G2D180-AE02-29

AC centrifugal fan

forward curved, single inlet

with housing (flange)

G2D180-AE02-29 ebmpapst Datasheet
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Nominal data

Type	**G2D180-AE02-29**
Motor	**M2D068-GA**

Phase		3~
Nominal voltage	VAC	230
Connection		Δ
Frequency	Hz	50
Type of data definition		ml
Valid for approval / standard		CE
Speed (rpm)	min^{-1}	2370
Power input	W	420
Current draw	A	1.12
Min. back pressure	Pa	300
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50
Starting current	A	1.66

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

Data according to ErP directive

		Actual	Request 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 input 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 definition with optimum efficiency.
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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

LU-56385

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Technical features

Mass	5.2 kg
Size	180 mm
Surface of rotor	Uncoated
Material of terminal box	Die-cast aluminium
Material of impeller	Sheet steel, galvanised
Housing material	Die-cast aluminium
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position
Insulation class	"F"
Humidity (F)/environmental protection class (H)	F1-1
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	None
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	< 0.75 mA
Electrical leads	Via terminal box
Protection class	I (if protective earth is connected by customer at the connection point of the housing)
Product conforming to standard	EN 60335-1, motor does not have factory-installed overheating protection; CE

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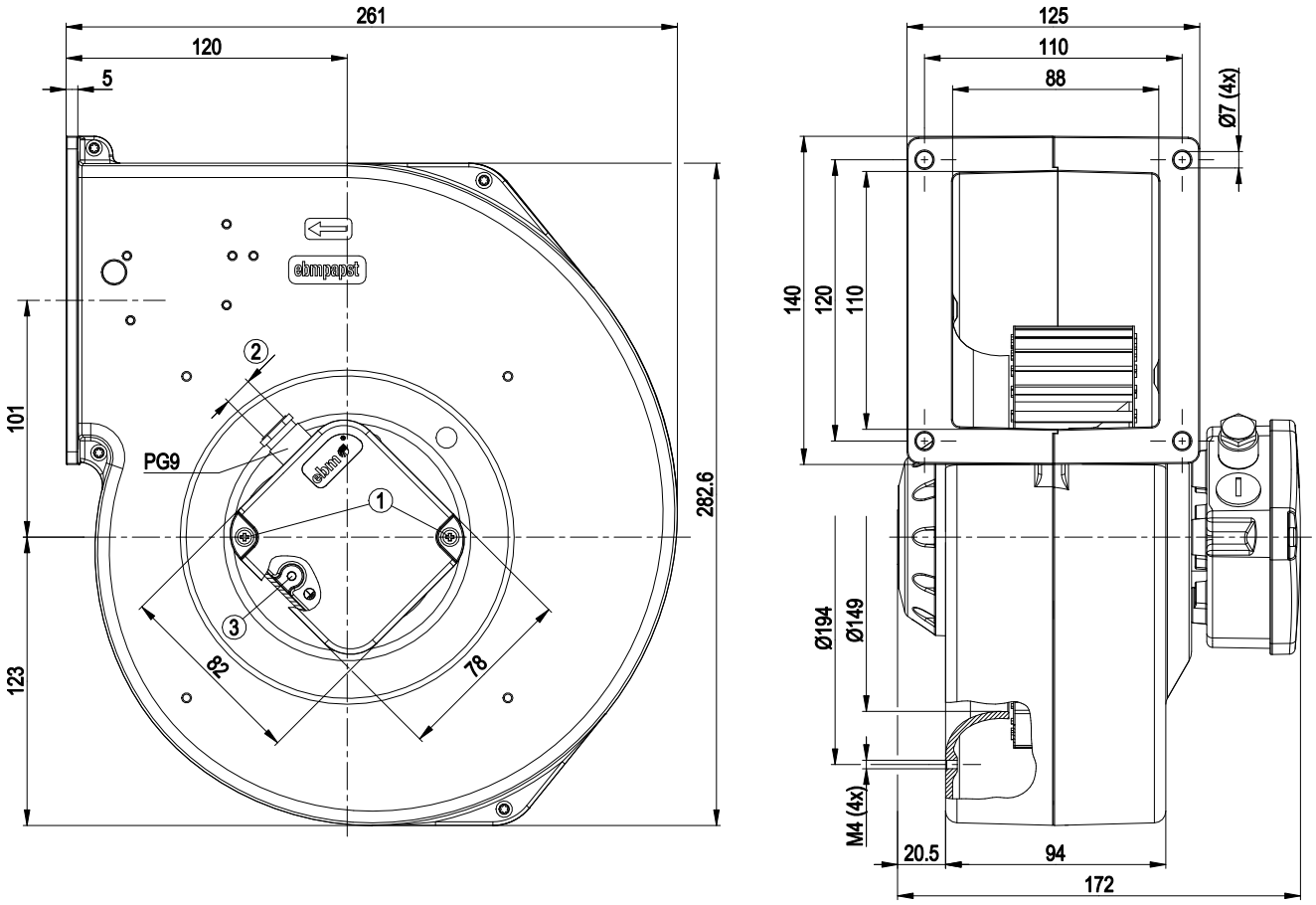
Product drawing



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, thread reach max. 5 mm

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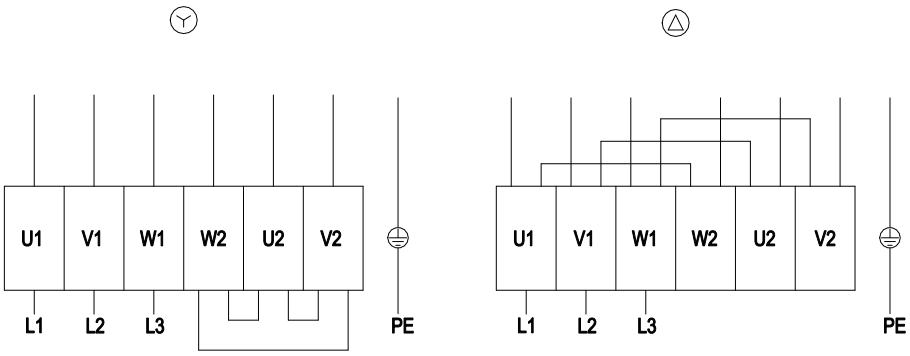
Connection screen



Change in direction of rotation 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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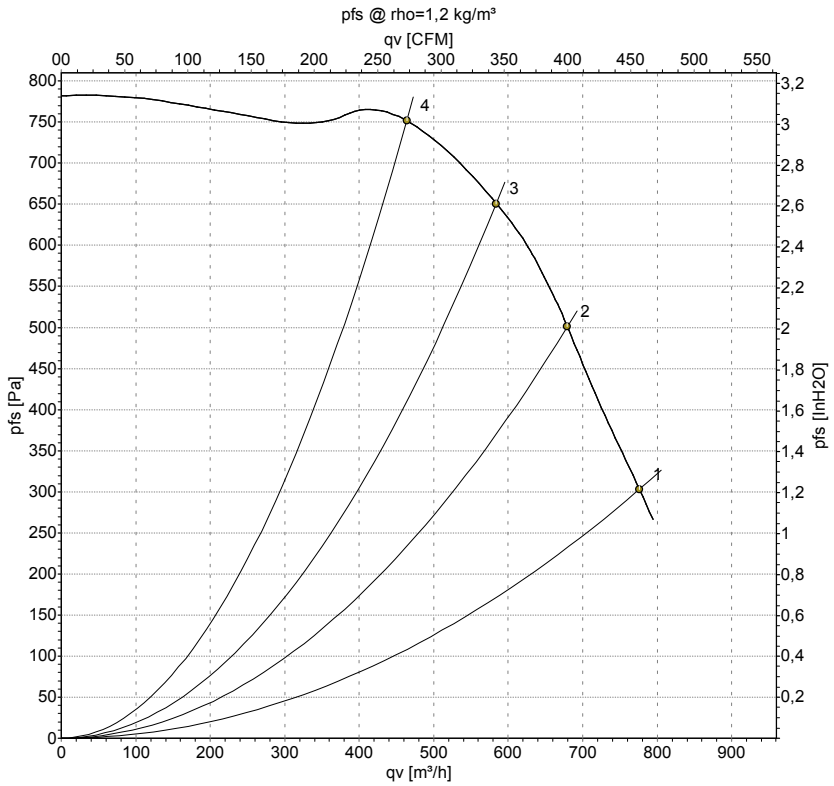
Charts: Air flow 50 Hz Δ



Measurement: LU-22378-1

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	Conn.	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	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

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase