D2E146-HS25-20

AC centrifugal fan

forward-curved, dual-intake

with housing (flange)

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
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**D2E146-HS25-20**	
Motor	**M2E068-DF**	
Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50
Method of obtaining data		ce
Valid for approval/standard		CE
Speed (rpm)	min^{-1}	2350
Power consumption	W	250
Current draw	A	1.1
Capacitor	µF	8
Capacitor voltage	VDB	400
Capacitor standard		S2 (CE)
Min. ambient temperature	°C	-20
Max. ambient temperature	°C	65

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

AC centrifugal fan

forward-curved, dual-intake

with housing (flange)

Technical description

Weight	3.2 kg
Fan size	146 mm
Rotor surface	Unpainted
Terminal box material	PP plastic
Impeller material	Sheet steel, galvanized
Housing material	PP plastic
Motor suspension	Motor vibration-damped on both sides
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP20
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	Calotte bearing
Speed levels	4
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Electrical hookup	With plug; Via terminal box, capacitor integrated and connected
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	S2
Conformity with standards	EN 60335-2-31; CE
Approval	VDE

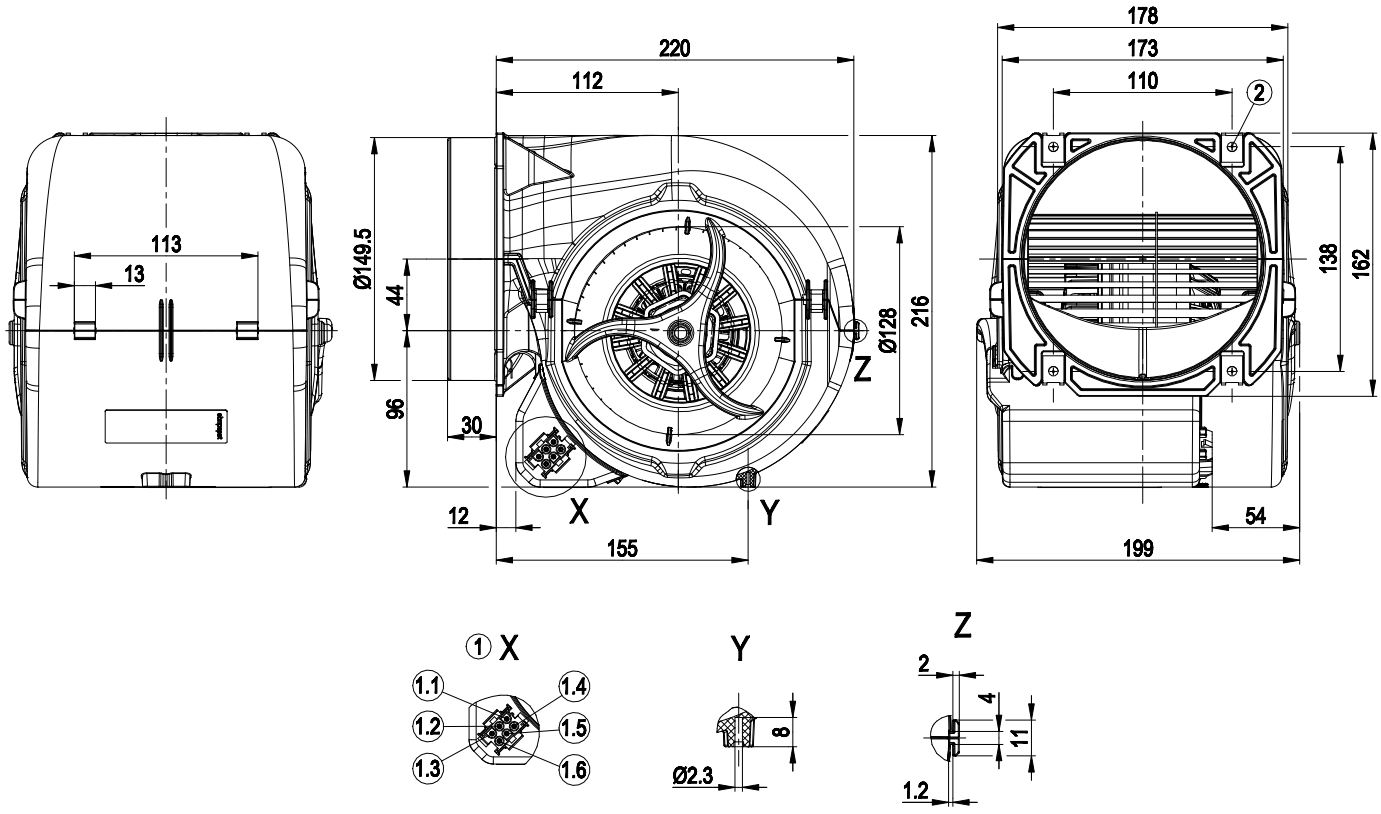
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

AC centrifugal fan

forward-curved, dual-intake

with housing (flange)

Product drawing



1	Coded plug system AMP Universal Mate-N-Lok: Connector housing AMP 926 682-3; 6x plug pin AMP 926 886-1
1.1	L = step 1
1.2	L = step 2
1.3	L = step 3
1.4	L = step 4
1.5	N
1.6	Protective earth
2	4x sheet metal nut for thread EN ISO 1478-ST4.8 (min. screw length 14.5 mm plus material thickness of attachment)

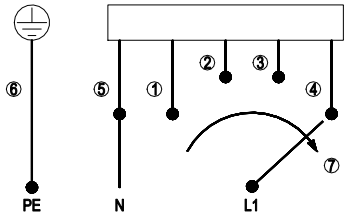
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

AC centrifugal fan

forward-curved, dual-intake

with housing (flange)

Connection diagram



The switch must interrupt the circuit when switching.

1	Step 1 (min.)	2	Step 2	3	Step 3
4	Step 4 (max.)	5	N	6	PE protective earth
7	Speed increasing				

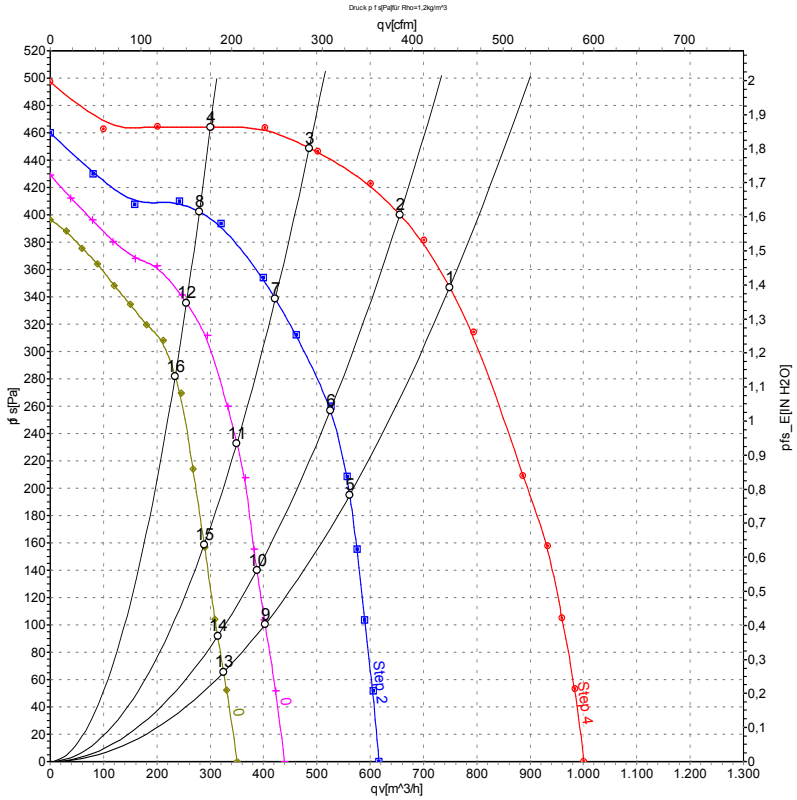
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

AC centrifugal fan

forward-curved, dual-intake

with housing (flange)

Curves: Air performance 50 Hz



Measurement: LU-114267-1
Measurement: LU-114269-1
Measurement: LU-114271-1
Measurement: LU-114272-1

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	inH2O
1	4	230	50	2350	250	1.10	63	72	750	350	440	1.41
2	4	230	50	2425	240	1.05	64	73	655	400	385	1.61
3	4	230	50	2560	215	0.94	64	74	485	450	285	1.81
4	4	230	50	2685	189	0.83	65	75	300	465	175	1.87
5	3	230	50	1745	217	0.99			560	196	330	0.79
6	3	230	50	1940	201	0.93			525	261	310	1.05
7	3	230	50	2220	175	0.83			420	339	250	1.36
8	3	230	50	2505	140	0.69			280	402	165	1.61
9	2	230	50	1270	199	0.91			405	100	235	0.40
10	2	230	50	1485	190	0.88			390	140	230	0.56
11	2	230	50	1860	171	0.81			350	233	205	0.94
12	2	230	50	2305	134	0.68			255	336	150	1.35
13	1	230	50	1045	186	0.85			325	66	190	0.26
14	1	230	50	1200	181	0.83			315	92	185	0.37
15	1	230	50	1535	169	0.79			290	159	170	0.64
16	1	230	50	2160	132	0.66			235	282	140	1.13

U = Power supply · 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

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