R2E160-AY50-30

AC centrifugal fan

forward-curved

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Nominal data

Type	**R2E160-AY50-30**
Motor	**M2E068-EC**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50
Method of obtaining data		ml
Valid for approval/standard		CE
Speed (rpm)	min^{-1}	2400
Power consumption	W	230
Current draw	A	0.99
Capacitor	µF	5
Capacitor voltage	VDB	400
Min. back pressure	Pa	250
Min. back pressure	inH2O	1
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60
Starting current	A	1.7

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 η_{es}	%	32.1	32.1
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		44	44
05 Variable speed drive		No	

09 Power consumption P_e	kW	0.13
09 Air flow q_v	m^3/h	300
09 Pressure increase p_{fs}	Pa	527
10 Speed (rpm) n	min^{-1}	2745
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-140176

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Technical description

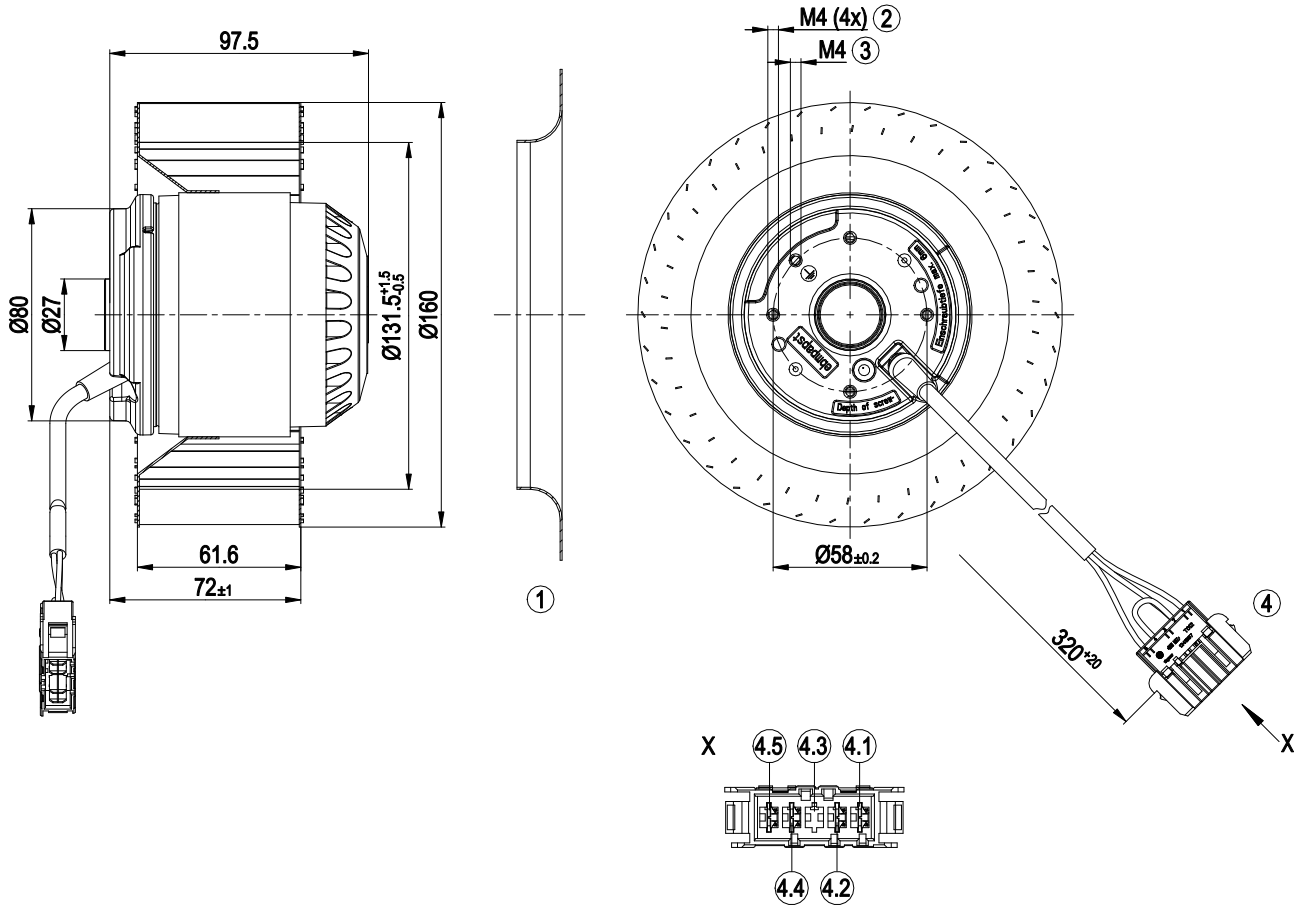
Weight	2.7 kg
Fan size	160 mm
Rotor surface	Unpainted
Impeller material	Sheet steel, galvanized
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H0 - dry environment
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
Motor protection	Thermal overload protector (TOP) internally connected
With cable	Variable
Protection class	I (if protective earth is connected by customer to the housing's connection point)
Conformity with standards	EN 60335-1; CE

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Product drawing



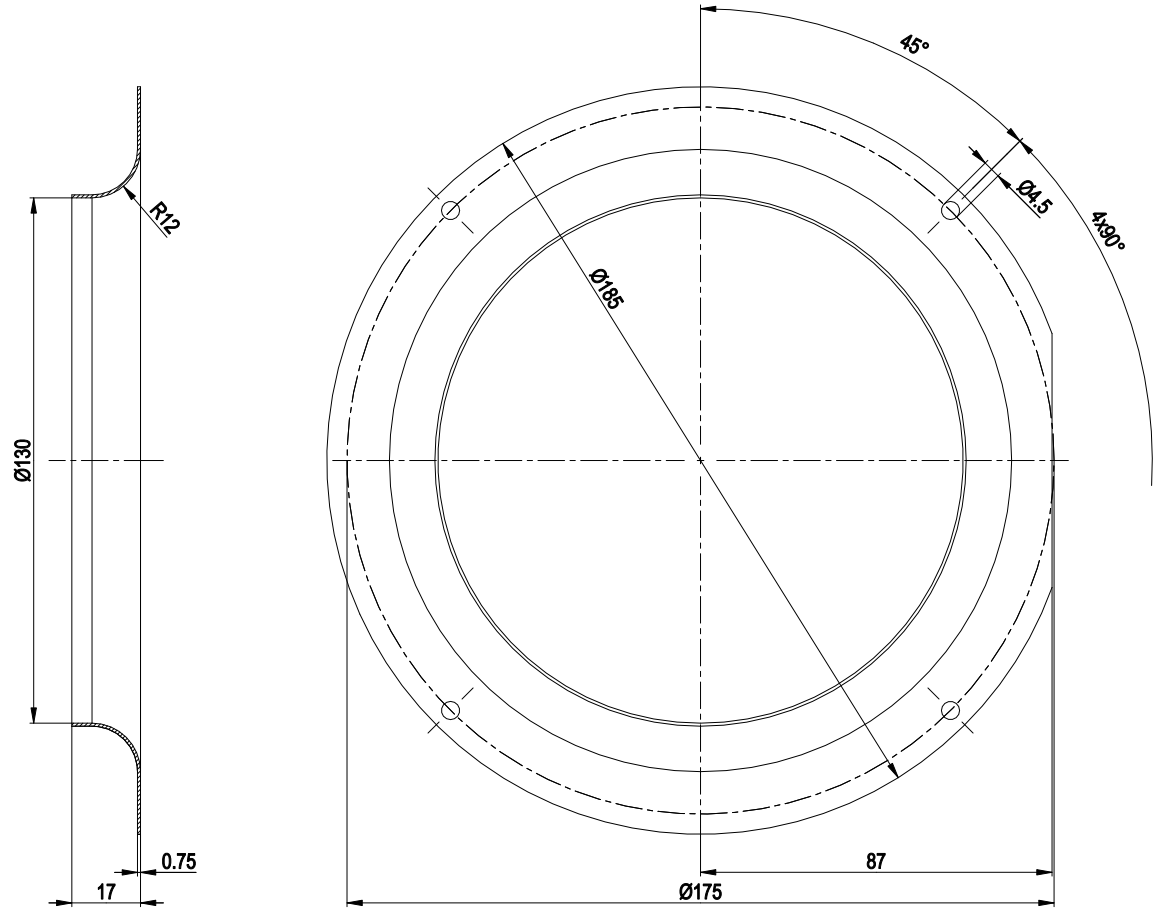
1	Accessory part: inlet ring 09588-2-4013 not included in scope of delivery
2	Max. clearance for screw 6 mm
3	Max. clearance for screw 6 mm
4	Cable silicone 3x 0.5 mm², tyco 5-pole connector housing 9-1241857-5, 4x flat plug 6.3x0.8
4.1	L (blue)
4.2	N (black + gray)
4.3	not used
4.4	Capacitor (gray)
4.5	Capacitor (brown)

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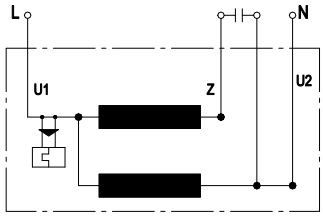
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Accessory part



	Accessory part: inlet ring 09588-2-4013 not included in scope of delivery

Connection diagram



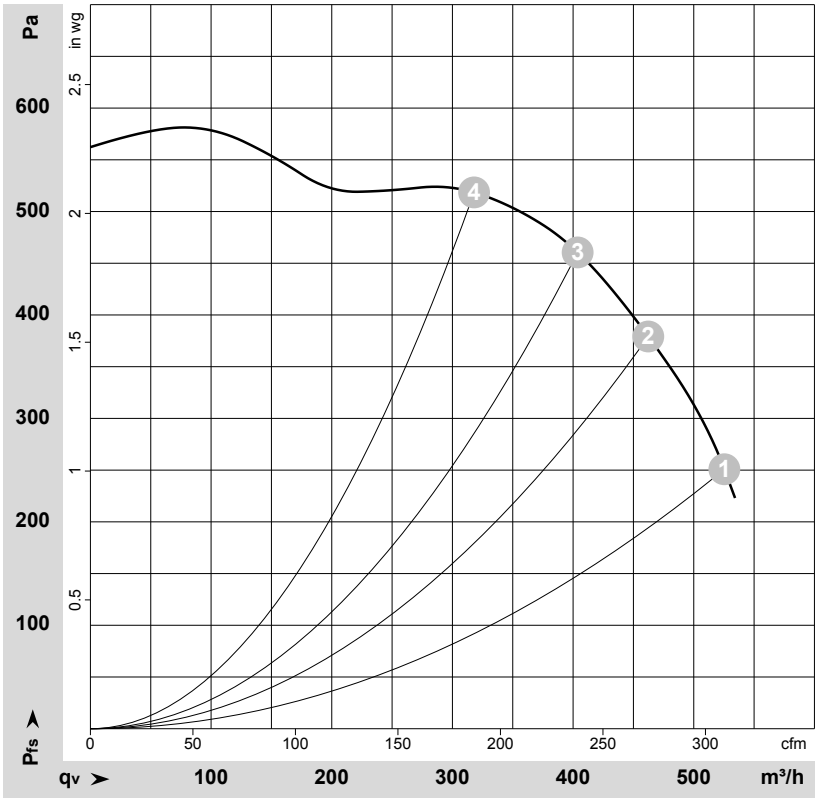
U1	blue	Z	brown	U2	black

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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-140176-1

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_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	2400	230	0.99	525	250	310	1.00
2	230	50	2545	199	0.87	460	380	270	1.53
3	230	50	2630	173	0.76	405	460	240	1.85
4	230	50	2720	148	0.65	320	520	185	2.09

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

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