

# AC centrifugal fan

forward-curved, single-intake

with housing (flange)

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## Nominal data

Type	G2E180-EH03-17		
Motor	M2E074-EI		
Phase		1~	1~
Nominal voltage	VAC	230	230
Nominal voltage range	VAC	208 .. 230	
Frequency	Hz	50	60
Method of obtaining data		fa	ml
Valid for approval/standard		CE	CE
Speed (rpm)	min <sup>-1</sup>	1950	2150
Power consumption	W	400	415
Current draw	A	1.75	1.82
Capacitor	µF	8	8
Capacitor voltage	VDB	400	400
Capacitor standard		S0 (CE)	S0 (CE)
Min. back pressure	Pa	0	250
Min. back pressure	in. wg	0	1
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 = Free air · cs = Customer specification · ce = Customer equipment  
Subject to change

## Data according to Commission Regulation (EU) 327/2011

		Actual	Req. 2015			
01 Overall efficiency $\eta_{es}$	%	33.5	33.5	09 Power consumption $P_e$	kW	0.22
02 Measurement category		A		09 Air flow $q_v$	m <sup>3</sup> /h	400
03 Efficiency category		Static		09 Pressure increase $p_{fs}$	Pa	665
04 Efficiency grade N		44	44	10 Speed (rpm) n	min <sup>-1</sup>	2705
05 Variable speed drive		No		11 Specific ratio <sup>*</sup>		1.01

Data obtained at optimum efficiency level.

The ErP data is determined using a motor-impeller combination in a standardized measurement setup.

<sup>\*</sup> Specific ratio =  $1 + p_{fs} / 100\,000\text{ Pa}$ 

LU-105271



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## Technical description

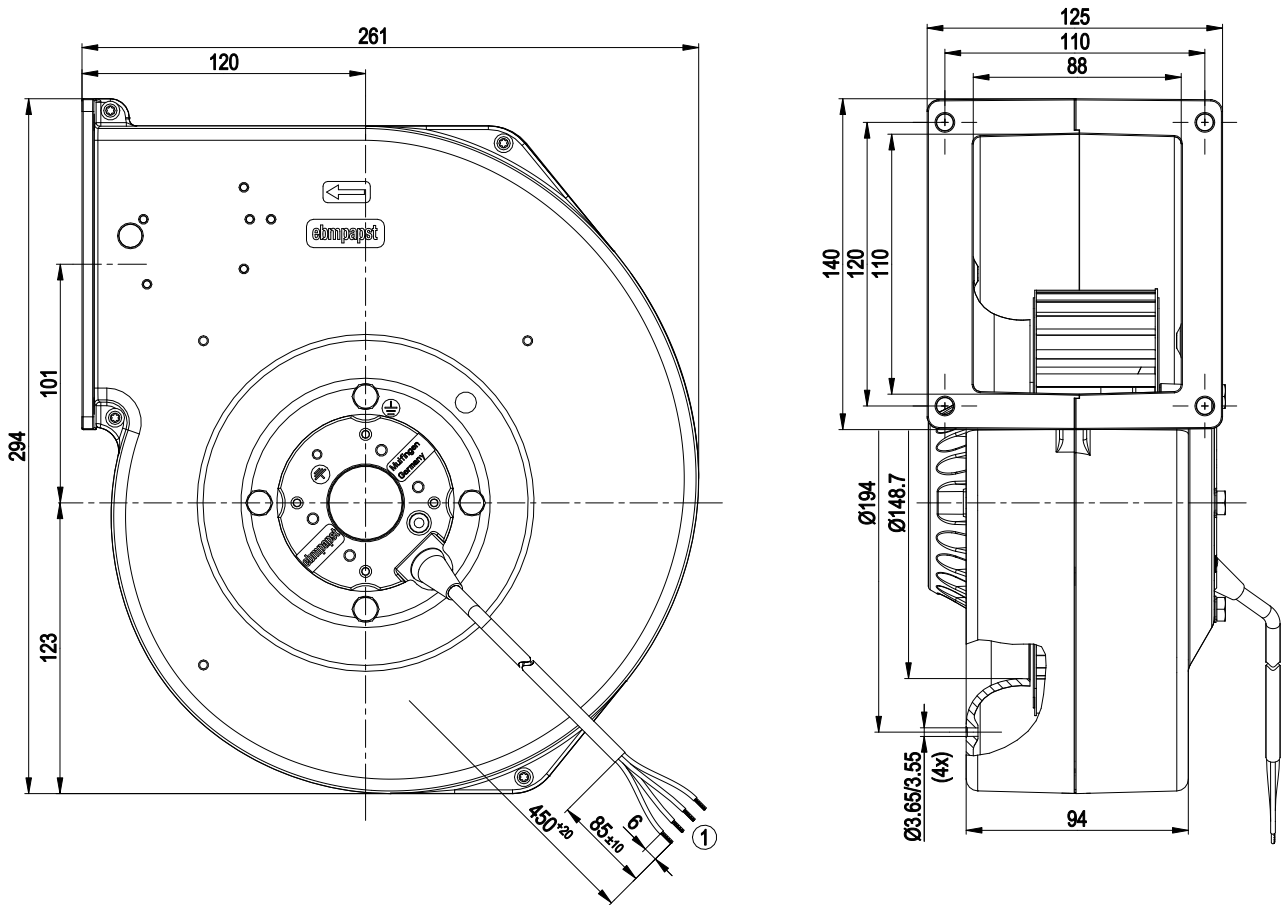
<b>Weight</b>	5.5 kg
<b>Fan size</b>	180 mm
<b>Rotor surface</b>	Painted black
<b>Impeller material</b>	Sheet steel, painted black
<b>Housing material</b>	Die-cast aluminum
<b>Direction of rotation</b>	Clockwise, viewed toward rotor
<b>Degree of protection</b>	IP44; installation- and position-dependent as per EN 60034-5
<b>Insulation class</b>	"F"
<b>Moisture (F) / Environmental (H) protection class</b>	H0 - dry environment
<b>Max. permitted ambient temp. for motor (transport/storage)</b>	+ 80 °C
<b>Min. permitted ambient temp. for motor (transport/storage)</b>	- 40 °C
<b>Installation position</b>	Shaft horizontal or rotor on bottom; rotor on top on request
<b>Condensation drainage holes</b>	On rotor side
<b>Mode</b>	S1
<b>Motor bearing</b>	Ball bearing
<b>Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)</b>	< 0.75 mA
<b>Motor protection</b>	Thermal overload protector (TOP) internally connected
<b>With cable</b>	Variable
<b>Protection class</b>	I (with customer connection of protective earth)
<b>Conformity with standards</b>	EN 60335-1; CE
<b>Approval</b>	CSA C22.2 No. 100; UL 1004-1



# AC centrifugal fan

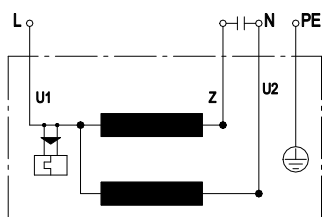
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## Product drawing



1 Cable PFA 3x AWG20, 1x AWG18 (green/yellow); 4x crimped splices

## Connection diagram



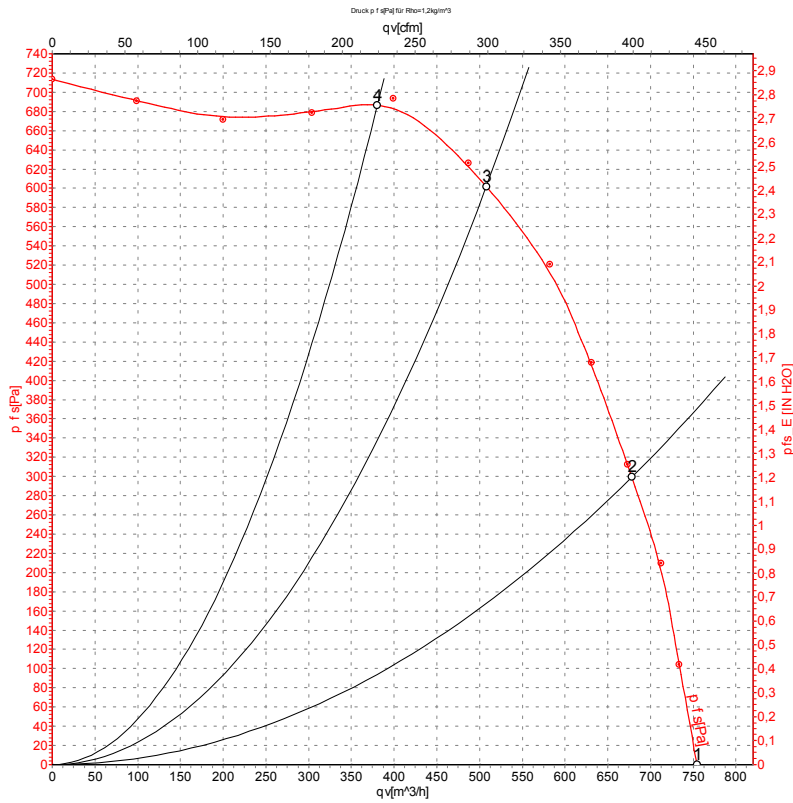
U1	blue	Z	brown	U2	black
PE	green/yellow				

# AC centrifugal fan

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## Curves: Air performance 50 Hz



Measurement: LU-105271-1

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 <sub>e</sub>	I	q <sub>v</sub>	P <sub>fs</sub>	q <sub>v</sub>	P <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa	cfm	in. wg
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 = Power supply · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power consumption · I = Current draw · q<sub>v</sub> = Air flow · P<sub>fs</sub> = Pressure increase

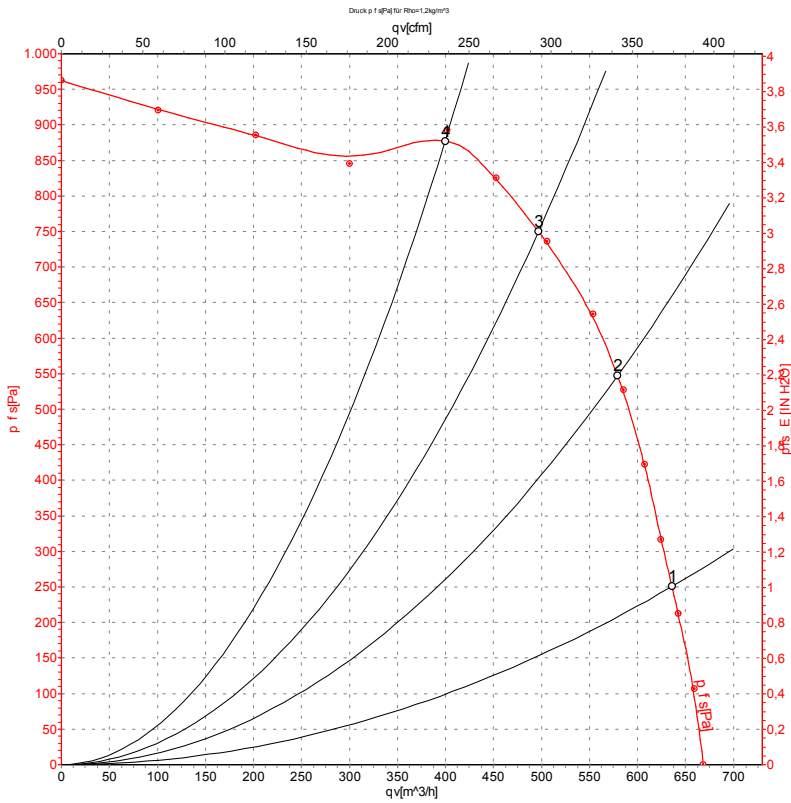


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## Curves: Air performance 60 Hz



Measurement: LU-105273-1

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 <sub>e</sub>	I	q <sub>v</sub>	P <sub>fs</sub>	q <sub>v</sub>	P <sub>fs</sub>
	V	Hz	min <sup>-1</sup>	W	A	m <sup>3</sup> /h	Pa	cfm	in. wg
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 = Power supply · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power consumption · I = Current draw · q<sub>v</sub> = Air flow · P<sub>fs</sub> = Pressure increase



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