

K4E146-AB73-21

AC dual centrifugal fan

forward-curved, dual-intake
with housing



Nominal data

Type	K4E146-AB73-21	
Motor	M4E068-DF	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50
Method of obtaining data		fa
Valid for approval/standard		CE
Speed (rpm)	min ⁻¹	750
Power consumption	W	85
Current draw	A	0.38
Capacitor	µF	2.5
Capacitor voltage	VDB	450
Capacitor standard		S2 (CE)
Min. back pressure	Pa	0
Min. back pressure	in. wg	0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50

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	4.0 kg
Size	146 mm
Motor size	68
Rotor surface	Partly cast in aluminum
Terminal box material	PP plastic, black
Impeller material	PP plastic (black)
Housing material	PP plastic, black
Motor suspension	Motor vibration-damped on both sides
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H0 - dry environment
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
Speed levels	5
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Electrical hookup	Connector with cable
Motor protection	Thermal switch auto reset, internally connected
With cable	Variable
Protection class assignment	I; If a protective earth is connected by the customer This component for installation may have several local protection classes. This information relates to this component's basic design. The final protection class is based on the component's intended installation and connection.
Motor capacitor according to EN 60252-1 in safety protection class	S2
Conformity with standards	EN 60034-1; EN 60204-1; EN 60335-1; CE
Comment on CE	Ecodesign Directive 2009/125/EC + Fan Directive (EC) No. 327/2011 does not apply, as power consumption <125W.
Approval	EAC; CCC


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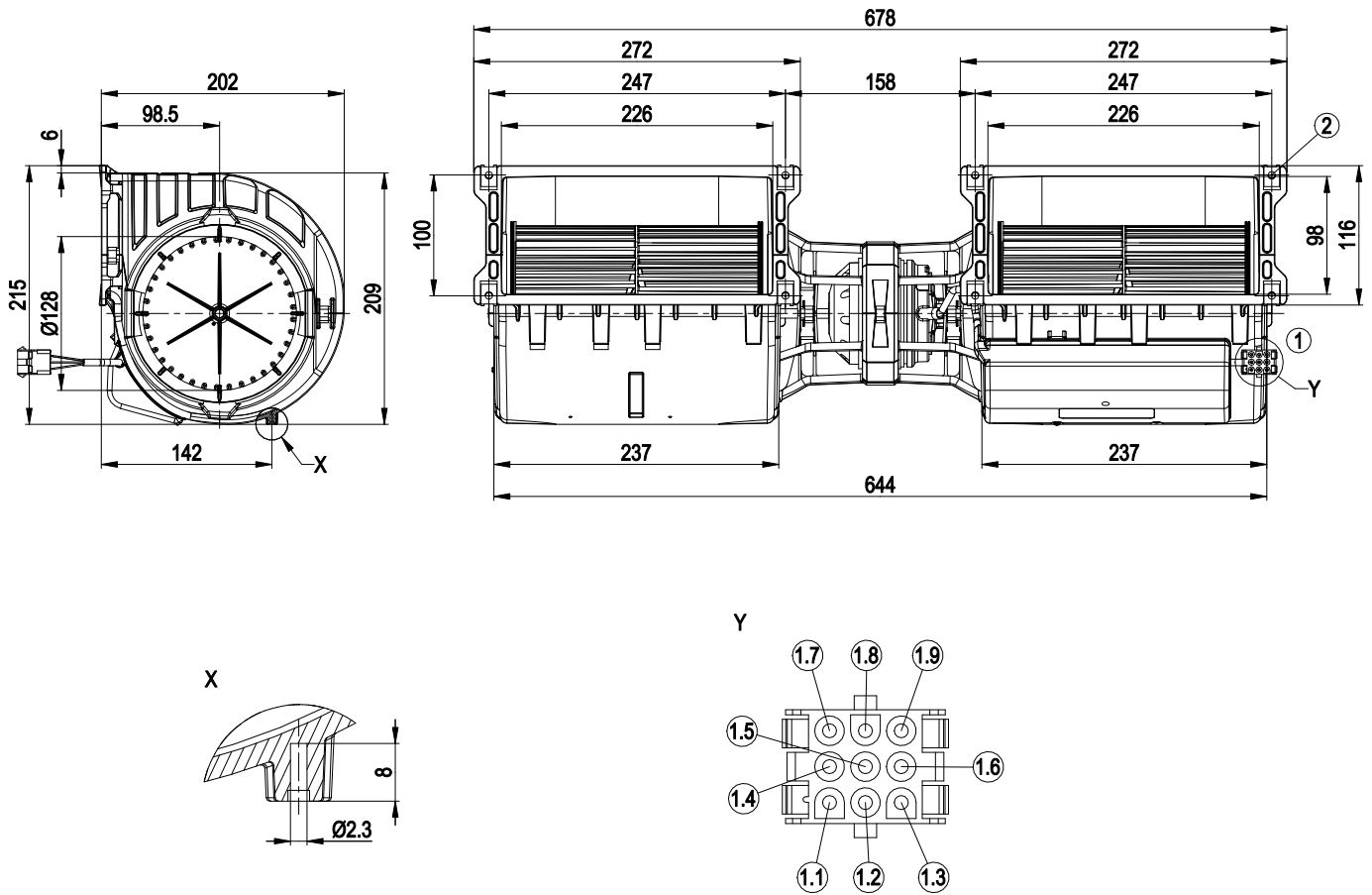
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Product drawing



1	Cable ETFE AWG20, 1x plug pin tyco 926886-1, cable ETFE AWG22, 6x plug pin tyco 926886-1, 1x 9-pole connector housing tyco 927231-5
1.1	Step 1 (min.)
1.2	Step 2
1.3	Step 3
1.4	Step 4
1.5	Step 5 (max.)
1.6	-
1.7	-
1.8	N
1.9	Protective earth
2	8x sheet metal nut for thread EN ISO 1478-ST4.8 (min. screw length 14.5 mm plus material thickness of attachment)

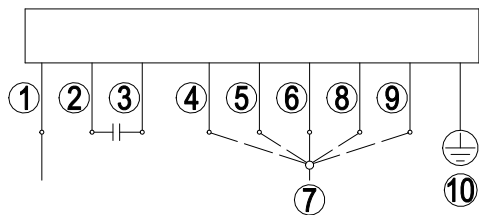


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Connection diagram



Note: High speed (step V); low speed (step I); the switch must interrupt the circuit on switching.

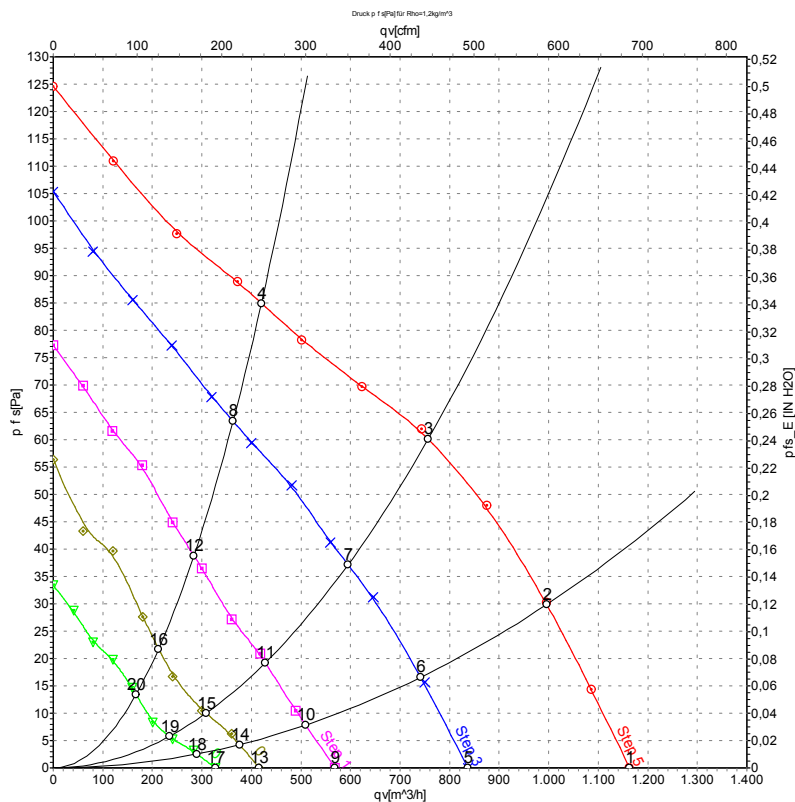
1	= N = blue	2	brown	3	yellow
4	Step I (white)	5	Step II (red)	6	Step III (gray)
7	L1	8	Step IV (orange)	9	Step V (black)
10	PE (green/yellow)				



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Curves: Air performance 50 Hz



Measurement: LU-103355-1
Measurement: LU-73391-1
Measurement: LU-73392-1
Measurement: LU-73393-1
Measurement: LU-73395-1

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

	Stage	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	5	230	50	750	85	0.38	46	57	1165	0	685	0.00
2	5	230	50	900	82	0.36	45	55	995	30	585	0.12
3	5	230	50	1070	75	0.33	45	55	755	60	445	0.24
4	5	230	50	1235	66	0.29	46	56	420	85	245	0.34
5	4	230	50	540	65	0.29			835	0	490	0.00
6	4	230	50	685	62	0.28			740	17	435	0.07
7	4	230	50	850	59	0.27			595	37	350	0.15
8	4	230	50	1060	52	0.24			365	63	215	0.25
9	3	230	50	365	50	0.23			570	0	335	0.00
10	3	230	50	470	49	0.23			510	8	300	0.03
11	3	230	50	605	47	0.22			430	19	250	0.08
12	3	230	50	835	43	0.21			285	39	165	0.16
13	2	230	50	290	14	0.16			415	0	245	0.00
14	2	230	50	350	14	0.16			375	4	220	0.02
15	2	230	50	455	14	0.16			310	10	180	0.04
16	2	230	50	635	14	0.15			215	22	125	0.09
17	1	230	50	225	9.3	0.13			325	0	190	0.00
18	1	230	50	285	9.4	0.13			290	3	170	0.01
19	1	230	50	360	9.4	0.13			235	6	140	0.02
20	1	230	50	490	9.5	0.13			165	14	100	0.06

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

