R3G250-AK22-10

EC centrifugal fan

backward-curved, single-intake

for rail applications

ebm-papst Mulfingen GmbH & Co. KG
Bachmühle 2 · D-74673 Mulfingen
Phone +49 7938 81-0
Fax +49 7938 81-110
info1@de.ebmpapst.com
www.ebmpapst.com

Limited partnership · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRA 590344

General partner Elektrobau Mulfingen GmbH · Headquarters Mulfingen
Amtsgericht (court of registration) Stuttgart · HRB 590142

Nominal data

Type	**R3G250-AK22-10**
Motor	**M3G084-DF**

Phase		DC
Nominal voltage	VDC	110
Method of obtaining data		fa
Speed (rpm)	min^{-1}	3400
Power consumption	W	265
Current draw	A	2.4
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	55

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

EC centrifugal fan

backward-curved, single-intake

for rail applications

Technical description

Weight	3.7 kg
Fan size	250 mm
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	F3-1
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	PTC thermistor
With cable	Variable
Protection class	I (with customer connection of protective earth)

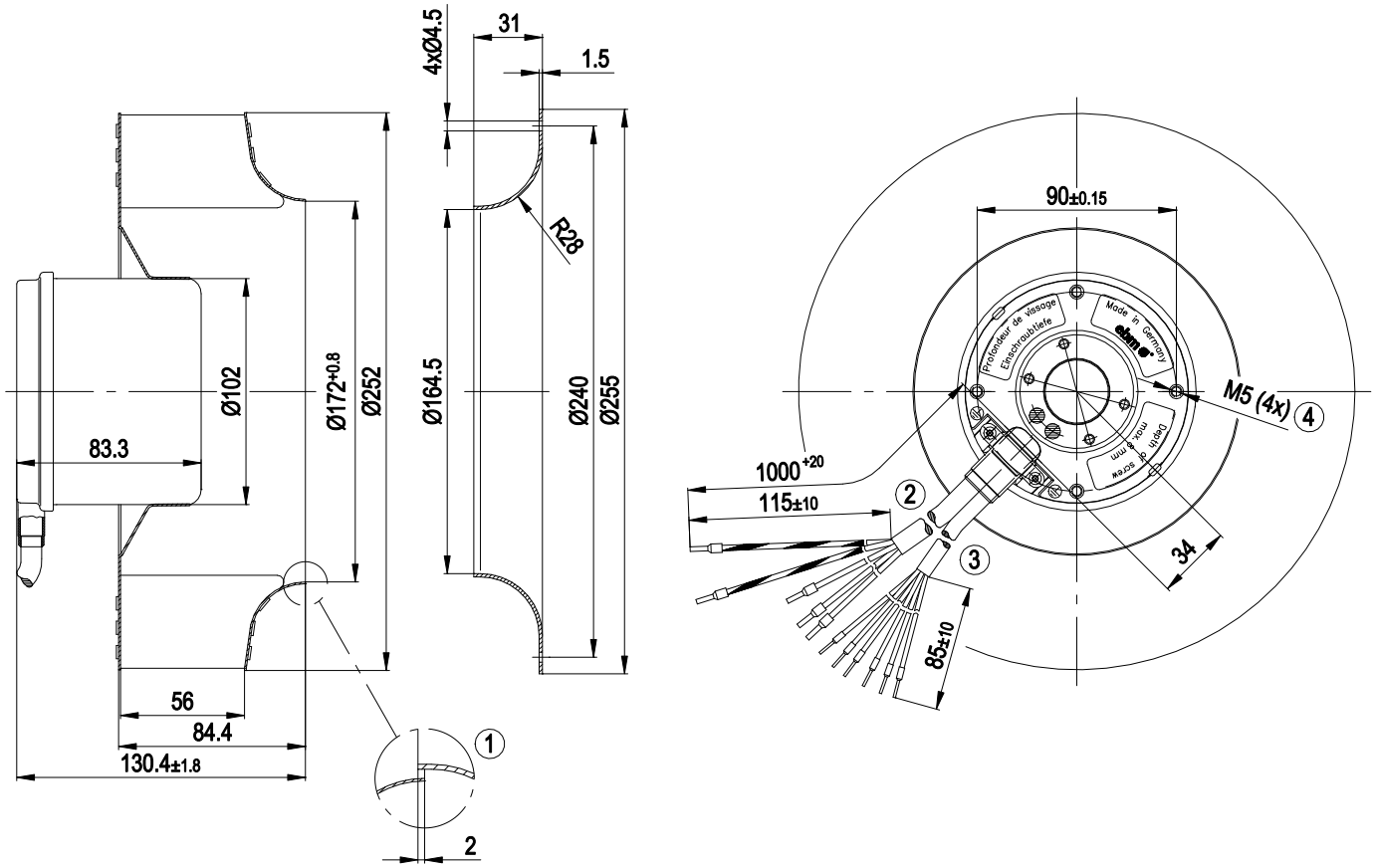
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

EC centrifugal fan

backward-curved, single-intake

for rail applications

Product drawing



1	Accessory part: inlet ring 96359-2-4013 not included in scope of delivery
2	Cable silicone 5x1.5 mm², 5 x crimped ferrules
3	Cable silicone 6x0.5 mm², 6 x crimped ferrules
4	Max. clearance for screw 8 mm
5	Accessory part: external electronics CEG485-HB50-01 not included in scope of delivery

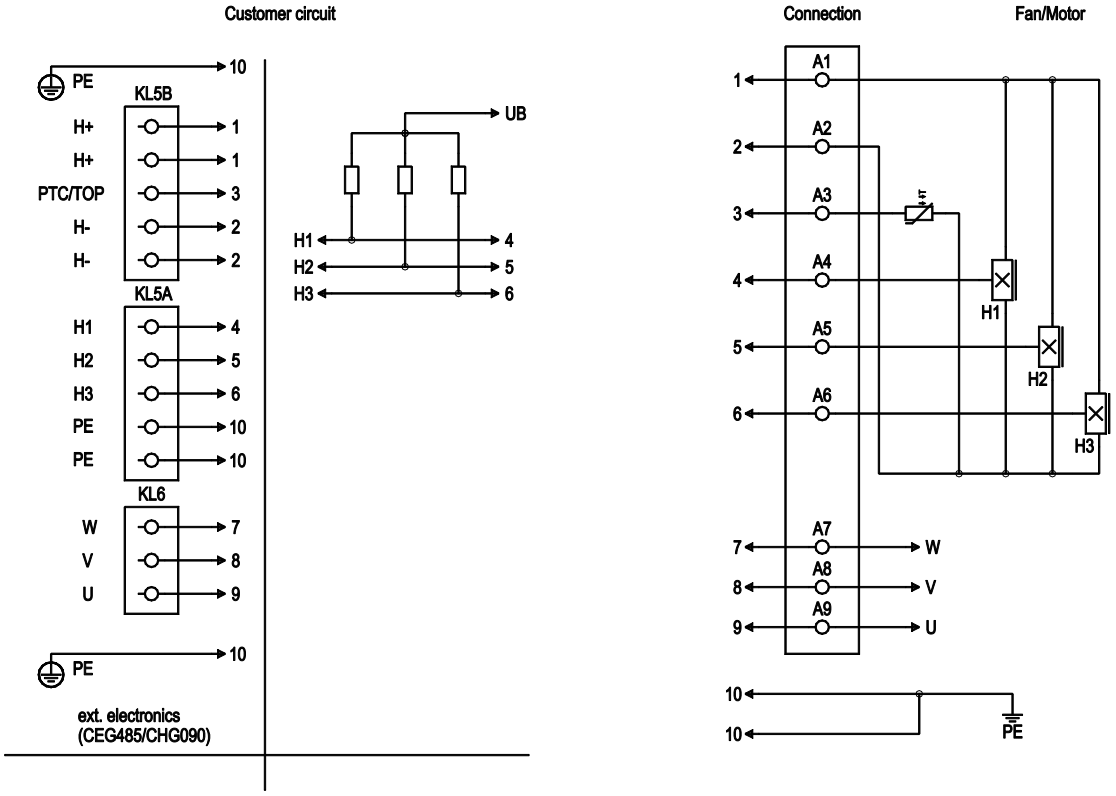
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

EC centrifugal fan

backward-curved, single-intake

for rail applications

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

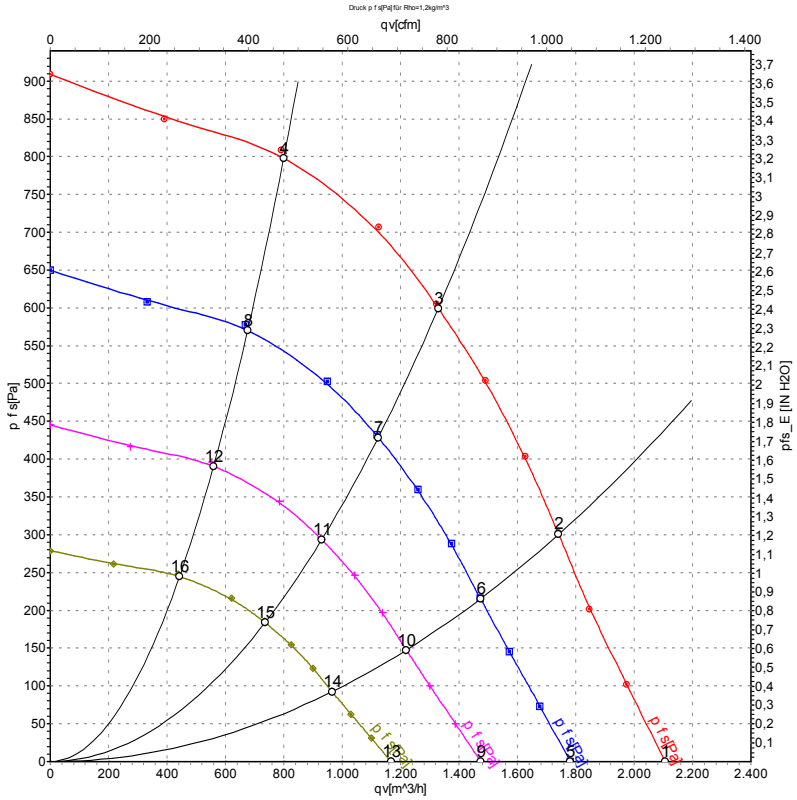
ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com

EC centrifugal fan

backward-curved, single-intake

for rail applications

Curves: Air performance



Measurement: LU-35117-1

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	inH2O
1	110	3400	265	2.40	2105	0	1240	0.00
2	110	3400	363	3.29	1740	300	1025	1.20
3	110	3400	440	4.00	1330	600	780	2.41
4	110	3400	405	3.67	800	800	470	3.21
5	110	2900	159	1.44	1780	0	1050	0.00
6	110	2900	220	1.99	1475	215	870	0.86
7	110	2900	266	2.41	1125	430	660	1.73
8	110	2900	244	2.22	675	576	400	2.31
9	110	2400	90	0.82	1475	0	870	0.00
10	110	2400	125	1.13	1220	147	720	0.59
11	110	2400	150	1.37	930	295	545	1.18
12	110	2400	139	1.26	560	395	330	1.59
13	110	1900	45	0.41	1165	0	685	0.00
14	110	1900	62	0.56	965	92	570	0.37
15	110	1900	75	0.68	735	185	435	0.74
16	110	1900	69	0.62	445	247	260	0.99

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

ebm-papst Mulfingen GmbH & Co. KG · Bachmühle 2 · D-74673 Mulfingen · Phone +49 (0) 7938 81-0 · Fax +49 (0) 7938 81-110 · info1@de.ebmpapst.com · www.ebmpapst.com