

R4D180-AF20-05

AC centrifugal fan

forward curved, single inlet

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County court Stuttgart · HRB 590142

Nominal data

Type	R4D180-AF20-05				
Motor	M4D074-DF				
Phase		3~	3~	3~	3~
Nominal voltage	VAC	230	230	400	400
Connection		Δ	Δ	Y	Y
Frequency	Hz	50	60	50	60
Type of data definition		fa	fa	fa	fa
Valid for approval / standard		CE	CE	CE	CE
Speed	min ⁻¹	1330	1440	1330	1440
Power input	W	175	240	175	240
Current draw	A	0.68	0.75	0.39	0.43
Min. back pressure	Pa	0	0	0	0
Max. ambient temperature	°C	60	45	60	45

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

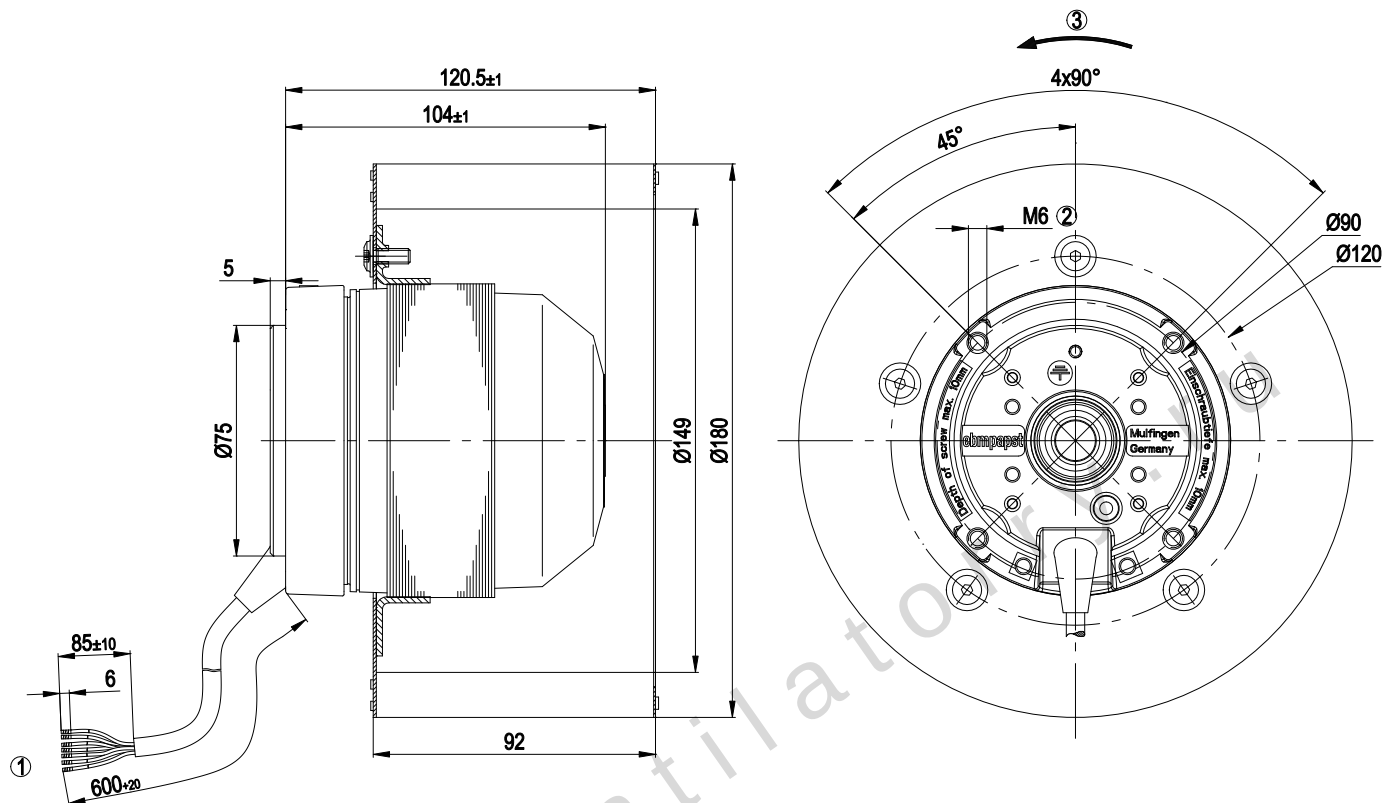
Mass	3.3 kg
Size	180 mm
Surface of rotor	Coated in black
Material of impeller	Sendzimir galvanized sheet steel
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 44
Insulation class	"B"
Humidity class	F5
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
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
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)

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Product drawing



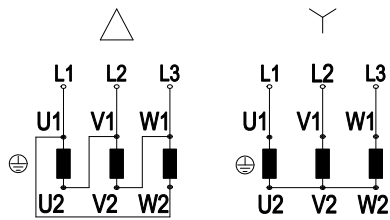
- | | |
|---|---|
| 1 | Connection line PVC, 7x brass lead tips crimped |
| 2 | Screw depth max. 10 mm |
| 3 | Direction of rotation clockwise, seen on rotor |

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Connection screen



Note: Direction of rotation changes when two phases are reversed

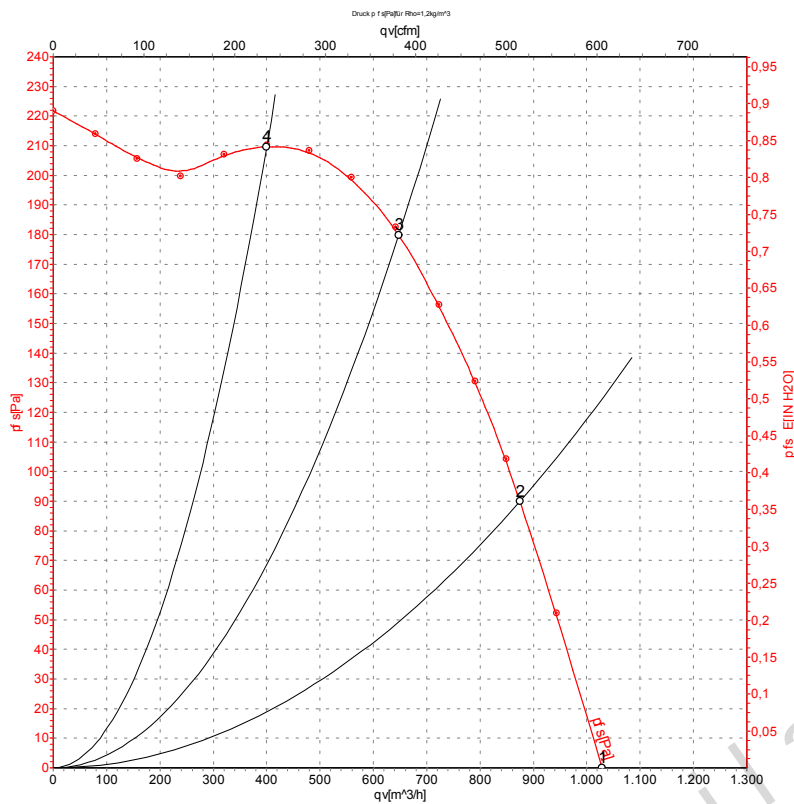
Δ	Delta connection	Y	Star connection	L1	black
L2	blue	L3	brown	U1	black
V1	blue	W1	brown	U2	green
V2	white	W2	yellow		

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Charts: Air flow 50 Hz



Measurement: LU-105219

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: L_{WA} measured as per ISO 13347 /
 L_{pA} 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	qv	p _{fs}
		V	Hz	min ⁻¹	W	A	m³/h	Pa
1	Y	400	50	1330	175	0.39	1030	0
2	Y	400	50	1360	153	0.36	875	90
3	Y	400	50	1410	116	0.34	650	180
4	Y	400	50	1445	87	0.33	400	210

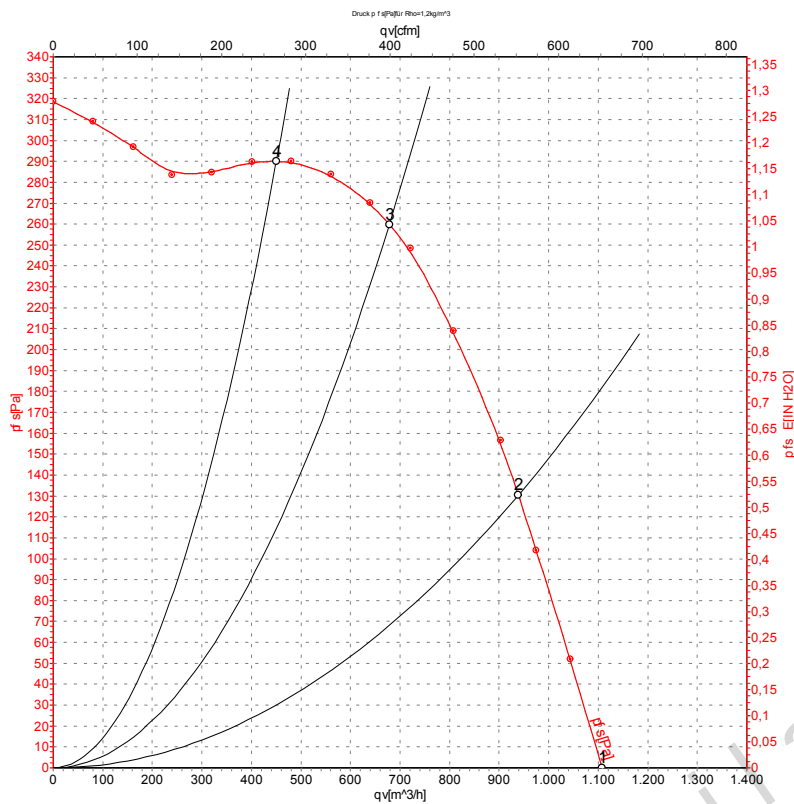
Conn. = Connection · U = Supply voltage · f = Frequency · n = Speed · P_e = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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Charts: Air flow 60 Hz



Measurement: LU-105221

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	qv	p _{fs}
		V	Hz	min ⁻¹	W	A	m³/h	Pa
1	Y	400	60	1440	240	0.43	1110	0
2	Y	400	60	1515	204	0.38	940	130
3	Y	400	60	1625	143	0.30	680	260
4	Y	400	60	1690	102	0.26	450	290

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