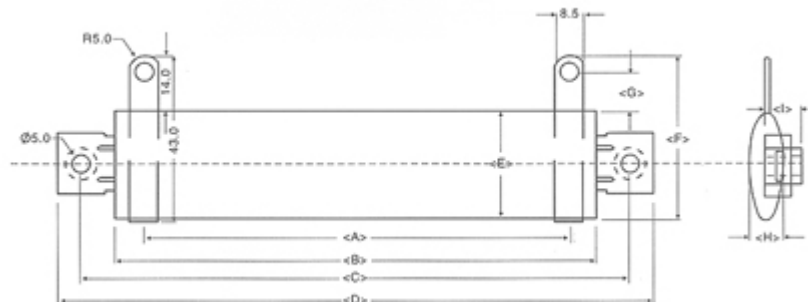


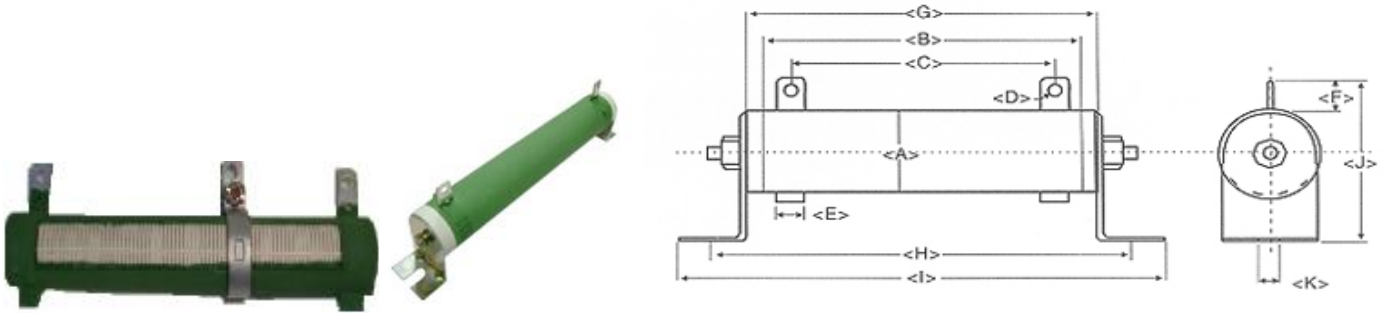
Wire Wound Power Resistor(ZR DR QR)

ZR-TYPE



Power Rating	DIMENSIONS(mm)									Resistance Range
	A \pm 2	B \pm 2	C \pm 2	D \pm 2	E \pm 1	F \pm 1	G \pm 1	H \pm 1	I \pm 1	
ZR-80W	121.5	140	157	170	28	46	14	10	21.5	0.1 Ω ~80K Ω
ZR-100W	141.5	160	177	190	28	46	14	10	21.5	0.1 Ω ~100K Ω
ZR-120W	166.5	185	202	215	28	46	14	10	21.5	0.1 Ω ~120K Ω
ZR-150W	166.5	185	202	215	35	50	14	10	21.5	0.1 Ω ~150K Ω
ZR-200W	191.5	210	227	240	35	50	14	10	21.5	0.1 Ω ~200K Ω
ZR-250W	235.5	254	271	284	35	50	14	10	21.5	0.1 Ω ~250K Ω
ZR-300W	281.5	300	317	330	35	50	14	10	21.5	0.1 Ω ~300K Ω

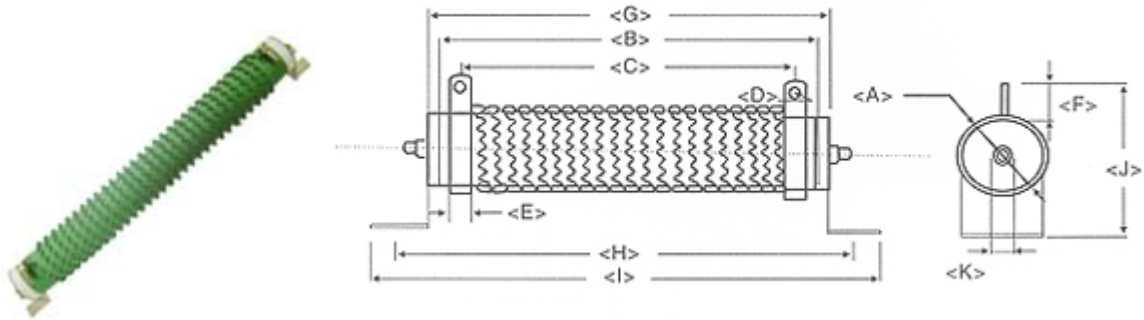
DR-FIXED TYPE
SR- ADJUSTABLE TYPE



SR- ADJUSTABLE TYPE DR-FIXED TYPE

Power Rating	DIMENSIONS(mm)											Resistance Range
	A±1	B±2	C±2	D±0.1	E±0.2	F±1	G±2	H±2	I±2	J±2	K±0.1	
DR-10W	12.5	45	35	2.1	4	10	55	56	57	30	4	1Ω ~ 10KΩ
DR-20W	16.5	60	45	3	5	12	70	84	100	37	4	1Ω ~ 20KΩ
DR-30W	16.5	80	65	3	5	12	90	104	120	37	4	1Ω ~ 30KΩ
DR-40W	16.5	110	95	3	5	12	120	134	150	37	4	1Ω ~ 40KΩ
DR-50W	25	110	92	5.2	8	19	120	142	164	58	6	0.1Ω ~ 50KΩ
DR-60W	28	90	72	5.2	8	17	101	123	145	60	6	0.1Ω ~ 60KΩ
DR-80W	28	110	92	5.2	8	17	121	143	165	60	6	0.1Ω ~ 80KΩ
DR-100W	28	140	122	5.2	8	17	151	173	195	60	6	0.1Ω ~ 100KΩ
DR-120W	28	160	142	5.2	8	17	171	193	215	60	6	0.1Ω ~ 120KΩ
DR-150W	28	195	177	5.2	8	17	206	229	250	60	6	0.1Ω ~ 150KΩ
DR-160W	35	185	167	5.2	8	17	197	217	245	75	8	0.1Ω ~ 160KΩ
DR-200W	35	210	192	5.2	8	17	222	242	270	75	8	0.1Ω ~ 200KΩ
DR-225W	40	195	173	5.2	8	17	207	227	255	77	8	0.1Ω ~ 200KΩ
DR-250W	40	210	188	5.2	10	18	222	242	270	77	8	0.5Ω ~ 250KΩ
DR-300W	40	260	238	5.2	10	18	272	292	320	77	8	0.5Ω ~ 300KΩ
DR-400W	40	330	308	5.2	10	18	342	380	390	77	8	0.5Ω ~ 400KΩ
DR-500W	50	330	304	6.2	12	28	346	367	399	105	9	0.5Ω ~ 500KΩ
DR-600W	50	400	384	6.2	12	28	416	437	469	105	9	1Ω ~ 600KΩ
DR-700W	50	460	384	6.2	12	28	462	500	530	105	9	1Ω ~ 600KΩ
DR-800W	60	460	425	6.2	15	30	480	504	533	112	9	1Ω ~ 800KΩ
DR-1000W	60	540	505	6.2	15	30	560	584	613	112	10	1Ω ~ 1MΩ
DR-3000W	65	650	620	6.2	15	30	667	700	715	115	10	1Ω ~ 1.3MΩ

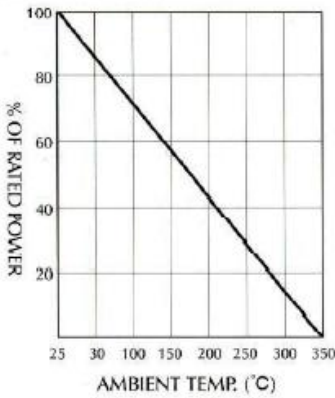
DQR-TYPE



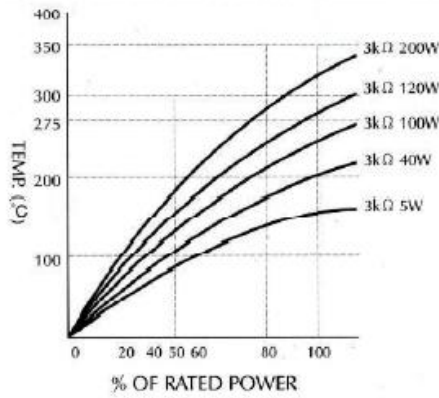
Power Rating	DIMENSIONS(mm)											Resistance Range
	A±1	B±2	C±2	D±0.1	E±0.2	F±1	G±2	H±2	I±2	J±2	K±0.1	
DQR-75W	25	110	95	5.2	8	19	120	142	164	58	6	0.1Ω ~8KΩ
DQR-90W	28	90	72	5.2	8	17	101	123	145	60	6	0.1Ω ~9KΩ
DQR-120W	28	110	92	5.2	8	17	121	143	165	60	6	0.2Ω ~12KΩ
DQR-150W	28	140	122	5.2	8	17	151	173	195	60	6	0.2Ω ~15KΩ
DQR-180W	28	160	142	5.2	8	17	171	193	215	60	6	0.2Ω ~18KΩ
DQR-225W	28	195	177	5.2	8	17	206	229	250	60	6	0.2Ω ~20KΩ
DQR-240W	35	185	167	5.2	8	17	197	219	245	75	8	0.5Ω ~25KΩ
DQR-300W	35	210	192	5.2	8	17	222	242	270	75	8	0.5Ω ~30KΩ
DQR-375W	40	210	188	5.2	10	18	222	242	270	77	8	0.5Ω ~40KΩ
DQR-450W	40	260	238	5.2	10	18	272	292	320	77	8	0.5Ω ~45KΩ
DQR-600W	40	330	308	5.2	10	18	342	380	390	77	8	0.5Ω ~60KΩ
DQR-750W	50	330	304	6.2	12	28	346	367	399	105	9	0.5Ω ~75KΩ
DQR-900W	50	400	374	6.2	12	28	416	437	469	105	9	1Ω ~90KΩ
DQR-1000W	50	460	425	6.2	12	30	480	504	533	105	9	1Ω ~100KΩ
DQR-1200W	60	460	425	6.2	15	30	480	504	533	112	10	1Ω ~120KΩ
DQR-1500W	60	540	505	6.2	15	30	560	584	613	112	10	1Ω ~150KΩ
DQR-2000W	65	650	620	6.2	15	30	667	700	715	115	10	1Ω ~200KΩ

ELECTRICAL PERFORMANCE

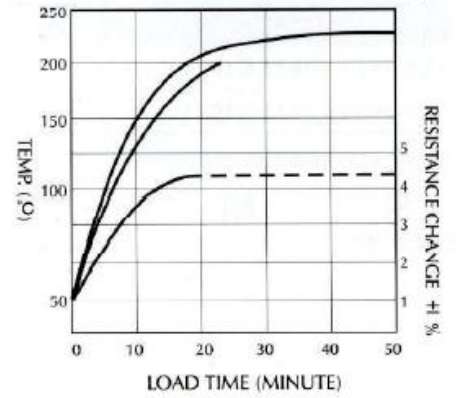
■ DERATING



■ SURFACE TEMP. VS POWER LOAD



■ TEMP. VS TIME (100% LOAD)



Characteristics	Limits
Resistance and resistance tolerance	Range Resistance tolerance $\pm 5\%$ (J)
Temperature coefficient	FCHR-2 0.14X1.2m/m 1000~1200ppm/°C max (according to the material)
Power rating load	$\Delta R/R \leq \pm(1\% + 0.05\Omega)$ temperature 350°C max
Short-time overload	$\Delta R/R \leq \pm(2\% + 0.05\Omega)$
Insulation resistance	DC500V 100MΩ min
Dielectric withstanding voltage	AC2500V 1.5MA 1 minute

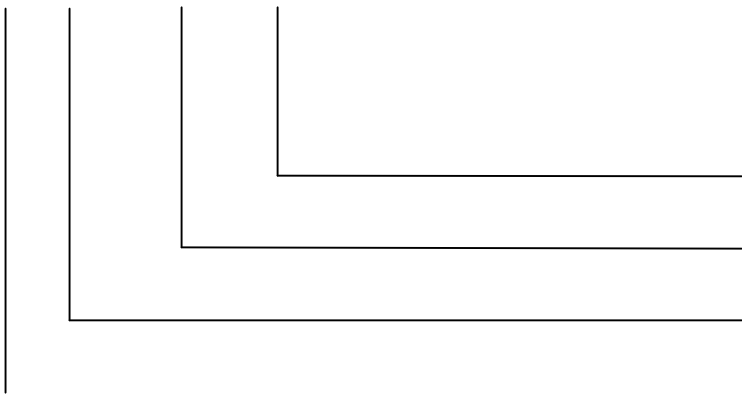
- A. These resistors are made by winding resistance bibbon around a ceramic tube in wave shape, externally coated with nonflame paint.
- B. They are extremely good in dissipation of heat, small in size, able to take large load.
- C. Fit for use on heavy electric machines and production machines.

Resistor body color

1. Normal size----- Green

I PART NUMBER:

DR - 160W - VALUE - J -



RES. TOLERANCE 5% / 1% = J / F

RESISTANCE 0R1 1R 10R 100R

POWER RATING

WIREWOUND RESISTORS