AC centrifugal fan

backward-curved, single-intake

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Amtsgericht (court of registration) Stuttgart · HRA 590344

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**R4D400-AD22-11**
Motor	**M4D094-HA**

Phase		3~	3~	3~	3~
Nominal voltage	VAC	400	400	400	400
Wiring		Δ	Y	Δ	Y
Frequency	Hz	50	50	60	60
Method of obtaining data		ml	ml	ml	ml
Valid for approval/standard		-	-	-	-
Speed (rpm)	min^{-1}	1415	1235	1610	1220
Power consumption	W	515	385	750	515
Current draw	A	1.41	0.7	1.44	0.93
Min. back pressure	Pa	0	0	0	0
Min. back pressure	inH2O	0	0	0	0
Min. ambient temperature	°C	-40	-40	-40	-40
Max. ambient temperature	°C	60	80	60	40
Starting current	A	5	1.7	4.7	1.6

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

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Technical description

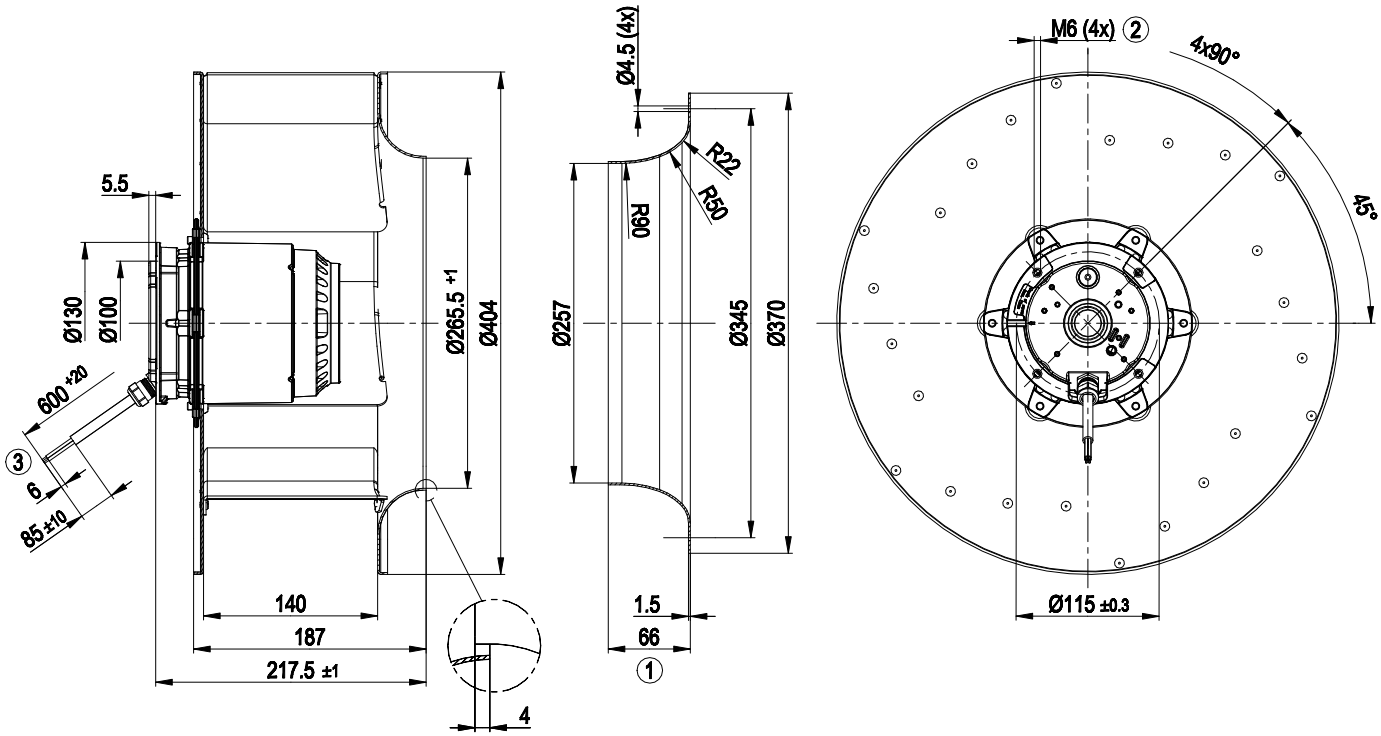
Weight	8.8 kg
Fan size	400 mm
Rotor surface	Painted black
Impeller material	Sheet aluminum
Number of blades	6
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	F3-1
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Any
Condensation drainage holes	None
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	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60034-1 (2010)
Approval	CCC

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Product drawing



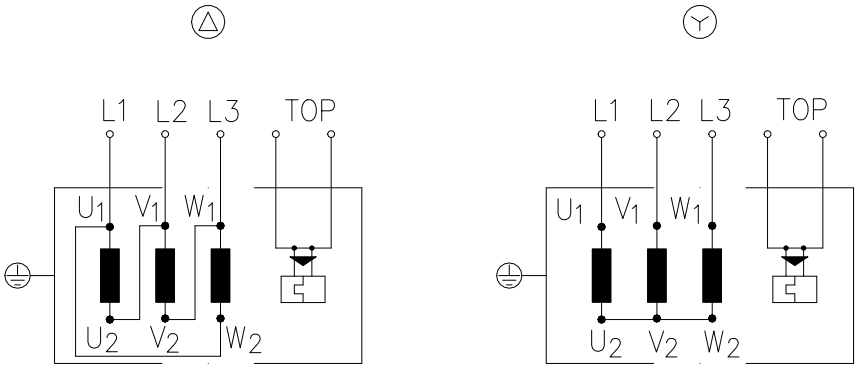
1	Accessory part: inlet ring 54476-2-4013 not included in scope of delivery
2	Max. clearance for screw 12 mm
3	Cable silicone 6G 0.5 mm², 6x crimped splices

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Connection diagram



Change of rotation direction by reversing two phases

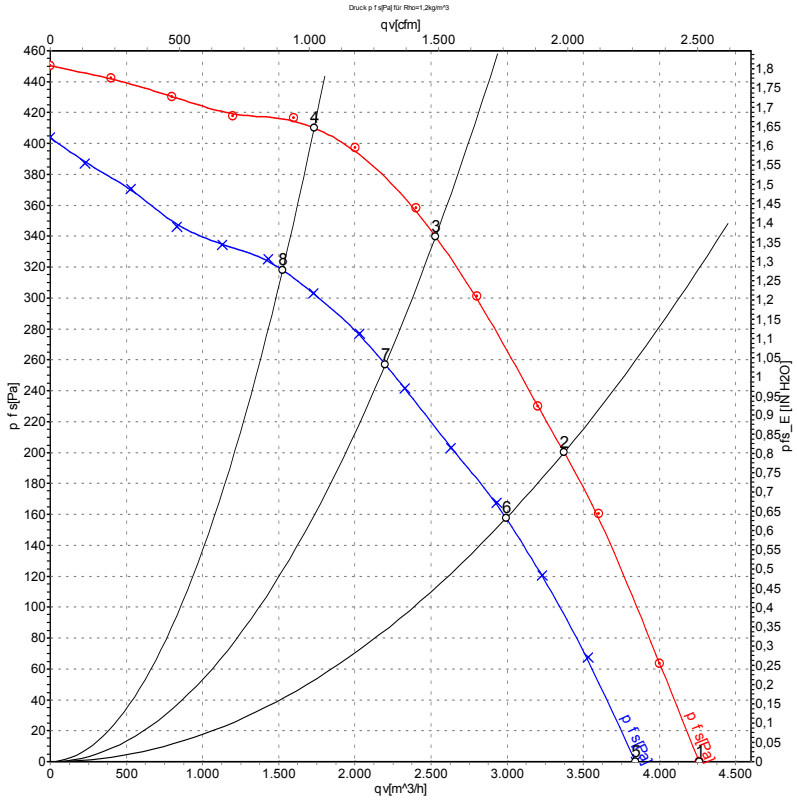
Δ	Delta connection	Y	Star connection	L1	= U1 = black
L2	= V1 = blue	L3	= W1 = brown	W2	yellow
U2	green	V2	white	TOP	2x gray
PE	green/yellow				

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Curves: Air performance 50 Hz Δ



Measurement: LU-104783-1
Measurement: LU-104595-1

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	Δ	400	50	1425	445	1.20	4260	0	2505	0.00
2	Δ	400	50	1415	477	1.23	3375	200	1985	0.80
3	Δ	400	50	1415	515	1.41	2530	340	1490	1.36
4	Δ	400	50	1420	476	1.21	1730	410	1020	1.65
5	Y	400	50	1275	343	0.61	3845	0	2260	0.00
6	Y	400	50	1240	380	0.67	2990	158	1760	0.63
7	Y	400	50	1235	385	0.70	2200	257	1295	1.03
8	Y	400	50	1245	364	0.64	1525	318	900	1.28

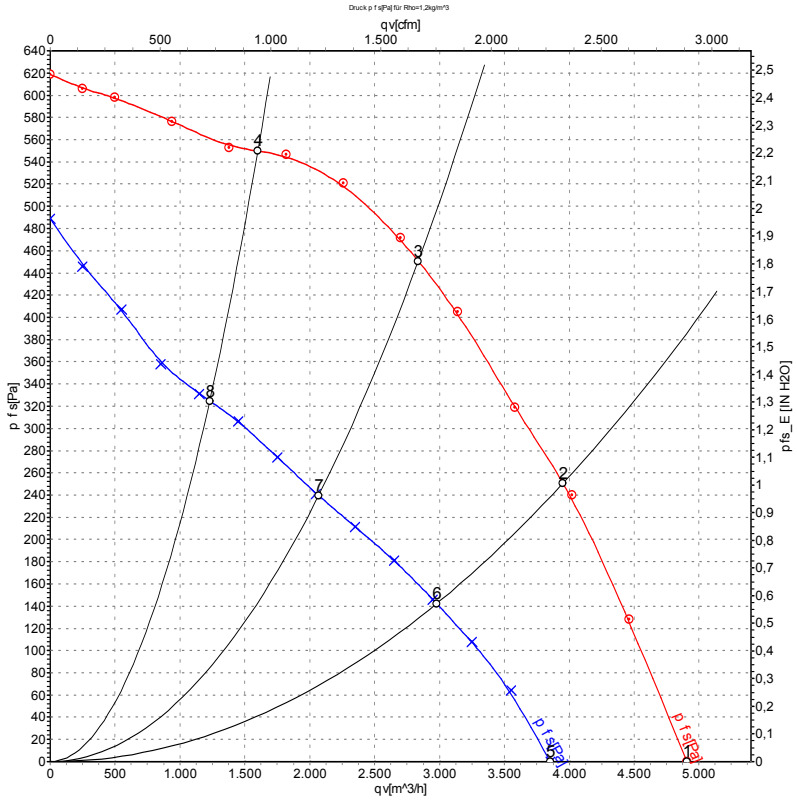
Wired = Wiring · U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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Curves: Air performance 60 Hz Δ



Measurement: LU-104787-1
Measurement: LU-104598-1

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	Δ	400	60	1370	650	1.22	4905	0	2890	0.00
2	Δ	400	60	1625	715	1.30	3950	250	2325	1.00
3	Δ	400	60	1610	750	1.44	2835	450	1670	1.81
4	Δ	400	60	1640	654	1.20	1600	550	940	2.21
5	Y	400	60	1275	480	0.86	3850	0	2265	0.00
6	Y	400	60	1220	501	0.89	2980	142	1755	0.57
7	Y	400	60	1220	515	0.93	2070	239	1215	0.96
8	Y	400	60	1260	473	0.83	1230	325	725	1.30

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