R2D190-RA08-13

AC centrifugal fan - RadiCal

backward curved, single inlet

for railway applications

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Nominal data

Type	**R2D190-RA08-13**	
Motor	**M2D068-BF**	
Phase		3~
Nominal voltage	VAC	230
Connection		Δ
Frequency	Hz	60
Type of data definition		ml
Valid for approval / standard		CE
Speed (rpm)	min^{-1}	2420
Power input	W	60
Current draw	A	0.18
Min. back pressure	Pa	0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	80
Starting current	A	0.17

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

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Technical features

Mass	2.1 kg
Size	190 mm
Surface of rotor	Coated in black
Material of impeller	Plastic PA, round sheet-metal plate coated in black
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44; Depending on installation and position
Insulation class	"F"
Humidity (F)/environmental protection class (H)	F5
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Rotor on bottom
Condensate discharge holes	Rotor-side
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) brought out, basic insulation
Cable exit	Axial
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 45545-2, R22/R23, HL3: 2013; IEC 61373: 2010

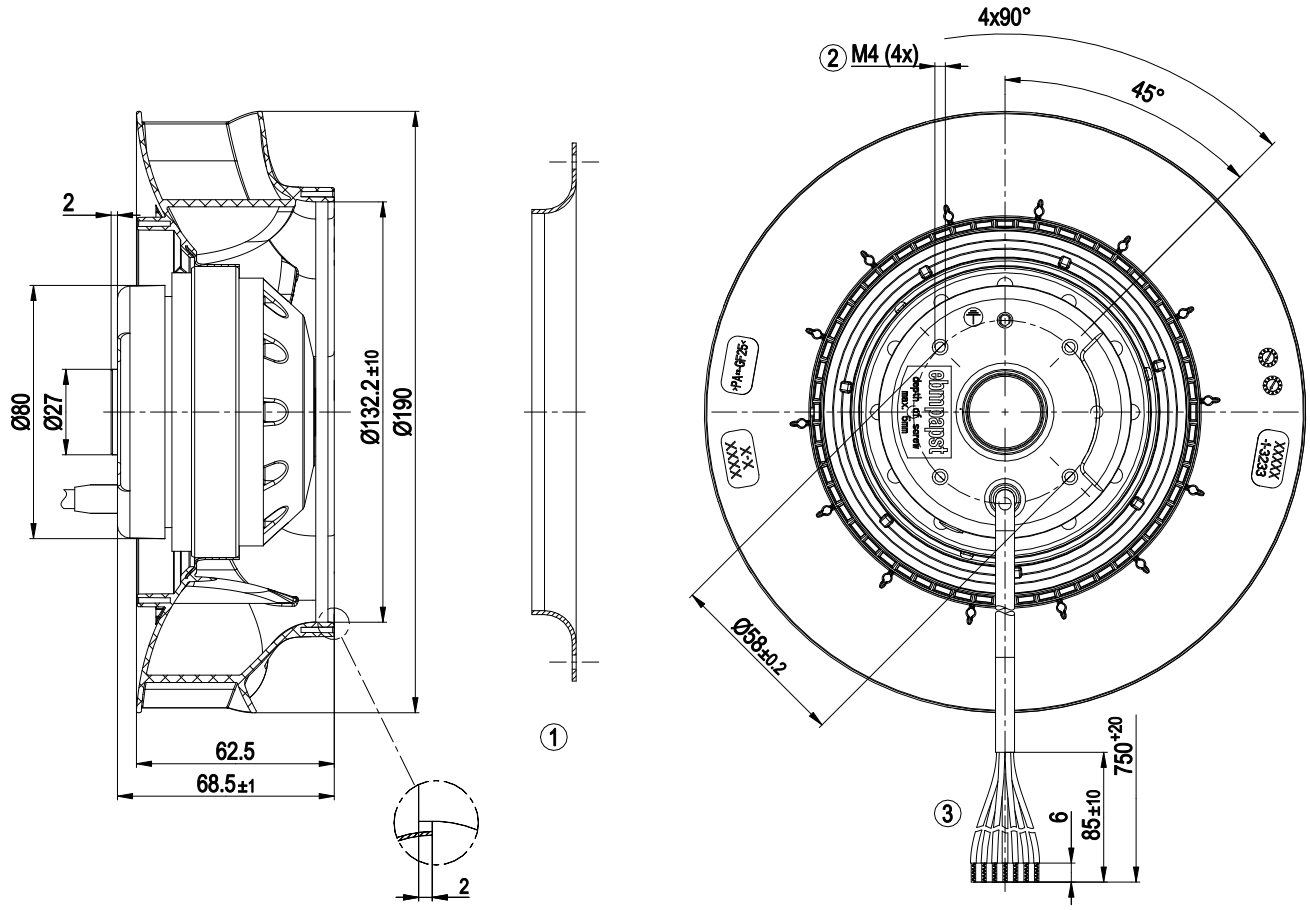
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Product drawing



1	Accessory part: Inlet nozzle 09576-2-4013 not included in scope of delivery
2	Thread reach max. 5 mm
3	Connection line halogen-free, BETAtrans® 3 GKW flex, black 6G 0.5 mm², 6x lead tips crimped

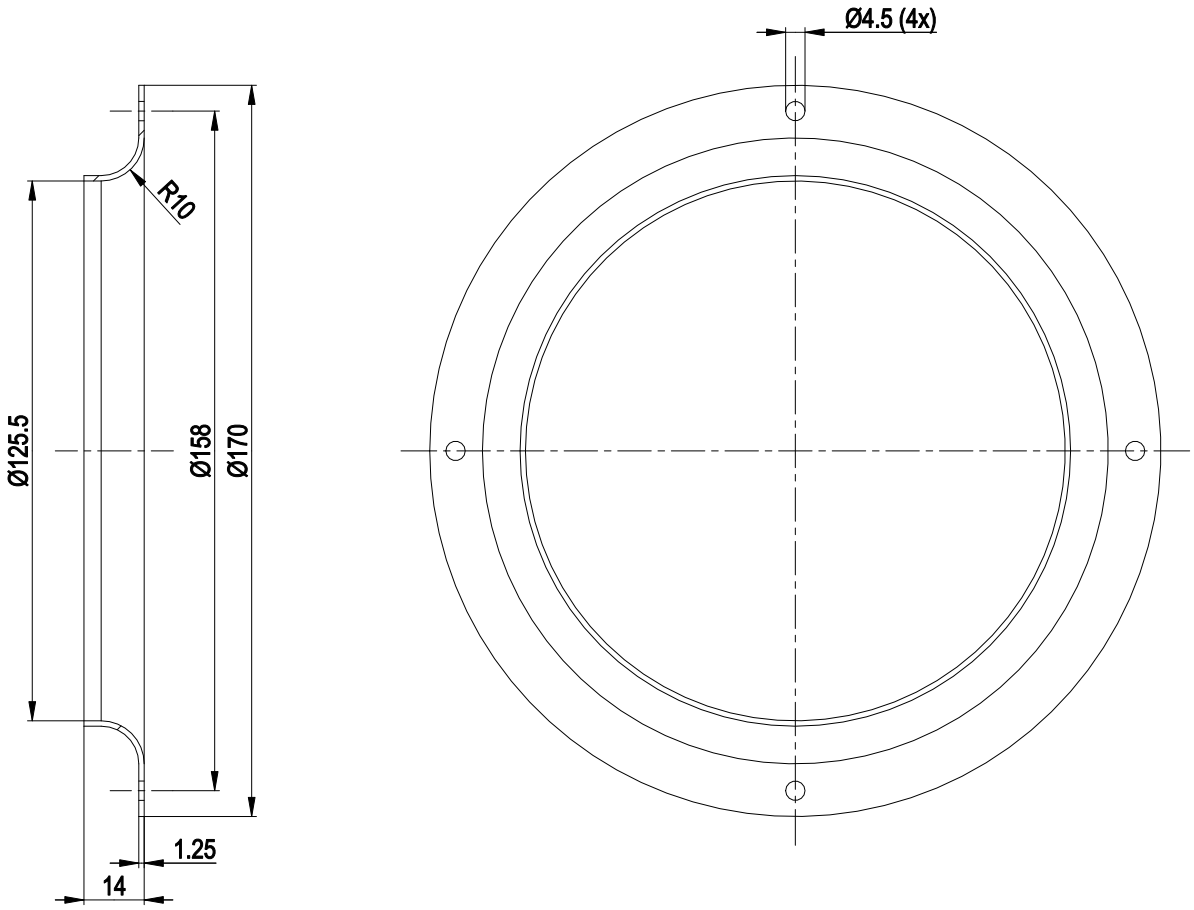
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Accessory part



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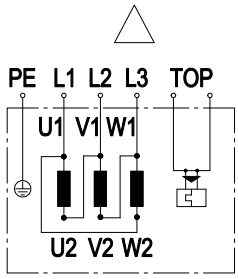
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Connection screen



Note: Change direction of rotation by reversing two phases

Δ	Delta connection	L1	= U1 = black	L2	= V1 = blue
L3	= W1 = brown	TOP	2x grey	PE	green/yellow

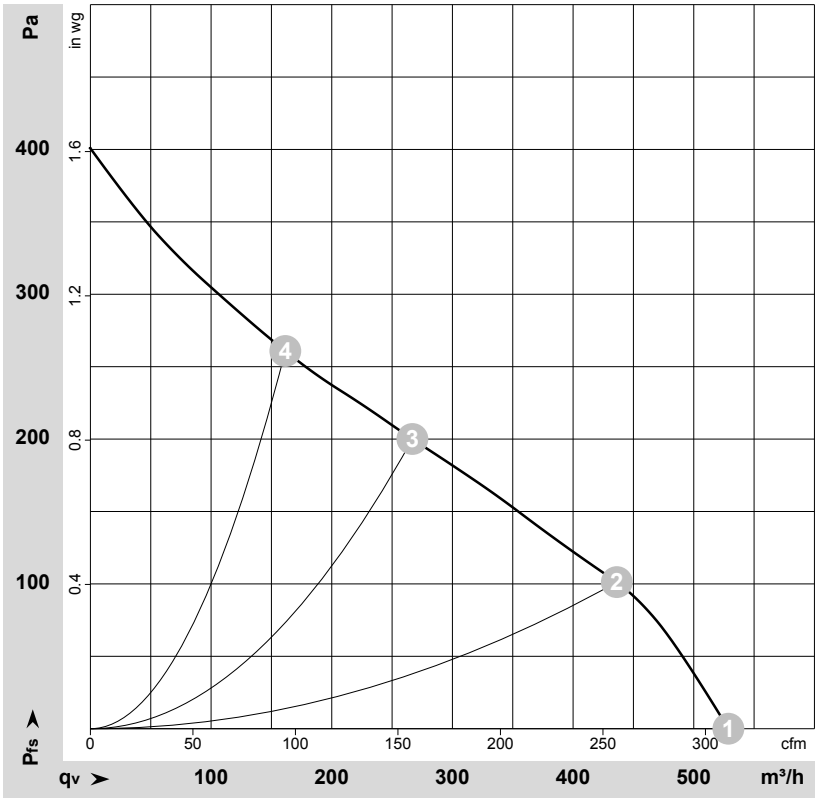
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Charts: Air flow 60 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-160952-1

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

	Conn.	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	in. wg
1	Δ	230	60	2615	53	0.16	530	0	310	0.00
2	Δ	230	60	2525	56	0.17	435	100	255	0.40
3	Δ	230	60	2420	60	0.18	265	200	155	0.80
4	Δ	230	60	2555	54	0.16	160	260	95	1.04

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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