

Fixed power wirewound resistors  
aluminium housed 10 W to 250 W

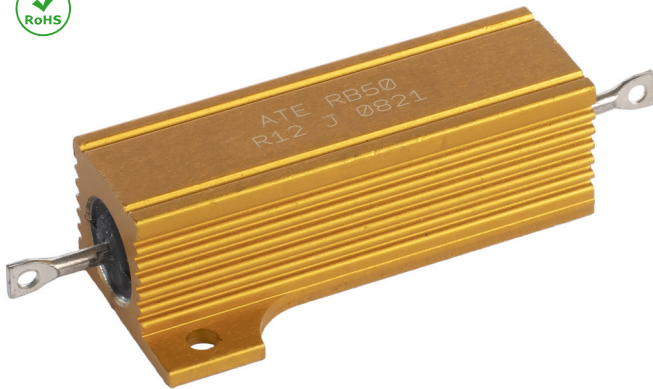
## FIXED POWER WIREWOUND RESISTORS ALUMINIUM HOUSED

### 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.



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

### ELECTRICAL SPECIFICATIONS

- Ohmic values  
Serie 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  $R > 20 \Omega$   
±50 ppm  $1 \Omega < R < 20 \Omega$   
±100 ppm  $0.1 \Omega < R < 1 \Omega$
- 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 M $\Omega$  minimum  
1000 M $\Omega$  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

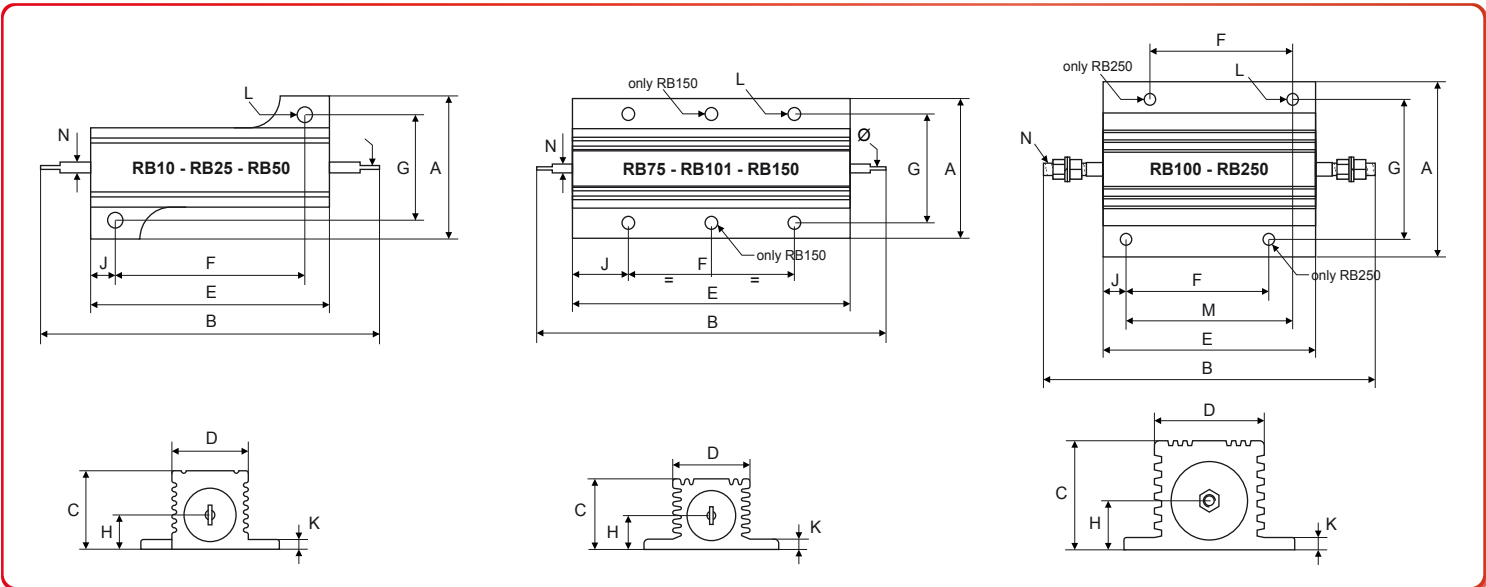
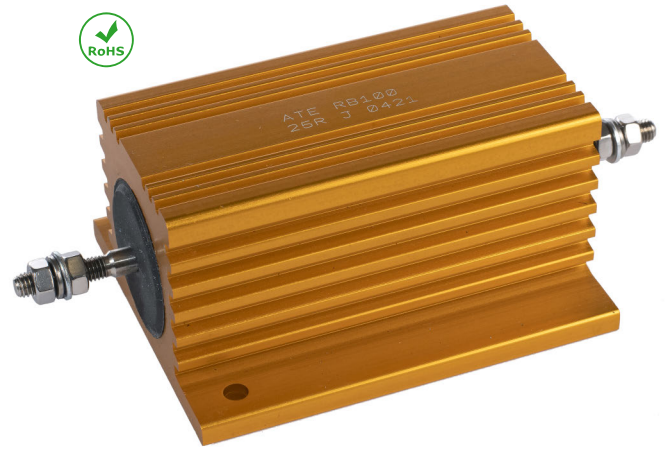
- Core  
Ceramic steatite or alumina centerless ground
- Resistive Element  
Copper-nickel alloy or nickel-chrome alloy with specific temperature coefficient
- End caps  
Stainless steel
- Encapsulant  
High temperature thermosetting compound
- Housing  
Aluminium with hard anodic finish
- Standard terminals  
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.

ATE Type	MIL-PRF-18546 G Type	Rated power (W)	Max power no heatsink (W)	Resistance range ( $\Omega$ )	Voltage limit (V)	Temp. rise with heatsink ( $^{\circ}\text{C}/\text{W}$ )	Weight (g)	Heatsink dimensions ( $\text{cm}^2 \times \text{mm}$ )
RB10	RE65	12	6	0.01-10K	265	5.1	6	415x1
RB25	RE70	25	12.5	0.01-18K	550	3	14	535x1
RB50	RE75	50	20	0.01-68K	1250	1.9	35	930x1.5
RB75	-	75	35	0.1-50K	1400	1.1	85	995x3
RB101	-	100	40	0.1-70K	1900	1	115	995x3
RB150	-	150	55	0.1-100K	2500	1	165	995x3
RB100	RE77	150	75	0.1-100K	1900	0.84	500	930x3
RB250	RE80	250	100	0.1-120K	2300	0.66	900	930x3

Fixed power wirewound resistors  
aluminium housed 10 W to 250 W



ATE Type	Dimensions (mm)													
	A	B	C	D	E	F	G	H	J	K	L	M	N	Ø
RB10	20.4	35	10	11	19	14.3	15.9	5	2.4	2	2.4	-	2	2.2
RB25	27.2	49	14	14	27	18.3	19.8	6.5	4.4	2	3.2	-	2	2.2
RB50	29.2	71	16	16	50	39.7	21.5	7	5.2	2	3.2	-	2	2.2
RB75	47	73	24	27	48	29	37	11.5	9.5	3.5	4.4	-	3	3.2
RB101	47	89	24	27	64	35	37	11.5	14.5	3.5	4.4	-	3	3.2
RB150	47	122	24	27	97	58	37	11.5	19.5	3.5	4.4	-	3	3.2
RB100	71.5	139	44.5	46	89	-	57.1	20	9.6	5	4.8	69.8	M5	-
RB250	76	178	55.6	54	114	76.2	63.5	25.5	7.8	6.3	4.8	98.4	M6	-
Tol.	±0.2	±1	±0.2	±0.2	±0.5	±0.2	±0.2	±0.2	±0.5	±0.2	±0.2	±0.2	±0.2	±0.2

RB25/6  
RB50/6

Fixed power wirewound resistors  
aluminium 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

 **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  $\pm 100$  to  $\pm 30$  ppm from R10 to Rmax

- Dielectric strength

3000Vac / 4200Vac peak

- Large creep distance

RB25/6 > 6,5mm

RB50/6 > 10mm

- Insulation resistance

10000 M $\Omega$  minimum

1000 M $\Omega$  after moisture test

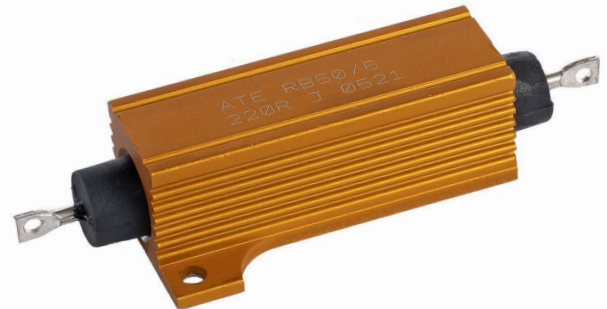
- Overload

5s at 5 times rated power

- Non inductive

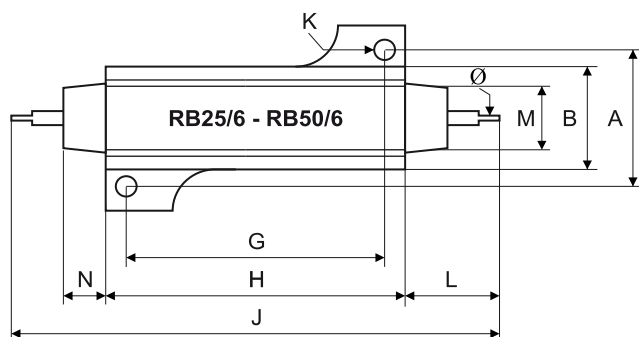
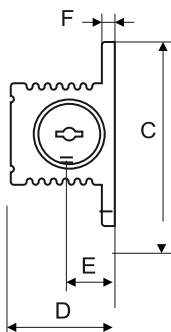
Models of equivalent physical and electrical specifications are also available with non inductive Ayrton-Perry winding

More technical data as RB25 / RB50 standard



ATE Type	MIL-PRF 18546 G Type	Rated power (W)	Resistance range ( $\Omega$ )	Voltage Limit (V)	Weight (g)	Heatsink Dimensions (cm <sup>2</sup> x mm)
RB25/6	RE70	25	0.1 - 18K	550	13	535 x 1
RB50/6	RE75	50	0.1 - 68K	1250	32	930 x 1.5

ATE Type	Dimensions (mm)														
	A	B	C	D	E	F	G	H	J	K	L	M	N	$\varnothing$	
RB25/6	19.8	14	27.7	14	6.5	2	18.3	24	49	3.2	12.5	8	4	2.2	
RB50/6	21.5	16	29.2	16	7	2	39.7	46	75	3.2	14.5	10	6.5	2.2	
Tol.	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.5$	$\pm 1$	$\pm 0.2$	$\pm 1$	$\pm 0.5$	$\pm 0.5$	$\pm 0.2$



Fixed power wirewound resistors  
aluminium housed with faston leads

RB25/7  
RB50/7

### FIXED POWER WIREWOUND RESISTORS ALUMINIUM HOUSED WITH FASTON LEADS

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

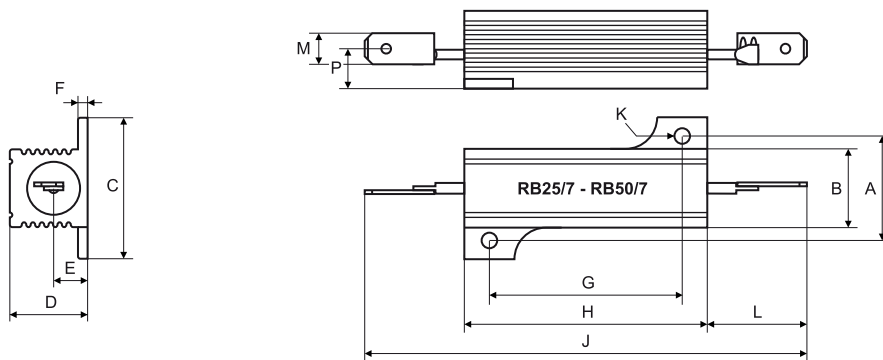
#### ELECTRICAL SPECIFICATIONS

- 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  $\pm 100$  to  $\pm 30$  ppm from R10 to Rmax
  - Dielectric strength  
2500Vac / 3500Vac peak
  - Insulation resistance  
10000 M $\Omega$  minimum  
1000 M $\Omega$  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	MIL-PRF 18546 G Type	Rated power (W)	Resistance range ( $\Omega$ )	Voltage limit (V)	Weight (g)	Heatsink dimensions (cm <sup>2</sup> x mm)
RB25/7	RE70	25	0.1 - 18K	550	13	535 x 1
RB50/7	RE75	50	0.1 - 68K	1250	32	930 x 1.5

ATE Type	Dimensions (mm)													
	A	B	C	D	E	F	G	H	J	K	L	M	P	
RB25/7	19.8	14	27.7	14	6.5	2	18.3	27	69	3.2	21	6.35	7.7	
RB50/7	21.5	16	29.2	16	7	2	39.7	50	91	3.2	20.5	6.35	8.2	
Tol.	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.5$	$\pm 2$	$\pm 0.2$	$\pm 2$	-	$\pm 1$



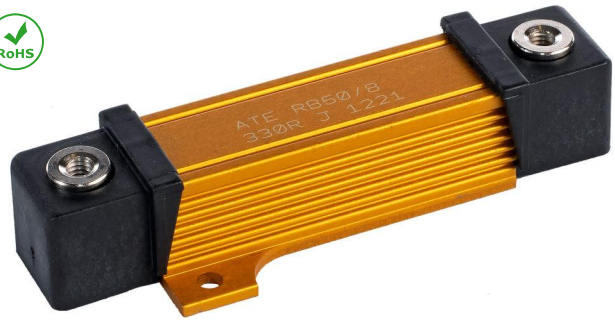
RB50/8 Fixed power wirewound resistors  
aluminium housed with screw leads (TOP)

## FIXED POWER WIREWOUND RESISTORS ALUMINIUM HOUSED WITH SCREW LEADS (TOP)

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

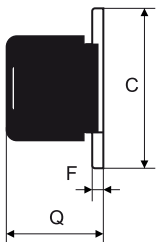
### ELECTRICAL SPECIFICATIONS

- 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  $\pm 100$  to  $\pm 30$  ppm from R10 to Rmax
- Dielectric strength
- 2500Vac / 3500Vac peak
- Insulation resistance
- 10000 M $\Omega$  minimum
- 1000 M $\Omega$  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)

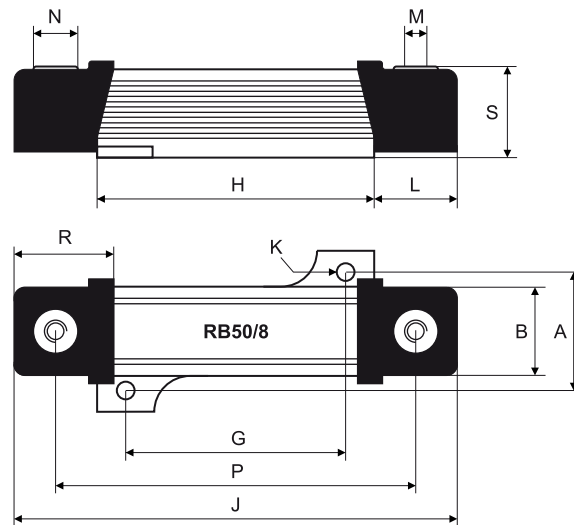


ATE Type	MIL-PRF 18546 G Type	Rated power (W)	Resistance range ( $\Omega$ )	Voltage limit (V)	Weight (g)	Heatsink dimensions (cm <sup>2</sup> x mm)
RB50/8	RE75	50	0.1 - 68K	1250	52	930 x 1.5

ATE Type	Dimensions (mm)															
	A	B	C	D	F	G	H	J	K	L	M	N	P	Q	R	S
RB50/8	21.5	16	29.2	16	2	39.7	50	79.5	3.2	14.5	M4	8	65	17.5	18.5	16.5
Tol.	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.5$	$\pm 2$	$\pm 0.2$	$\pm 0.5$	-	-	$\pm 1$	$\pm 0.5$	$\pm 0.5$	$\pm 0.5$



Connection screws supplied with the resistor





### 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  $\pm 100$  to  $\pm 30$  ppm from R10 to Rmax
- Dielectric strength  
5000Vac / 7000Vac peak
- Large creep distance  
RB106 > 22mm  
RB256 > 25 mm
- Insulation resistance  
10000 M $\Omega$  minimum  
1000 M $\Omega$  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



ATE Type	MIL-PRF 18546 G Type	Rated power (W)	Resistance Range ( $\Omega$ )	Voltage limit (V)	Weight (g)	Heatsink dimensions (cm <sup>2</sup> x mm)
RB106	RE77	150	0.1 - 100K	1900	500	930 x 3
RB256	RE80	250	0.1 - 120K	2300	900	930 x 3

ATE Type	Dimensions (mm)																
	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.	$\pm 0.2$	$\pm 0.5$	$\pm 0.5$	$\pm 0.5$	$\pm 0.5$	$\pm 0.5$	$\pm 0.2$	$\pm 0.5$	$\pm 2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.5$	-	-	-

