K2E220-RB86-02

AC centrifugal module - RadiCal

backward-curved, single-intake

with housing



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Nominal data

Type	**K2E220-RB86-02**
Motor	**M2E068-CF**

Phase		1~	1~	1~
Nominal voltage	VAC	115	115	115
Frequency	Hz	50	60	60
Method of obtaining data		ml	ml	ml
Valid for approval/standard		CE	CE	UL 2111
Speed (rpm)	min^{-1}	2480	2600	2600
Power consumption	W	105	140	150
Current draw	A	0.93	1.23	1.26
Capacitor	µF	10	10	10
Capacitor voltage	VDB	250	250	250
Capacitor standard		S0 (CE)	S0 (CE)	UL
Min. back pressure	Pa	0	0	0
Min. back pressure	inH2O	0	0	0
Min. ambient temperature	°C	-25	-25	-25
Max. ambient temperature	°C	80	80	80
Starting current	A	1.62	1.63	1.72

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	2.4 kg
Fan size	220 mm
Rotor surface	Painted black
Impeller material	PA plastic
Housing material	PA plastic
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H0+
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)	< 0.75 mA
Electrical hookup	With plug
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE
Approval	UL 2111; CSA C22.2 No. 77; CCC

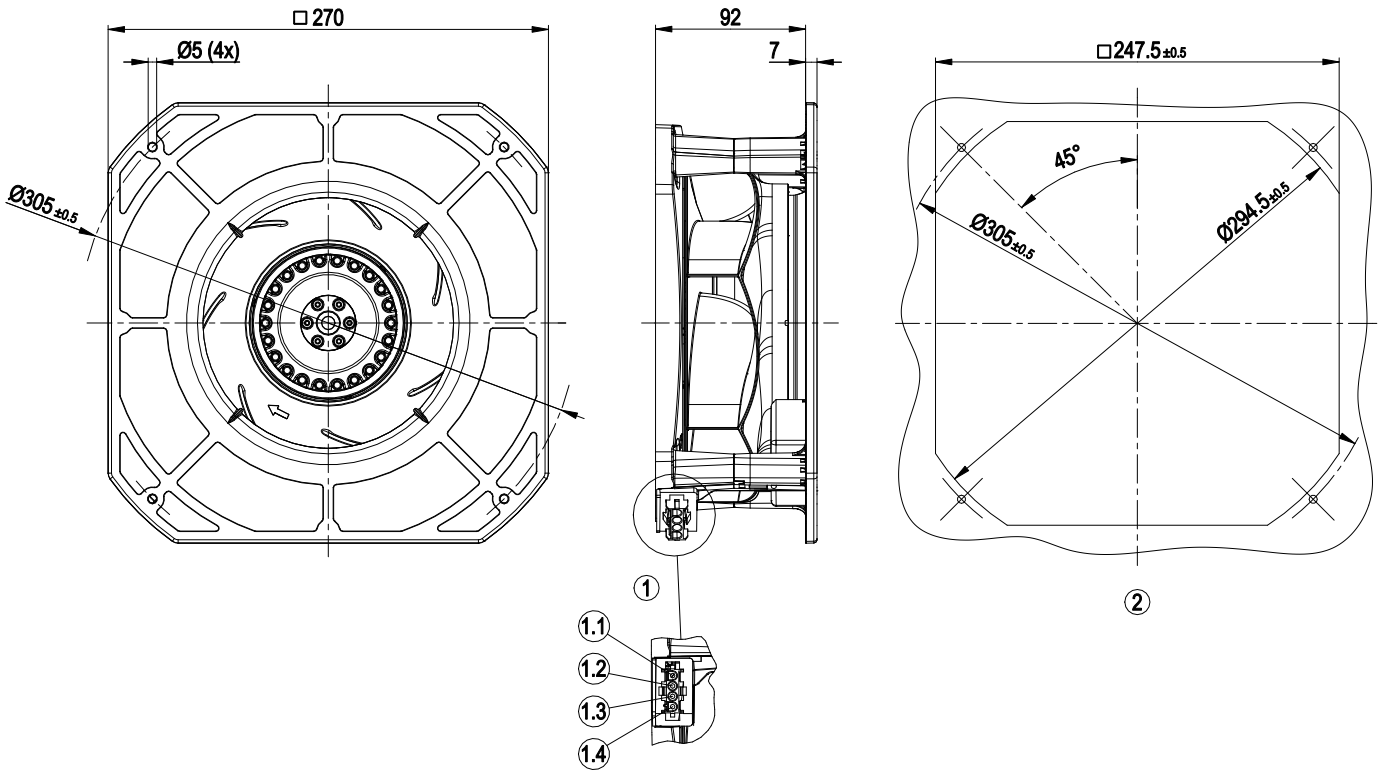
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Product drawing



1	tyco coded plug system
	4-pole connector housing tyco 926305-7
	4x plug pin tyco 926 885-1
	Mating connector (not included in scope of delivery):
	4-pole connector housing tyco 926298-6
	4x socket tyco 926 884-1
1.1	PE
1.2	L
1.3	N + capacitor
1.4	Capacitor
	(capacitor not included in scope of delivery)
2	Mounting dimensions

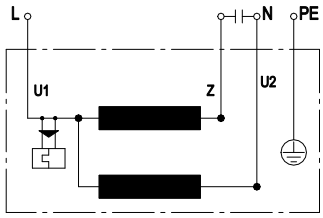
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Connection diagram



U1	blue	Z	brown	U2	black
PE	green/yellow				

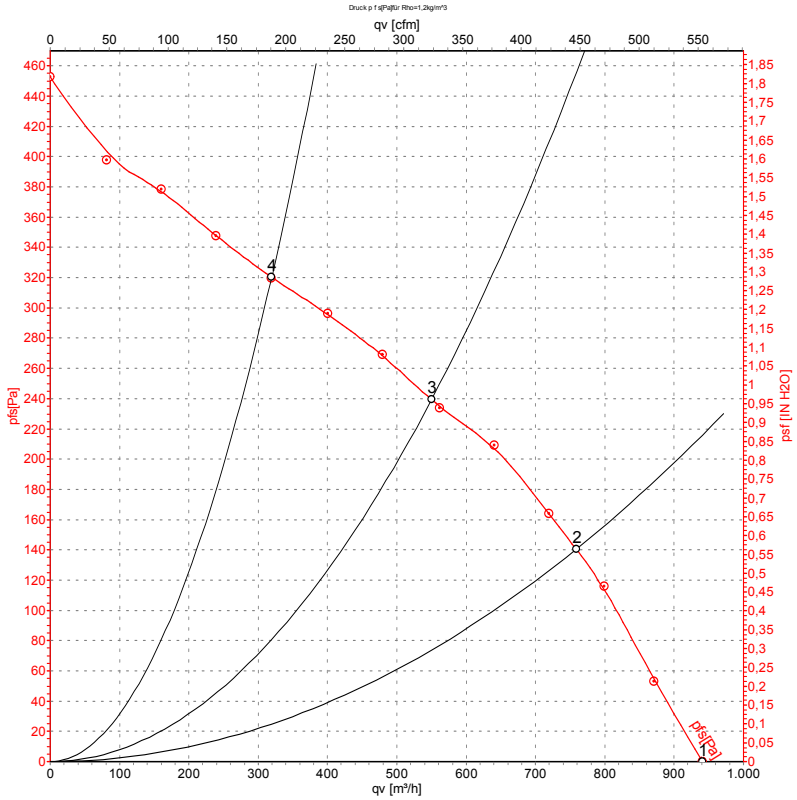
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Curves: Air performance 50 Hz



Measurement: LU-137611-1

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	115	50	2600	92	0.82	940	0	555	0.00
2	115	50	2530	99	0.88	760	140	445	0.56
3	115	50	2480	105	0.93	550	240	325	0.96
4	115	50	2535	99	0.87	320	320	190	1.28

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

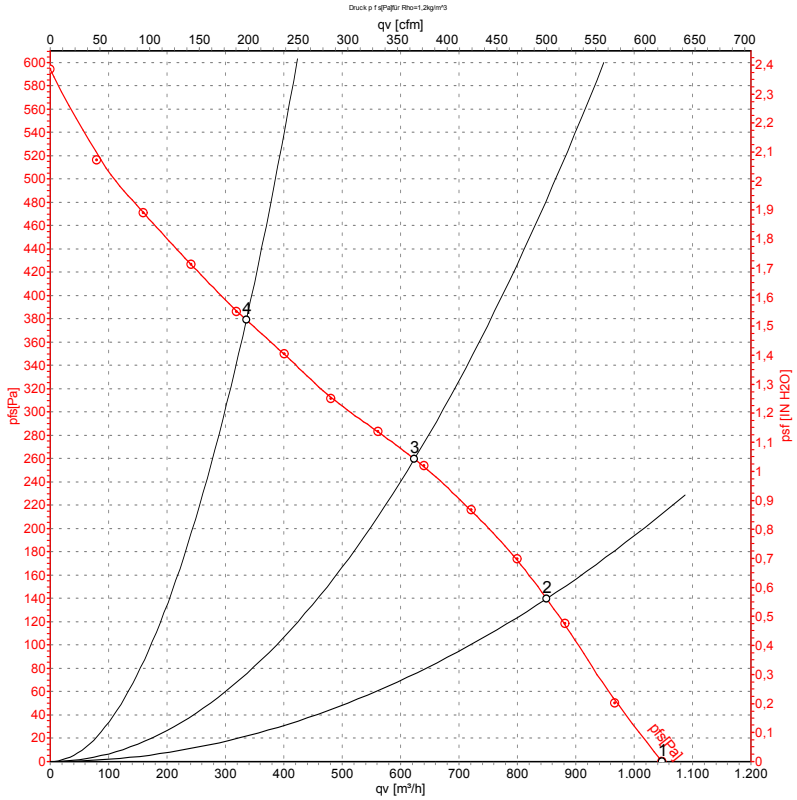
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Curves: Air performance 60 Hz



Measurement: LU-137606-1

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	115	60	2885	129	1.12	1050	0	615	0.00
2	115	60	2740	135	1.17	850	140	500	0.56
3	115	60	2600	140	1.23	625	260	365	1.04
4	115	60	2745	133	1.16	335	380	200	1.53

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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