R3G280-AF26-10

EC centrifugal fan

backward-curved, single-intake

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Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**R3G280-AF26-10**
Motor	**M3G084-DF**

Nominal voltage	VDC	48
Nominal voltage range	VDC	36 .. 57
Method of obtaining data		fa
Speed (rpm)	min^{-1}	2600
Power consumption	W	315
Current draw	A	6.6
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50

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

Data according to Commission Regulation (EU) 327/2011 (prEN 17166)

		Actual	Req. 2015
01 Overall efficiency η_{es}	%	52.8	47.5
02 Measurement category		A	
03 Efficiency category		Static	
04 Efficiency grade N		67.3	62
05 Variable speed drive		Yes	

09 Power consumption P_e	kW	0.41
09 Air flow q_v	m^3/h	1590
09 Pressure increase p_{fs}	Pa	450
10 Speed (rpm) n	min^{-1}	2490
11 Specific ratio*		1.00

Data obtained at optimum efficiency level.

* Specific ratio = 1 + p_{fs} / 100 000 Pa

LU-42386

The efficiency values displayed for achieving conformity with the Ecodesign Regulation EU 327/2011 has been reached with defined air duct components (e.g. inlet rings).
The dimensions must be requested from ebm-papst. If other air conduction geometries are used on the installation side, the ebm-papst evaluation loses its validity/the conformity must be confirmed again.

The product does not fall within the scope of Regulation (EU) 2019/1781 due to the exception specified in Article 2 (2a) (motors completely integrated into a product).

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Technical description

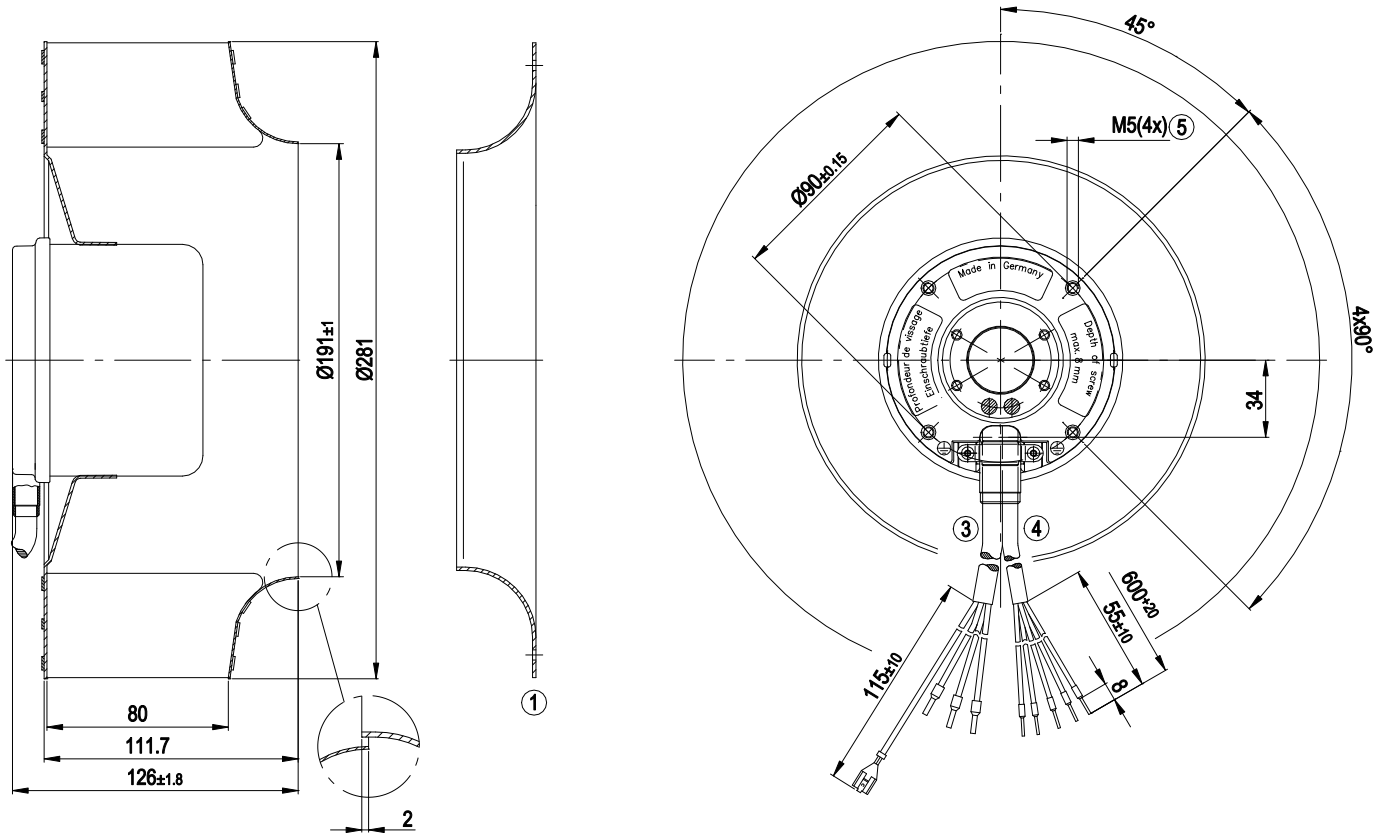
Weight	3.9 kg
Size	280 mm
Motor size	84
Rotor surface	Painted black
Impeller material	Sheet steel, galvanized
Number of blades	11
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP42
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H0 - dry environment
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
Technical features	- Control input 0-10 VDC / PWM - Tach output - Motor current limitation - Soft start
With cable	Lateral
Protection class assignment	I; If a protective earth is connected by the customer This component for installation may have several local protection classes. This information relates to this component's basic design. The final protection class is based on the component's intended installation and connection.
Conformity with standards	CE
Approval	EAC

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Product drawing



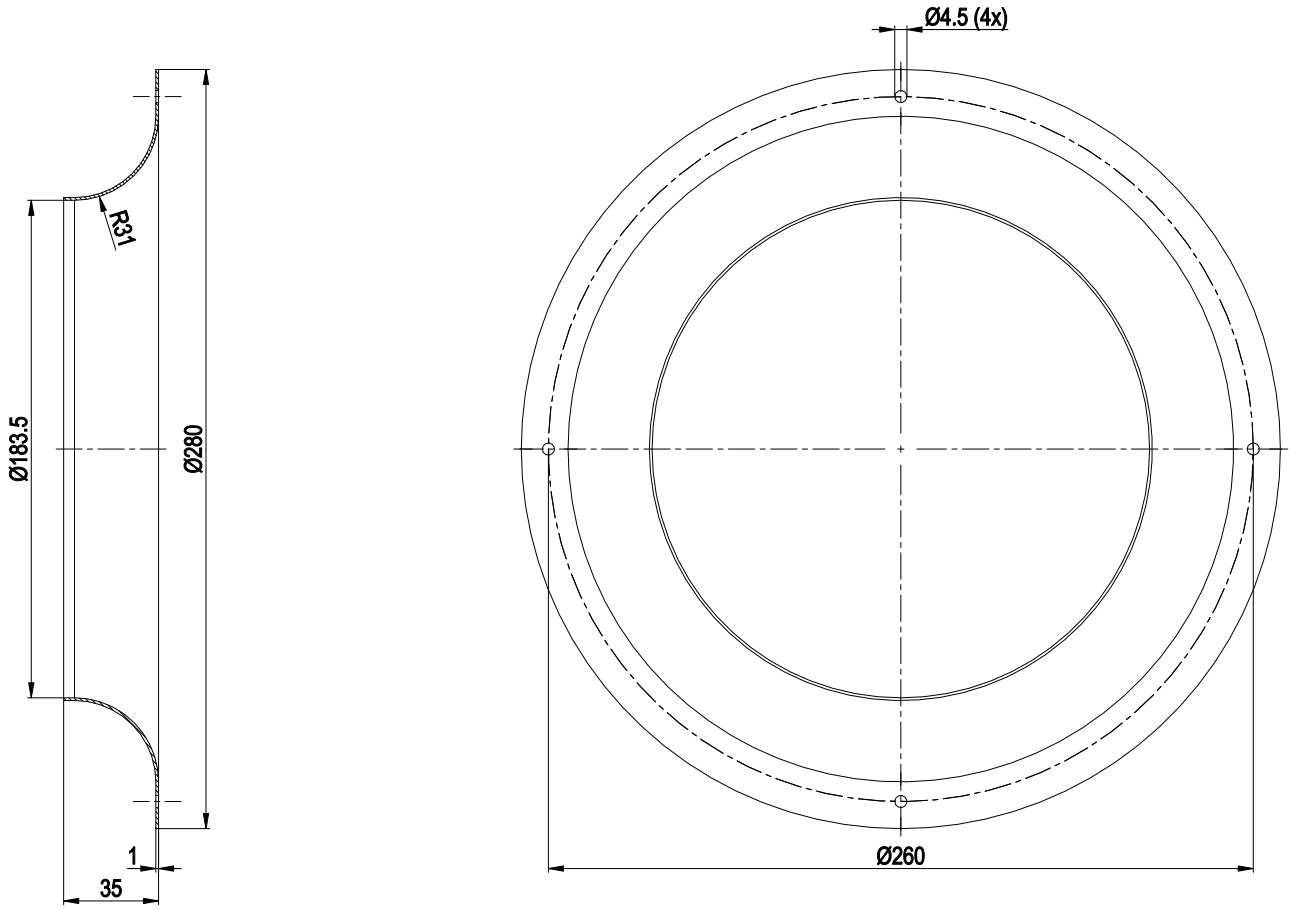
1	Accessory part: inlet ring 96360-2-4013 not included in scope of delivery
2	Accessory part: external electronics CHG045-AA01-01 not included in scope of delivery
3	Cable silicone 4 x 1.5 mm², 3 x wire-end ferrules and flat push-on receptacle 6.3 x 0.8 crimped
4	Cable silicone 5 x 0.5 mm², 5 x crimped ferrules
5	Max. clearance for screw 8 mm

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Accessory part



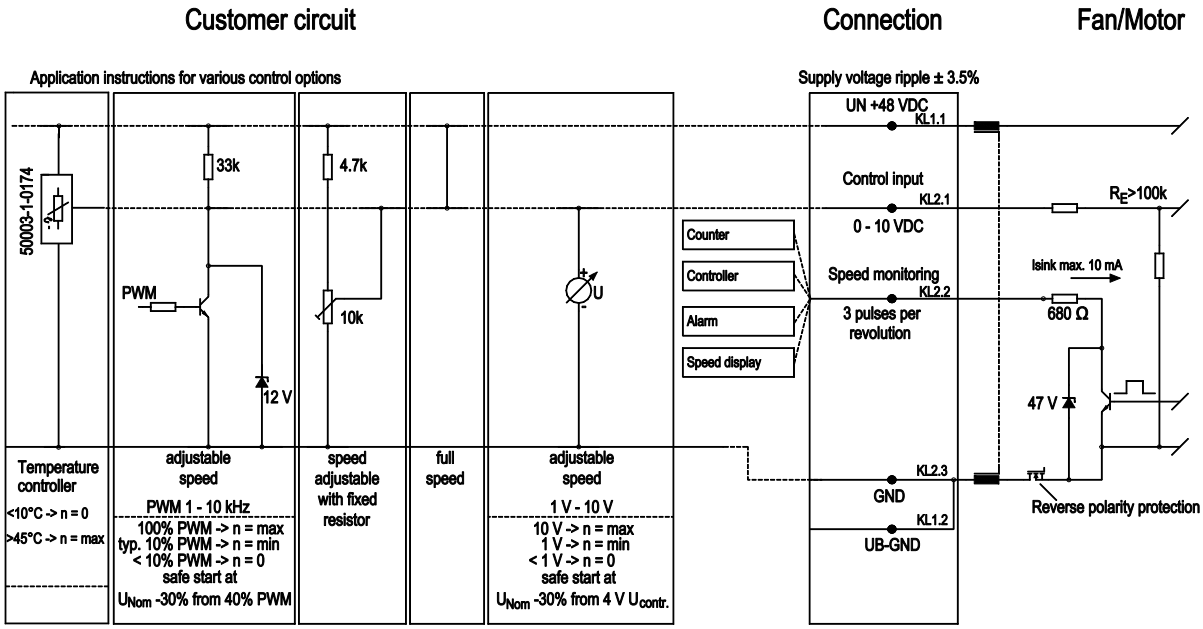
Inlet ring 96360-2-4013

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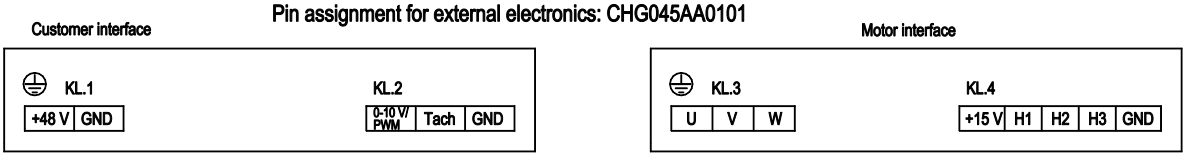
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Connection diagram



Pin assignment for external electronics: CHG045AA0101



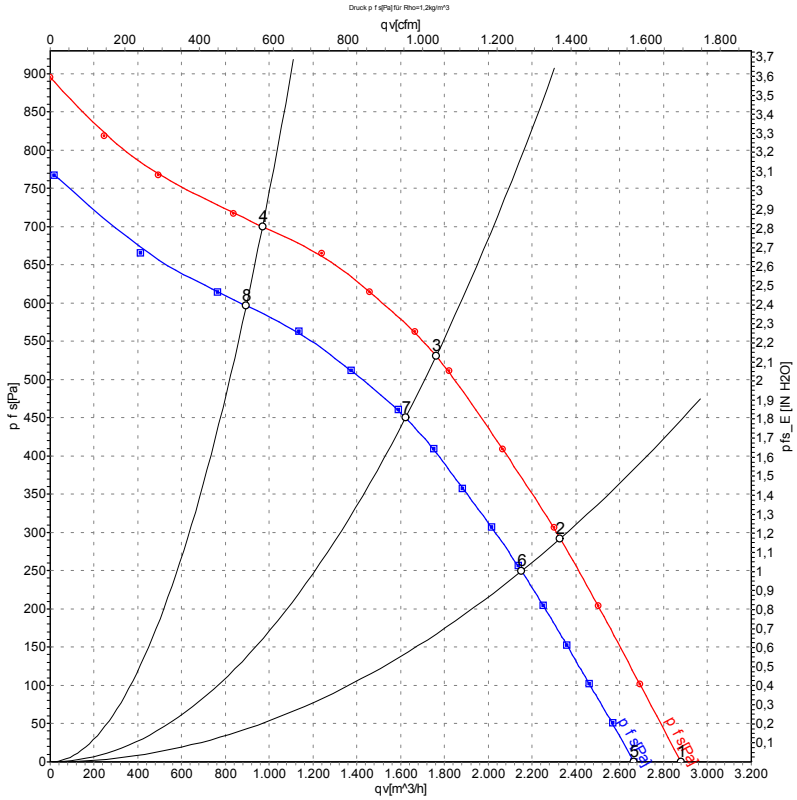
No.	Conn.	Designation	Function/assignment
KL4		+15V	red
KL4		H1	orange
KL4		H2	brown
KL4		H3	yellow
KL4		GND	blue
KL3		U	black
KL3		V	blue
KL3		W	brown
PE		PE	green/yellow

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Curves: Air performance



Measurement: LU-42387-1
Measurement: LU-42386-1

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	n	P_{ed}	I	q_V	p_{fs}	q_V	p_{fs}
	V	min^{-1}	W	A	m^3/h	Pa	cfm	in. wg
1	55.2	2825	413	7.49	2880	0	1695	0.00
2	55.2	2730	500	9.08	2330	293	1370	1.18
3	55.2	2700	540	9.75	1760	531	1035	2.13
4	55.2	2785	449	8.15	970	700	570	2.81
5	48	2600	315	6.62	2665	0	1570	0.00
6	48	2520	390	8.13	2150	250	1265	1.00
7	48	2490	419	8.75	1620	450	955	1.81
8	48	2570	348	7.26	895	600	525	2.41

U = Voltage · n = Speed (rpm) · P_{ed} = Power consumption · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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