

R4E355-AF05-05

# AC centrifugal fan

backward curved, single inlet



## Nominal data

<b>Type</b>	R4E355-AF05-05		
<b>Motor</b>	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 <sup>-1</sup>	1410	1630
Power input	W	170	250
Current draw	A	0.78	1.1
Motor capacitor	µF	6	6
Capacitor voltage	VDB	400	400
Capacitor standard		P0 (CE)	P0 (CE)
Min. back pressure	Pa	0	0
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	40	40

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 =  $1 + p_g / 100\,000\text{ Pa}$

	Actual	Request 2013	Request 2015
Overall efficiency $\eta_{es}$	40.4	40.4	44.4
Efficiency grade N	58	58	62
Power input $P_e$	kW	0.21	
Air flow $q_v$	m <sup>3</sup> /h	1515	
Pressure increase $p_{fs}$	Pa	200	
Speed n	min <sup>-1</sup>	1365	

Data established at point of optimum efficiency

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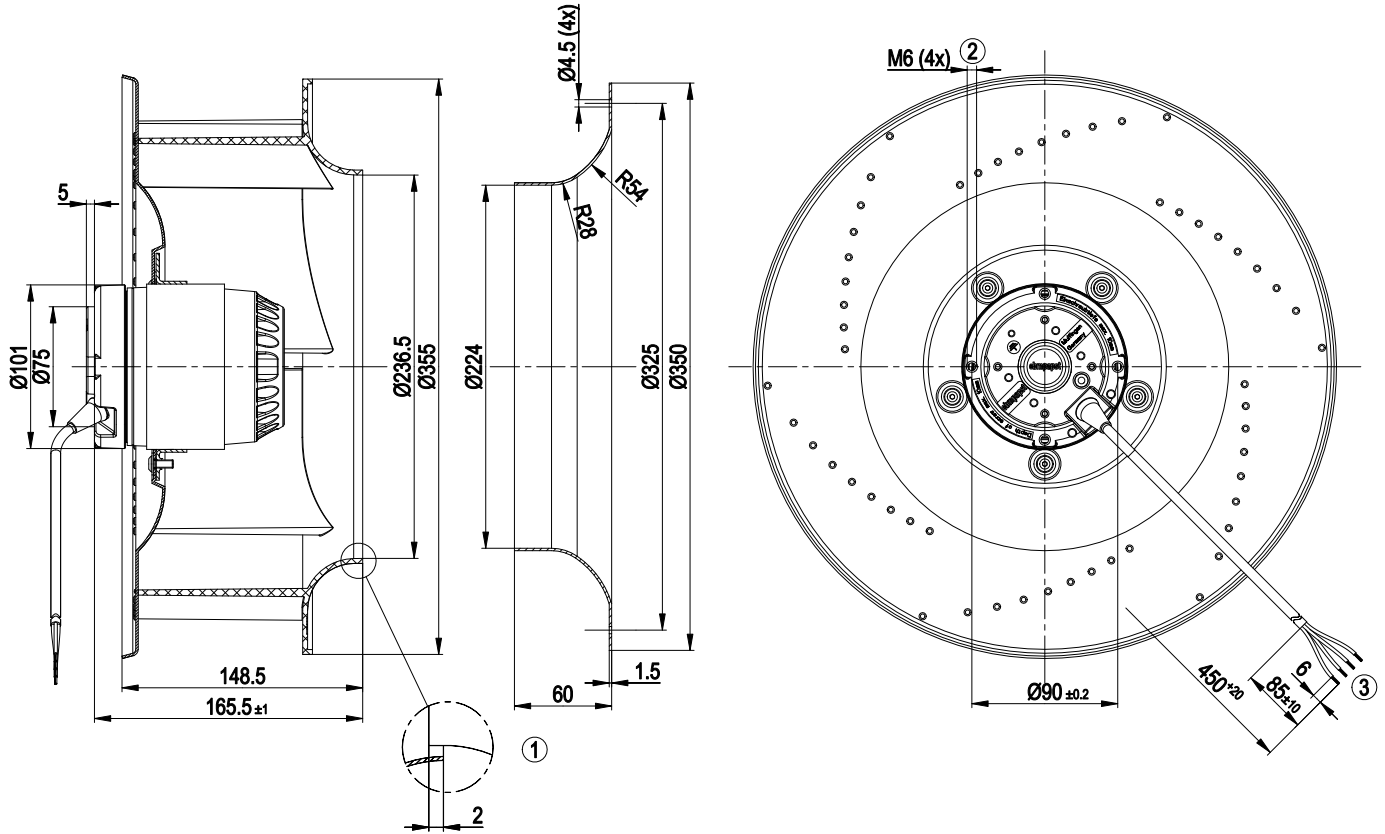
## Technical features

Mass	4.58 kg
Size	355 mm
Surface of rotor	Coated in black
Material of impeller	PP plastic
Number of blades	6
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44
Insulation class	"F"
Humidity class	F5
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 overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE
Approval	CCC

# AC centrifugal fan

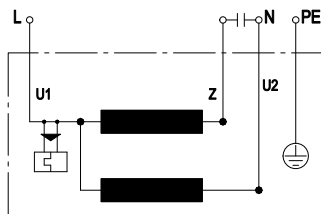
backward curved, single inlet

## Product drawing



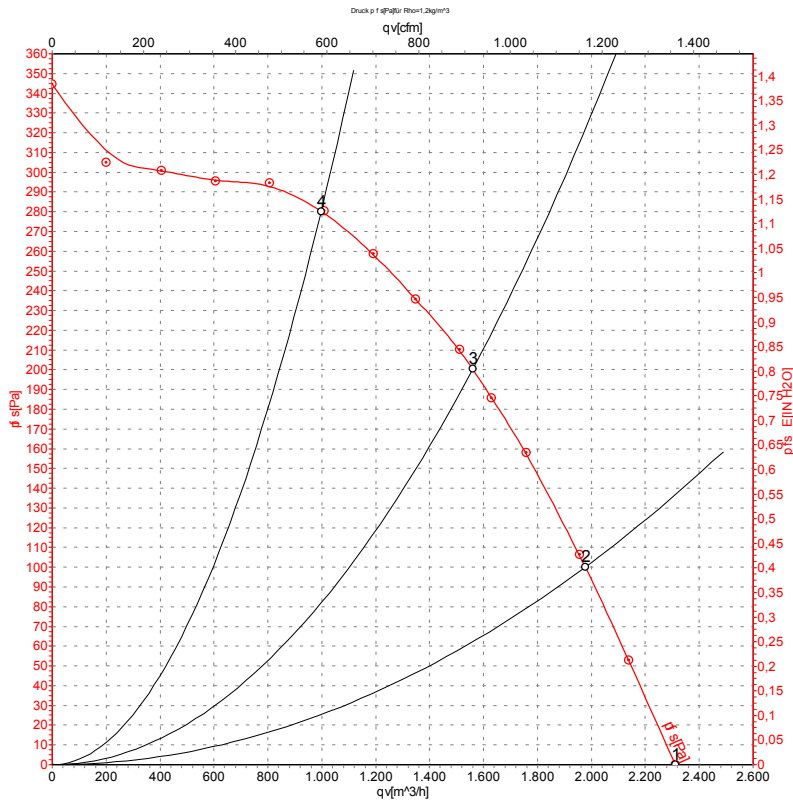
- |   |   |
|---|---|
| 1 | Connection line PVC 4 x 0.5 mm <sup>2</sup> , 4 x brass lead tips crimped                 |
| 1 | Accessory part: Inlet nozzle 51357-2-4013, not included in the standard scope of delivery |
| 2 | Depth of screw max. 10 mm   |

## Connection screen



U1	blue	Z	brown	U2	black
PE	green/yellow				

## Charts: Air flow 50 Hz



Measurement: LU-106566

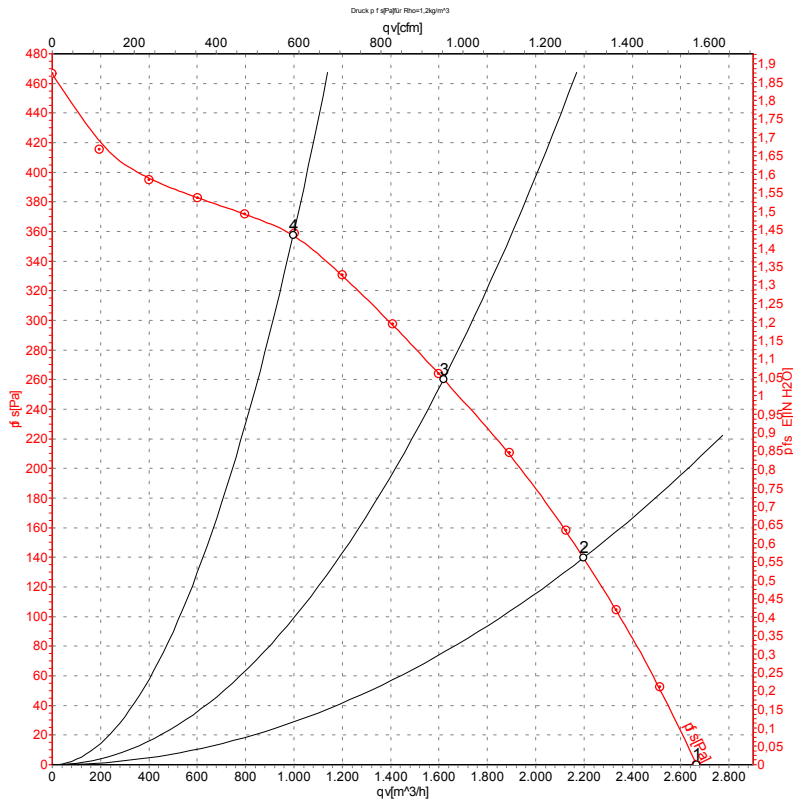
Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: L<sub>wA</sub> measured as per ISO 13347 / L<sub>pA</sub> measured with 1m distance to fan axis. The values given are valid under the 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 <sub>e</sub>	I	qv	P <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa
1	230	50	1410	170	0.78	2310	0
2	230	50	1390	191	0.85	1975	100
3	230	50	1365	211	0.93	1560	200
4	230	50	1370	208	0.92	995	280

U = Supply voltage · f = Frequency · n = Speed · P<sub>e</sub> = Power input · I = Current draw · qv = Air flow · P<sub>fs</sub> = Pressure increase

## Charts: Air flow 60 Hz



Measurement: LU-106568

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: L<sub>wA</sub> measured as per ISO 13347 / L<sub>pA</sub> 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 <sub>e</sub>	I	qv	P <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m³/h	Pa
1	230	60	1630	250	1.10	2665	0
2	230	60	1570	284	1.25	2200	140
3	230	60	1490	310	1.35	1620	260
4	230	60	1530	300	1.30	995	360

U = Supply voltage · f = Frequency · n = Speed · P<sub>e</sub> = Power input · I = Current draw · qv = Air flow · P<sub>fs</sub> = Pressure increase