D2E146-HT85-70

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-HT85-70**
Motor	**M2E068-EC**

Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Method of obtaining data		fa	ml
Valid for approval/standard		-	-
Speed (rpm)	min^{-1}	1850	2100
Power consumption	W	355	400
Current draw	A	1.55	1.75
Capacitor	µF	8	8
Capacitor voltage	VDB	450	450
Capacitor standard		P2 (CE)	P2 (CE)
Min. back pressure	Pa	0	200
Min. back pressure	inH2O	0	0.8
Min. ambient temperature	°C	-20	-20
Max. ambient temperature	°C	65	50
Starting current	A	1.8	

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	3.4 kg
Fan size	146 mm
Rotor surface	Partly cast in aluminum
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	Shaft horizontal
Condensation drainage holes	None, open rotor
Mode	S1
Motor bearing	Calotte bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Electrical hookup	Via terminal box, capacitor integrated and connected; With plug
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-2-31
Approval	VDE

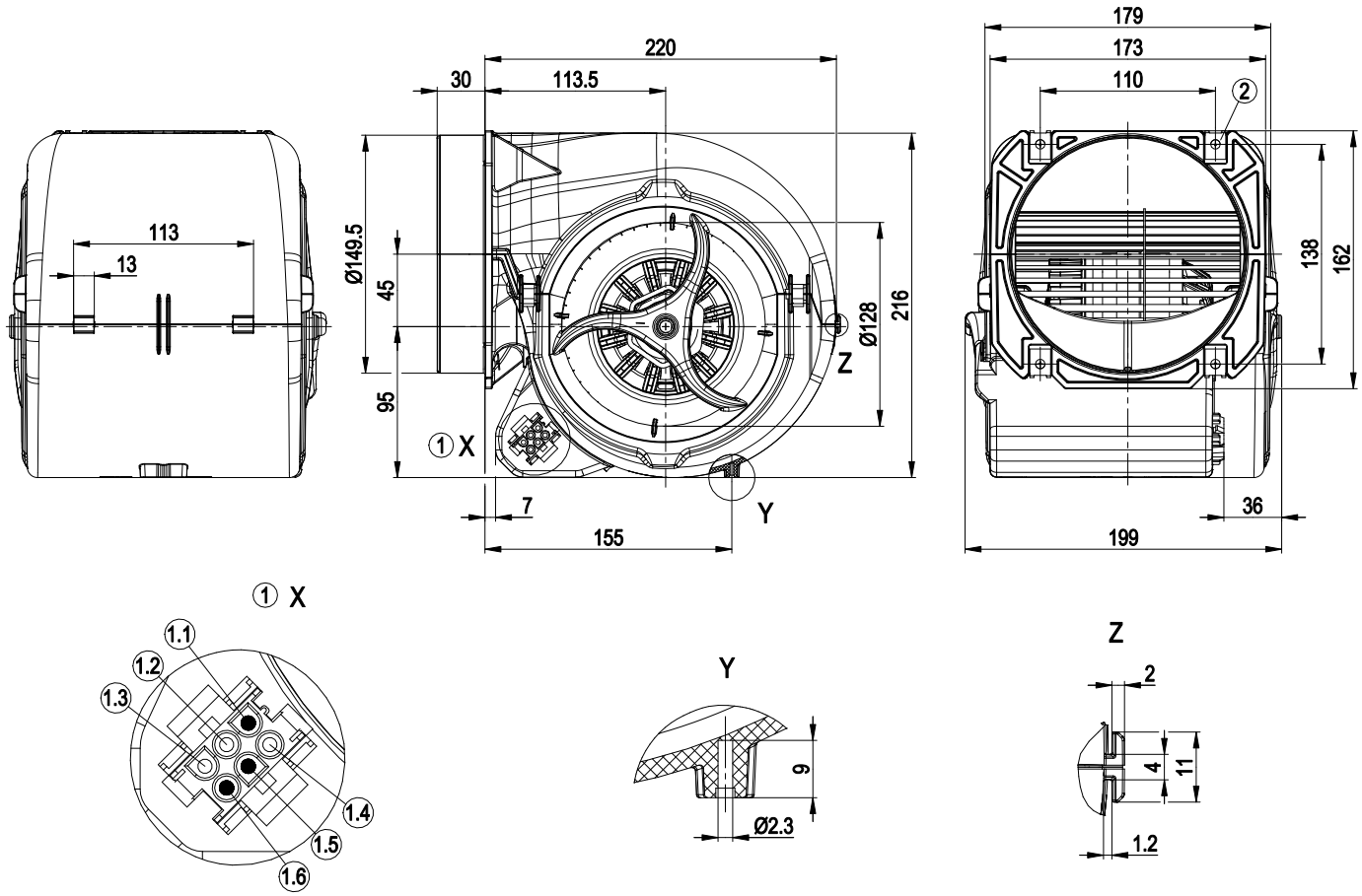
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Product drawing



1	Coded plug system: 6-pole connector housing Tyco 926682-3, 3x plug pin Tyco 926886-1
1.1	L
1.2	not used
1.3	not used
1.4	not used
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 mounting)

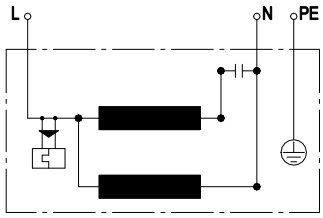
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Connection diagram



L	blue	N	black	PE	green/yellow

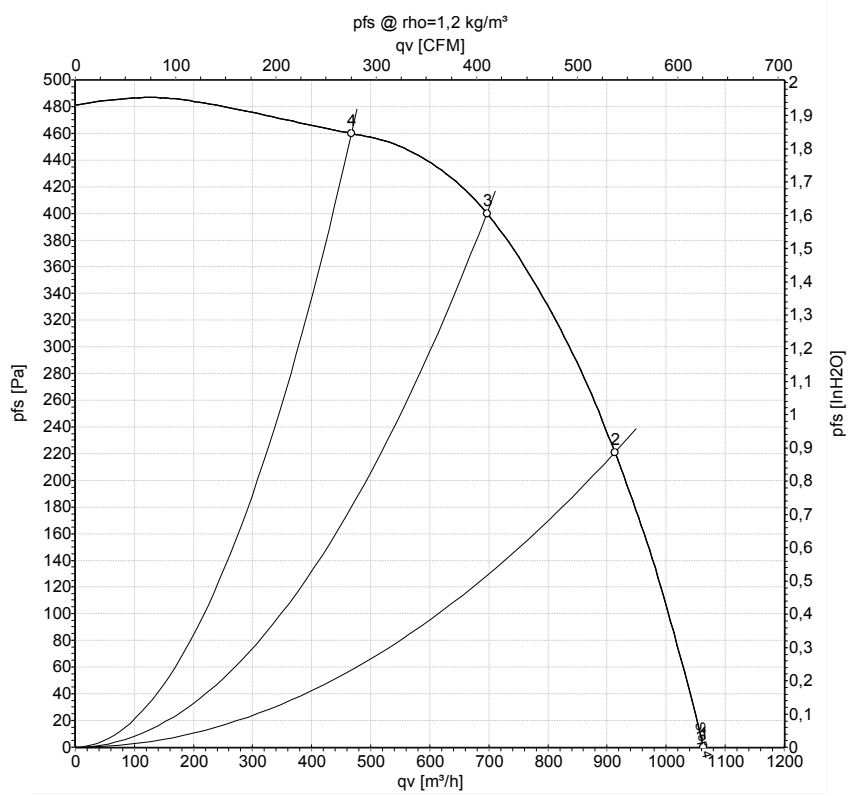
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Curves: Air performance 50 Hz



Measurement: LU-45713-1

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	qv	p_{fs}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	4	230	50	1850	355	1.55	1065	0	625	0.00
2	4	230	50	2175	314	1.36	915	220	535	0.88
3	4	230	50	2435	267	1.16	695	400	410	1.61
4	4	230	50	2600	229	1.00	465	460	275	1.85

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

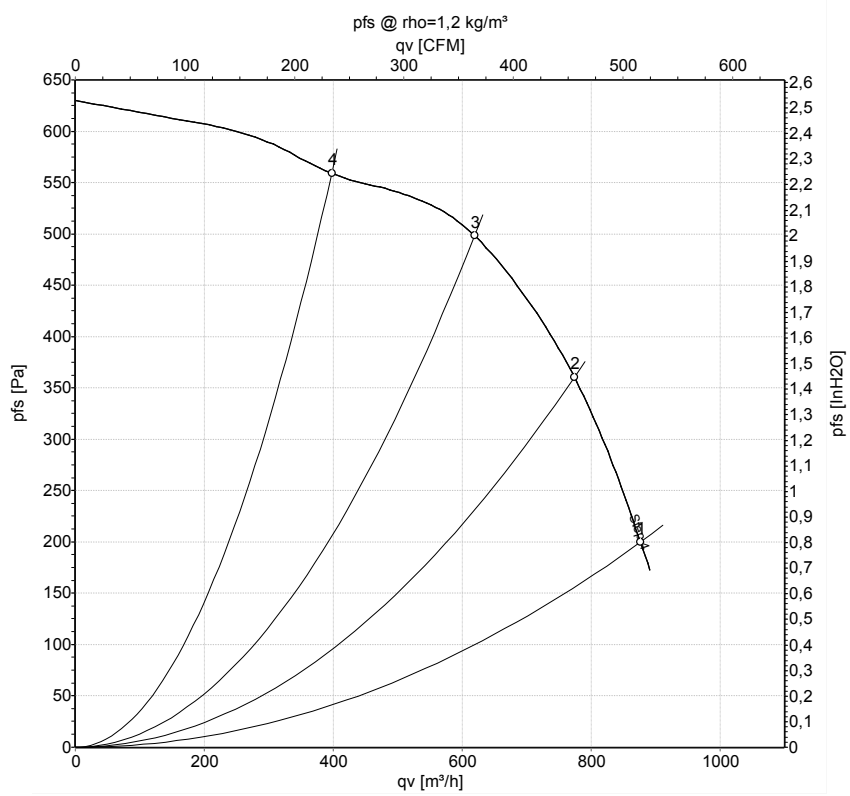
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Curves: Air performance 60 Hz



Measurement: LU-45714-1

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	qv	p_{fs}	qv	p_{fs}
		V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	4	230	60	2100	400	1.75	875	200	515	0.80
2	4	230	60	2380	383	1.66	775	360	455	1.45
3	4	230	60	2680	360	1.58	620	500	365	2.01
4	4	230	60	2895	339	1.50	400	550	235	2.21

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

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