



THE DATASHEET OF L50J250K

270 Series

Vitreous Enamel Power



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
- RoHS compliant available
- "Fast on" option – see terminal 538, <https://www.ohmite.com/assets/docs/terminals.pdf>

SERIES SPECIFICATIONS

Series	Wattage	Ohms	Core Code	Max. Voltage*	Std. Terminal
L12	12	0.1-51K	D	565	57
L25	25	0.15-100K	K	625	40
L50	50	0.38-260K	K	1625	40
L100	100	0.23-101K	M	2845	40
L175	175	0.13-101K	P	3595	46
L225	225	0.16-129K	P	4595	46
L500	500	0.38-218K	S	4970	45
L1000	1000	0.69-392K	S	8900	45

Non-Inductive versions available; Other sizes available; Also available in low cost Centohm or Silicone coating; Consult Ohmite.

* Maximum Voltage is based on Ohm's Law $[V=\sqrt{P \times R}]$ as limited by the resistance value of specified product or the voltage limit stated, whichever is lower.

CHARACTERISTICS

Coating	Lead free vitreous enamel. Large models (500 watts and up) are supplied in Silicone Ceramic. Also available in low-cost Centohm coating; Consult factory.										
Core	Tubular ceramic.										
Terminals	Solder coated radial lug. RoHS solder composition is 96% Sn, 3.5% Ag, 0.5% Cu										
Derating	Linearly from 100% @ +25°C to 0% @ +350°C.										
Tolerance	±5% 1Ω and over (J); ±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)										
Max. amps	use the formula $\sqrt{P/R}$										
Power limitations for high resistance values	When resistance exceeds the resistance values listed, derate the Power Rating by 25% to improve reliability. <i>No power derating necessary for ratings higher than 100W.</i>										
	<table> <tr> <th>Power rating</th><th>Resistance value</th></tr> <tr> <td>12W</td><td>3,900Ω</td></tr> <tr> <td>25W</td><td>12,000Ω</td></tr> <tr> <td>50W</td><td>35,000Ω</td></tr> <tr> <td>100W</td><td>75,000Ω</td></tr> </table>	Power rating	Resistance value	12W	3,900Ω	25W	12,000Ω	50W	35,000Ω	100W	75,000Ω
Power rating	Resistance value										
12W	3,900Ω										
25W	12,000Ω										
50W	35,000Ω										
100W	75,000Ω										
Mounting Hardware	see https://www.ohmite.com/assets/docs/hardware_resistor.pdf										

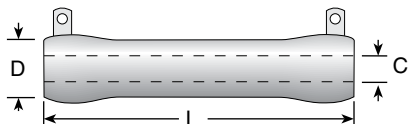
(continued)

270 Series

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DIMENSIONS

in./mm



Series	Wattage	L	D	C	Core Code*	Std. Term.**
L12	12	1.75 / 44.4	0.313 / 7.94	0.188 / 4.76	D	57
L25	25	2.0 / 50.8	0.562 / 14.3	0.313 / 7.94	K	40
L50	50	4.0 / 101.6	0.562 / 14.3	0.313 / 7.94	K	40
L100	100	6.5 / 165.1	0.750 / 19.1	0.50 / 12.7	M	40
L175	175	8.5 / 215.9	1.125 / 28.6	0.75 / 19.1	P	46
L225	225	10.5 / 266.7	1.125 / 28.6	0.75 / 19.1	P	46
L500	500	12.0 / 304.8	2.50 / 63.5	1.75 / 44.5	S	45
L1000	1000	20.0 / 508.0	2.50 / 63.5	1.75 / 44.5	S	45

* <https://www.ohmite.com/assets/docs/200-210-270-custom.pdf>

** <https://www.ohmite.com/assets/docs/terminals.pdf>

ORDERING INFORMATION

Standard

F = Fast on (optional)	Non-inductive Blank = Standard N = Non-inductive	RoHS Compliant
L	25	J 100 E
Coating Blank = Vitreous C = Centohm S = Silicone	Series Wattage Tolerance J = 5% K = 10%	Ohms 1R0 = 1Ω 250 = 250Ω 1K0 = 1,000Ω 25K = 25,000Ω 25K5 = 25,500Ω

Made-to-order

Non-inductive Blank = Standard N = Non-inductive	Core Diameter See "Core and Terminal Selection"	RoHS Compliant
270	50 K 40	5 R 00 J E
Coating 270 = Vitreous 470 = Silicone Ceramic	Wattage Terminal Type See "Resistor Terminals for Tubular Cores"	Ohms R500 = 0.500Ω 1R00 = 1Ω 250R = 250Ω 1K00 = 1,000Ω 25K0 = 25,000Ω 25K5 = 25,500Ω

See website for custom core and terminal info:
<http://www.ohmite.com/assets/docs/terminals.pdf>

Standard part numbers for 270 series

Ohmic value	12 Watt	Ohmic value	12 Watt	Ohmic value	Part No.	Wattage	Ohmic value	Part No.	Wattage
0.51	✓ L12JKR51E	180	✓ L12J180E	1	Prefix	25	2,500	Prefix	25
1	✓ L12J1R0E	270	✓ L12J270E	2	Suffix	50	3,000	Suffix	50
3.3	✓ L12J3R3E	330	✓ L12J330E	3	1R0E	100	3,500	1R0E	100
4.7	✓ L12J4R7E	390	✓ L12J390E	4	2R0E	175	4,000	2R0E	175
10	✓ L12J10R0E	470	✓ L12J470E	5	3R0E	225	5,000	3R0E	225
12	✓ L12J12R0E	560	✓ L12J560E	10	4R0E	500	6,000	4R0E	500
15	✓ L12J15R0E	1000	✓ L12J1K0E	15	5R0E	1000	7,500	5R0E	1000
22	✓ L12J22R0E	1200	✓ L12J1K2E	25	10RE		10,000	10RE	
27	✓ L12J27R0E	1500	✓ L12J1K5E	30	15RE		12,000	15RE	
33	✓ L12J33R0E	2200	✓ L12J2K2E	35	25RE		15,000	25RE	
47	✓ L12J47R0E	2700	✓ L12J2K7E	40	30RE		20,000	30RE	
68	✓ L12J68R0E	4700	✓ L12J4K7E	50	35RE		25,000	35RE	
82	✓ L12J82R0E	10000	✓ L12J10KE	75	40RE		30,000	40RE	
100	✓ L12J100E	18000	✓ L12J18KE	100	50RE		35,000	50RE	
150	✓ L12J150E	22000	✓ L12J22KE	125	75RE		40,000	75RE	
		51000	✓ L12J51KE	150	100E		50,000	100E	
				175	125E		60,000	125E	
				200	150E		75,000	150E	
				250	200E		100,000	200E	
				500	250E		150,000	250E	
				750	500E		200,000	500E	
				800	750E		250,000	750E	
				1,000	800E			800E	
				1,500	1,000E			1,000E	
				2,000	1,500E			1,500E	
					2,000E			2,000E	

✓ = Standard values; check availability using the worldwide inventory search at www.ohmite.com

Red outlined values supplied in Silicone-Ceramic coatings instead of vitreous enamel.

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

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 [Ohmite](#) Information

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