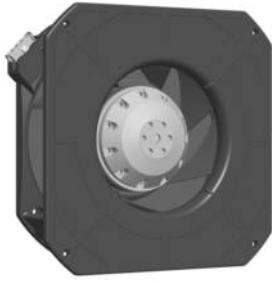


K2E175-AR54-01

AC centrifugal compact fan

backward-curved



K2E175-AR54-01 ebmpapst Datasheet

sales@fansco.com

www.fansco.com

Nominal data

Type	K2E175-AR54-01		
Motor	M2E052-CA		
Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Method of obtaining data		fa	fa
Valid for approval/standard		CE	CE
Speed (rpm)	min ⁻¹	2550	2950
Power consumption	W	42	51
Current draw	A	0.2	0.24
Capacitor	µF	1.5	1.5
Capacitor voltage	VDB	400	400
Capacitor standard		S0 (CE)	S0 (CE)
Min. back pressure	Pa	0	0
Min. back pressure	in. wg	0	0
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	60	60

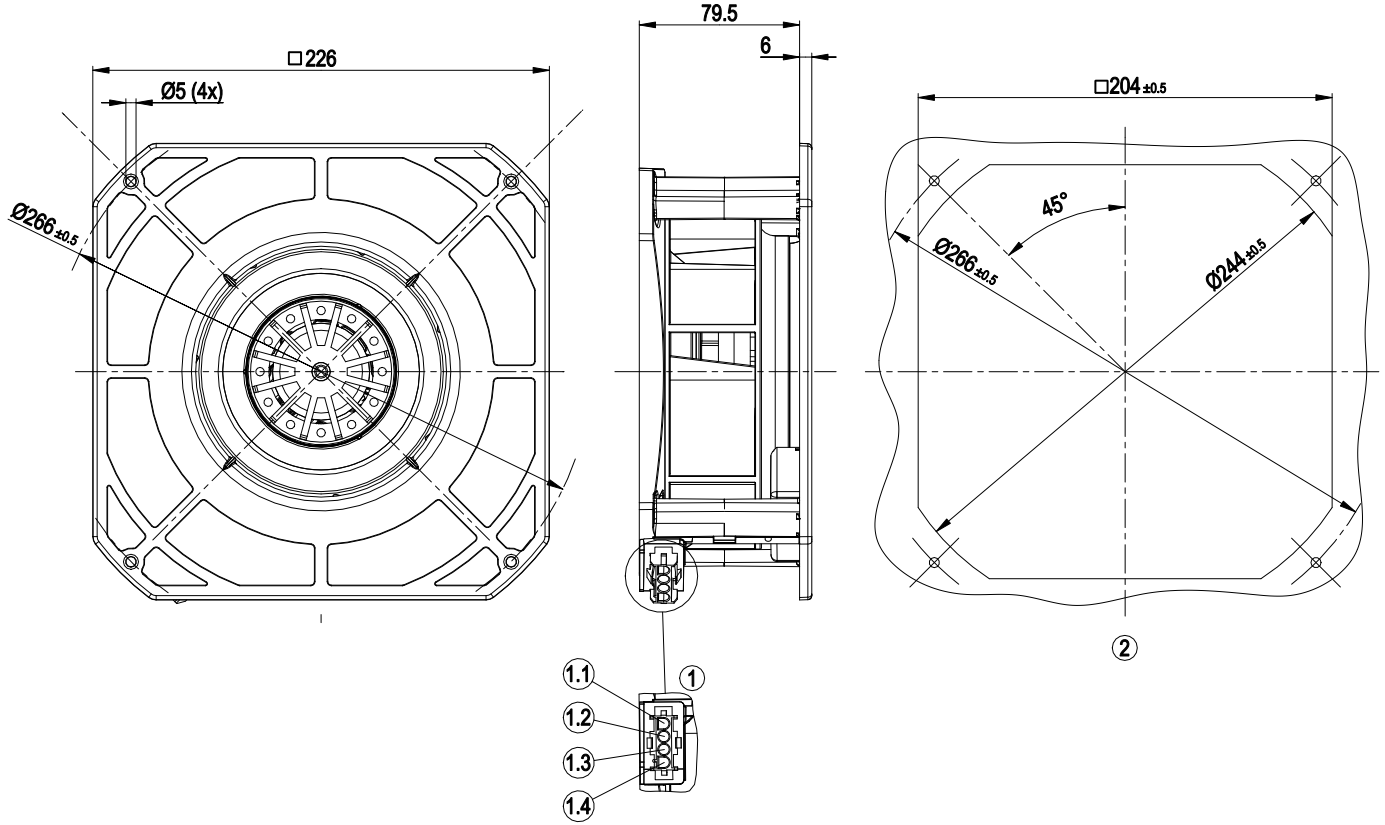
ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change



Technical description

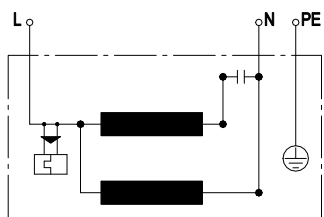
Weight	1.3 kg
Size	175 mm
Motor size	52
Rotor surface	Painted black
Impeller material	PA plastic
Housing material	PA plastic
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP20
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	F1-2; H0+
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, open rotor
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	Lateral
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 60335-1; CE

Product drawing



1	tyco coded plug system
	4-pole connector housing tyco 926305-7
	2x plug pin tyco 926885-1, 2x plug pin tyco 350218-1
	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 wired internally)
2	Mounting dimensions

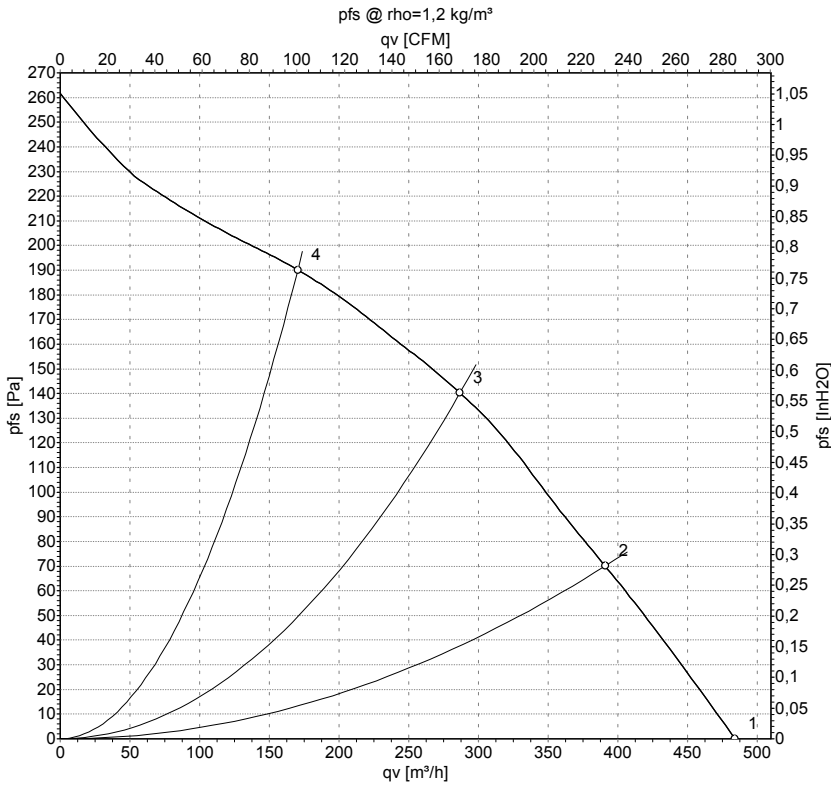
Connection diagram



L	blue	N	black	PE	green/yellow
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Curves: Air performance 50 Hz



Measurement: LU-116503-1

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.

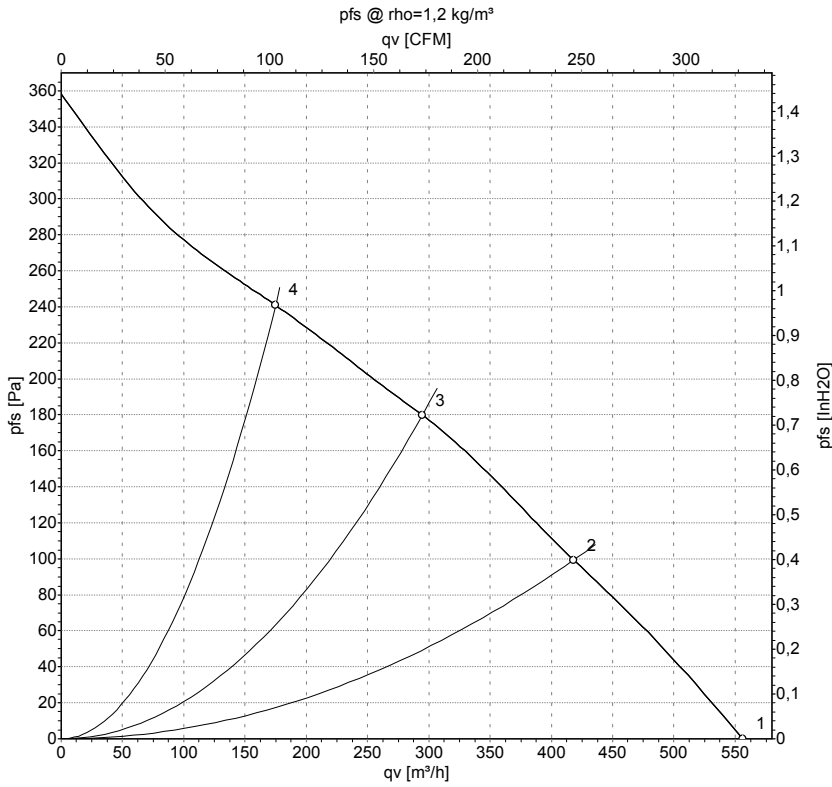
Measured values

	U	f	n	P _e	I	LpA _{in}	LwA _{in}	q _v	p _{fs}	q _v	p _{fs}
	V	Hz	min ⁻¹	W	A	dB(A)	dB(A)	m ³ /h	Pa	cfm	in. wg
1	230	50	2550	42	0.20	60	67	485	0	285	0.00
2	230	50	2505	44	0.20	56	64	390	70	230	0.28
3	230	50	2450	46	0.20	54	61	285	140	170	0.56
4	230	50	2500	44	0.19	58	66	170	190	100	0.76

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



Curves: Air performance 60 Hz



Measurement: LU-116504-1

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	LpA _{in}	LwA _{in}	q _v	p _{fs}	q _v	p _{fs}
	V	Hz	min ⁻¹	W	A	dB(A)	dB(A)	m ³ /h	Pa	cfm	in. wg
1	230	60	2950	51	0.24	63	70	555	0	325	0.00
2	230	60	2775	56	0.24	58	66	420	100	245	0.40
3	230	60	2680	58	0.25	56	63	295	180	175	0.72
4	230	60	2785	55	0.24	61	68	175	240	105	0.96

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

