G2D180-AE02-14

AC centrifugal fan

forward-curved, single-intake

with housing (flange)

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Nominal data

Type	**G2D180-AE02-14**	
Motor	**M2D068-GA**	
Phase		3~
Nominal voltage	VAC	230
Wiring		Δ
Frequency	Hz	50
Method of obtaining data		ml
Valid for approval/standard		CE
Speed (rpm)	min^{-1}	2370
Power consumption	W	420
Current draw	A	1.12
Min. back pressure	Pa	300
Min. back pressure	in. wg	1.2
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50
Starting current	A	1.66

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 (EN 17166)

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	37.4	33.7
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		47.7	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	5.3 kg
Size	180 mm
Motor size	68
Rotor surface	Unpainted
Terminal box material	Die-cast aluminum
Impeller material	Sheet steel, galvanized
Housing material	Die-cast aluminum
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H0+
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
Protection class	I (if the protective earth is connected by the customer to the marked PE connection point)
Conformity with standards	EN 60034-1; EN 60204-1; EN 60335-1, motor not provided with overheating protection at the factory; CE
Approval	CCC

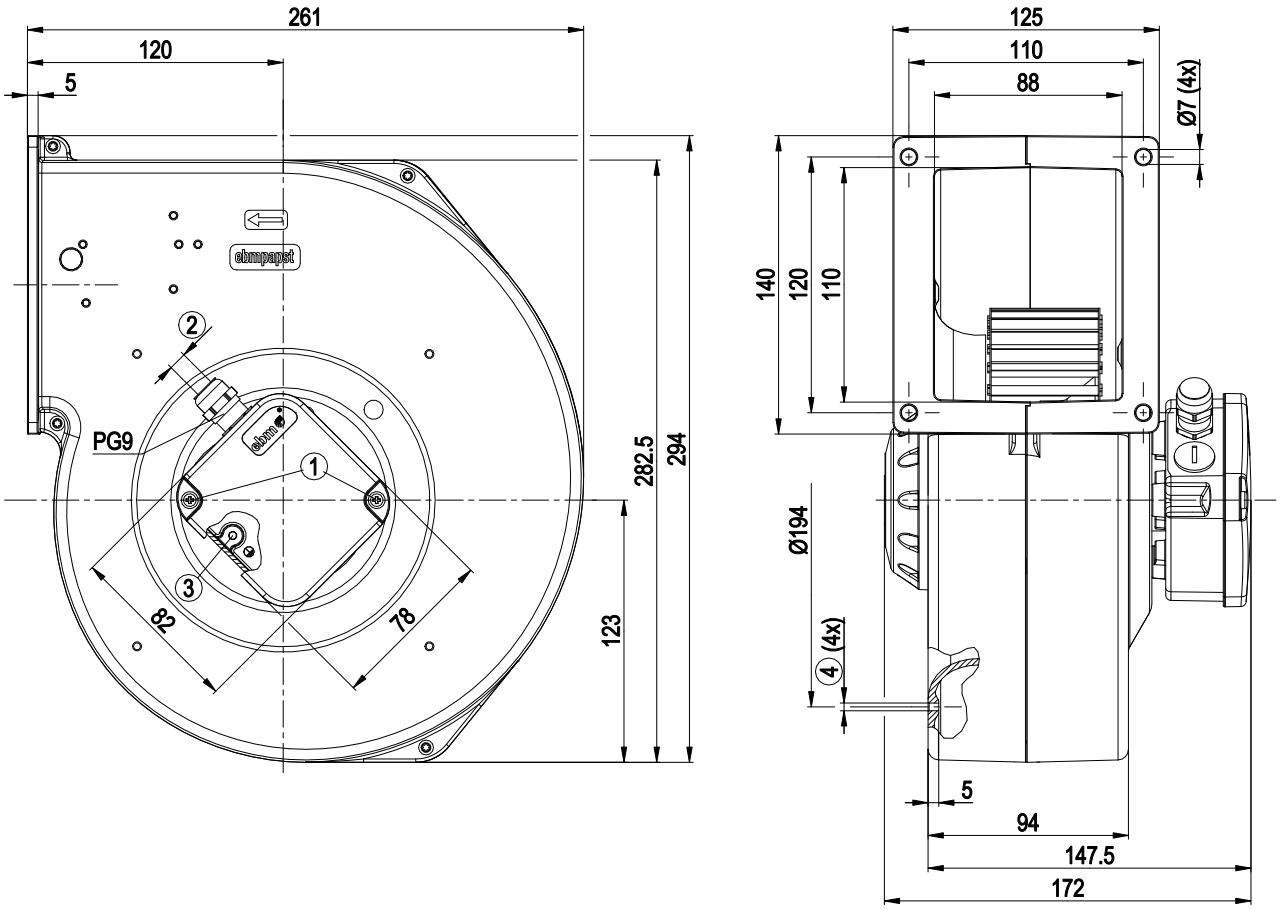
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Product drawing



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

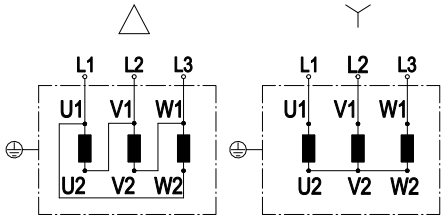
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Connection diagram



Change of rotation direction by reversing two phases

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

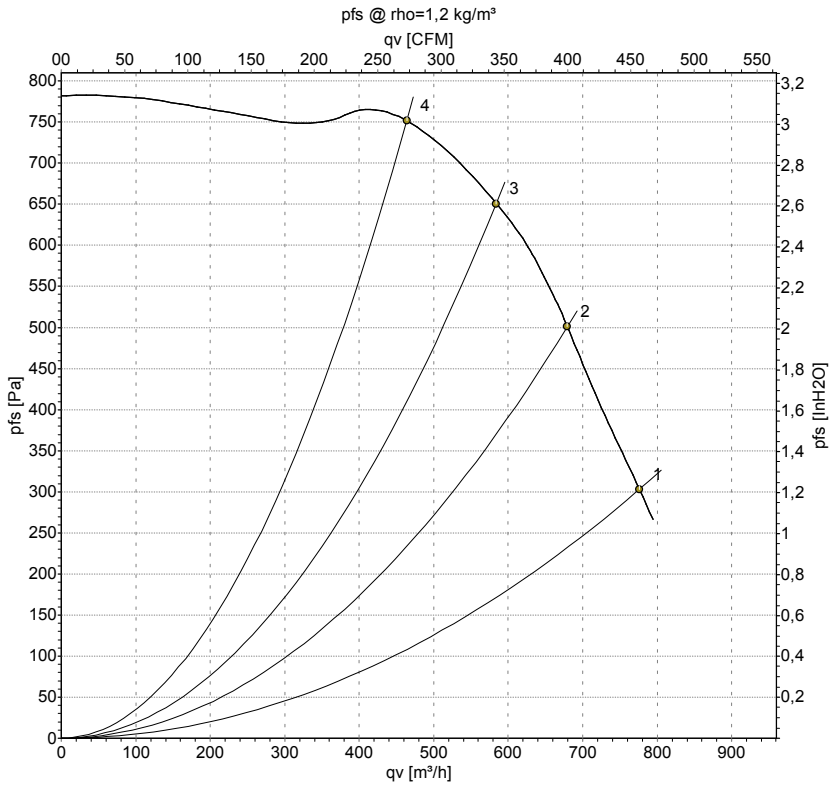
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Curves: Air performance 50 Hz Δ



Measurement: LU-22378-1

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	Δ	230	50	2370	420	1.12	775	300	455	1.20
2	Δ	230	50	2485	373	1.04	680	500	400	2.01
3	Δ	230	50	2580	321	0.91	585	650	345	2.61
4	Δ	230	50	2680	260	0.77	465	750	275	3.01

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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