D4E146-LX64-30

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	**D4E146-LX64-30**
Motor	**M4E068-DF**

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}	1250	1150
Power consumption	W	105	130
Current draw	A	0.47	0.58
Capacitor	µF	2.5	2.5
Capacitor voltage	VDB	450	450
Capacitor standard		S2 (CE)	S2 (CE)
Min. back pressure	Pa	0	0
Min. back pressure	inH2O	0	0
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	60	50
Starting current	A	0.68	0.64

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	2.9 kg
Fan size	146 mm
Rotor surface	Unpainted
Impeller material	PA plastic
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, open rotor
Mode	S1
Motor bearing	Ball bearing
Speed levels	3
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	Axial
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 60335-1; CE
Approval	CSA C22.2 No. 100; UL 1004-1

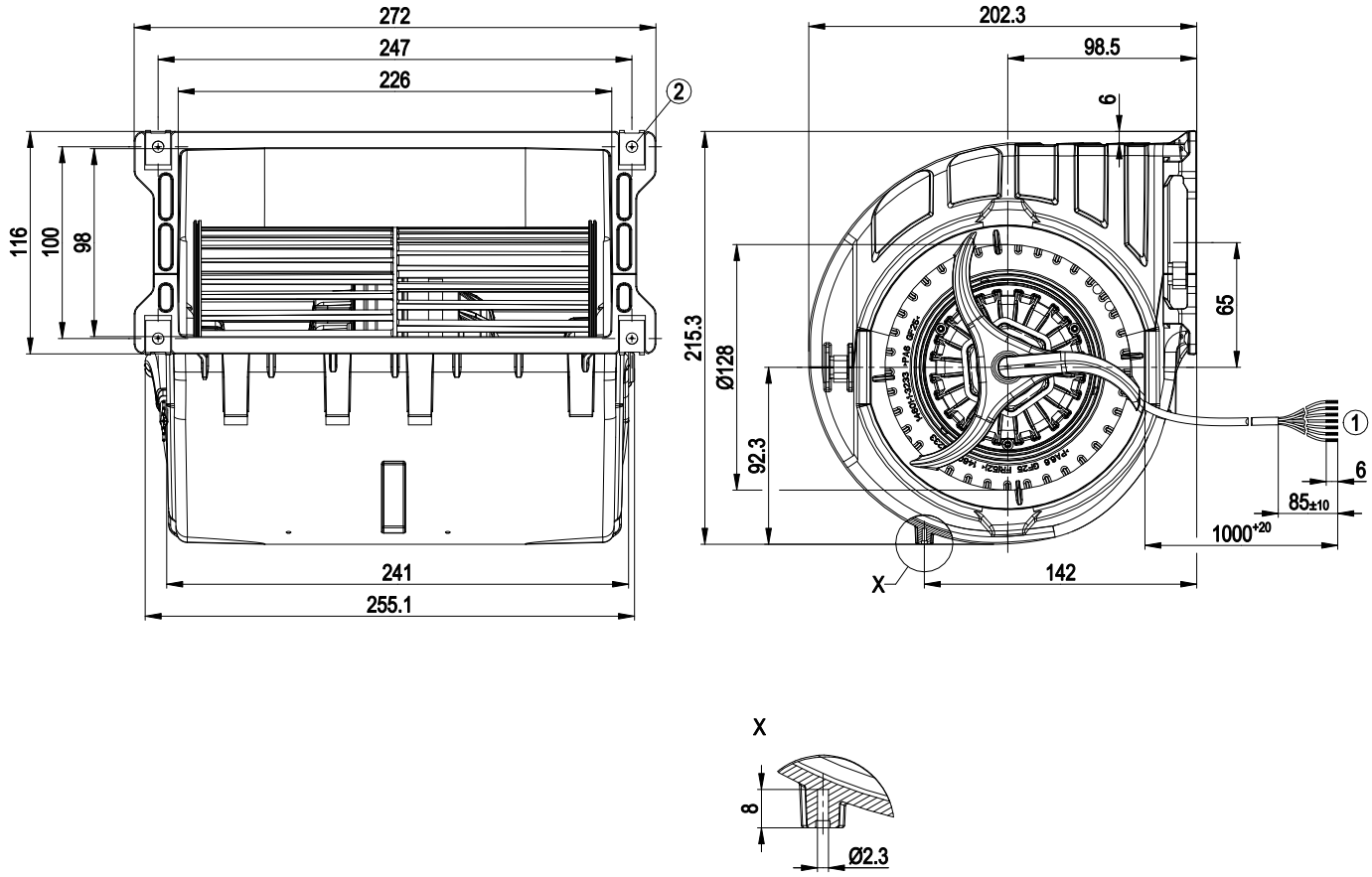
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Product drawing



1	Cable ETFE AWG22, 6x crimped splices Cable ETFE AWG20, 1x crimped splice
2	4x sheet metal nut for thread EN ISO 1478-ST4.8 (min. screw length 14.5 mm plus material thickness of attachment)

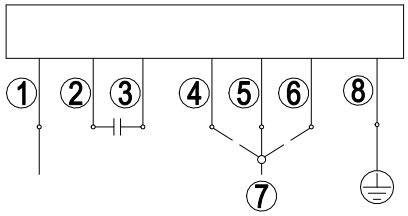
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Connection diagram



Note: High speed (step III); low speed (step I)

1	blue (N)	2	Capacitor (yellow)	3	Capacitor (brown)
4	Step I (black)	5	Step II (gray)	6	Step III (white)
7	L1	8	PE (green/yellow)		

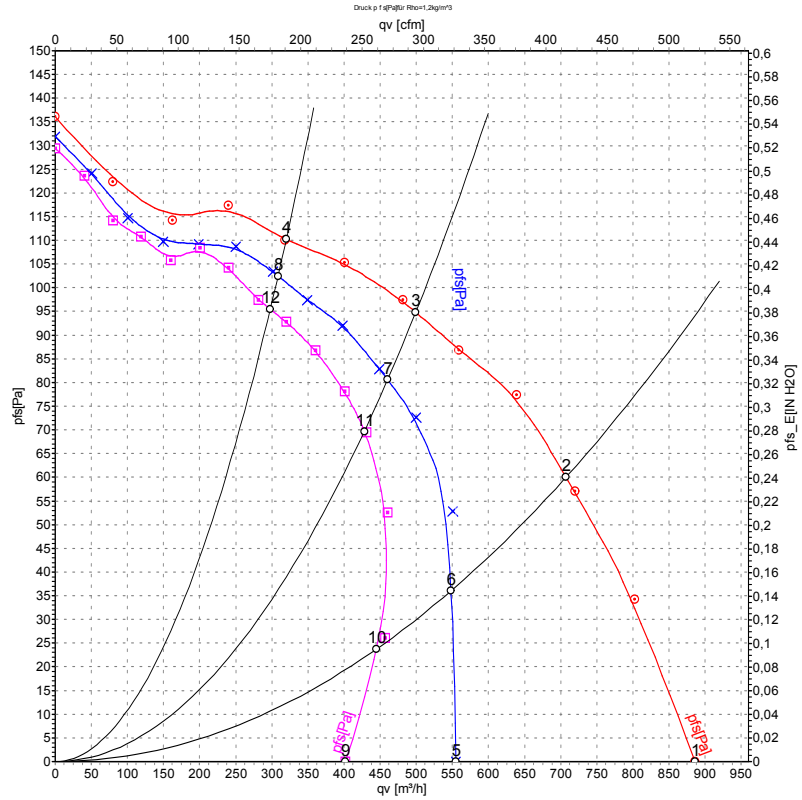
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Curves: Air performance 50 Hz



Measurement: LU-128188-1
Measurement: LU-128191-1
Measurement: LU-128194-1

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	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	230	50	1250	105	0.47	885	0	520	0.00
2	230	50	1350	85	0.38	710	60	415	0.24
3	230	50	1405	72	0.32	500	95	295	0.38
4	230	50	1440	63	0.29	320	110	190	0.44
5	230	50	785	90	0.39	555	0	325	0.00
6	230	50	1180	73	0.32	550	54	325	0.22
7	230	50	1300	61	0.27	460	81	270	0.33
8	230	50	1385	49	0.22	310	102	180	0.41
9	230	50	615	83	0.36	400	0	235	0.00
10	230	50	845	79	0.34	445	20	260	0.08
11	230	50	755	80	0.35	430	12	250	0.05
12	230	50	1345	47	0.21	300	95	175	0.38

U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

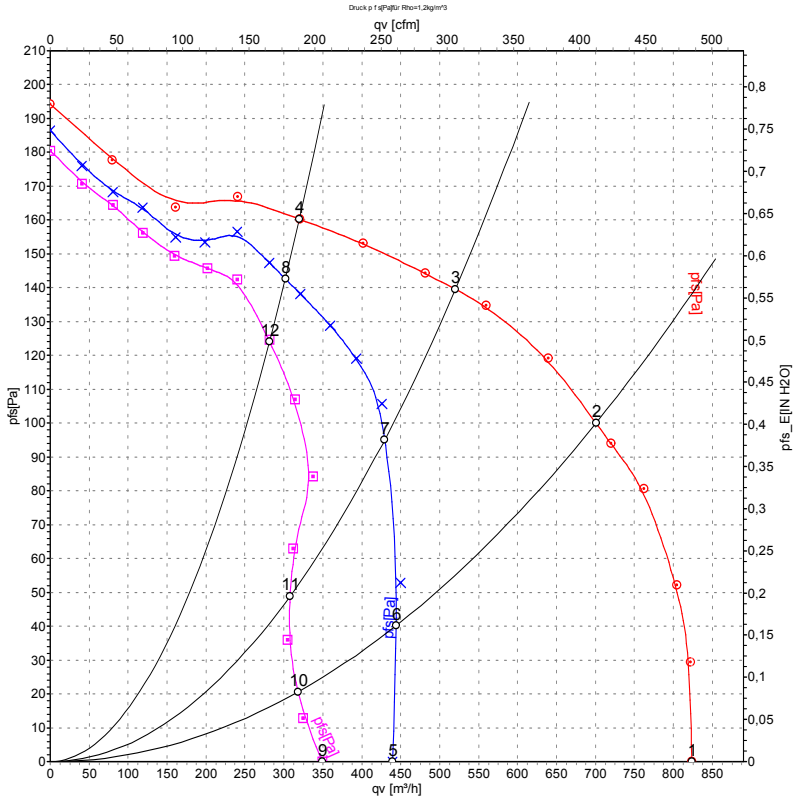
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Curves: Air performance 60 Hz



Measurement: LU-128189-1
Measurement: LU-128193-1
Measurement: LU-128195-1

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	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	230	60	1150	130	0.58	825	0	485	0.00
2	230	60	1550	109	0.48	700	100	415	0.40
3	230	60	1655	94	0.41	520	140	305	0.56
4	230	60	1705	82	0.37	320	160	190	0.64
5	230	60	650	90	0.39	440	0	260	0.00
6	230	60	860	87	0.38	445	25	260	0.10
7	230	60	1395	73	0.34	430	99	250	0.40
8	230	60	1615	56	0.28	300	143	180	0.57
9	230	60	515	76	0.34	350	0	205	0.00
10	230	60	745	75	0.33	320	20	185	0.08
11	230	60	880	74	0.33	310	32	180	0.13
12	230	60	1505	55	0.27	280	125	165	0.50

U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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