R4E280-AL93-09

AC centrifugal fan

backward-curved, single-intake

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Nominal data

Type	**R4E280-AL93-09**
Motor	**M4E068-BF**

Phase		1~
Nominal voltage	VAC	230
Frequency	Hz	50
Method of obtaining data		ce
Valid for approval/standard		CE
Speed (rpm)	min^{-1}	670
Power consumption	W	40
Current draw	A	0.18
Capacitor	µF	1
Capacitor voltage	VDB	400
Capacitor standard		S0 (CE)
Min. back pressure	Pa	0
Min. back pressure	inH2O	0
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	60
Starting current	A	0.21

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

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Technical description

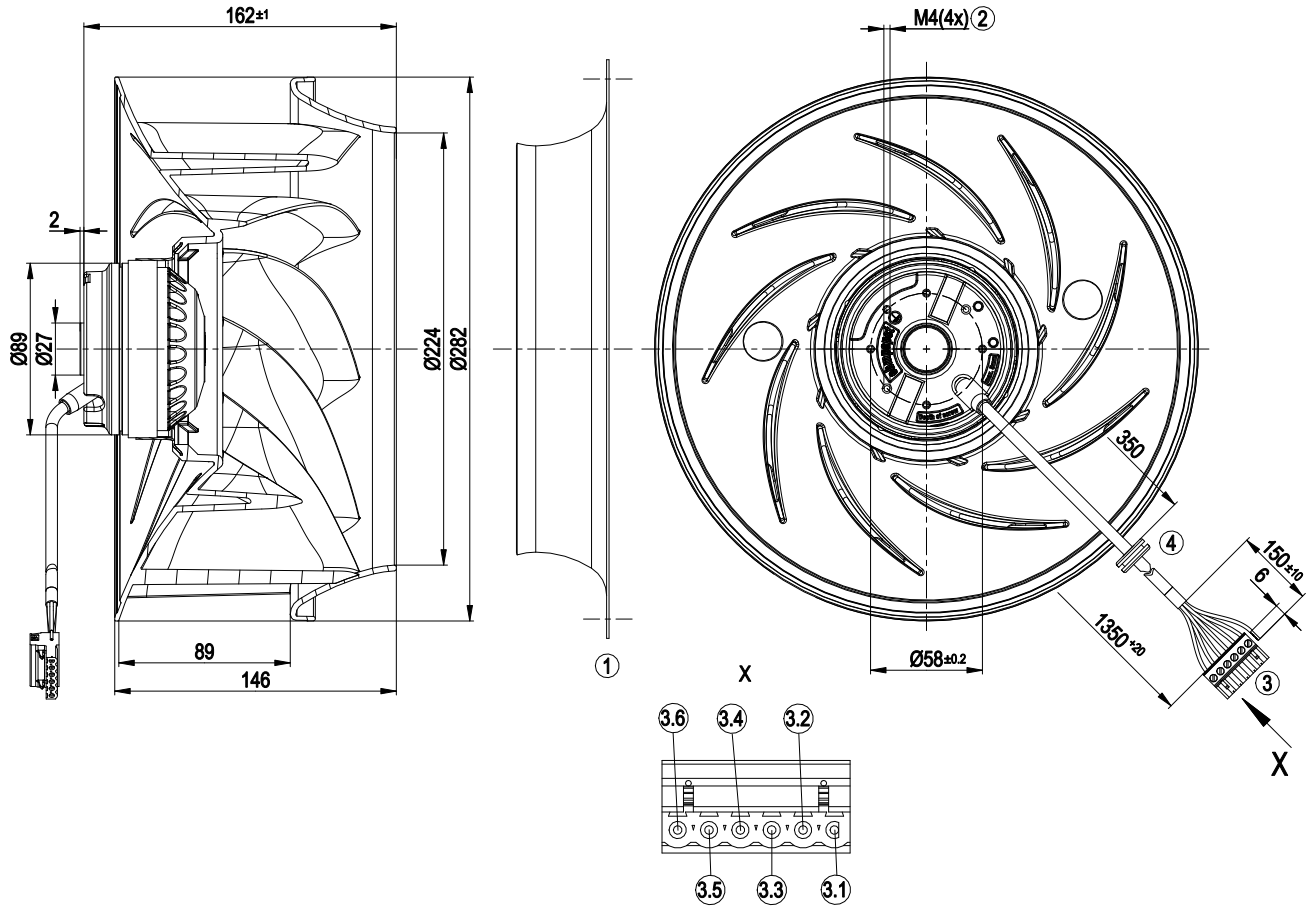
Weight	2.3 kg
Fan size	280 mm
Rotor surface	Painted black
Impeller material	PA plastic
Number of blades	9
Direction of rotation	Counterclockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
Insulation class	"B"
Moisture (F) / Environmental (H) 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
Speed levels	3
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)
Conformity with standards	EN 60335-1; CE

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Product drawing



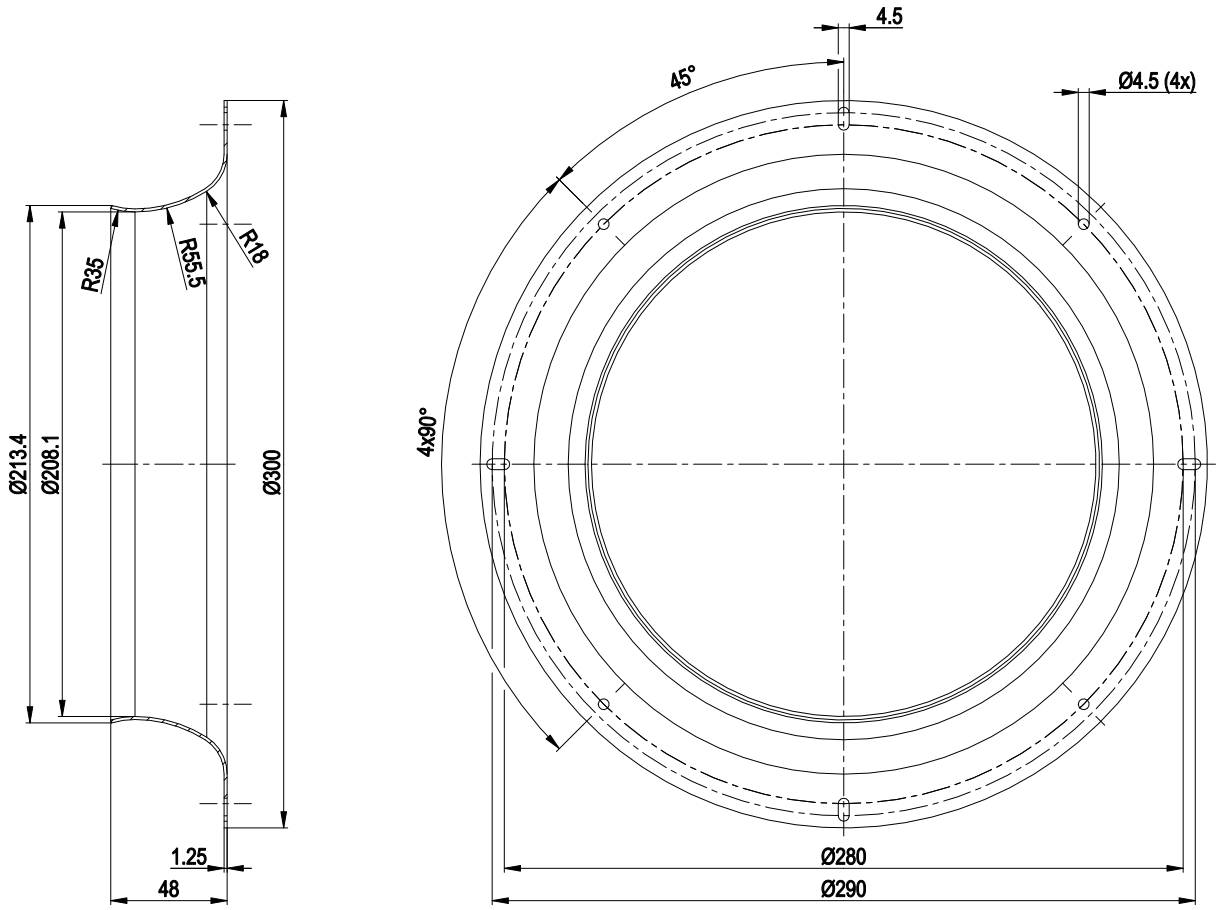
1	Accessory part: inlet ring 31050-2-4013 not included in scope of delivery
2	Max. clearance for screw 5 mm
3	Cable PVC 7G 0.5 mm², 1x 6-pole connector housing Phönix 1757051 (MSTB 2.5/6-ST/5.08), 1x crimped splice (green/yellow)
3.1	red (capacitor)
3.2	white (step 1)
3.3	gray (step 2)
3.4	black (step 3)
3.5	blue (N)
3.6	orange (bridge)
4	Grommet 64901-4-7011 EPDM black

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Accessory part



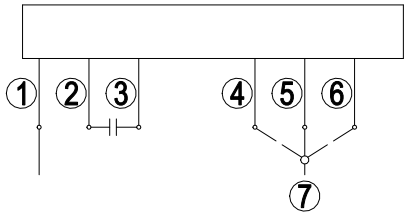
inlet ring 31050-2-4013 not included in scope of delivery

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Connection diagram



Note: High speed (step III); low speed (step I)

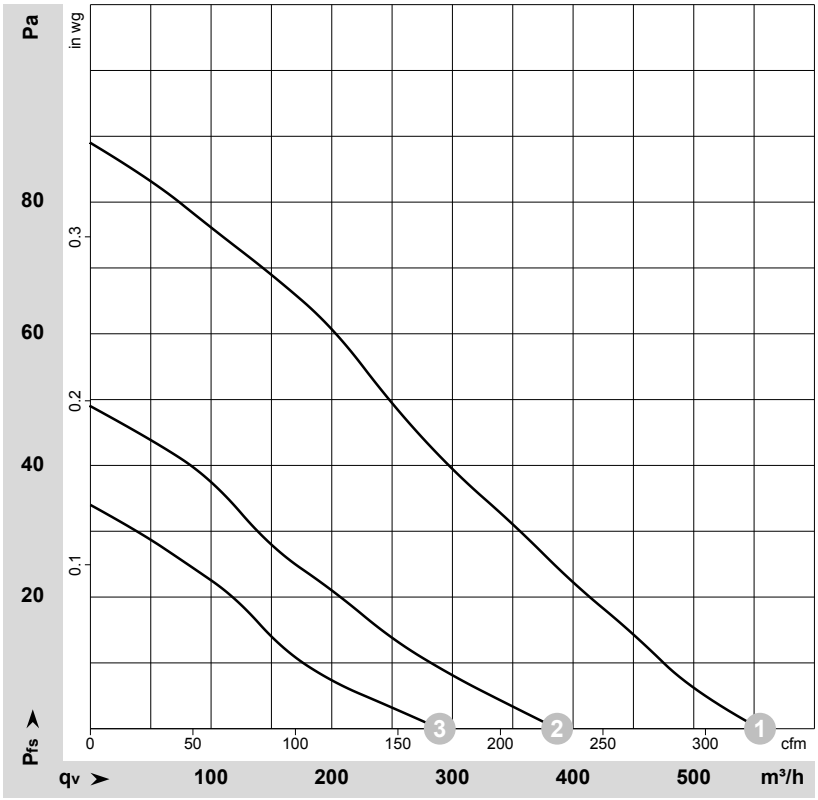
1	N = blue	2	orange	3	red
4	Step I white	5	Step II gray	6	Step III black
7	L1				

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Curves: Air performance 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-65723-1
Measurement: LU-65724-1
Measurement: LU-65725-1

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

	Stage	U	f	n	P_e	I	LpA_{in}	q_V	q_V	p_{fs}
		V	Hz	min^{-1}	W	A	dB(A)	m^3/h	cfm	inH2O
1	3	230	50	670	40	0.18	37	555	325	0.00
2	2	230	50	480	30	0.14	28	385	225	0.00
3	1	230	50	400	25	0.12	23	290	170	0.00

U = Power supply · f = Frequency · n = Speed (rpm) · P_e = Power consumption · I = Current draw · LpA_{in} = Sound pressure level intake side · q_V = Air flow

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