

## Features

- Formerly a Riedon™ product
- Wirewound technology
- Power ratings from 100 to 500 watts
- Resistance range of 1 to 5 KΩ
- Tolerances of 1 %, 5 %, or 10 %
- Ultra-slim 12 mm profile
- Compact packaging
- RoHS compliant\*

## Applications

- Renewable energy
- Power converters
- Motor drives

## BRS Series – Riedon™ Slim Profile High Power Metal Clad Braking Resistors by Bourns

### Electrical Characteristics

Bourns Part Number	Power Rating with Heat Sink (W)	Resistance Range (Ω)
BRS100	100	1 - 1.0K
BRS150	150	1 - 1.0K
BRS200	200	1 - 2.0K
BRS250	250	1 - 2.5K
BRS300 <sup>1</sup>	300	1 - 3.0K
BRS400 <sup>1</sup>	400	1 - 4.0K
BRS500 <sup>1</sup>	500	1 - 5.0K

#### Note:

1. Stated power rating is dependent on the resistor being mounted to a panel or heat sink of adequate mass to prevent the resistor surface from exceeding 200 °C. See temperature rise and derating curves for more information.

### Environmental Specifications

Parameter	Specification
Operating Temperature Range	-55 °C to +200 °C
TCR	< 260 PPM/°C maximum
Dielectric Withstanding Voltage	2500 VAC
Insulation Resistance	20 MΩ minimum
Short Time Overload	±1 % + 0.05 Ω   5 times rated power for 5 seconds
Moisture Resistance	±2 % + 0.05 Ω   40 °C, 95 % RH, 100 VDC case to terminal, 500 hours
Load Life	±5 % + 0.05 Ω   90 minutes rated power, 30 minutes off, 500 hours
Thermal Shock	±2 % + 0.05 Ω   30 minutes rated power, 15 minutes -25 °C
Vibration	±1 % + 0.05 Ω   10 Hz - 55 Hz - 10 Hz (1 minute) 2 hours each direction
Moisture Load Life	±2 % + 0.05 Ω   40 °C, 95 % RH, 90 minutes 10 % rated power, 30 minutes off, 500 hours
Terminals	200 ± 10 mm (7.87 ± 0.39 in.) Silicone heat-resistant wire 16 ga (1.39 mm <sup>2</sup> ), white

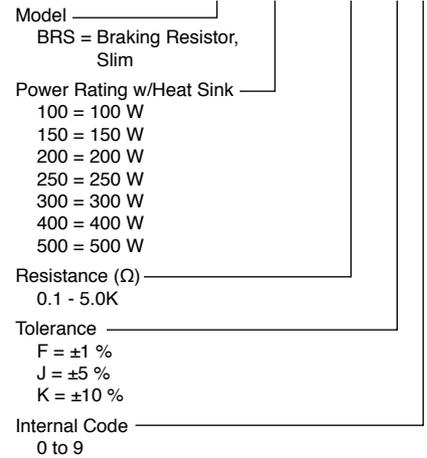
### Additional Information

Click these links for more information:



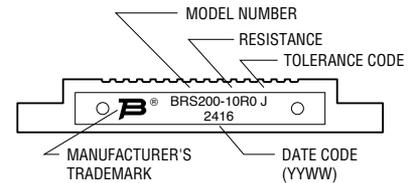
### How To Order

**BRS 200 - 10R J 1**



### Typical Part Marking

Represents total content. Layout may vary.



### Packaging Specifications

Bulk..... 10 pcs. per box



**WARNING Cancer and Reproductive Harm**  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

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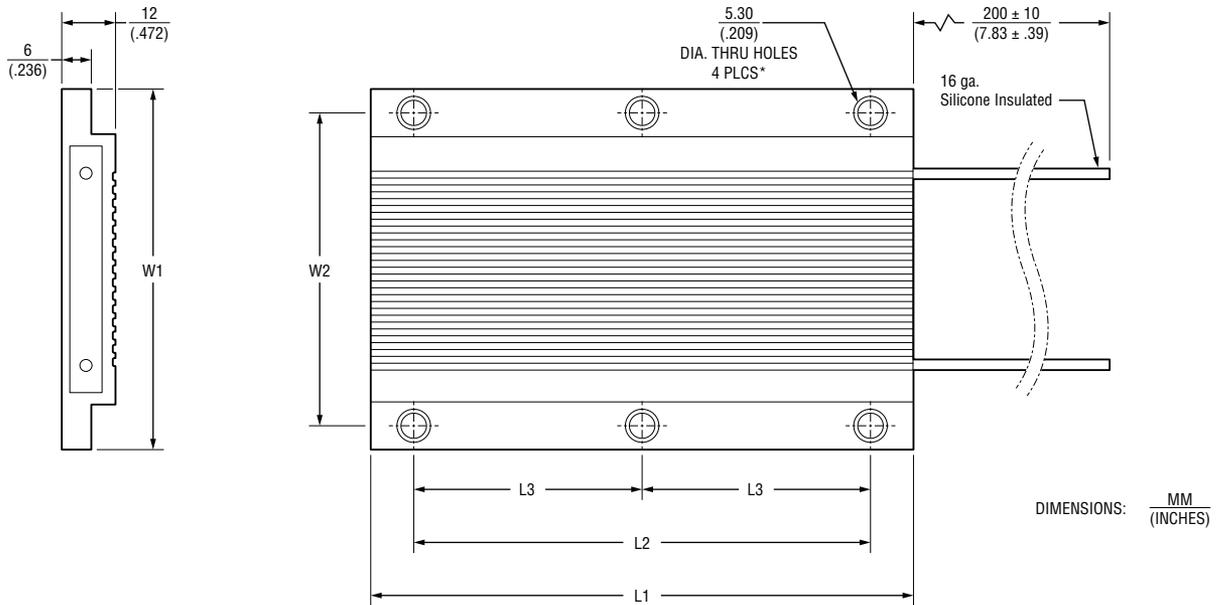
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“Riedon Logo” is a registered trademark of BE Services Company, Inc., in the United States.

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**Product Dimensions**



$L3 = 0.5 \times L2$

\*BRS300 - BRS500 include six mounting holes

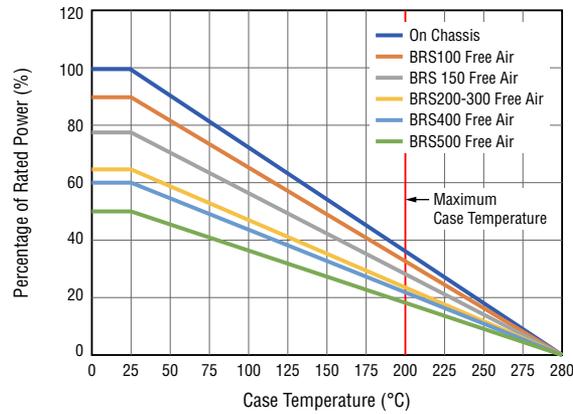
Model	L1 ± 1.0 (0.04)	L2 ± 0.5 (0.020)	W1 ± 0.5 (0.020)	W2 ± 0.5 (0.020)
BRS100	90 (3.54)	70 (2.76)	80 (3.15)	70 (2.76)
BRS150	120 (4.72)	100 (3.94)		
BRS200	150 (5.91)	130 (5.12)		
BRS250	180 (7.08)	160 (6.30)		
BRS300	210 (8.27)	190 (7.48)		
BRS400	270 (10.63)	250 (9.84)		
BRS500	330 (12.99)	310 (12.20)		

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**Power Derating**



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