**FEATURES**

Extruded aluminium housing provides superior heat conduction. Housing deep finned for maximum heat dissipation at natural or forced air convection.

Gold anodized finish for maximum resistance to environmental conditions. Special thermosetting compound with high thermal conductivity. Winding designed to give maximum core coverage and uniformity for even heat dissipation.

Core centerless ground for maximum winding uniformity. Marking at top surface for easy identification after mounting. Complete welded construction terminal to terminal.

**ELECTRICAL SPECIFICATIONS**

- **Ohmic values**
  - Series E24. For out of range or not standard ohmic values, consult ATE Technical Dept.
- **Tolerance**
  - Standard 5%. Available on request up to 1%.
  - Temperature coefficient
    - ±30 ppm R > 20 Ohm
    - ±50 ppm 1 Ohm < R < 20 Ohm
    - ±100 ppm 0.1 Ohm < R < 1 Ohm
- **Dielectric strength**
  - 1500 Vac for RB10
  - 2500 Vac for RB25 and RB50
  - 3500 Vac for RB75, RB101 and RB150
  - 4500 Vac for RB100 and RB250
- **Insulation resistance**
  - 10000 MOhm minimum
  - 1000 MOhm after moisture test
- **Overload**
  - 5s at 5 times rated power
- **Non inductive**
  - Models of equivalent physical and electrical specifications are also available with non inductive Ayrton-Perry winding

**MECHANICAL SPECIFICATIONS**

- **Terminal strength**
  - 10 lb. pull test; 3 Nm x RB100 and 4 Nm x RB250 max torque
- **Solderability**
  - Satisfactory when tested in accordance with method 208 of MIL-STD-202.
  - The use of high temperature solder is recommended when resistors work near the maximum specified ratings

**MATERIALS**

- **Core**
  - Ceramic steatite or alumina centerless ground
- **Resistive Element**
  - Copper-nickel alloy or nickel-chrome alloy with specific temperature coefficient
- **End caps**
  - Stainless steel
- **Encapsulant**
  - High temperature thermosetting compound
- **Housing**
  - Aluminium with hard anodic finish
- **Standard terminals**
  - Copperweld RB10 to RB150
  - Stainless steel for RB100 and RB250

**DERATING**

ATE RB resistors have an operative temperature range from -55°C to +250°C. Derating is required for reduced chassis area and for high ambient temperature.

<table>
<thead>
<tr>
<th>ATE Type</th>
<th>MIL-PRF-18546 G Type</th>
<th>Rated power (W)</th>
<th>Max power no heatsink (W)</th>
<th>Resistance range (Ohm)</th>
<th>Voltage limit (V)</th>
<th>Temp. rise with heatsink (W)</th>
<th>Weight (g)</th>
<th>Heatsink dimensions (cm² x mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RB10</td>
<td>RE65</td>
<td>12</td>
<td>6</td>
<td>0.01-10K</td>
<td>265</td>
<td>5.1</td>
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<td>RB25</td>
<td>RE70</td>
<td>25</td>
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<td>995x3</td>
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<td>0.66</td>
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### RB SERIES

Fixed power wirewound resistors
aluminium housed 10 W to 250 W

<table>
<thead>
<tr>
<th>ATE Type</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
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<tr>
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<td>11</td>
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<td>RB25</td>
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<td>14</td>
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<td>18.3</td>
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<td>4.4</td>
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<td>16</td>
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<td>37</td>
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<td>54</td>
<td>114</td>
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<td>±1</td>
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<td>±0.2</td>
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</table>
**FIXED POWER WIREWOUND RESISTORS ALUMINIUM HOUSED WITH LARGE CREEP DISTANCE**

These resistors meet or exceed the requirements of MIL-PRF-18546 G

### ELECTRICAL SPECIFICATIONS

- **Ohmic values**
  E24 Series. For out of range or not standard ohmic values, consult ATE Technical Dept.

- **Tolerance**
  Standard 5%. Available on request up to 1%

- **Temperature coefficient**
  From ±100 to ±30 ppm from R10 to Rmax

- **Dielectric strength**
  3000Vac / 4200Vac peak

- **Large creep distance**
  RB25/6 > 6.5mm
  RB50/6 > 10mm

- **Insulation resistance**
  10000 MΩhm minimum
  1000 MΩhm after moisture test

- **Overload**
  5s at 5 times rated power

- **Non inductive**
  Models of equivalent physical and electrical specifications are also available with non inductive Ayrton-Perry winding

More technical data as RB25 / RB50 standard

<table>
<thead>
<tr>
<th>ATE Type</th>
<th>MIL-PRF 18546 G Type</th>
<th>Rated power (W)</th>
<th>Resistance range (Ohm)</th>
<th>Voltage Limit (V)</th>
<th>Weight (g)</th>
<th>Heatsink Dimensions (cm² x mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RB25/6</td>
<td>RE70</td>
<td>25</td>
<td>0.1 - 18K</td>
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<td>13</td>
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<tr>
<td>RB50/6</td>
<td>RE75</td>
<td>50</td>
<td>0.1 - 68K</td>
<td>1250</td>
<td>32</td>
<td>930 x 1.5</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>ATE Type</th>
<th>Dimensions (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td>RB25/6</td>
<td>19.8</td>
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<tr>
<td>RB50/6</td>
<td>21.5</td>
</tr>
<tr>
<td>Tol.</td>
<td>±0.2</td>
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</tbody>
</table>
RB/7 SERIES

Fixed power wirewound resistors
aluminium housed with faston leads

These resistors meet or exceed the requirements of
MIL - PRF - 18546 G specifications

**ELECTRICAL SPECIFICATIONS**

- Ohmic values
  E24 Series. For out of range or not standard ohmic values, consult
  ATE Technical Dept.
- Tolerance
  Standard 5%. Available on request up to 1%
- Temperature coefficient
  From ±100 to ±30 ppm from R10 to Rmax
- Dielectric strength
  2500Vac / 3500Vac peak
- Insulation resistance
  10000 MOhm minimum
  1000 MOhm after moisture test
- Overload
  5s at 5 times rated power
- Non inductive
  Models of equivalent physical and electrical specifications are also available
  with non inductive Ayrton-Perry winding
- Leads
  6.35 mm Faston nickel plated steel, spot welding

More technical data as RB25 / RB50 standard

**ATE Type**

<table>
<thead>
<tr>
<th>MIL-PRF 18546 G Type</th>
<th>Rated power (W)</th>
<th>Resistance range (Ohm)</th>
<th>Voltage limit (V)</th>
<th>Weight (g)</th>
<th>Heatsink dimensions (cm² x mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RB25/7</td>
<td>RE70</td>
<td>25</td>
<td>0.1 - 18K</td>
<td>550</td>
<td>13</td>
</tr>
<tr>
<td>RB50/7</td>
<td>RE75</td>
<td>50</td>
<td>0.1 - 68K</td>
<td>1250</td>
<td>32</td>
</tr>
</tbody>
</table>

**Dimensions (mm)**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>P</th>
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</thead>
<tbody>
<tr>
<td>RB25/7</td>
<td>19.8</td>
<td>14</td>
<td>27.7</td>
<td>14</td>
<td>6.5</td>
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<td>18.3</td>
<td>27</td>
<td>69</td>
<td>3.2</td>
<td>21</td>
<td>6.35</td>
</tr>
<tr>
<td>RB50/7</td>
<td>21.5</td>
<td>16</td>
<td>29.2</td>
<td>16</td>
<td>7</td>
<td>2</td>
<td>39.7</td>
<td>50</td>
<td>91</td>
<td>3.2</td>
<td>20.5</td>
<td>6.35</td>
</tr>
<tr>
<td>Tol.</td>
<td>±0.2</td>
<td>±0.2</td>
<td>±0.2</td>
<td>±0.2</td>
<td>±0.2</td>
<td>±0.2</td>
<td>±0.2</td>
<td>±0.5</td>
<td>±2</td>
<td>±0.2</td>
<td>±2</td>
<td>-</td>
</tr>
</tbody>
</table>
**FIXED POWER WIREWOUND RESISTORS ALUMINIUM HOUSED WITH SCREW LEADS (TOP)**

These resistors meet or exceed the requirements of MIL-PRF-18546 G specifications.

**ELECTRICAL SPECIFICATIONS**
- Ohmic values
  - E24 Series. For out of range or not standard ohmic values, consult ATE Technical Dept.
- Tolerance
  - Standard 5%. Available on request up to 1%
  - Temperature coefficient
  - From ±100 to ±30 ppm from R10 to Rmax
- Dielectric strength
  - 2500Vac / 3500Vac peak
- Insulation resistance
  - 1000 MΩ minimum
  - 1000 MΩ after moisture test
- Overload
  - 5s at 5 times rated power
- Non inductive
  - Models of equivalent physical and electrical specifications are also available with non inductive Ayrton-Perry winding
- Leads
  - M4 threaded hole
- Terminal screw tightening torque
  - 1.5Nm (static)

More technical data as RB50 standard.

<table>
<thead>
<tr>
<th>ATE Type</th>
<th>MIL-PRF 18546 G Type</th>
<th>Rated power (W)</th>
<th>Resistance range (Ohm)</th>
<th>Voltage limit (V)</th>
<th>Weight (g)</th>
<th>Heatsink dimensions (cm² x mm)</th>
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</thead>
<tbody>
<tr>
<td>RB50/8</td>
<td>RE75</td>
<td>50</td>
<td>0.1 - 68K</td>
<td>1250</td>
<td>52</td>
<td>930 x 1.5</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>ATE Type</th>
<th>Dimensions (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
</tr>
<tr>
<td>RB50/8</td>
<td>21.5</td>
</tr>
<tr>
<td>Tol.</td>
<td>±0.2</td>
</tr>
</tbody>
</table>

Connection screws supplied with the resistor.

These resistors meet or exceed the requirements of MIL-PRF-18546 G specifications.
RB106 SERIES

Fixed power wirewound resistors
aluimium housed with large creep distance

FIXED POWER WIREWOUND RESISTORS ALUMINIUM HOUSED WITH LARGE CREEP DISTANCE

These resistors meet or exceed the requirements of MIL - PRF - 18546 G specifications

**ELECTRICAL SPECIFICATIONS**

- **Ohmic values**
  E24 Series. For out of range or not standard ohmic values, consult ATE Technical Dept.
- **Tolerance**
  Standard 5%. Available on request up to 1%
- **Temperature coefficient**
  From ±100 to ±30 ppm from R10 to Rmax
- **Dielectric strength**
  5000Vac / 7000Vac peak
- **Large creep distance**
  RB106 > 22mm
  RB256 > 25 mm
- **Insulation resistance**
  10000 MOhm minimum
  1000 MOhm after moisture test
- **Overload**
  5s at 5 times rated power
- **Non inductive**
  Models of equivalent physical and electrical specifications are also available with non inductive Ayrton-Perry winding

More technical data as RB100 and RB250 standard

<table>
<thead>
<tr>
<th>ATE Type</th>
<th>MIL-PRF 18546 G Type</th>
<th>Rated power (W)</th>
<th>Resistance Range (Ohm)</th>
<th>Voltage limit (V)</th>
<th>Weight (g)</th>
<th>Heatsink dimensions (cm² x mm)</th>
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</thead>
<tbody>
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<td>RB106</td>
<td>RE77</td>
<td>150</td>
<td>0.1 - 100K</td>
<td>1900</td>
<td>500</td>
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<tr>
<td>RB256</td>
<td>RE80</td>
<td>250</td>
<td>0.1 - 120K</td>
<td>2300</td>
<td>900</td>
<td>930 x 3</td>
</tr>
</tbody>
</table>

**Dimensions (mm)**

| ATE Type | A | B | C | D | E | F | G | H | J | K | P | Q | R | S | T | V | Z |
|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RB106    | 57.1 | 46 | 71.5 | 44.5 | 20 | 5 | 69.8 | 89 | 139 | 4.8 | - | - | 25 | 9.6 | M5 | 32 | 12 |
| RB256    | 63.5 | 54 | 76 | 55.6 | 25.5 | 6.3 | 98.4 | 114 | 178 | 4.8 | 22.2 | 76.2 | 32 | 7.8 | M6 | 32 | 16 |
| Tol.     | ±0.2 | ±0.5 | ±0.5 | ±0.5 | ±0.5 | ±0.2 | ±0.5 | ±2 | ±2 | ±0.2 | ±0.2 | ±0.2 | ±0.2 | ±0.5 | - | - | - |