R2D250-RA10-13

AC centrifugal fan - RadiCal®

backward curved



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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**R2D250-RA10-13**
Motor	**M2D068-EC**

Phase		3~	3~
Nominal voltage	VAC	400	400
Connection		Y	Y
Frequency	Hz	50	60
Type of data definition		ml	ml
Valid for approval / standard		CE	CE
Speed	min^{-1}	2500	2600
Power input	W	190	265
Current draw	A	0.32	0.42
Min. back pressure	Pa	0	0
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	80	70
Starting current	A	0.83	0.87

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}	%	43.7	39.7	43.7
Efficiency grade N		62	58	62
Power input P_e	kW	0.18		
Air flow q_v	m^3/h	905		
Pressure increase p_{fs}	Pa	312		
Speed n	min^{-1}	2500		

Data definition with optimum efficiency. LU-146406
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

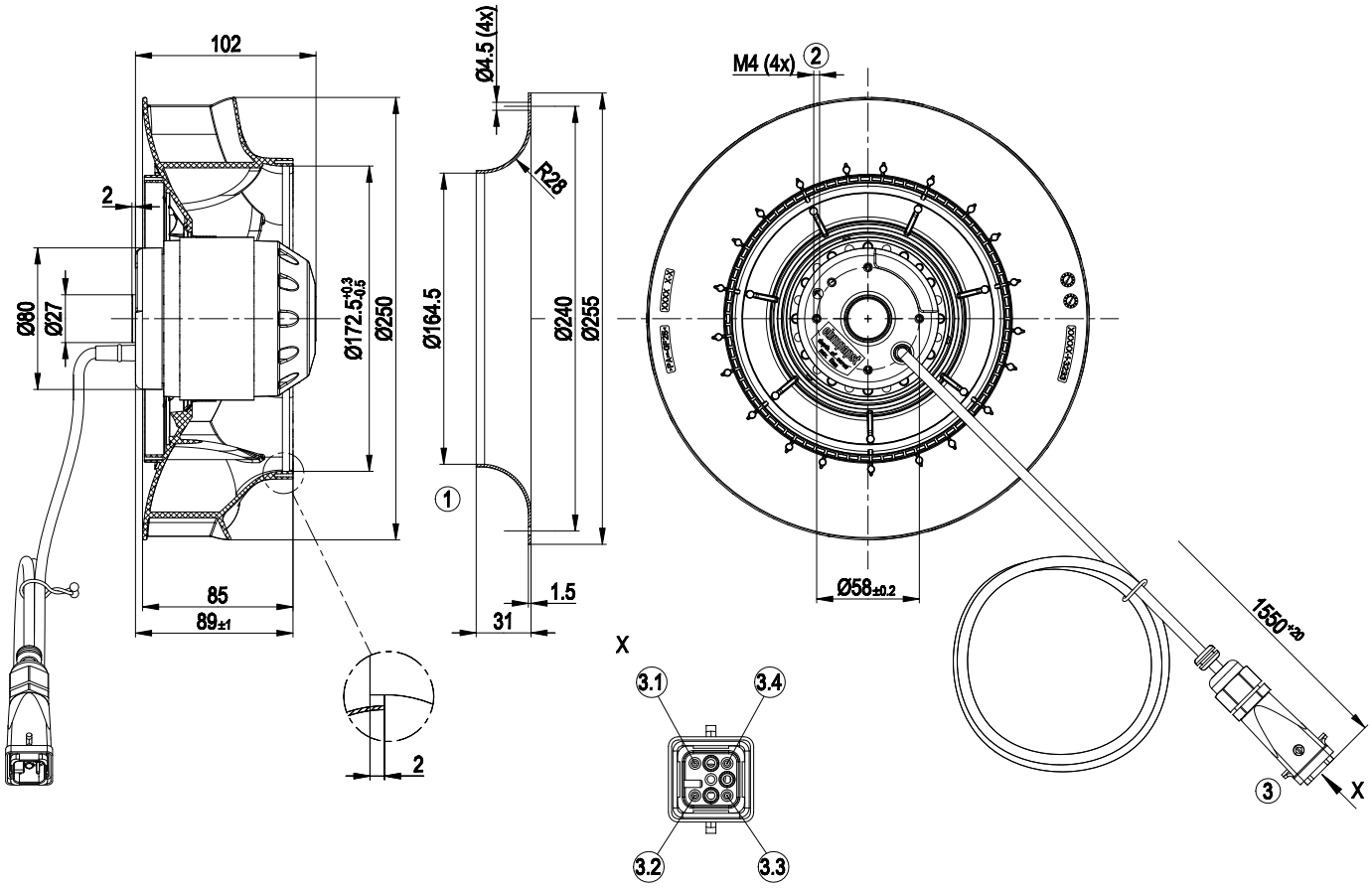
Mass	3 kg
Size	250 mm
Surface of rotor	Coated in black
Material of impeller	PA plastic
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position as per EN 60034-5
Insulation class	"F"
Humidity class	F2-2
Max. permissible ambient 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
Cable exit	Axial
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE
Approval	CSA C22.2 Nr.100; UL 1004-1

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Product drawing



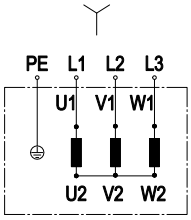
1	Accessory part: Inlet nozzle 96359-2-4013, not included in the standard scope of delivery
2	Depth of screw max. 5 mm
3	Connection line silicone 4G 0.5mm², with connector shell Amphenol C14610A0070002 F and 4x plug pin Amphenol TN01-016-0002-1 crimped
3.1	L1 (black)
3.2	L2 (blue)
3.3	L3 (brown)
3.4	PE (green/yellow)

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Connection screen



Change direction of rotation by reversing two phases

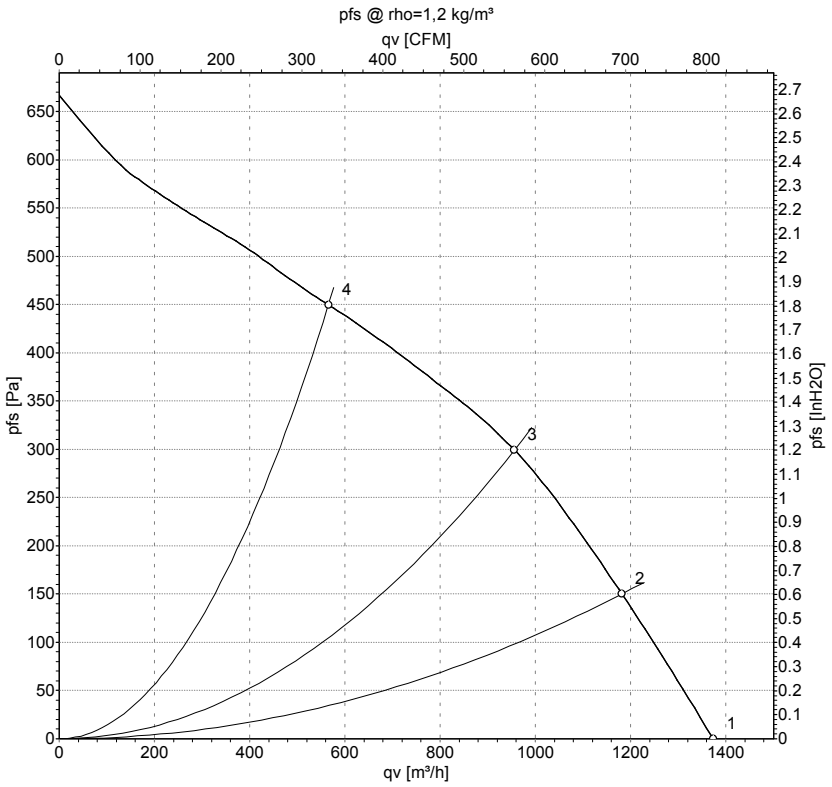
	Three-phase motor	Y	Star connection	L1	black
L2	blue	L3	brown	PE	green/yellow

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Charts: Air flow 50 Hz



Measurement: LU-146406

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	400	50	2610	156	0.27	1375	0
2	400	50	2535	179	0.30	1180	150
3	400	50	2500	190	0.32	955	300
4	400	50	2535	177	0.29	565	450

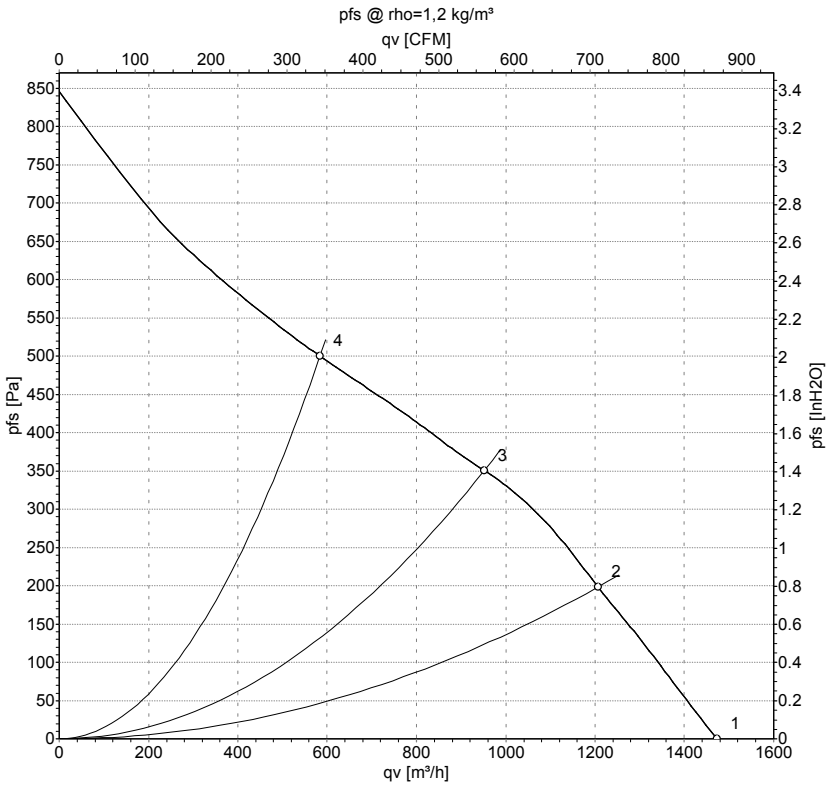
U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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Charts: Air flow 60 Hz



Measurement: LU-146412

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	400	60	2805	224	0.35	1470	0
2	400	60	2660	254	0.40	1205	200
3	400	60	2600	265	0.42	950	350
4	400	60	2670	249	0.39	585	500

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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