G2D146-BF04-12

AC centrifugal fan

forward-curved, single-intake

with housing (flange)

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**G2D146-BF04-12**
Motor	**M2D068-EC**

Phase		3~	3~	3~	3~
Nominal voltage	VAC	230	230	400	400
Nominal voltage range	VAC	220 .. 265	220 .. 265	380 .. 460	380 .. 460
Wiring		Δ	Δ	Y	Y
Frequency	Hz	50	60	50	60
Valid for approval/standard		CE	CE	CE	CE
Speed (rpm)	min^{-1}	2450	2550	2450	2550
Power consumption	W	225	290	225	290
Current draw	A	0.54	0.7	0.31	0.4
Min. ambient temperature	°C	-	-	-	-
Max. ambient temperature	°C	-	-	-	-

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	4.5 kg
Fan size	146 mm
Impeller material	Sheet steel, galvanized
Housing material	Die-cast aluminum
Guard grille material	Hot-dip galvanized and spot-welded net
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F1-1
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
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE

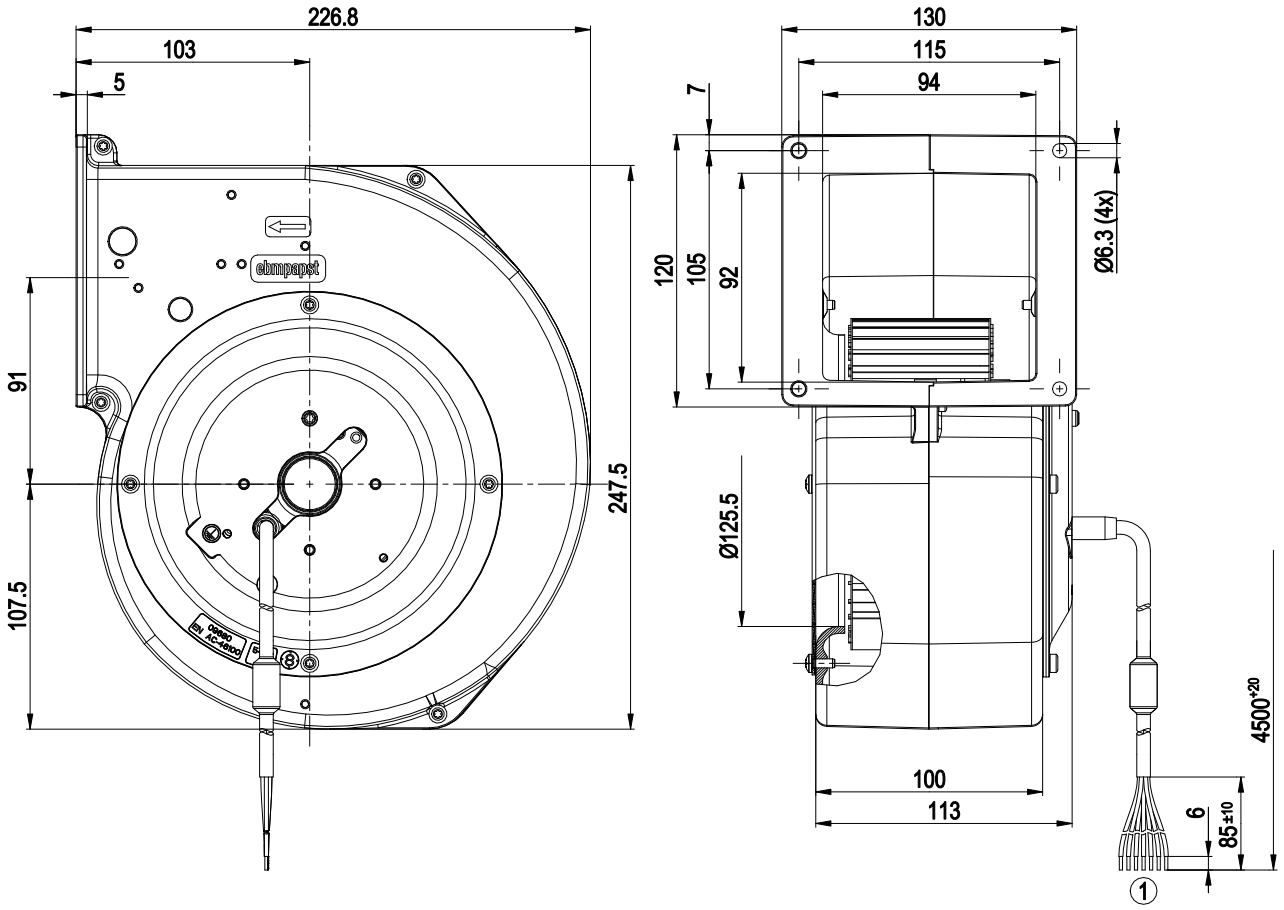
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Product drawing



1	Cable PVC 7G 0.5 mm², 7x crimped splices

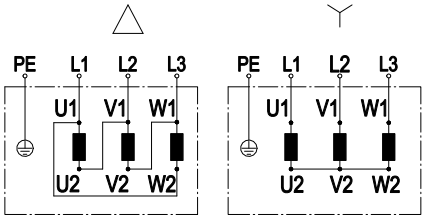
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Connection diagram



Change of rotation direction by reversing two phases

	Three-phase motor	Δ	Delta connection	Y	Star connection
L1	= U1 = black	L2	= V1 = blue	L3	= W1 = brown
U2	green	V2	white	W2	yellow
PE	green/yellow				

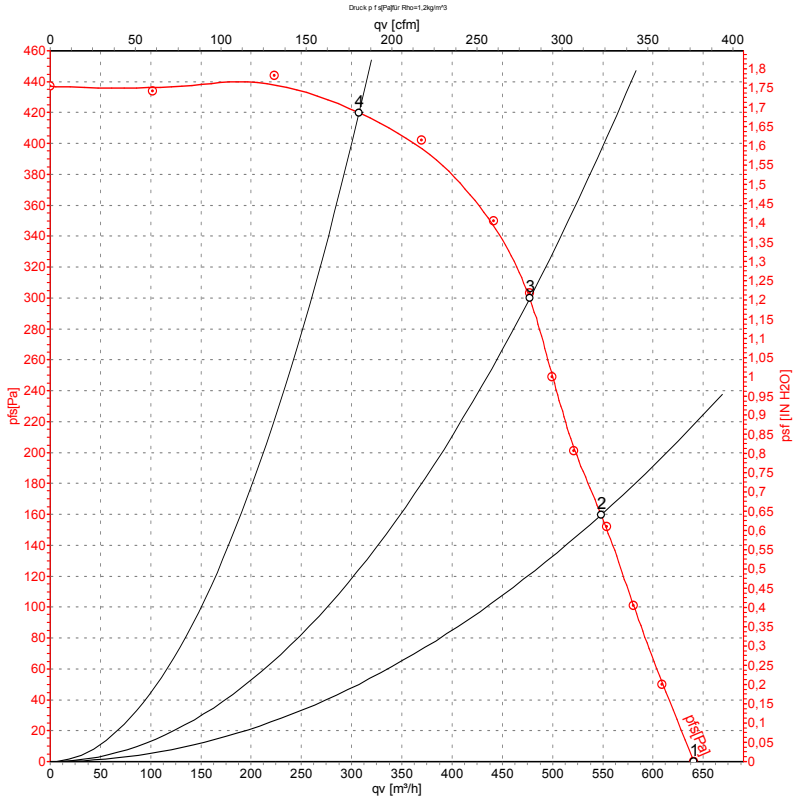
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Curves: Air performance 50 Hz



Measurement: LU-11556-1

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	440	50	2450	225	0.31	640	0	375	0.00
2	440	50	2560	185	0.26	550	160	325	0.64
3	440	50	2640	158	0.23	475	300	280	1.20
4	440	50	2780	106	0.17	305	420	180	1.69

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

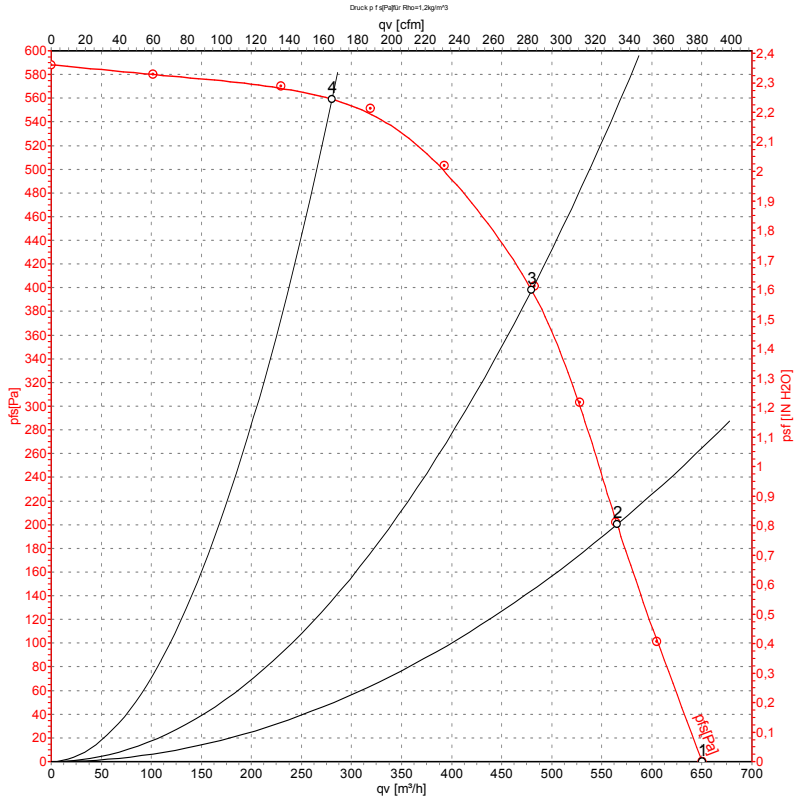
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Curves: Air performance 60 Hz



Measurement: LU-11557-1

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	440	60	2550	290	0.40	650	0	385	0.00
2	440	60	2715	255	0.35	565	200	335	0.80
3	440	60	2895	214	0.30	480	400	285	1.61
4	440	60	3195	132	0.20	280	560	165	2.25

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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