

Features

- Formerly a Riedon™ product
- Wirewound technology
- Power ratings from 60 to 500 watts
- Resistance range of 0.1 to 1K Ω
- Non-inductive winding available
- Tolerances of 1 %, 5 %, or 10 %
- Compact packaging
- RoHS compliant*

Applications

- Renewable energy
- Power converters
- Motor drives

BR / BRT Series – Riedon™ High Power Metal Clad Braking Resistors by Bourns

Electrical Characteristics

Bourns Part Number	Power Rating (W) ¹		Resistance Range (Ω)	
	Heat Sink	Free Air	Standard	Non-inductive
BR60 / BRT60	60	50	0.1 - 1K	10 - 100
BR80 / BRT80	80	64		
BR100 / BRT100	100	80		
BR120 / BRT120	120	96		
BR150 / BRT150	150	120		
BR200 / BRT200	200	140		
BR300 / BRT300	300	210		
BR400 / BRT400	400	240		
BR500 / BRT500	500	300		

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 250 °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 M Ω minimum
Short Time Overload	± 2 % + 0.05 Ω - 10 times rated power for 5 seconds
Moisture Resistance	± 3 % + 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	± 3 % + 0.05 Ω 40 °C, 95 % RH, 90 minutes 10 % rated power, 30 minutes off 500 hours
Terminals	Standard: 6.35 mm (0.25 inch) fast-on, 0.8 mm (0.032 inch) thick. Optional: M4 tap or flying lead terminations (contact Bourns)

Additional Information

Click these links for more information:



How To Order

BRT 200 - 10R J 1

Model _____
 BR (flat)
 BRT (tall)

Heat Sink Power Rating _____
 60 = 60 W
 80 = 80 W
 100 = 100 W
 120 = 120 W
 150 = 150 W
 200 = 200 W
 300 = 300 W
 400 = 400 W
 500 = 500 W

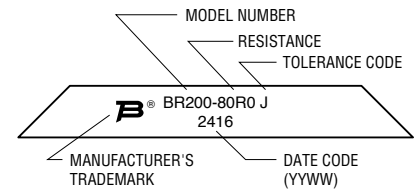
Resistance _____
 0.1 - 1K Ω (standard)
 10 - 100 Ω (non-inductive)

Tolerance _____
 F = ± 1 %
 J = ± 5 %
 K = ± 10 %

Internal Code _____
 0 to 9

Typical Part Marking

Represents total content. Layout may vary.



WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov

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

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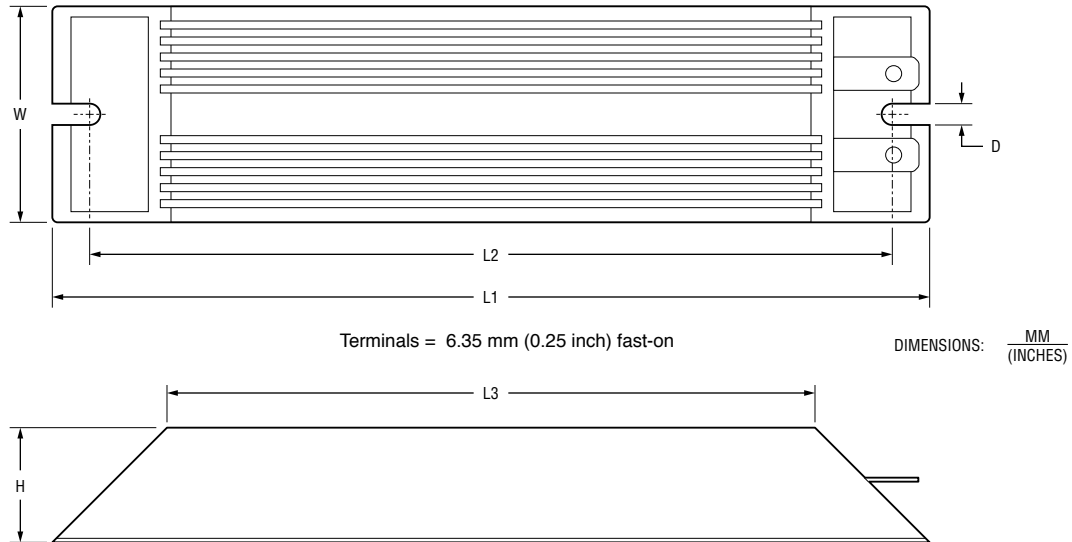
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"Riedon Logo" is a registered trademark of BE Services Company, Inc., in the United States.

"Riedon" is a trademark of BE Services Company, Inc.

Product Dimensions

BR (flat) Series



Model	L1 ± 2.0 (0.78)	L2 ± 2.0 (0.78)	L3 ± 2.0 (0.78)	W ± 0.5 (0.020)	H ± 0.5 (0.020)	D ± 0.5 (0.020)	Mass/Weight (g)
BR60	$\frac{100}{(3.94)}$	$\frac{87}{(3.43)}$	$\frac{60}{(2.36)}$	41 (1.61)	22 (0.87)	4.3 (0.17)	125
BR80	$\frac{150}{(5.91)}$	$\frac{137}{(5.39)}$	$\frac{110}{(4.33)}$				200
BR100	$\frac{165}{(6.49)}$	$\frac{152}{(5.98)}$	$\frac{125}{(4.92)}$				240
BR120	$\frac{182}{(7.17)}$	$\frac{169}{(6.65)}$	$\frac{142}{(5.59)}$				270
BR150	$\frac{210}{(8.27)}$	$\frac{197}{(7.76)}$	$\frac{170}{(6.69)}$				340
BR200	$\frac{165}{(6.49)}$	$\frac{146}{(5.75)}$	$\frac{125}{(4.92)}$	60 (2.36)	30 (1.18)	5.3 0.21	450
BR300	$\frac{215}{(8.46)}$	$\frac{196}{(7.72)}$	$\frac{175}{(6.89)}$				610
BR400	$\frac{265}{(10.43)}$	$\frac{246}{(9.69)}$	$\frac{225}{(8.86)}$				870
BR500	$\frac{335}{(13.19)}$	$\frac{316}{(12.44)}$	$\frac{295}{(11.62)}$				950

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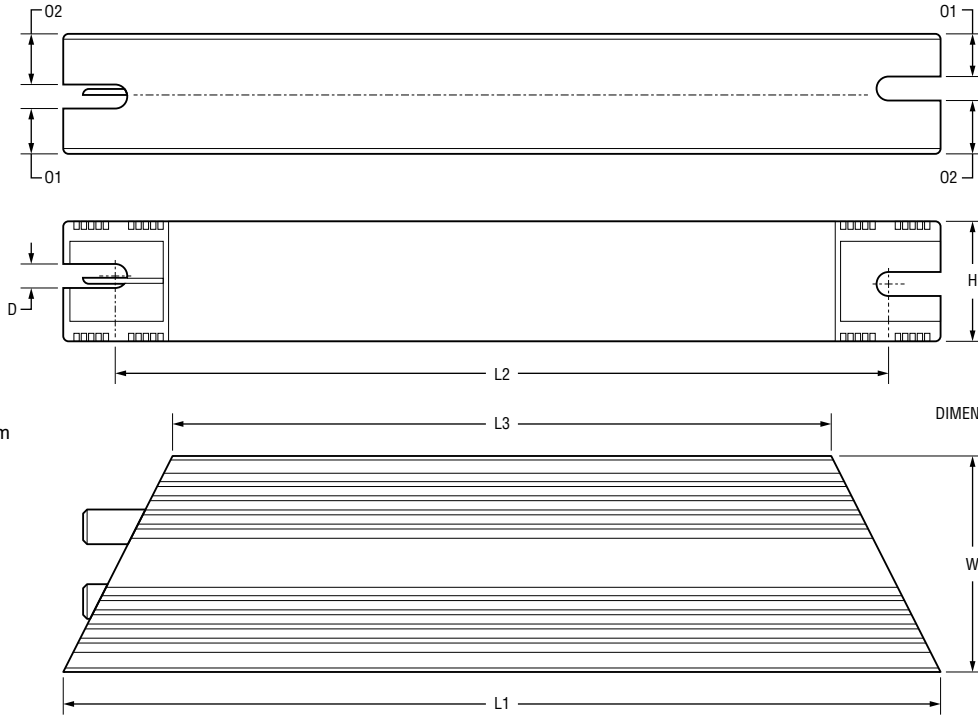
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BR/BRT Series – Riedon™ High Power Metal Clad Braking Resistors by Bourns



Product Dimensions

BRT (tall) Series



Terminals = 6.35 mm
(0.25 inch) fast-on

DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

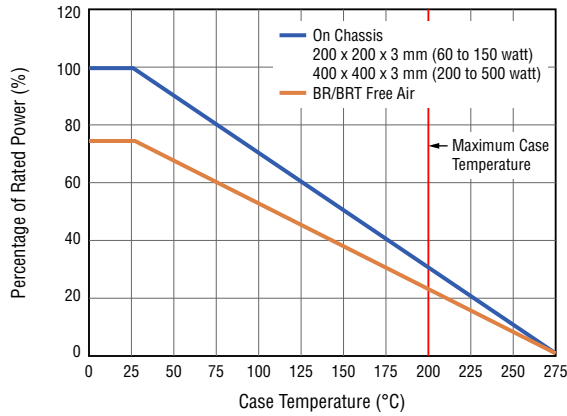
Model	L1 ± 2.0 (0.78)	L2 ± 2.0 (0.78)	L3 ± 2.0 (0.78)	W ± 0.5 (0.020)	H ± 0.5 (0.020)	D ± 0.5 (0.020)	O1 ± 0.5 (0.020)	O2 ± 0.5 (0.020)	Mass/Weight (g)
BRT60	$\frac{100}{(3.94)}$	$\frac{87}{(3.43)}$	$\frac{60}{(2.36)}$	$\frac{41}{(1.61)}$	$\frac{22}{(0.87)}$	$\frac{4.3}{(0.17)}$	$\frac{7.8}{(0.31)}$	$\frac{10.0}{(0.39)}$	125
BRT80	$\frac{150}{(5.91)}$	$\frac{137}{(5.39)}$	$\frac{110}{(4.33)}$						200
BRT100	$\frac{165}{(6.49)}$	$\frac{152}{(5.98)}$	$\frac{125}{(4.92)}$						240
BRT120	$\frac{182}{(7.17)}$	$\frac{169}{(6.65)}$	$\frac{142}{(5.59)}$						270
BRT150	$\frac{210}{(8.27)}$	$\frac{197}{(7.76)}$	$\frac{170}{(6.69)}$						340
BRT200	$\frac{165}{(6.49)}$	$\frac{146}{(5.75)}$	$\frac{125}{(4.92)}$	$\frac{60}{(2.36)}$	$\frac{30}{(1.18)}$	$\frac{5.3}{0.21}$	$\frac{10.4}{(0.41)}$	$\frac{14.6}{(0.57)}$	450
BRT300	$\frac{215}{(8.46)}$	$\frac{196}{(7.72)}$	$\frac{175}{(6.89)}$						610
BRT400	$\frac{265}{(10.43)}$	$\frac{246}{(9.69)}$	$\frac{225}{(8.86)}$						870
BRT500	$\frac{335}{(13.19)}$	$\frac{316}{(12.44)}$	$\frac{295}{(11.62)}$						950

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Power Derating



Packaging Specifications

Bulk..... 10 pcs. per box

BOURNS®

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REV. 11/24

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