R4E310-AO12-10

AC centrifugal fan

backward-curved, single-intake

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Nominal data

Type	**R4E310-AO12-10**
Motor	**M4E074-DF**

Phase		1~
Nominal voltage	VAC	277
Frequency	Hz	60
Method of obtaining data		fa
Valid for approval/standard		-
Speed (rpm)	min^{-1}	1730
Power consumption	W	165
Current draw	A	0.61
Capacitor	µF	4
Capacitor voltage	VDB	450
Capacitor standard		S0 (CE)
Min. back pressure	Pa	0
Min. back pressure	in. wg	0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50
Starting current	A	1.45

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

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Technical description

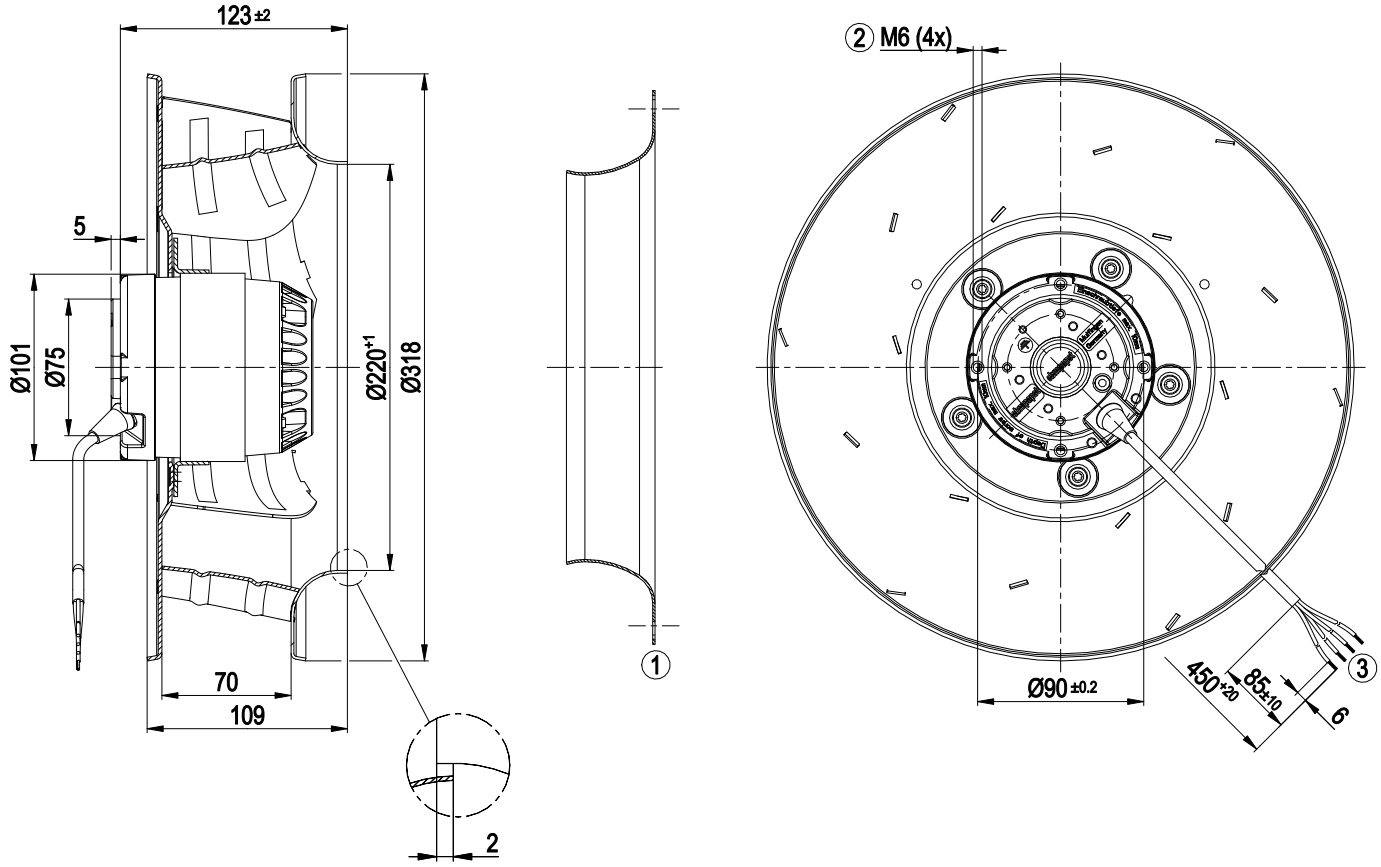
Weight	3.9 kg
Fan size	310 mm
Rotor surface	Painted black
Impeller material	Sheet aluminum
Number of blades	6
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
Insulation class	"F"
Moisture (F) / Environmental (H) protection class	H0+
Max. permitted ambient temp. for motor (transport/storage)	+ 80 °C
Min. permitted ambient temp. for motor (transport/storage)	- 40 °C
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
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	Variable
Protection class	I (with customer connection of protective earth)
Approval	CSA C22.2 No. 100; UL 1004-1

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Product drawing



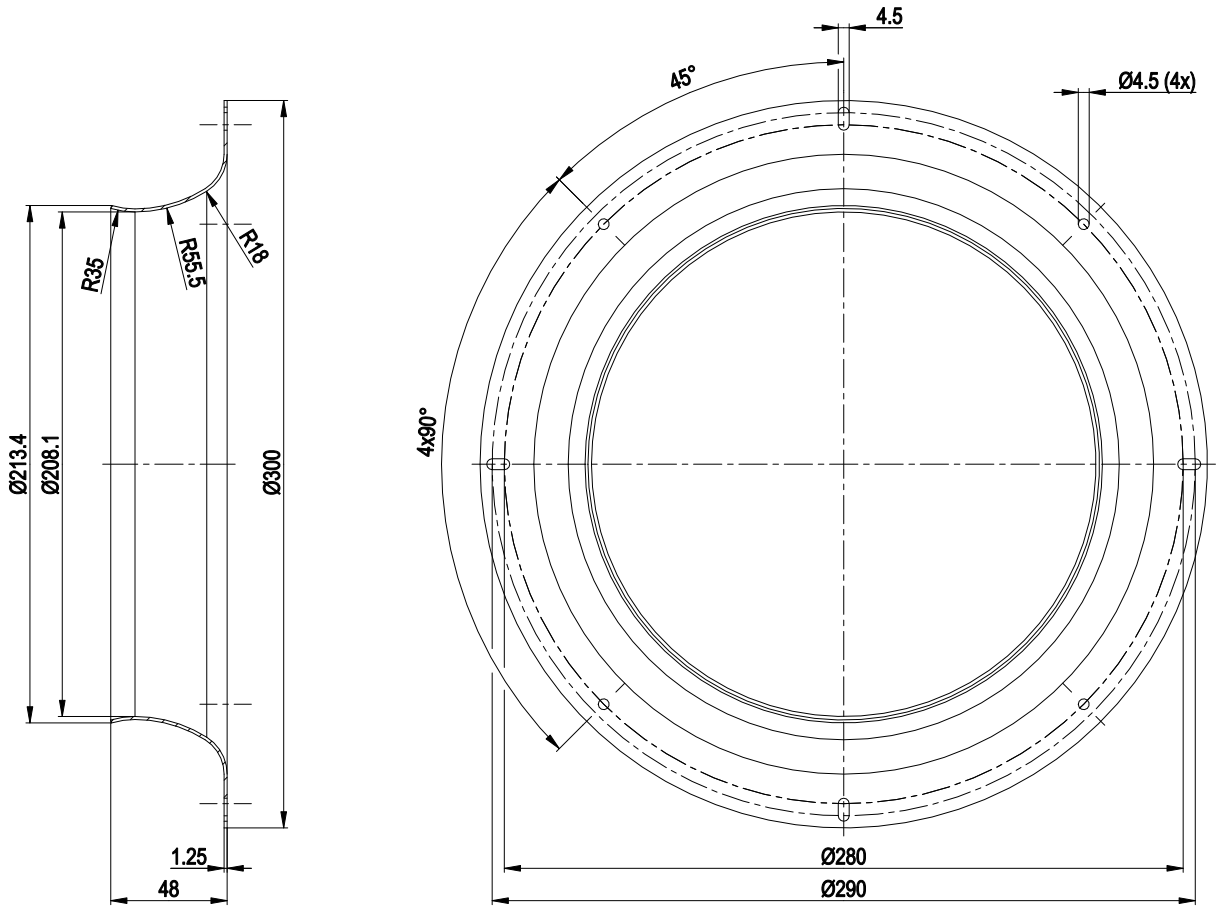
1	Accessory part: Inlet ring 31050-2-4013, not included in scope of delivery. Short nozzle 31051-2-4013 on request.
2	Max. clearance for screw 10 mm
3	Cable PFA AWG20, 4x crimped splices

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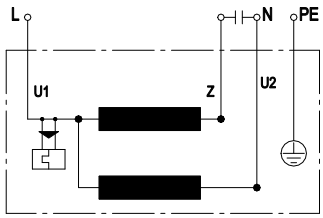
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Accessory part



	inlet ring 31050-2-4013 not included in scope of delivery

Connection diagram



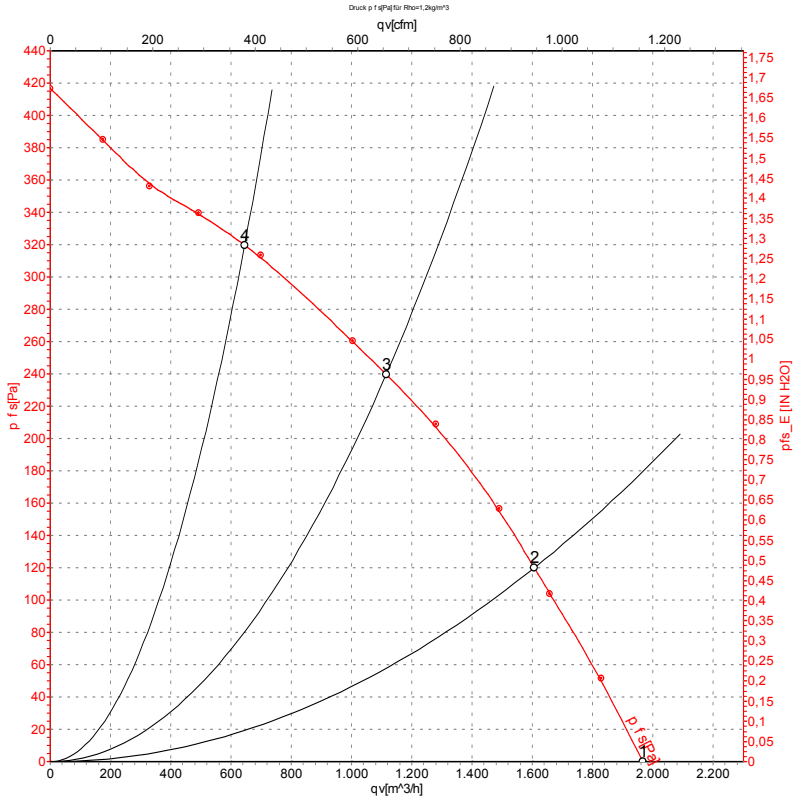
U1	blue	Z	brown	U2	black
PE	green/yellow				

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Curves: Air performance 60 Hz



Measurement: LU-54193-1

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

	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	230	60	1710	125	0.56	1965	0	1155	0.00
2	230	60	1645	158	0.70	1605	120	945	0.48
3	230	60	1610	172	0.75	1115	240	655	0.96
4	230	60	1640	161	0.71	645	320	380	1.28

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

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