R2D280-RB06-02

AC centrifugal fan - RadiCal

backward curved, single inlet

for railway applications

R2D280-RB06-02 ebmpapst Datasheet FansCo

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Nominal data

Type	**R2D280-RB06-02**		
Motor	**M2D074-GA**		
Phase		3~	3~
Nominal voltage	VAC	230	400
Connection		Δ	Y
Frequency	Hz	50	50
Type of data definition		ml	ml
Valid for approval / standard		CE	CE
Speed (rpm)	min^{-1}	2500	2500
Power input	W	570	570
Current draw	A	1.58	0.91
Min. back pressure	Pa	0	0
Min. ambient temperature	°C	-25	-25
Max. ambient temperature	°C	50	50
Starting current	A	4.36	2.52

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	4.663 kg
Size	280 mm
Motor size	74
Surface of rotor	Coated in black
Material of impeller	Plastic PA, round sheet-metal plate coated in black
Number of blades	6
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP44; Depending on installation and position as per EN 60034-5
Insulation class	"F"
Humidity (F) / environmental protection class (H)	H1+
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage 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	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 15085-1, CPC3: 2013; EN 45545-2, HL3: 2013; EN 50155: 2008; EN 61373:2010, Cat.1B; CE
Approval	EAC
Remark	Prerequisite for operation is a Class 1 vehicle electrical system architecture according to EN 50533

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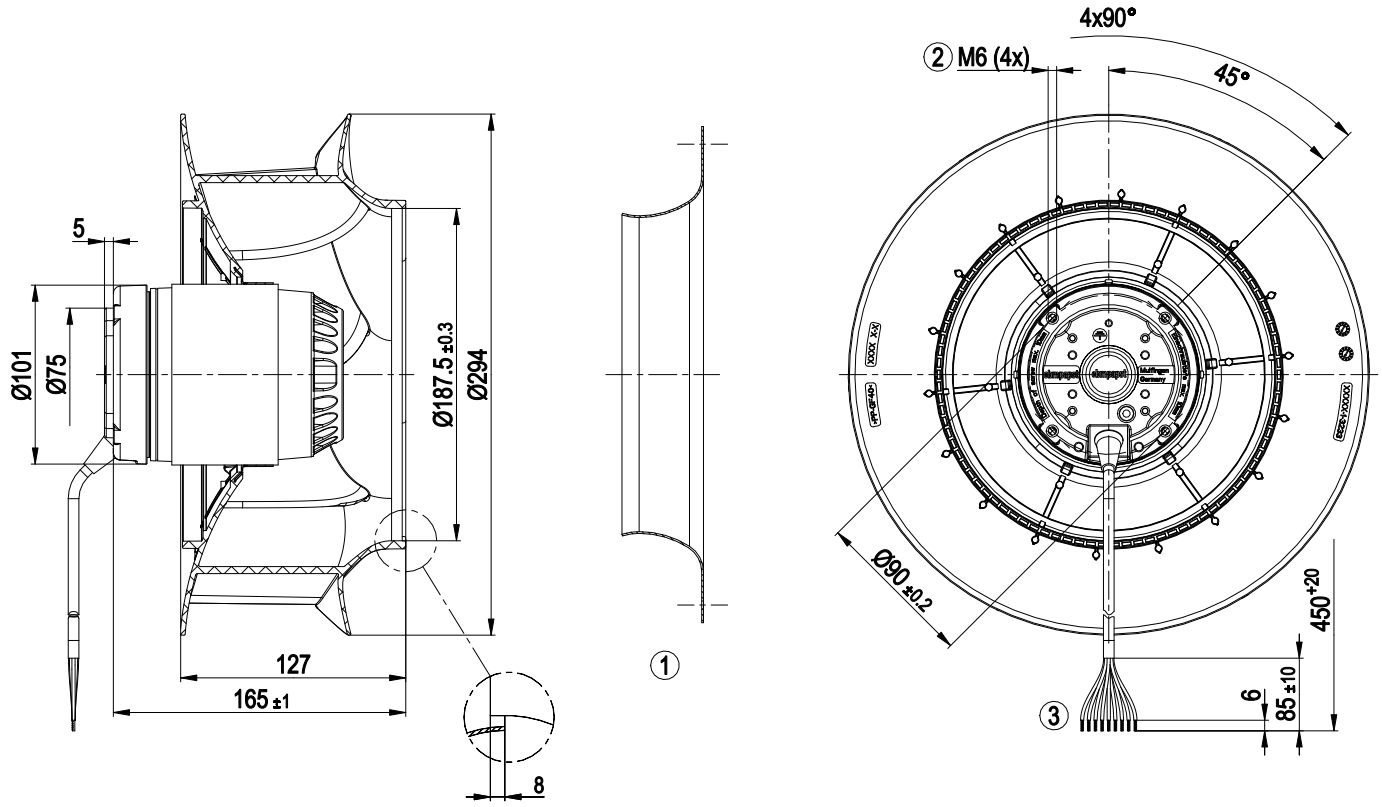
Product drawing



1	Accessory part: Inlet nozzle 28000-2-4013 not included in scope of delivery
2	Thread reach max. 10 mm
3	Connection line, halogen-free, railway application EN 45545, 9G 0.5 mm²
	9x lead tip

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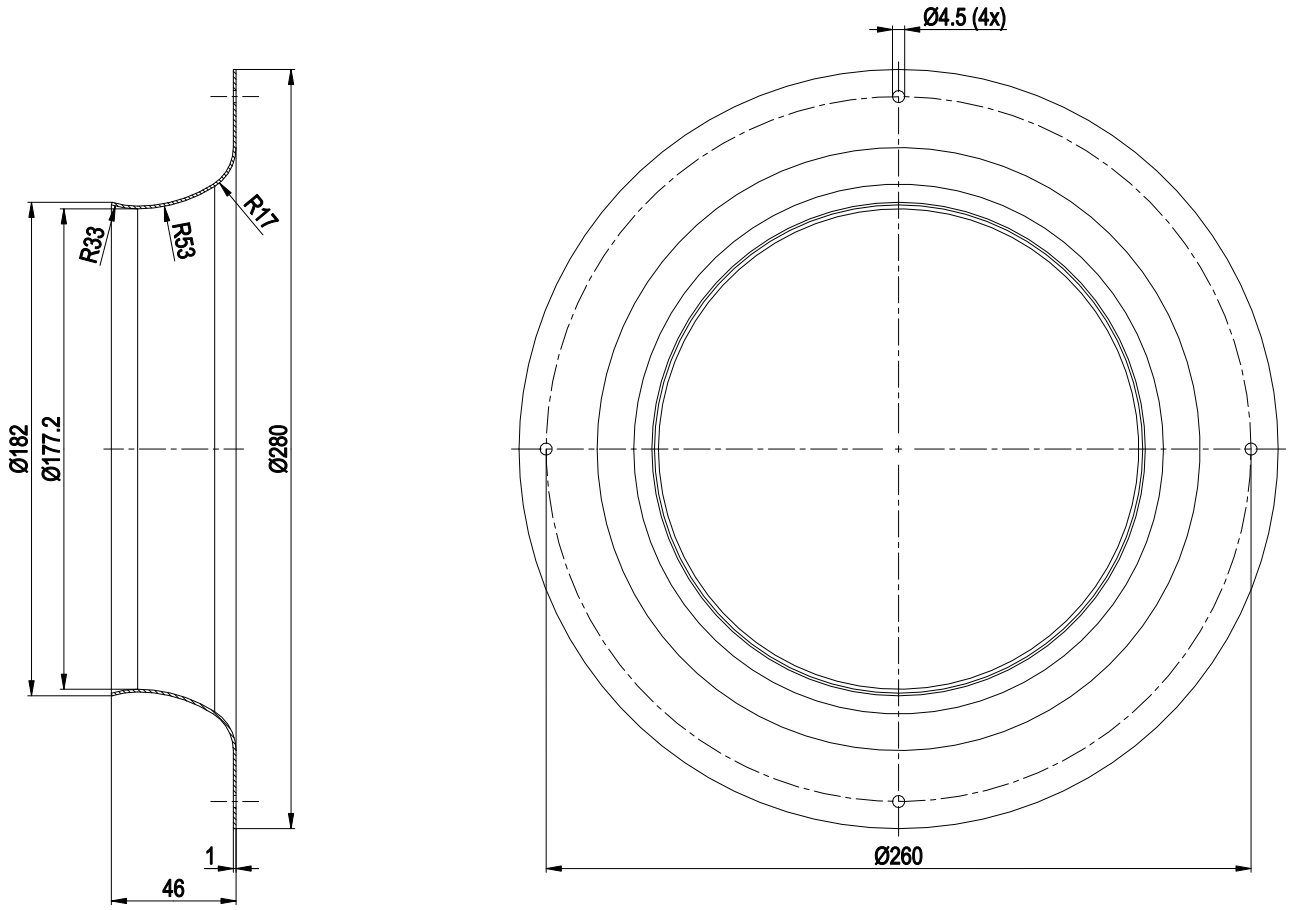
Accessory part



Inlet nozzle 28000-2-4013

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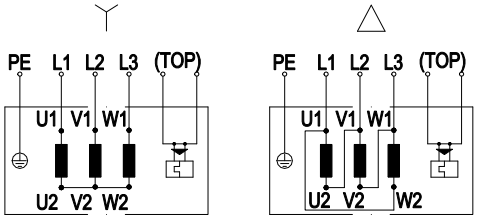
Connection screen



Y	Star connection	Δ	Delta connection	L1	= U1 = black
U2	green	L2	= V1 = blue	V2	white
L3	= W1 = brown	W2	yellow	TOP	2 x grey
PE	green/yellow				

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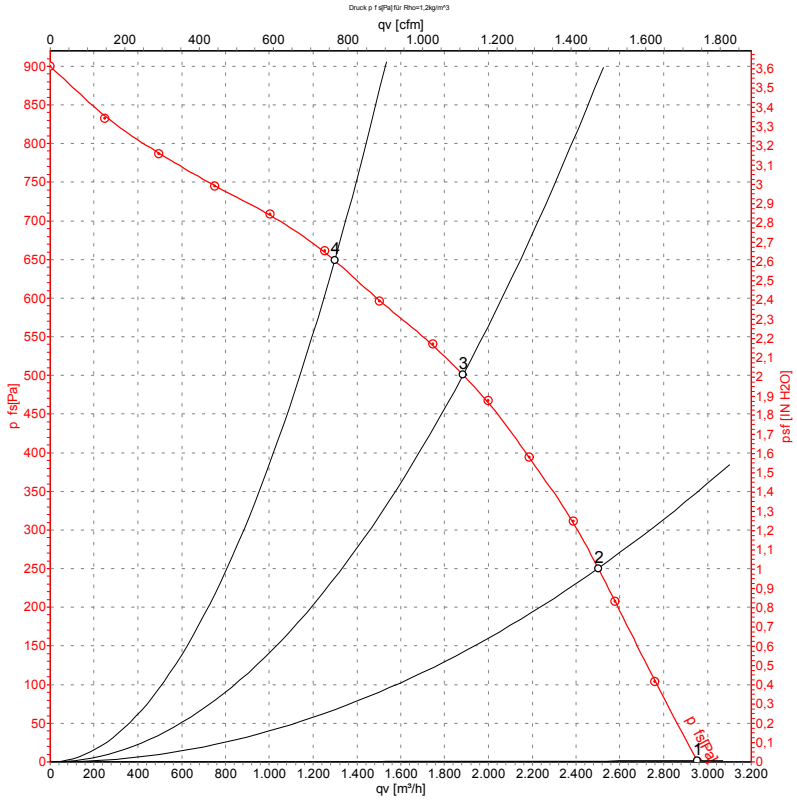
Charts: Air flow 50 Hz



Measurement: LU-137192-1

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	LpA_{in}	LwA_{in}	q_V	p_{fs}	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	dB(A)	m^3/h	Pa	cfm	in. wg
1	Y	400	50	2640	440	0.73	76	84	2950	0	1735	0.00
2	Y	400	50	2555	520	0.84	71	79	2500	250	1470	1.00
3	Y	400	50	2500	570	0.91	66	73	1885	500	1110	2.01
4	Y	400	50	2540	528	0.84	66	74	1300	650	765	2.61

Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed (rpm) · P_e = Power input · I = Current draw · LpA_{in} = Sound pressure level inlet side · LwA_{in} = Sound power level inlet side
q_V = Air flow · p_{fs} = Pressure increase