R2E160-AY47-01

AC centrifugal fan

forward curved, single inlet



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ErP2013 EXCEEDS THE NORM

Nominal data

Type	**R2E160-AY47-01**
Motor	**M2E068-EC**

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	min^{-1}	2100	2100
Power input	W	240	280
Current draw	A	1.05	1.23
Motor capacitor	µF	6	6
Capacitor voltage	VDB	400	400
Min. back pressure	Pa	0	50
Max. ambient temperature	°C	50	30

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

Installation category	A
Efficiency category	Static
Variable speed drive	No
Specific ratio*	1.01

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}		27.4	25.6	32.6
Efficiency grade N		38.8	37	44
Power input P_e	kW	0.16		
Air flow q_v	m^3/h	365		
Pressure increase p_{fs}	Pa	442		
Speed n	min^{-1}	2595		

Data established at point of optimum efficiency

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Technical features

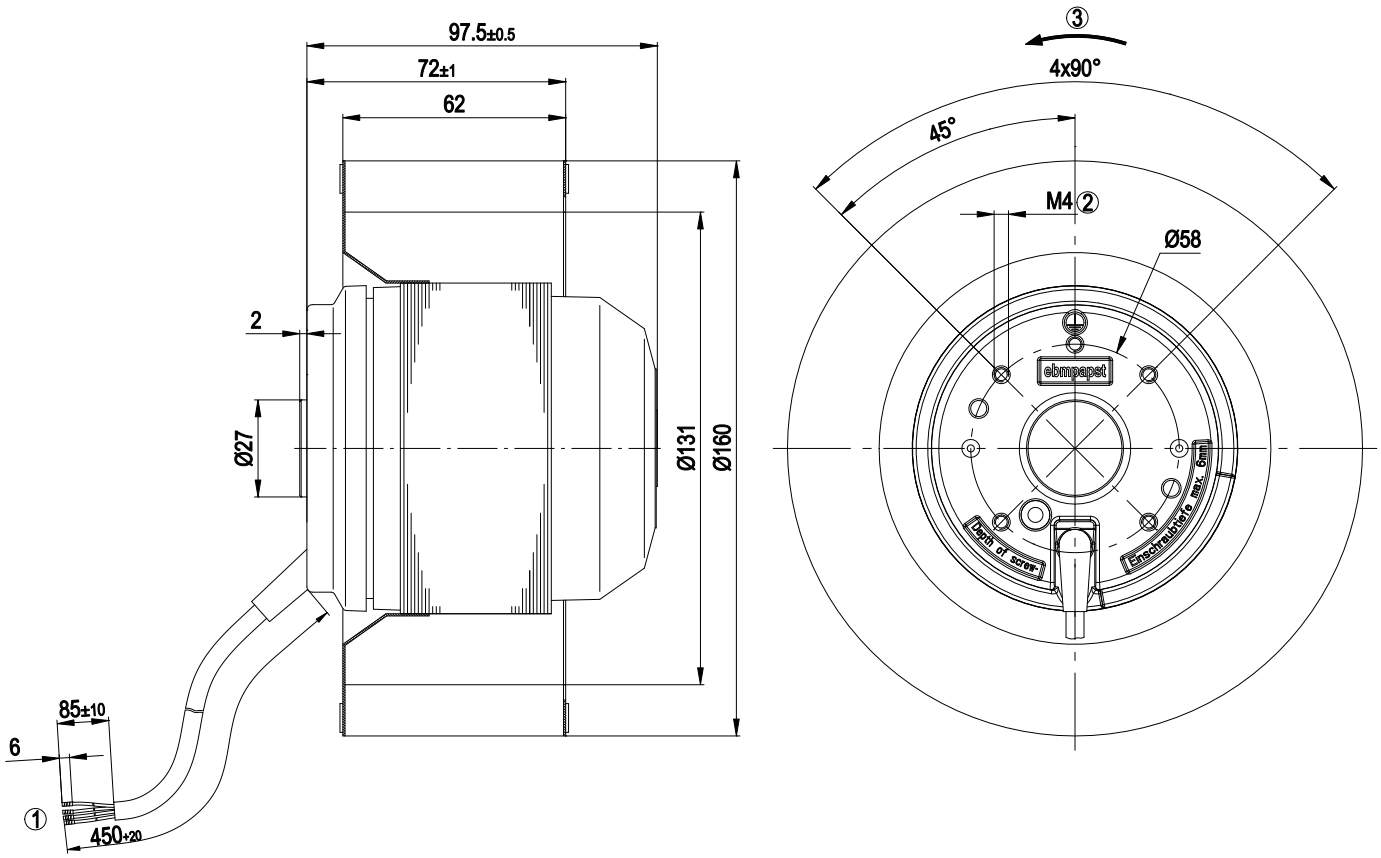
Mass	2.6 kg
Size	160 mm
Surface of rotor	Partially cast in aluminium
Material of impeller	Sendzimir galvanized sheet steel
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44
Insulation class	"B"
Humidity class	F0
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. 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
Motor protection	Thermal overload protector (TOP) wired internally
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE
Approval	CCC

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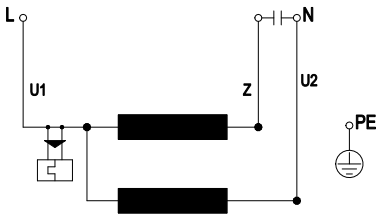
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Product drawing



1	Connection line PVC, 4x brass lead tips crimped
2	Screw depth max. 5 mm
3	Direction of rotation clockwise, seen on rotor

Connection screen



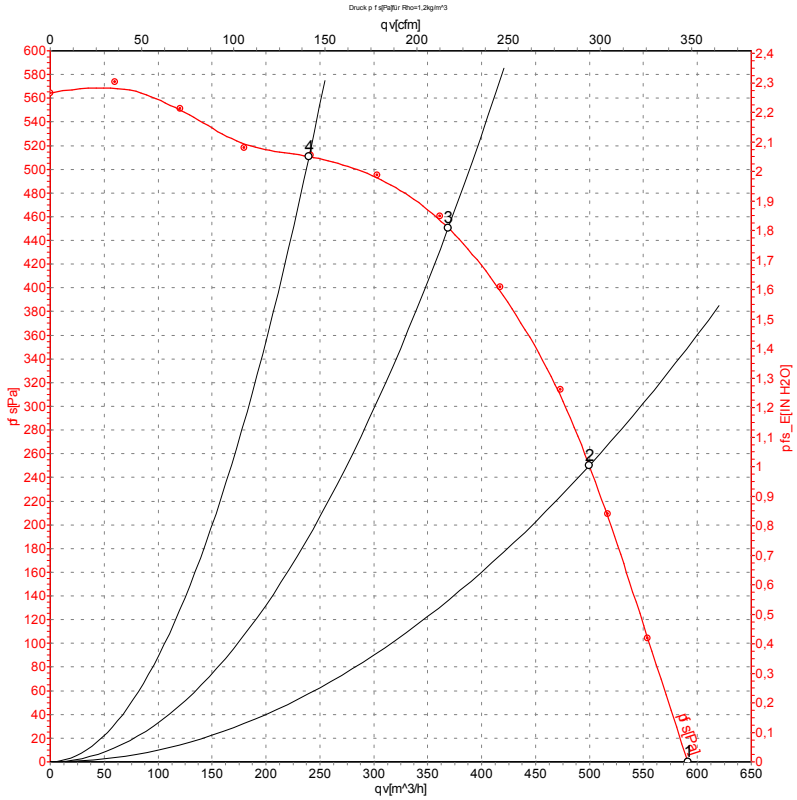
U1	blue	Z	brown	U2	black
PE	green/yellow				

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Charts: Air flow 50 Hz



Measurement: LU-104987

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	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	50	2100	240	1.05	590	0
2	230	50	2375	200	0.87	500	250
3	230	50	2585	164	0.71	370	450
4	230	50	2715	137	0.59	240	510

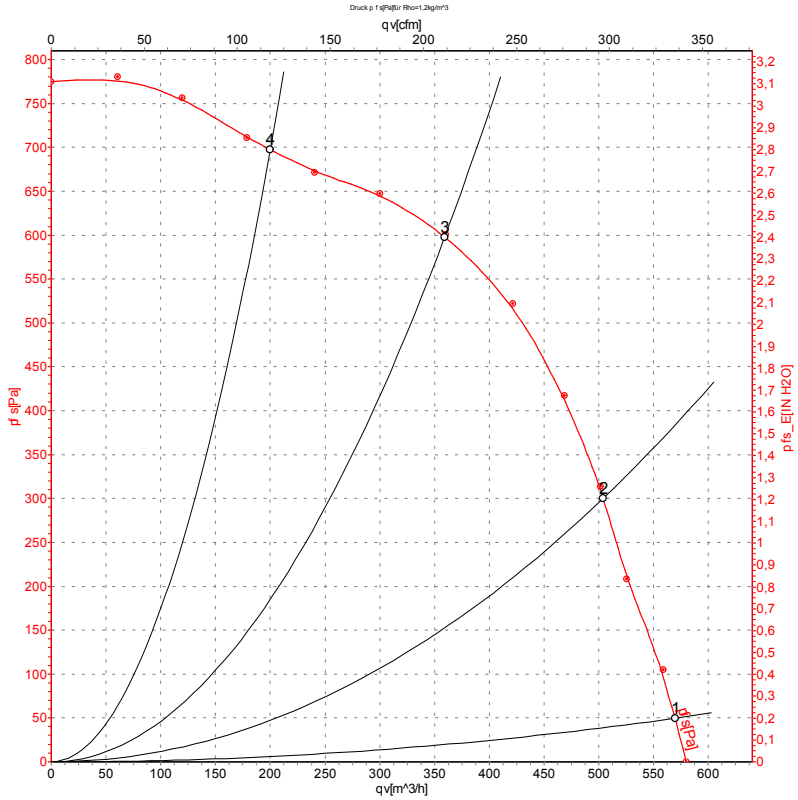
U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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Charts: Air flow 60 Hz



Measurement: LU-104989

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	qv	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa
1	230	60	2100	280	1.23	570	50
2	230	60	2500	258	1.12	505	300
3	230	60	2940	210	0.94	360	600
4	230	60	3180	172	0.80	200	700

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

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