R4E355-AK05-11

AC centrifugal fan

forward curved

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ErP2013 EXCEEDS THE NORM

Nominal data

Type	**R4E355-AK05-11**
Motor	**M4E074-EI**

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}	1400	1600
Power input	W	180	260
Current draw	A	0.8	1.14
Motor capacitor	µF	6	6
Capacitor voltage	VDB	450	450
Capacitor standard		P0 (CE)	P0 (CE)
Min. back pressure	Pa	0	
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	60	35
Starting current	A	1.95	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}		40.9	40.8	44.8
Efficiency grade N		58.1	58	62
Power input P_e	kW	0.23		
Air flow q_v	m^3/h	1730		
Pressure increase p_{fs}	Pa	201		
Speed n	min^{-1}	1325		

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

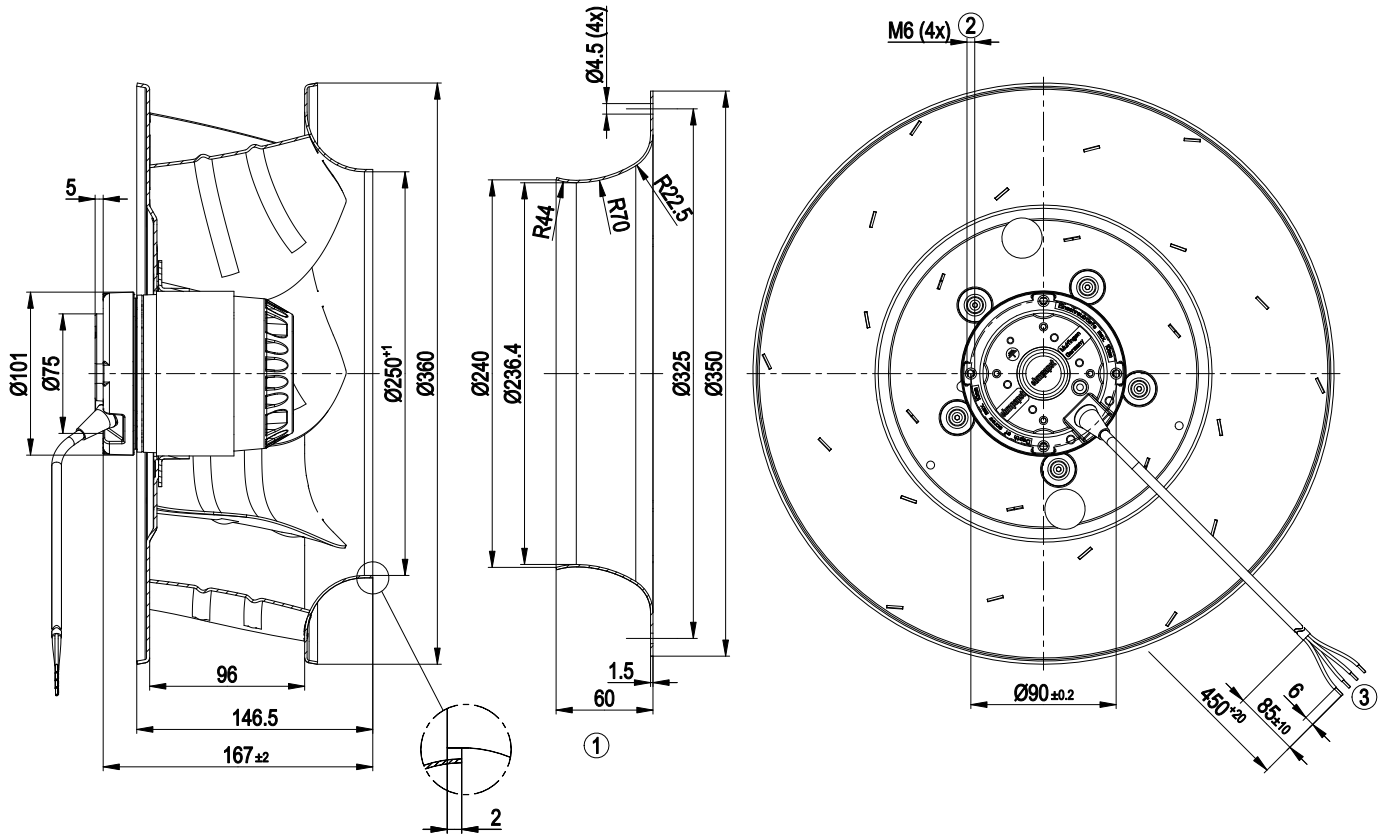
Mass	4.9 kg
Size	355 mm
Surface of rotor	Coated in black
Material of impeller	Aluminium sheet
Number of blades	6
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position as per EN 60034-5
Insulation class	"F"
Humidity class	F1-2
Max. permissible 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
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	< 0.75 mA
Motor protection	Thermal cut-out, manual reset
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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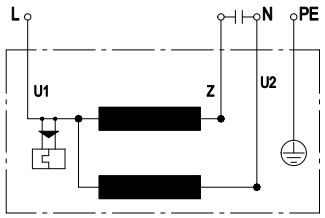
forward curved

Product drawing



1	Accessory part: inlet nozzle 35560-2-4013 not included in scope of delivery, other inlet nozzles on request
2	Depth of screw max. 10 mm
3	Connection line silicone 4G 0.5 mm², 4x lead tips crimped

Connection screen



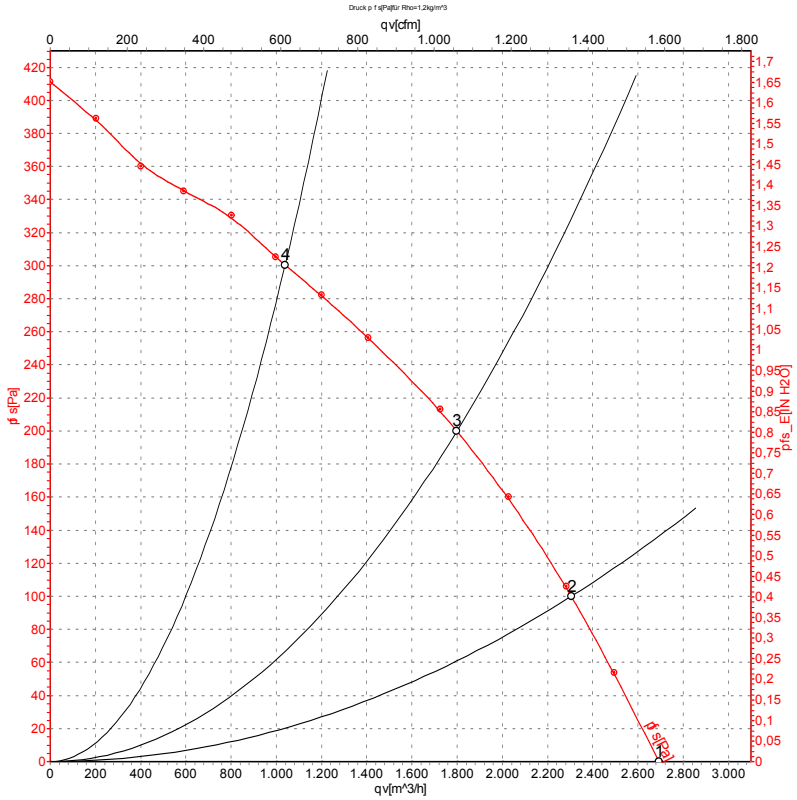
U1	blue	Z	brown	U2	black
PE	green/yellow				

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Charts: Air flow 50 Hz



Measurement: LU-106554

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	1400	180	0.80	2695	0
2	230	50	1355	218	0.96	2305	100
3	230	50	1330	234	1.03	1800	200
4	230	50	1350	221	0.98	1040	300

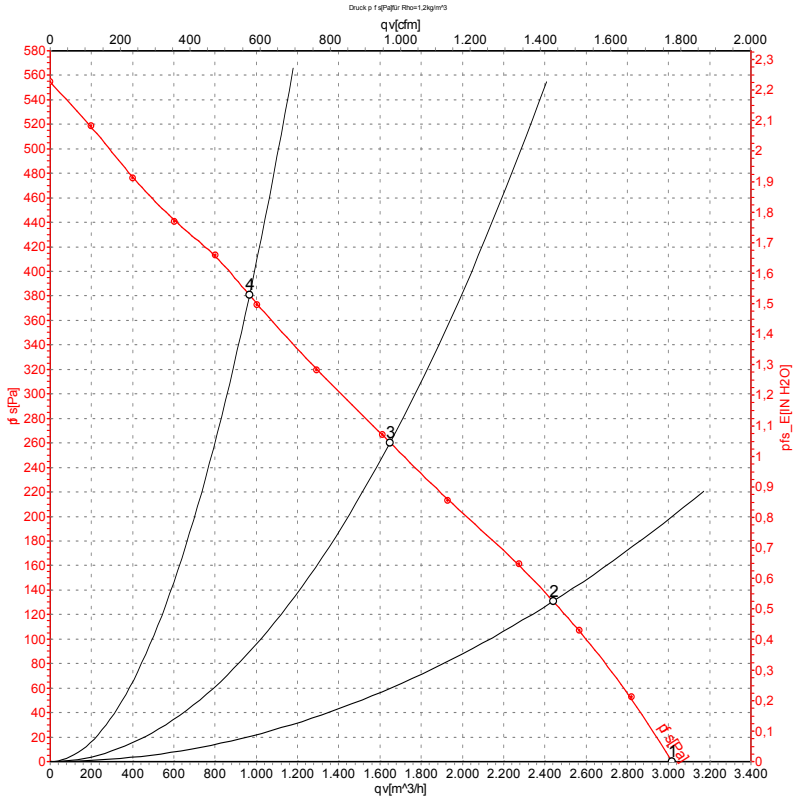
U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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Charts: Air flow 60 Hz



Measurement: LU-106556

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	1600	260	1.14	3020	0
2	230	60	1465	316	1.37	2440	130
3	230	60	1395	329	1.43	1650	260
4	230	60	1485	309	1.34	965	380

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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