G2D180-BD02-07

AC centrifugal fan

forward-curved, single-intake

with housing (flange)

G2D180-BD02-07 ebmpapst Datasheet

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Nominal data

Type	**G2D180-BD02-07**
Motor	**M2D068-EC**

Phase		3~	3~
Nominal voltage	VAC	400	400
Wiring		Y	Y
Frequency	Hz	50	60
Method of obtaining data		ml	ml
Valid for approval/standard		CE	CE
Speed (rpm)	min^{-1}	2100	2600
Power consumption	W	375	360
Current draw	A	0.58	0.56
Min. back pressure	Pa	300	650
Min. back pressure	in. wg	1.2	2.61
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	50	45

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

Data according to Commission Regulation (EU) 327/2011

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	33.6	33.4
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		44.2	44
05 Variable speed drive		No	

09 Power consumption P_e	kW	0.21
09 Air flow q_v	m^3/h	395
09 Pressure increase p_{fs}	Pa	652
10 Speed (rpm) n	min^{-1}	2545
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-8456

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Technical description

Weight	4.5 kg
Fan size	180 mm
Rotor surface	Unpainted
Impeller material	Sheet steel, galvanized
Housing material	Die-cast aluminum
Inlet nozzle material	Sheet steel, galvanized
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP00
Insulation class	"F"
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, open rotor
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, motor does not have factory-installed overheating protection; CE

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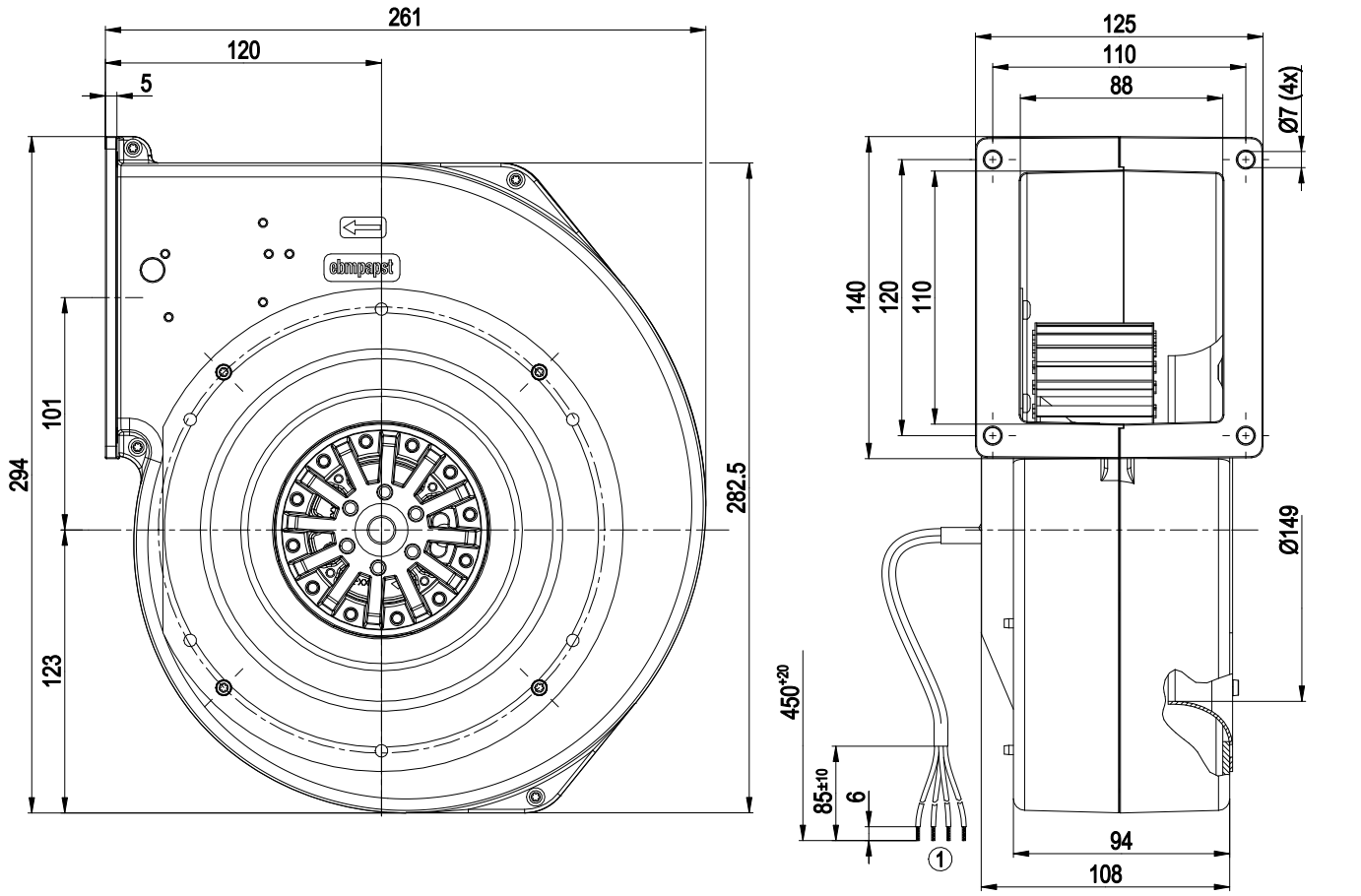
Product drawing



1	Cable silicone 4G 0.5 mm², 4x crimped splices

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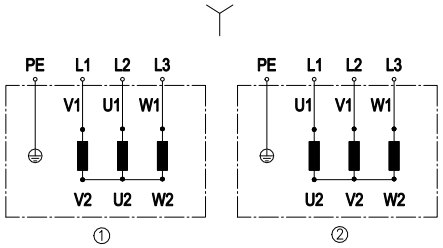
Connection diagram



Change of rotation direction by reversing two phases

	Three-phase motor
Y	Star connection
1	Counterclockwise operation
L1	= V1 = blue
L2	= U1 = black
L3	= W1 = brown
2	Clockwise operation
L1	= U1 = black
L2	= V1 = blue
L3	= W1 = brown
PE	green/yellow

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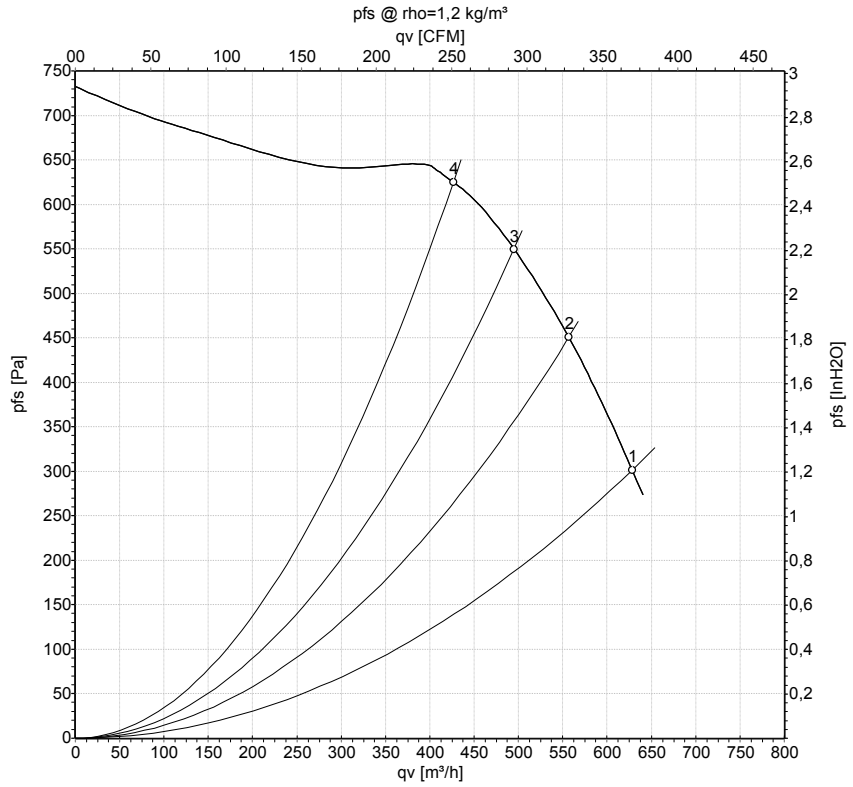
Curves: Air performance 50 Hz



Measurement: LU-8456-1

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	400	50	2100	375	0.58	630	300	370	1.20
2	400	50	2275	303	0.47	555	450	330	1.81
3	400	50	2390	267	0.42	495	550	290	2.21
4	400	50	2500	229	0.37	425	625	250	2.51

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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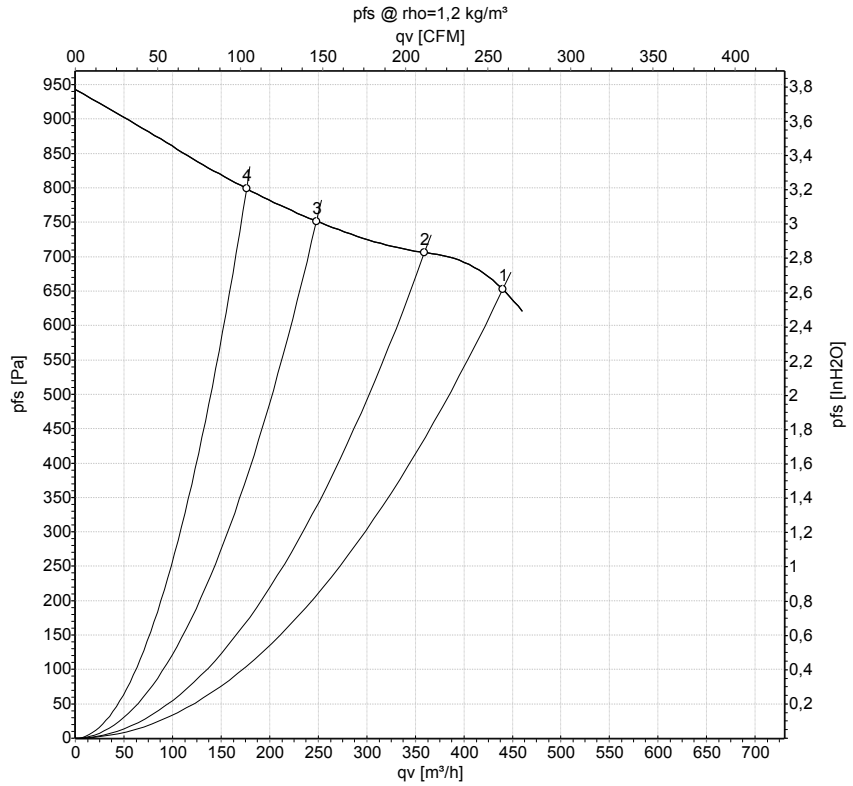
Curves: Air performance 60 Hz



Measurement: LU-8457-1

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	400	60	2600	360	0.56	440	650	260	2.61
2	400	60	2740	291	0.44	360	700	210	2.81
3	400	60	2865	261	0.40	250	750	145	3.01
4	400	60	2940	242	0.37	175	800	105	3.21

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