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

### 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. *No power derating necessary for ratings higher than 100W.* |

| 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 |

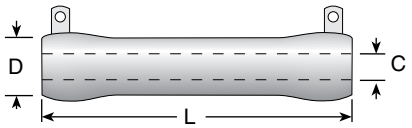
(continued)

# 270 Series

## Vitreous Enamel Power

## DIMENSIONS

in./mm



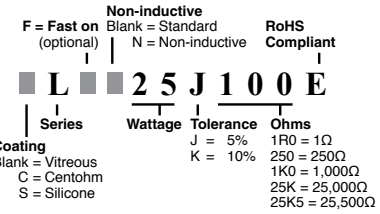

| Series | Wattage | L | D | C | Core Code* | Std. Term.** |
|---|---|---|---|---|---|---|
| L12 | 12 | 1.75 / 44.4 | 0.313 / 7.94 | 0.188 / 4.76 | D | 57 |
| L25 | 25 | 2.0 / 50.8 | 0.562 / 14.3 | 0.313 / 7.94 | K | 40 |
| L50 | 50 | 4.0 / 101.6 | 0.562 / 14.3 | 0.313 / 7.94 | K | 40 |
| L100 | 100 | 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

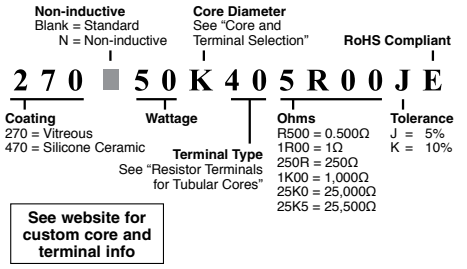
** https://www.ohmite.com/assets/docs/terminals.pdf

## ORDERING INFORMATION

### Standard




### Made-to-order




**See website for custom core and terminal info**

### Standard part numbers for 270 series

| Ohmic value | 12 Watt | | Ohmic value | 12 Watt | |
|---|---|---|---|---|---|
| 0.51 | ✔ | L12JKR51E | 180 | ✔ | L12J180E |
| 1 | ✔ | L12J1R0E | 270 | ✔ | L12J270E |
| 3.3 | ✔ | L12J3R3E | 330 | ✔ | L12J330E |
| 4.7 | ✔ | L12J4R7E | 390 | ✔ | L12J390E |
| 10 | ✔ | L12J10RE | 470 | ✔ | L12J470E |
| 12 | ✔ | L12J12RE | 560 | ✔ | L12J560E |
| 15 | ✔ | L12J15RE | 1000 | ✔ | L12J1K0E |
| 22 | ✔ | L12J22RE | 1200 | ✔ | L12J1K2E |
| 27 | ✔ | L12J27RE | 1500 | ✔ | L12J1K5E |
| 33 | ✔ | L12J33RE | 2200 | ✔ | L12J2K2E |
| 47 | ✔ | L12J47RE | 2700 | ✔ | L12J2K7E |
| 68 | ✔ | L12J68RE | 4700 | ✔ | L12J4K7E |
| 82 | ✔ | L12J82RE | 10000 | ✔ | L12J10KE |
| 100 | ✔ | L12J100E | 18000 | ✔ | L12J18KE |
| 150 | ✔ | L12J150E | 22000 | ✔ | L12J22KE |
| | | | 51000 | ✔ | L12J51KE |

✔ = 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.

| Ohmic value | Part No. Prefix ➤ / Suffix ▼ | Wattage 25 L25J | 50 L50J | 100 L100J | 175 L175J | 225 L225J | 500 L500J | 1000 L1000J |
|---|---|---|---|---|---|---|---|---|
| 1 | 1R0E | ✔ | ✔ | ✔ | ✔ | ✔ | | |
| 2 | 2R0E | ✔ | ✔ | ✔ | ✔ | ✔ | | |
| 3 | 3R0E | ✔ | ✔ | ✔ | ✔ | ✔ | | |
| 4 | 4R0E | ✔ | ✔ | ✔ | ✔ | ✔ | | |
| 5 | 5R0E | ✔ | ✔ | ✔ | ✔ | ✔ | | |
| 10 | 10RE | ✔ | ✔ | ✔ | ✔ | ✔ | | |
| 15 | 15RE | ✔ | | | | | | |
| 25 | 25RE | ✔ | ✔ | ✔ | ✔ | ✔ | | |
| 50 | 50RE | ✔ | ✔ | ✔ | ✔ | ✔ | | |
| 75 | 75RE | ✔ | ✔ | ✔ | ✔ | ✔ | | |
| 100 | 100E | ✔ | ✔ | ✔ | ✔ | ✔ | | |
| 125 | 125E | | | ✔ | ✔ | | | |
| 150 | 150E | ✔ | ✔ | ✔ | ✔ | ✔ | | |
| 200 | 200E | ✔ | ✔ | | | | | |
| 250 | 250E | ✔ | ✔ | ✔ | ✔ | ✔ | | |
| 500 | 500E | ✔ | ✔ | ✔ | ✔ | ✔ | | |
| 750 | 750E | ✔ | ✔ | ✔ | | ✔ | | |
| 800 | 800E | ✔ | ✔ | | | | | |
| 1,000 | 1K0E | ✔ | ✔ | ✔ | ✔ | ✔ | | |
| 1,500 | 1K5E | ✔ | ✔ | ✔ | | ✔ | | |
| 2,000 | 2K0E | ✔ | ✔ | ✔ | ✔ | ✔ | | |

| Ohmic value | Part No. Prefix ➤ / Suffix ▼ | Wattage 25 L25J | 50 L50J | 100 L100J | 175 L175J | 225 L225J | 500 L500J | 1000 L1000J |
|---|---|---|---|---|---|---|---|---|
| 2,500 | 2K5E | ✔ | ✔ | ✔ | | ✔ | | |
| 3,000 | 3K0E | ✔ | ✔ | ✔ | ✔ | ✔ | | |
| 3,500 | 3K5E | ✔ | | | | | | |
| 4,000 | 4K0E | ✔ | ✔ | | | | | |
| 5,000 | 5K0E | ✔ | ✔ | ✔ | ✔ | ✔ | | |
| 6,000 | 6K0E | ✔ | | | | | | |
| 7,500 | 7K5E | ✔ | ✔ | ✔ | | ✔ | | |
| 10,000 | 10KE | ✔ | ✔ | ✔ | ✔ | ✔ | | |
| 12,000 | 12KE | ✔ | | | | | | |
| 15,000 | 15KE | ✔ | ✔ | ✔ | | ✔ | | |
| 20,000 | 20KE | ✔ | ✔ | ✔ | | ✔ | | |
| 25,000 | 25KE | ✔ | ✔ | | | ✔ | | |
| 30,000 | 30KE | | | ✔ | | ✔ | | |
| 35,000 | 35KE | | ✔ | | | | | |
| 40,000 | 40KE | ✔ | | | | ✔ | | |
| 50,000 | 50KE | ✔ | ✔ | ✔ | | ✔ | | |
| 60,000 | 60KE | | | | | ✔ | | |
| 75,000 | 75KE | | ✔ | | ✔ | ✔ | | |
| 100,000 | 100KE | ✔ | ✔ | ✔ | ✔ | ✔ | | |
| 150,000 | 150KE | | ✔ | | | | | |
| 200,000 | 200KE | | ✔ | | | | | |
| 250,000 | 250KE | | ✔ | | | | | |

rev 6/20-1

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;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- 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**

**Телефон:** 8 (812) 309 58 32 (многоканальный)
**Факс:** 8 (812) 320-02-42
**Электронная почта:** org@eplast1.ru
**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.