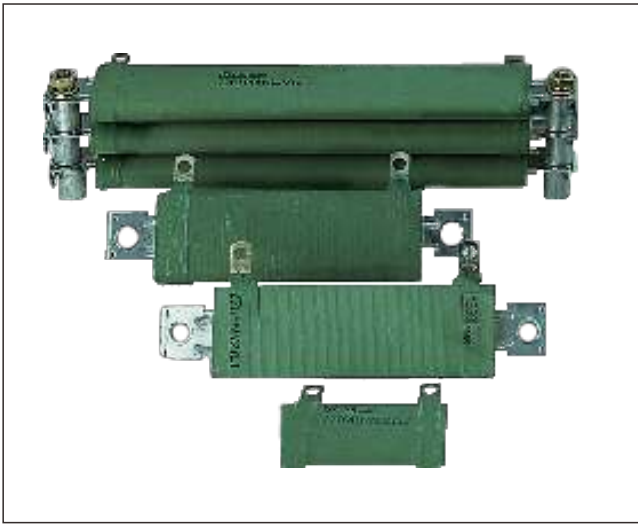




Features

- I Surface painted, wide power range
- II Excellent high temperature load performance
- III Full-welded structure
- IV High reliability
- V Imported grey and green coating, character marking assembly and fittings (available)
- VI Resistance tolerance: $\pm 5\%$, $\pm 10\%$

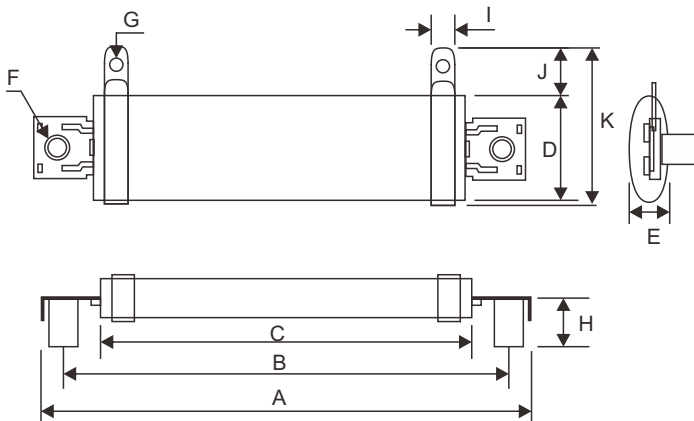
Applications

These resistors are suitable for educational modeling applications, load testing, industrial machinery, electric power distribution, instruments, automation control installations, etc.

Dimensions

ZRT TYPE 40W-300W

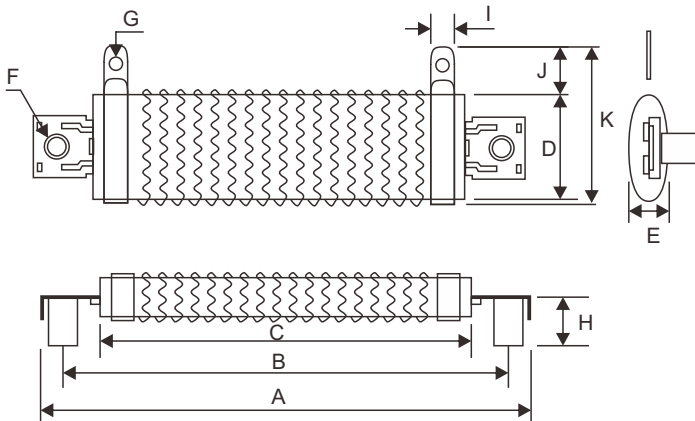
Flat ceramic form, set-type, wire-wound resistor



Power rating	Dimensions (mm)											Resistance Range
	A	B	C	D	E	F	G	H	I	J	K	
40W	83	70	50	28	11	5.2	4.1	13	6.5	12	42	1-1K Ω
55W	123	110	90	28	11	5.2	4.1	13	6.5	12	42	1.5-2K Ω
70W	153	140	120	28	11	5.2	4.1	13	6.5	12	42	2-3K Ω
95W	183	170	150	28	11	5.2	4.1	13	6.5	12	42	2.5-4K Ω
100W	193	180	160	28	11	5.2	4.1	13	6.5	12	42	3-5K Ω
120W	218	205	185	28	11	5.2	4.1	13	9.0	12	42	3.5-6K Ω
150W	218	205	185	35	11	5.2	5.2	13	9.0	13	48	4-7K Ω
200W	243	230	210	35	11	5.2	5.2	13	9.0	13	48	4.5-8K Ω
250W	287	274	254	35	11	5.2	5.2	13	9.0	13	48	5-9K Ω
300W	333	320	300	35	11	5.2	5.2	13	9.0	13	48	5.5-10K Ω

ZRW TYPE 60W-450W

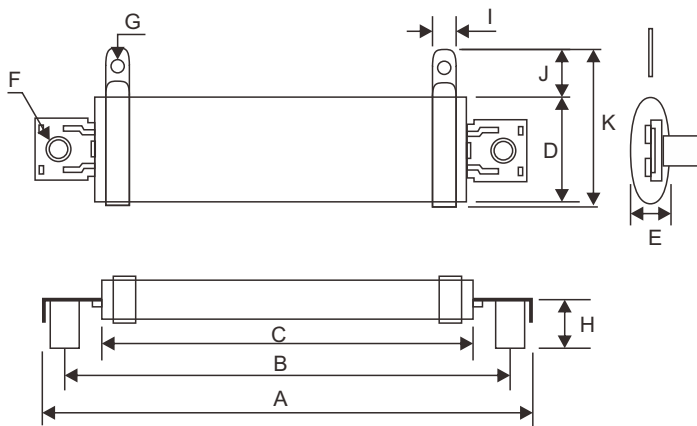
Flat ceramic form, wave-type wire-wound resistor



Power rating	Dimensions (mm)											Resistance Range
	A	B	C	D	E	F	G	H	I	J	K	
60W	83	70	50	28	11	5.2	4.1	13	6.5	12	42	1-4 Ω
80W	123	110	90	28	11	5.2	4.1	13	6.5	12	42	1.5-5 Ω
100W	153	140	120	28	11	5.2	4.1	13	6.5	12	42	2-7 Ω
140W	183	170	150	28	11	5.2	4.1	13	6.5	12	42	2.5-9 Ω
150W	193	180	160	28	11	5.2	4.1	13	6.5	12	42	3-10 Ω
180W	218	205	185	28	11	5.2	4.1	13	9.0	12	42	3.5-12 Ω
225W	218	205	185	35	11	5.2	5.2	13	9.0	13	48	4-15 Ω
300W	243	230	210	35	11	5.2	5.2	13	9.0	13	48	4.5-20 Ω
375W	287	274	254	35	11	5.2	5.2	13	9.0	13	48	5-25 Ω
450W	333	320	300	35	11	5.2	5.2	13	9.0	13	48	5.5-30 Ω

ZRN TYPE 40W-300W

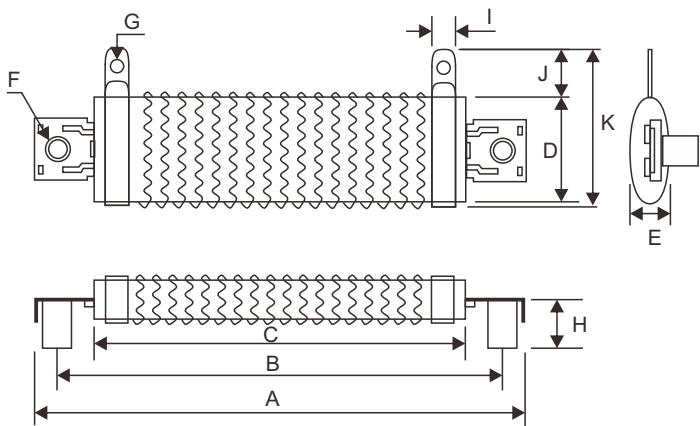
Flat ceramic form, set-type,
low inductive wire-wound resistor



Power rating	Dimensions (mm)											Resistance Range
	A	B	C	D	E	F	G	H	I	J	K	
40W	83	70	50	28	11	5.2	4.1	13	6.5	12	42	1-1K Ω
55W	123	110	90	28	11	5.2	4.1	13	6.5	12	42	1.5-2K Ω
70W	153	140	120	28	11	5.2	4.1	13	6.5	12	42	2-3K Ω
95W	183	170	150	28	11	5.2	4.1	13	6.5	12	42	2.5-4K Ω
100W	193	180	160	28	11	5.2	4.1	13	6.5	12	42	3-5K Ω
120W	218	205	185	28	11	5.2	4.1	13	9.0	12	42	3.5-6K Ω
150W	218	205	185	35	11	5.2	5.2	13	9.0	13	48	4-7K Ω
200W	243	230	210	35	11	5.2	5.2	13	9.0	13	48	4.5-8K Ω
250W	287	274	254	35	11	5.2	5.2	13	9.0	13	48	5-9K Ω
300W	333	320	300	35	11	5.2	5.2	13	9.0	13	48	5.5-10K Ω

ZRD TYPE 60W-450W

Flat ceramic form, wave-type,
low inductance resistor



Power rating	Dimensions (mm)											Resistance Range
	A	B	C	D	E	F	G	H	I	J	K	
60W	83	70	50	28	11	5.2	4.1	13	6.5	12	42	1-4 Ω
80W	123	110	90	28	11	5.2	4.1	13	6.5	12	42	1.5-5 Ω
100W	153	140	120	28	11	5.2	4.1	13	6.5	12	42	2-7 Ω
140W	183	170	150	28	11	5.2	4.1	13	6.5	12	42	2.5-9 Ω
150W	193	180	160	28	11	5.2	4.1	13	6.5	12	42	3-10 Ω
180W	218	205	185	28	11	5.2	4.1	13	9.0	12	42	3.5-12 Ω
225W	218	205	185	35	11	5.2	5.2	13	9.0	13	48	4-15 Ω
300W	243	230	210	35	11	5.2	5.2	13	9.0	13	48	4.5-20 Ω
375W	287	274	254	35	11	5.2	5.2	13	9.0	13	48	5-25 Ω
450W	333	320	300	35	11	5.2	5.2	13	9.0	13	48	5.5-30 Ω

Reference Standards

JIS C 5201-1

Ordering Information

Example:

ZRT	40	J	3K	G
(1)	(2)	(3)	(4)	(5)
Type	Power Rating	Resistance Tolerance	Resistance	Assembly Method

(1)Type:ZRT、ZRW、ZRN、ZRD

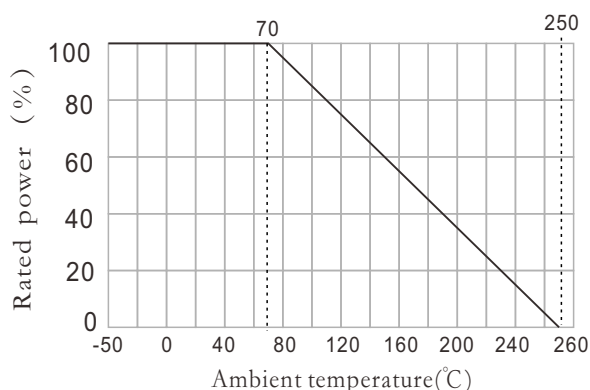
(2)Power Rating: 40W、50W、100W、……450W

(3)Tolerance: H=±3%、J=±5%、K=±10%

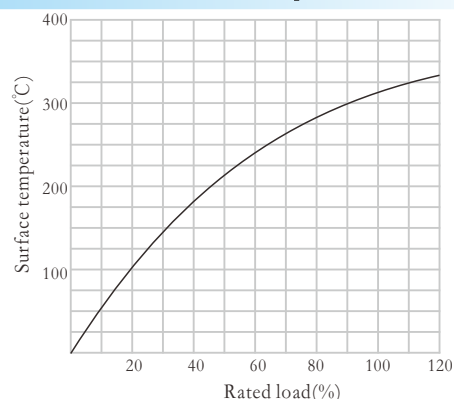
(4)Resistance Value:1R00=1 Ω 、100R0=100 Ω 、… 1KR0=1K Ω

(5)Assembly Method:2-8 part assembly, G- Horizontal mount, N- No mounts, Z- Vertical mount.

Derating Curve



Surface Temperature Rise



Performance

Test Items	Performance	Test Methods(JIS C 5201-1)
Short-time overload	$\Delta R \leq \pm (2\%R_0 + 0.05\Omega)$	10P _R , 5S
Terminal tensile strength	$\Delta R \leq \pm (2\%R_0 + 0.05\Omega)$	45N, 30s
Vibration	$\Delta R \leq \pm (2\%R_0 + 0.05\Omega)$	10Hz~55Hz~10Hz, 1.5mm, 2h
Heat resistant	$\Delta R \leq \pm (2\%R_0 + 0.05\Omega)$	350 ± 5℃, 2h
Thermal shock	$\Delta R \leq \pm (2\%R_0 + 0.05\Omega)$	P _R , 30min/-55℃, 15min
Humiding-proof coat	$\Delta R \leq \pm (2\%R_0 + 0.05\Omega)$	40℃, RH93 ± 3%, 0.1P _R , 500h
Endurance	$\Delta R \leq \pm (5\%R_0 + 0.05\Omega)$	10~35℃, P _R , 500h

Notice:

- 1、 It is mainly utilized for industrial installations where height is limited. Due to the excellent windings, many taps can be added, impedance is low, and PC board is insertable, and usable for many other integrated applications.
- 2、 For custom specifications, please contact us to discuss the details.