R4D630-AQ13-05

AC centrifugal fan

backward-curved, single-intake

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Nominal data

Type	**R4D630-AQ13-05**
Motor	**M4D138-LA**

Phase		3~	3~
Nominal voltage	VAC	400	400
Wiring		Δ	Y
Frequency	Hz	50	50
Method of obtaining data		ml	ml
Valid for approval/standard		-	-
Speed (rpm)	min^{-1}	1285	880
Power consumption	W	4100	2330
Current draw	A	7.4	4.23
Min. back pressure	Pa	0	0
Min. back pressure	in. wg	0	0
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	65	65
Starting current	A	19	6.5

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

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Technical description

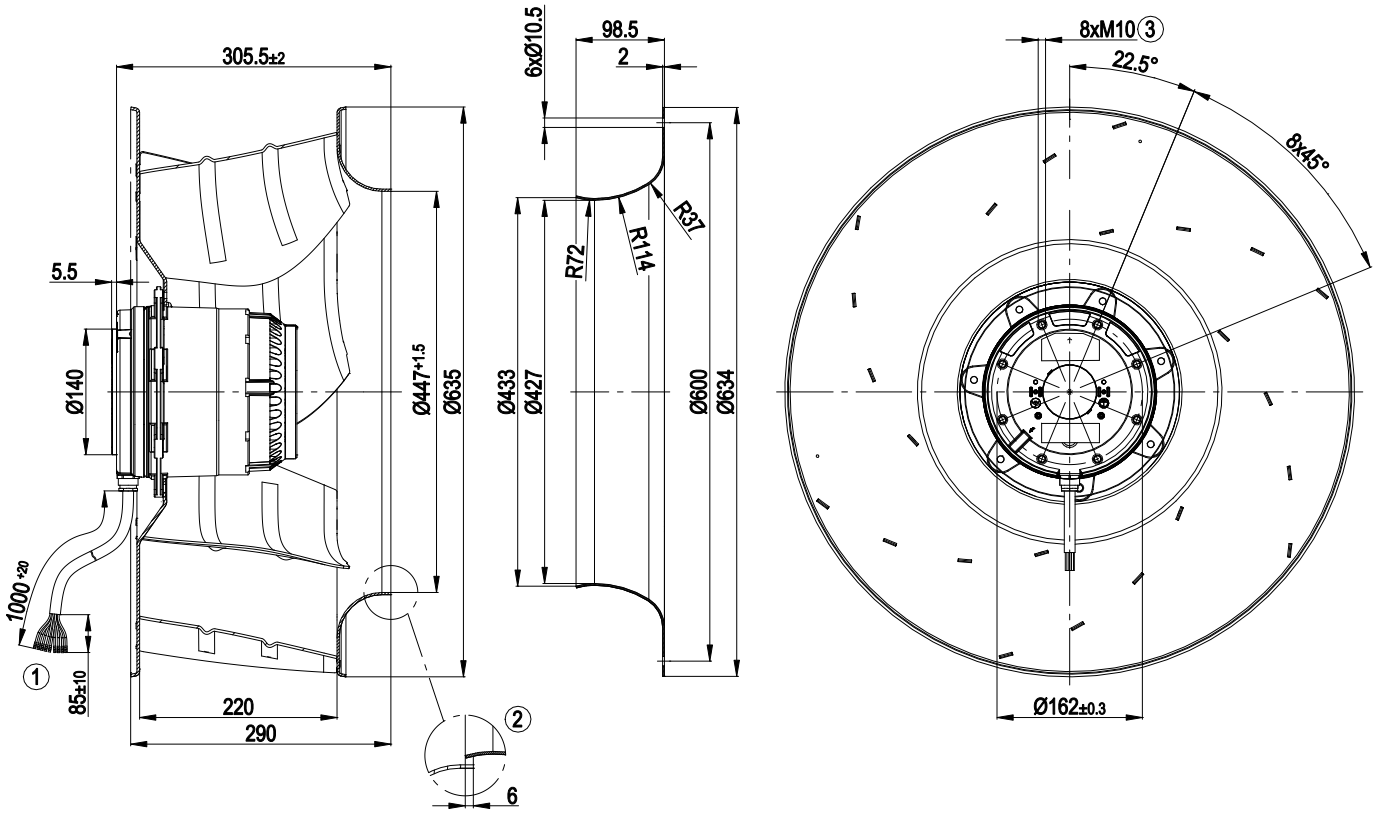
Weight	27.8 kg
Size	630 mm
Motor size	138
Rotor surface	Cast in aluminum
Impeller material	Sheet aluminum
Number of blades	6
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP20
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H2
Ambient temperature note	Occasional start-up at temperatures between -40°C and -25°C is permitted. For continuous operation at ambient temperatures below -25°C (such as refrigeration applications), use must be made of a fan design with special low-temperature bearings.
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Any
Cooling hole/opening	On rotor and stator sides
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
With cable	Lateral
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60034-1 (2010)
Approval	VDE; EAC

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Product drawing



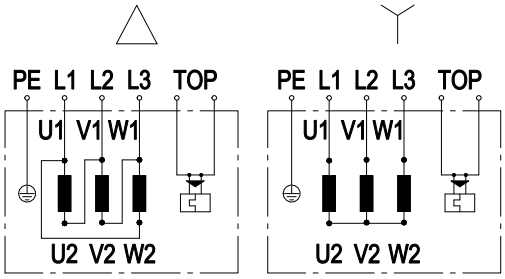
1	Cable halogen-free, 9 x 0.75 mm², 9 x crimped splices
2	Accessory part: Inlet ring 63070-2-4013 not included in scope of delivery.
3	Max. clearance for screw 18 mm

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Connection diagram



Note: Change of rotation direction by reversing two phases

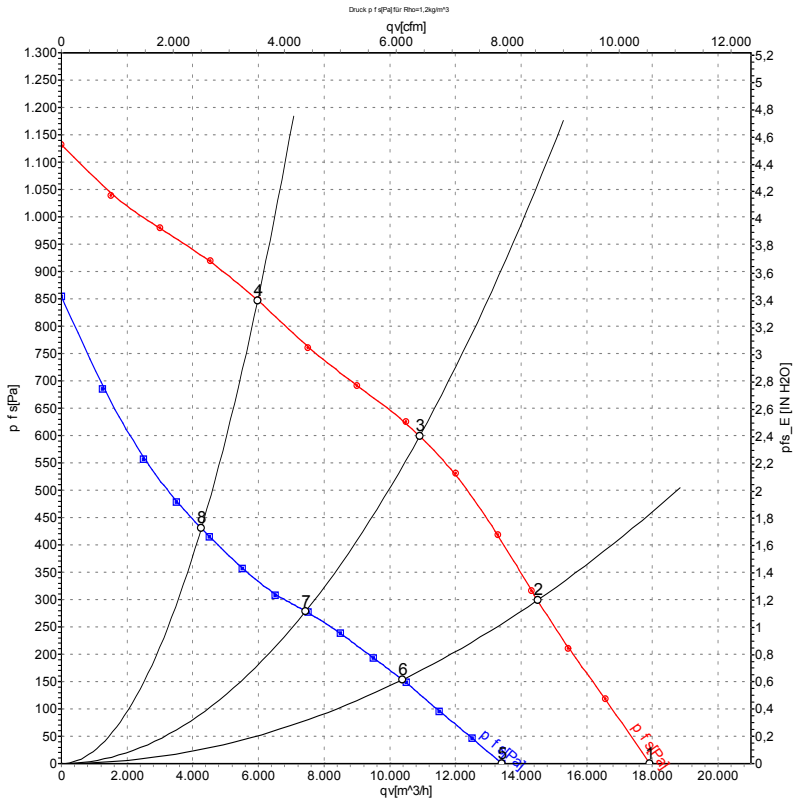
Δ	Delta connection	Y	Star connection	L1	black
L2	blue	L3	brown	U1	black
V1	blue	W1	brown	U2	green
V2	white	W2	yellow	TOP	2x gray
PE	green/yellow				

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Curves: Air performance 50 Hz



Measurement: LU-104461-1
Measurement: LU-102590-1

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	LpA_{in}	LwA_{in}	LwA_{out}	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa	cfm	in. wg
1	Δ	400	50	1350	3281	5.88	80	88	94	17920	0	10545	0.00
2	Δ	400	50	1315	3687	6.47	77	84	90	14500	300	8535	1.20
3	Δ	400	50	1285	4100	7.40	75	82	89	10910	600	6420	2.41
4	Δ	400	50	1330	3540	6.27	76	84	90	5980	850	3520	3.41
5	Y	400	50	1015	2181	3.95	73	80	86	13410	0	7895	0.00
6	Y	400	50	935	2295	4.18	68	76	82	10380	154	6110	0.62
7	Y	400	50	875	2336	4.26	65	74	80	7440	279	4380	1.12
8	Y	400	50	945	2194	3.95	68	76	82	4265	430	2510	1.73

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

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