AC centrifugal fan

forward-curved, single-intake

Limited partnership · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**R4E250-CG01-01**
Motor	**M4E110-GF**

Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Method of obtaining data		ml	ml
Valid for approval/standard		-	-
Speed (rpm)	min^{-1}	1270	1240
Power consumption	W	640	820
Current draw	A	2.8	3.7
Capacitor	µF	12	12
Capacitor voltage	VDB	450	500
Min. back pressure	Pa	0	0
Min. back pressure	inH2O	0	0
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	80	60

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, hot-dip 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; EAC; UL 1004-1; VDE

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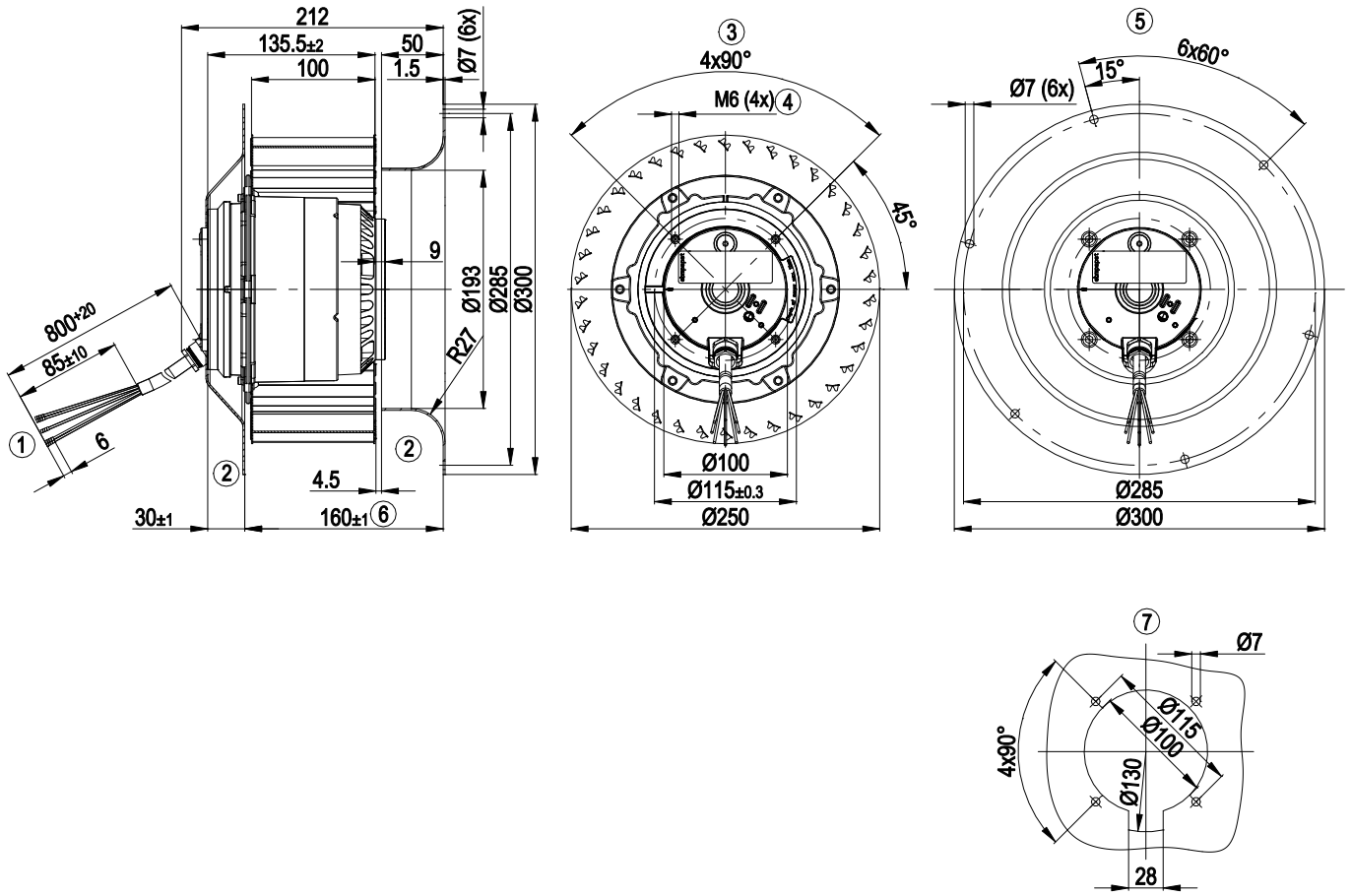
Product drawing



1	Cable silicone, 6 x 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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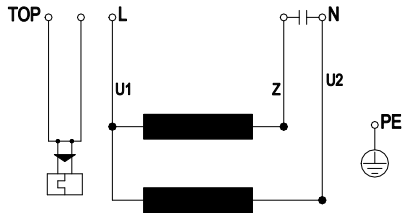
Connection diagram



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

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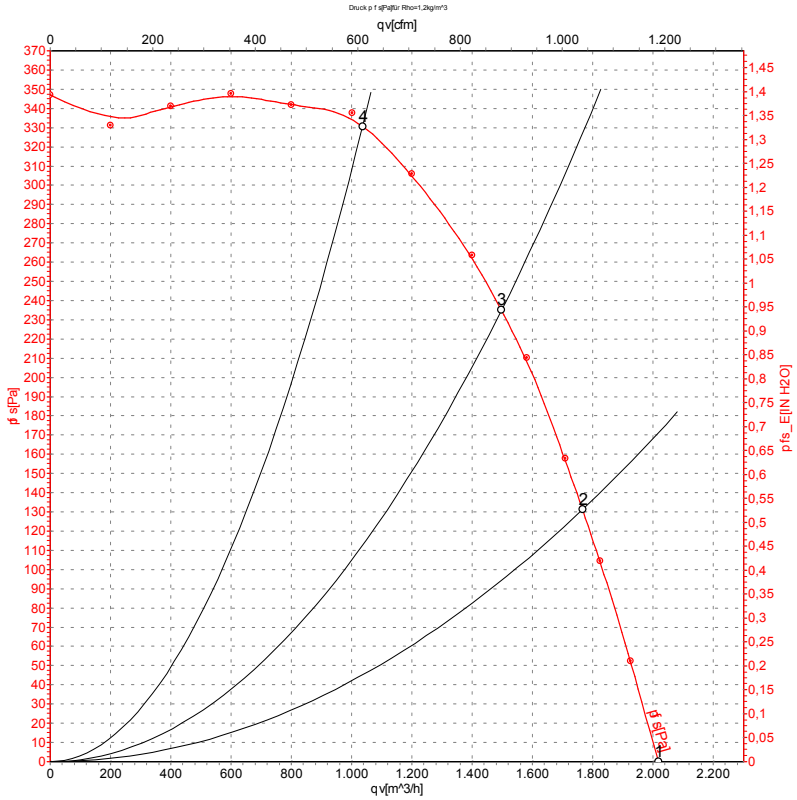
Curves: Air performance 50 Hz



Measurement: LU-73679-1

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	1270	640	2.80	2015	0	1185	0.00
2	230	50	1340	533	2.31	1765	130	1040	0.52
3	230	50	1385	451	1.97	1495	235	880	0.94
4	230	50	1425	347	1.55	1035	330	610	1.32

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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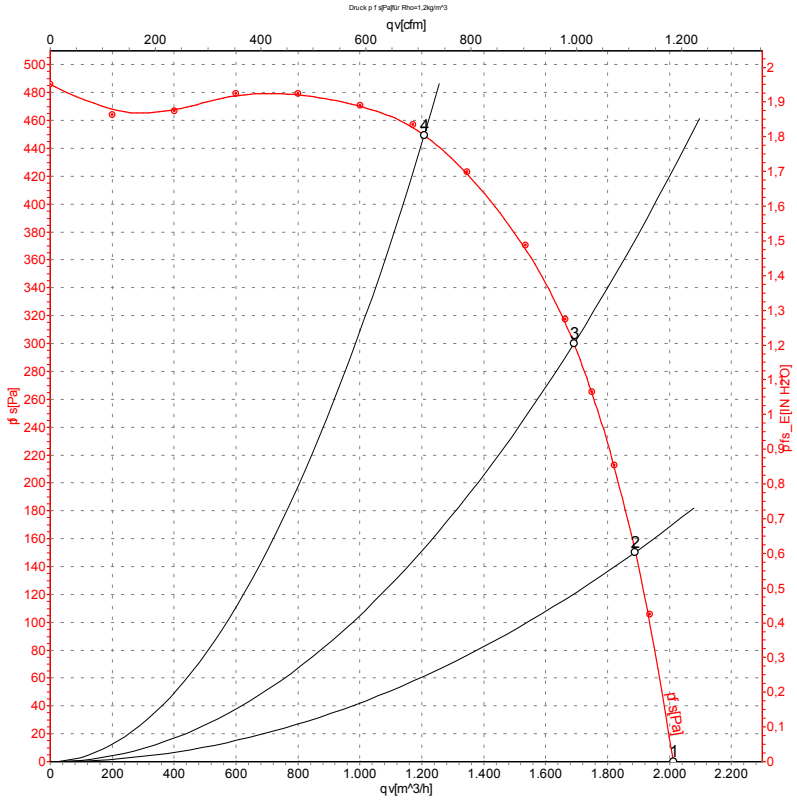
Curves: Air performance 60 Hz



Measurement: LU-74370-1

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	LwA_{in}	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	m^3/h	Pa	CFM	inH2O
1	230	60	1240	820	3.70	83	2010	0	1185	0.00
2	230	60	1425	755	3.31	82	1890	150	1110	0.60
3	230	60	1550	681	2.97	81	1690	300	995	1.20
4	230	60	1655	564	2.57	79	1210	450	710	1.81

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