

R2D160-AC02-13 ebmpapst Datasheet

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## Nominal data

Type	R2D160-AC02-13		
Motor	M2D068-DC		
Phase		3~	3~
Nominal voltage	VAC	400	400
Wiring		Y	Y
Frequency	Hz	50	60
Method of obtaining data		fa	ml
Valid for approval/standard		CE	CE
Speed (rpm)	min <sup>-1</sup>	2100	2400
Power consumption	W	260	270
Current draw	A	0.41	0.42
Min. back pressure	Pa	0	300
Min. back pressure	in. wg	0	1.2
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	55	55

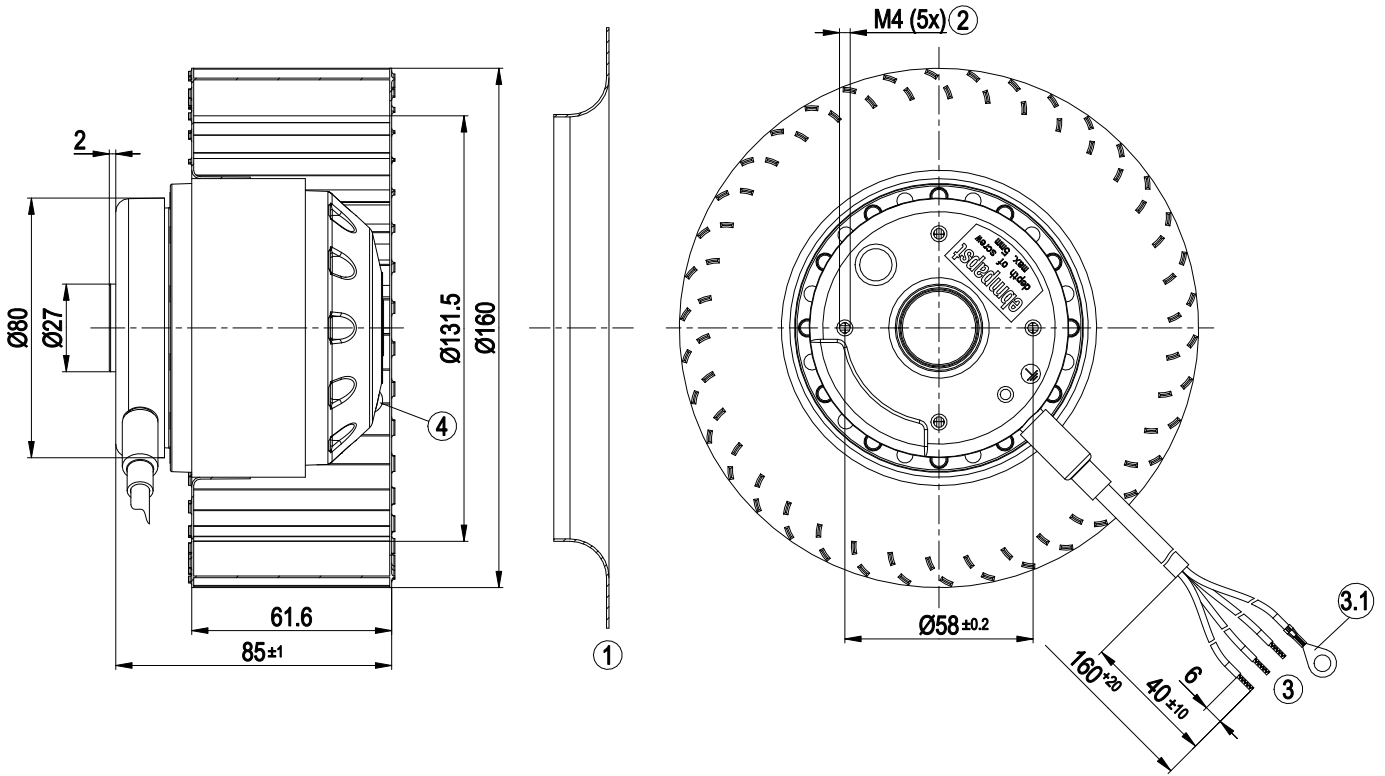
ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment  
 Subject to change



### Technical description

Weight	2.2 kg
Size	160 mm
Motor size	68
Impeller material	Sheet steel, painted black
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	F2-2; H1+
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	On rotor side
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
With cable	Lateral
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1, motor does not have factory-installed overheating protection
Approval	UL 1004-1; CSA C22.2 No. 100

Product drawing

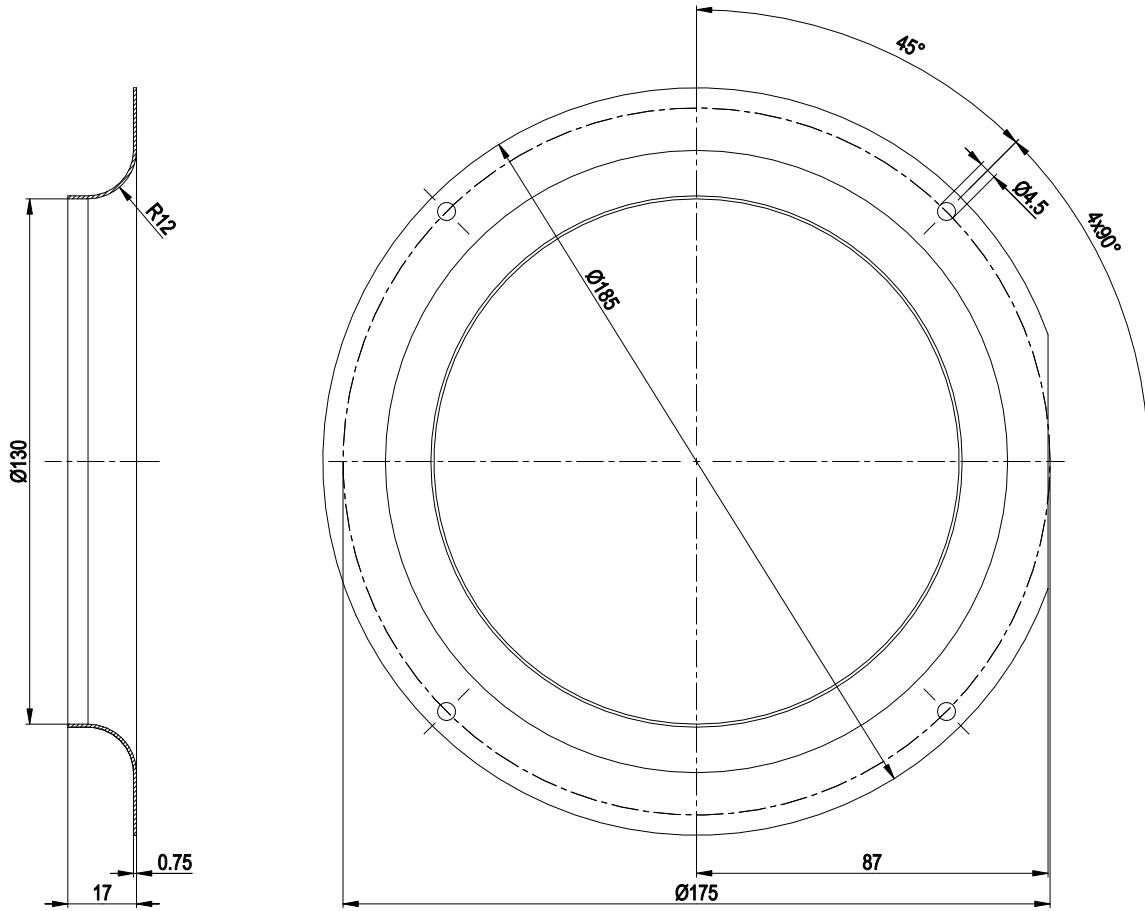


1	Accessory part: inlet ring 09588-2-4013 not included in scope of delivery
2	Max. clearance for screw 5 mm
3	Cable PFA AWG20 (green/yellow AWG18)
	3x splice
3.1	PE (green/yellow), ring terminal $\varnothing 4.3$
4	Condensation drainage holes sealed with expanding rivets

# AC centrifugal fan

forward-curved, single-intake

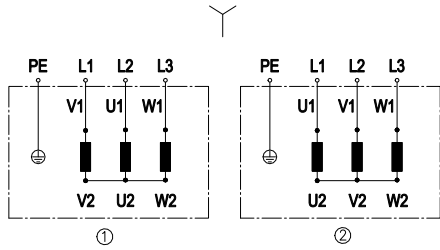
## Accessory part



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



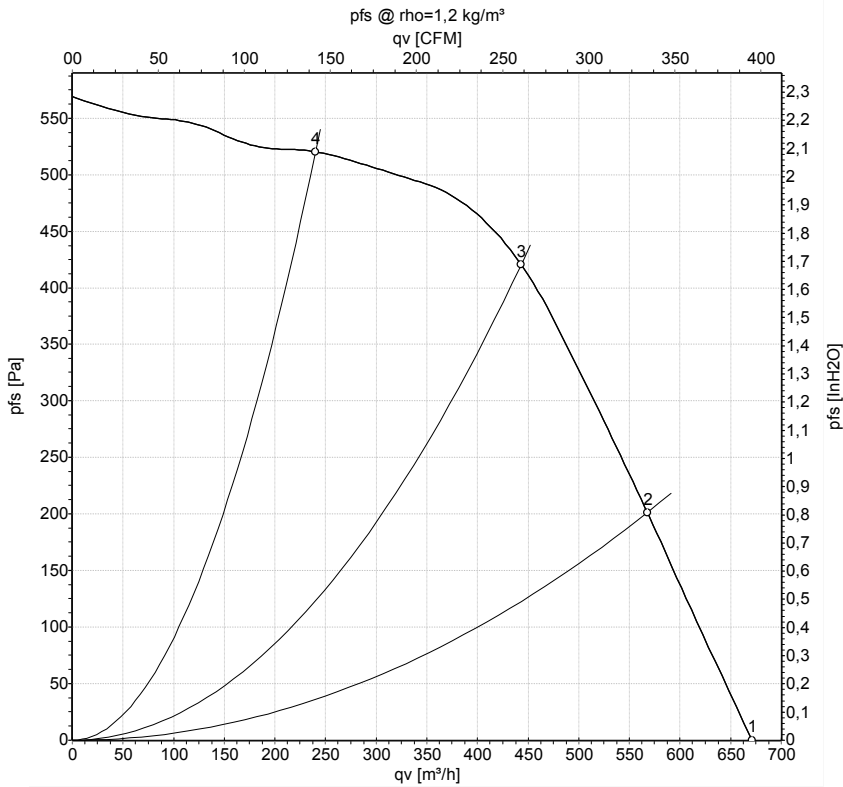
## Connection diagram



Change of rotation direction by reversing two phases

	Three-phase motor
Y	Star connection
1	Counterclockwise operation
L1	= V1 = blue
L2	= U1 = black
L3	= W1 = brown
2	Clockwise operation
L1	= U1 = black
L2	= V1 = blue
L3	= W1 = brown
PE	green/yellow

## Curves: Air performance 50 Hz



Measurement: LU-126463-1

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.

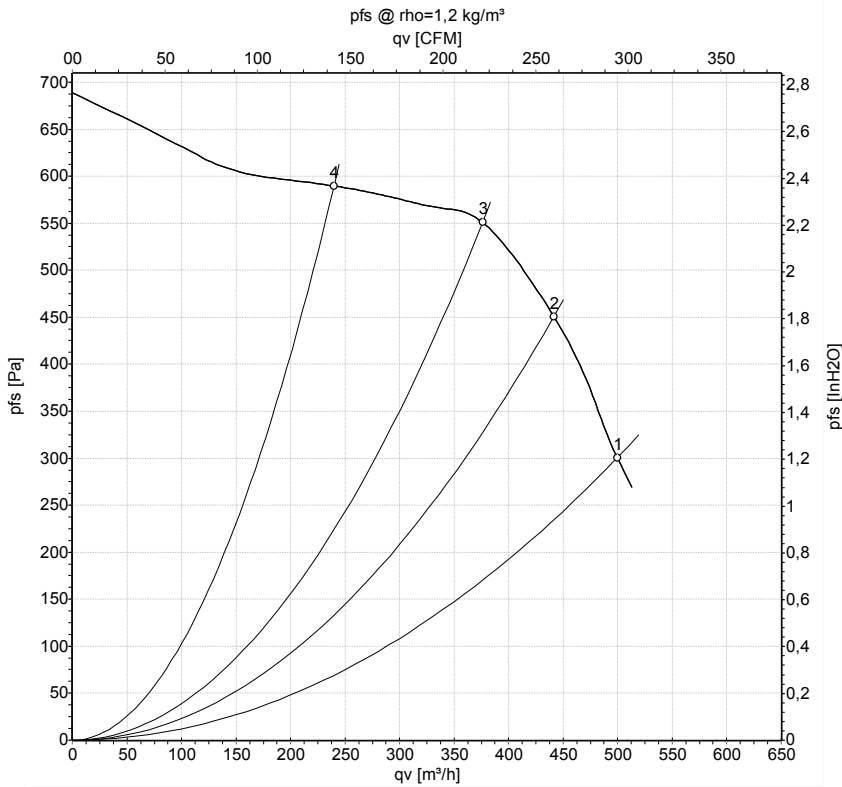
## Measured values

	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	400	50	2100	260	0.41	670	0	395	0.00
2	400	50	2250	207	0.33	570	200	335	0.80
3	400	50	2445	162	0.27	445	420	260	1.69
4	400	50	2720	93	0.20	240	520	140	2.09

U = Voltage · 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



## Curves: Air performance 60 Hz



Measurement: LU-23900-1

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	400	60	2400	270	0.42	500	300	295	1.20
2	400	60	2545	229	0.35	440	450	260	1.81
3	400	60	2715	203	0.32	375	550	220	2.21
4	400	60	2910	165	0.26	240	590	140	2.37

U = Voltage · 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

