NON-INDUCTIVE POWER RESISTORS

WLLA-320

Electrical specifications and configurations

300 W at 25 °C / 200 W at 85 °C

Non-inductive power resistor for high-frequency and pulsed loads. Direct heat sink mounting suits variable-speed drives, power supplies, control equipment, telecommunications, robotics and motor drives.

Multiple resistors per package. RoHS compliant per source. Materials per UL 94 V-0. Thermal interface options are available by inquiry.

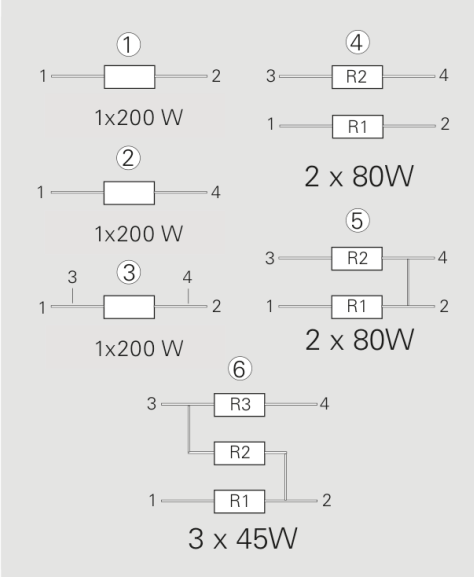


Fast-on and cable package views

Technical specifications

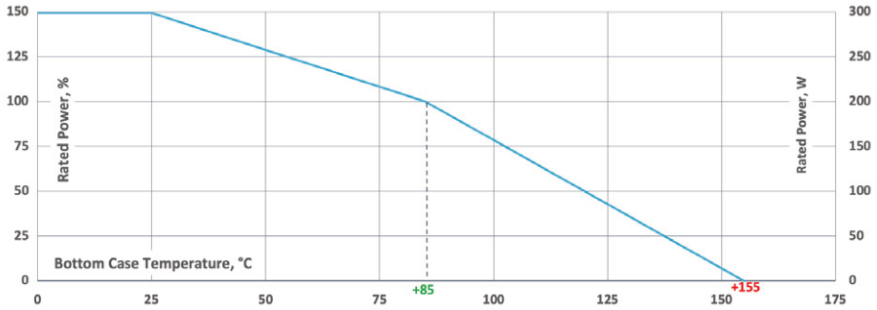
PARAMETER	SPECIFICATION
Rated power	300 W at 25 °C / 200 W at 85 °C bottom case
Resistance range	0.1 Ω to 1 MΩ
Resistance tolerance	±1% to ±10%
Temperature coefficient	>1 Ω: ±250 ppm/°C at +85 °C, ref. +25 °C. Lower TCR by request for selected values.
Short-time overload	1.25× rated power for 10 s at 85 °C bottom case. ΔR ≤0.4% (config. 1–3).
Series inductance	40 nH typ. at 10 kHz
Capacitance to ground	45 pF typ. at 10 kHz
Working voltage	500 V standard. S: up to 1,500 V. U: up to 1,500 V with higher pulse capability.
Partial discharge	Up to 2,000 V RMS / 80 pC. Tested by request only.
Dielectric strength	Up to 3,000 V DC to ground
Insulation resistance	>10 GΩ at 1,000 V DC
Isolation among R1, R2 and R3	500 V DC (1,000 V DC by request)
Comparative tracking index	Standard >600 V
Thermal resistance to cooling plate	Rth <0.35 K/W
Operating temperature	−55 °C to +155 °C
Base mounting torque	1.3–1.5 N·m | M4 screws
Standard cable	RADOX 4 GKW-AX, 1,800 V, 0.5 mm²
Weight	Approx. 22 g (varies by type)

Circuit configurations



Configurations 1–3: 200 W per package. 4 and 5: 2 × 80 W. 6: 3 × 45 W. In configuration 5, terminals 2 and 4 measure approximately 3 mΩ.

Power derating

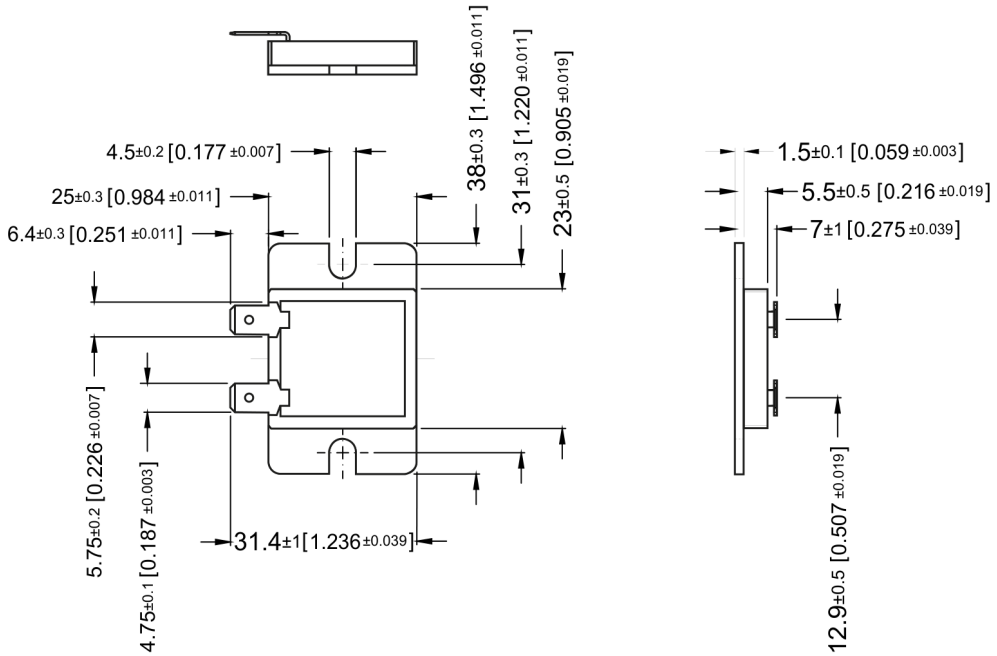


Configurations 1–3: 2.86 W/K derating (0.35 K/W). Use thermal compound ≥1 W/(m·K). Cooling plate flatness <0.05 mm overall. Surface roughness ≤6.4 µm.

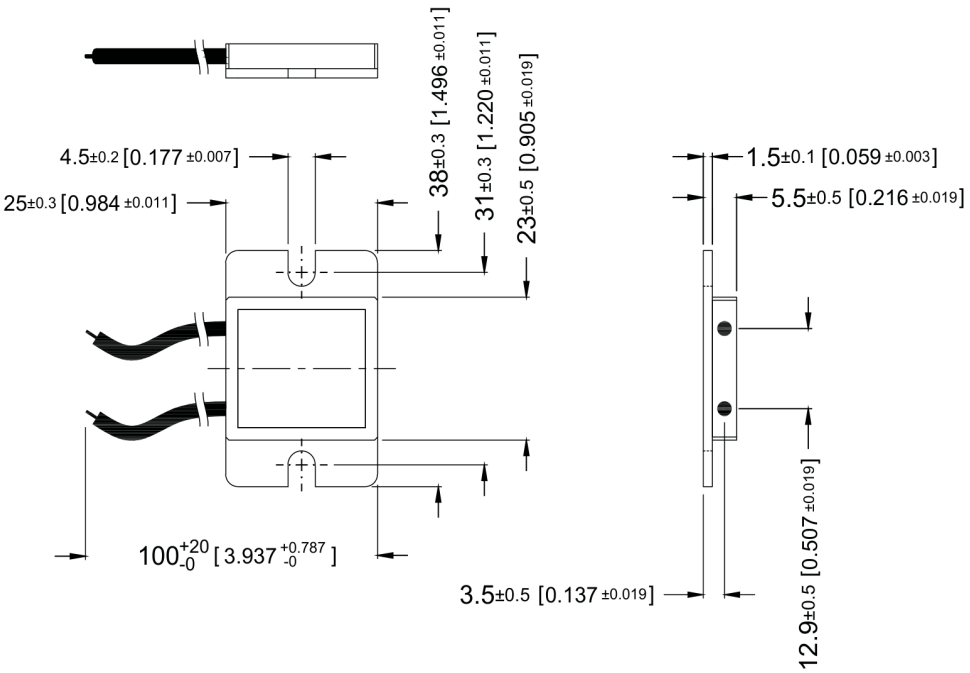
WLLA-320

Terminal options and outline dimensions

Standard fast-on connection · mm [inches]



Cable connection · mm [inches]



Cable version: standard length 100 mm (+20/−0 mm as drawn); other lengths by request.

Order by model, configuration, resistance and tolerance. Example: WLLA-320-2 1R 10%. S: special trimming. U: untrimmed.

The dimension page limits the cable version to configuration 1; the source ordering example instead lists WLLA-320-2-C 10R 5%. Confirm cable configuration when ordering.