

R2D190-RB18-09 ebmpapst Datasheet FansCo

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## Nominal data

Type	R2D190-RB18-09			
Motor	M2D068-CF			
Phase		3~	3~	3~
Nominal voltage	VAC	400	460	460
Wiring		Y	Y	Y
Frequency	Hz	50	60	60
Method of obtaining data		ml	ml	ml
Valid for approval/standard		CE	CE	UL 2111
Speed (rpm)	min <sup>-1</sup>	2550	2900	2900
Power consumption	W	50	80	80
Current draw	A	0.09	0.11	0.11
Min. ambient temperature	°C	-25	-25	-25
Max. ambient temperature	°C	80	80	80
Starting current	A	0.28	0.31	0.31

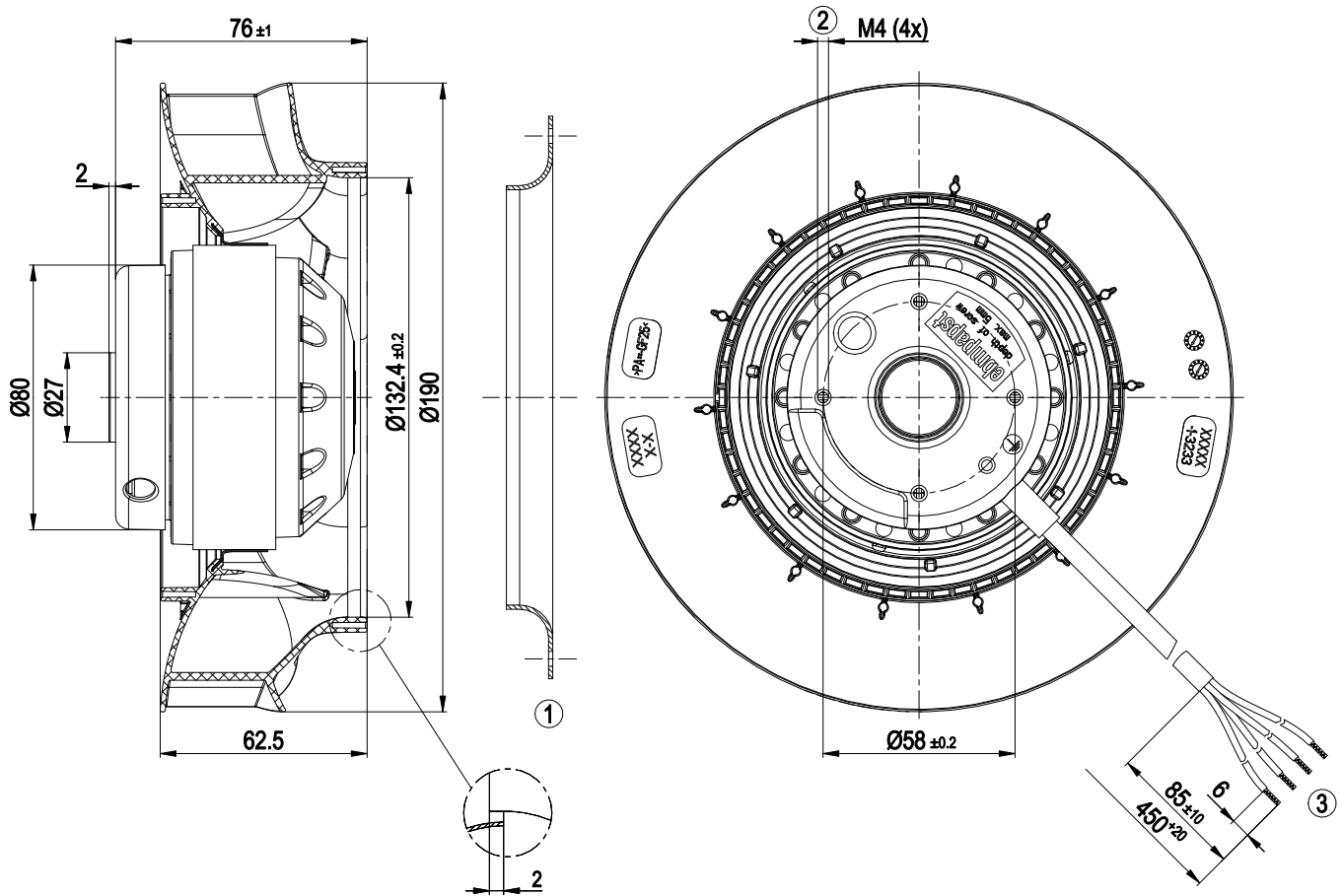
ml = Max. load · me = Max. efficiency · fa = Free air · cs = Customer specification · ce = Customer equipment  
 Subject to change



## Technical description

Weight	1.63 kg
Size	190 mm
Motor size	68
Rotor surface	Painted black
Impeller material	PP plastic
Number of blades	7
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	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	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	Lateral
Protection class assignment	I; If a protective earth is connected by the customer This component for installation may have several local protection classes. This information relates to this component's basic design. The final protection class is based on the component's intended installation and connection.
Conformity with standards	EN 60034-1; EN 60204-1; EN 60335-1; CE
Approval	CSA C22.2 No. 77; UL 1004-3

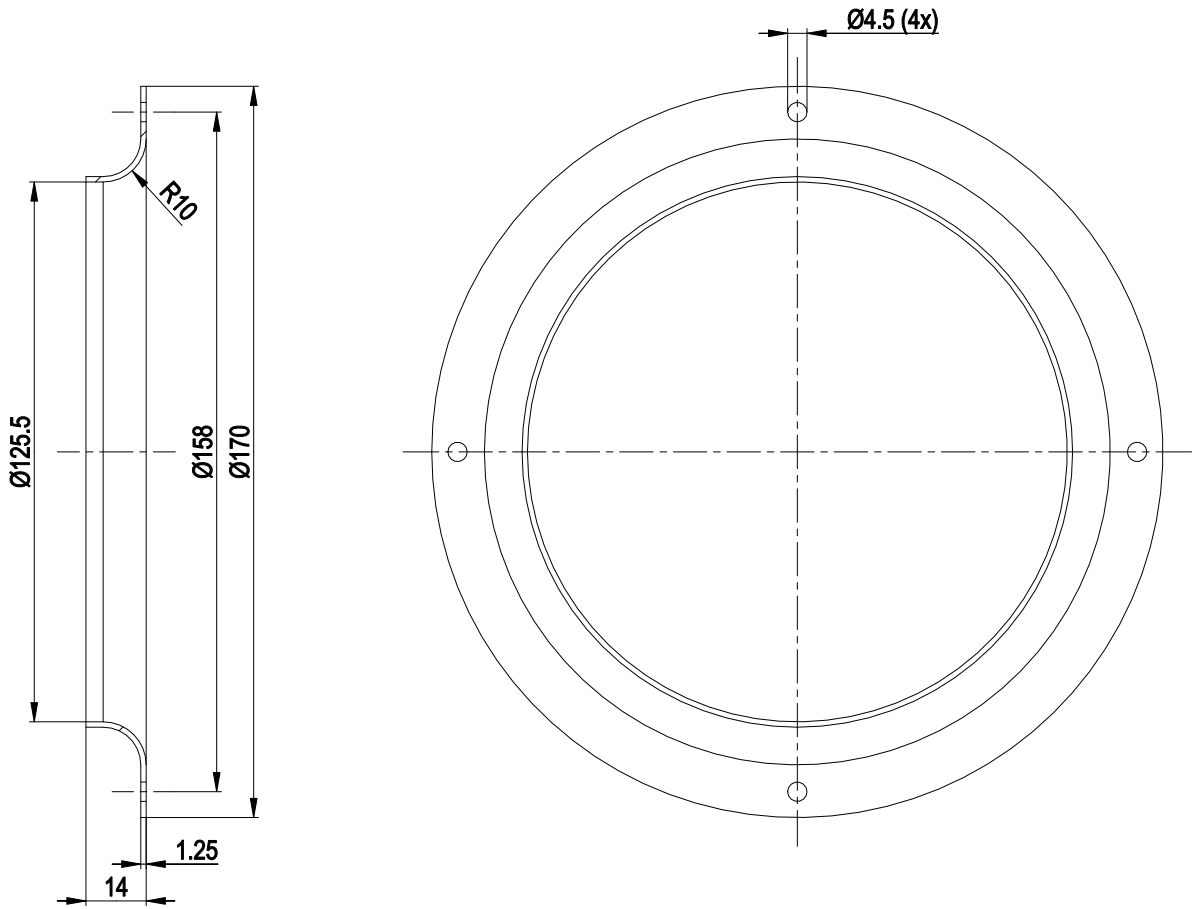
Product drawing



- |   |   |
|---|---|
| 1 | Accessory part: inlet ring 09576-2-4013 not included in scope of delivery |
| 2 | Max. clearance for screw 5 mm   |
| 3 | Cable PFA AWG20 (green/yellow AWG18), 4x crimped splices                  |

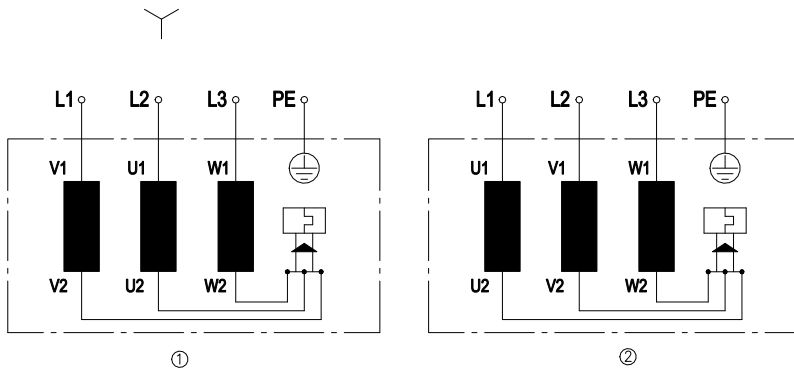


## Accessory part



1 Accessory part: inlet ring 09576-2-4013 not included in scope of delivery

## Connection diagram

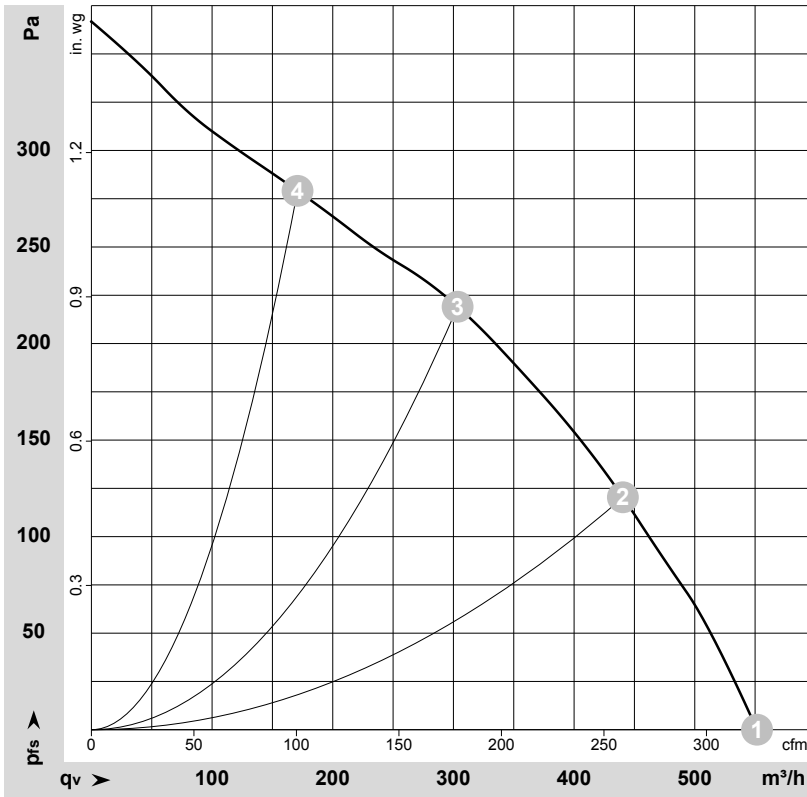


Change of rotation direction by reversing two phases

	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



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-160899-1

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.

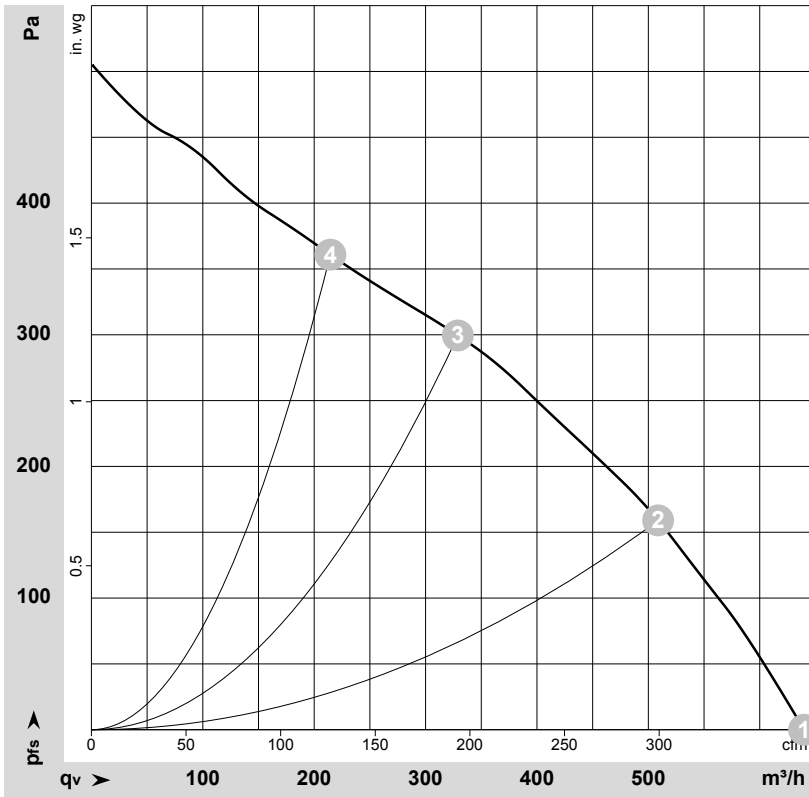
## Measured values

	Wired	U	f	n	P <sub>e</sub>	I	LpA <sub>in</sub>	LwA <sub>in</sub>	q <sub>v</sub>	P <sub>fs</sub>	q <sub>v</sub>	P <sub>fs</sub>
		V	Hz	min <sup>-1</sup>	W	A	dB(A)	dB(A)	m <sup>3</sup> /h	Pa	cfm	in. wg
1	Y	400	50	2665	42	0.08	60	68	550	0	325	0.00
2	Y	400	50	2620	46	0.09	56	63	440	120	260	0.48
3	Y	400	50	2550	50	0.09	54	62	305	220	180	0.88
4	Y	400	50	2630	45	0.08	58	65	170	280	100	1.12

Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P<sub>e</sub> = Power consumption · I = Current draw · LpA<sub>in</sub> = Sound pressure level intake side · LwA<sub>in</sub> = Sound power level intake side  
 q<sub>v</sub> = Air flow · P<sub>fs</sub> = Pressure increase



## Curves: Air performance 60 Hz



$\rho = 1.15 \text{ kg/m}^3 \pm 2 \%$

Measurement: LU-160945-1

Air performance measured according to ISO 5801 installation category A. For detailed information on the measurement setup, contact ebmpapst. 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

	Wired	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	Y	460	60	3090	64	0.09	640	0	375	0.00
2	Y	460	60	3000	72	0.10	510	160	300	0.64
3	Y	460	60	2900	80	0.11	330	300	195	1.20
4	Y	460	60	3020	70	0.10	215	360	125	1.45

Wired = Wiring · 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

