R4E355-RM03-05

AC centrifugal fan - RadiCal®

backward curved

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**R4E355-RM03-05**
Motor	**M4E094-EA**

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}	1370	1520
Power input	W	280	400
Current draw	A	1.23	1.77
Motor capacitor	µF	8	8
Capacitor voltage	VDB	400	400
Capacitor standard		P0 (CE)	P0 (CE)
Min. back pressure	Pa	0	0
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	65	65
Starting current	A	2.75	2.1

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}	%	45.5	41.5	45.5
Efficiency grade N		62	58	62
Power input P_e	kW	0.27		
Air flow q_v	m^3/h	2005		
Pressure increase p_{fs}	Pa	224		
Speed n	min^{-1}	1370		

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

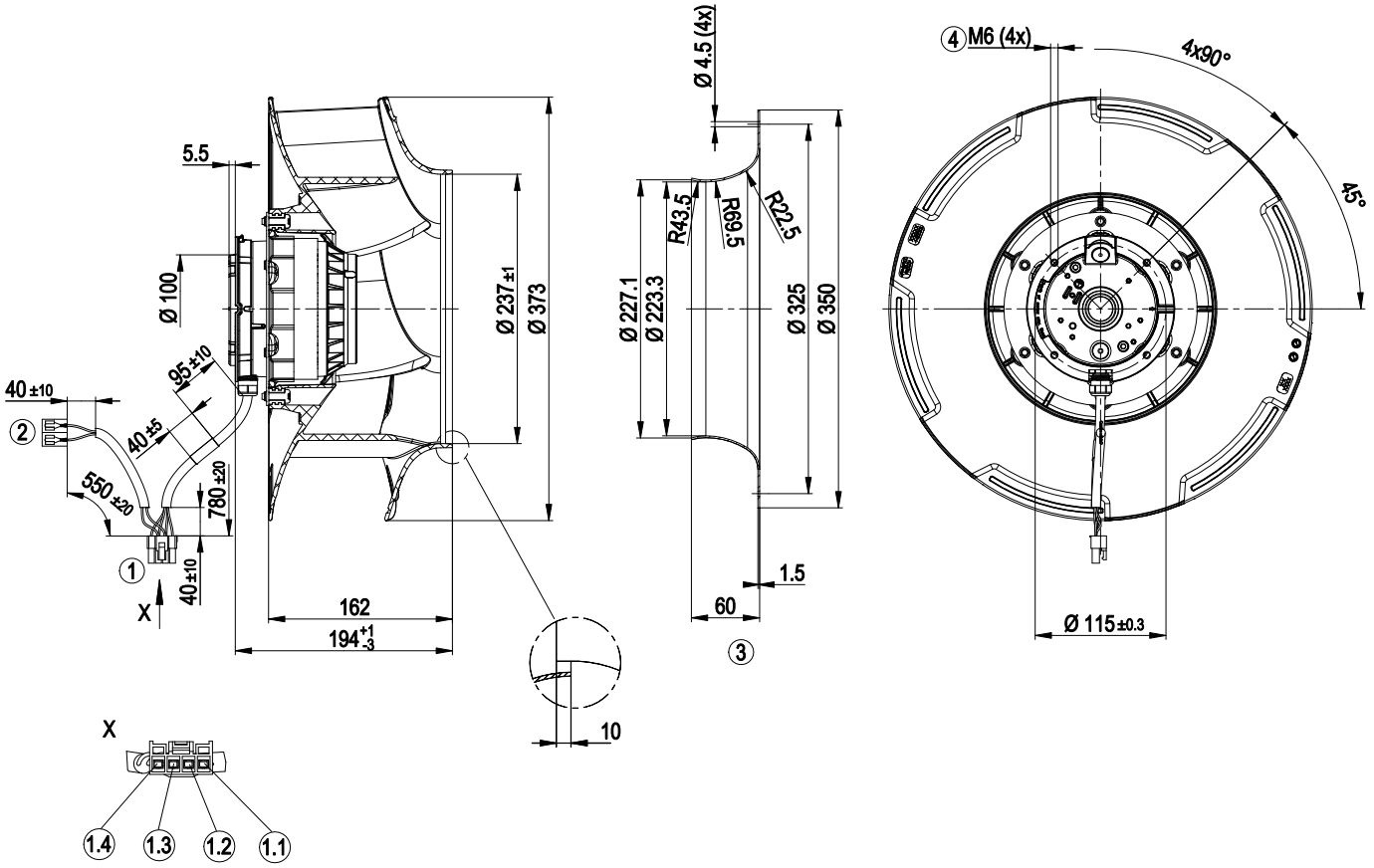
Mass	6 kg
Size	355 mm
Surface of rotor	Coated in black
Material of impeller	PP plastic
Number of blades	6
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 10
Insulation class	"F"
Humidity class	F4-1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Cooling bore / aperture	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Electrical leads	With plug
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Lateral
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	CE
Approval	UL; CCC

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Product drawing



1	Connection line PFA AWG20, connector shell JS VLP-04VN-1 and 4x female terminal JS SVF-61T-P2
1.1	L (blue)
1.2	N (black)
1.3	brown
1.4	PE (green/yellow)
2	Connection line PFA AWG20, 2x receptacle for tabs 6.3-0.8 with insulating sleeves
3	Accessory part: Inlet nozzle 35500-2-4013, not included in the standard scope of delivery
4	Depth of screw max. 10 mm

Connection screen

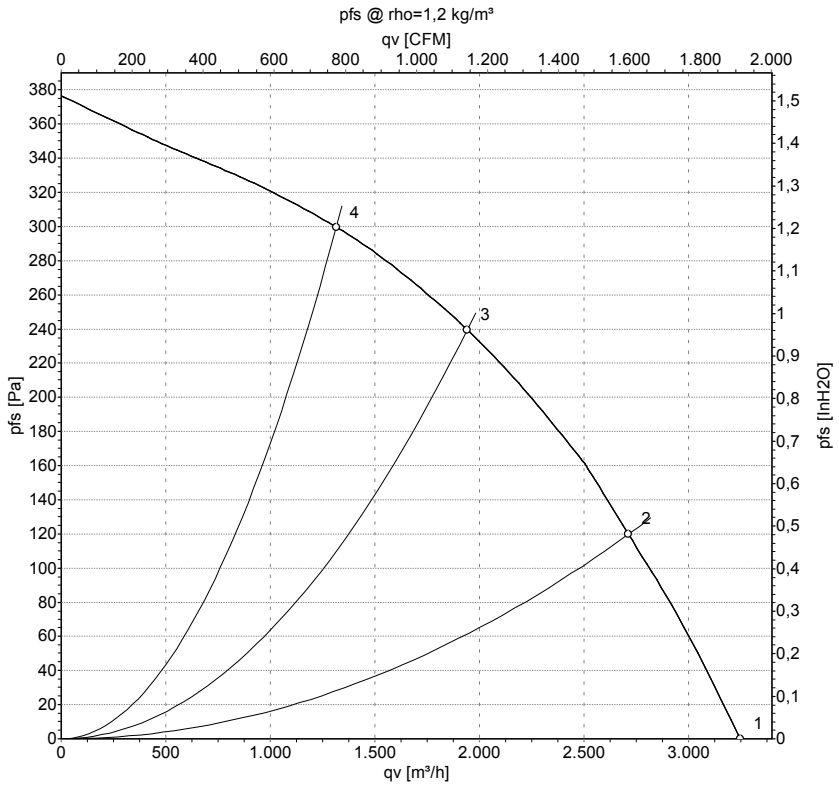
Customer-specific connection

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Charts: Air flow 50 Hz



Measurement: LU-144684

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	LpA_{in}	LwA_{in}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa
1	230	50	1410	225	1.02	64	71	3245	0
2	230	50	1390	254	1.13	59	66	2715	120
3	230	50	1370	280	1.23	57	63	1940	240
4	230	50	1380	264	1.17	58	65	1315	300

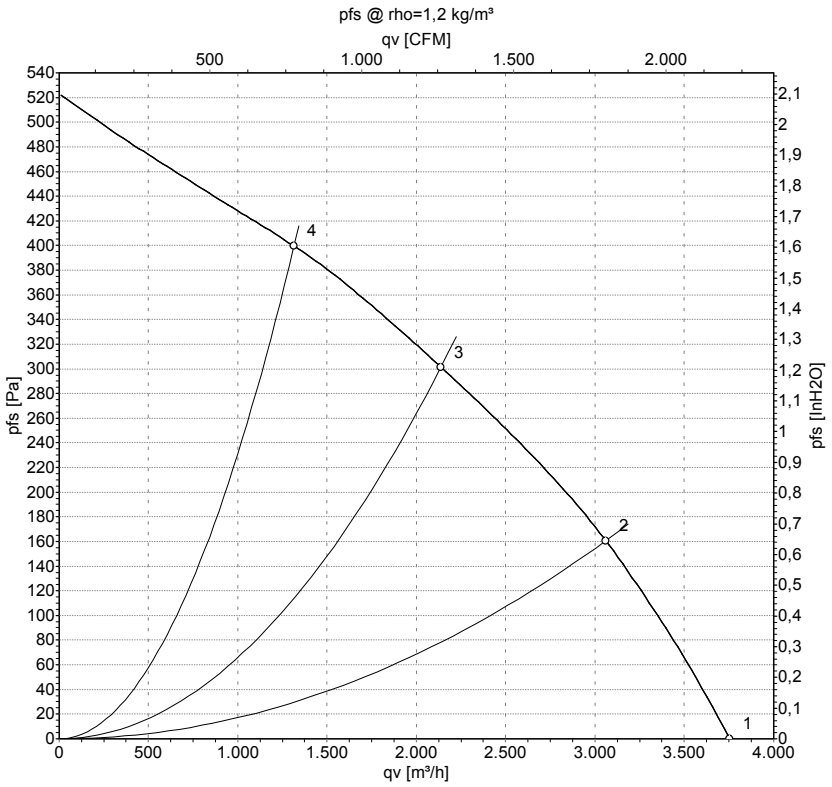
U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · qv = Air flow
p_{fs} = Pressure increase

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Charts: Air flow 60 Hz



Measurement: LU-144692

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	LpA_{in}	LwA_{in}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa
1	230	60	1635	331	1.48	67	75	3755	0
2	230	60	1570	377	1.66	62	69	3060	160
3	230	60	1520	400	1.77	59	66	2135	300
4	230	60	1570	379	1.67	63	70	1315	400

U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · qv = Air flow
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