

R2D180-AL02-24

AC centrifugal fan

backward-curved, single-intake

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	R2D180-AL02-24		
Motor	M2D068-CF		
Phase		3~	3~
Nominal voltage	VAC	400	400
Wiring		Y	Y
Frequency	Hz	50	60
Method of obtaining data		fa	fa
Valid for approval/standard		CE	CE
Speed (rpm)	min ⁻¹	2600	2800
Power consumption	W	85	120
Current draw	A	0.17	0.2
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	55	50

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



Technical description

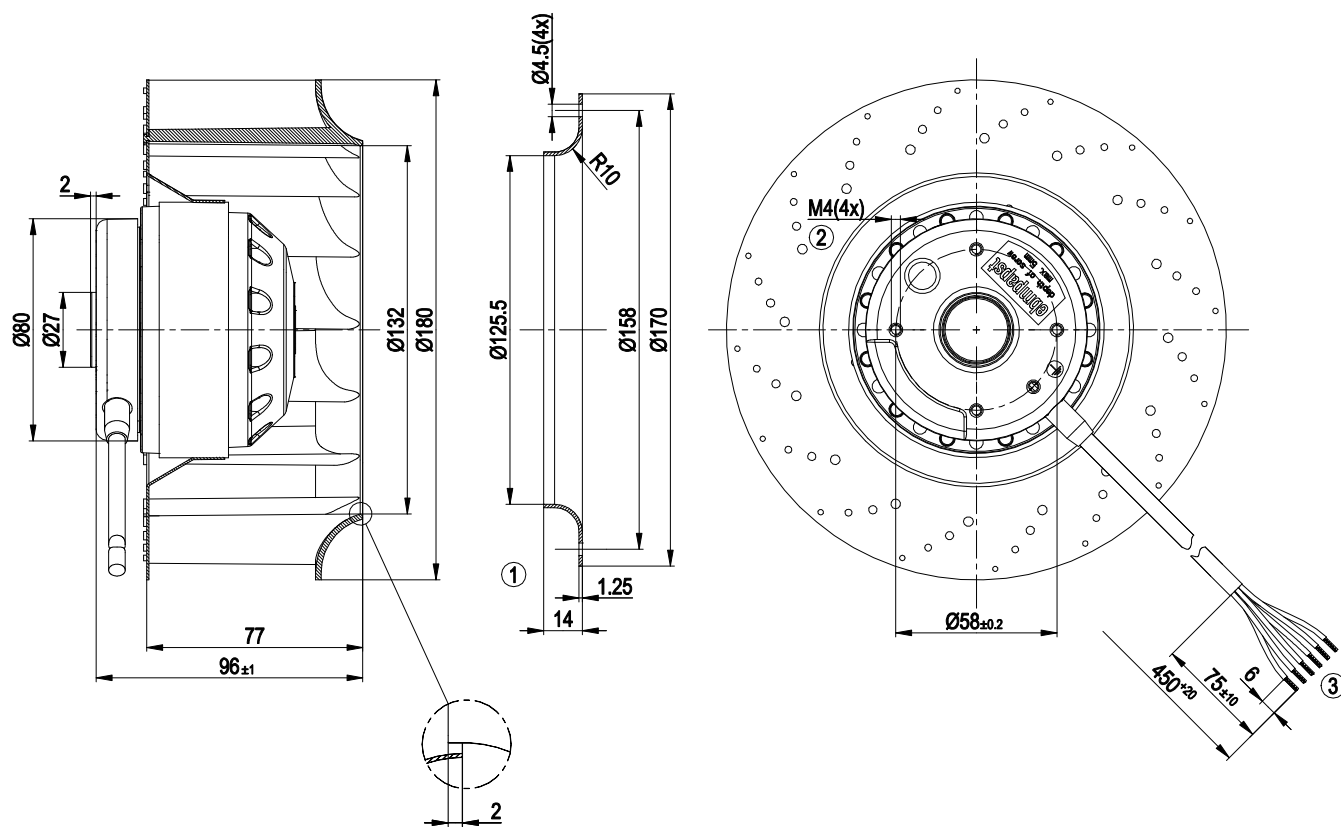
Weight	1.81 kg
Size	180 mm
Motor size	68
Rotor surface	Painted black
Impeller material	PA plastic
Number of blades	16
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP54
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H2
Max. permitted ambient temp. for 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) with basic insulation
With cable	Lateral
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE; UKCA
Approval	UL 1004-1; EAC; CSA C22.2 No. 100



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Product drawing



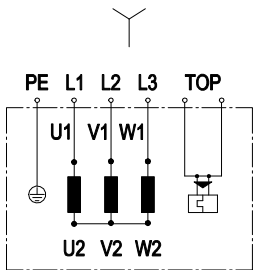
- | | |
|---|--|
| 1 | Accessory part: Inlet ring 09576-2-4013, not included in scope of delivery |
| 2 | Max. clearance for screw 5 mm |
| 3 | Cable PVC 6G AWG20, 6 x crimped splices |



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Connection diagram



Note: Change of rotation direction by reversing two phases

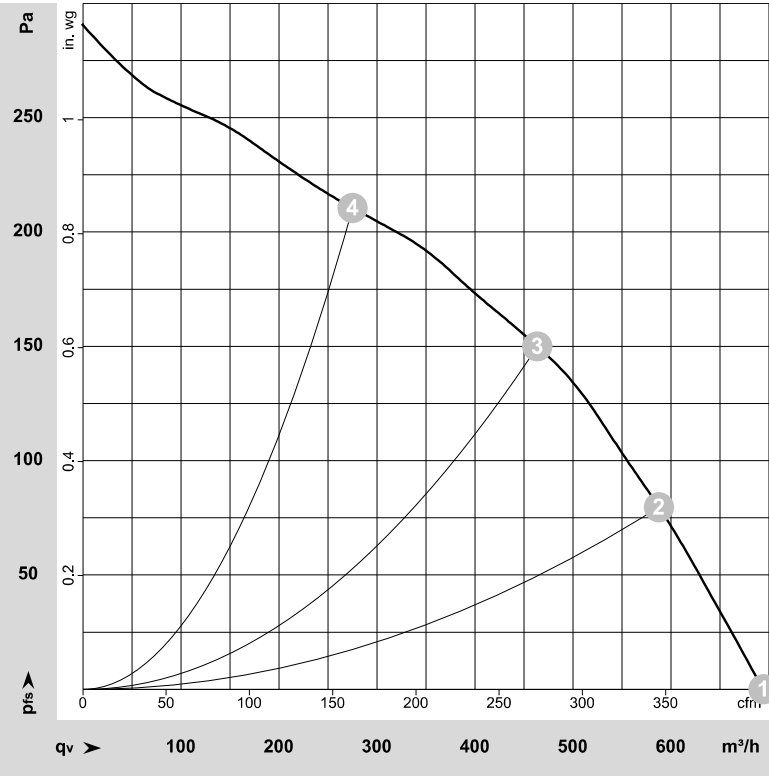
Y	Star connection	L1	= U1 = black	L2	= V1 = blue
L3	= W1 = brown	PE	green/yellow	TOP	2x gray



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Curves: Air performance 50 Hz



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

Measurement: LU-122345-1

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 _e	I	q _v	p _{fs}	q _v	p _{fs}
		V	Hz	min ⁻¹	W	A	m³/h	Pa	cfm	in. wg
1	Y	400	50	2600	85	0.17	695	0	410	0.00
2	Y	400	50	2570	89	0.17	590	80	345	0.32
3	Y	400	50	2580	87	0.17	465	150	275	0.60
4	Y	400	50	2685	70	0.15	275	210	160	0.84

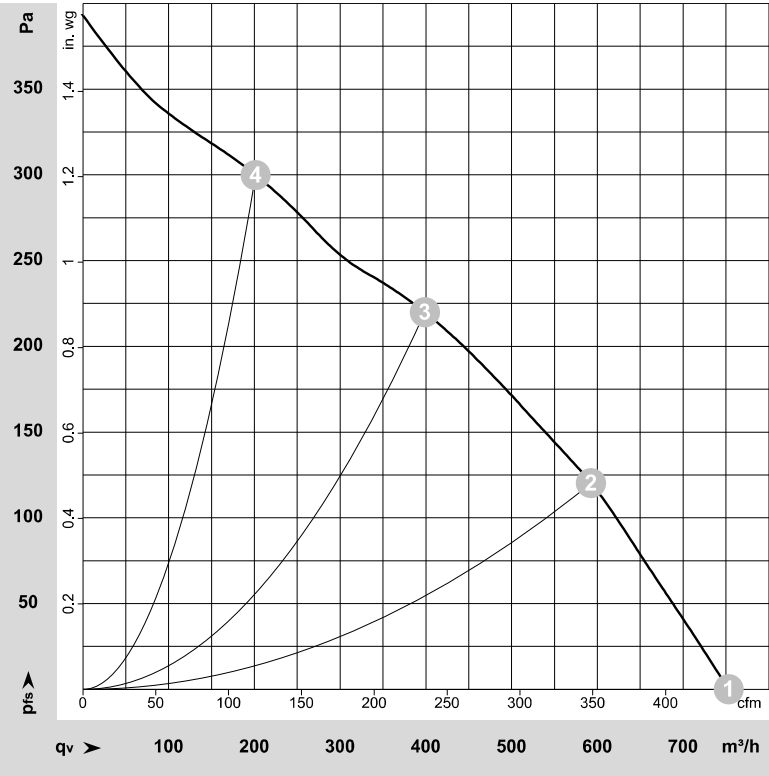
Wired = Wiring · U = Voltage · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · q_v = Air flow · p_{fs} = Pressure increase



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Curves: Air performance 60 Hz



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

Measurement: LU-122347-1

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 _e	I	q _v	p _{fs}	q _v	p _{fs}
		V	Hz	min ⁻¹	W	A	m³/h	Pa	cfm	in. wg
1	Y	400	60	2800	120	0.20	755	0	445	0.00
2	Y	400	60	2745	122	0.20	595	120	350	0.48
3	Y	400	60	2855	109	0.18	400	220	235	0.88
4	Y	400	60	3080	83	0.15	200	300	120	1.20

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

