G2D146-BF04-24

AC centrifugal fan

forward-curved, single-intake

with housing (flange)

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Nominal data

Type	**G2D146-BF04-24**
Motor	**M2D068-EC**

Phase		3~	3~	3~
Nominal voltage	VAC	230	380	460
Nominal voltage range	VAC		220 .. 380	
Wiring		Δ	Y	Y
Frequency	Hz	60	50	60
Method of obtaining data		ml	fa	ml
Valid for approval/standard		CE	CE	CE
Speed (rpm)	min^{-1}	2400	2250	2700
Power consumption	W	280	225	310
Current draw	A		0.36	
Min. back pressure	Pa	100	0	200
Min. back pressure	in. wg	0.4	0	0.8
Min. ambient temperature	°C	-25	-25	-25
Max. ambient temperature	°C	-	-	60

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	4.3 kg
Size	146 mm
Motor size	68
Rotor surface	Unpainted
Terminal box material	Die-cast aluminum
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	IP20; installation- and position-dependent
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H0+; 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
Electrical hookup	Terminal box
With cable	Variable
Protection class	I (if protective earth is connected by customer to the housing's connection point)
Conformity with standards	EN 60335-1, motor does not have factory-installed overheating protection; CE

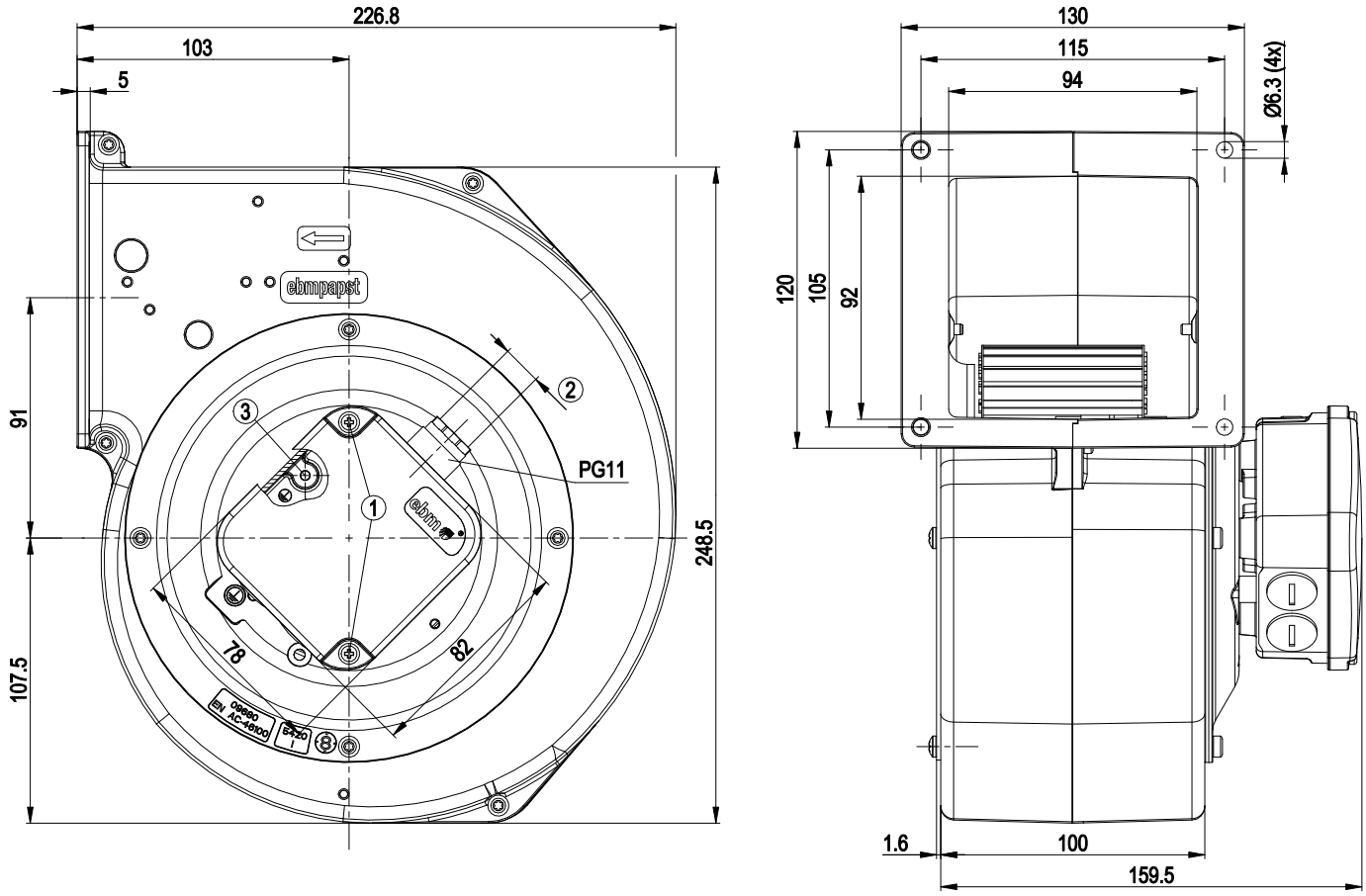
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Product drawing



1	Tightening torque 1.3 ± 0.2 Nm
2	Cable diameter: min. 6 mm, max. 9 mm, tightening torque 1.3±0.2 Nm
3	For self-tapping M4 screws, max. clearance for screw 5 mm

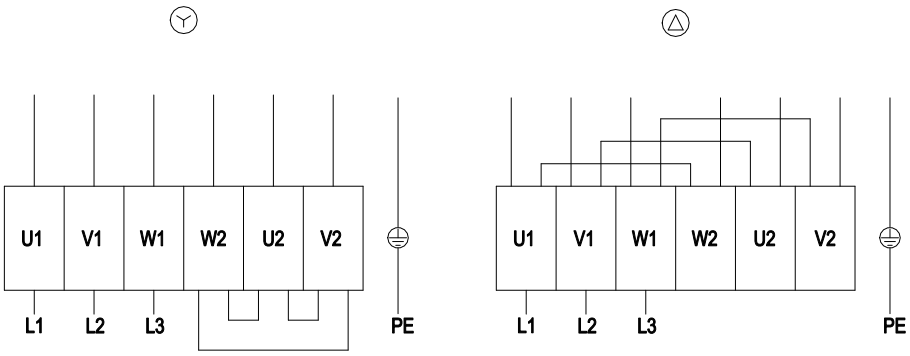
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Connection diagram



Change of rotation direction by reversing two phases

Y	Star connection	Δ	Delta connection	L1	= U1 = black
L2	= V1 = blue	L3	= W1 = brown	W2	yellow
U2	green	V2	white		

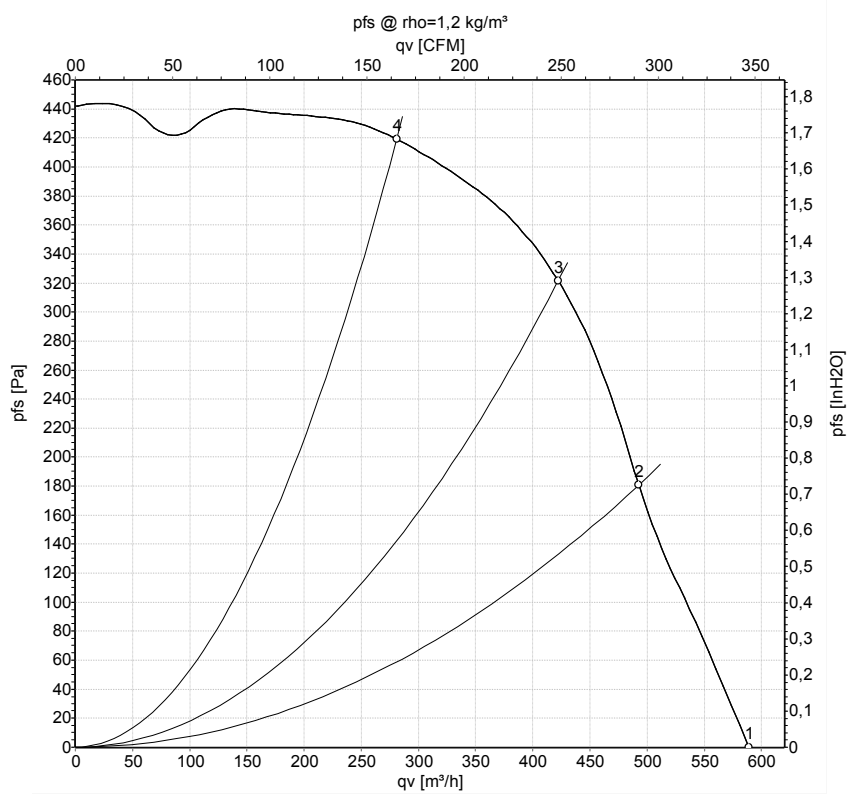
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Curves: Air performance 50 Hz



Measurement: LU-162403-1

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

	Wired	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	in. wg
1	Y	380	50	2250	225	0.36	590	0	345	0.00
2	Y	380	50	2435	170	0.28	495	180	290	0.72
3	Y	380	50	2550	142	0.24	420	320	250	1.28
4	Y	380	50	2720	96	0.17	280	420	165	1.69

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

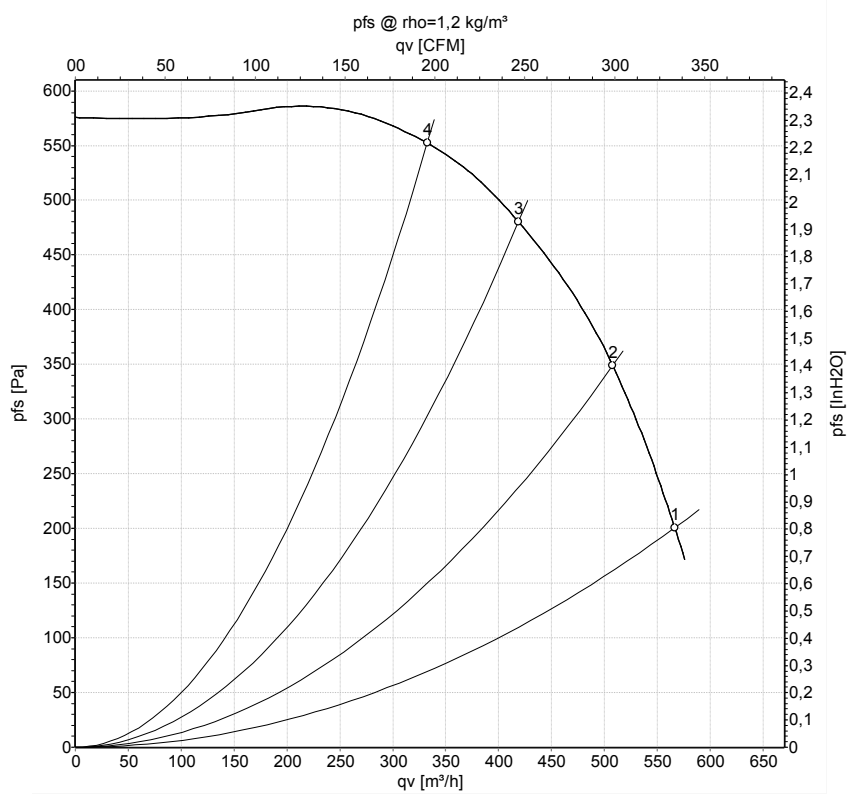
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Curves: Air performance 60 Hz



Measurement: LU-37803-1

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	in. wg
1	460	60	2700	310	0.39	565	200	335	0.80
2	460	60	2830	253	0.35	510	350	300	1.41
3	460	60	3020	204	0.28	420	480	245	1.93
4	460	60	3165	164	0.23	335	550	195	2.21

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

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