

## Adjustable Ribwound Resistor



### FEATURES

- Resistance wire is spotwelded to the terminal bands and then “locked” onto the core with a vitreous enamel or silicone coating
- Hardware can be supplied mounted, as loose assemblies, or as individual parts. Enclosures can also be produced.
- Available as fixed and adjustable resistors (for fixed Ribwound Resistor see [www.vishay.com/doc?31807](http://www.vishay.com/doc?31807))
- Wirewound
- Material categorization: For definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)


**RoHS**  
COMPLIANT

STANDARD ELECTRICAL SPECIFICATIONS				
GLOBAL MODEL	HISTORICAL MODEL	POWER RATING W	RESISTANCE RANGE $\Omega$	TOLERANCE <sup>(4)</sup> %
RBEA0090 <sup>(1)</sup>	9-64- $\Omega$ RA	90	0.014 to 25.3	10
RBEA0100 <sup>(1)</sup>	12-56- $\Omega$ RA	100	0.011 to 20.7	10
RBEA0110 <sup>(1)</sup>	12-64- $\Omega$ RA	110	0.014 to 26.8	10
RBEA0120 <sup>(1)</sup>	12-72- $\Omega$ RA	120	0.017 to 32.9	10
RBEA0135 <sup>(1)</sup>	12-80- $\Omega$ RA	135	0.020 to 39	10
RBEA0150 <sup>(1)</sup>	18-64- $\Omega$ RA	150	0.018 to 39	10
RBEA0160 <sup>(1)</sup>	12-96- $\Omega$ RA	160	0.027 to 51.3	10
RBEA0175 <sup>(1)</sup>	18-72- $\Omega$ RA	175	0.022 to 48.1	10
RBEA0180 <sup>(1)</sup>	12-104- $\Omega$ RA	180	0.030 to 57.4	10
RBEA0220 <sup>(1)</sup>	18-96- $\Omega$ RA	220	0.035 to 75	10
RBEA0225 <sup>(1)</sup>	18-98- $\Omega$ RA	225	0.036 to 77.2	10
RBEA0240 <sup>(1)</sup>	18-104- $\Omega$ RA	240	0.039 to 83.9	10
RBEA0300 <sup>(1)(3)</sup>	18-136- $\Omega$ RA	300	0.055 to 120	10
RBEA0375 <sup>(1)</sup>	18-168- $\Omega$ RA	375	0.072 to 156	10
RBEA0400 <sup>(1)</sup>	26-136- $\Omega$ RA	400	0.062 to 149	10
RBEA0420 <sup>(1)</sup>	18-188- $\Omega$ RA	420	0.082 to 178	10
RBEA0500 <sup>(1)(3)</sup>	26-168- $\Omega$ RA	500	0.083 to 200	10
RBEA0550 <sup>(1)</sup>	26-188- $\Omega$ RA	550	0.097 to 232	10
RBSA0750 <sup>(2)</sup>	40-192- $\Omega$ RA	750	0.130 to 158	10
RBSA1000 <sup>(2)(3)</sup>	40-240- $\Omega$ RA	1000	0.176 to 209	10
RBSA1500 <sup>(2)(3)</sup>	40-320- $\Omega$ RA	1500	0.248 to 294	10
RBSA2000 <sup>(2)</sup>	52-320- $\Omega$ RA	2000	0.300 to 380	10

### Notes

- Ratings are based on a temperature rise of 375 °C above an ambient of 40 °C.
- Operating temperature range - 55 °C to 415 °C.
- <sup>(1)</sup> RBEA0090 to RBEA0550 vitreous enamel coating is standard, silicone coating is available.
- <sup>(2)</sup> RBSA0750 to RBSA2000 silicone coating is standard.
- <sup>(3)</sup> Stock wattage, see Ribwound Stock Ribs ([www.vishay.com/doc?31808](http://www.vishay.com/doc?31808))
- <sup>(4)</sup> Closer tolerances available upon request.



**DIMENSIONS** in inches (millimeters)



- For Terminal Data and Mounting Hardware, see [www.vishay.com/doc?31811](http://www.vishay.com/doc?31811)
- For Enclosures and Frames, see [www.vishay.com/doc?31810](http://www.vishay.com/doc?31810)

GLOBAL MODEL	CORE DIMENSIONS (REF.)			A DISTANCE BETWEEN TERMINAL (REF.)	TERMINAL STYLE
	B LENGTH	C OUTER DIAMETER	D INNER DIAMETER		
RBEA0090	4 (101.6)	0.5625 (14.2875)	0.3125 (7.9375)	3.50 (88.9)	D
RBEA0100	3.5 (88.9)	0.75 (19.05)	0.5 (12.7)	2.63 (66.675)	F
RBEA0110	4 (101.6)	0.75 (19.05)	0.5 (12.7)	3.13 (79.375)	F
RBEA0120	4.5 (114.3)	0.75 (19.05)	0.5 (12.7)	3.63 (92.075)	F
RBEA0135	5 (127)	0.75 (19.05)	0.5 (12.7)	4.13 (104.775)	F
RBEA0150	4 (101.6)	1.125 (28.575)	0.75 (19.05)	3.13 (79.375)	F
RBEA0160	6 (152.4)	0.75 (19.05)	0.5 (12.7)	5.13 (130.175)	F
RBEA0175	4.5 (114.3)	1.125 (28.575)	0.75 (19.05)	3.63 (92.075)	F
RBEA0180	6.5 (165.1)	0.75 (19.05)	0.5 (12.7)	5.63 (142.875)	F
RBEA0220	6 (152.4)	1.125 (28.575)	0.75 (19.05)	5.13 (130.175)	F
RBEA0225	6.125 (155.575)	1.125 (28.575)	0.75 (19.05)	5.25 (133.35)	F
RBEA0240	6.5 (165.1)	1.125 (28.575)	0.75 (19.05)	5.63 (142.875)	F
RBEA0300	8.5 (215.9)	1.125 (28.575)	0.75 (19.05)	7.63 (193.675)	F
RBEA0375	10.5 (266.7)	1.125 (28.575)	0.75 (19.05)	9.63 (244.475)	F
RBEA0400	8.5 (215.9)	1.625 (41.275)	1.125 (28.575)	7.63 (193.675)	G
RBEA0420	11.75 (298.45)	1.125 (28.575)	0.75 (19.05)	10.88 (276.225)	F
RBEA0500	10.5 (266.7)	1.625 (41.275)	1.125 (28.575)	9.00 (228.6)	G
RBEA0550	11.75 (298.45)	1.625 (41.275)	1.125 (28.575)	10.25 (260.35)	G
RBSA0750	12 (304.8)	2.5 (63.5)	1.75 (44.45)	10.50 (266.7)	G
RBSA1000	15 (381)	2.5 (63.5)	1.75 (44.45)	13.50 (342.9)	G
RBSA1500	20 (508)	2.5 (63.5)	1.75 (44.45)	18.50 (469.9)	G
RBSA2000	20 (508)	3.25 (82.55)	1.75 (44.45)	18.50 (469.9)	G

**TERMINAL STYLE** in inches (millimeters)



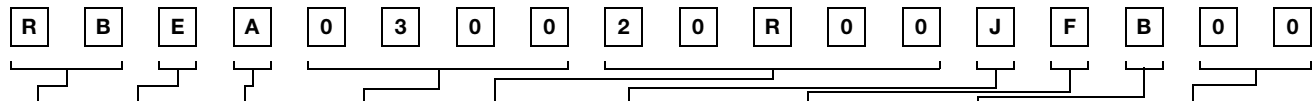
DIMENSIONS	D (1/4" LUG)	F (5/16" LUG)	G (1/2" LUG)	H (1/4" SQ)
Width (A)	0.25 (6.35)	0.375 (9.525)	0.5 (12.7)	0.25 (6.35)
Height (B)	0.5 (12.7)	0.625 (15.875)	0.9375 (23.8125)	0.625 (15.875)
Dia. (C)	0.17 (4.318)	0.2 (5.08)	0.26 (6.604)	0.065 (1.651)
Thickness (D)	0.02 (0.508)	0.035 (0.889)	0.046 (1.1684)	0.032 (0.8128)



MATERIAL SPECIFICATIONS	
Element	Copper-nickel, nickel-chrome, iron-chrome-aluminum
Core	Cordierite, steatite
Coating	Special high temperature silicone or vitreous enamel
Standard terminals	Nickel-iron
Part marking	Value, date code, MRC

**GLOBAL PART NUMBER INFORMATION**

Global Part Numbering example: RBEA030020R00JFB00 (RBEA0300 20 5 % 3/8L B)



MODEL (2 digits)	COATING (1 digit)	TYPE (1 digit)	SIZE (4 digits)	VALUE (5 digits)	TOLERANCE (1 digit)	TERMINAL (1 digit)	PACKAGING (1 digit)	SPECIAL (2 digits)
<b>RB</b>	<b>E</b> = Enamel <b>S</b> = Silicone	<b>A</b> = Adjustable	<b>0300</b> = 300 W <b>2000</b> = 2000 W	<b>R</b> = Decimal <b>K</b> = Thousand <b>R1500</b> = 0.15 Ω <b>1K500</b> = 1.5 kΩ  Check datasheet for available value range	<b>D</b> = ± 0.5 % <b>F</b> = ± 1.0 % <b>G</b> = ± 2.0 % <b>H</b> = ± 3.0 % <b>J</b> = ± 5.0 % <b>K</b> = ± 10 % <b>M</b> = ± 20 %	<b>D</b> = 1/4" lug <b>E</b> = 5/16" lug <b>F</b> = 3/8" lug <b>G</b> = 1/2" lug <b>H</b> = 1/4" single quick-connect <b>J</b> = 1/4" double quick-connect <b>K</b> = 1/4" lug with steel hardware (ES-707F) <b>L</b> = 5/16" lug with steel hardware (ES-707F) <b>M</b> = 3/8" lug with steel hardware (ES-707F) <b>N</b> = 3/8" lug with brass hardware (ES-707b) <b>O</b> = 1/2" lug with steel hardware (ES-707F) <b>P</b> = 1/2" lug with brass hardware (ES-707b) <b>Q</b> = 1/4" lug with steel hardware (ES-708F) <b>R</b> = 5/16" lug with steel hardware (ES-708F) <b>S</b> = 3/8" lug with steel hardware (ES-708F) <b>T</b> = 3/8" lug with brass hardware (ES-708b) <b>U</b> = 1/2" lug with steel hardware (ES-708F) <b>V</b> = 1/2" lug with brass hardware (ES-708b) <b>W</b> = Ferrule	<b>B</b> = Bulk  See packaging codes for additional options	<b>00</b> = Standard <b>01</b> = Standard with customer part no. stamp <b>NI</b> = Non-inductive <b>CT</b> = Center tap <b>SW</b> = Surge winding <b>LT</b> = Low temperature coefficient alloy <b>EC</b> = End caps <b>CP</b> = Push in clips (bulk) <b>CA</b> = Push in clips (assembled) <b>VT</b> = Vertical mount <b>VS</b> = VT with customer part no. stamp <b>ES</b> = End slot side slot bracket <b>1A</b> = 1 high bracket zinc plated steel <b>1S</b> = 1A with customer part no. stamp <b>1B</b> = 1 high bracket stainless steel (300 W only) <b>1C</b> = Live bracket <b>2A</b> = 2 high bracket zinc plated steel <b>2B</b> = 2 high bracket stainless steel (300 W only) <b>3A</b> = 3 high bracket zinc plated steel <b>3B</b> = 3 high bracket stainless steel (300 W only) <b>4A</b> = 4 high bracket zinc plated steel <b>4B</b> = 4 high bracket stainless steel (300 W only)  <b>Note</b> 2A, 2B, 3A, 3B, 4A, and 4B assemblies: include identical resistors only wiring to be supplied by customer reference CS series for further customization <b>Note</b> 3A, 3B, 4A, and 4B limitations: brackets fit 40 W to 550 W RB resistors



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