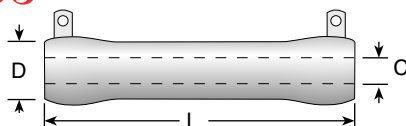


Vitreous Enamel Power Resistors



Non-Inductive versions available; Other sizes available; Also available in low cost Centohm coating: Consult Factory.

RoHS Compliant

L 25 J 100 E

Series Wattage Tolerance Ohms

F = 1%
H = 3%
J = 5%
K = 10%

1R0 = 1 Ω
250 = 250 Ω
1K0 = 1,000 Ω
25K = 25,000 Ω
25K5 = 25,500 Ω

See page 40 for custom core and terminal info

Code Segment	Description	Value / Specification
270	Coating	270 = Vitreous 470 = Silicone Ceramic
50	Wattage	-
K	Core Diameter	See "Core and Terminal Selection"
405R	Terminal Type	See "Resistor Terminals for Tubular Cores"
00J	RoHS Compliant	F = 1% H = 3% J = 5% K = 10%
E	Tolerance	-
Resistance		

**See page 34
for mounting hardware**

Power limitations for high resistance values: When resistance exceeds the resistance values listed at right, derate the Power Rating by 25% to improve reliability:

Power rating	Resistance value	No power derating necessary for ratings higher than 100W.
12W	3,900Ω	
25W	12,000Ω	
50W	35,000Ω	
100W	75,000Ω	

Ohmic value			Wattage			Ohmic value			Wattage		
Ohmic value	12 Watt		Ohmic value	12 Watt		Ohmic value	12 Watt		Ohmic value	12 Watt	
0.51	✓	L12JKR51	470	✓	L12J470	4,000	✓	4K0	✓	✓	
1	✓	L12J1R0	560	✓	L12J560	5,000	—	5K0	✚	✓	✓
1.5	✚	L12J1R5	680	✚	L12J680	6,000	—	6K0	✓	✓	✓
2.2	✚	L12J2R2	820	✚	L12J820	7,500	—	7K5	✓	✓	✚
3.3	✓	L12J3R3	1000	✓	L12J1K0	8,000	—	8K0	✚		
4.7	✓	L12J4R7	1200	✓	L12J1K2						
6.8	✚	L12J6R8	1500	✓	L12J1K5	10,000	—	10K	✓	✓	✓
10	✓	L12J10R	1800	✚	L12J1K8	12,000	—	12K	✓	✚	
12	✓	L12J12R	2200	✓	L12J2K2	15,000	—	15K	✓	✓	✓
15	✚	L12J15R	2700	✓	L12J2K7	20,000	—	20K	✓	✓	✚
18	✚	L12J18R	3300	✚	L12J3K3	25,000	—	25K	✓	✓	✓
22	✓	L12J22R	3900	✚	L12J3K9	30,000	—	30K	✚		✓
27	✓	L12J27R	4700	✓	L12J4K7	35,000	—	35K	✓	✓	
33	✓	L12J33R	5600	✚	L12J5K6	40,000	—	40K	✓	✚	✓
39	✚	L12J39R	6800	✚	L12J6K8	50,000	—	50K	✓	✓	✚
47	✓	L12J47R	8200	✚	L12J8K2	60,000	—	60K	✚	✓	✓
56	✚	L12J56R	10000	✓	L12J10K	70,000	—	70K	✚		
68	✓	L12J68R	12000	✚	L12J12K	75,000	—	75K	✓	✚	✓
82	✓	L12J82R	15000	✚	L12J15K	80,000	—	80K	✚		
100	✓	L12J100	18000	✓	L12J18K	100,000	—	100K	✓	✚	✚
120	✚	L12J120	22000	✓	L12J22K	125,000	—	125K	✚		
150	✓	L12J150	27000	✚	L12J27K	150,000	—	150K	✓	✓	
180	✓	L12J180	33000	✚	L12J33K	175,000	—	175K	✚	✓	
220	✚	L12J220	39000	✚	L12J39K	200,000	—	200K	✓	✓	
270	✓	L12J270	47000	✚	L12J47K	250,000	—	250K	✓	✓	
330	✓	L12J330	51000	✓	L12J51K						
390	✓	L12J390									

+ = Most popular stock values

✓ = Stock values

❖ = Non-stock values subject to minimum handling charge per item

Select 270 Type fixed resistors for applications requiring wattage ratings from 12 to 1000 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 lead free vitreous enamel coating.

Mounting brackets not included with resistors.

- Terminals suitable for soldering or bolt connection.
- High wattage applications.
- Rugged lead free vitreous enamel coating.
- Flame resistant coating.
- All-welded construction.
- RoHS compliant product available Jan. 2006 Add "E" suffix to part number to specify.

Material

Coating: Lead free vitreous enamel.

Core: Tubular ceramic.

Terminals: Solder coated radial lug.

Derating: Linearly from 100% @ +25°C to 0% @ +350°C.

Electrical

Tolerance:

±5% 1Ω and over (J)

$\pm 10\%$ under 1Ω (K)

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

Overload: 10 times rated wattage for 5 seconds.

Temperature coefficient:

1 to 20Ω: ±400 ppm/°C.

Above 20Ω: ±260 ppm/°C
Dielectric withstanding voltage:
 1000 VAC: 12 to 100 watt rating.
 3000 VAC: 175 to 225 watt rating (Measured from terminal to mounting bracket)

To calculate max. amps: use the formula $\sqrt{P/R}$