R4E280-CC21-01

AC centrifugal fan

forward-curved, single-intake

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Nominal data

Type	**R4E280-CC21-01**
Motor	**M4E094-HA**

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}	1100	1350
Power consumption	W	1080	990
Current draw	A	5.3	4.7
Capacitor	µF	12	12
Capacitor voltage	VDB	400	450
Capacitor standard		S0 (CE)	S0 (CE)
Min. back pressure	Pa	100	400
Min. back pressure	inH2O	0.4	1.61
Min. ambient temperature	°C	-40	-40
Max. ambient temperature	°C	60	55
Starting current	A	7.5	7.1

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

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Technical description

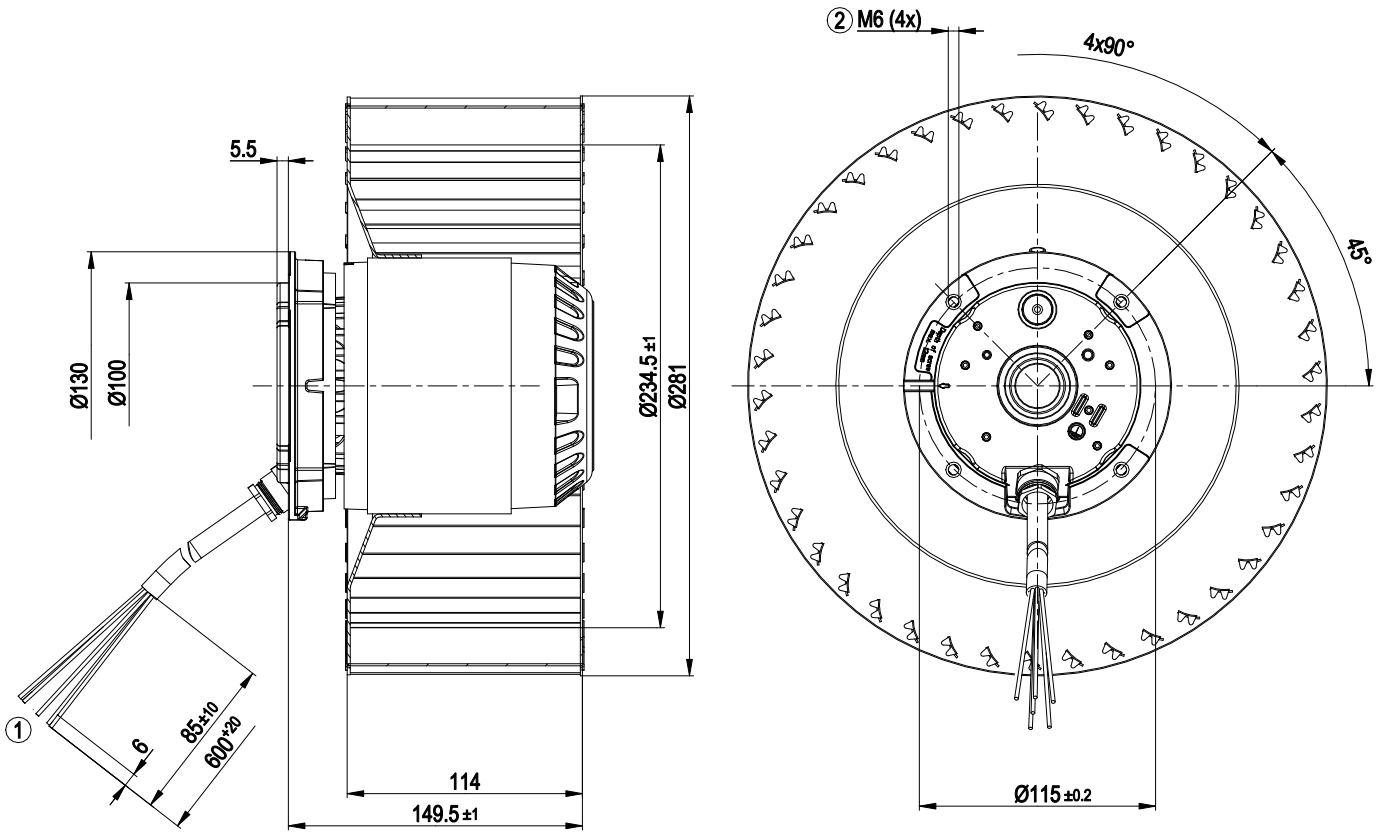
Weight	8.4 kg
Fan size	280 mm
Rotor surface	Painted black (with cooling holes)
Impeller material	Sheet steel, galvanized
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP10
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	F4-1
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	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)
Motor capacitor according to EN 60252-1 in safety protection class	S0
Conformity with standards	EN 60034-1 (2010)
Approval	EAC

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Product drawing



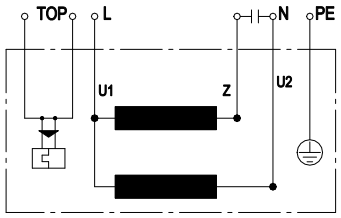
1	Cable silicone, 6x crimped splices
2	Max. clearance for screw 12 mm

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Connection diagram



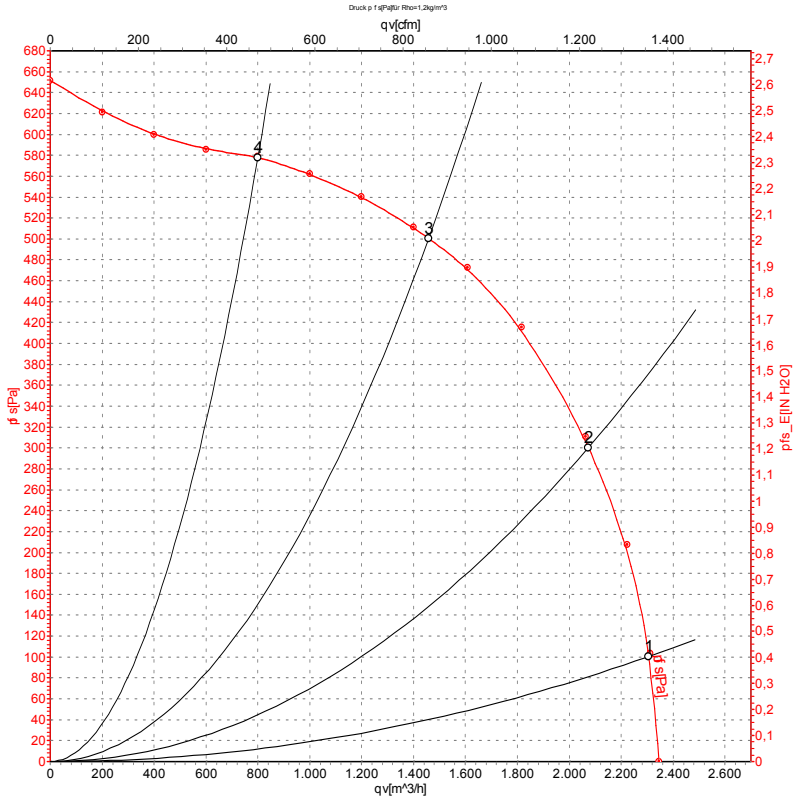
U1	blue	Z	brown	U2	black
PE	green/yellow	TOP	2x gray		

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Curves: Air performance 50 Hz



Measurement: LU-67652-1

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	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	230	50	1100	1080	5.30	2300	100	1355	0.40
2	230	50	1245	858	4.26	2075	300	1220	1.20
3	230	50	1370	593	3.14	1460	500	860	2.01
4	230	50	1420	437	2.68	800	575	470	2.31

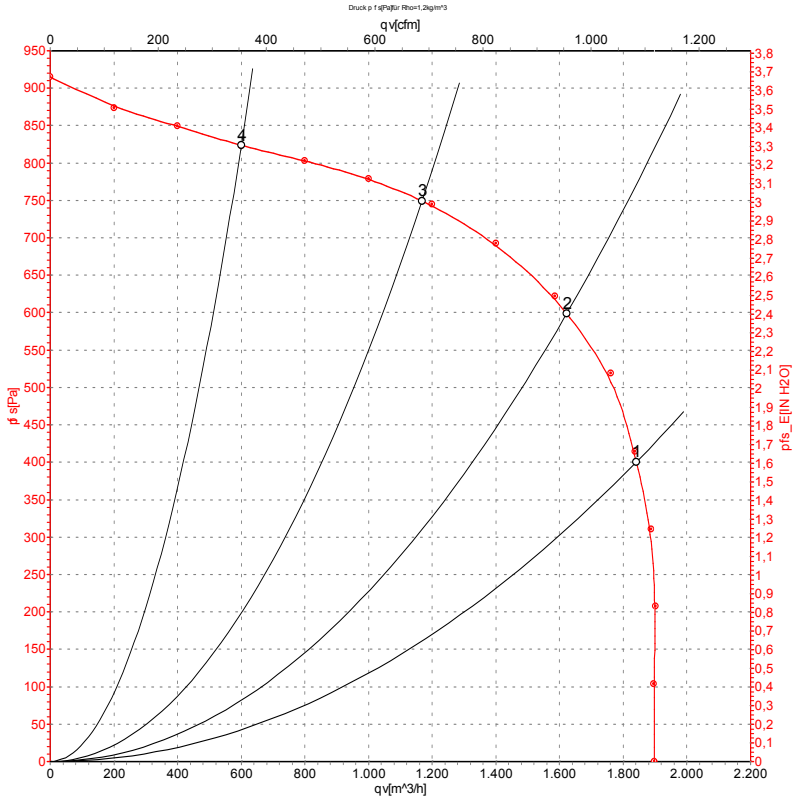
U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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Curves: Air performance 60 Hz



Measurement: LU-67653-1

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	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	230	60	1350	990	4.70	1830	400	1075	1.61
2	230	60	1500	847	3.85	1620	600	955	2.41
3	230	60	1625	655	2.92	1165	750	685	3.01
4	230	60	1690	502	2.24	600	825	355	3.31

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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