

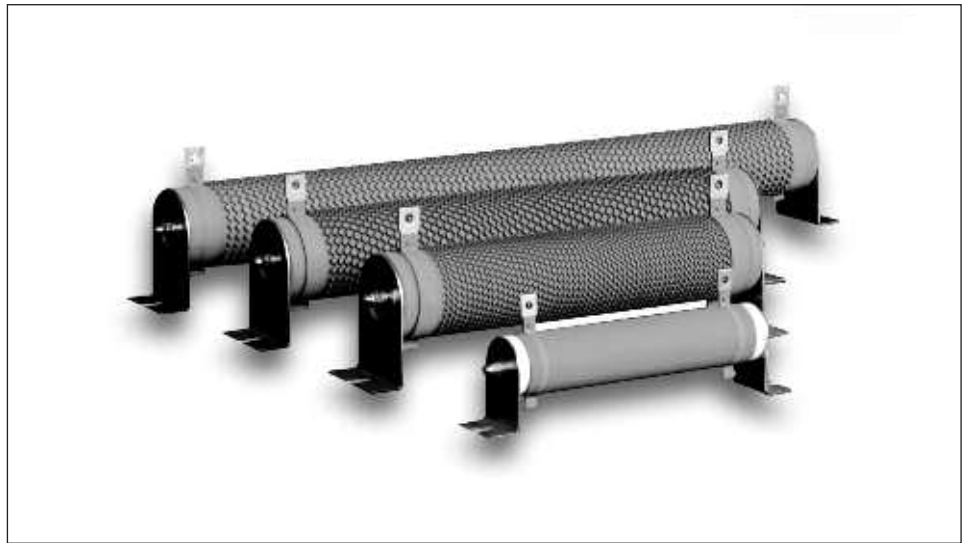
Type TE Series

Key Features

- Mullite Coated
- Up to 2500W Power Rating
- Corrugated Ribbon Element for Rapid Cooling
- 3x Overload for 5 Seconds
- Custom Terminations / Leads Available
- Flameproof Construction

Applications

- Large Electrical and Production Machinery
- Load Test Simulation
- Motor Start/Stop Cycles
- Dynamic Braking
- Equipment Discharge



TE Connectivity is a leading supplier of standard and custom-designed power resistors for industrial, control and general- purpose applications.

The TE range of Mullite coated tubular ceramic core resistors have a corrugated ribbon element for rapid cooling effect to enable up to 2500W power handling capability. Designed for heavy duty machinery, electrical equipment, motor control etc. requiring stability and reliability.

Test Method - Electrical

| Test Item | Specification | Test Details |
|------------------------|------------------------------------|----------------------------------|
| Life (Moisture Load): | 40°C 95% RH 1000 hour on-off cycle | $\Delta R \pm 3.0\%$ |
| Short Term Overload: | 3 x rated wattage, 5 seconds | - |
| Flammability: | 16x rated power, 5 minutes | No Flames |
| Insulation Resistance: | DC 500V | Over 100M Ω |
| Voltage Resistibility: | AC 2500V 1 minute | Free of damage or flying arc |
| Resistor Strength: | 200N, 30 seconds | Free of visible damage |
| Terminal Strength: | Ual: 45N, 30 seconds | Free of visible damage |
| | | $R \leq \pm (1\%R + 0.05\Omega)$ |

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Specifications- Electrical

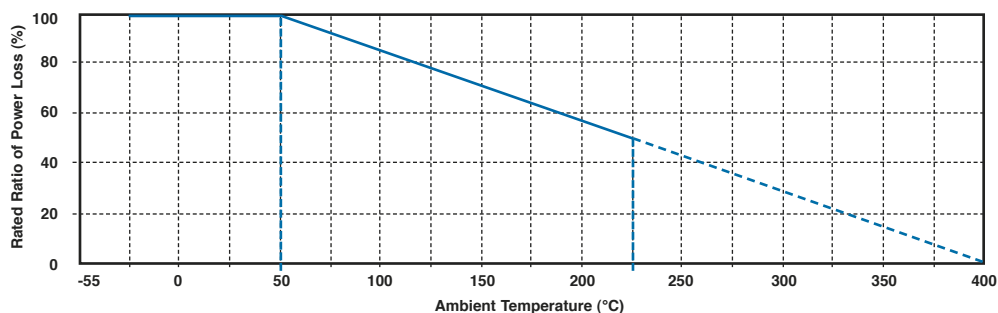
| | |
|-------------------------|---|
| Resistance Range (Ohms) | See Resistance Range Chart below |
| Selection Series | E12 |
| Tolerance | +/-5%, +/-10% as per Resistance Range Chart below |

| Type | Resistance Value | Tolerance |
|-------|------------------|-----------|
| 50W | R10 – R99 | 10% |
| | 1R0 – 2K7 | 5% |
| 60W | R10 – R99 | 10% |
| | 1R0 – 2K7 | 5% |
| 80W | R10 – R99 | 10% |
| | 1R0 – 2K7 | 5% |
| 100W | 1R0 – 2K7 | 5% |
| 120W | 1R0 – 2K7 | 5% |
| 150W | 1R0 – 2K7 | 5% |
| 200W | 1R0 – 2K7 | 5% |
| 300W | 1R0 – 2K7 | 5% |
| 400W | 1R0 – 2K7 | 5% |
| 500W | 1R0 – 2K7 | 5% |
| 600W | 1R0 – 2K7 | 5% |
| 750W | 1R0 – 2K7 | 5% |
| 1000W | 1R0 – 2K7 | 5% |
| 1200W | 1R0 – 2K7 | 5% |
| 1500W | 1R0 – 2K7 | 5% |
| 2000W | 1R0 – 2K7 | 5% |
| 2500W | 1R0 – 2K7 | 5% |

Characteristics - Environmental

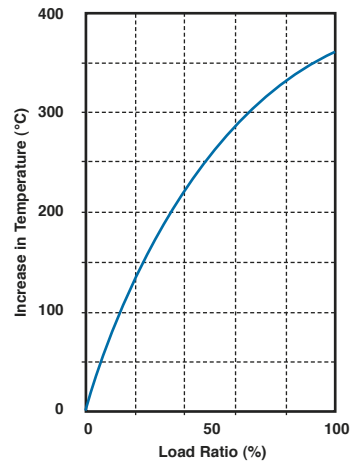
| | |
|--|---|
| Temperature Coefficient of Resistance: | Within $\pm 440\text{ppm}/^{\circ}\text{C}$ |
| Rated Power Free Air: | 50 to 2500 Watts |
| Operating Temperature Range | -25°C to +225°C |

Derating Curve

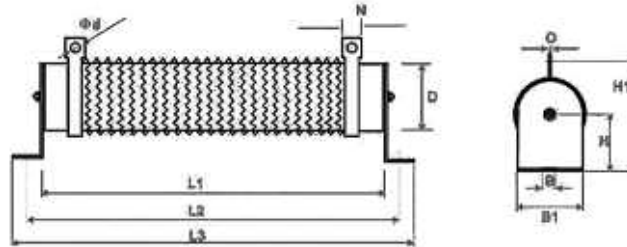


Type TE Series

Temperature Rise



Dimensions



| Rated Power (W) | Dimensions | | | | | | | | | | |
|-----------------|------------|---------|---------|--------|-----|----|----|---------|----|-----|-----|
| | L1 (±2) | L2 (±5) | L3 (±3) | D (±2) | B | B1 | H | H1 (±3) | N | d | O |
| 50 | 102 | 124 | 146 | 28 | 6.5 | 28 | 28 | 61 | 10 | 4.5 | 1.2 |
| 60 | 102 | 124 | 146 | 28 | 6.5 | 28 | 28 | 61 | 10 | 4.5 | 1.2 |
| 80 | 152 | 174 | 196 | 28 | 6.5 | 28 | 28 | 61 | 10 | 4.5 | 1.2 |
| 100 | 182 | 204 | 226 | 28 | 6.5 | 28 | 28 | 61 | 10 | 4.5 | 1.2 |
| 120 | 182 | 204 | 226 | 28 | 6.5 | 28 | 28 | 61 | 10 | 4.5 | 1.2 |
| 150 | 195 | 217 | 239 | 40 | 8 | 40 | 41 | 81 | 12 | 5.5 | 2.0 |
| 200 | 195 | 217 | 239 | 40 | 8 | 40 | 41 | 81 | 12 | 5.5 | 2.0 |
| 300 | 282 | 304 | 326 | 40 | 8 | 40 | 41 | 81 | 12 | 5.5 | 2.0 |
| 400 | 282 | 304 | 326 | 40 | 8 | 40 | 41 | 81 | 12 | 5.5 | 2.0 |
| 500 | 316 | 338 | 360 | 50 | 8 | 50 | 45 | 101 | 16 | 6 | 2.0 |
| 600 | 345 | 367 | 389 | 40 | 8 | 40 | 41 | 81 | 12 | 5.5 | 2.0 |
| 750 | 316 | 338 | 360 | 50 | 8 | 50 | 45 | 101 | 16 | 6 | 2.0 |
| 1000 | 300 | 325 | 350 | 60 | 8.5 | 60 | 60 | 119 | 16 | 6 | 2.0 |
| 1200 | 415 | 440 | 465 | 60 | 8.5 | 60 | 60 | 119 | 16 | 6 | 2.0 |
| 1500 | 415 | 440 | 465 | 60 | 8.5 | 60 | 60 | 119 | 16 | 6 | 2.0 |
| 2000 | 510 | 535 | 560 | 60 | 8.5 | 60 | 60 | 119 | 16 | 6 | 2.0 |
| 2500 | 600 | 625 | 650 | 60 | 8.5 | 60 | 60 | 119 | 16 | 6 | 2.0 |

How to Order

| TE | 50 | B | 1K0 | J |
|-------------------------------------|--|--|---|---------------------|
| Common Part | Power Rating | Mounting | Resistance Value | Tolerance |
| TE - High Power Wire Wound Resistor | 50 - 50 Watt 60 - 60 Watt 80 - 80 Watt 100 - 100 Watt etc. | A - Without Bracket B - With Bracket (Standard) | 1 ohm (1000 milliohms) 1R0 10 ohm (10 ohms) 10R 100R ohms (100 ohms) 100R 1k ohms (1000 ohms) 1K0 | J - ±5% K - ±10% |

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