
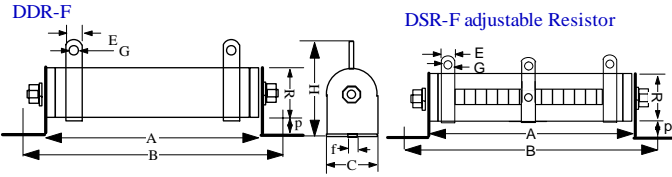
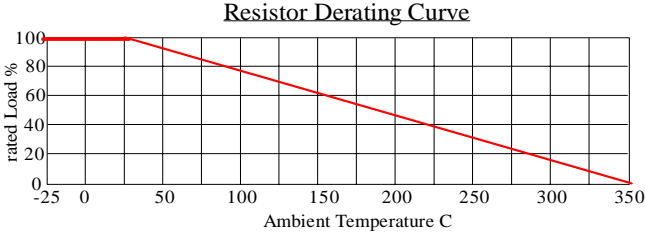


Silicon Coated Wire-Wound Power Resistor with mounting fixture

- These resistors are suitable as loading resistors, braking resistor, capacitor discharge, Resistive Load simulation, Machinery, Machinery and Equipment higher power application.
- mounting fixture is available
- Resistance Adjustable version is available : DSR-F series
- Resistance Box and Load Bank available with power up to 500KW.
- support Precision Resistance Tolerance requirement







Resistor Derating Curve

rated Load % vs Ambient Temperature C

DDR-F / DSR-F Type – Wire Wound Resistor

Dimension in mm :	R	A	B	C	H	p	E	G	f
Tolerance : +/- mm	1	5	5	1	3	3	1	1	1
15W	15	45	65	15	40	13	6	3.5	4.5
20W	20	50	70	15	40	13	6	3.5	4.5
25W	20	50	80	20	50	15	6	3.5	5
30W	20	70	100	20	50	15	6	3.5	5
40W	20	87	115	20	50	15	6	3.5	5
50W	28	90	115	27	68	20	9	4.5	6
80W	28	90	115	27	68	20	9	4.5	6
100W	28	170	195	27	68	20	9	4.5	6
150W	28	215	240	27	68	20	9	4.5	6
200W	28	267	292	27	68	20	9	4.5	6
250W	28	267	292	27	68	20	9	4.5	6
300W	40	267	300	39	90	25	10	4.5	6
400W	40	330	365	39	90	25	10	4.5	6
500W	50	330	365	49	98	20	10	6	8
600W	50	330	365	49	98	20	10	6	8
700W	50	400	435	49	95	20	10	6	8
800W	70	300	320	69	138	30	15	8	8
1000W	70	300	320	69	138	30	15	8	8
1500W	70	415	435	69	138	30	15	8	8
2000W	70	510	530	69	138	30	15	8	8
2500W	70	600	620	69	138	30	15	8	8
3000W	70	600	620	69	138	30	15	8	8
4000W	100	430	450	99	185	50	15	8	8
5000W	100	500	620	99	185	50	15	8	8
6000W	100	600	720	99	185	50	15	8	8
10,000W	150	600	625	150	350	100	30	8	10
12,000W	150	660	685	150	350	100	30	8	10
15,000W	150	660	685	150	350	100	30	8	10
20,000W	150	1000	1030	150	350	100	30	8	10

DNR-F Type – Low Inductive Wire Wound Resistor

Dimension in mm :	R	A	B	C	H	p	E	G	f
Tolerance : +/- mm	1	5	5	1	3	3	1	1	1
15W	15	45	65	15	40	13	6	3.5	4.5
20W	15	50	70	15	40	13	6	3.5	4.5
25W	20	50	80	20	50	15	6	3.5	5
30W	20	70	100	20	50	15	6	3.5	5
40W	20	87	115	20	50	15	6	3.5	5
50W	28	90	115	27	68	20	9	4.5	6
80W	28	90	115	27	68	20	9	4.5	6
100W	28	170	195	27	68	20	9	4.5	6
150W	28	215	240	27	68	20	9	4.5	6
200W	28	267	292	27	68	20	9	4.5	6
250W	28	267	292	27	68	20	9	4.5	6
300W	40	267	300	39	90	25	10	4.5	6
400W	40	330	365	39	90	25	10	4.5	6
500W	50	330	365	49	98	20	10	6	8
600W	50	330	365	49	98	20	10	6	8
700W	50	400	435	49	95	20	10	6	8
800W	70	300	320	69	138	30	15	8	8
1000W	70	300	320	69	138	30	15	8	8
1500W	70	415	435	69	138	30	15	8	8
2000W	70	510	530	69	138	30	15	8	8
2500W	70	600	620	69	138	30	15	8	8
3000W	70	600	620	69	138	30	15	8	8
4000W	100	430	450	99	185	50	15	8	8
5000W	100	500	620	99	185	50	15	8	8
6000W	100	600	720	99	185	50	15	8	8
10,000W	150	600	625	150	350	100	30	8	10
12,000W	150	660	685	150	350	100	30	8	10
15,000W	150	660	685	150	350	100	30	8	10
20,000W	150	1000	1030	150	350	100	30	8	10

Electrical Characteristic :

Test	Testing Condition	Testing Result
Resistance Tolerance	JIS-C-5202 5-1 testing voltage<3V 25C	+/-5%
Temperature Coefficient	+/- 200 ~ 400ppm/C max.	
Rated Load	JIS-C-5202 5-4 40C at rated voltage 1hour	R<=±(1%+0.1ohm) surface temperature < 400C
Insulation Resistance	JIS-C-5202 5-6 500Vdc	100M ohm min.
Withstand voltage	JIS-C-5202 5-7 1000Vdc 1min.	R<=+/- (0.1%+0.05ohm)
Short Time Overload	JIS-C-5202 5-5 10*rated power in 5 seconds	R <= +/--(2%Ro + 0.1ohm)
Flammability	1~6 times rated power 5min.	without combustion


Part Number :

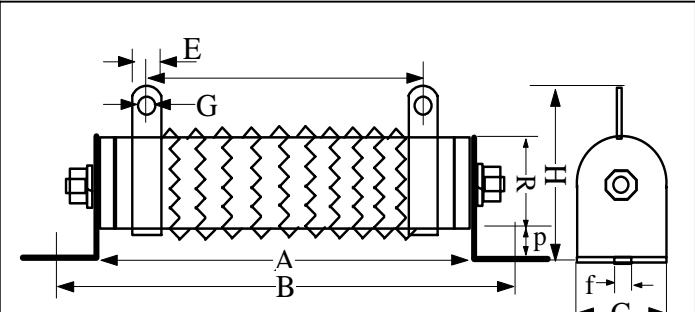
Series + Rated Power + Resistance Value (ohm) + Resistance Tolerance + Drawing Number

DDR	10~1300W	0.1 ohm = R1	F = +/--1%	F : mounting fixture
DSR	50~1300W	1 ohm = 1R	G = +/--2%	
DNR		10 ohm = 10R	J = +/--5%	
		100 ohm = 101R	K = +/--10%	
		1k ohm = 102R		

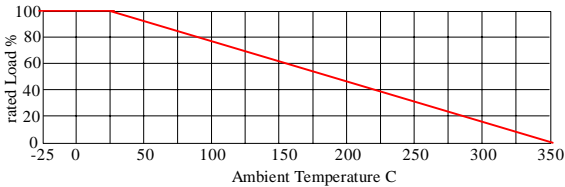
Silicon Coated Wave Ribbon Wire-Wound Power Resistor

- These resistors are suitable as Resistive Load simulation, Electric power distribution, Machinery, Power / Industrial Machinery, Instrument and Equipment higher power application; Automation control, particularly useful where high energy is to be dissipated in the lower ohmic ranges.
- Higher Current and better heat convection
- Resistance Adjustable version is available – DQS-F series
- Resistance Box and Load Bank available with power up to 500KW.
- support Precision Resistance Tolerance requirement





Resistor Derating Curve



Ambient Temperature (C)	rated Load %
-25	100
0	100
25	100
50	92
100	76
150	60
200	44
250	28
300	12
350	0

DQR-F Type – Wave Ribbon Wire Wound Resistor

Dimension in mm :	R	A	B	C	H	p	E	G	f
Tolerance : +/- mm	1	5	5	1	3	3	1	1	1
50W	28	90	115	27	68	20	9	4.5	6
80W	28	90	115	27	68	20	9	4.5	6
100W	28	170	195	27	68	20	9	4.5	6
150W	28	215	240	27	68	20	9	4.5	6
200W	28	267	292	27	68	20	9	4.5	6
250W	28	267	292	27	68	20	9	4.5	6
300W	40	267	300	39	90	25	10	4.5	6
400W	40	330	365	39	90	25	10	4.5	6
500W	50	330	365	49	98	20	10	6	8
600W	50	330	365	49	98	20	10	6	8
700W	50	400	435	49	95	20	10	4.5	8
800W	70	300	320	69	138	30	15	8	8
1000W	70	300	320	69	138	30	15	8	8
1500W	70	415	435	69	138	30	15	8	8
2000W	70	510	530	69	138	30	15	8	8
2500W	70	600	620	69	138	30	15	8	8
3000W	70	600	620	69	138	30	15	8	8
4000W	100	430	450	99	185	50	15	8	8
5000W	100	500	620	99	185	50	15	8	8
6000W	100	600	720	99	185	50	15	8	8
10,000W	150	600	625	150	350	100	30	8	10
12,000W	150	660	685	150	350	100	30	8	10
15,000W	150	660	685	150	350	100	30	8	10
20,000W	150	1000	1030	150	350	100	30	8	10

DQN-F Type – Wave-Shape Low Inductive Wire Wound Resistor

Dimension in mm :	R	A	B	C	H	p	E	G	f
Tolerance : +/- mm	1	5	5	1	3	3	1	1	1
50W	28	90	115	27	68	20	9	4.5	6
80W	28	50	115	27	68	20	9	4.5	6
100W	28	170	195	27	68	20	9	4.5	6
150W	28	215	240	27	68	20	9	4.5	6
200W	28	267	292	27	68	20	9	4.5	6
250W	28	267	292	27	68	20	9	4.5	6
300W	40	267	300	39	90	25	10	4.5	6
400W	40	330	365	39	90	25	10	4.5	6
500W	50	330	365	49	98	20	10	6	8
600W	50	330	365	49	98	20	10	6	8
700W	50	400	435	49	95	20	10	6	8
800W	70	300	320	69	138	30	15	8	8
1000W	70	300	320	69	138	30	15	8	8
1500W	70	415	435	69	138	30	15	8	8
2000W	70	510	530	69	138	30	15	8	8
2500W	70	600	620	69	138	30	15	8	8
3000W	70	600	620	69	138	30	15	8	8
4000W	100	430	450	99	185	50	15	8	8
5000W	100	500	620	99	185	50	15	8	8
6000W	100	600	720	99	185	50	15	8	8
10,000W	150	600	625	150	350	100	30	8	10
12,000W	150	660	685	150	350	100	30	8	10
15,000W	150	660	685	150	350	100	30	8	10
20,000W	150	1000	1030	150	350	100	30	8	10

Electrical Characteristic :

Test	Testing Condition	Testing Result
Resistance Tolerance	JIS-C-5202 5-1 testing voltage<3V 25C	+/-5%
Temperature Coefficient	+/- 200 ~ 400ppm/C max.	
Rated Load	JIS-C-5202 5-4 40C at rated voltage 1hour	R<=±(1%+0.1ohm) surface temperature < 400C
Insulation Resistance	JIS-C-5202 5-6 500Vdc	100M ohm min.
Withstand voltage	JIS-C-5202 5-7 1000Vdc 1min.	R<=+/- (0.1%+0.05ohm)
Short Time Overload	JIS-C-5202 5-5 5*rated power in 5 seconds	R <= +/- (2%Ro + 0.1ohm)
Flammability	1~6 times rated power 5min.	without combustion

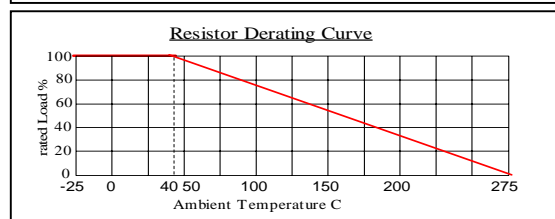
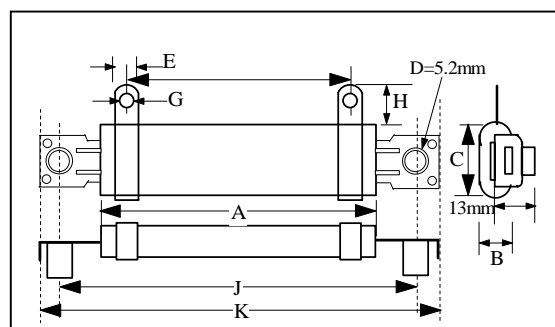
Part Number :

Series + Rated Power + Resistance Value (ohm) + Resistance Tolerance + Drawing Number

DQR	75~2000W	0.1 ohm = R1	F = +/-1% / G = +/-2%	F : mounting fixture
DQN	75~2000W	1 ohm = 1R	H= +/-3%	
DQS		10 ohm = 10R	J = +/-5%	
		100 ohm = 101R	K= +/-10%	

Silicon Coated Oval / Flat Type Wire-Wound Power Resistor

- These resistors are suitable as loading resistors, braking resistor, capacitor discharge, Resistive Load simulation, Machinery, Machinery and Equipment higher power application.
- Space saving
- Low Inductive and Waved Ribbon type available
- support Precision Resistance Tolerance requirement
- mounting fixture is available, allow stacking into compact unit
- Electrical Tab Terminal can be customized according to customer's need.-



ZZR-F : Oval / Flat Wire Wound Resistor

Power Rating	Dimensions in mm +/-1mm								Resistance Range ohm
	A	B	C	E	G	H	J	K	
40W	50	9	27	6.5	4.1	12	70	103	0.1 – 4k
50W	90	9	27	6.5	4.1	12	110	123	0.1 – 5k
60W	90	9	27	6.5	4.1	12	110	123	0.1 – 7k
80W	120	9	27	6.5	4.1	12	140	153	0.1 – 9k
100W	150	9	27	6.5	4.1	12	170	183	0.1 – 10k
120W	160	9	27	6.5	4.1	12	180	193	0.1 – 12k
150W	185	11	27	6.5	4.1	12	205	218	0.1 – 15k
200W	210	11	35	9	5.2	13	230	243	0.1 – 20k
250W	254	11	35	9	5.2	13	274	287	0.1 – 25k
300W	300	11	35	9	5.2	13	320	333	0.1 – 30k

Electrical Characteristic :

Test	Testing Condition	Testing Result
Resistance Tolerance	JIS-C-5202 5-1 testing voltage<3V 25C	+/-5%
Temperature Coefficient	+/- 200 ~ 400ppm/C max.	
Rated Load	JIS-C-5202 5-4 40C at rated voltage 1hour	$R \leq \pm(1\% + 0.1\text{ohm})$ surface temperature < 400C
Insulation Resistance	JIS-C-5202 5-6 500Vdc	100M ohm min.
Withstand voltage	JIS-C-5202 5-7 1000Vdc 1min.	$R \leq \pm(0.1\% + 0.05\text{ohm})$
Short Time Overload	JIS-C-5202 5-5 5*rated power in 5 seconds	$R \leq \pm(2\%R_o + 0.1\text{ohm})$
Flammability	1~6 times rated power 5min.	without combustion

Part Number :

Series + Rated Power + Resistance Value (ohm) + Resistance Tolerance + Drawing Number

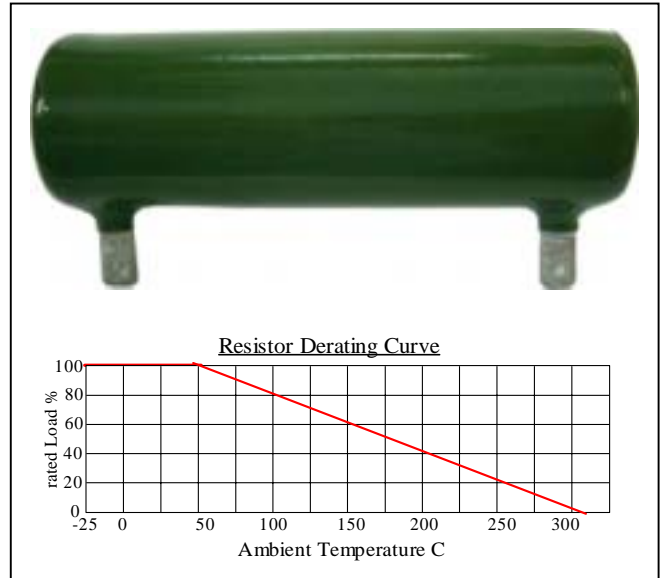
ZZR	40~300W	0.1 ohm = R1	F = +/-1%	F : mounting fixture
ZNR	40~300W	1 ohm = 1R	G = +/-2%	
		10 ohm = 10R	J = +/-5%	
		100 ohm = 101R	K = +/-10%	
		1k ohm = 102R		

Vitreous Enamel Power Resistor - DVR

This series of resistors is suitable as loading application, more stable, withstand humidity and higher temperature

- low inductive version is available
- small resistor body size
- withstand harsh working conditions
- mounting fixture is available like DDR-F series
- adjustable version is available **DVSR**
- support multi tab terminals

We support other resistance value that not listed above.



DVR- Vitreous Enamel Power Resistor

Rated Power	Dimensions in mm		Resistance Range ohm	
	Length	Diameter	DVR	Resistance adjustable DVSR
8	35 +/- 1.5	14 +/- 2	5.1 ~ 3.3k	5.1 ~ 200
10	41 +/- 1.5		5.1 ~ 10k	5.1 ~ 200
16	51 +/- 2	17 +/- 2	5.1 ~ 15k	5.1 ~ 220
20	51 +/- 2		5.1 ~ 20k	10 ~ 430
25	51 +/- 2	21 +/- 2.5	10 ~ 24k	10 ~ 510
30	71 +/- 2.5		10 ~ 30k	10 ~ 1k
40	87 +/- 2.5		20 ~ 51k	20 ~ 1.2k
50	91 +/- 2.5		20 ~ 51k	20 ~ 1.5k
75	140 +/- 3.5	29 +/- 3	24 ~ 56k	24 ~ 2k
100	170 +/- 3.5		24 ~ 62k	24 ~ 2.7k
150	215 +/- 4		20 ~ 150k	20 ~ 4.3k
200	215 +/- 4	38 +/- 3	4.7 ~ 12k	5.1 ~ 3k
300	266 +/- 4	36 +/- 2	4.7 ~ 12k	5.1 ~ 3k
400	250 +/- 4	54 +/- 2	5.1 ~ 10k	6.2 ~ 3k
500	300 +/- 4		5.1 ~ 10k	6.2 ~ 3k

Electrical Characteristic :

Test	Testing Condition	Testing Result
Resistance Tolerance	JIS-C-5202 5-1 testing voltage<3V 25C	+/-5%, +/-10%
Temperature Coefficient	+/- 250ppm/C max.	
Short Time Overload	10*rated power in 5 seconds	R <= +/- (2%Ro + 0.05 ohm)
Surface temperature	<= 275C	At maximum rated power

Part Number :

Series

DVR : normal

DVR-F : with mounting fixture

DVSR : resistance adjustable

DVSR-F : resistance adjustable with mounting fixture

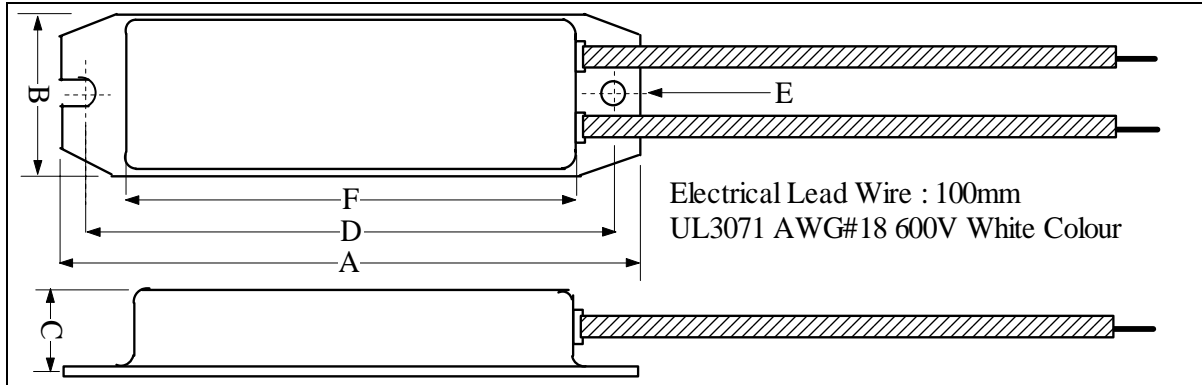
DVRN : low inductance

DVRN-F : low inductance with mounting fixture

Aluminum Housing Wire Wound Power Resistor

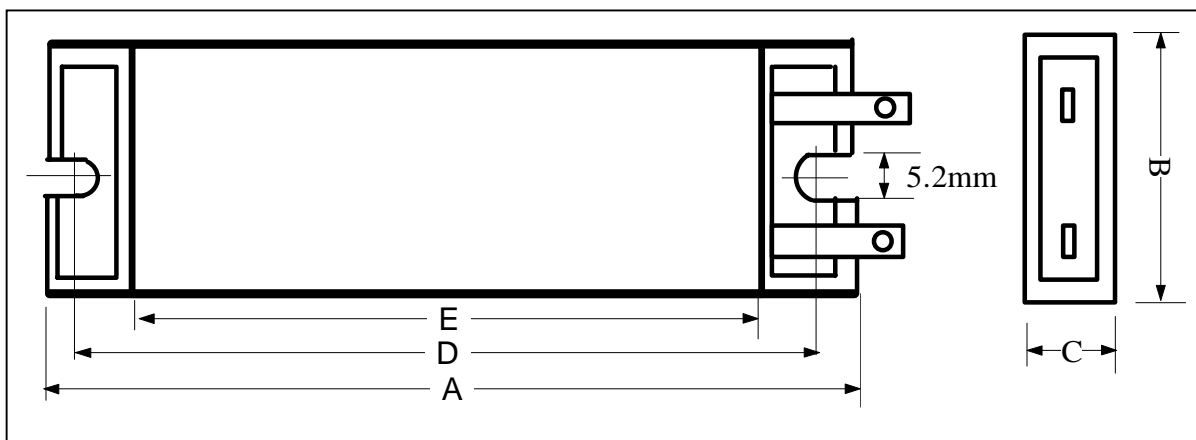
- Internal wire wound resistor is protected by external Aluminum Case from external mechanical force, humidity and dusty.
- Suitable for industrial machinery and equipment, electric power distribution.
- Durable and can withstand stronger vibration.
- Low temperature coefficient and better heat conduction.
- support Low Inductance and Precision Resistance Tolerance requirement

ASQ type :



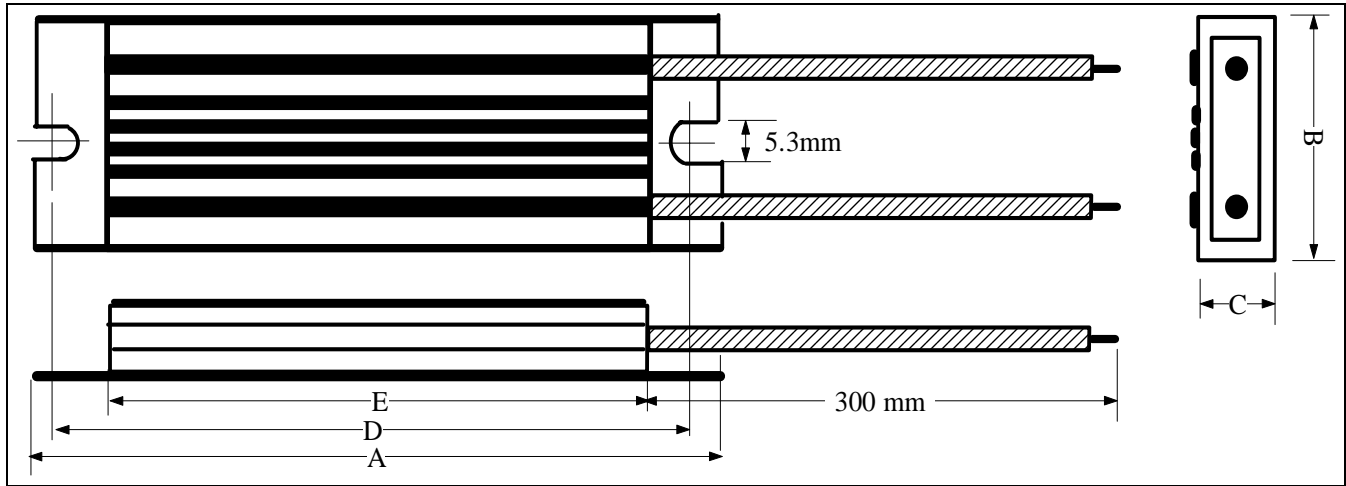
Power Rating	Dimensions in mm +/-1mm						Resistance Range ohm
	A	B	C	D	E	F	
60W	100	30	13	90	4.5	75	0.1 – 10k
80W	130	42	19	116	5	103	0.1 – 10k
100W	130	42	19	116	5	103	0.1 – 10k
120W	182	42	19	172	6	152	0.1 – 10k

ASZ type : 1000W ~ 3000W



Power Rating	Dimensions in mm +/-1mm					Resistance Range ohm
	A +/-2	B +/-1	C +/-1	D +/-2	E +/-2	
1000 W	335	70	45	320	300	1 – 10k
1200 W	400	70	45	320	355	1 – 10k
1500 W	500	70	45	385	465	1 – 10k
2000 W	500	70	45	485	465	1 – 10k
2500 W	585	70	45	535	565	1 – 10k
3000 W	600	70	45	590	565	1 – 10k

ASZ type : 40W ~ 1000W



Power Rating	Dimensions in mm +/-1mm					Resistance Range ohm
	A +/-2	B +/-1	C +/-1	D +/-2	E +/-2	
40W	90	40	20	75	60	1 – 2k
60W	115	40	20	100	85	2 – 2k
80W	140	40	20	125	115	2 – 2.5k
100W	140	40	20	125	115	2 – 3k
120W	185	40	20	170	155	3 – 4k
150W	215	40	20	200	185	3 – 5k
200W	165	60	30	150	130	3 – 6k
250W	165	60	30	150	130	3 – 7k
300W	215	60	30	200	180	5 – 7k
400W	265	60	30	250	230	5 – 8k
500W	335	60	30	320	300	5 – 9k
600W	335	60	30	320	300	5 – 9k
800W	365	60	30	350	330	5 – 10k
1000W	335	70	45	320	300	5 – 10k

We support other resistance value that not listed above.

Electrical Characteristic :

Test	Testing Condition	Testing Result
Resistance Tolerance	JIS-C-5202 5-1 testing voltage<3V 25C	+/-5%
Temperature Coefficient	+/- 250ppm/C max.	
Rated Load	JIS-C-5202 5-4 40C at rated voltage 1hour	R<=±(1%+0.1ohm) surface temperature < 400C
Insulation Resistance	JIS-C-5202 5-6 1000Vdc	100M ohm min.
Withstand voltage	JIS-C-5202 5-7 1500Vdc 1min.	R<=+/- (0.1%+0.05ohm)
Short Time Overload	JIS-C-5202 5-5 10*rated power in 5 seconds	R <= +/- (2% + 0.1ohm)

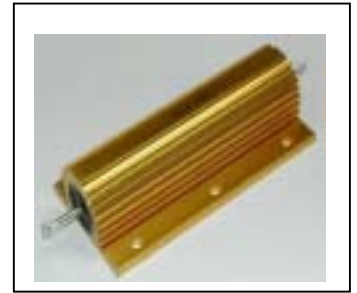
Part Number :

Series + Rated Power + Resistance Value (ohm) + Resistance Tolerance + Drawing Number

ASQ 60~120W 0.1 ohm = R1 F = +/-1% G = +/-2%
 ASZ 60~3000W 1 ohm = 1R J = +/-5%
 10 ohm = 10R K = +/-10%

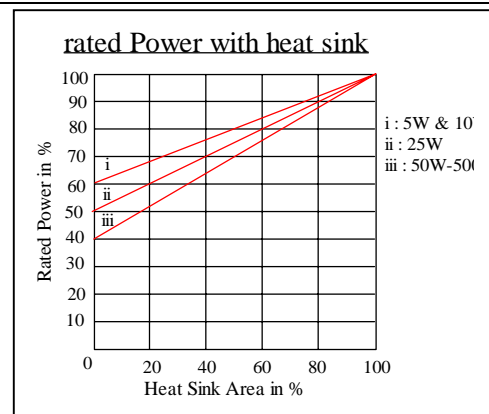
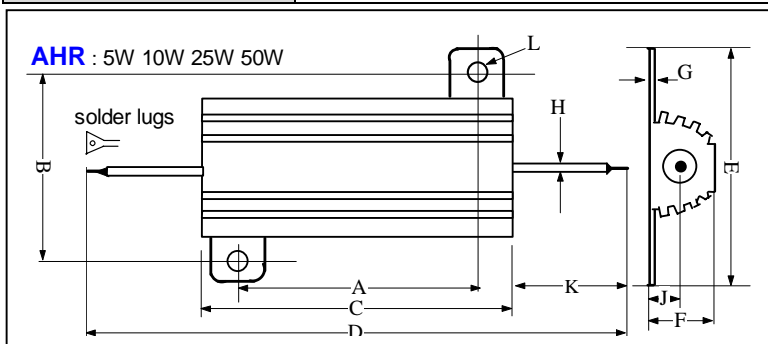
AHR type :

- Aluminium housed Resistors are wound with Nickel Copper or Nickel Chromium wire on ceramic core fitted with end caps.
- The wound assembly is then encapsulated in a anodized Heat sink using high temperature moulding compound.
- Low Inductive type is available
- support Precision Resistance Tolerance requirement
- It is low cost, light weight and compact

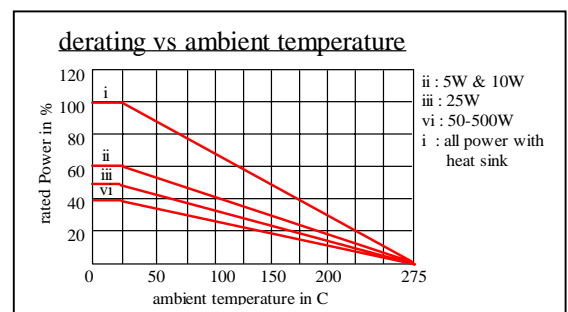
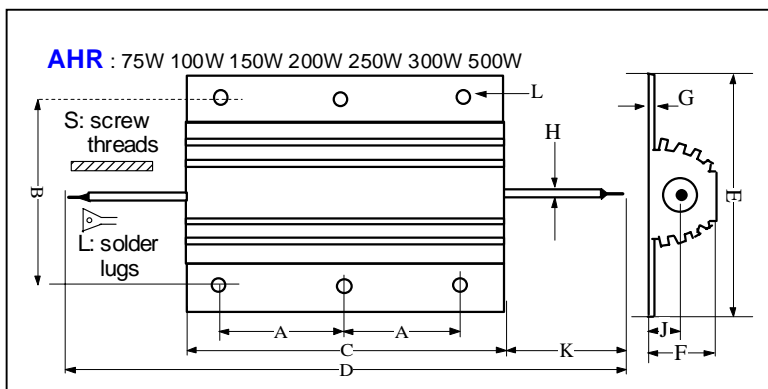


Electrical Specification :

Rated Power	5Watts to 500Watts
Terminals	Soldering Lugs : 5 – 50W; Screw Threads : 75 – 500W
Temperature Coefficient	±20ppm/ , ±50ppm/ , ±100ppm/ , ±200ppm/ , ±250ppm/ ,
Tolerance	±5%, ±10%
Dielectric Voltage	1000Vac : 5 – 25W, 1500Vac : 50 – 500W
Operating Temperature	-55 to 250
Overload – short time	5 time of rated power in 5 seconds
Derating	Deratings is needed to reduce chassis mounted area and for high ambient temperatures. Derate to zero Power Linearly at 250°C ambient. Derating necessary for unmounted resistors at ambient temperatures of 25°C, 5W & 10W - 40%, 25W-50% 50W & above 60%.



Rated Power	Dimensions in mm												Weight gram
	A ±0.2	B ±0.2	C ±0.2	D ±2	E ±0.5	F ±0.4	G ±0.2	H ±0.1	J ±0.5	K ±2	L ±0.2		
5W	11.2	12.5	15.2	28.5	16.5	8.0	1.7	1.2	3.8	7.0	2.2	3	
10W	14.3	15.8	19.5	35.0	20.3	10.0	1.9	2.0	4.2	8.0	2.2	11	
25W	18.3	19.8	27.5	49.0	27.4	14.0	2.2	2.0	6.0	11.0	3.2	18	
50W	40.0	21.5	50.0	72.0	29.2	15.5	2.2	2.0	6.6	13.0	3.2	30	



Rated Power	Dimensions in mm												Weight gram
	A ±0.5	B ±0.5	C ±1	D ±2	E ±1	F ±0.5	G ±0.2	H ±0.2	J ±0.3	K ±2	L ±0.3		
75W	23.5	38.0	65.5	105	48	26	3.3	2.8	11.5	20	4.2	90	
100W	35.5	38.0	98.0	138	48	26	3.3	2.8	11.5	20	4.2	160	
150W	52.0	38.0	135.0	175	48	26	3.3	2.8	11.5	20	4.2	240	
200W	70.0	38.0	165.0	205	48	26	3.3	2.8	11.5	20	4.2	420	
250W	45.5	58.0	112.0	152	73	45	5.0	6.0	21.0	20	5.3	480	
300W	51.5	58.0	130.0	170	73	45	5.0	6.0	21.0	20	5.3	580	
500W	87.0	58.0	204.0	244	73	45	5.0	6.0	21.0	20	5.3	970	

Part Number :

Series + Rated Power + Resistance Value (ohm) + Resistance Tolerance + Terminals + Drawing Number

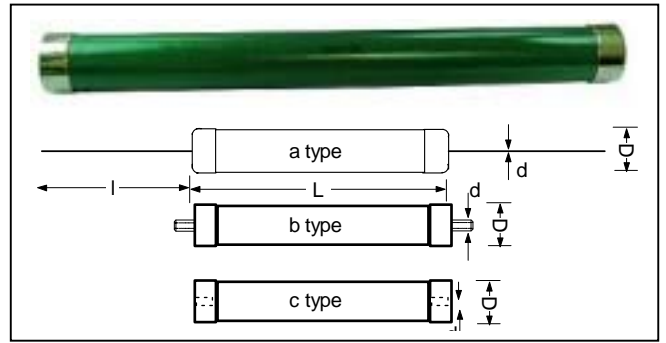
AHR 5~50W 0.1 ohm = R1 F = +/-1% G= +/-2% S / L
 75~500W 1 ohm = 1R J = +/-5% K= +/-10%

High Voltage Resistor DHVR

- it is vitreous Enamel coating for better resistor protection
- can withstand 3-5 times the rated power for short time
- standard resistor rated power : 1W ~ 400W
- standard resistance range : 100 ohm ~ 100G ohm
- rated temperature range : -55C ~ 70C

Application :

- High Voltage divider
- Measuring resistor
- Electrostatics
- Protective resistor



DHVR type :

Rated Power Wattage	Resistor package type	Dimensions in mm				Resistance range ohm	Temperature Coefficient ppm/C	Resistance Tolerance	Working Voltage KV
		Length L	Diameter D	Lead length	Lead diameter				
1W	a	30+/-1	9	30+/-1	1mm	100 ohm ~ 100G ohm	+/-250	+/-1% +/-2% +/-5% +/-10%	10
2W	a	50+/-1							15
3W	a	65+/-1							20
5W	a	100+/-1							25
8W	a b		30						
10W	a b	147+/-1	11		M4			35	
20W	b c	116+/-2	17	-	M6	10K ohm ~ 200M ohm	+/-400		30
30W			19						30
50W			21						30
80W			130+/-2						30
100W		160+/-2	28						35
150W		210+/-2							60
200W		260+/-2							60
300W		310+/-3	33						80
400W									80

For Resistor power that not listed above, please contact us for details.

Part Number :

Series + type + Rated Power + Resistance Value (ohm) + Resistance Tolerance

DHVR	a	1 ~ 400W	10k ohm= 10KR	J = +/-5%
	b		100k ohm= 100kR	K = +/-10%
	c		1M ohm = 1MR	
			100G ohm = 100GR	

Resistor Box / Resistor Cabinet

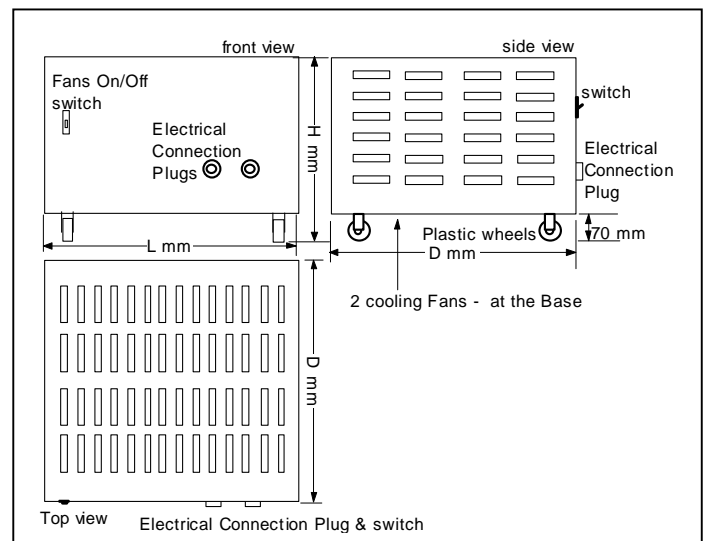
- Internal wire wound resistors are protected by external metal case from external mechanical force.
- single or/and 3 phase – WYE+Neutral or Delta
- Resistance and Wattage can be adjustable
- options : Voltage, Current and Wattage meter
 build in cooling system : Fans / Water Cooling
 thermal protection device
 Power Switch
 Plastic Wheels (so that Cabinet can be moved around)
- rated Power range : 2KW ~ 1500KW
- support very lower ohmic value, very high current up to 1500A and high voltage requirement
- support both indoor and outdoor application
- Size can be made according to customer's requirement



Resistor Box - RB

Dimension :

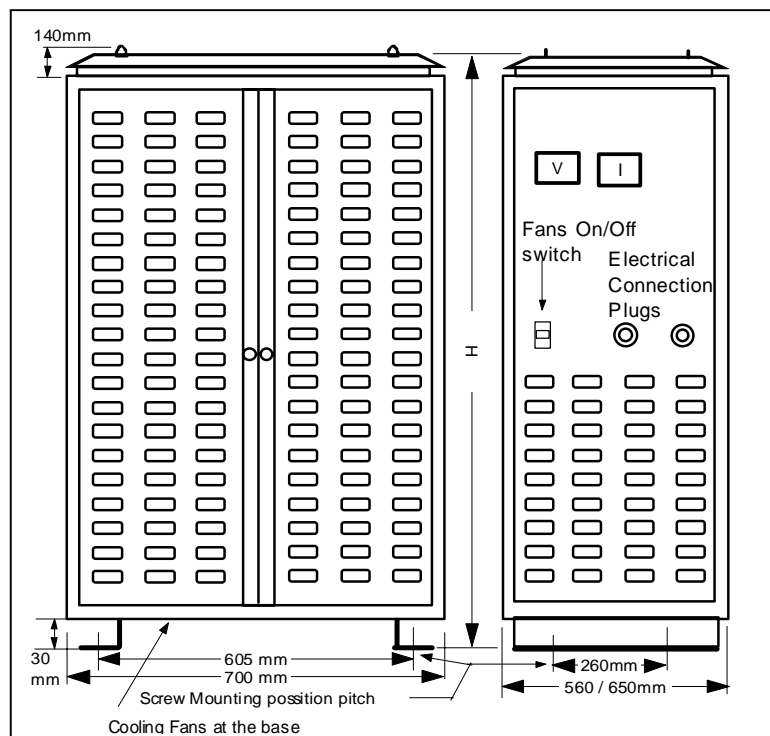
Rated Power	L +/-5mm	D +/-5mm	H +/15mm
2KW	380	200	210
5KW	500	290	210
6KW	590	290	210
8KW	590	400	210
10KW	680	400	210
12KW	680	400	210
15KW	680	500	210



Resistor Load / Bank / Cabinet - RC

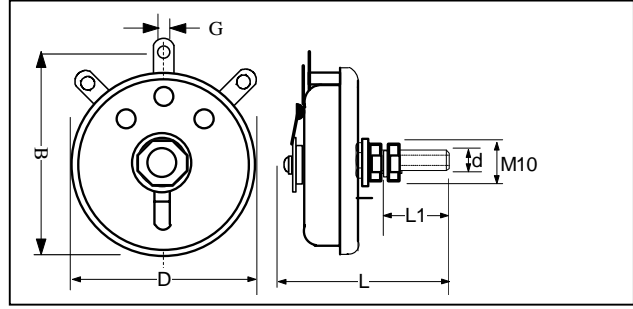
Dimension :

Rated Power	High H mm	Weight
25KW	850	60kg
37KW	1100	70kg
50KW	1350	80kg
60KW	1600	90kg
70KW	1600	100kg
100KW	1820	110kg



Rheostat / Rotary Variable Power Wire Wound Resistor

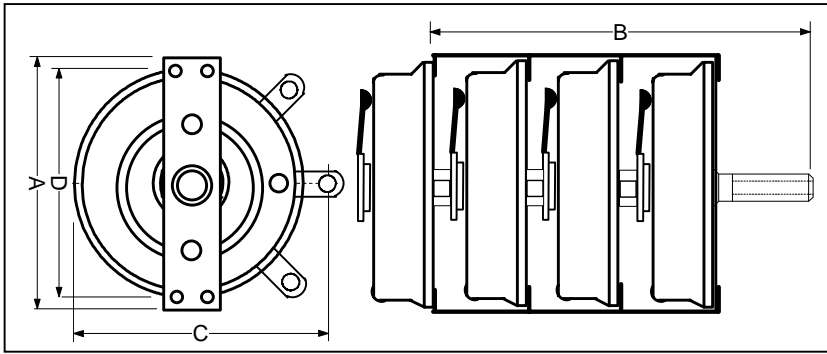
- Application : Resistive Load simulation, Heavy Duty application Machinery, Voltage and Current adjustment for Machinery & Equipment.
- Rated Power 25 ~ 500W.
- support other Resistance range, according to customer application need.
- **Tandem mounted Rheostat** with Power up to 4000W is available
- protective Metal Enclosure is available



FVR : Rotary Power Wire Wound Resistor

Rated Power W	Resistance ohm	Tolerance +/- %	D mm	B mm	L mm	L1 mm	d mm	G mm
25	10~1k	5	44	50	60	25	6	2
50	10~1.5k		64	70	64	25	6	2
100	10~2.2k		84	90	66	25	6	4
150	10~3k	10	104	120	76	30	6	4
300	10~4.7k		154	170	80	30	6	4
500	10~5k		204	215	80	30	6	4

Tandem Mounted Rheostat



Part Number	Rated Power W	Resistance range ohm		Max. Temperature	Dimensions in mm			
		Min.	Max.		A	D	C	B
FVR-300W/3	900	1	3000	350C	<170	145	<180	<280
FVR-500W/2	1000	1	3000	350C	<217	195	<215	<200
FVR-500W/3	1500	1	3000	350C	<217	195	<215	<280
FVR-500W/4	2000	1	3000	350C	<217	195	<215	<360

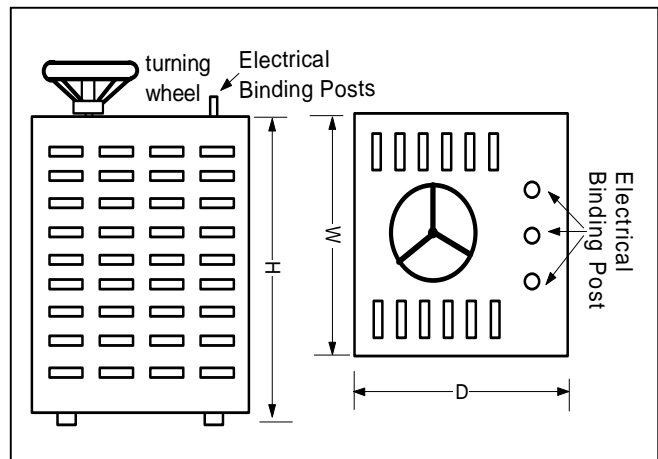
Part Number :

Series + Rated Power + Resistance Value (ohm) + Resistance Tolerance + No of Rheostat + Parallel/Serial connection
 FVR 25W ~ 500W 0.1 ohm = R1 J= +/-5% Tandem mount P = parallel
 1 ohm = 1R K= +/-10% 1~5 S = Serial
 10 ohm = 10R
 1k ohm = 102R

For Tandem Mounted Rheostat 2500W 100R : FVR-500W501RJ/5P

FVRB : Rheostat with Enclosure : up to 4000W

Power	W / mm	D / mm	H / mm
300W	220	240	150
500W	260	280	150
1000W	260	280	280
1500W	260	280	320
2000W	260	280	400
2500W	260	280	480
3000W	260	280	600
4000W	260	280	620

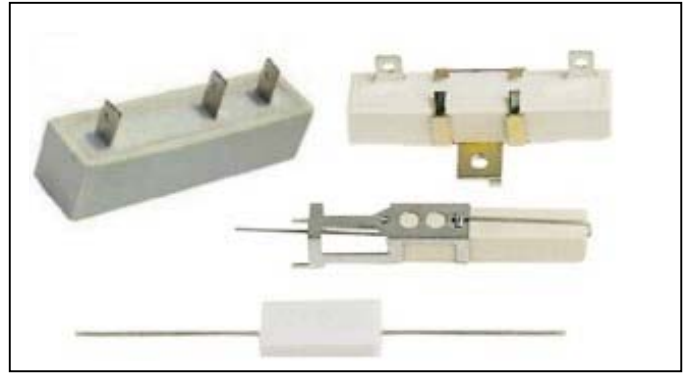


Application Note for Power Wire Wound Resistor :

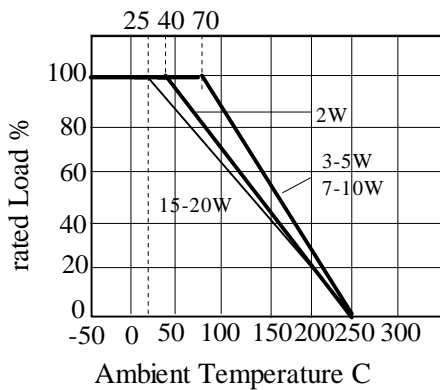
- For Silicon Coated Resistors, smoke might be emitted during initial power load, this is normal and the resistor is safe.
 - In case of high frequency application, had better chose Low-Inductive Resistor.
 - Do not over load the Resistor to avoid shortening resistor life.
 - Keeping all other components apart from Resistor, especially temperature sensitive component.
 - For Resistor need to work continuously, choose Resistor with rated Power 2 to 4 times higher than the actual loaded power can extend resistor life and lower surface temperature. We don't suggest load resistor up to its 70% rated power for continuous load work.
 - For short period of time overload the resistor, can withstand 5 times of the Rated Power in 5 seconds, however, depends on the current pulse width and resistor series.
 - Clean Resistor Tab Terminals before use. Cannot clean Resistor with organic solvents.
 - Do not scratch surface of Resistor with any hard or pointed object.
 - Do not touch surface of Resistor when it is connected to a power source due to the high temperature.
 - Resistor coating is UL 94V-0 class.
 - Resistor should always work within specification.
 - Resistance, Rated Power, Resistor Size, Mounting Fixture and Inductive / Low Inductive can be made according to customer's need.
-

Ceramic Encased Resistor – SQ series

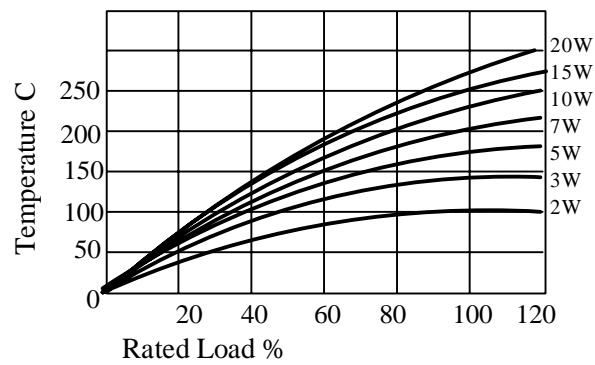
- excellent stability in high temperature, resistant to humidity and shock with economic price
- best suitable for heat dissipation; small linear temperature coefficient
- Instant overload capability; low noise figure
- Non Flammable Construction
- Low Inductive type available
- High Surge type available
- High Insulation Resistance
- Can be PCB mounted



Derating Curve



Temperature Rise

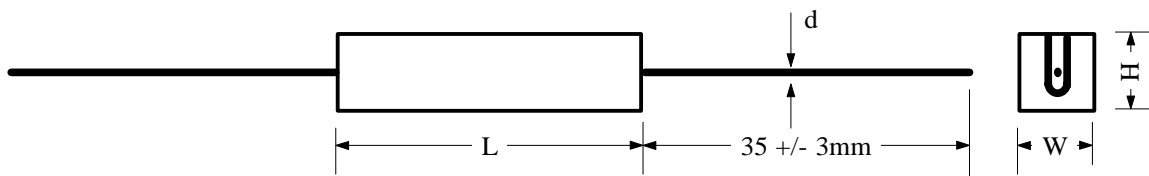


Test	Characteristic and Resistance change	
Resistance Temperature Coefficients	-55C ~ 155C	+/- 300ppm / C
Short Time Over Load	10 time of rated power 5seconds	+/-2%
Voltage withstanding	1000Vac 1min.	No change
Insulation Resistance	500V	1000M ohm
Temperature Cycle	-30~85C for 5 cycle	+/- 1%
Load Life	70C on / off cycle 1000 hours	+/- 5%
Moisture – proof Load Life	40C 95% RH on / off cycle 1000 hours	+/- 5%
Incombustibility	16 times of rated Power 5 minutes	No flamed
Rated Power	Rated Power 30 minutes	+/- 1%

Part Number :

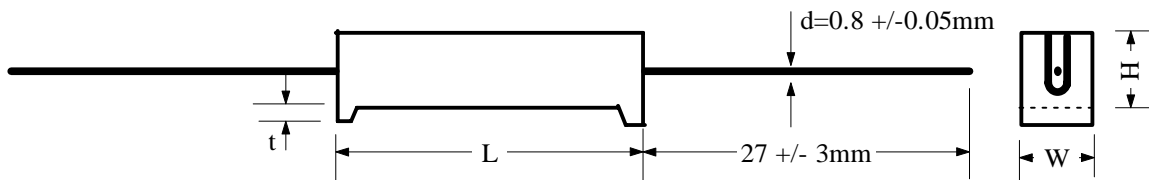
Series	Rated Power	Resistance Value (ohm) + Resistance Tolerance + Drawing Number
SQP	2 ~ 20W	0.1 ohm = R1 K= +/-10%
SQT	5 ~ 10W	1 ohm = 1R
SQM	5 ~ 10W	10 ohm = 10R
SQH/SQH-G	10 ~ 40W	
SQZ	5 ~20W	

SQP type



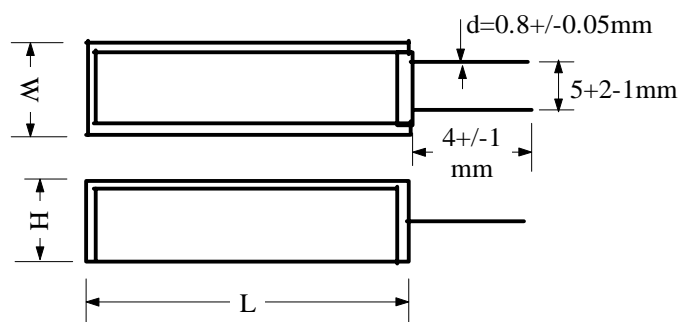
Rated Power	Dimensions in mm				Resistance ohm	
	L +/-1.5mm	W +/-1mm	H +/-3mm	D +/-0.05mm	SQP	MO+SQP
2W	18.0	7.0	7.0	0.65	0.1 ~ 50	50 ~ 20k
3W	22.0	8.0	8.0	0.80	0.1 ~ 50	50 ~ 33k
5W	22.0	10.0	9.0	0.80	0.1 ~ 50	50 ~ 50k
7W	35.0	10.0	9.0	0.80	0.1 ~ 500	500 ~ 50k
10W	48.0	10.0	9.0	0.80	0.1 ~ 500	500 ~ 50k
15W	48.0	12.0	12.0	0.90	0.5 ~ 500	500 ~ 150k
20W	60.0	13.0	13.0	0.90	0.5 ~ 500	500 ~ 150k

SQT type



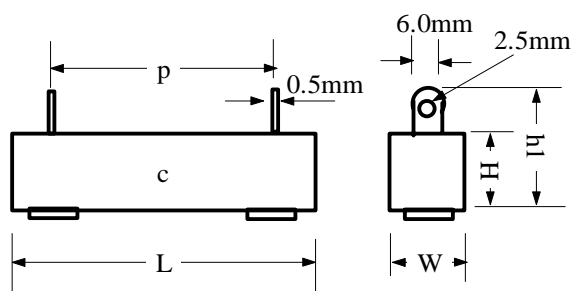
Rated Power	Dimensions in mm				Resistance ohm	
	L +/-1.5mm	W +/-1mm	H +/-3mm	t +/-1mm	SQT	MO+SQT
5W	22.0	10.0	9.0	1.5	0.1 ~ 50	50 ~ 50k
7W	35.0	10.0	9.0	3.0	0.1 ~ 500	500 ~ 47k
10W	48.0	10.0	9.0	3.0	0.1 ~ 500	500 ~ 47k

SQM type

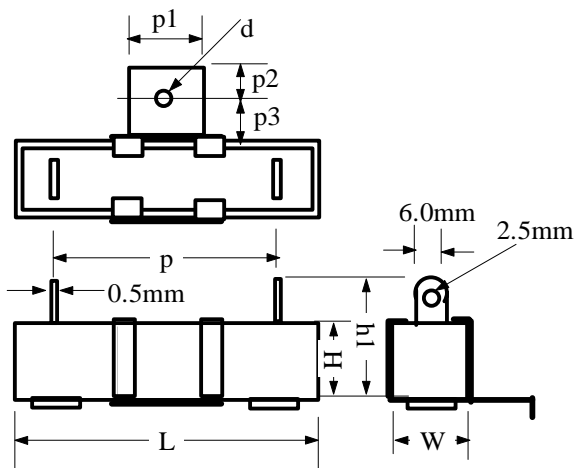


Rated Power	Dimensions in mm				Resistance ohm	
	L +/-1.5mm	W +/-1mm	H +/-3mm	d +/-0.05mm	SQM	MO+SQM
5W	25.0	13.0	9.0	0.8	0.1 ~ 50	50 ~ 50k
7W	39.0	13.0	9.0	0.8	0.1 ~ 500	500 ~ 47k
10W	51.0	13.0	9.0	0.8	0.1 ~ 500	500 ~ 47k

SQH type



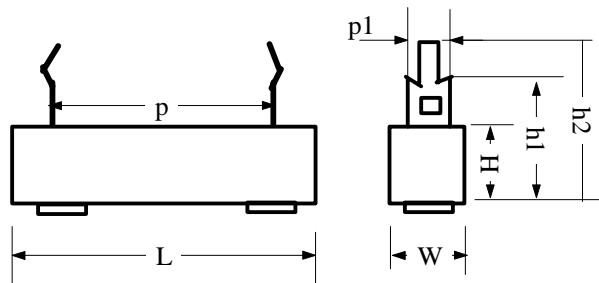
SQH-G type



SQH / SQH-G type

Rated Power	Resistance Range ohm		Dimensions in mm								
	SQH	MO+SQH	L +/-2	H +/-2	W +/-2	P +/-2	h1 +/-2	p1	p2	P3	D
10W	0.5 ~ 500	500 ~ 50K	48.0	10.0	10.0	32	21	12	6	8.0	4
15W	1 ~ 500	500 ~ 150K	48.0	12.0	12.0	32	21	12	6	8.0	4
20W	1 ~ 500	500 ~ 150K	63.5	12.0	12.0	42	24	12	6	8.0	4
30W	1 ~ 500		75.0	19.0	18.0	55	30	17	8	10.0	4
40W	1 ~ 50		90.0	19.0	18.0	68	30	17	8	10.0	4

SQZ type



Rated Power	Resistance Range ohm		Dimensions in mm						
	SQZ	MO+SQZ	L +/-1	H +/-1	W +/-1	P +/-1	h1	h2	p1
5W	0.1 ~ 100	100 ~ 50k	27.0	9.5	9.5	15.0	9.5	24.0	5.0
7W	0.1 ~ 500	500 ~ 50k	35.0	9.5	9.5	22.5	9.5	24.0	5.0
10W	0.2 ~ 500	500 ~ 50k	48.0	9.5	9.5	35.0	9.5	24.0	5.0
15W	0.5 ~ 500	500 ~ 150k	48.0	12.5	12.5	32.5	15.0	36.5	10.0
20W	1 ~ 500	500 ~ 150k	63.50	12.5	12.5	45.0	15.0	36.5	10.0

MF Power Resistor Ltd reserves the right to make changes without further notice to any products herein to improve reliability, function or design.