R4E310-AP11-09/F01

AC centrifugal fan

backward curved, single inlet

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ErP2013 EXCEEDS THE NORM

Nominal data

Type	**R4E310-AP11-09/F01**
Motor	**M4E074-DF**

Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Type of data definition		fa	fa
Valid for approval / standard		CE	CE
Speed	min^{-1}	1390	1580
Power input	W	115	160
Current draw	A	0.52	0.70
Motor capacitor	µF	4	4
Capacitor voltage	VDB	400	400
Capacitor standard		P0 (CE)	P0 (CE)
Min. back pressure	Pa	0	0
Max. ambient temperature	°C	65	50

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 integrated	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	1120		
Pressure increase p_{fs}	Pa	175		
Speed n	min^{-1}	1325		

Data established at point of optimum efficiency

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Technical features

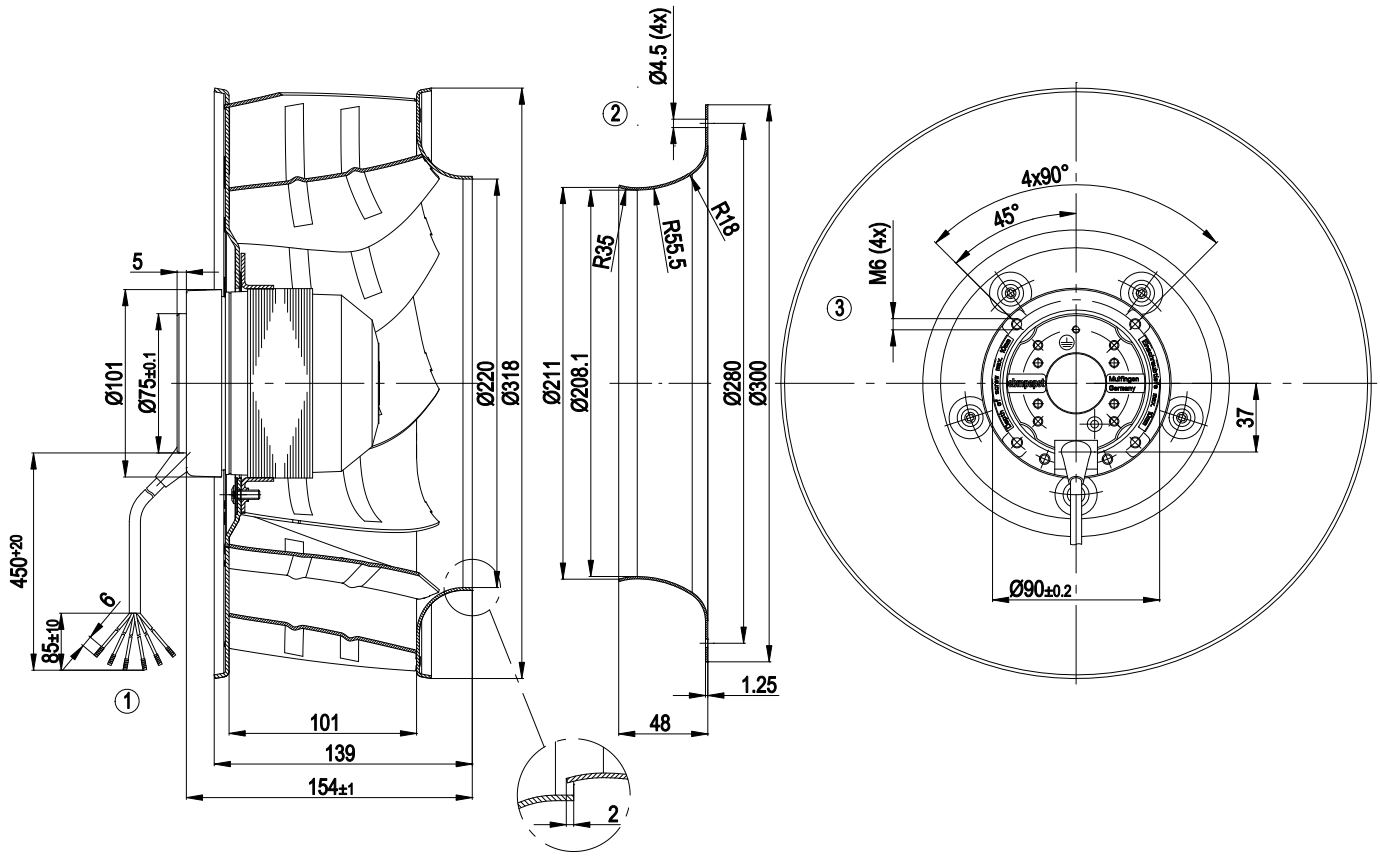
Mass	3.8 kg
Size	310 mm
Surface of rotor	Coated in black
Material of impeller	Sheet aluminium, riveted
Number of blades	6
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position as per EN 60034-5
Insulation class	"F"
Humidity class	F1-2
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Leakage current	< 0.75 mA
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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Product drawing



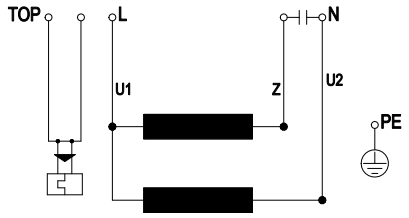
1	Connection line silicone 0.5, 6x brass lead tips crimped
2	Accessory part: Inlet nozzle 31050-2-4013, not included in the standard scope of delivery. Short nozzle 31051-2-4013 on request.
3	Depth of screw max. 10 mm

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Connection screen



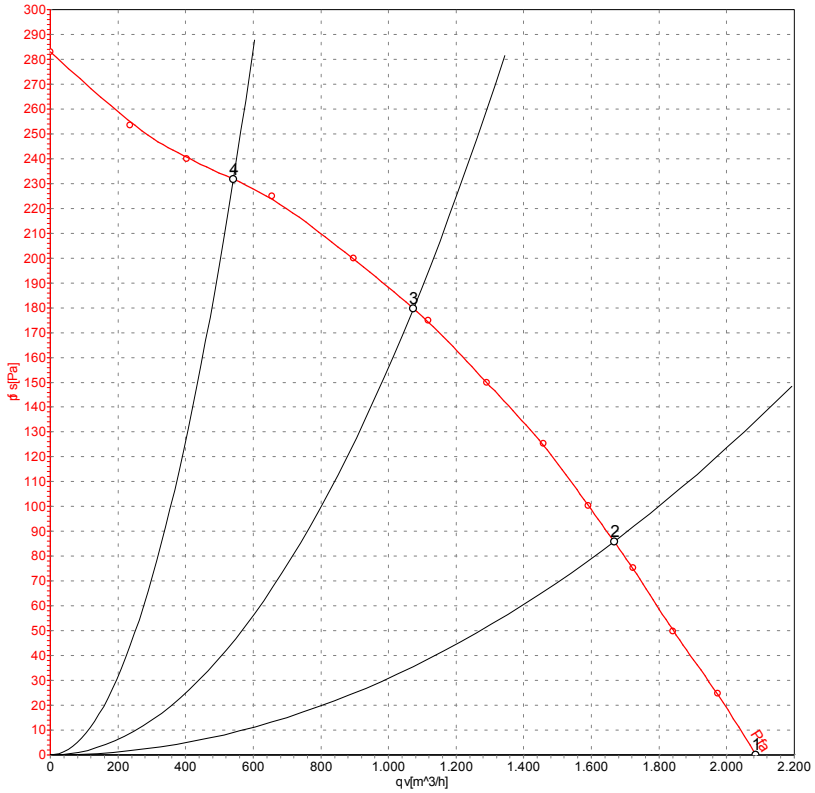
TOP	2 x grey	U1	blue	Z	brown
U2	black	PE	green / yellow		

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Charts: Air flow 50 Hz



Measurement: LU-53848
Measurement: LU-53848

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

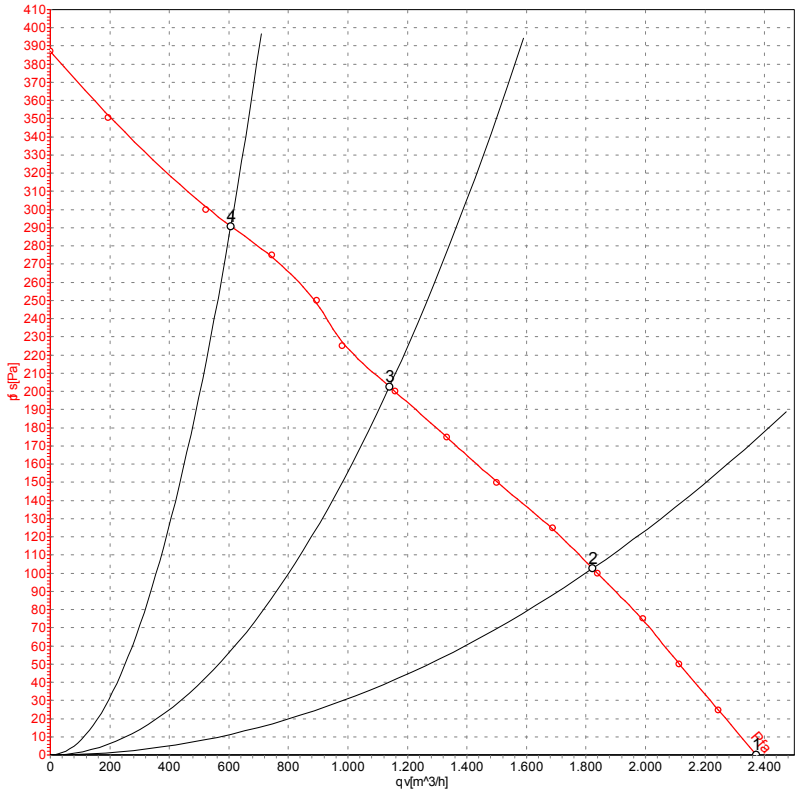
	f	n	P_e	I	qv	p_{fs}
	Hz	min^{-1}	W	A	m^3/h	Pa
1	50	1390	115	0.52	2080	0.0
2	50	1350	135	0.60	1665	85.9
3	50	1330	144	0.64	1075	180.0
4	50	1370	125	0.56	540	231.8

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Charts: Air flow 60 Hz



Measurement: LU-53849
Measurement: LU-53849

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

	f	n	P_e	I	qv	p_{fs}
	Hz	min^{-1}	W	A	m^3/h	Pa
1	60	1580	160	0.70	2370	0.0
2	60	1475	188	0.82	1820	102.5
3	60	1410	199	0.87	1140	202.6
4	60	1530	174	0.76	605	290.7

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