

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.

FEATURES

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

SPECIFICATIONS

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% 1 ohm and over (J) ±10% under 1 ohm.(K)

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

Overload: 10 times rated wattage for 5 seconds.

Temperature coefficient: 1 to 20 ohms: ±400 ppm/°C. Above 20 ohms: ±260 ppm/°C

Dielectric withstanding voltage:

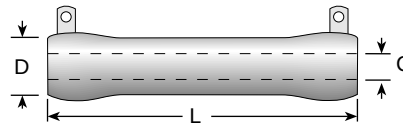
1000 VAC: 12 to 100 watt rating. 3000 VAC: 175 to 225 watt rating (Measured from terminal to mounting bracket)

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

See page 21 for mounting hardware

270 Series

Vitreous Enamel Power Resistors



Series	Wattage	Ohms	Dimensions (in. / mm)				Voltage
			L Length	D Diam.	C I.D. Core		
L12	12	0.1-51K	1.75 / 44.4	0.313 / 7.94	0.188 / 4.76		565
L25	25	0.15-100K	2.0 / 50.8	0.562 / 14.3	0.313 / 7.94		625
L50	50	0.38-260K	4.0 / 101.6	0.562 / 14.3	0.313 / 7.94		1625
L100	100	0.23-101K	6.5 / 165.1	0.750 / 19.1	0.50 / 12.7		2845
L175	175	0.13-101K	8.5 / 215.9	1.125 / 28.6	0.75 / 19.1		3595
L225	225	0.16-129K	10.5 / 266.7	1.125 / 28.6	0.75 / 19.1		4595
L500	500	0.38-218K	12.0 / 304.8	2.50 / 63.5	1.75 / 44.5		4970
L1000	1000	0.69-392K	20.0 / 508.0	2.50 / 63.5	1.75 / 44.5		8900

Non-Inductive versions available from stock.
Other sizes available. Consult factory.

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 100 watts.
12W	3,900Ω	
25W	12,000Ω	
50W	35,000Ω	
100W	75,000Ω	

STOCK PART NUMBERS FOR STANDARD RESISTANCE VALUES

Ohmic value			Wattage							Ohmic value			Wattage						
			Part No.	25	50	100	175	225	500				1000	Part No.	25	50	100	175	225
Prefix →	Suffix ↓		25J	L50J	L100J	L175J	L225J	L500J	L1000J	Prefix →	Suffix ↓	25J	L50J	L100J	L175J	L225J	L500J	L1000J	
1	—1R0	✓	+	+	+	✓	+			4,000	—4K0	✓	✓						
2	—2R0	+	✓	+	✓	✓	✓			5,000	—5K0	+	✓	✓	✓	✓			
3	—3R0	+	✓	✓	✓	✓	✓			6,000	—6K0	✓							
4	—4R0	✓	✓	✓	✓	✓	✓			7,500	—7K5	✓	✓	✓	✱	✓			
5	—5R0	+	+	+	✓	+	+	+	+	8,000	—8K0		✱						
10	—10R	+	+	+	✓	+				10,000	—10K	✓	✓	✓	✓	✓			
15	—15R	+								12,000	—12K	✓	✱						
25	—25R	+	+	+	✓	+				15,000	—15K	✓	✓	✓	✱	✓			
50	—50R	+	+	+	✓	+	+			20,000	—20K	✓	✓	✓	✱	✱	+		
75	—75R	+	+	✓	✓	✓				25,000	—25K	✓	✓	✱	✱	✓			
100	—100	+	+	+	✓	+	+	+	+	30,000	—30K	✱		✓	✱	✓			
125	—125			✓	✓					35,000	—35K		✓						
150	—150	✓	✓	+	✓	+				40,000	—40K	✓		✱	✱	✓			
200	—200	✓	✓							50,000	—50K	✓	✓	+	✱	✱	+		
250	—250	✓	+	+	✓	+				60,000	—60K	✱		✱	✱	✓			
500	—500	✓	+	+	✓	+	+	+	+	70,000	—70K	✱							
750	—750	✓	✓	✓	✱	+				75,000	—75K		✓	✱	✓	✓			
800	—800	✓	✓							80,000	—80K	✱							
1,000	—1K0	+	+	+	✓	+	+	+	+	100,000	—100K	✓	+	+	✓	+			
1,500	—1K5	✓	✓	✓	✱	✓				125,000	—125K		✱						
2,000	—2K0	+	✓	✓	✓	+				150,000	—150K		✓						
2,500	—2K5	✓	✓	✓	✱	✓				175,000	—175K		✱						
3,000	—3K0	✓	✓	✓	✓	✓				200,000	—200K	✓	✓						
3,500	—3K5	+								250,000	—250K		✓						

✱ = Most popular stock values

✓ = Stock values

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

Shaded values involve very fine resistance wire and should not be used in critical applications without burn-in and/or thermal cycling.