



# NEW PRODUCT BRIEF

## Riedon™ Power Resistors by Bourns

### INTRODUCTION

Bourns has added 11 new product series to its Riedon™ Power Resistor line. These power resistors are engineered to provide highly reliable, rugged, and precise performance for pulse handling and current sense applications. Depending on the product model, designers can select from multiple technologies and package options. The variety of choices available make the Riedon™ Power Resistors by Bourns optimal solutions for a wide range of industrial power supply, solar inverter, motor drive, smart meter, telecom 5G remote radio and base band unit, and capacitor recharge/discharge circuit designs.

Models in the 11 power resistor series are offered in a variety of technologies, including through-hole and surface mount wirewound as well as surface mount metal film and bare/coated metal element resistors. These resistors deliver high power ratings, low temperature coefficients (TCRs), a wide resistance range, and an extended temperature range. Designers that work in multiple system domains will find package options that match virtually any layout or assembly requirement.

### FEATURES

- Ceramic, silicone coated, surface mount, and aluminum-housed wirewound resistors available; surface mount metal film and bare/coated metal element resistors also offered
- High power and precision current sensing capabilities
- Available resistance tolerances from  $\pm 0.01\%$  to  $\pm 10\%$
- Numerous package styles
- Wide range of resistance values from  $0.003\Omega$  to  $3\text{ M}\Omega$  with TCRs as low as  $\pm 5\text{ PPM}/^\circ\text{C}$
- Power ratings up to  $50\text{ W}$  and extended temperature range of  $-55\text{ }^\circ\text{C}$  to  $+350\text{ }^\circ\text{C}$
- Designed to MIL-R-26 / MIL-R-39007 power ratings (select series)

### BENEFITS

- Accurate resistance tolerance and low TCR enable lower power dissipation with higher stability
- Non-inductive windings offered in select series reduce parasitic inductance for minimal attenuation in high-speed switching circuits
- Multiple package options for use in a broad spectrum of applications
- Flameproof, ceramic wirewound resistors extend dependability in certain harsh conditions
- Excellent pulse handling capabilities enable use in surge-heavy environments

### APPLICATIONS

- Industrial power supplies, inverters, and motor drives
- Smart meters
- Solar inverters
- Telecom 5G remote radio and baseband units
- Capacitor recharge/discharge circuits
- Current sensing

*For ordering information, please refer to the respective datasheets at: [www.Bourns.com/products/resistors](http://www.Bourns.com/products/resistors)*

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### Electrical Characteristics

Series	Photo	Type	Power Rating (W)	Resistance Range (Ω)	Temperature Coefficient (TCR) (PPM/°C)	Temperature Range (°C)	Description
UV		Ceramic Wirewound	2 – 10	0.01 – 91K	±20 – ±50 <sup>1</sup>	-55 to +275	Ceramic wirewound resistor that provides flameproof design in a vertical package. Non-inductive windings available.
UW		Ceramic Wirewound	2 – 15	0.01 – 91K	±20 – ±50 <sup>1</sup>	-55 to +275	Ceramic wirewound resistor offers flameproof design with an optional built-in standoff. Non-inductive windings available.
HPP		Silicone Coated Wirewound	3 – 13 <sup>2</sup>	10 – 20K	±20 – ±50 <sup>1</sup>	-55 to +350	Coated wirewound resistor with excellent pulse and temperature capabilities.
UT		Silicone Coated Wirewound	0.1 – 15	500 – 320K	±20 – ±50 <sup>1</sup>	-55 to +350	Coated wirewound resistor with excellent pulse and temperature capabilities. Designed to MIL-R-26 / MIL-R-39007 power ratings. Non-inductive windings available.
UB		Silicone Coated Wirewound	1 – 15	0.02 – 260K	±20 – ±50 <sup>1</sup>	-55 to +250	Coated wirewound resistor with excellent pulse capabilities. Wide resistance range designed to MIL-R-26 / MIL-R-39007 power ratings. Non-inductive windings available.
S/SL		Surface Mount Wirewound	0.5 – 2	0.005 – 50K <sup>3</sup>	± 20 – ±200 <sup>1</sup>	-55 to +275	Surface mount wirewound resistor with superior surge handling capabilities. Non-inductive windings available.
UAL		Aluminum Housed Wirewound	4.5 – 50	0.01 – 250K	±20 – ±50 <sup>1</sup>	-55 to +275	Aluminum housed wirewound resistor for high power and pulse handling applications. Various terminal options available.
SF2		Surface Mount Metal Film	1	50 – 3 M	±5 – ±50	-25 to +125	Surface mount metal film resistor with low inductance and wide range of resistance values.
MT		Coated Metal Element	1 – 10	0.003 – 0.1 <sup>3</sup>	See Data Sheet	-55 to +275	Coated wirewound resistor for current sensing applications. Four-terminal models available.
MS		Bare Metal Element	1 – 5	0.005 – 0.1 <sup>3</sup>	See Data Sheet	-55 to +275	Bare metal element resistors for current sensing applications.
MSR		Bare Metal Element	1 – 5	0.005 – 0.1 <sup>3</sup>	See Data Sheet	-55 to +275	Bare metal element resistors for current sensing applications.

<sup>1</sup>Additional TCR ratings available upon request.

<sup>2</sup>Additional power ratings available upon request.

<sup>3</sup>Additional resistance values available upon request.

[www.bourns.com](http://www.bourns.com)

**Americas:** Tel +1-951-781-5500  
Email [americanus@bourns.com](mailto:americanus@bourns.com)

**EMEA:** Tel +36 88 885 877  
Email [europus@bourns.com](mailto:europus@bourns.com)

**BOURNS®**

**Asia-Pacific:** Tel +886-2 256 241 17  
Email [asiacus@bourns.com](mailto:asiacus@bourns.com)

**Mexico:** Tel +52 614 478 0400  
Email [mexicus@bourns.com](mailto:mexicus@bourns.com)

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