

## 270 Type

### Vitreous Enamel Power Resistors

#### Features

- **Terminals** suitable for soldering or bolt connection.
- **High wattage** applications.
- **Rugged** vitreous enamel coating.
- **Flame resistant** coating.
- **All-welded** construction.



(Mounting Brackets Not Included With Resistors)

Select 270 Type fixed resistors for applications requiring wattage ratings from 12 to 225 watts.

The 270 Type resistors are equipped with lug terminals suitable for soldering or sturdy bolt connection. When secure mounting is required, the hollow core of these resistors permit fastening with spring-type brackets, thru bolts or thru bolts with slotted-steel brackets.

Suitable for rugged applications, the 270 Type resistors feature all-welded construction and durable vitreous enamel coating.

#### Specifications

##### • Material

Coating: Vitreous enamel.

Core: Tubular ceramic.

Terminals: Solder coated radial lug.

Weight:

Power Rating Watts	12	25	50	100	175	225
Average Weight	7 gms	22 gms	45 gms	107 gms	227 gms	282 gms

##### • Electrical

Tolerance:

± 5% 1 Ohm and over.

± 10% under 1 Ohm.

Power Rating: Based on 25°C free air rating.

Power Limitations for High Resistance Values:

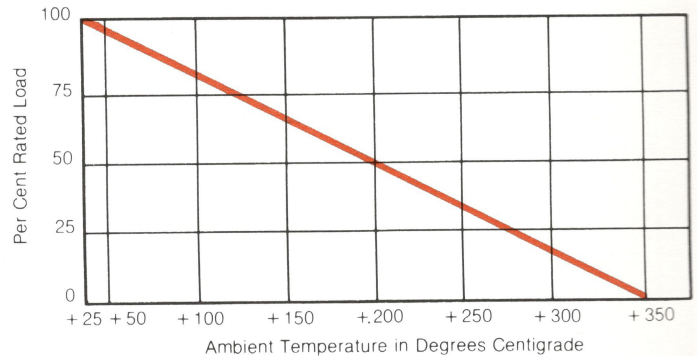
When resistance exceeds the Resistance Values listed below, derate the Power Rating by 25% to improve reliability.

Power Rating Watts	12	25	50	100	175	225
Resistance Values Ohms	3,900	12,000	35,000	75,000	*	*

Maximum Operating Voltage:

Power Rating Watts	12	25	50	100	175	225
Maximum Voltage	565	625	1625	2845	3595	4595

Derating:



Overload: 10 times rated wattage for 5 seconds.

Temperature Coefficient:

1 to 19.99 Ohms ± 400 ppm/°C.

Over 20 Ohms ± 260 ppm/°C.

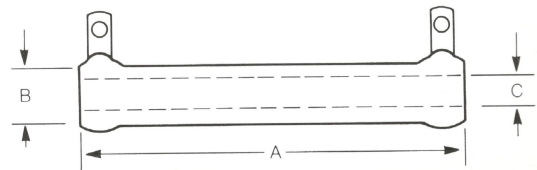
Dielectric Withstanding Voltage:

1000 VAC: 12 to 100 watt rating.

3000 VAC: 175 and 225 watt rating.

(measured from terminal to mounting bracket)

##### • Dimensions



Power Rating Watts	Core Dimensions					
	A		B		C	
	in.	mm	in.	mm	in.	mm
12	1.75	44.4	.313	7.94	.188	4.76
25	2.0	50.8	.562	14.3	.313	7.94
50	4.0	101.6	.562	14.3	.313	7.94
100	6.5	165.1	.75	19.1	.50	12.7
175	8.5	215.9	1.125	28.6	.75	19.1
225	10.5	266.7	1.125	28.6	.75	19.1



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#### Stock Part Numbers<sup>1</sup> For Standard Resistance Values

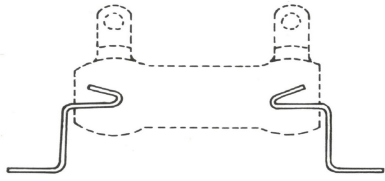
(Non Standard Values Available By Special Order. Contact Nearest Ohmite Sales Office.)

Ohms	Part No.
	12 WATT
.51	L12JR51
1	L12J1R0
1.5	(L12J1R5)
2.2	(L12J2R2)
3.3	L12J3R3
4.7	L12J4R7
6.8	(L12J6R8)
10	L12J10R
12	L12J12R
15	L12J15R
18	(L12J18R)
22	L12J22R
27	L12J27R
33	L12J33R
39	(L12J39R)
47	L12J47R
56	(L12J56R)
68	L12J68R
82	L12J82R
100	L12J100
120	(L12J120)
150	L12J150
180	L12J180
220	(L12J220)
270	(L12J270)
330	L12J330
390	L12J390
470	L12J470
560	L12J560
680	(L12J680)
820	(L12J820)
1,000	L12J1K0
1,200	L12J1K2
1,500	L12J1K5
1,800	(L12J1K8)
2,200	L12J2K2
2,700	L12J2K7
3,300	(L12J3K3)
3,900	(L12J3K9)
4,700	L12J4K7
5,600	(L12J5K6)
6,800	(L12J6K8)
8,200	(L12J8K2)
10,000	L12J10K
12,000	(L12J12K)
15,000	(L12J15K)
18,000	L12J18K
22,000	L12J22K
27,000	(L12J27K)
33,000	(L12J33K)
39,000	(L12J39K)
47,000	(L12J47K)
51,000	L12J51K

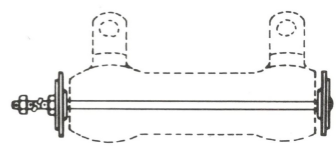
Ohms	Part No.				
	25 Watt	50 Watt	100 Watt	175 Watt	225 Watt
1	L25J1R0	L50J1R0	L100J1R0	L175J1R0	L225J1R0
2	L25J2R0	L50J2R0	L100J2R0	L175J2R0	L225J2R0
3	L25J3R0	L50J3R0	L100J3R0	L175J3R0	L225J3R0
4	L25J4R0	L50J4R0	L100J4R0	L175J4R0	L225J4R0
5	L25J5R0	L50J5R0	L100J5R0	L175J5R0	L225J5R0
10	L25J10R	L50J10R	L100J10R	L175J10R	L225J10R
15	L25J15R	—	—	—	—
25	L25J25R	L50J25R	L100J25R	L175J25R	L225J25R
50	L25J50R	L50J50R	L100J50R	L175J50R	L225J50R
75	L25J75R	L50J75R	L100J75R	L175J75R	L225J75R
100	L25J100	L50J100	L100J100	L175J100	L225J100
125	—	—	L100J125	L175J125	—
150	L25J150	L50J150	L100J150	L175J150	L225J150
200	L25J200	L50J200	—	—	—
250	L25J250	L50J250	L100J250	L175J250	L225J250
500	L25J500	L50J500	L100J500	L175J500	L225J500
750	L25J750	L50J750	L100J750	(L175J750)	L225J750
800	L25J800	L50J800	—	—	—
1,000	L25J1K0	L50J1K0	L100J1K0	L175J1K0	L225J1K0
1,500	L25J1K5	L50J1K5	L100J1K5	(L175J1K5)	L225J1K5
2,000	L25J2K0	L50J2K0	L100J2K0	L175J2K0	L225J2K0
2,500	L25J2K5	L50J2K5	L100J2K5	(L175J2K5)	L225J2K5
3,000	L25J3K0	L50J3K0	L100J3K0	L175J3K0	L225J3K0
3,500	L25J3K5	—	—	—	—
4,000	L25J4K0	L50J4K0	—	—	—
5,000	L25J5K0	L50J5K0	L100J5K0	L175J5K0	L225J5K0
6,000	L25J6K0	—	—	—	—
7,500	L25J7K5	L50J7K5	L100J7K5	(L175J7K5)	L225J7K5
8,000	—	(L50J8K0)	—	—	—
10,000	L25J10K	L50J10K	L100J10K	L175J10K	L225J10K
12,000	L25J12K	(L50J12K)	—	—	—
15,000	L25J15K	L50J15K	L100J15K	(L175J15K)	L225J15K
20,000	L25J20K	L50J20K	L100J20K	(L175J20K)	L225J20K
25,000	L25J25K	L50J25K	(L100J25K)	(L175J25K)	L225J25K
30,000	(L25J30K)	—	L100J30K	(L175J30K)	L225J30K
35,000	(L25J35K)	L50J35K	—	—	—
40,000	L25J40K	—	(L100J40K)	(L175J40K)	L225J40K
50,000	L25J50K	L50J50K	L100J50K	(L175J50K)	L225J50K
60,000	(L25J60K)	—	(L100J60K)	(L175J60K)	L225J60K
70,000	(L25J70K)	—	—	—	—
75,000	—	L50J75K	(L100J75K)	L175J75K	L225J75K
80,000	(L25J80K)	—	—	—	—
100,000	L25J100K	L50J100K	L100J100K	L175J100K	L225J100K
125,000	—	(L50J125K)	—	—	—
150,000	—	L50J150K	—	—	—
175,000	—	(L50J175K)	—	—	—
200,000	—	L50J200K	—	—	—
250,000	—	L50J250K	—	—	—

#### Resistor Mounting Hardware

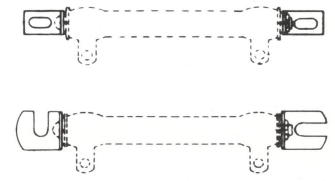
##### Mounting Brackets



##### Thru-Bolts with Centering and Insulating Washers



##### Thru-Bolts and Mounting Brackets



Page 28 lists detailed description, resistor compatibility and dimensions for resistor mounting hardware.