G2D160-AF02-28

AC centrifugal fan

forward-curved, single-intake

with housing (flange)

G2D160-AF02-28 ebmpapst Datasheet
sales@fansco.com
www.fansco.com

Nominal data

Type	**G2D160-AF02-28**
Motor	**M2D068-EC**

Phase		3~	3~
Nominal voltage	VAC	230	400
Wiring		Δ	Y
Frequency	Hz	50	50
Method of obtaining data		ml	ml
Valid for approval/standard		CE	CE
Speed (rpm)	min^{-1}	2300	2300
Power consumption	W	305	305
Current draw	A	0.85	0.5
Min. back pressure	Pa	0	0
Min. back pressure	inH2O	0	0
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	50	50
Starting current	A	1.75	1.0

ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment
Subject to change

Data according to ErP Directive

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	34	32.5
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		45.5	44
05 Variable speed drive		No	

09 Power consumption P_e	kW	0.15
09 Air flow q_v	m^3/h	390
09 Pressure increase p_{fs}	Pa	501
10 Speed (rpm) n	min^{-1}	2685
11 Specific ratio*		1.01

Data obtained at optimum efficiency level.
The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

* Specific ratio = 1 + p_{fs} / 100 000 Pa

LU-39223

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Technical description

Weight	4.3 kg
Fan size	160 mm
Rotor surface	Painted black
Terminal box material	Die-cast aluminum
Impeller material	Sheet steel, painted black
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	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	F2-2
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
Electrical hookup	Via terminal box
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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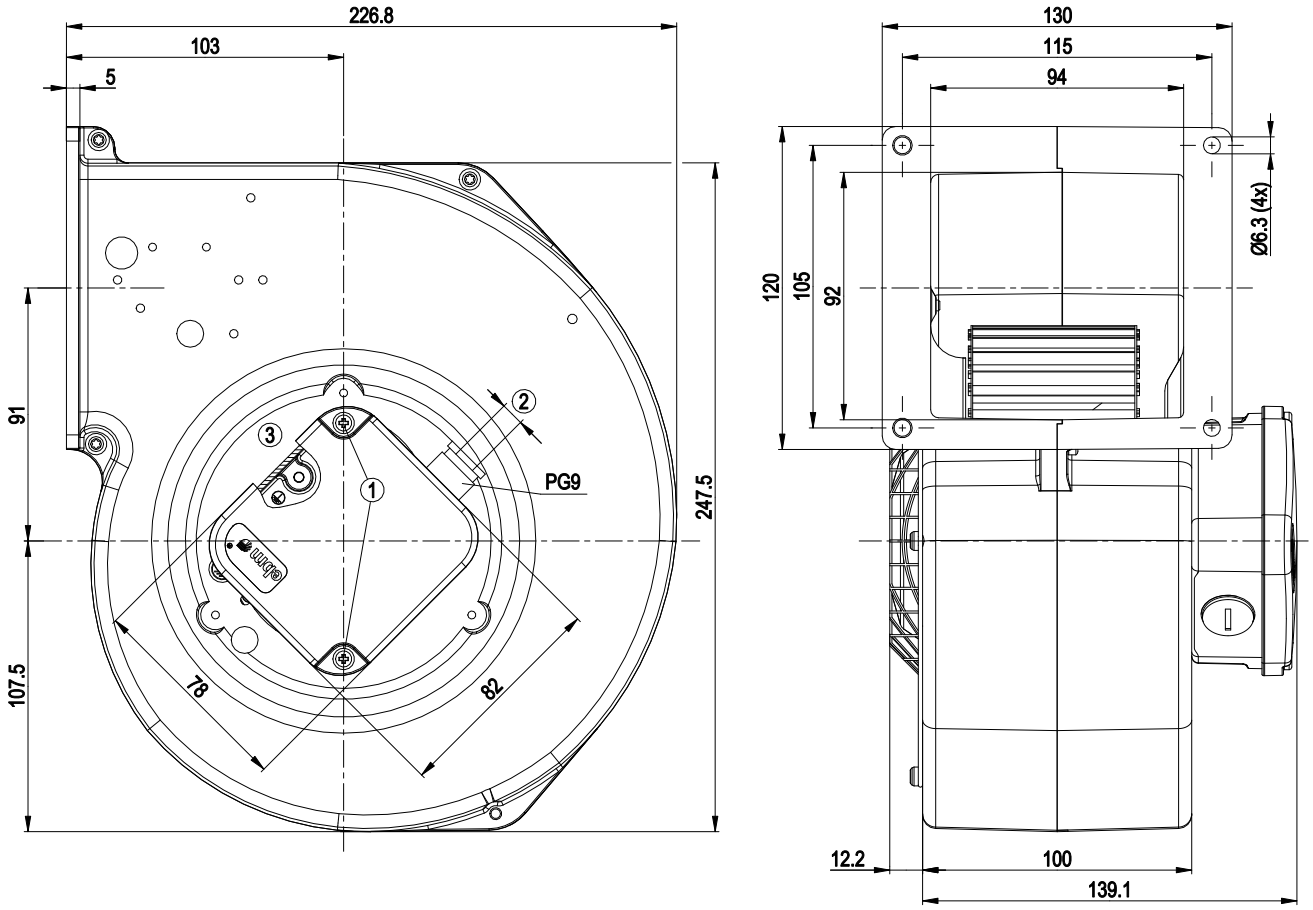
Product drawing



1	Tightening torque 1.3 ± 0.2 Nm
2	Cable diameter min. 6 mm, max. 8 mm, tightening torque 2±0.3 Nm
3	For self-tapping M4 screws, max. clearance for screw 5 mm

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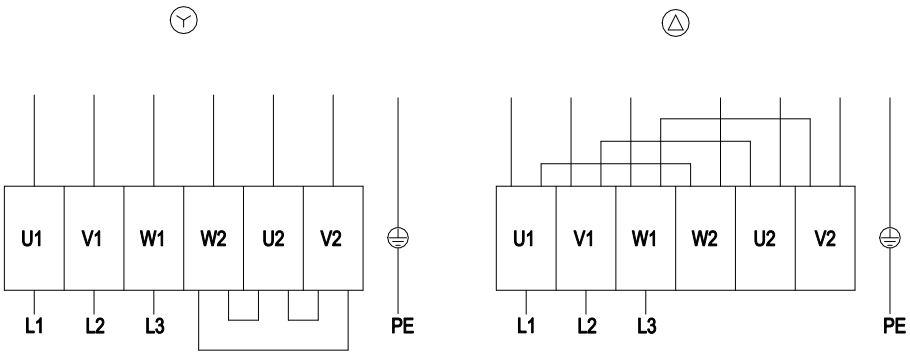
Connection diagram



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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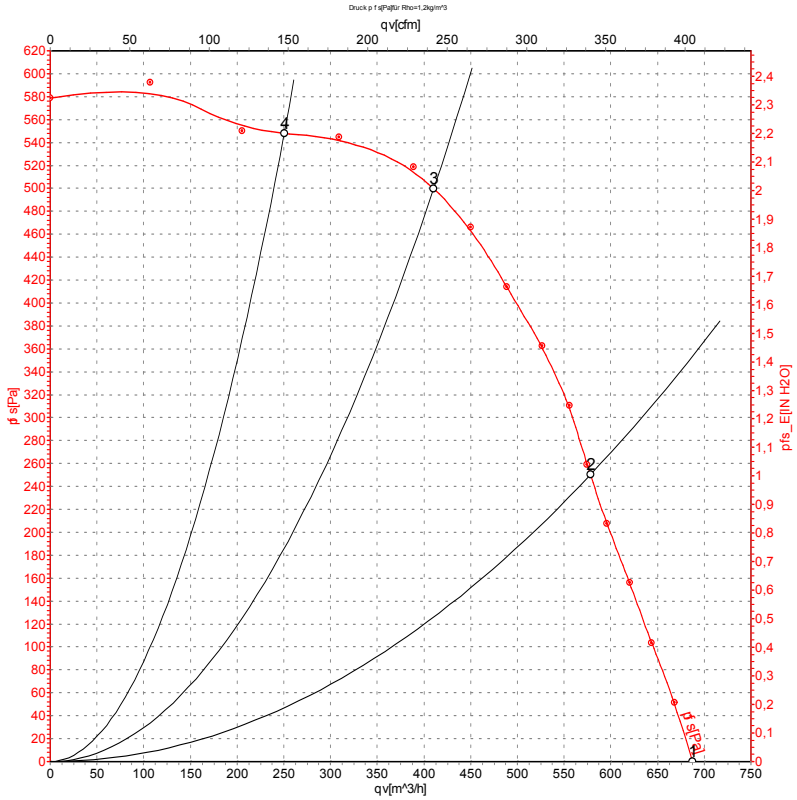
Curves: Air performance 50 Hz



Measurement: LU-39223-1

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	qv	p_{fs}	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	CFM	inH2O
1	400	50	2300	305	0.48	690	0	405	0.00
2	400	50	2470	242	0.39	580	250	340	1.00
3	400	50	2665	168	0.29	410	500	240	2.01
4	400	50	2790	114	0.23	250	548	145	2.20

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