D4E146-LV09-20

AC centrifugal fan

forward-curved, dual-intake

with housing (flange)

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Nominal data

Type	**D4E146-LV09-20**
Motor	**M4E068-CF**

Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Method of obtaining data		ml/ce	ml/ce
Valid for approval/standard		CE	CE
Speed (rpm)	min^{-1}	780	710
Power consumption	W	65	68
Current draw	A	0.29	0.30
Capacitor	µF	2	2
Capacitor voltage	VDB	400	400
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	50	40
Starting current	A	0.33	0.33

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	2.4 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	IP44; installation- and position-dependent
Insulation class	"F"
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
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Electrical hookup	With plug
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Axial
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE

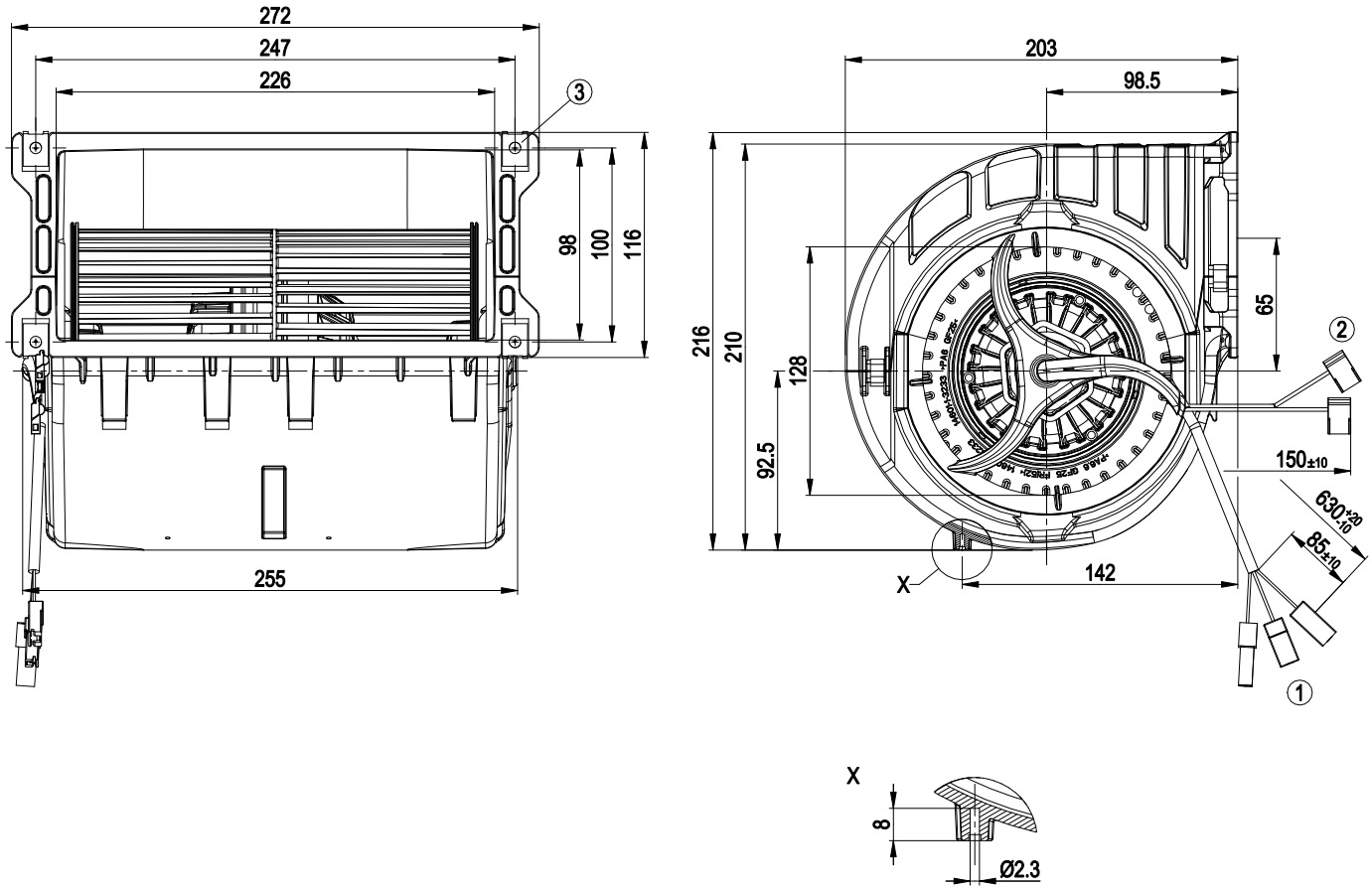
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Product drawing



1	Cable ETFE AWG22 (green/yellow AWG20), 2x flat push-on receptacle 6.3x0.8 with connector housing, 1x flat plug 6.3x0.8 with connector housing
2	Cable ETFE AWG22, 2x angled flat push-on receptacle 6.3x0.8 with insulating sleeve
3	4x sheet metal nut for thread EN ISO 1478-ST4.8 (min. screw length 14.5 mm plus material thickness of attachment)

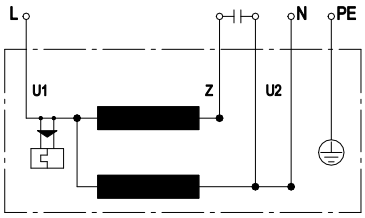
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Connection diagram



L	blue	Z	brown	U2	yellow
N	black	PE	green/yellow		

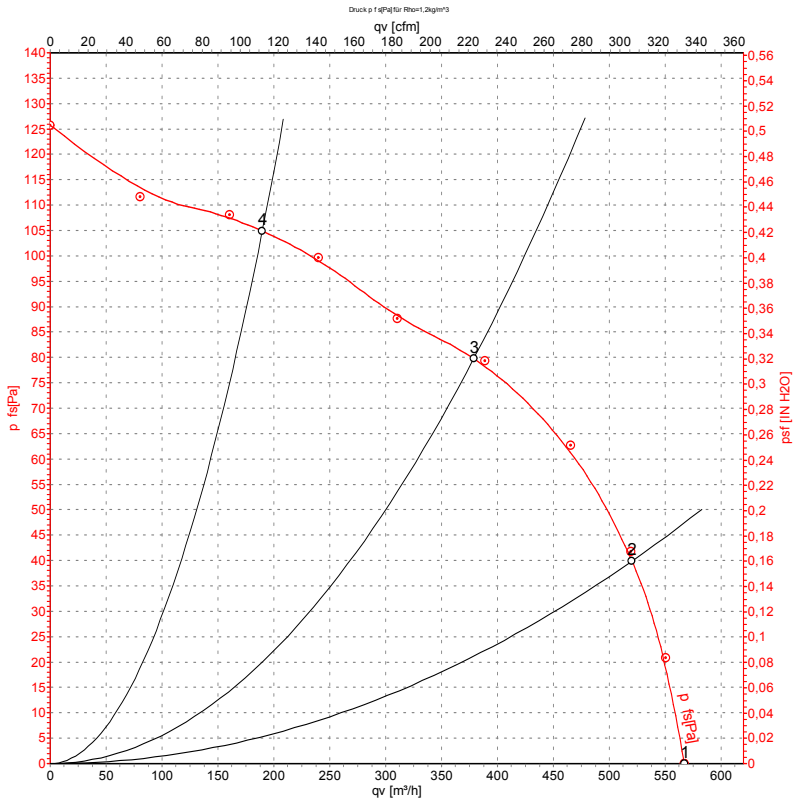
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Curves: Air performance 50 Hz



Measurement: LU-58986-1

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	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	5	230	50	780	65	0.29	565	0	335	0.00
2	5	230	50	1060	57	0.25	520	40	305	0.16
3	5	230	50	1270	47	0.20	380	80	225	0.32
4	5	230	50	1385	39	0.17	190	105	110	0.42

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

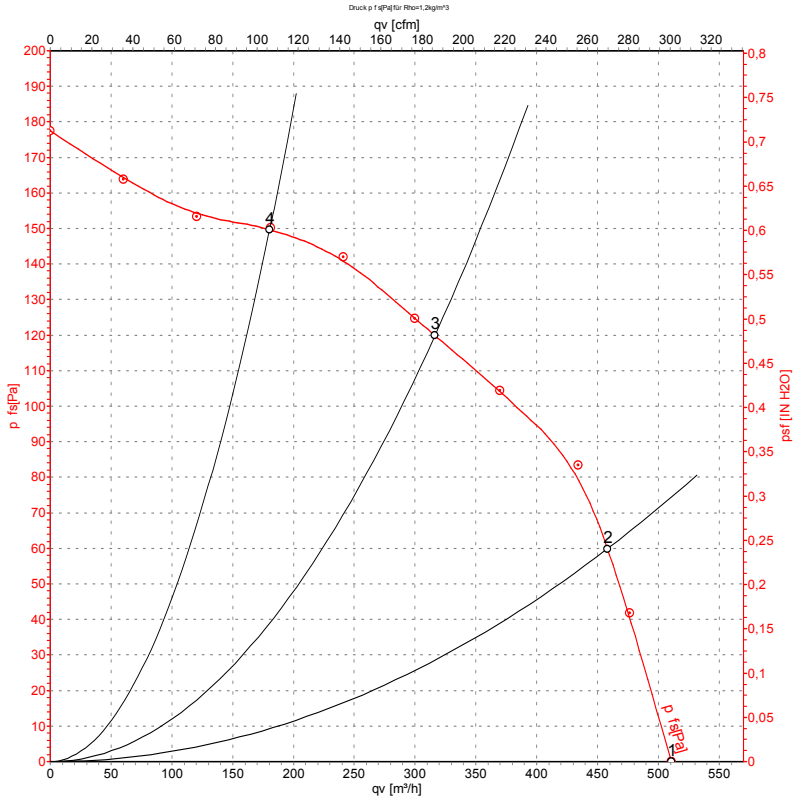
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Curves: Air performance 60 Hz



Measurement: LU-58987-1

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	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	5	230	60	710	68	0.30	510	0	300	0.00
2	5	230	60	1160	63	0.28	460	60	270	0.24
3	5	230	60	1510	52	0.24	315	120	185	0.48
4	5	230	60	1655	44	0.21	180	150	105	0.60

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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