R4D355-RB04-09

AC centrifugal fan - RadiCal

backward curved, single inlet

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Nominal data

Type	**R4D355-RB04-09**
Motor	**M4D074-GA**

Phase		3~	3~	3~	3~
Nominal voltage	VAC	400	400	400	400
Connection		Δ	Y	Δ	Y
Frequency	Hz	50	50	60	60
Type of data definition		ml	ml	ml	ml
Valid for approval / standard		CE	CE	CE	CE
Speed (rpm)	min^{-1}	1350	1020	1460	900
Power input	W	250	170	370	185
Current draw	A	0.5	0.3	0.66	0.34
Min. ambient temperature	°C	-25	-25	-25	-25
Max. ambient temperature	°C	70	70	40	40
Starting current	A	1.5	0.47	1.37	0.31

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

Data in accordance with ecodesign regulation EU 327/2011 (EN 17166)

		Actual	Request 2015
01 Overall efficiency η_{es}	%	48.1	45.2
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		64.9	62
05 Variable speed drive		No	

09 Power input P_e	kW	0.24
09 Air flow q_v	m^3/h	2005
09 Pressure increase p_{fs}	Pa	216
10 Speed (rpm) n	min^{-1}	1350
11 Specific ratio*		1.00

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

* Specific ratio = 1 + p_{fs} / 100 000 Pa

LU-167387

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Technical features

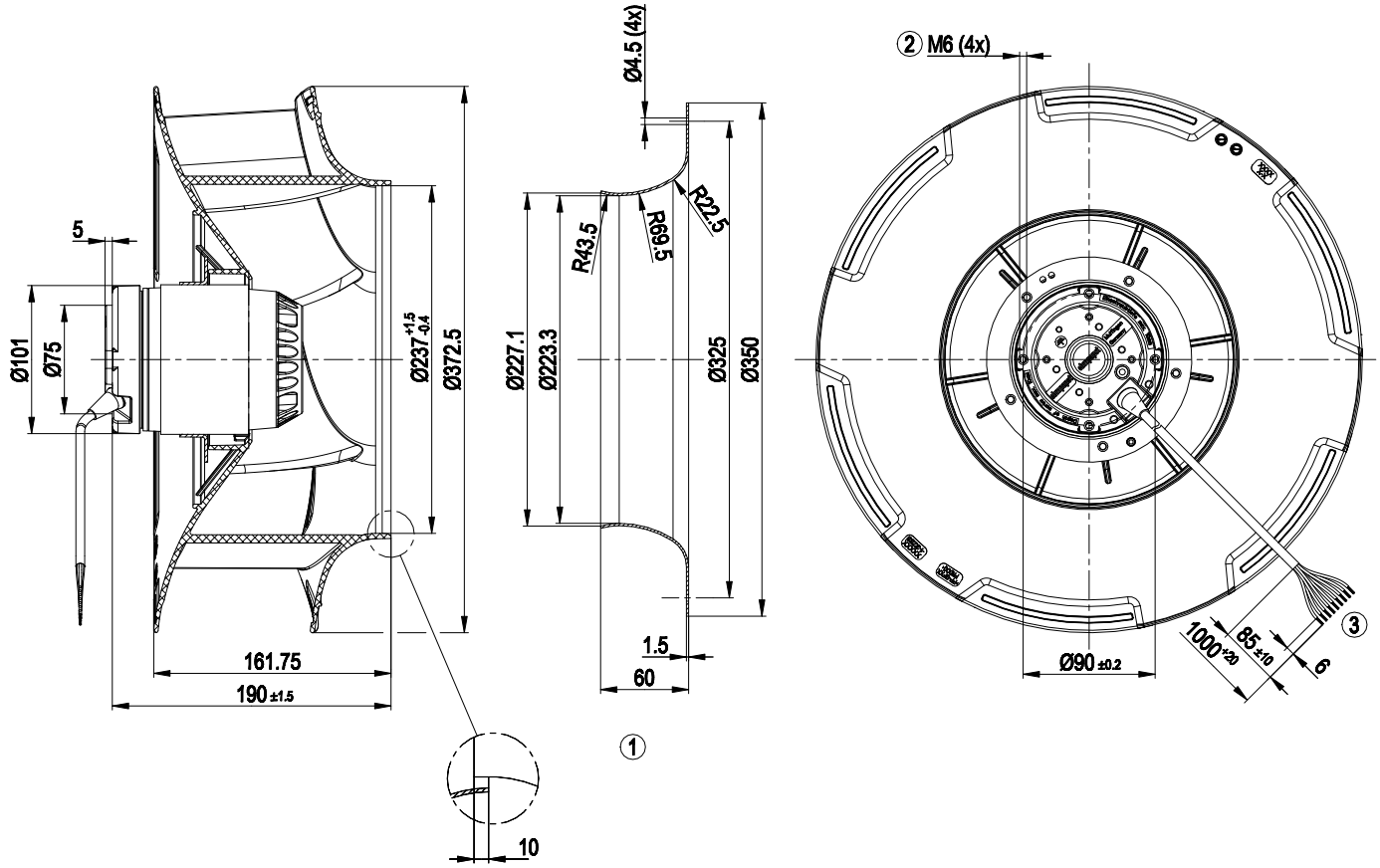
Mass	5.6 kg
Size	355 mm
Motor size	74
Material of impeller	PP plastic
Number of blades	6
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP44; Depending on installation and position as per EN 60034-5
Insulation class	"F"
Humidity (F) / environmental protection class (H)	H1
Max. permissible 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
Condensation drainage 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) brought out, basic insulation
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



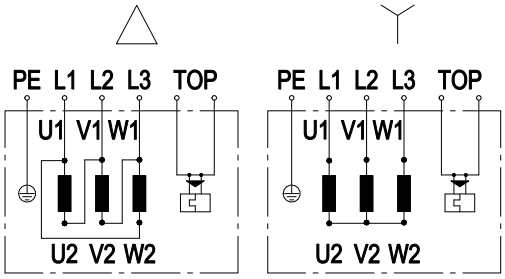
1	Accessory part: Inlet nozzle 35500-2-4013 not included in scope of delivery
2	Thread reach max. 10 mm
3	Connection line silicone 9G 0.5 mm², 9x lead tips crimped

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Connection screen



Note: Change in direction of rotation by reversing two phases

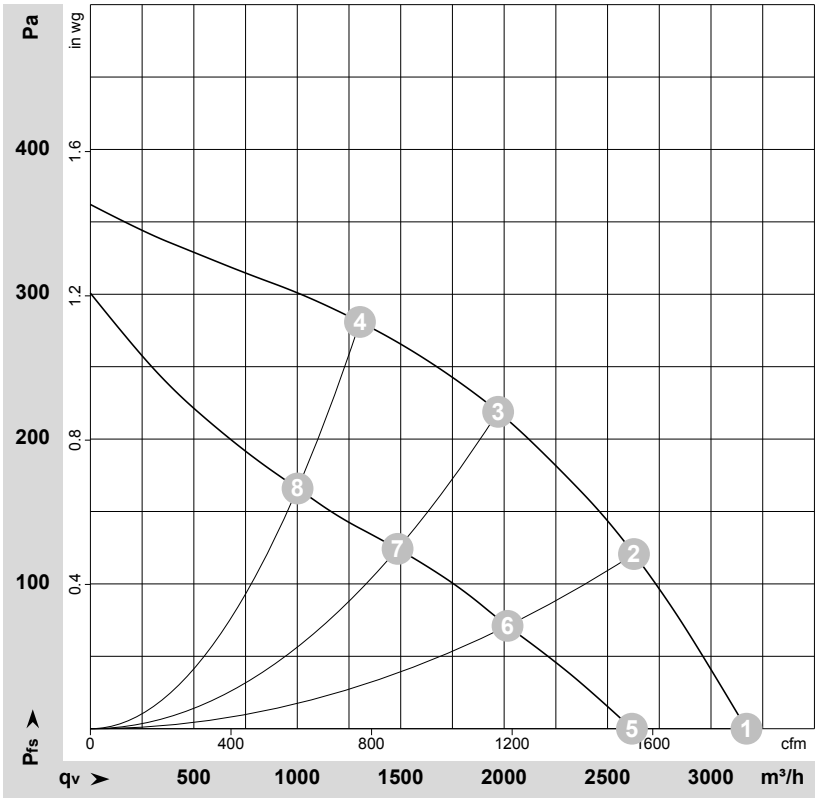
Δ	Delta connection	Y	Star connection	L1	black
L2	blue	L3	brown	U1	black
V1	blue	W1	brown	U2	green
V2	white	W2	yellow	TOP	2xgrey
PE	green/yellow				

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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-167387-1
Measurement: LU-167463-1

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

	Conn.	U	f	n	P_e	I	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	Δ	400	50	1400	187	0.43	3170	0	1865	0.00
2	Δ	400	50	1365	230	0.48	2630	120	1545	0.48
3	Δ	400	50	1350	250	0.50	1970	220	1160	0.88
4	Δ	400	50	1360	237	0.48	1305	280	765	1.12
5	Y	400	50	1160	140	0.24	2620	0	1540	0.00
6	Y	400	50	1055	163	0.28	2015	71	1185	0.29
7	Y	400	50	1020	170	0.30	1485	124	875	0.50
8	Y	400	50	1045	164	0.29	1000	166	590	0.67

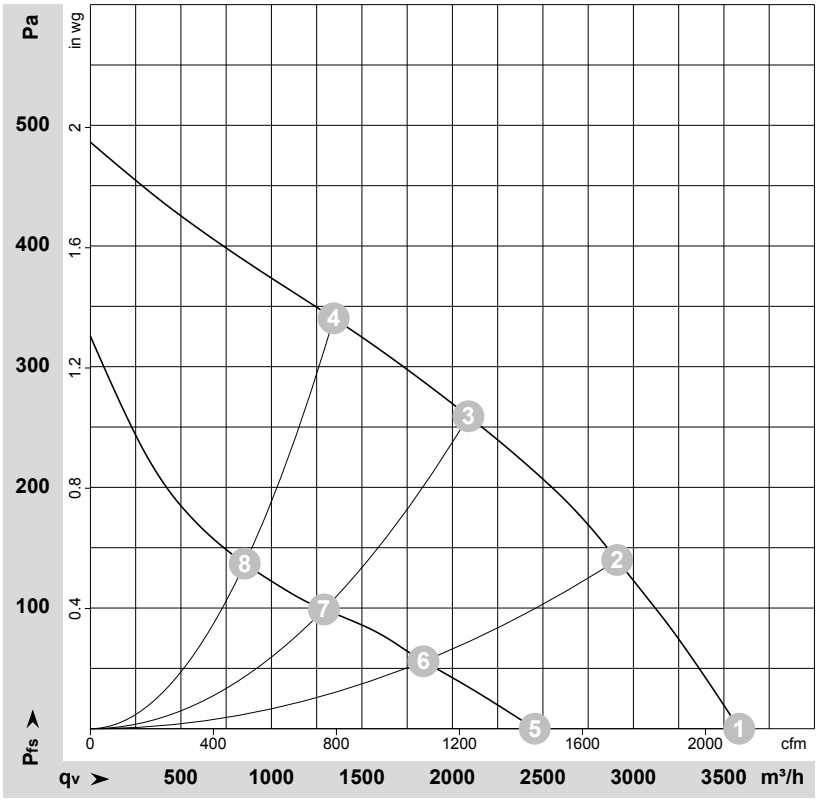
Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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Charts: Air flow 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-167462-1
Measurement: LU-167464-1

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

	Conn.	U	f	n	P_e	I	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	Δ	400	60	1580	278	0.51	3585	0	2110	0.00
2	Δ	400	60	1500	345	0.62	2910	140	1715	0.56
3	Δ	400	60	1460	370	0.66	2090	260	1230	1.04
4	Δ	400	60	1490	346	0.62	1345	340	790	1.36
5	Y	400	60	1090	172	0.31	2455	0	1445	0.00
6	Y	400	60	955	183	0.34	1840	56	1085	0.22
7	Y	400	60	900	185	0.34	1290	99	760	0.40
8	Y	400	60	945	182	0.33	855	137	500	0.55

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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