AC centrifugal fan

forward-curved, single-intake

with housing (flange)

G2D160-AF28-38 ebmpapst Datasheet
sales@fansco.com
www.fansco.com

Nominal data

Type	**G2D160-AF28-38**
Motor	**M2D068-EC**

Phase		3~	3~
Nominal voltage	VAC	400	480
Wiring		Y	Y
Frequency	Hz	50	60
Method of obtaining data		ml	ml
Valid for approval/standard		CE	CE
Speed (rpm)	min^{-1}	2480	2820
Power consumption	W	225	365
Current draw	A	0.37	0.48
Min. back pressure	Pa	300	400
Min. back pressure	inH2O	1.2	1.61
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	85	40

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}	%	32.5	32.5
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		44	44
05 Variable speed drive		No	

09 Power consumption P_e	kW	0.15
09 Air flow q_v	m^3/h	355
09 Pressure increase p_{fs}	Pa	500
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-48058

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Technical description

Weight	4.3 kg
Fan size	160 mm
Rotor surface	Painted black
Terminal box material	ABS plastic
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 as per EN 60034-5
Insulation class	"F"
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	Any
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 (with customer connection of protective earth)
Conformity with standards	CE
Approval	CSA C22.2 No. 100; UL 1004-1

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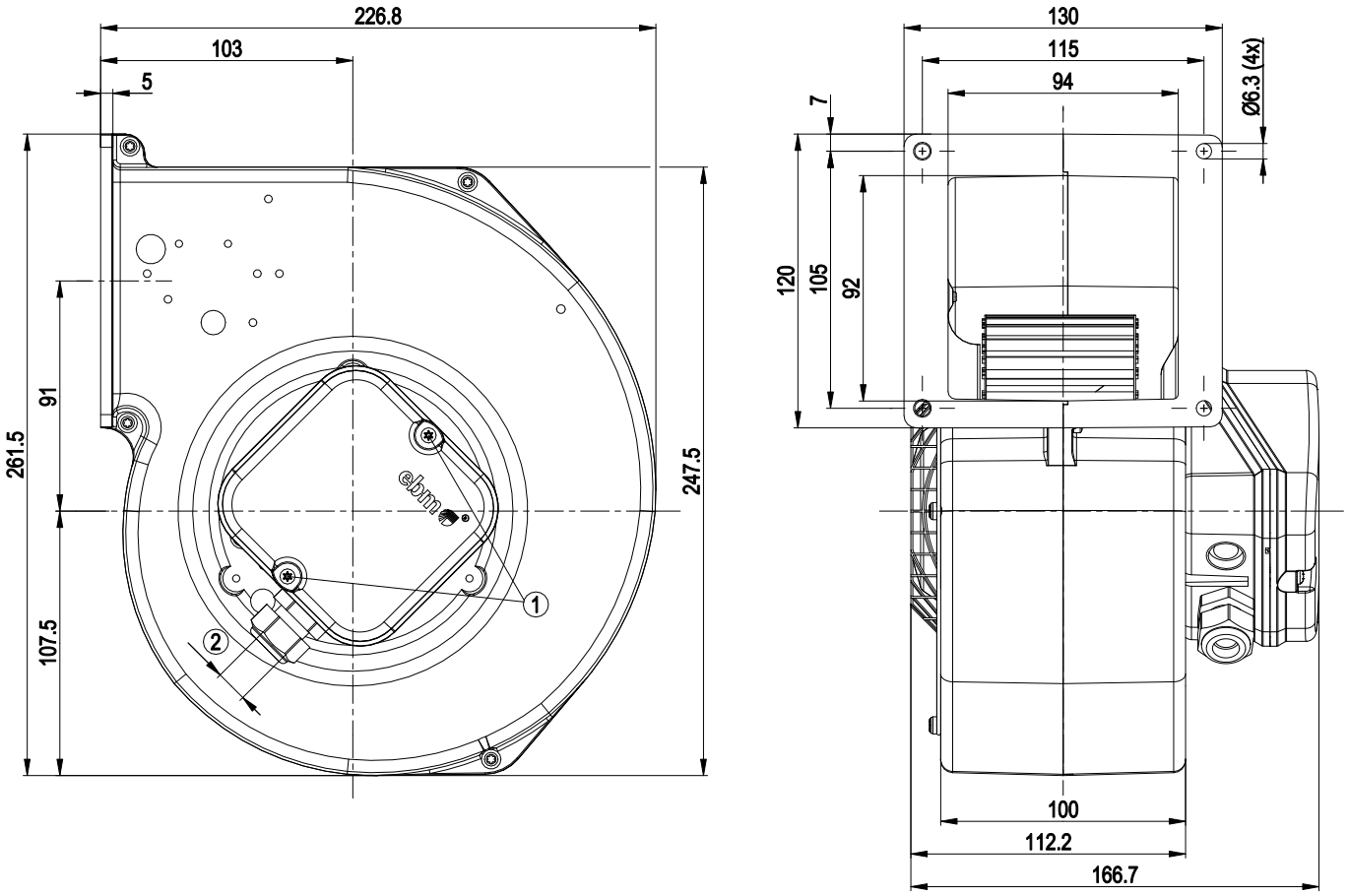
Product drawing



1	Tightening torque 0.8±0.1 Nm
2	Cable diameter min. 4 mm, max. 8 mm, tightening torque 2±0.2 Nm

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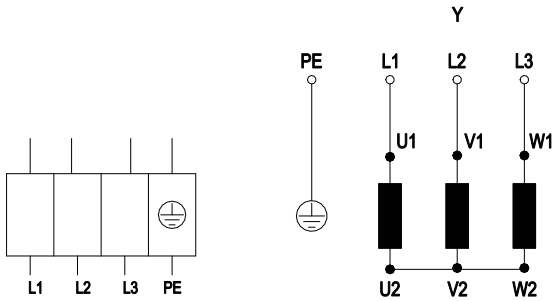
Connection diagram



Y	Star connection	L1	black	L2	blue
L3	brown	PE	green/yellow		

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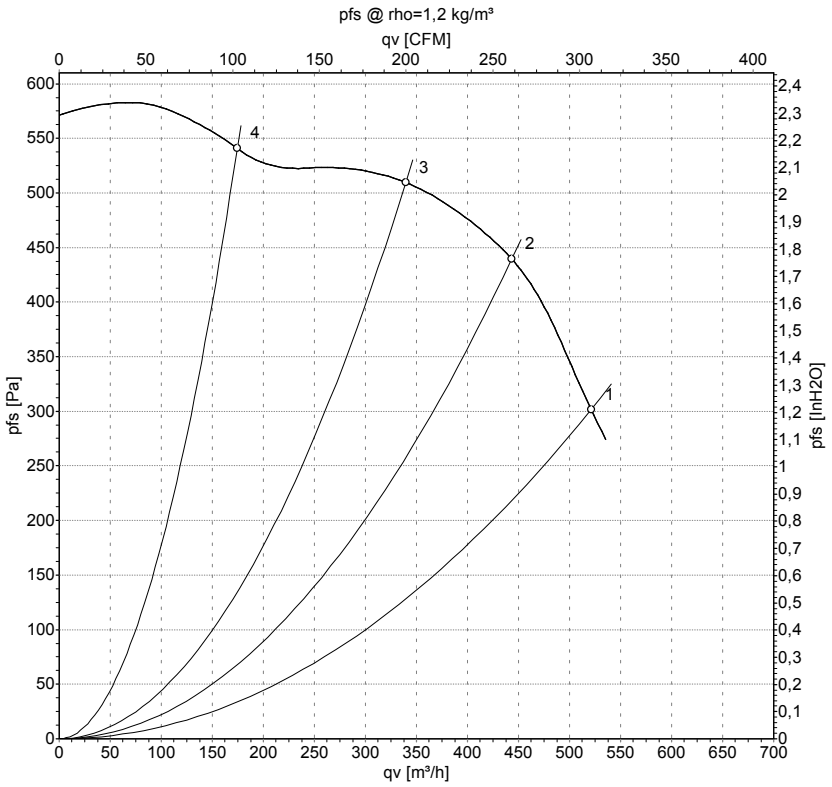
Curves: Air performance 50 Hz



Measurement: LU-48058-1

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	2480	225	0.37	520	300	305	1.20
2	400	50	2590	187	0.31	445	440	260	1.77
3	400	50	2695	148	0.26	340	510	200	2.05
4	400	50	2820	97	0.21	175	540	100	2.17

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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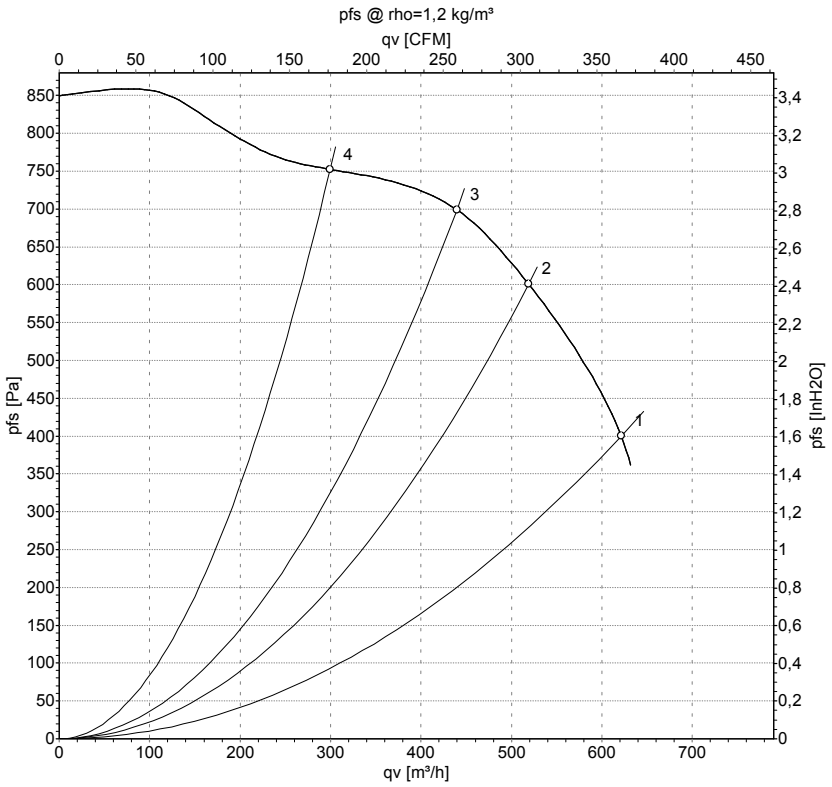
Curves: Air performance 60 Hz



Measurement: LU-107557-1

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	480	60	2820	365	0.48	620	400	365	1.61
2	480	60	3000	300	0.40	520	600	305	2.41
3	480	60	3115	256	0.38	440	700	260	2.81
4	480	60	3305	194	0.27	300	750	175	3.01

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