



Bourns Introduces UALH Series Aluminum Housed Wirewound Resistors for High-Power Industrial Equipment

Thin, lightweight fixed resistors provide a 100 W power rating with a heatsink and operate from -55 °C to +275 °C

RIVERSIDE, Calif., September 29, 2026 - Bourns today announced the [UALH Series Aluminum Housed High Power Wirewound Resistors](#) industrial equipment operating under demanding electrical and thermal conditions. The fixed resistors provide a 100 W power rating when mounted to a heatsink and a 30 W power rating without a heatsink, with a resistance range of 0.5 Ω to 22 k Ω .

Industrial motor controls, power supplies and high-power machinery can subject resistive components to elevated temperatures and electrical stress. These conditions require designers to account for power dissipation, working voltage and available mounting space when selecting a fixed resistor. The UALH Series combines wirewound construction protected by a silicone molding compound with an aluminum housing that transfers heat from the resistor when mounted to a heatsink. Its thin, lightweight body operates across a temperature range of -55 °C to +275 °C.

"Industrial power equipment designers must manage heat dissipation while maintaining the resistance and voltage characteristics required by the circuit," said Walter Garcia, Product Line Manager, Bourns. "The UALH Series provides a 100 W heatsink-mounted rating, resistance values from 0.5 Ω to 22 k Ω and operation up to +275 °C in an aluminum-housed wirewound construction."

Design Features

- **Power rating of 100 W with heatsink**—at 25 °C when mounted
- **Standalone power rating**—supports a 30 W power rating at 25 °C without a heatsink
- **Resistance of 0.5 Ω to 22 k Ω** —with ± 5 % tolerance
- **Operating temperature range: -55 °C to +275 °C**—for industrial equipment exposed to elevated or low temperatures
- **RoHS compliant* and halogen free****—supports applicable materials compliance requirements

Electrical Specifications

Parameter	UALH Series
Power rating with heatsink at 25 °C	100 W
Power rating without heatsink at 25 °C	30 W
Maximum working voltage	1483 V
Dielectric withstanding voltage	4500 V
Resistance range	0,5 Ω to 22 kΩ
Maximum rated current ¹	14.14 A
Resistance tolerance	±5 %
Temperature coefficient of resistance	±350 ppm/°C
Operating temperature range	-55 °C to +275 °C
Moisture sensitivity level	1

¹ Rated current is calculated as $\sqrt{P / R}$ and must not exceed the maximum working current.

Target Applications

- **Industrial motor controls**—for circuits requiring high-power resistance and operation across a wide temperature range
- **Industrial power supplies**—for power-control and dissipation functions requiring heatsink-mounted operation
- **High-power machinery**—for equipment requiring an aluminum-housed fixed wirewound resistor

Availability

Product information, inventory resources, and sample-request access regarding the [Bourns® UALH Series Aluminum Housed High Power Wirewound Resistors](#) are available at bourns.com/products/resistors/metal-strip-chip-resistors. Samples may be requested through [Bourns Customer Service](#).

About Bourns

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