150	0.72	1135	180
4	230	50	1400	141	0.69	775	220

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

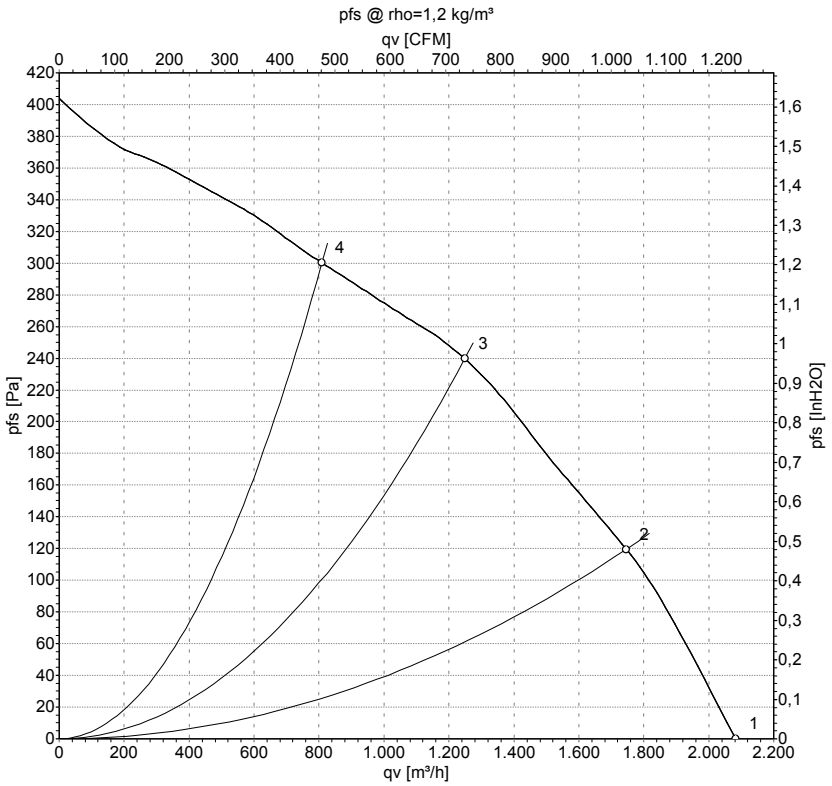
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Charts: Air flow 60 Hz



Measurement: LU-145223

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	1640	172	0.75	2080	0
2	230	60	1610	191	0.83	1745	120
3	230	60	1580	205	0.90	1250	240
4	230	60	1610	187	0.82	810	300

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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