

# 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	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  $[V=\sqrt{P \cdot R}]$  as limited by the resistance value of specified product

### CHARACTERISTICS

<b>Coating</b>	Lead free vitreous enamel. Large models (500 watts and up) are supplied in Silicone Ceramic. Also available in low-cost Centohm coating; Consult factory.										
<b>Core</b>	Tubular ceramic.										
<b>Terminals</b>	Solder coated radial lug. RoHS solder composition is 96% Sn, 3.5% Ag, 0.5% Cu										
<b>Derating</b>	Linearly from 100% @ +25°C to 0% @ +350°C.										
<b>Tolerance</b>	±5% 1Ω and over (J); ±10% under 1Ω (K)										
<b>Power rating</b>	Based on 25°C free air rating.										
<b>Overload</b>	10 times rated wattage for 5 seconds.										
<b>Temperature coefficient</b>	1 to 20Ω: ±400 ppm/°C; Above 20Ω: ±260 ppm/°C										
<b>Dielectric withstanding voltage</b>	1000 VAC: 12 to 100 watt rating. 3000 VAC: 175 to 225 watt rating (Measured from terminal to mounting bracket)										
<b>Max. amps</b>	use the formula $\sqrt{P/R}$										
<b>Power limitations for high resistance values</b>	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 border="1"> <thead> <tr> <th>Power rating</th> <th>Resistance value</th> </tr> </thead> <tbody> <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> </tbody> </table>	Power rating	Resistance value	12W	3,900Ω	25W	12,000Ω	50W	35,000Ω	100W	75,000Ω
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100W	75,000Ω										
<b>Mounting Hardware</b>	see <a href="https://www.ohmite.com/assets/docs/hardware_resistor.pdf">https://www.ohmite.com/assets/docs/hardware_resistor.pdf</a>										

(continued)

# 270 Series

## Vitreous Enamel Power

### 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)  
Blank = Standard  
N = Non-inductive  
RoHS Compliant

**L 25 J 100 E**

Series: L  
Wattage: 25  
Tolerance: J = 5%, K = 10%  
Ohms: 1R0 = 1Ω, 250 = 250Ω, 1K0 = 1,000Ω, 25K = 25,000Ω, 25K5 = 25,500Ω

Coating: Blank = Vitreous, C = Centohm, S = Silicone

#### Made-to-order

Non-inductive  
Blank = Standard  
N = Non-inductive  
Core Diameter  
See "Core and Terminal Selection"  
RoHS Compliant

**270 50 K 405 R 00 J E**

Coating: 270 = Vitreous, 470 = Silicone Ceramic  
Wattage: 50  
Ohms: R500 = 0.500Ω, 1R00 = 1Ω, 250R = 250Ω, 1K00 = 1,000Ω, 25K0 = 25,000Ω, 25K5 = 25,500Ω  
Terminal Type: See "Resistor Terminals for Tubular Cores"

See website for custom core and terminal info

#### Standard part numbers for 270 series

Ohmic value	Wattage				Ohmic value	Wattage			
	12 Watt	25	50	100		12 Watt	25	50	100
0.51 ✓	L12JKR51E	180 ✓	L12J180E	1	1R0E	2,500	2K5E	20,000	20KE
1 ✓	L12J1R0E	270 ✓	L12J270E	2	2R0E	3,000	3K0E	25,000	25KE
3.3 ✓	L12J3R3E	330 ✓	L12J330E	3	3R0E	3,500	3K5E	30,000	30KE
4.7 ✓	L12J4R7E	390 ✓	L12J390E	4	4R0E	4,000	4K0E	35,000	35KE
10 ✓	L12J10RE	470 ✓	L12J470E	5	5R0E	5,000	5K0E	40,000	40KE
12 ✓	L12J12RE	560 ✓	L12J560E	10	10RE	6,000	6K0E	50,000	50KE
15 ✓	L12J15RE	1000 ✓	L12J1K0E	15	15RE	7,500	7K5E	60,000	60KE
22 ✓	L12J22RE	1200 ✓	L12J1K2E	25	25RE	10,000	10KE	75,000	75KE
27 ✓	L12J27RE	1500 ✓	L12J1K5E	50	50RE	12,000	12KE	100,000	100KE
33 ✓	L12J33RE	2200 ✓	L12J2K2E	75	75RE	15,000	15KE	150,000	150KE
47 ✓	L12J47RE	2700 ✓	L12J2K7E	100	100E	20,000	20KE	200,000	200KE
68 ✓	L12J68RE	4700 ✓	L12J4K7E	125	125E	25,000	25KE	250,000	250KE
82 ✓	L12J82RE	10000 ✓	L12J10KE	150	150E	30,000	30KE		
100 ✓	L12J100E	18000 ✓	L12J18KE	200	200E	35,000	35KE		
150 ✓	L12J150E	22000 ✓	L12J22KE	250	250E	40,000	40KE		
		51000 ✓	L12J51KE	500	500E	50,000	50KE		
				750	750E	60,000	60KE		
				800	800E	75,000	75KE		
				1,000	1K0E	100,000	100KE		
				1,500	1K5E	150,000	150KE		
				2,000	2K0E	200,000	200KE		
						250,000	250KE		

✓ = Standard values; check availability using the worldwide inventory search at [www.ohmite.com](http://www.ohmite.com)

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



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
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- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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