R4D250-CG07-01

AC centrifugal fan

forward-curved, single-intake



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Nominal data

Type	**R4D250-CG07-01**
Motor	**M4D110-GF**

Phase		3~	3~	3~	3~	3~	3~
Nominal voltage	VAC	230	230	277	400	400	480
Wiring		Δ	Δ	Δ	Y	Y	Y
Frequency	Hz	50	60	60	50	60	60
Method of obtaining data		ml	ml	ml	ml	ml	ml
Valid for approval/standard		-	-	-	-	-	-
Speed (rpm)	min^{-1}	1400	1580	1650	1400	1580	1650
Power consumption	W	750	1170	1240	750	1170	1240
Current draw	A	2.77	3.46	3.38	1.6	2.0	1.95
Min. back pressure	Pa	0	0	0	0	0	0
Min. back pressure	inH2O	0	0	0	0	0	0
Min. ambient temperature	°C	-25	-25	-25	-25	-25	-25
Max. ambient temperature	°C	80	45	45	80	45	45
Starting current	A	10.6	9.7	12.1	6.1	5.6	7.0

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

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Technical description

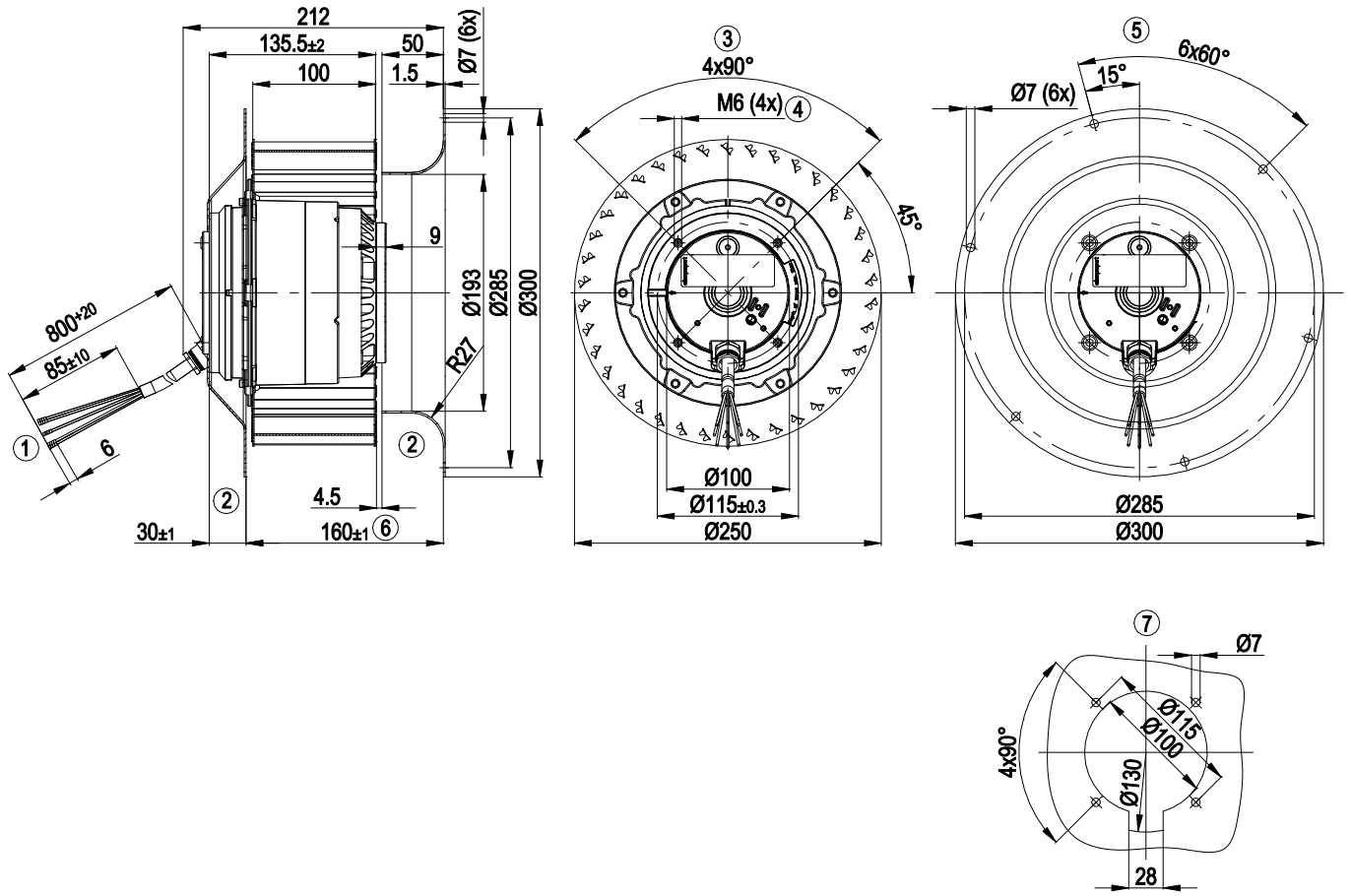
Weight	10 kg
Fan size	250 mm
Rotor surface	Cast in aluminum
Impeller material	Sheet steel, galvanized
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	F3-1
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	<= 3.5 mA
Motor protection	Thermal overload protector (TOP) with basic insulation
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 61800-5-1
Approval	CSA C22.2 No. 100; UL 1004-1; VDE; EAC

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Product drawing



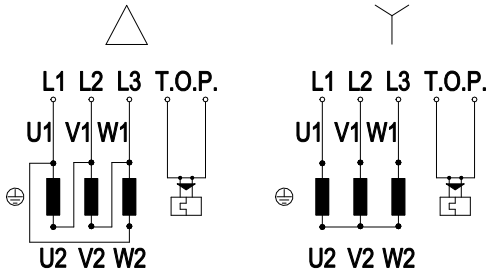
1	Cable silicone, 9x crimped splices
2	Accessory part: Inlet ring 25010-2-4013 and flange 94250-2-4017 not included in scope of delivery
3	View without flange
4	Max. clearance for screw 12 mm
5	View with flange
6	Housing width
7	Drill pattern for mounting without flange

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Connection diagram



Note: Change of rotation direction by reversing two phases

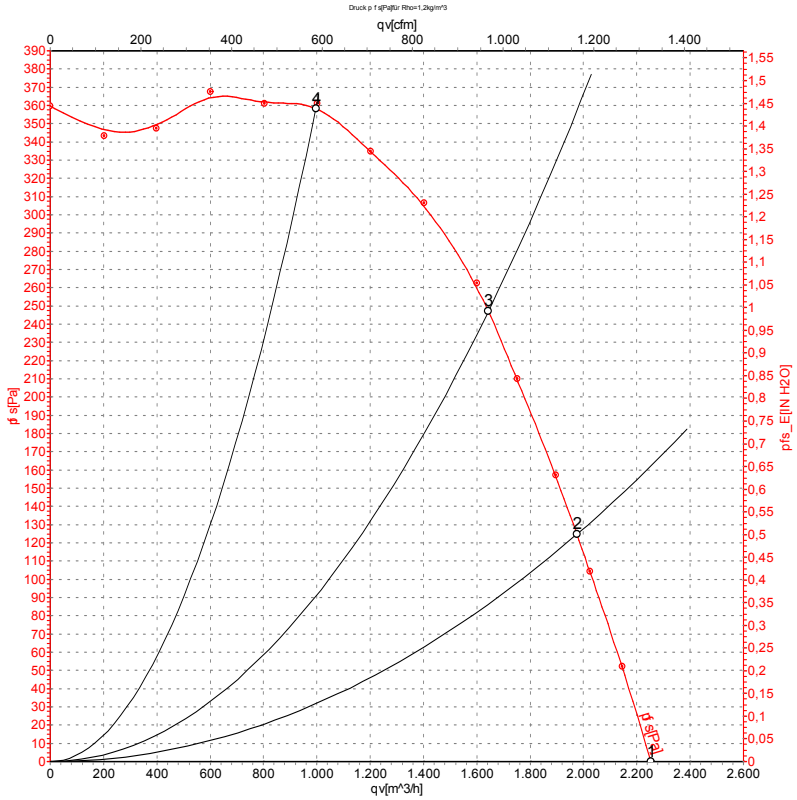
Δ	Delta connection	Y	Star connection	L1	black
L2	blue	L3	brown	U1	black
V1	blue	W1	brown	U2	green
V2	white	W2	yellow	TOP	gray

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Curves: Air performance 50 Hz Y



Measurement: LU-74223-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

	Wired	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	inH2O
1	Y	400	50	1400	750	1.60	2250	0	1325	0.00
2	Y	400	50	1420	629	1.53	1975	125	1160	0.50
3	Y	400	50	1440	497	1.40	1645	250	965	1.00
4	Y	400	50	1465	318	1.29	995	360	585	1.45

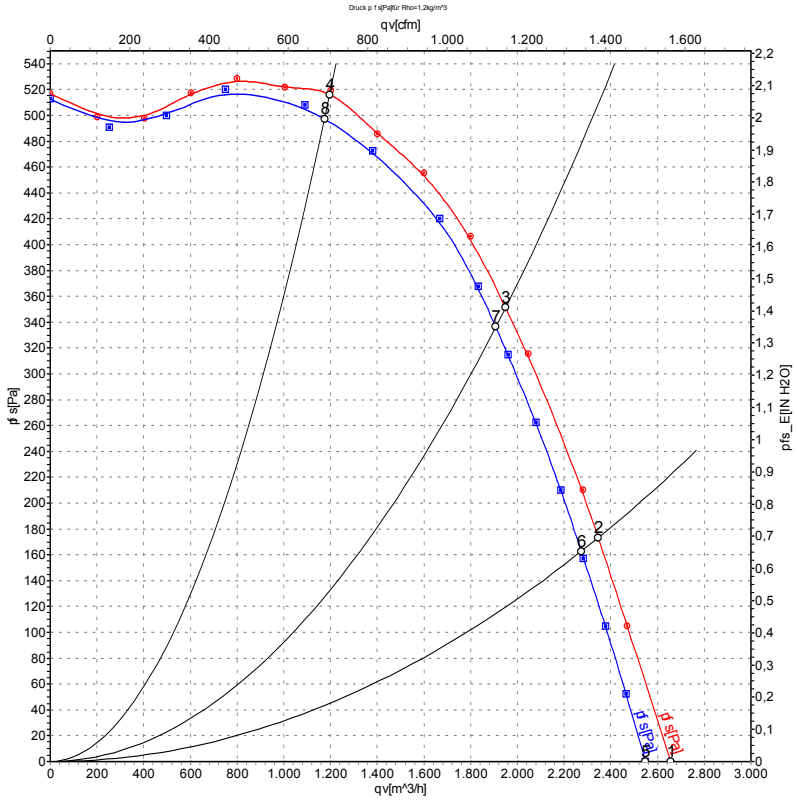
Wired = Wiring · U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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Curves: Air performance 60 Hz Y



Measurement: LU-74226-1
Measurement: LU-74224-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebm-papst. Intake sound level: Sound power level according to ISO 13347 / sound pressure level measured at 1 m distance from fan axis. The values given are valid under the specified measuring conditions and may vary due to conditions of installation. For deviations from the standard configuration, the parameters have to be checked on the installed unit.

Measured values

	Wired	U	f	n	P_e	I	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	m^3/h	Pa	cfm	inH2O
1	Y	480	60	1650	1240	1.95	90	2650	0	1560	0.00
2	Y	480	60	1675	1042	1.75	88	2345	175	1380	0.70
3	Y	480	60	1705	813	1.51	85	1950	350	1150	1.41
4	Y	480	60	1745	502	1.26	80	1195	520	705	2.09
5	Y	400	60	1580	1170	2.00	89	2550	0	1500	0.00
6	Y	400	60	1620	982	1.76	86	2275	163	1340	0.65
7	Y	400	60	1665	771	1.46	85	1910	336	1125	1.35
8	Y	400	60	1725	470	1.08	80	1175	498	690	2.00

Wired = Wiring · U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · LwA_{in} = Sound power level intake side · q_V = Air flow · p_{fs} = Pressure increase

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