G2D180-AE02-15

AC centrifugal fan

forward-curved, single-intake

with housing (flange)

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Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
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Nominal data

Type	**G2D180-AE02-15**
Motor	**M2D068-GA**

Phase		3~	3~	3~	3~
Nominal voltage	VAC	230	230	400	400
Wiring		Δ	Δ	Y	Y
Frequency	Hz	50	60	50	60
Method of obtaining data		ml	ml	ml	ml
Valid for approval/standard		CE	CE	CE	CE
Speed (rpm)	min^{-1}	2370	2850	2370	2850
Power consumption	W	420	385	420	385
Current draw	A	1.12	1.04	0.65	0.60
Min. back pressure	Pa	300	800	300	800
Min. back pressure	inH2O	1.2	3.21	1.2	3.21
Min. ambient temperature	°C	-25	-25	-25	-25
Max. ambient temperature	°C	30	30	30	30
Starting current	A	1.66	1.65	1.66	1.65

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}	%	37.4	33.6
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		47.8	44
05 Variable speed drive		No	

09 Power consumption P_e	kW	0.23
09 Air flow q_v	m^3/h	430
09 Pressure increase p_{fs}	Pa	727
10 Speed (rpm) n	min^{-1}	2695
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-56385

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Technical description

Weight	5.4 kg
Fan size	180 mm
Rotor surface	Unpainted
Terminal box material	Die-cast aluminum
Impeller material	Sheet steel, galvanized
Housing material	Die-cast aluminum
Guard grille material	Steel, galvanized and coated with black plastic (RAL 9005)
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
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

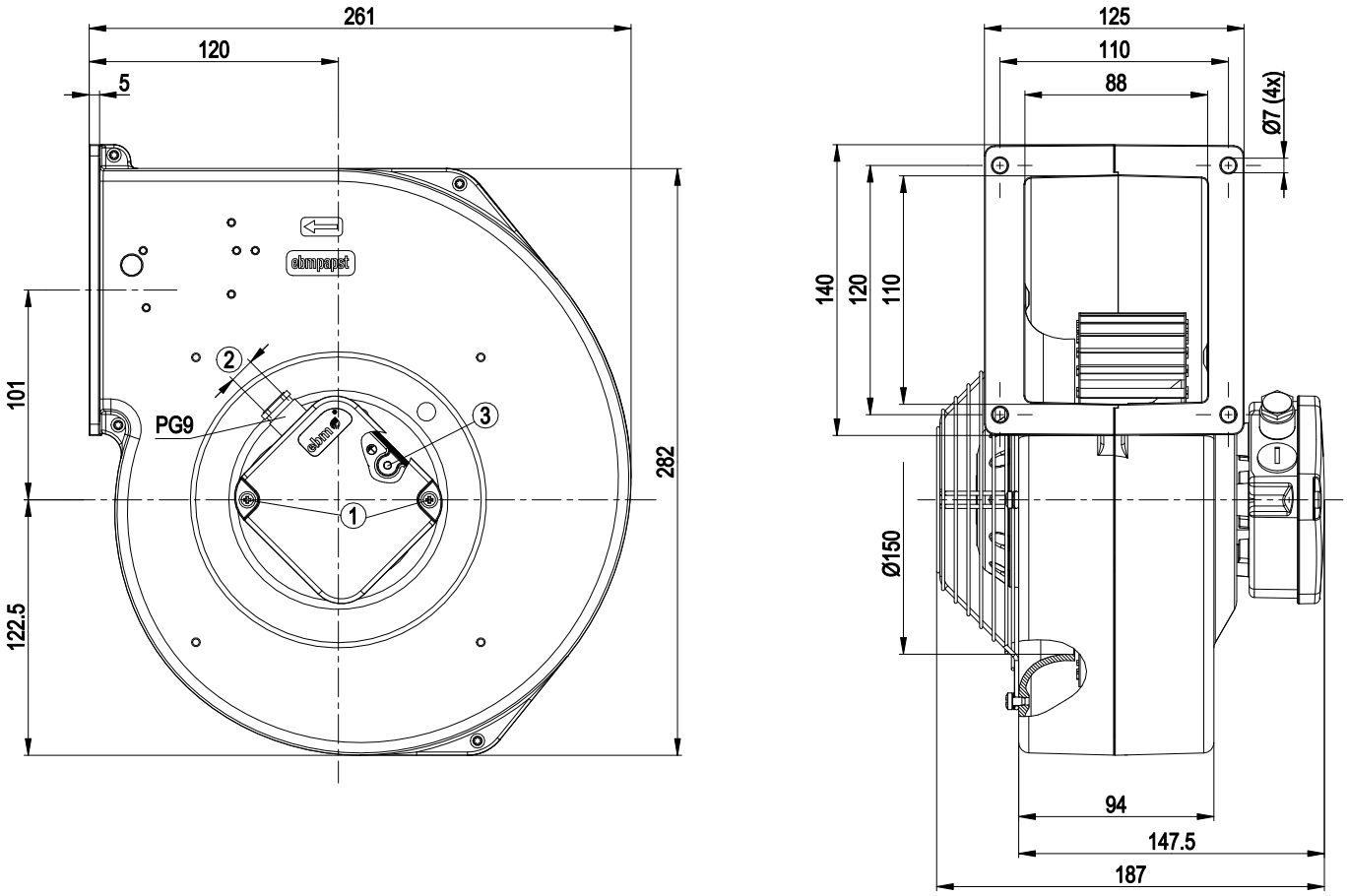
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Product drawing



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

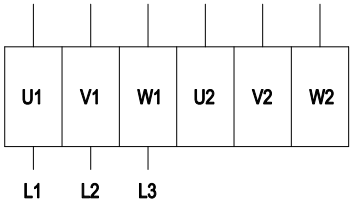
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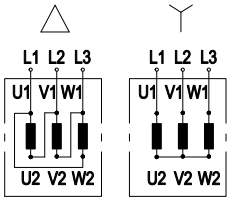
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Connection diagram





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

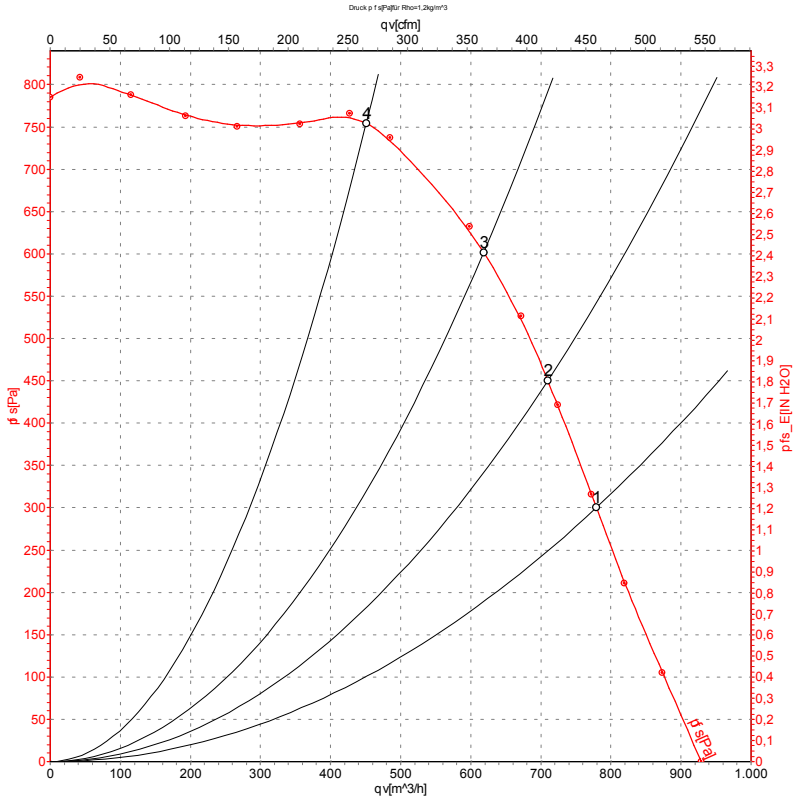
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Curves: Air performance 50 Hz



Measurement: LU-56385-1

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	400	50	2370	420	0.65	770	300	455	1.20
2	400	50	2445	378	0.59	710	450	420	1.81
3	400	50	2540	323	0.52	620	600	365	2.41
4	400	50	2680	240	0.40	450	750	265	3.01

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

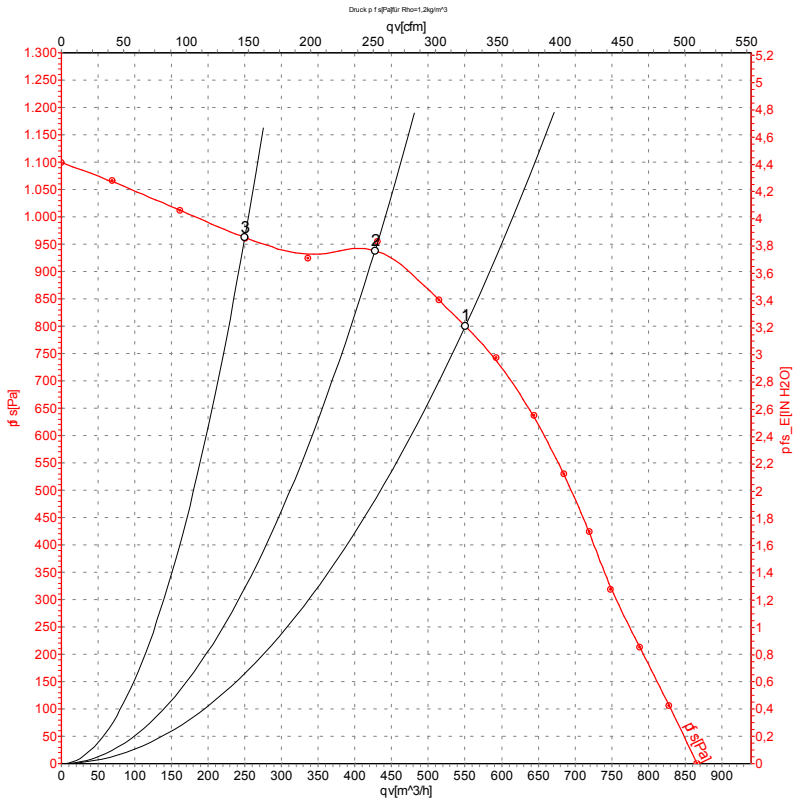
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Curves: Air performance 60 Hz



Measurement: LU-56386-1

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	400	60	2850	385	0.60	550	800	325	3.21
2	400	60	2995	328	0.51	425	950	250	3.81
3	400	60	3130	264	0.42	250	960	145	3.85

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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