K4E146-AB73-17

AC centrifugal fan combination

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-AB73-17**
Motor	**M4E068-DF**

Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	50
Type of data definition		cs	fa
Valid for approval / standard		CE	CE
Speed	min^{-1}	1135	750
Power input	W	71	85
Current draw	A	0.31	0.38
Motor capacitor	µF	2.5	2.5
Capacitor voltage	VDB	450	450
Capacitor standard		P2 (CE)	P2 (CE)
Min. back pressure	Pa	68	0
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	60	50
Starting current	A	0.43	

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

AC centrifugal fan combination

forward curved, dual inlet

with housing

Technical features

Mass	4.2 kg
Size	146 mm
Surface of rotor	Partially cast in aluminium
Material of terminal box	PP plastic
Material of impeller	PA plastic
Housing material	PP plastic
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 class	F0
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)
Product conforming to standard	EN 60335-1; CE

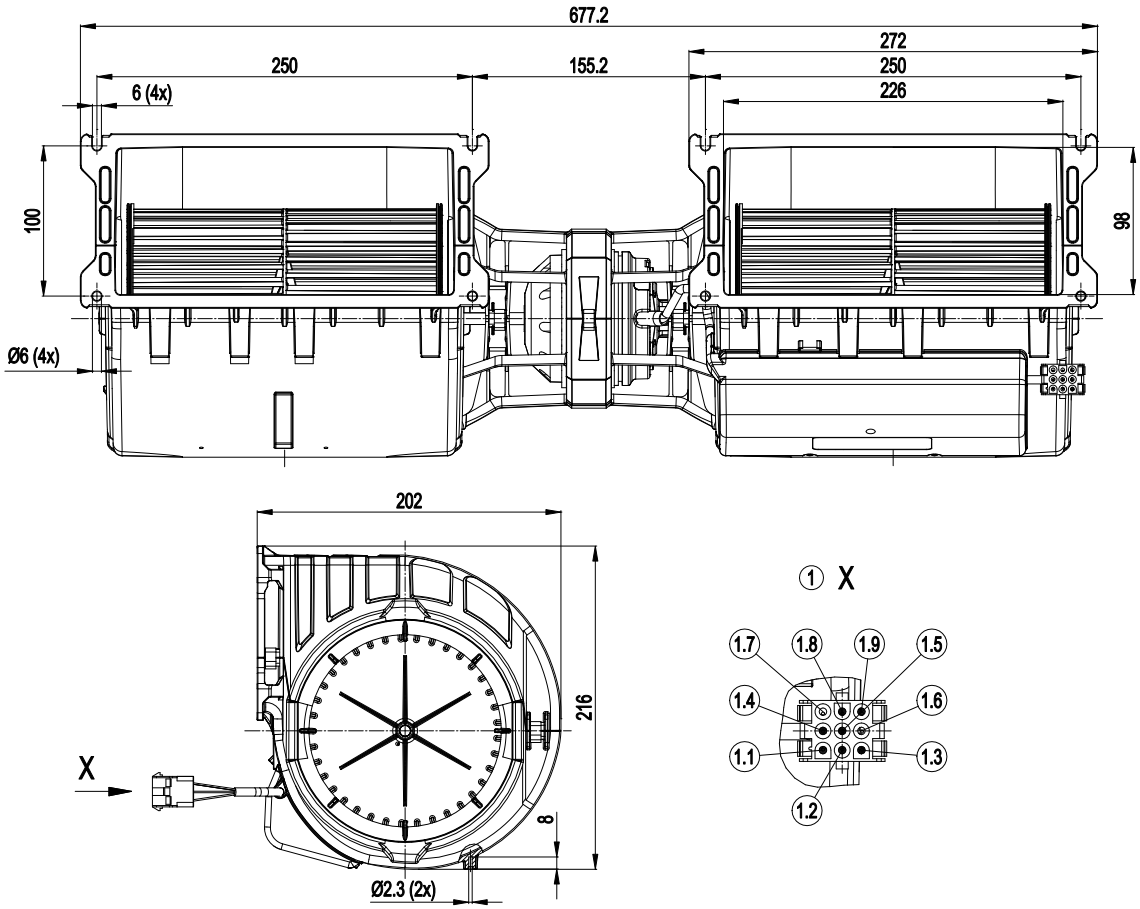
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

AC centrifugal fan combination

forward curved, dual inlet

with housing

Product drawing



1	Coded plug system: Connector housing 9-pole tyco 927231-5, 7x plug pin tyco 926886-1
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	PE

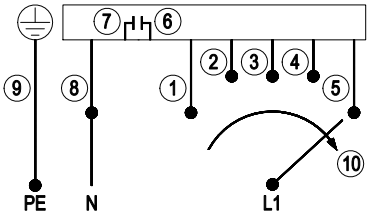
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

AC centrifugal fan combination

forward curved, dual inlet

with housing

Connection screen



When changing speeds, switch must break the circuit

1	Step 1 (min.)	2	Step 2	3	Step 3
4	Step 4	5	Step 5 (max.)	6	Capacitor
7	Capacitor	8	N	9	Protective earth
10	Speed increase				

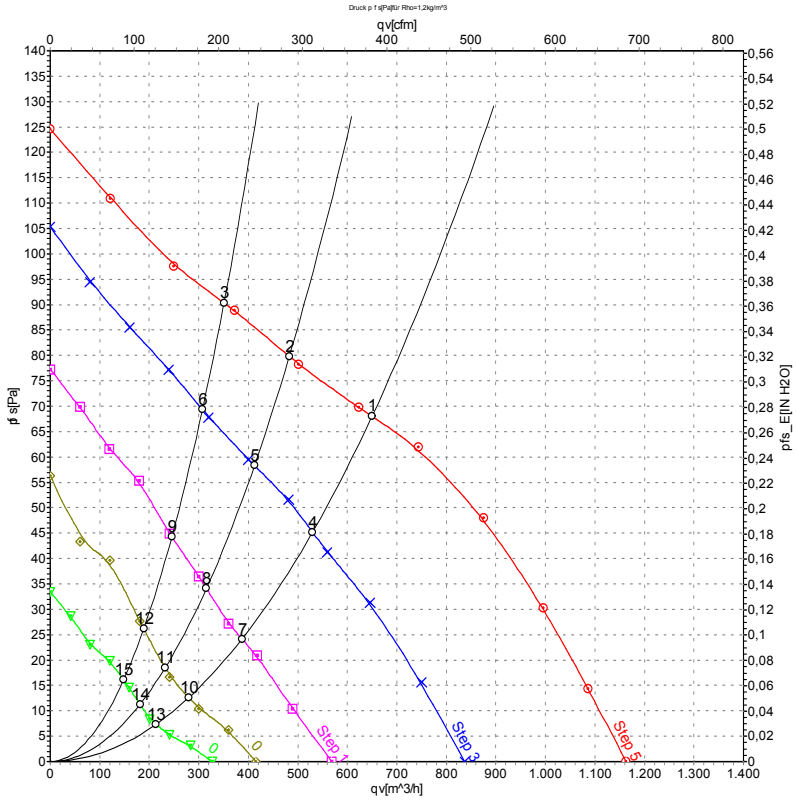
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

AC centrifugal fan combination

forward curved, dual inlet

with housing

Charts: Air flow 50 Hz



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

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}	LwA_{out}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	dB(A)	m^3/h	Pa
1	5	230	50	1135	71	0.31	45	55	55	650	68
2	5	230	50	1205	68	0.30	46	56	57	485	80
3	5	230	50	1265	64	0.28	46	56	56	350	90
4	4	230	50	915	57	0.26				530	45
5	4	230	50	1015	54	0.25				415	58
6	4	230	50	1110	51	0.23				310	69
7	3	230	50	670	46	0.22				385	24
8	3	230	50	785	44	0.21				315	34
9	3	230	50	890	42	0.20				245	44
10	2	230	50	505	14	0.16				280	13
11	2	230	50	590	14	0.15				230	18
12	2	230	50	690	14	0.15				190	26
13	1	230	50	390	9.4	0.13				215	7
14	1	230	50	455	9.5	0.13				180	11
15	1	230	50	535	9.5	0.13				150	16

U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side · LwA_{out} = Sound power level outlet side
qv = 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