R3G355-AK23-10

EC centrifugal fan

backward-curved, single-intake

for rail applications

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Nominal data

Type	**R3G355-AK23-10**	
Motor	**M3G084-DF**	
Nominal voltage	VAC	110
Nominal voltage range	VAC	77 .. 137
Method of obtaining data		fa
Speed (rpm)	min^{-1}	1650
Power consumption	W	245
Current draw	A	2.2
Min. ambient temperature	°C	-40
Max. ambient temperature	°C	40

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	4.2 kg
Size	355 mm
Motor size	84
Rotor surface	Painted black
Impeller material	Sheet aluminum
Number of blades	6
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP42
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H3
Ambient temperature note	Occasional start-up at temperatures between -40°C and -25°C is permitted. For continuous operation at ambient temperatures below -25°C (such as refrigeration applications), use must be made of a fan design with special low-temperature bearings.
Max. permitted ambient temp. for motor (transport/storage)	+80 °C
Min. permitted ambient temp. for motor (transport/storage)	-40 °C
Installation position	Any
Condensation drainage holes	None
Mode	S1
Motor bearing	Ball bearing
Motor protection	Electronic motor protection
With cable	Lateral
Protection class	I (with customer connection of protective earth)

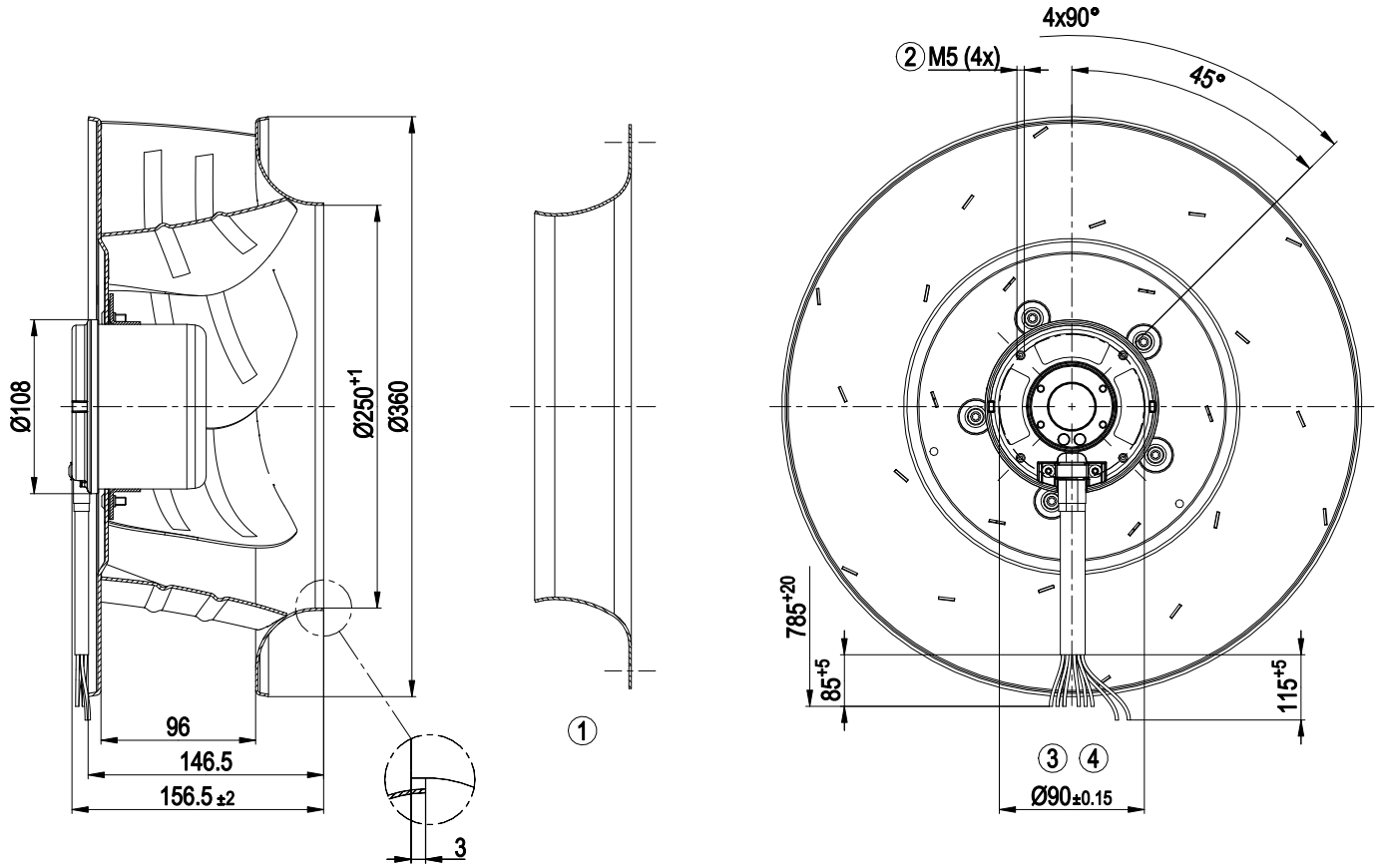
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Product drawing



1	Accessory part: inlet ring 35560-2-4013 not included in scope of delivery
2	Max. clearance for screw 14 mm
3	Cable halogen-free, BETAtrans® 3 GKW flex, 6x 0.5 mm²
	6x wire-end ferrule
4	Cable silicone 5G 1.5 mm²
	5x wire-end ferrule

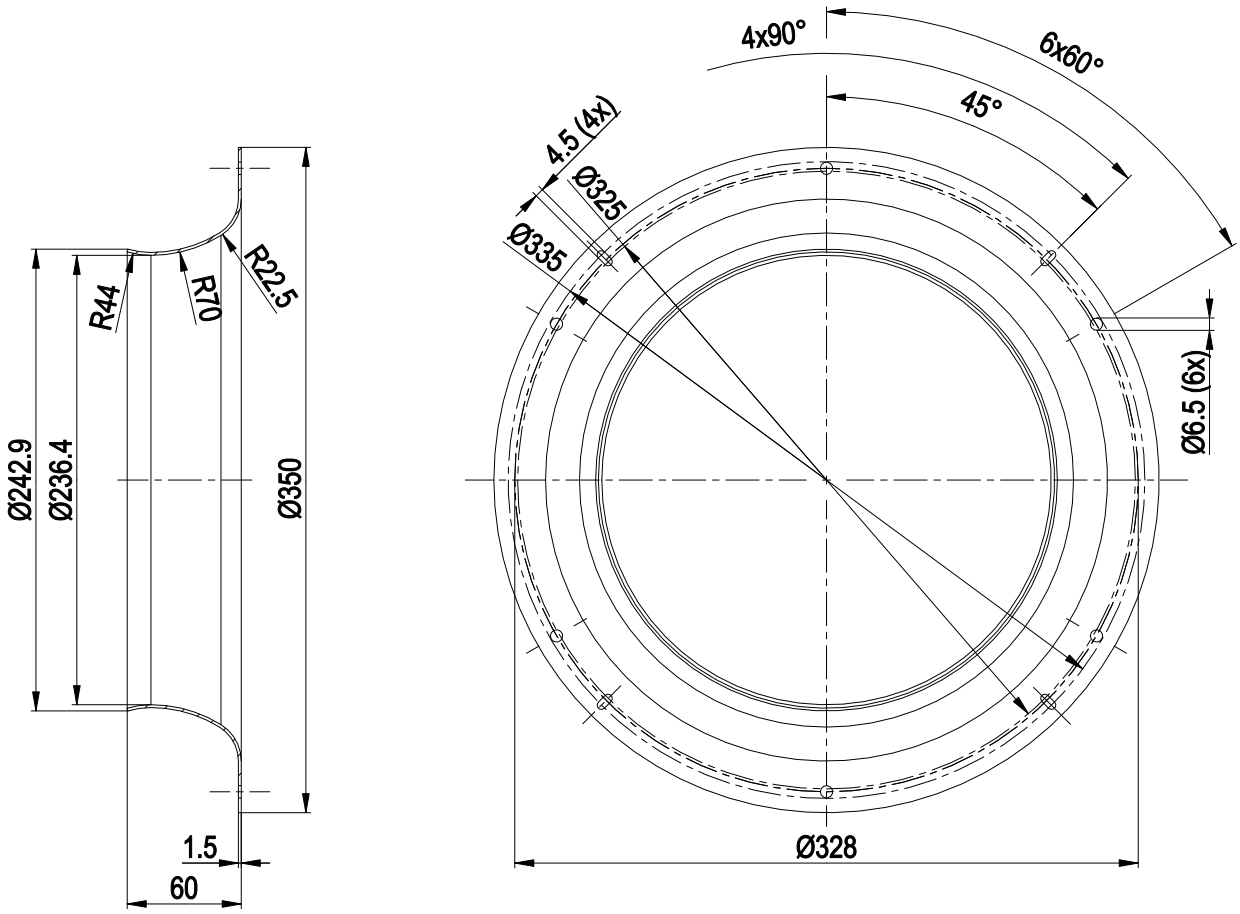
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Accessory part



Inlet ring 35560-2-4013

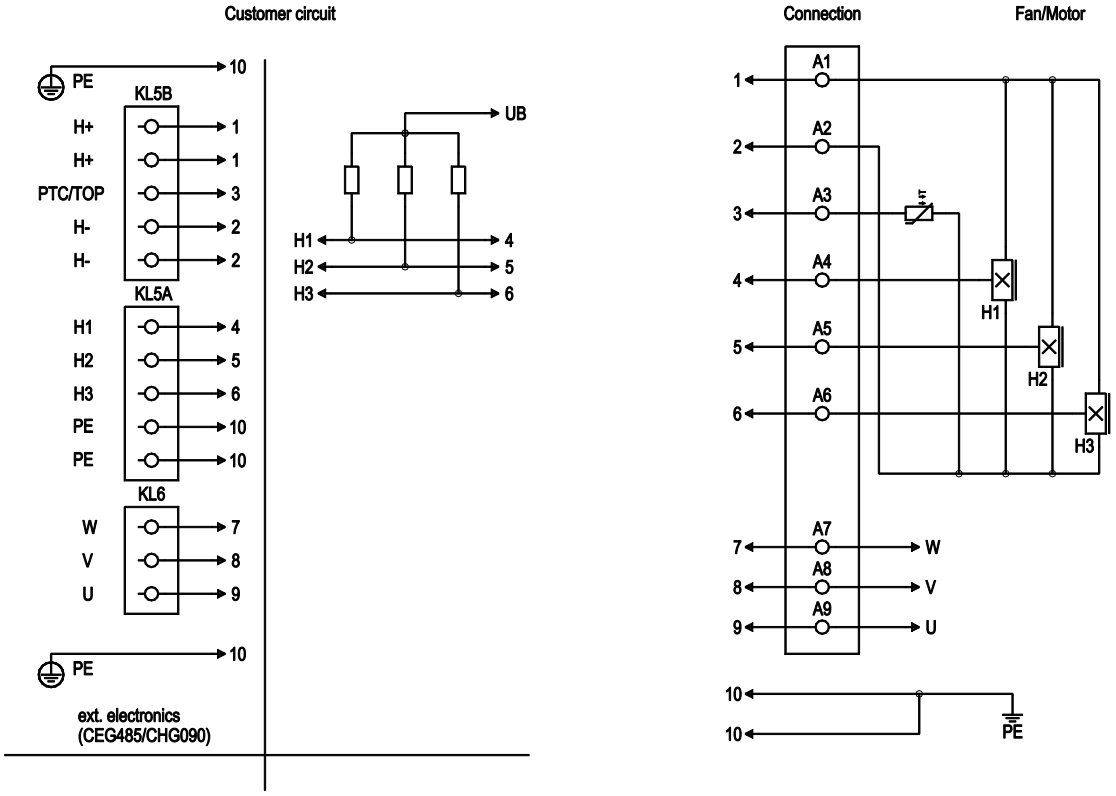
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Connection diagram



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

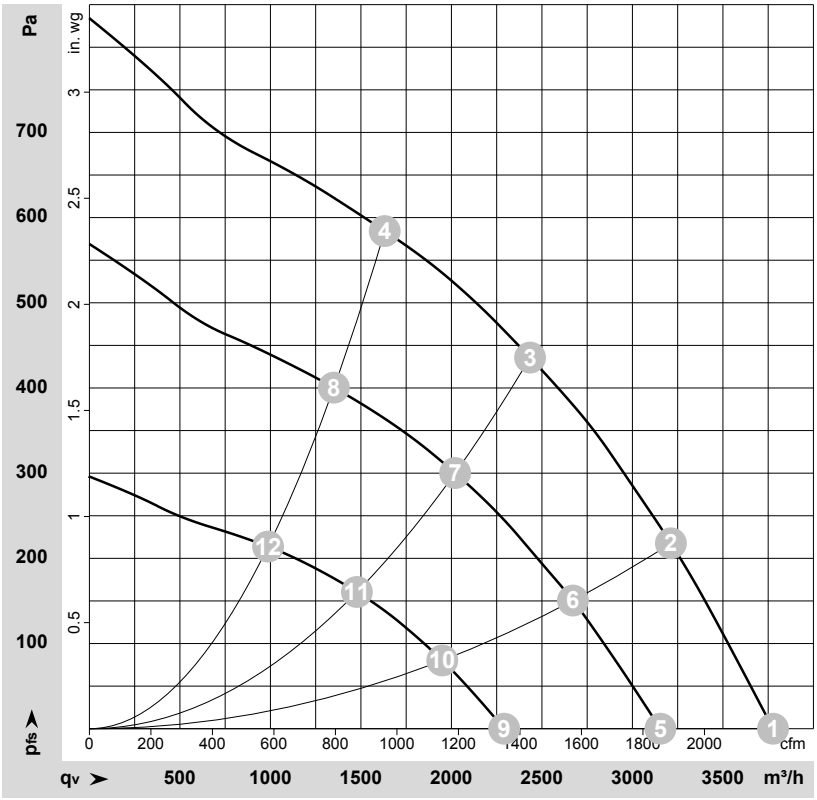
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Curves: Air performance



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-58760-1
Measurement: LU-58758-1
Measurement: LU-58759-1

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	137	2015	438	3.22	3775	0	2225	0.00
2	137	1960	544	4.02	3215	219	1890	0.88
3	137	1925	604	4.46	2435	436	1435	1.75
4	137	1950	551	4.06	1630	584	960	2.34
5	110	1650	245	2.20	3155	0	1855	0.00
6	110	1620	299	2.73	2670	150	1570	0.60
7	110	1600	323	2.96	2020	300	1190	1.20
8	110	1615	297	2.71	1350	400	795	1.61
9	77	1210	97	1.26	2290	0	1350	0.00
10	77	1185	117	1.52	1950	80	1145	0.32
11	77	1175	126	1.64	1480	161	870	0.65
12	77	1185	118	1.54	985	214	580	0.86

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

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