R4D400-AL17-05

AC centrifugal fan

backward curved, single inlet



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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**R4D400-AL17-05**
Motor	**M4D110-GF**

Phase		3~	3~
Nominal voltage	VAC	400	480
Connection		Δ	Δ
Frequency	Hz	50	60
Type of data definition		ml	ml
Valid for approval / standard		CE	CE
Speed	min^{-1}	1405	1655
Power input	W	450	740
Current draw	A	1.01	1.22
Min. back pressure	Pa	0	0
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	100	80
Starting current	A	4.89	5.43

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}		48.7	43.9	47.9
Efficiency grade N		62.8	58	62
Power input P_e	kW	0.45		
Air flow q_v	m^3/h	2405		
Pressure increase p_{fs}	Pa	330		
Speed n	min^{-1}	1405		

Data established at point of optimum efficiency

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Technical features

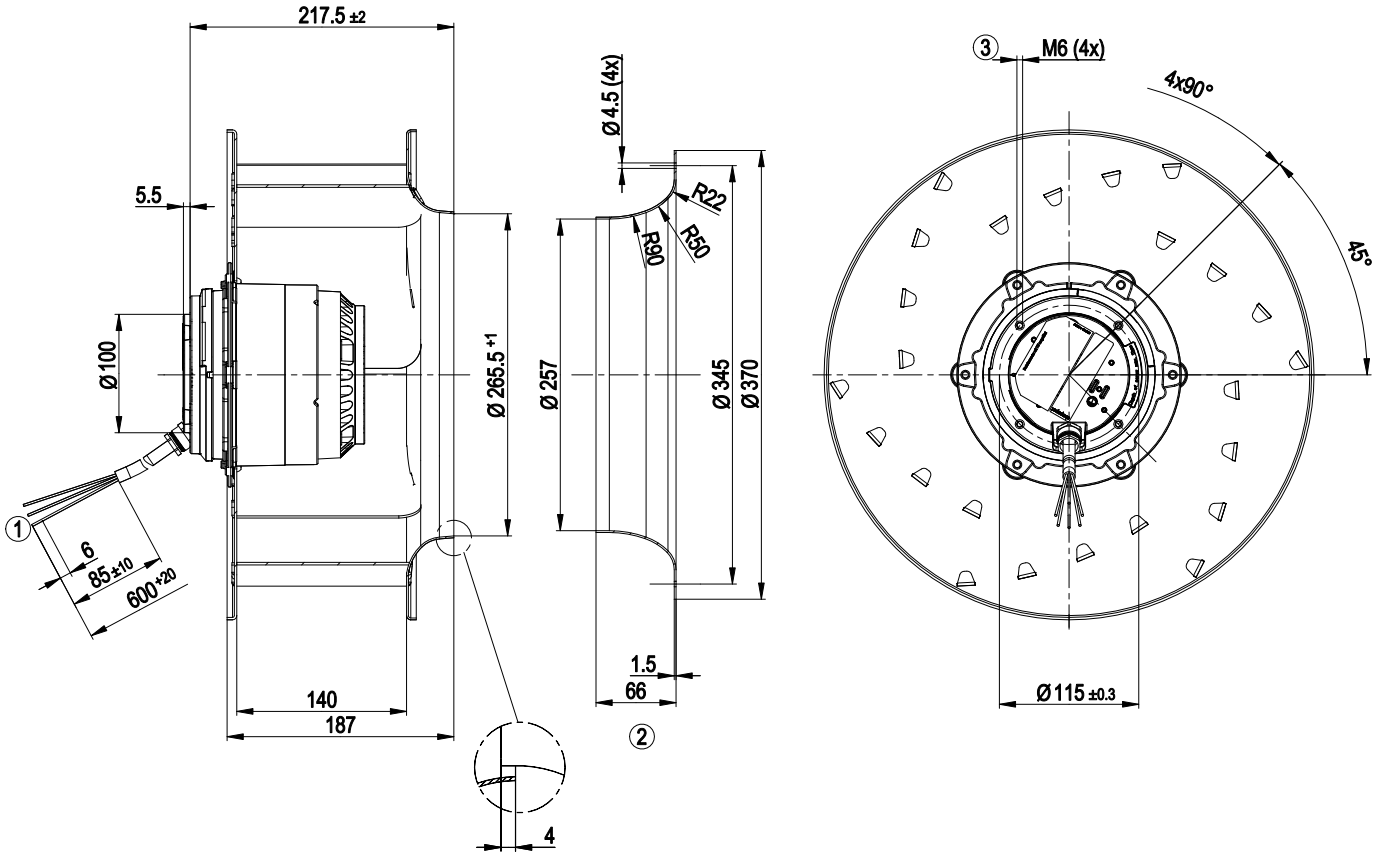
Mass	14.5 kg
Size	400 mm
Surface of rotor	Cast in aluminium
Material of impeller	Aluminium sheet
Number of blades	6
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"F"
Humidity class	F3-1
Max. permissible ambient motor temp. (transp./ storage)	+100 °C
Min. permissible 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)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) brought out
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 61800-5-1; CE
Approval	VDE

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Product drawing



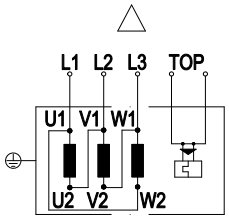
1	Connection line silicone 6G 0.5 mm², 6 x brass lead tips crimped
2	Accessory part: Inlet nozzle 54476-2-4013, not included in the standard scope of delivery
3	Depth of screw max. 12 mm

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Connection screen



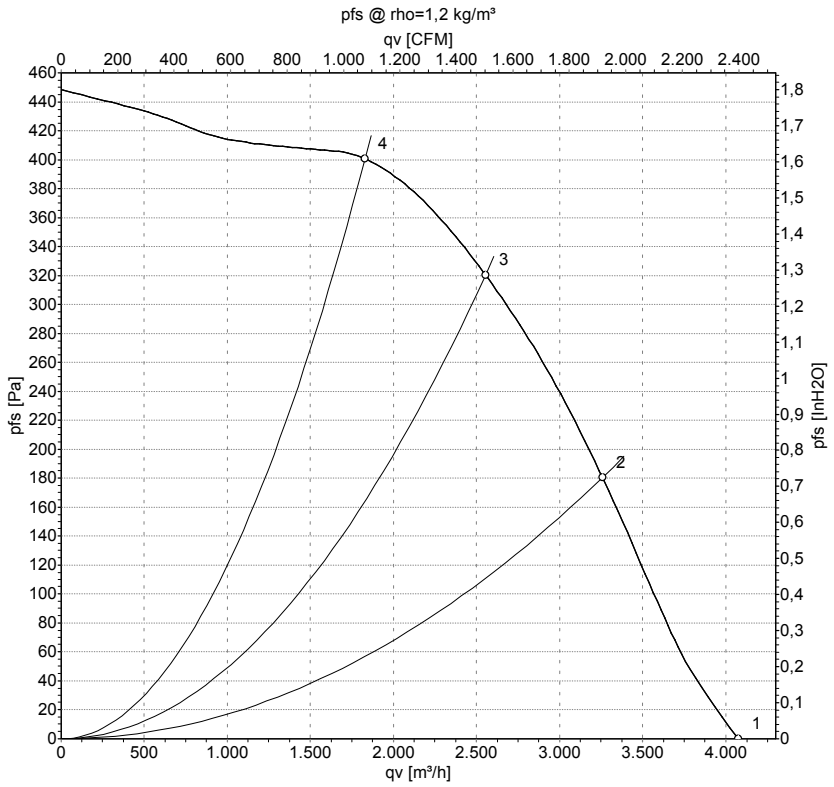
L1	= U1 = black	L2	= V1 = blue	L3	= W1 = brown
TOP	2 x grey	PE	green / yellow		

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Charts: Air flow 50 Hz Δ



Measurement: LU-135131

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	qv	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa
1	Δ	400	50	1430	348	0.84	4075	0
2	Δ	400	50	1415	409	0.89	3260	180
3	Δ	400	50	1405	450	1.01	2555	320
4	Δ	400	50	1410	420	0.90	1830	400

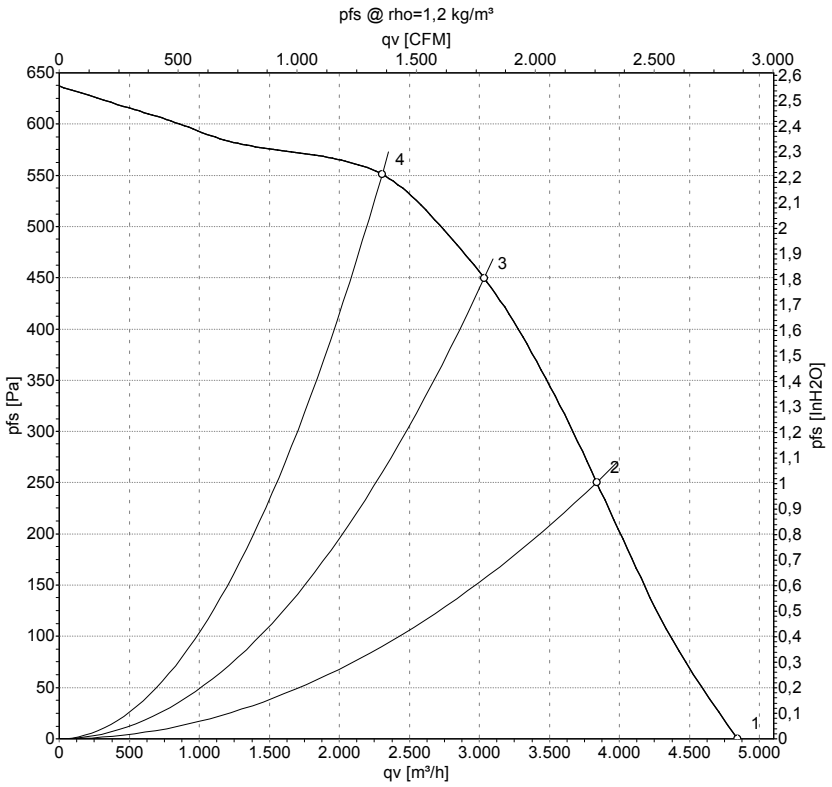
Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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Charts: Air flow 60 Hz



Measurement: LU-135148

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	qv	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa
1	Δ	480	60	1695	558	0.96	4840	0
2	Δ	480	60	1670	675	1.08	3835	250
3	Δ	480	60	1655	740	1.22	3035	450
4	Δ	480	60	1665	701	1.11	2305	550

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