



## 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.

## SPECIFICATION

These resistors meet or exceed the requirements of MIL-R-18546 E specification.

## ELECTRICAL

For **Power ratings** and **Resistance values**: see table.

### Tolerance

the following tolerances are available: 1%, 3%, 5%

### Temperature coefficient

30 ppm R > 20 Ohm  
 50 ppm 1 Ohm < R < 20 Ohm  
 100 ppm 0.1 Ohm < R < 1 Ohm.

### Dielectric strength

1.500 Vac for RB5 / RB10  
 2.500 Vac for RB25 / RB50  
 3.500 Vac for RB75 / RB101 / RB150  
 4.500 Vac for RB100 / RB 250.

### Insulation resistance

10.000 MOhms minimum  
 1.000 MOhms after moisture test.

### Overload

5 sec. at 5 times rated power.

### Non inductive

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

## MECHANICAL

### Terminal strength

10 lb, pull test.

### Solderability

Satisfactory when tested in accordance with method 208 of MIL-STD-202. The use of high temperature solder is recommended when resistors are operated near the maximum specified ratings.

## MATERIAL

### Core

Ceramic steatite or alumina centerless ground.

### Element

Copper-nickel alloy or nickel-chrome alloy of determined temperature coefficient.

### End caps

Stainless steel.

### Encapsulant

High temperature thermosetting compound.

### Housing

Aluminium with hard anodic coating

### Standard terminals

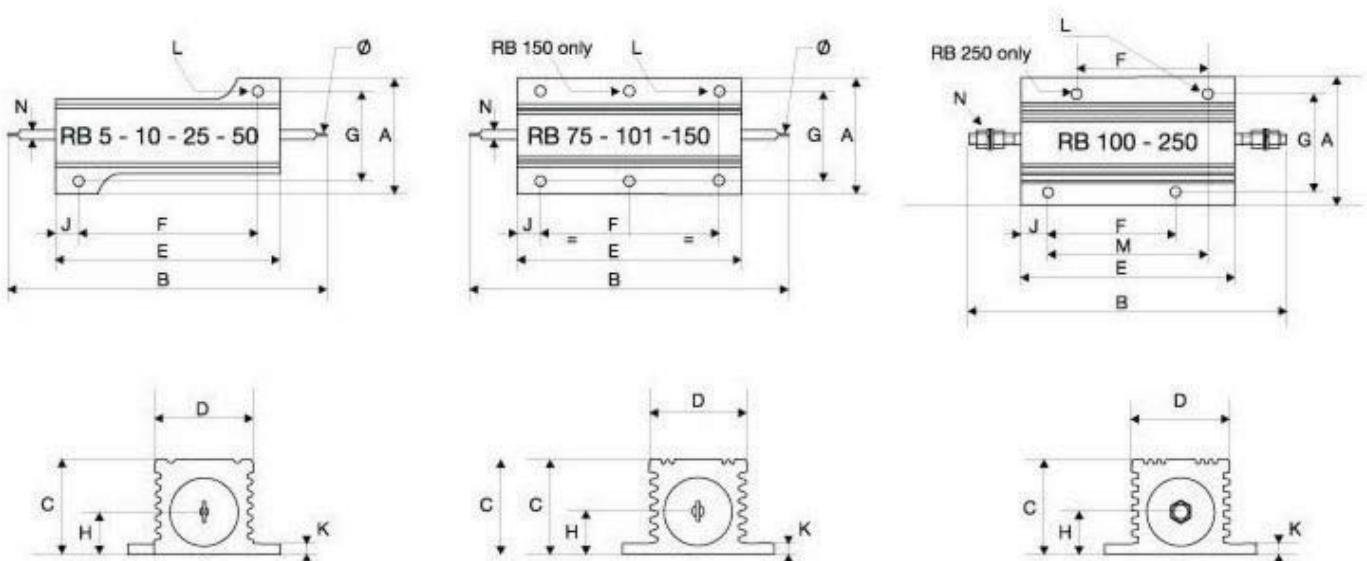
Copperweld RB5 to RB150.  
 Stainless steel for RB100 and RB250.

## DERATING

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

ATE type	Type MIL-R-18546E	Nominal power (W)	Max power no heatsink (W)	Res. range (Ohm)	V limit (V)	Temp. rise with heatsink (°C/W)	Weight (Gr)	Heatsink dim. (cm² x mm)
<b>RB5</b>	RE 60	7.5	4	0.01/6K8	160	4,5	3.5	415x1
<b>RB10</b>	RE 65	12	6	0.01/10K	265	5,1	6	415x1
<b>RB25</b>	RE 70	25	12,5	0.01/18K	550	3	14	535x1
<b>RB50</b>	RE 75	50	20	0.01/68K	1250	1,9	35	930x1.5
<b>RB75</b>	-	75	35	0.1/50K	1400	1,1	85	995x3
<b>RB101</b>	-	100	40	0.1/70K	1900	1	115	995x3
<b>RB150</b>	-	150	55	0.1/100K	2500	1	165	995x3
<b>RB100</b>	RE 77	150	75	0.1/100K	1900	0,84	500	930x3
<b>RB250</b>	RE 80	250	100	0.1/120K	2300	0,66	900	930x3

ATE type	DIMENSIONS (mm)														
	A	B	C	D	E	F	G	H	J	K	L	M	N	Ø	
<b>RB5</b>	16.5	28.6	8.2	8.5	15.3	11.3	12.4	4	2	1.6	2.4	-	1.5	1.3	
<b>RB10</b>	20.4	35	10	11	19	14.3	15.9	5	2.4	2	2.4	-	2	2.2	
<b>RB25</b>	27.2	49	14	14	27	18.3	19.8	6.5	4.4	2	3.2	-	2	2.2	
<b>RB50</b>	29.2	71	16	16	50	39.7	21.5	7	5.2	2	3.2	-	2	2.2	
<b>RB75</b>	47.5	73	24	27	48	29	37	11.5	9.5	3.5	4.4	-	3	3.2	
<b>RB101</b>	47.5	89	24	27	64	35	37	11.5	14.5	3.5	4.4	-	3	3.2	
<b>RB150</b>	47.5	122	24	27	97	58	37	11.5	19.5	3.5	4.4	-	3	3.2	
<b>RB100</b>	71.5	139	44.5	46	89	-	57.1	20	9.6	5	4.8	69.8	M5	-	
<b>RB250</b>	76	178	55.6	54	114	76.2	63.5	25.5	7.8	6.3	4.8	98.4	M6	-	
<b>Tol.</b>	±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	







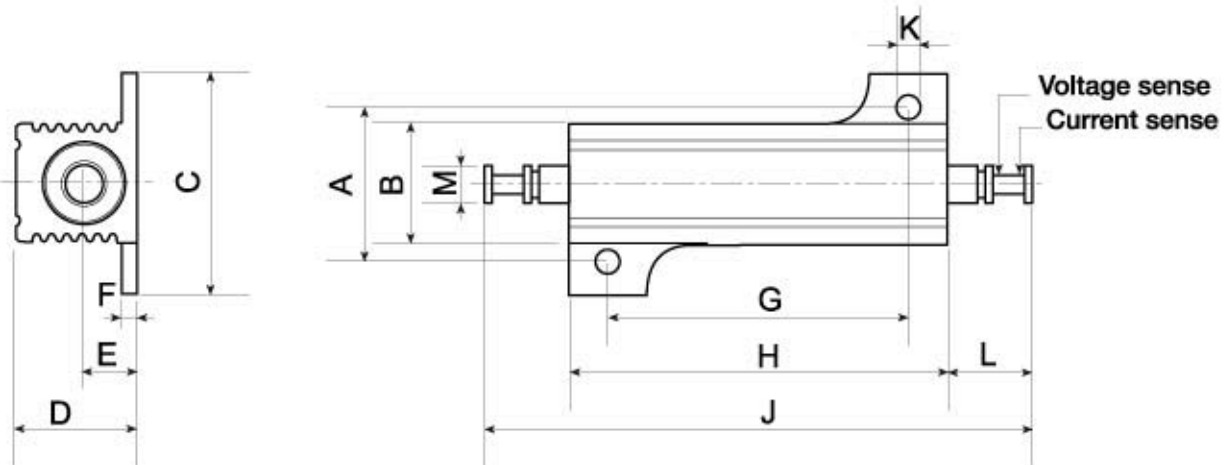
### SPECIFICATIONS

<b>Standard tolerance:</b>	5% ( $\pm 1\%$ on request)
<b>Ohmic Values:</b>	Serie E12
<b>Temperature Coefficient:</b>	From 200 to 100 ppm from R01 to R10
<b>Insulation resistance:</b>	10.000 MOhm minimum 1.000 MOhm after moisture test
<b>Dielectric Strength:</b>	2.000 Vac / 2.800 Vac peak
<b>Max terminal current:</b>	RB25/4 50 A RB50/4 70 A

More technical data as RB25/RB50 standard models.

ATE type	Type MIL-R-18546E	Nominal power (W)	Res. range (Ohm)	V limit (V)	Weight (Gr)	Heatsink dim. (cm <sup>2</sup> x mm)
<b>RB25/4</b>	RE70	25	0.01/0.10	550	16	535x1
<b>RB50/4</b>	RE75	50	0.01/0.10	1250	35	930x1.5

ATE type	DIMENSIONS (mm)												
	A	B	C	D	E	F	G	H	J	K	L	M	
<b>RB25/4</b>	19.8	14	27.7	14	6.5	2	18.3	27	49	3.2	10.5	4	
<b>RB50/4</b>	21.5	16	29.2	16	7	2	39.7	50	71	3.2	10.5	5	
<b>Tol.</b>	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.5$	$\pm 1$	$\pm 0.1$	$\pm 1$	$\pm 0.2$





### SPECIFICATIONS

<b>Standard Tolerance:</b>	5% ( $\pm 1\%$ on request)
<b>Ohmic Values:</b>	Serie E12
<b>Temperature Coefficient:</b>	From 100 to 30 ppm from R10 to Rmax
<b>Insulation resistance:</b>	10.000 MOhm minimum 1.000 MOhm after moisture test
<b>Dielectric Strength:</b>	3.000 Vac / 4.200 Vac peak
<b>Large creep distance:</b>	RB25/6 > 6.5 mm RB50/6 > 10 mm

More technical data as RB25/RB50 standard models.

ATE type	Type MIL-R-18546D	Nominal power (W)	Res. range (Ohm)	V limit (V)	Weight (Gr)	Heatsink dim. (cm <sup>2</sup> x mm)
RB25/6	RE70	25	0.01-18K/33K	550	13	535x1
RB50/6	RE75	50	0.01-68K/100K	1250	32	930x1.5

ATE type	DIMENSIONS (mm)												
	A	B	C	D	E	F	G	H	J	K	L	M	N
RB25/6	19.8	14	27.7	14	6.5	2	18.3	24	49	3.2	12.5	8	4
RB50/6	21.5	16	29.2	16	7	2	39.7	46	75	3.2	14.5	10	6.5
<b>Tol.</b>	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$\pm 0.5$	$\pm 1$	$\pm 0.1$	$\pm 1$	$\pm 0.5$	$\pm 0.5$

