G2D180-BF02-14

AC centrifugal fan

forward curved, single inlet

with housing (without flange)

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Nominal data

Type	**G2D180-BF02-14**
Motor	**M2D074-GA**

Phase		3~	3~	3~
Nominal voltage	VAC	400	400	400
Connection		Y	Y	Y
Frequency	Hz	50	60	60
Type of data definition		fa	fa	fa
Valid for approval / standard		CE	CE	UL 2111
Speed (rpm)	min^{-1}	2350	2350	2350
Power input	W	450	580	580
Current draw	A	0.77	0.98	0.98
Min. back pressure	Pa	0	0	0
Min. ambient temperature	°C	-25	-25	-25
Max. ambient temperature	°C	80	50	50
Starting current	A	1.98	1.7	1.7

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}	%	37.6	33.8
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	0.24
09 Air flow q_v	m^3/h	440
09 Pressure increase p_{fs}	Pa	751
10 Speed (rpm) n	min^{-1}	2755
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

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Technical features

Mass	6.1 kg
Size	180 mm
Surface of rotor	Coated in black
Material of impeller	Sheet steel, galvanised
Housing material	Die-cast aluminium
Direction of rotation	Counter-clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position as per EN 60034-5
Insulation class	"F"
Humidity (F)/environmental protection class (H)	H0+
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensate discharge holes	Rotor-side
Operation mode	S1
Motor bearing	Ball bearing
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	< 0.75 mA
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Axial
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE
Approval	UL 507; CSA C22.2 No.113

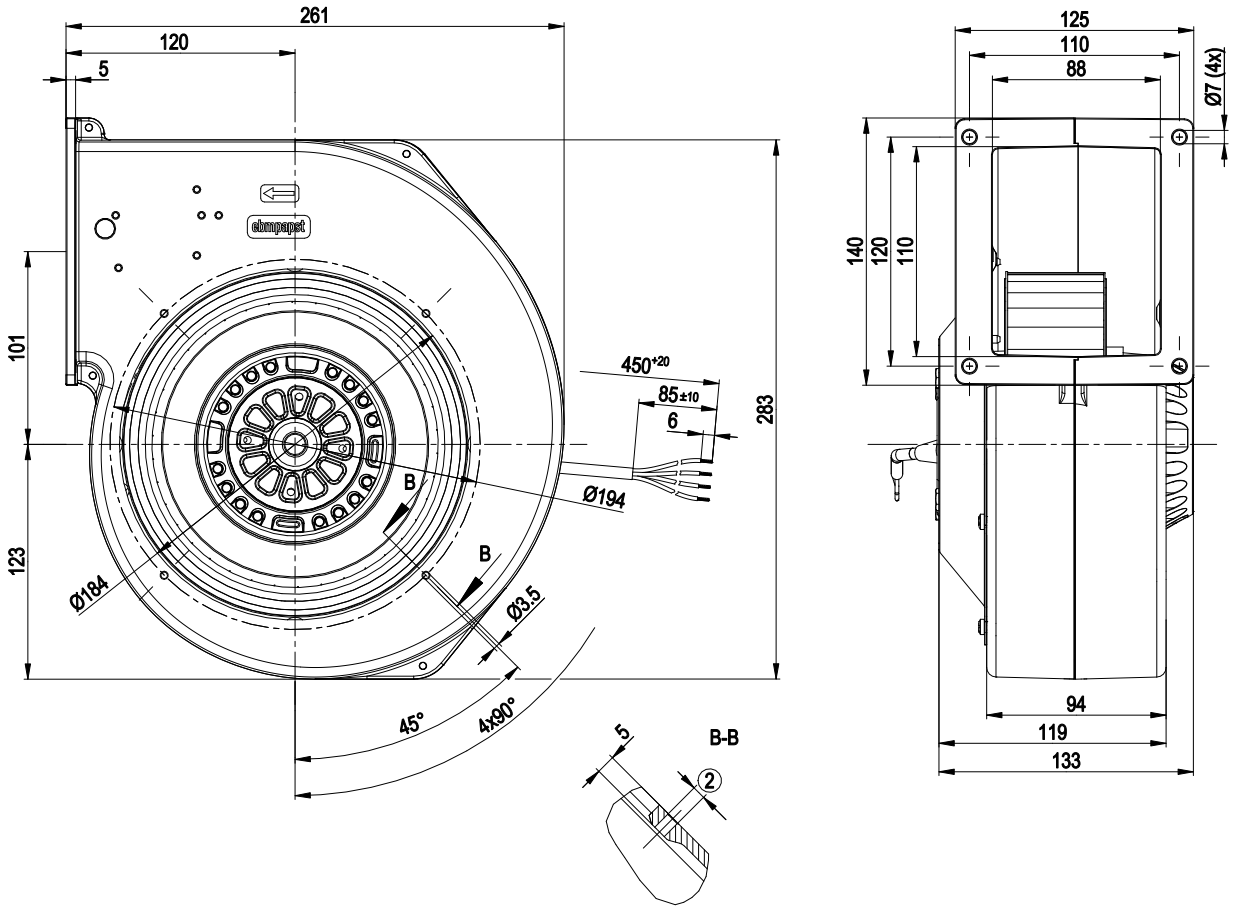
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Product drawing



1	Connection line FEP AWG20, 4x lead tips crimped
2	Pilot hole prepared for M4 self-tapping screw, depth of screw max. 8 mm

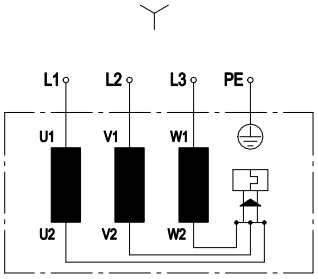
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Connection screen



Note: Change direction of rotation by reversing two phases

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

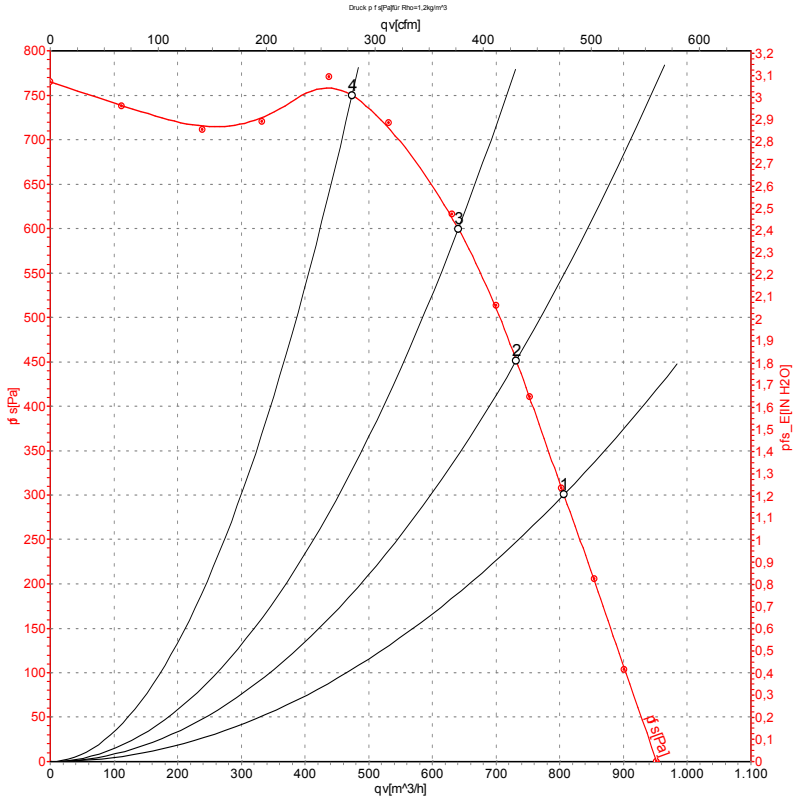
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Charts: Air flow 50 Hz Y



Measurement: LU-29582-1

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	Y	400	50	2450	445	0.77	805	300	475	1.20
2	Y	400	50	2540	398	0.68	730	450	430	1.81
3	Y	400	50	2620	344	0.60	640	600	375	2.41
4	Y	400	50	2735	259	0.49	475	750	280	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

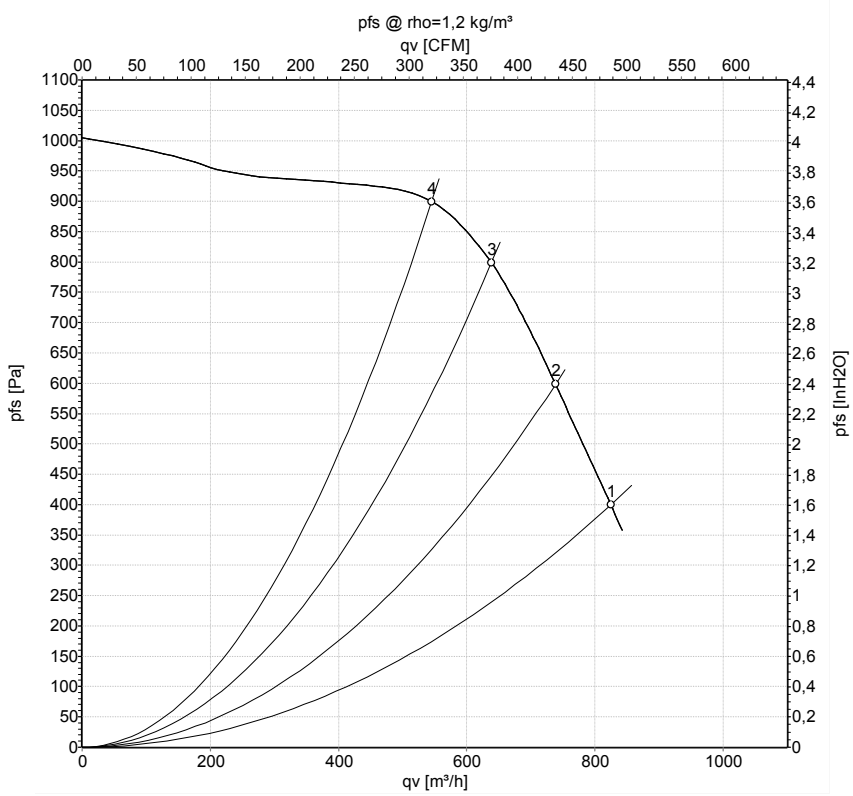
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Charts: Air flow 60 Hz Y



Measurement: LU-42577-1

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	Y	400	60	2630	560	0.95	825	400	485	1.61
2	Y	400	60	2775	497	0.84	740	600	435	2.41
3	Y	400	60	2935	427	0.73	640	800	375	3.21
4	Y	400	60	3045	373	0.64	545	900	320	3.61

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

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