R4E250-BA09-03

AC centrifugal fan

forward-curved, single-intake



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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**R4E250-BA09-03**
Motor	**M4E094-HA**

Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Method of obtaining data		fa	ml
Valid for approval/standard		-	-
Speed (rpm)	min^{-1}	1310	1470
Power consumption	W	570	690
Current draw	A	2.48	3.05
Capacitor	µF	10	10
Capacitor voltage	VDB	450	450
Min. back pressure	Pa	0	100
Min. back pressure	inH2O	0	0.4
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	70	55
Starting current	A	6	5.1

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

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Technical description

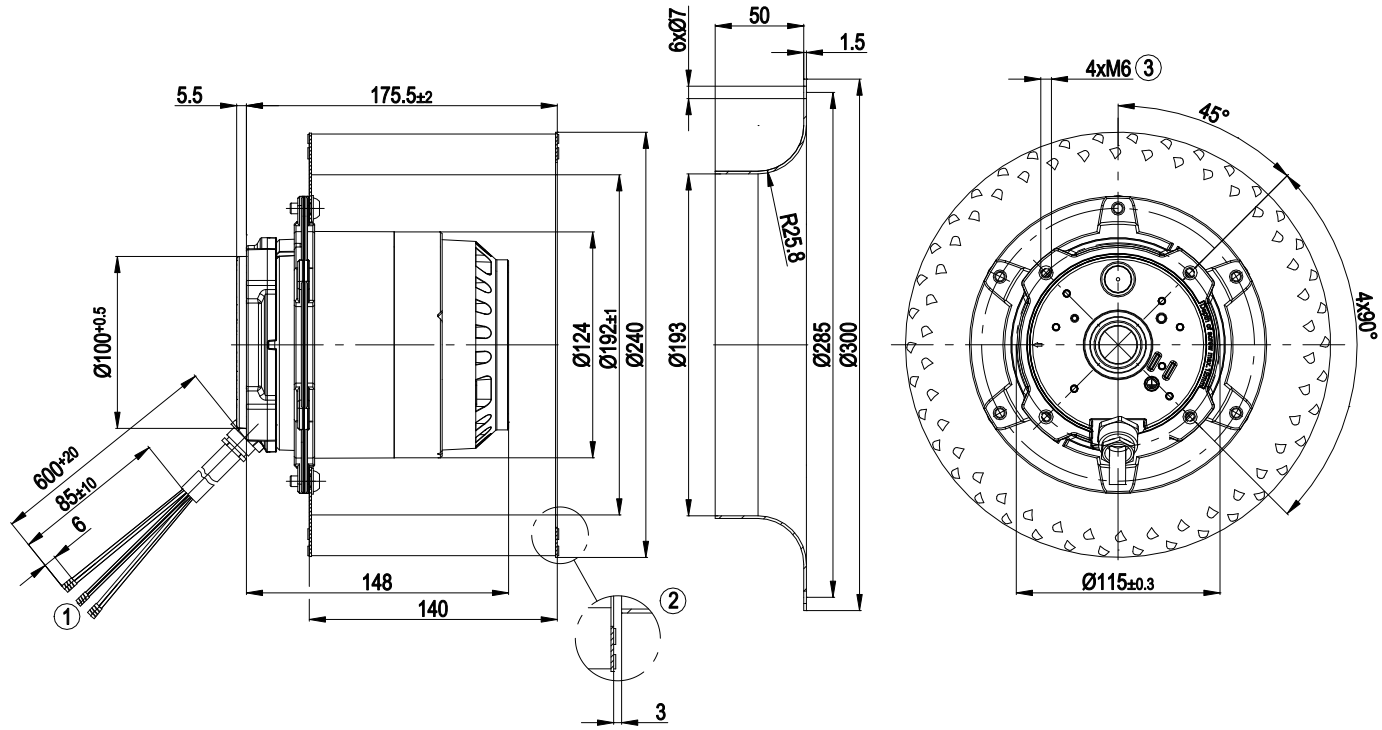
Weight	8.5 kg
Fan size	250 mm
Rotor surface	Painted black
Impeller material	Sheet steel, galvanized
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	F4-1
Max. permitted ambient temp. for motor (transport/storage)	+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	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; EAC

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Product drawing



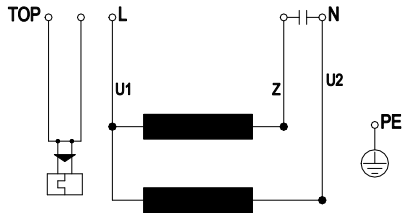
1	Cable silicone, 6x crimped splices
2	Accessory part: inlet ring 25010-2-4013 not included in scope of delivery
3	Max. clearance for screw 12 mm

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Connection diagram



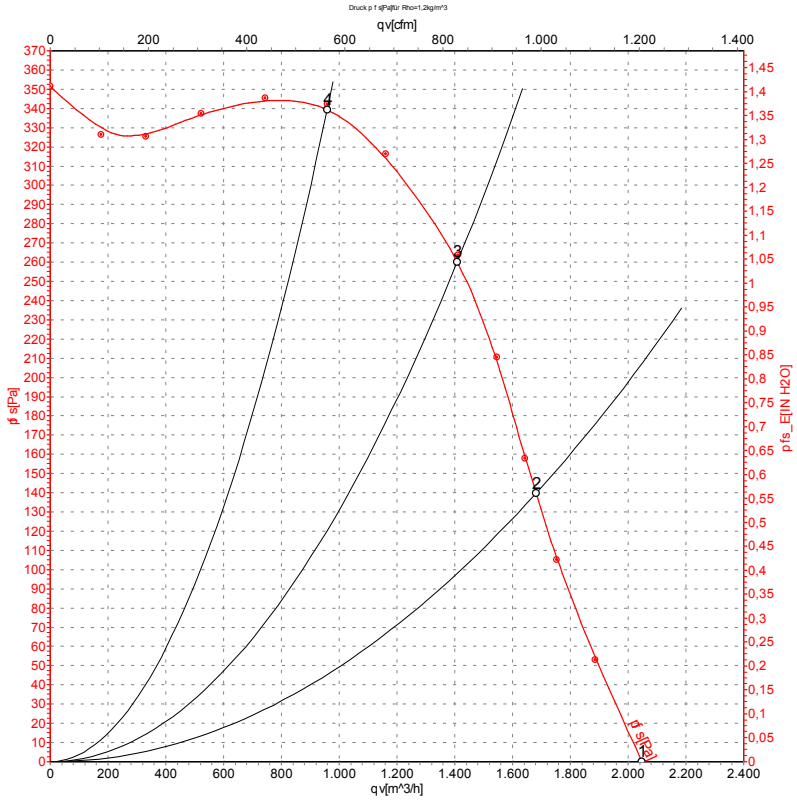
TOP	2x gray	U1	blue	Z	brown
U2	black	PE	green/yellow		

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Curves: Air performance 50 Hz



Measurement: LU-54644-1

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

	U	f	n	P_e	I	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	230	50	1310	570	2.48	2050	0	1205	0.00
2	230	50	1370	454	2.29	1680	140	990	0.56
3	230	50	1405	379	2.00	1410	260	830	1.04
4	230	50	1435	293	1.73	960	340	565	1.36

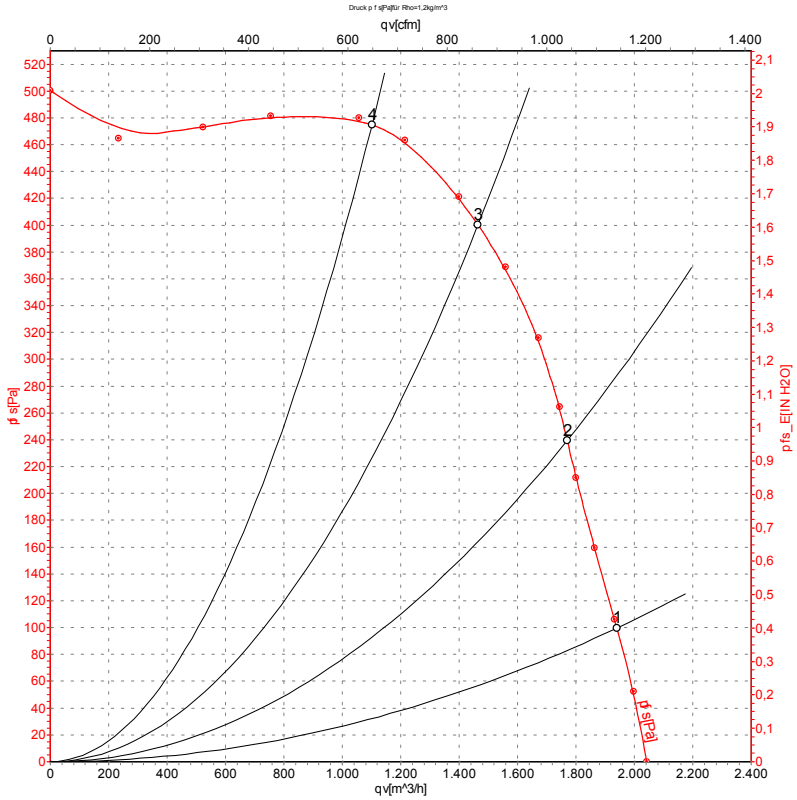
U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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Curves: Air performance 60 Hz



Measurement: LU-54645-1

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

	U	f	n	P_e	I	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	230	60	1470	690	3.05	1940	100	1140	0.40
2	230	60	1550	620	2.76	1770	240	1040	0.96
3	230	60	1635	505	2.22	1465	400	860	1.61
4	230	60	1690	412	1.79	1100	475	650	1.91

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

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