



# Power Resistors

## Nonflammable Wave Shape Ribbon Power Resistors - DQ Series / 不燃性波浪线绕功率电阻

### Nonflammable Wave-Shape Ribbon Wirewound DQ Series

A tubular ceramic has two terminals, and is wound with a resistance element consisting of a wave-shaped alloy ribbon. Non-flammable resin insulation is applied after cooling and drying through a temperature process and then the component mounts are attached. The resistance value range is relatively low due to alloy material limitations; see the DR series if upper resistance values are required.



This product supports the use of numerous taps, has a low impedance, and can be fabricated in various shapes to support a wide range of applications. The DQ series is suitable for educational modeling applications, load testing, industrial machinery, electric power distribution, instruments, automation control installations, etc. For custom specifications, please contact us to discuss the details.

### ► DQRA Type 75W - 2000W

### Tubular Ceramic, Wave-type



Wattage Rating	Dimensions(mm)														Resistance Range
	A	B	C	D	E	F	G	H	I	J	K	L	M	O	
75W	110	25	16	30	8	150	5	18	6	166	58	1.2	6	27	0.1~8Ω
90W	90	28	18	32	8	130	5	19	6	146	60	1.2	6	27	0.1~9Ω
120W	110	28	18	32	8	150	5	19	6	166	60	1.2	6	27	0.1~12Ω
150W	140	28	18	32	8	180	5	19	6	196	60	1.2	6	27	0.1~15Ω
180W	160	28	18	32	8	200	5	19	6	216	60	1.2	6	27	0.1~18Ω
225W	195	28	18	32	8	235	5	19	6	251	60	1.2	6	27	0.1~23Ω
240W	185	35	24	36	10	225	5	19	8	245	76	1.6	6	34	0.1~24Ω
300W	210	35	24	36	10	250	5	19	8	274	76	1.6	6	34	0.3~30Ω
375W	210	40	25	38	12	250	5	20	8	274	78	1.6	6	34	0.3~38Ω
450W	260	40	25	38	12	300	5	20	8	320	78	1.6	6	34	0.3~45Ω
600W	330	40	25	38	12	370	5	20	8	395	78	1.6	6	34	0.3~60Ω
750W	330	50	35	50	12	380	6	25	9	400	100	1.6	8	40	0.3~75Ω
900W	400	50	35	50	12	450	6	25	9	470	100	1.6	8	40	0.3~90Ω
1000W	460	50	35	50	12	510	6	25	9	530	100	1.6	8	40	0.5~100Ω
1200W	460	60	40	55	15	515	6	30	10	535	110	1.6	10	50	0.5~120Ω
1500W	540	60	40	55	15	595	6	30	10	615	110	1.6	10	50	0.5~150Ω
2000W	650	65	42	62	15	702	6	30	10	722	115	1.6	10	50	0.5~200Ω

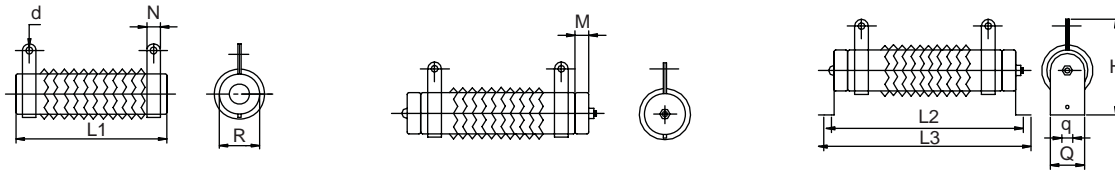
Notice: All dimensions might be changed or modified, please refer to last updating specification.



# Power Resistors

► DQRB Type 30W - 20000W

Tubular Ceramic, Wave-type



Wattage Rating	Dimensions (mm)										Resistance Range
	R	L1	L2	L3	H	N	d	M	q	Q	
30W	20	70	100	120	50	6	3.5	5	5	20	2~1KΩ
40W	20	87	115	137	50	6	3.5	5	5	20	2~1KΩ
50W	28	90	115	143	68	9	4.5	5.5	6	27	5~1KΩ
80W	28	90	115	143	68	9	4.5	5.5	6	27	5~2KΩ
100W	28	170	195	223	68	9	4.5	5.5	6	27	10~3KΩ
150W	28	215	240	268	68	9	4.5	5.5	6	27	10~3KΩ
200W	28	267	292	320	68	9	4.5	5.5	6	27	10~5KΩ
250W	28	267	292	320	68	9	4.5	5.5	6	27	10~5KΩ
300W	40	267	300	343	90	10	4.5	6	6	39	20~5KΩ
400W	40	330	365	406	90	10	4.5	6	6	39	20~5KΩ
500W	50	330	365	415	98	10	6	8.5	8	49	20~5KΩ
600W	50	330	365	415	98	10	6	8.5	8	49	20~5KΩ
700W	50	400	435	485	95	10	6	8.5	8	49	20~5KΩ
800W	70	300	320	362	138	15	8	-	8	69	40~500Ω
1000W	70	300	320	362	138	15	8	-	8	69	40~500Ω
1500W	70	415	435	477	138	15	8	-	8	69	40~500Ω
2000W	70	510	530	572	138	15	8	-	8	69	40~500Ω
2500W	70	600	620	662	138	15	8	-	8	69	40~500Ω
3000W	70	600	620	662	138	18	8	-	8	69	40~500Ω
4000W	100	430	450	521	185	15	8	-	8	99	40~500Ω
5000W	100	500	620	691	185	15	8	-	8	99	40~500Ω
6000W	100	600	720	791	185	15	8	-	8	99	40~500Ω
10000W	150	600	625	720	350	30	8	-	10	150	40~500Ω
12000W	150	660	685	780	350	30	8	-	10	150	40~500Ω
15000W	150	660	685	780	350	30	8	-	10	150	40~500Ω
20000W	150	1000	1030	1120	350	30	8	-	10	150	40~500Ω

Notice: All dimensions might be changed or modified, please refer to last updating specification.



# Power Resistors

► DQNA Type 75W ~ 2000W

Tubular Ceramic, Wave, Low Inductive



Wattage Rating	Dimensions (mm)														Resistance Range
	A	B	C	D	E	F	G	H	I	J	K	L	M	O	
75W	110	25	16	30	8	150	5	18	6	166	58	1.2	6	27	0.1~8Ω
90W	90	28	18	32	8	130	5	19	6	146	60	1.2	6	27	0.1~9Ω
120W	110	28	18	32	8	150	5	19	6	166	60	1.2	6	27	0.1~12Ω
150W	140	28	18	32	8	180	5	19	6	196	60	1.2	6	27	0.1~15Ω
180W	160	28	18	32	8	200	5	19	6	216	60	1.2	6	27	0.1~18Ω
225W	195	28	18	32	8	235	5	19	6	251	60	1.2	6	27	0.1~23Ω
240W	185	35	24	36	10	225	5	19	8	245	76	1.6	6	34	0.1~24Ω
300W	210	35	24	36	10	250	5	19	8	274	76	1.6	6	34	0.3~30Ω
375W	210	40	25	38	12	250	5	20	8	274	78	1.6	6	34	0.3~38Ω
450W	260	40	25	38	12	300	5	20	8	320	78	1.6	6	34	0.3~45Ω
600W	330	40	25	38	12	370	5	20	8	395	78	1.6	6	34	0.3~60Ω
750W	330	50	35	50	12	380	6	25	9	400	100	1.6	8	40	0.3~75Ω
900W	400	50	35	50	12	450	6	25	9	470	100	1.6	8	40	0.3~90Ω
1000W	460	50	35	50	12	510	6	25	9	530	100	1.6	8	40	0.5~100Ω
1200W	460	60	40	55	15	515	6	30	10	535	110	1.6	10	50	0.5~120Ω
1500W	540	60	40	55	15	595	6	30	10	615	110	1.6	10	50	0.5~150Ω
2000W	650	65	42	62	15	702	6	30	10	722	115	1.6	10	50	0.5~200Ω

Notice: All dimensions might be changed or modified, please refer to last updating specification.

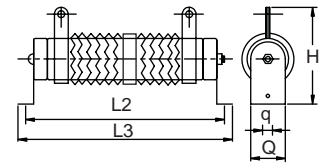
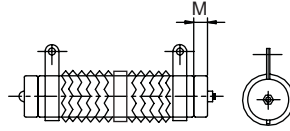
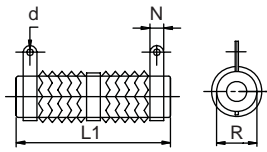




# Power Resistors

► DQNB Type 30W - 20000W

Tubular Ceramic, Wave, Low Inductive



Wattage Rating	Dimensions (mm)										Resistance Range
	R	L1	L2	L3	H	N	d	M	q	Q	
30W	20	70	100	120	50	6	3.5	5	5	20	2~1KΩ
40W	20	87	115	137	50	6	3.5	5	5	20	2~1KΩ
50W	28	90	115	143	68	9	4.5	5.5	6	27	5~1KΩ
80W	28	90	115	143	68	9	4.5	5.5	6	27	5~2KΩ
100W	28	170	195	223	68	9	4.5	5.5	6	27	10~3KΩ
150W	28	215	240	268	68	9	4.5	5.5	6	27	10~3KΩ
200W	28	267	292	320	68	9	4.5	5.5	6	27	10~5KΩ
250W	28	267	292	320	68	9	4.5	5.5	6	27	10~5KΩ
300W	40	267	300	343	90	10	4.5	6	6	39	20~5KΩ
400W	40	330	365	406	90	10	4.5	6	6	39	20~5KΩ
500W	50	330	365	415	98	10	6	8.5	8	49	20~5KΩ
600W	50	330	365	415	98	10	6	8.5	8	49	20~5KΩ
700W	50	400	435	485	95	10	6	8.5	8	49	20~5KΩ
800W	70	300	320	362	138	15	8	-	8	69	40~500Ω
1000W	70	300	320	362	138	15	8	-	8	69	40~500Ω
1500W	70	415	435	477	138	15	8	-	8	69	40~500Ω
2000W	70	510	530	572	138	15	8	-	8	69	40~500Ω
2500W	70	600	620	662	138	15	8	-	8	69	40~500Ω
3000W	70	600	620	662	138	18	8	-	8	69	40~500Ω
4000W	100	430	450	521	185	15	8	-	8	99	40~500Ω
5000W	100	500	620	691	185	15	8	-	8	99	40~500Ω
6000W	100	600	720	791	185	15	8	-	8	99	40~500Ω
10000W	150	600	625	720	350	30	8	-	10	150	40~500Ω
12000W	150	660	685	780	350	30	8	-	10	150	40~500Ω
15000W	150	660	685	780	350	30	8	-	10	150	40~500Ω
20000W	150	1000	1030	1120	350	30	8	-	10	150	40~500Ω

Notice: All dimensions might be changed or modified, please refer to last updating specification.



# Power Resistors

► DQS Type 75W ~ 2000W

Tubular Ceramic, Wave, Variable



Wattage Rating	Dimensions (mm)														Resistance Range
	A	B	C	D	E	F	G	H	I	J	K	L	M	O	
75W	110	25	16	30	8	150	5	18	6	166	58	1.2	6	27	0.1~8Ω
90W	90	28	18	32	8	130	5	19	6	146	60	1.2	6	27	0.1~9Ω
120W	110	28	18	32	8	150	5	19	6	166	60	1.2	6	27	0.1~12Ω
150W	140	28	18	32	8	180	5	19	6	196	60	1.2	6	27	0.1~15Ω
180W	160	28	18	32	8	200	5	19	6	216	60	1.2	6	27	0.1~18Ω
225W	195	28	18	32	8	235	5	19	6	251	60	1.2	6	27	0.1~23Ω
240W	185	35	24	36	10	225	5	19	8	245	76	1.6	6	34	0.1~24Ω
300W	210	35	24	36	10	250	5	19	8	274	76	1.6	6	34	0.3~30Ω
375W	210	40	25	38	12	250	5	20	8	274	78	1.6	6	34	0.3~38Ω
450W	260	40	25	38	12	300	5	20	8	320	78	1.6	6	34	0.3~45Ω
600W	330	40	25	38	12	370	5	20	8	395	78	1.6	6	34	0.3~60Ω
750W	330	50	35	50	12	380	6	25	9	400	100	1.6	8	40	0.3~75Ω
900W	400	50	35	50	12	450	6	25	9	470	100	1.6	8	40	0.3~90Ω
1000W	460	50	35	50	12	510	6	25	9	530	100	1.6	8	40	0.5~100Ω
1200W	460	60	40	55	15	515	6	30	10	535	110	1.6	10	50	0.5~120Ω
1500W	540	60	40	55	15	595	6	30	10	615	110	1.6	10	50	0.5~150Ω
2000W	650	65	42	62	15	702	6	30	10	722	115	1.6	10	50	0.5~200Ω

Notice: All dimensions might be changed or modified, please refer to last updating specification.

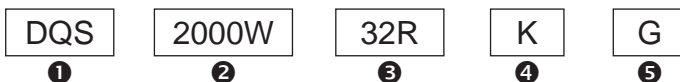


# Power Resistors

## ► Performance Specification - Nonflammable Wave Shape Ribbon Power Resistors

Test Item	Test Methods	Characteristics
Resistance tolerance	JIS-C-5202 5-1	Resistance Nominal Tolerance 1≤R 1>R ±5%(J) ±10%(K)
Temperature coefficient	JIS-C-5202 5-2	±400PPM/°C MAX
Load rating	JIS-C-5202 5-4	ΔR/R≤±(0.5%+0.1Ω) Surface temperature up 350°C MAX
Short-term overload	JIS-C-5202 5-5 500% rated wattage 5 seconds	Free of appearance or structural irregularity ΔR/R≤±(2%+0.1Ω)
Insulation resistance	JIS-C-5202 5-6 500VDC	100MΩ min
Dielectric withstanding voltage	JIS-C-5202 5-7 1000VDC 1 minute Between terminal and anchor stand	Free of appearance or structural irregularity ΔR/R≤±(0.1%+0.05Ω)
Terminal strength	JIS-C-5202 6-1 8kg 30 seconds	Free of appearance or structural irregularity
Vibration	JIS-C-5202 6-3; 1.5m/m 10 ~ 50 ~ 10 Hz/min X-Y-Z 2 hours each	Free of appearance or structural irregularity Surface coating crack ΔR/R≤±(1%+0.05Ω)
Thermal shock	JIS-C-5202 7-3 Room temp 30 minutes ON-55°C 15 minutes OFF	Free of structural irregularity ΔR/R≤±(1%+0.05Ω)
Humidity	JIS-C-5202 7-5 40°C 90%RH 240 hours	Free of appearance or structural irregularity Surface coating crack ΔR/R≤±(3%+0.1Ω)
Load life	JIS-C-5202 7-10 90 minutes ON - 30 minutes OFF 500 hours	Free of appearance or structural irregularity Surface coating crack ΔR/R≤±(5%+0.1Ω)
Flame retardation	JIS-C-5202 7-13-3-2 100% - 600% rated wattage load	US UL-94 flame retardation test V-0 grade noncombustible
REMARKS:	1. Resistance and resistance tolerance were tested in-house with micro resistance meter. 2. Coating refers to UL-certified data provided by supplier	

## ► How to Order



① Product Type: DQRA type  
DQRB type  
DQNA type  
DQNB type  
DQS type

② Rated Wattage: 75W~2000W  
30W~20000W  
75W~2000W  
30W~20000W  
75W~2000W

③ Resistance Value(Ω): (Ω)  
Indicates Resistance  
Value in Units of Ohms.

④ Resistance Tolerance

Code	Resistance Tolerance
H	±3%
J	±5%
K	±10%

⑤ Assembly Method

Code	Assembly Method
C	Clip Mount.
G	Horizontal Mount.
N	No Mount.
Z	Vertical Mount.

