R3G250-AD56-10

EC centrifugal fan

backward curved, single inlet



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ErP2015 EXCEEDS THE NORM

Nominal data

Type	**R3G250-AD56-10**	
Motor	**M3G084-CA**	
Nominal voltage	VDC	110
Nominal voltage range	VDC	93 .. 127
Type of data definition		fa
External electronics		CEG485HB5001
Speed	min^{-1}	2800
Power input	W	170
Current draw	A	1.5
Min. ambient temperature	°C	- 25
Max. ambient temperature	°C	+ 50

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

Data according to ErP directive

Installation category	A
Efficiency category	Static
Variable speed drive	Yes
Specific ratio*	1.00

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

		Actual	Request 2013	Request 2015
Overall efficiency η_{es}	%	52.6	41.4	45.4
Efficiency grade N		69.2	58	62
Power input P_e	kW	0.26		
Air flow q_v	m^3/h	1055		
Pressure increase p_{fs}	Pa	416		
Speed n	min^{-1}	2805		

Data definition with optimum efficiency.
The ErP data is determined using a motor-impeller combination in a standardised measurement configuration.

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Technical features

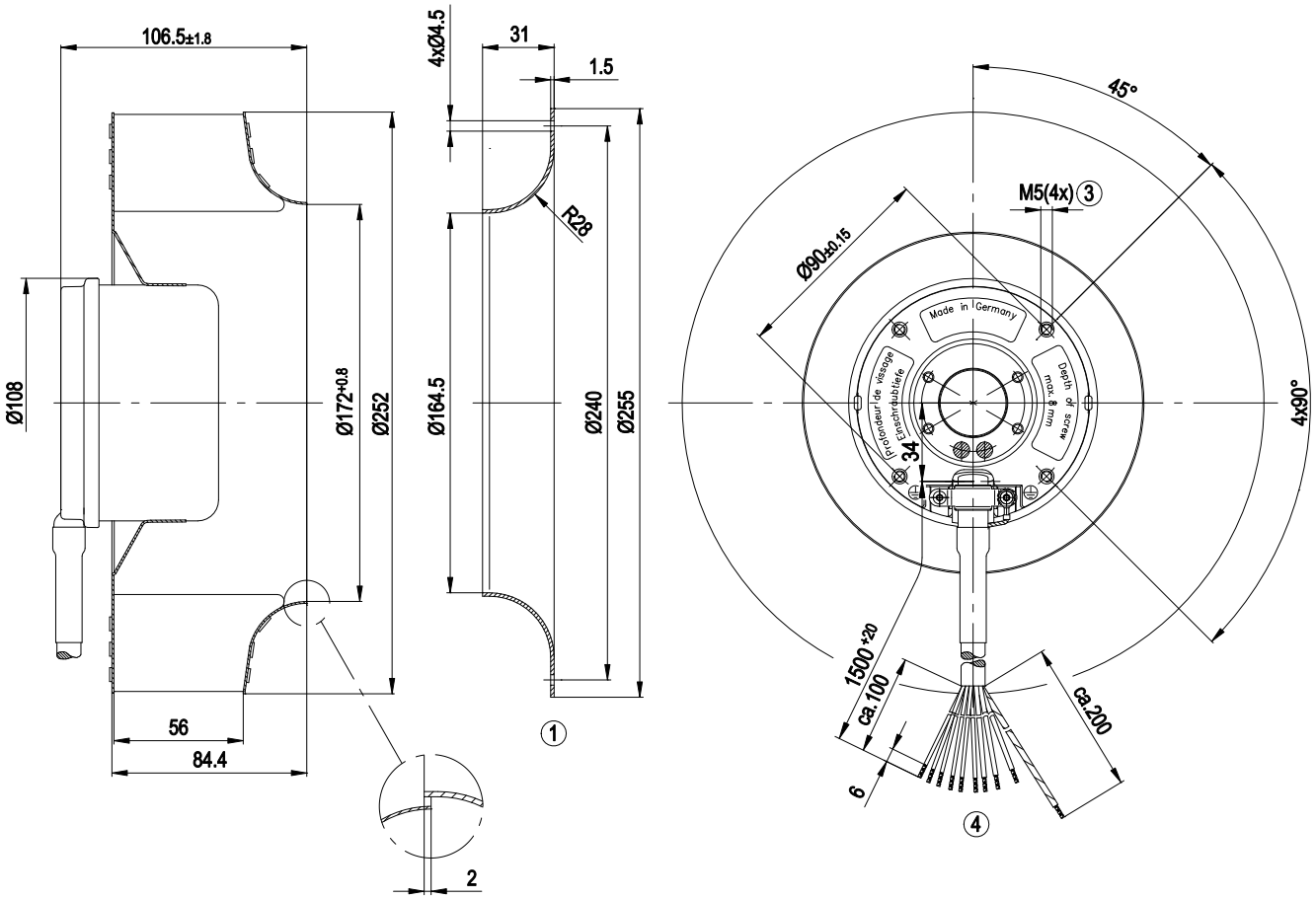
Mass	2.88 kg
Size	250 mm
Surface of rotor	Coated in black
Material of impeller	Sheet steel, hot-galvanised
Number of blades	11
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 42
Insulation class	"B"
Max. permissible ambient motor temp. (transp./ storage)	+80 °C
Min. permissible ambient motor temp. (transp./storage)	-40 °C
Mounting position	Shaft horizontal or rotor on top; rotor on bottom on request
Condensate discharge holes	None
Operation mode	S1
Motor bearing	Ball bearing
Motor protection	PTC resistor
Cable exit	Lateral
Protection class	I (if protective earth is connected by customer)
Approval	CCC

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Product drawing



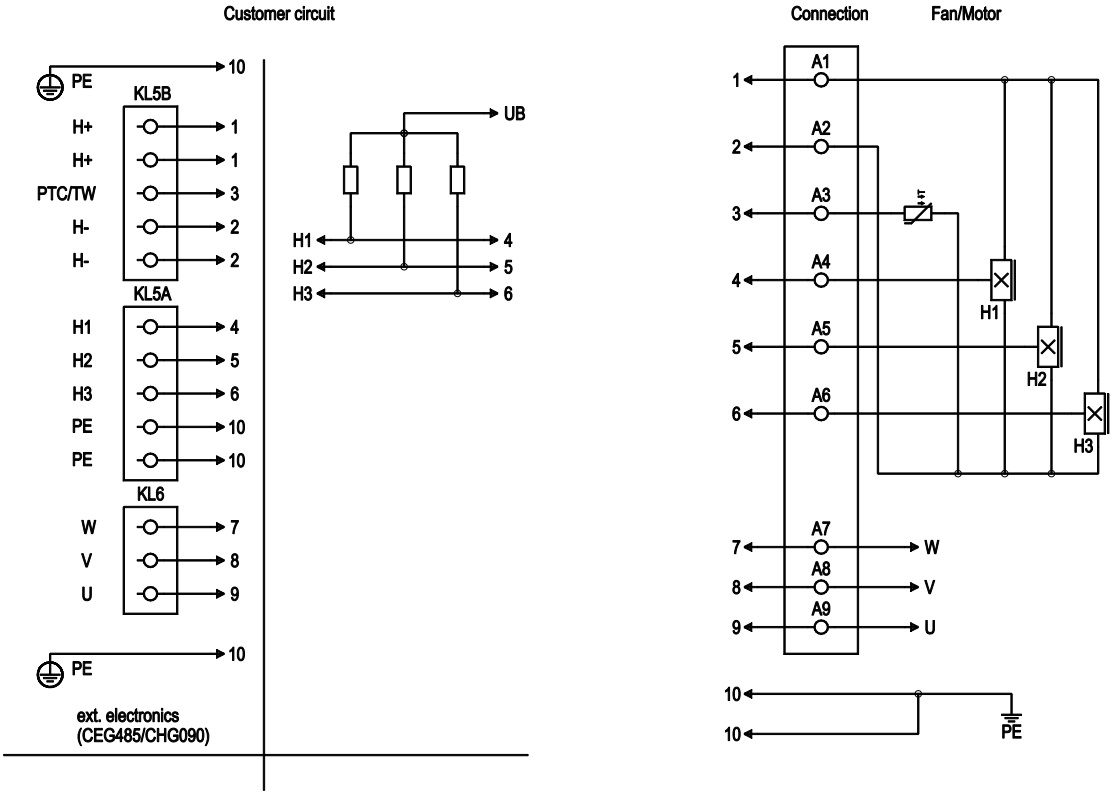
1	Accessory part: inlet nozzle 96359-2-4013 not included in the standard scope of delivery; other inlet nozzles on request
2	Accessory part: External electronics CEG485-HB50-01 not included in the standard scope of delivery
3	Depth of screw max. 8 mm
4	Connection line 6 x 0.5 mm², 4 x 1.0 mm², brass lead tips crimped

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Connection screen



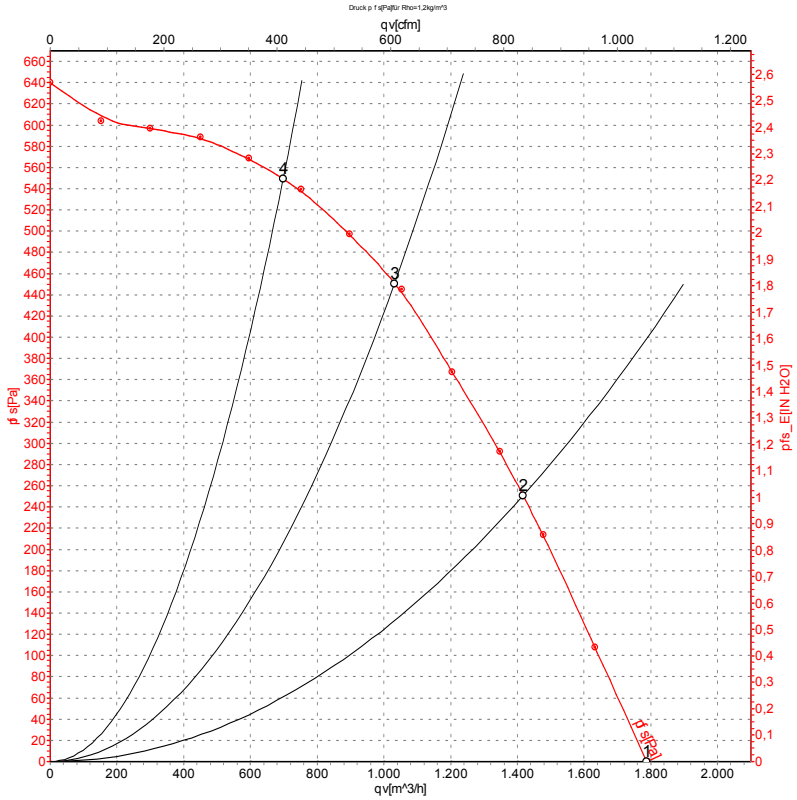
No.	Pin	Signal	Function / assignment
KL5A	4	A4	Hall 1 (grey) open collector, R according to UB 4.5-24 V
KL5A	5	A5	Hall 2 (white) open collector, R according to UB 4.5-24 V
KL5A	6	A6	Hall 3 (black) open collector, R according to UB 4.5-24 V
KL5B	1	A1	+ (brown)
KL5B	2	A2	– (blue)
KL5B	3	A3	PTC (yellow)
KL6	7	A7	W (brown/white)
KL6	8	A8	V (black/white)
KL6	9	A9	U (red/white)
-	10	-	PE (green/yellow) - 2x

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Charts: Air flow



Measurement: LU-124786

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

	U	n	P_{ed}	I	qv	p_{fs}
	V	min^{-1}	W	A	m^3/h	Pa
1	110	2800	170	1.50	1785	0
2	110	2810	228	2.08	1415	250
3	110	2805	259	2.36	1030	450
4	110	2810	232	2.11	700	550

U = Supply voltage · n = Speed · P_{ed} = Power input · I = Current draw · qv = Air flow · p_{fs} = Pressure increase

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