G2E180-EH03-24

AC centrifugal fan

forward curved, single inlet

with housing (flange)

G2E180-EH03-24 ebmpapst Datasheet
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Limited partnership · Headquarters Mulfingen
County court Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
County court Stuttgart · HRB 590142

Nominal data

Type	**G2E180-EH03-24**
Motor	**M2E074-EI**

Phase		1~	1~
Nominal voltage	VAC	230	230
Frequency	Hz	50	60
Type of data definition		fa	ml
Valid for approval / standard		CE	CE
Speed (rpm)	min^{-1}	1950	2150
Power input	W	400	415
Current draw	A	1.75	1.82
Motor capacitor	µF	8	8
Capacitor voltage	VDB	400	400
Capacitor standard		S2 (CE)	S2 (CE)
Min. back pressure	Pa	0	250
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	60	50
Starting current	A	2.2	2

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}	%	33.5	33.5
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		44	44
05 Variable speed drive		No	

09 Power input P_e	kW	0.22
09 Air flow q_v	m^3/h	400
09 Pressure increase p_{fs}	Pa	665
10 Speed (rpm) n	min^{-1}	2705
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-105271

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Technical features

Mass	5.8 kg
Size	180 mm
Surface of rotor	Coated in black
Material of terminal box	Die-cast aluminium
Material of impeller	Sheet steel, coated in black
Housing material	Die-cast aluminium
Material of guard grille	Steel, coated in black plastic (RAL9005)
Direction of rotation	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 - dry environment
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
Electrical leads	Via terminal box
Motor protection	Thermal overload protector (TOP) wired internally
Protection class	I (if protective earth is connected by customer)
Motor capacitor according to EN 60252-1 in safety protection class	S2
Product conforming to standard	EN 60335-1; CE

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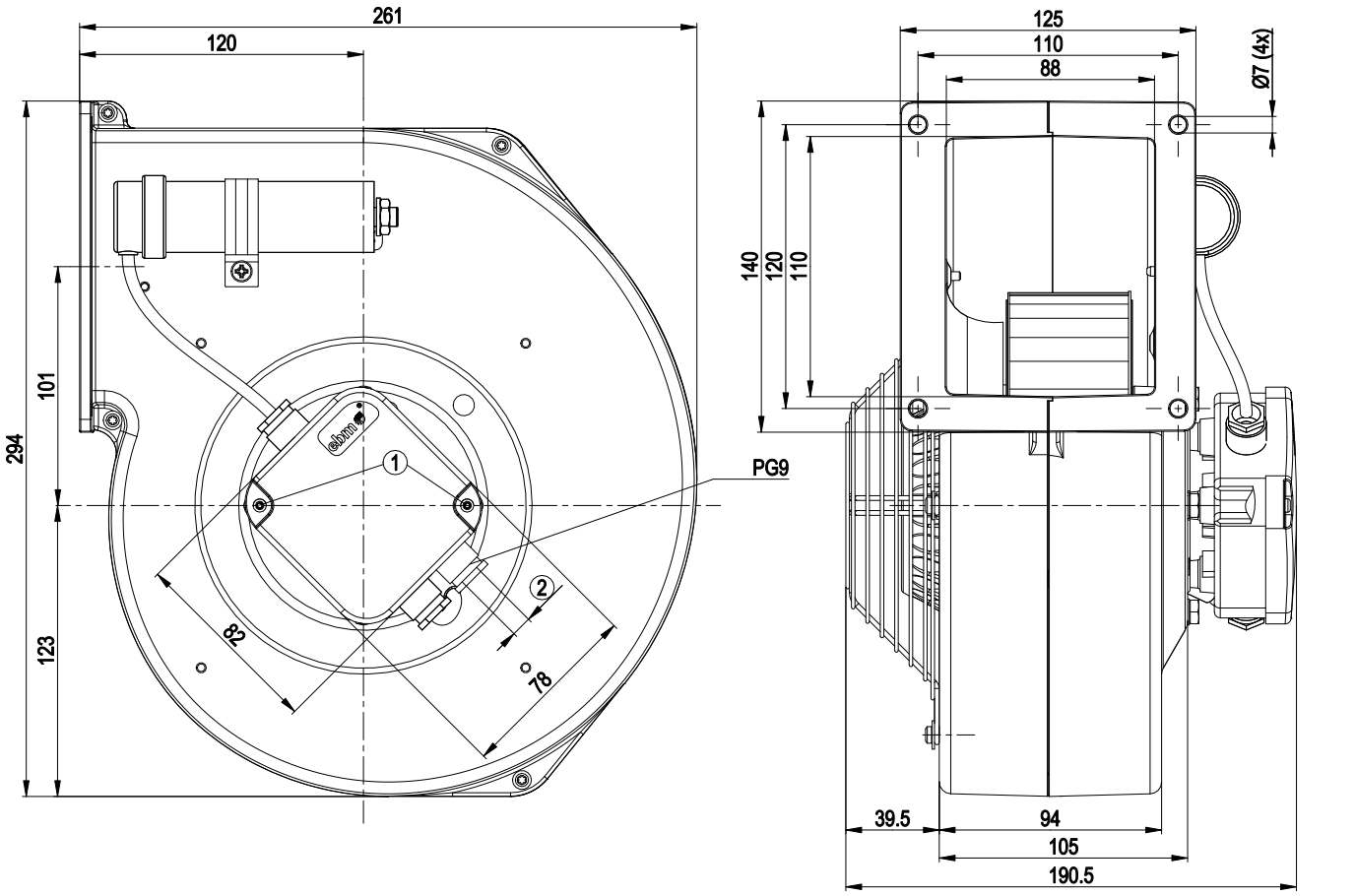
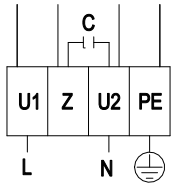
Product drawing



1	Tightening torque 1.3±0.2 Nm
2	Cable diameter min. 6 mm, max. 8 mm, tightening torque 2±0.3 Nm

Connection screen



L	= U1 = blue	Z	brown	N	= U2 = black
PE	green/yellow				

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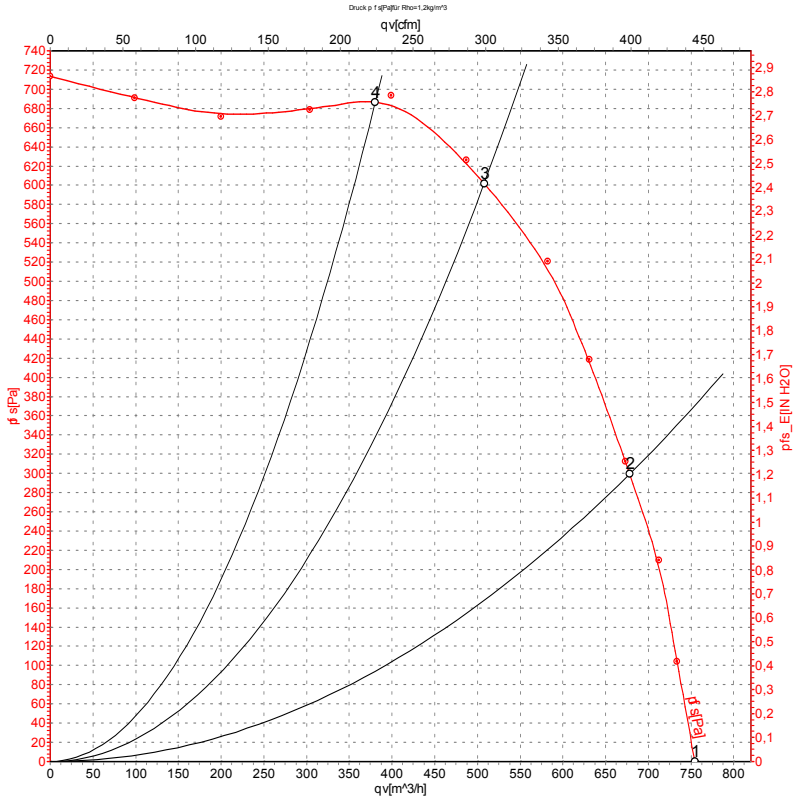
Charts: Air flow 50 Hz



Measurement: LU-105271-1

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

	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	230	50	1950	400	1.75	755	0	445	0.00
2	230	50	2300	344	1.49	680	300	400	1.20
3	230	50	2595	265	1.18	510	600	300	2.41
4	230	50	2710	224	1.02	380	690	225	2.77

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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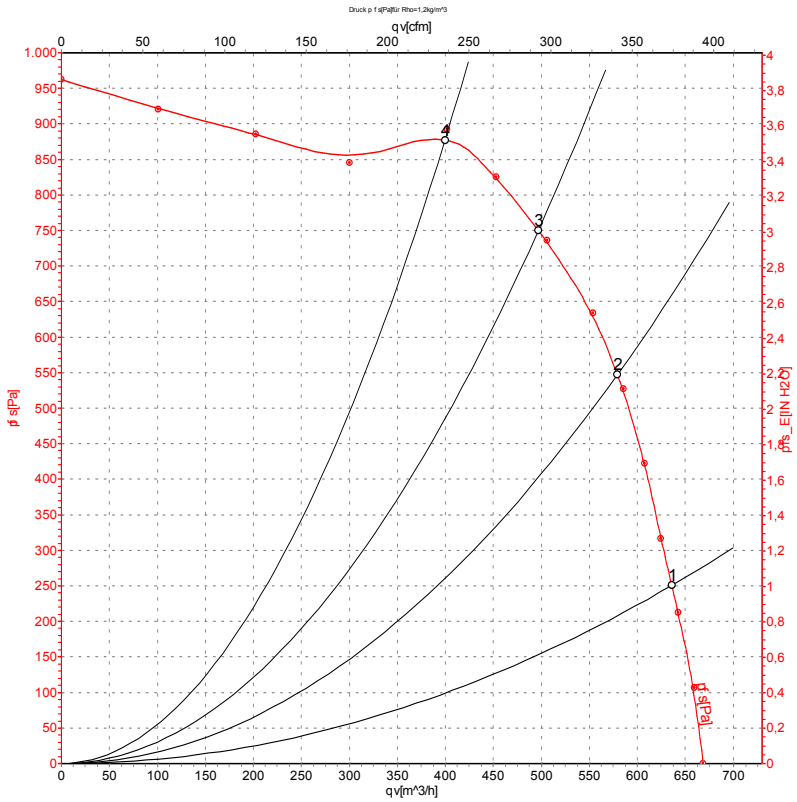
Charts: Air flow 60 Hz



Measurement: LU-105273-1

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

	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	230	60	2150	415	1.82	635	250	375	1.00
2	230	60	2555	390	1.70	580	550	340	2.21
3	230	60	2825	360	1.60	495	750	295	3.01
4	230	60	3040	324	1.48	400	890	235	3.57

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