K2E250-RB06-12

AC centrifugal fan - RadiCal

backward-curved, single-intake

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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**K2E250-RB06-12**
Motor	**M2E074-EI**

Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Method of obtaining data		ml	ml
Valid for approval/standard		CE	CE
Speed	min^{-1}	2750	3100
Power consumption	W	250	390
Current draw	A	1.1	1.71
Capacitor	µF	5	5
Capacitor voltage	VDB	450	450
Capacitor standard		P0 (CE)	P0 (CE)
Min. back pressure	Pa	0	0
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	75	65
Starting current	A	3.15	3.0

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

Data according to ErP Directive

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	45	45
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		62	62
05 Variable speed drive		No	

09 Power consumption P_e	kW	0.24
09 Air flow q_v	m^3/h	900
09 Pressure increase p_{fs}	Pa	439
10 Speed n	min^{-1}	2775
11 Specific ratio*		1.00

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

* Specific ratio = 1 + p_{fs} / 100 000 Pa

LU-130850

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Technical description

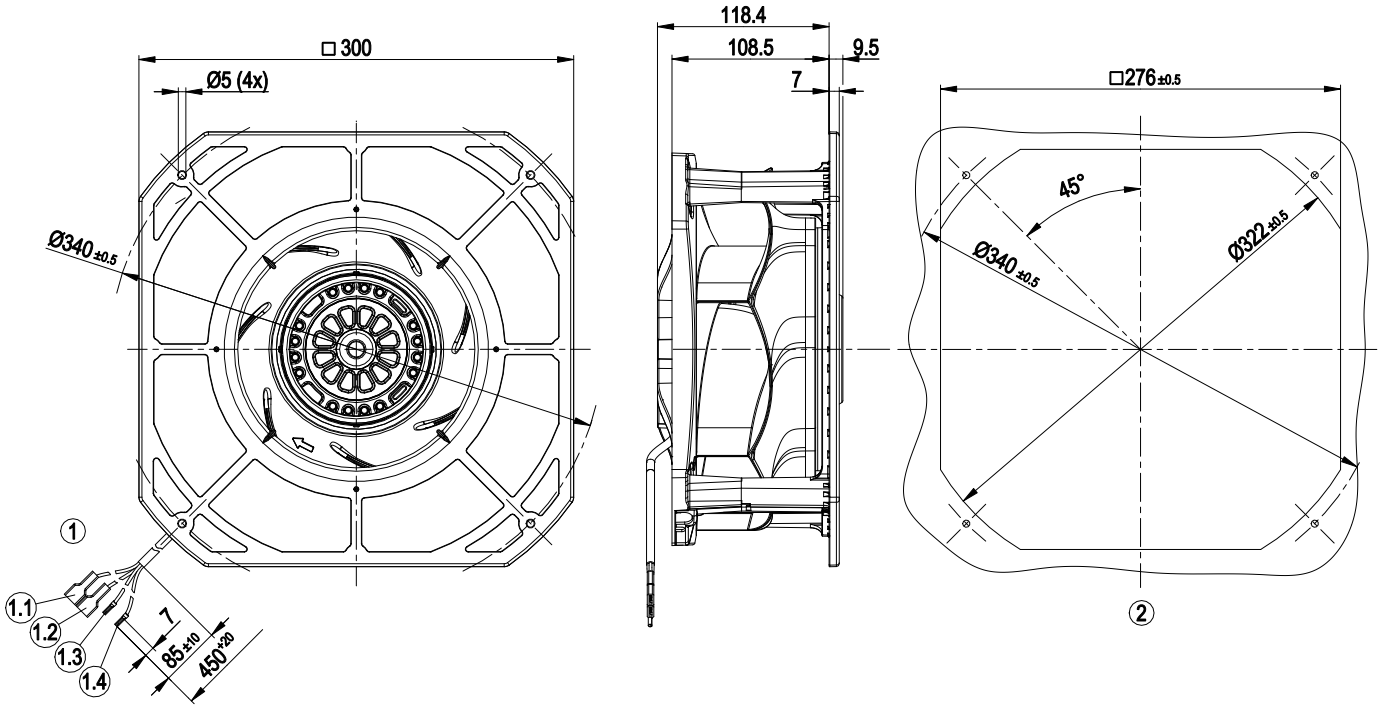
Weight	4.6 kg
Fan size	250 mm
Rotor surface	Painted black
Impeller material	PA plastic, galvanized sheet-metal plate
Housing material	PA plastic
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H1
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 top; rotor on bottom 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
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Motor capacitor according to EN 60252-1 in safety protection class	P0/S0
Conformity with standards	EN 60335-1; CE

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Product drawing



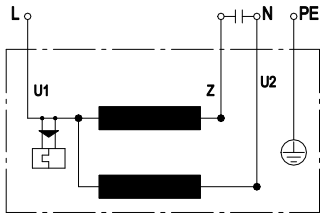
1	Cable silicone 4G 0.5 mm², 2x wire-end ferrules, 2x flat push-on receptacle 6.3x0.8 with insulating sleeve crimped
1.1	Z (brown), flat push-on receptacle 6.3x0.8 with insulating sleeve
1.2	N (black), flat push-on receptacle 6.3x0.8 with insulating sleeve
1.3	L (blue), wire-end ferrule
1.4	PE (green/yellow), wire-end ferrule
2	Mounting dimensions

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Connection diagram



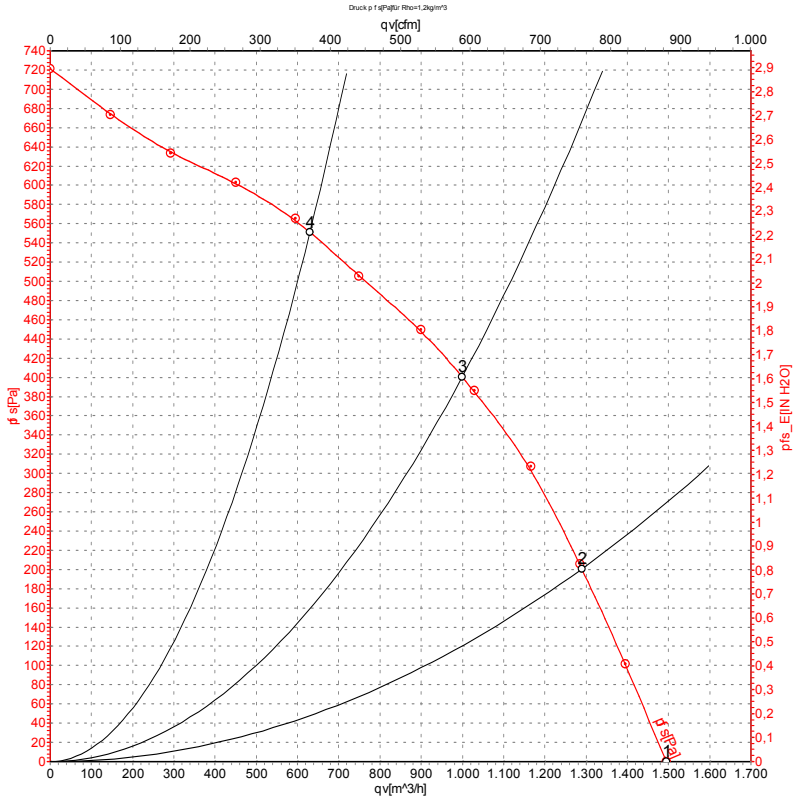
U1	blue	Z	brown	U2	black
PE	green/yellow				

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Curves: Air performance 50 Hz



Measurement: LU-130850

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	LpA_{in}	LwA_{in}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa
1	230	50	2800	215	0.95	69	78	1495	0
2	230	50	2790	237	1.03	65	74	1290	200
3	230	50	2750	250	1.10	62	71	1000	400
4	230	50	2800	227	0.99	66	74	630	550

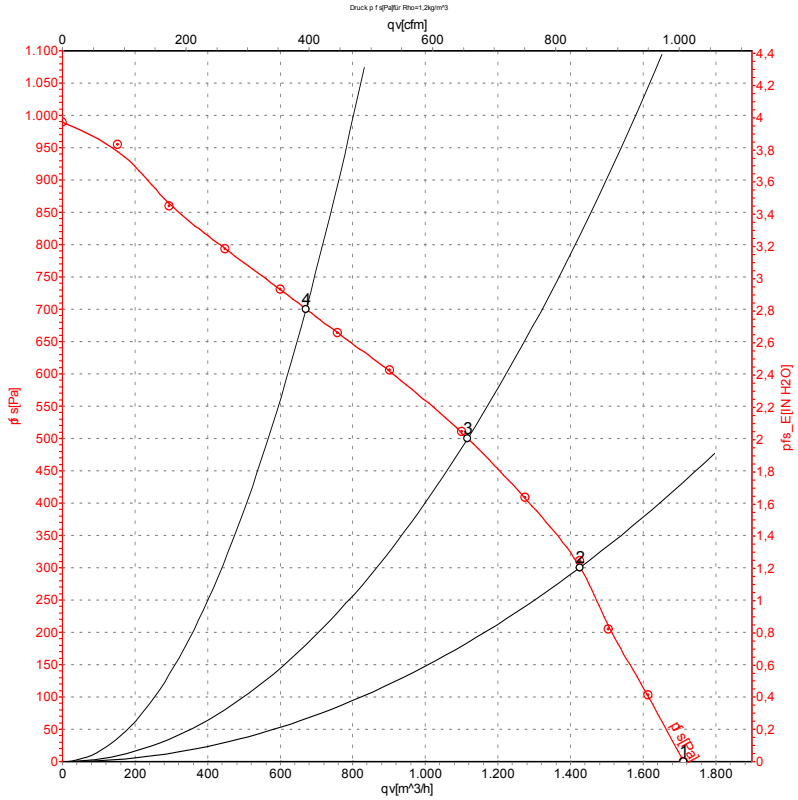
U = Power supply · f = Frequency · n = Speed · P_e = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · LwA_{in} = Sound power level intake side
qv = Air flow · p_{fs} = Pressure increase

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Curves: Air performance 60 Hz



Measurement: LU-130856

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	LpA_{in}	LwA_{in}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa
1	230	60	3200	345	1.51	73	81	1710	0
2	230	60	3155	364	1.59	67	76	1425	300
3	230	60	3100	390	1.71	65	73	1115	500
4	230	60	3150	365	1.59	70	80	670	700

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

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