K4E146-AB73-21

AC dual centrifugal fan

forward curved, dual inlet

with housing



ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.com

Limited partnership · Headquarters Mulfingen
County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
County court Stuttgart · HRB 590142

Nominal data

Type	**K4E146-AB73-21**
Motor	**M4E068-DF**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50
Type of data definition		fa
Valid for approval / standard		CE
Speed (rpm)	min^{-1}	750
Power input	W	85
Current draw	A	0.38
Motor capacitor	µF	2.5
Capacitor voltage	VDB	450
Capacitor standard		S2 (CE)
Min. back pressure	Pa	0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

AC dual centrifugal fan

forward curved, dual inlet

with housing

Technical features

Mass	4.0 kg
Size	146 mm
Surface of rotor	Partially cast in aluminium
Material of terminal box	PP plastic, black
Material of impeller	Plastic, PP (black)
Housing material	PP plastic, black
Motor suspension	Motor anti-vibration mounted on both sides
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position
Insulation class	"F"
Humidity (F)/environmental protection class (H)	H0 - dry environment
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	None
Operation mode	S1
Motor bearing	Ball bearing
Speed steps	5
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	< 0.75 mA
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Motor capacitor according to EN 60252-1 in safety protection class	S2
Product conforming to standard	EN 60335-1; CE
Approval	CCC; EAC

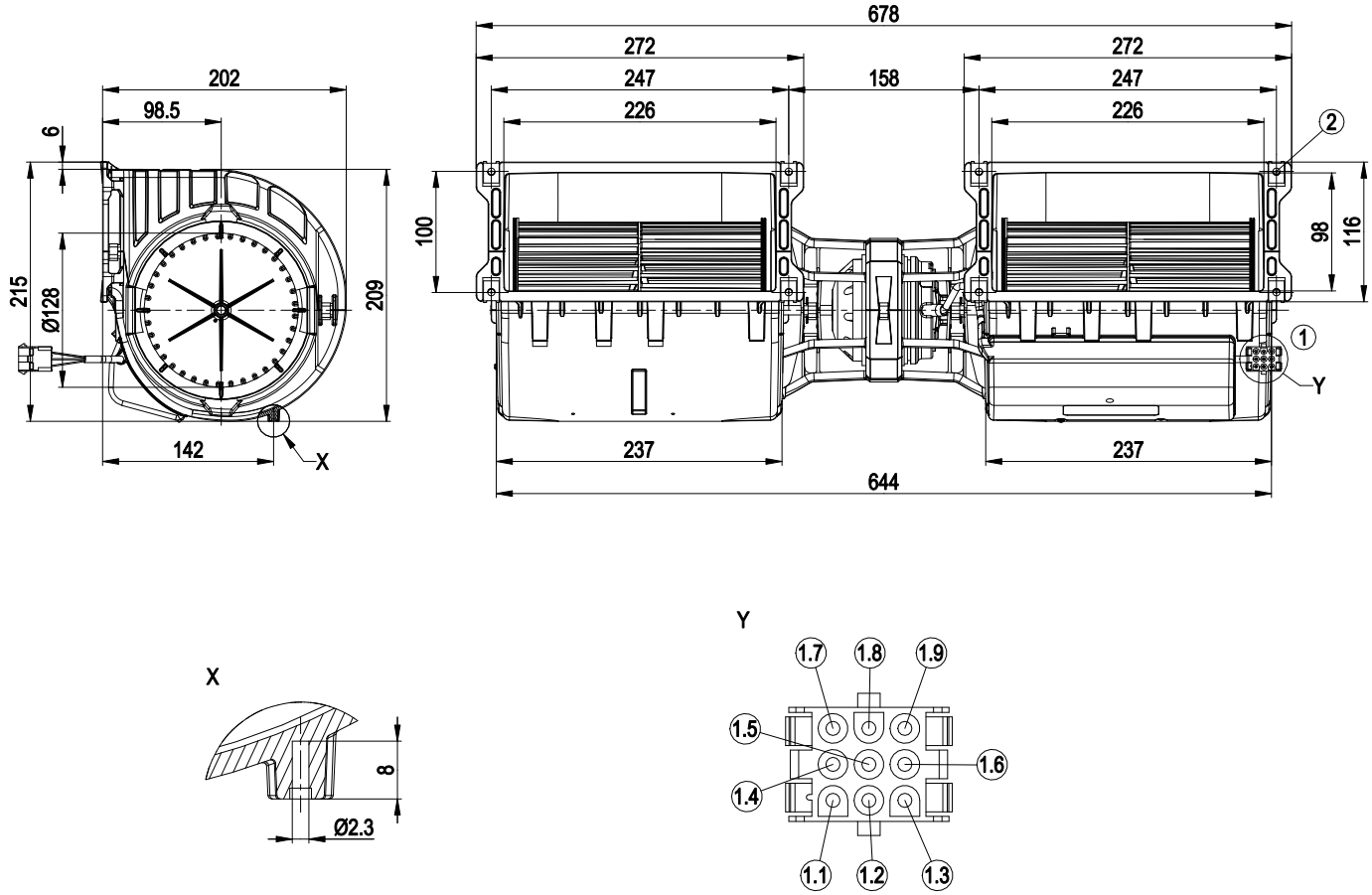
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

AC dual centrifugal fan

forward curved, dual inlet

with housing

Product drawing



1	Connection line ETFE AWG20, 1x plug pin tyco 926886-1, connection line ETFE AWG22, 6x plug pin tyco 926886-1, 1x connector housing 9-pole 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 thickness of mounting material)

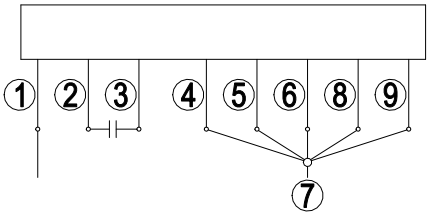
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

AC dual centrifugal fan

forward curved, dual inlet

with housing

Connection screen



Note: Fast speed (step V); slow speed (step I)

1	= N = blue	2	brown	3	yellow
4	Step I white	5	Step II red	6	Step III grey
7	L1	8	Step IV orange	9	Step V black

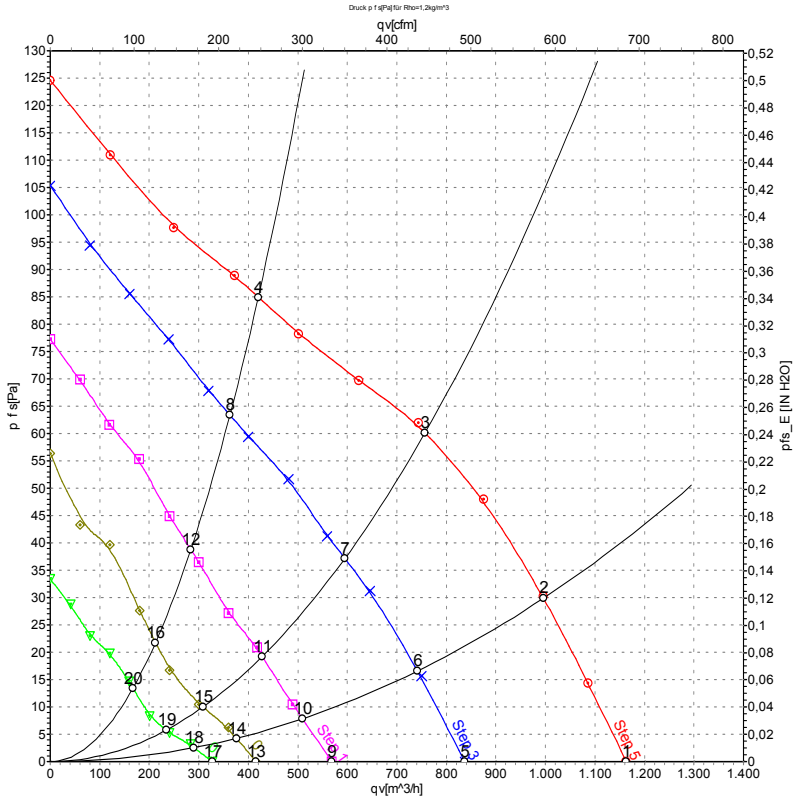
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

AC dual centrifugal fan

forward curved, dual inlet

with housing

Charts: Air flow 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 as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

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	inH2O
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 = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · q_V = Air flow
p_{fs} = Pressure increase

ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com