

# TWM/TWW Series



## Ceramic Housed Radial Terminal Power

The TWM/TWW series radial terminal power resistors offer significant board space savings over axial terminal products. Generated heat is also kept away from the circuit board.

They are recommended for commercial applications requiring low cost.



### FEATURES

- Economical Commercial Grade for general purpose use
- Wirewound and Metal Oxide construction
- Wide resistance range
- Flameproof inorganic construction

### SERIES SPECIFICATIONS

| Series | Wattage | Resistance | Voltage | Element     |
|--------|---------|------------|---------|-------------|
| TWW3   | 3       | 0.01-39Ω   | 250     | Wire        |
| TWW5   | 5       | 0.01-47Ω   | 350     | Wire        |
| TWW10  | 10      | 0.04-990Ω  | 750     | Wire        |
| TWW15  | 15      | 0.1Ω-560Ω  | 700     | Wire        |
| TWW20  | 20      | 0.1Ω-560Ω  | 750     | Wire        |
| TWM3   | 3       | 43-50KΩ    | 250     | Metal oxide |
| TWM5   | 5       | 51-50KΩ    | 350     | Metal oxide |
| TWM10  | 10      | 1000-50KΩ  | 750     | Metal oxide |
| TWM15  | 15      | 561Ω-200KΩ | 700     | Metal oxide |
| TWM20  | 20      | 561Ω-200KΩ | 750     | Metal oxide |

### CHARACTERISTICS

|  |  |
|--|--|
| <b>Housing</b>                         | Ceramic  |
| <b>Core</b>                            | Fiberglass   |
| <b>Filling</b>                         | Cement based   |
| <b>Tolerance</b>                       | 5% standard  |
| <b>Temperature coefficient</b>         | 0.01-20Ω ±400ppm/°C;<br>>20-10Ω ±350ppm/°C   |
| <b>Dielectric withstanding voltage</b> | 1,000VAC   |
| <b>Short time overload</b>             | TWW: 10x rated power for 5 sec.;<br>TWM: 5x rated power for 5 sec.<br>15 & 20 watt: 2.5x RCWV for 5 sec. |
| <b>Operating Temperature</b>           | -55°C to 275°C   |
| <b>Storage Temperature</b>             | 15°C-35°C, humidity: 25%-75%   |

### Derating



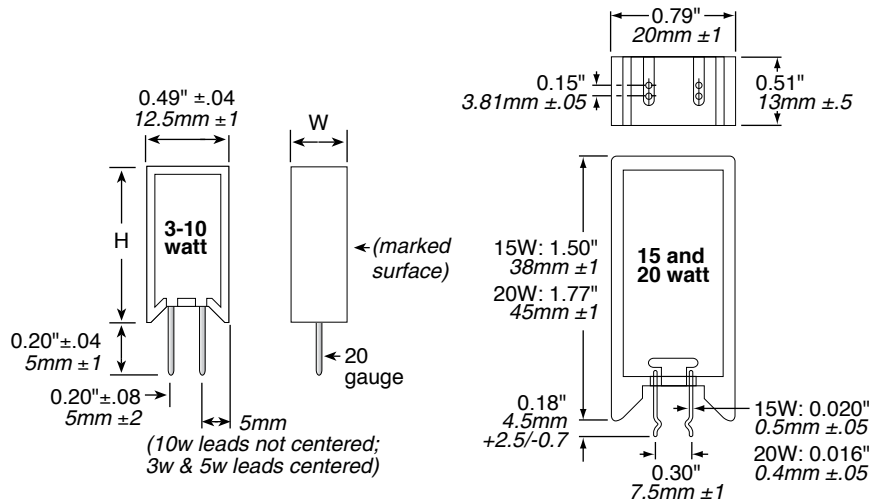
(continued)

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### DIMENSIONS

| 3-10 watt Series | Height (in./mm) ±1mm | Width (in./mm) ±1mm |
|------------------|----------------------|---------------------|
| TWW3             | 0.98 / 25            | 0.33 / 8.5          |
| TWW5             | 0.98 / 25            | 0.35 / 9            |
| TWM10            | 1.97 / 50            | 0.35 / 9            |
| TWM3             | 0.98 / 25            | 0.33 / 8.5          |
| TWM5             | 0.98 / 25            | 0.35 / 9            |
| TWM10            | 1.97 / 50            | 0.35 / 9            |



### HOW TO ORDER



#### Standard part numbers for TWW series

| Ohmic value | Part No. Prefix Suffix | Wattage |   |    |    |    | Ohmic value | Part No. Prefix Suffix | Wattage |   |    |    |    |
|-------------|------------------------|---------|---|----|----|----|-------------|------------------------|---------|---|----|----|----|
|             |                        | 3       | 5 | 10 | 15 | 20 |             |                        | 3       | 5 | 10 | 15 | 20 |
| 0.01        | R01E                   | ✓       | ✓ |    |    |    | 2.0         | R0E                    | ✓       | ✓ | ✓  |    |    |
| 0.02        | R02E                   | ✓       | ✓ |    |    |    | 2.7         | R07E                   | ✓       | ✓ | ✓  |    |    |
| 0.03        | R03E                   | ✓       | ✓ |    |    |    | 3.0         | R0E                    | ✓       | ✓ | ✓  |    |    |
| 0.04        | R04E                   | ✓       | ✓ | ✓  |    |    | 3.3         | R3E                    | ✓       | ✓ | ✓  |    |    |
| 0.05        | R05E                   | ✓       | ✓ | ✓  |    |    | 3.9         | R9E                    | ✓       | ✓ | ✓  |    |    |
| 0.10        | R10E                   | ✓       | ✓ | ✓  | ✓  |    | 4.3         | R3E                    | ✓       | ✓ | ✓  |    |    |
| 0.15        | R15E                   | ✓       | ✓ | ✓  | ✓  |    | 4.7         | R7E                    | ✓       | ✓ | ✓  |    |    |
| 0.20        | R20E                   | ✓       | ✓ | ✓  | ✓  |    | 5.6         | R6E                    | ✓       | ✓ | ✓  |    |    |
| 0.27        | R27E                   | ✓       | ✓ | ✓  | ✓  |    | 6.8         | R8E                    | ✓       | ✓ | ✓  |    |    |
| 0.30        | R30E                   | ✓       | ✓ | ✓  | ✓  |    | 7.5         | R5E                    | ✓       | ✓ | ✓  |    |    |
| 0.33        | R33E                   | ✓       | ✓ | ✓  | ✓  |    | 8.2         | R2E                    | ✓       | ✓ | ✓  |    |    |
| 0.39        | R39E                   | ✓       | ✓ | ✓  | ✓  |    | 10          | R0E                    | ✓       | ✓ | ✓  | ✓  |    |
| 0.43        | R43E                   | ✓       | ✓ | ✓  | ✓  |    | 15          | R5E                    | ✓       | ✓ | ✓  | ✓  |    |
| 0.47        | R47E                   | ✓       | ✓ | ✓  | ✓  |    | 20          | R0E                    | ✓       | ✓ | ✓  | ✓  |    |
| 0.56        | R56E                   | ✓       | ✓ | ✓  | ✓  |    | 22          | R2E                    | ✓       | ✓ | ✓  |    |    |
| 0.68        | R68E                   | ✓       | ✓ | ✓  | ✓  |    | 27          | R7E                    | ✓       | ✓ | ✓  | ✓  |    |
| 0.75        | R75E                   | ✓       | ✓ | ✓  | ✓  |    | 30          | R0E                    | ✓       | ✓ | ✓  | ✓  |    |
| 0.82        | R82E                   | ✓       | ✓ | ✓  | ✓  |    | 33          | R3E                    | ✓       | ✓ | ✓  | ✓  |    |
| 1.0         | R0E                    | ✓       | ✓ | ✓  | ✓  | ✓  | 39          | R9E                    | ✓       | ✓ | ✓  | ✓  |    |
| 1.5         | R5E                    | ✓       | ✓ | ✓  | ✓  | ✓  | 43          | R3E                    | ✓       | ✓ | ✓  | ✓  |    |
|             |                        |         |   |    |    |    | 47          | R7E                    | ✓       | ✓ | ✓  | ✓  |    |
|             |                        |         |   |    |    |    | 51          | R1E                    | ✓       | ✓ | ✓  | ✓  |    |
|             |                        |         |   |    |    |    | 56          | R6E                    | ✓       | ✓ | ✓  | ✓  |    |
|             |                        |         |   |    |    |    | 68          | R8E                    | ✓       | ✓ | ✓  | ✓  |    |
|             |                        |         |   |    |    |    | 75          | R5E                    | ✓       | ✓ | ✓  | ✓  |    |
|             |                        |         |   |    |    |    | 82          | R2E                    | ✓       | ✓ | ✓  | ✓  |    |
|             |                        |         |   |    |    |    | 100         | R0E                    | ✓       | ✓ | ✓  | ✓  |    |
|             |                        |         |   |    |    |    | 150         | R5E                    | ✓       | ✓ | ✓  | ✓  |    |
|             |                        |         |   |    |    |    | 200         | R0E                    | ✓       | ✓ | ✓  | ✓  |    |
|             |                        |         |   |    |    |    | 270         | R7E                    | ✓       | ✓ | ✓  | ✓  |    |
|             |                        |         |   |    |    |    | 300         | R0E                    | ✓       | ✓ | ✓  | ✓  |    |
|             |                        |         |   |    |    |    | 330         | R3E                    | ✓       | ✓ | ✓  | ✓  |    |
|             |                        |         |   |    |    |    | 390         | R9E                    | ✓       | ✓ | ✓  | ✓  |    |
|             |                        |         |   |    |    |    | 430         | R3E                    | ✓       | ✓ | ✓  | ✓  |    |
|             |                        |         |   |    |    |    | 470         | R7E                    | ✓       | ✓ | ✓  | ✓  |    |
|             |                        |         |   |    |    |    | 500         | R0E                    | ✓       | ✓ | ✓  | ✓  |    |
|             |                        |         |   |    |    |    | 560         | R6E                    | ✓       | ✓ | ✓  | ✓  |    |
|             |                        |         |   |    |    |    | 680         | R8E                    | ✓       | ✓ | ✓  | ✓  |    |
|             |                        |         |   |    |    |    | 750         | R5E                    | ✓       | ✓ | ✓  | ✓  |    |
|             |                        |         |   |    |    |    | 820         | R2E                    | ✓       | ✓ | ✓  | ✓  |    |

#### Standard part numbers for TWM series

| Ohmic value | Part No. Prefix Suffix | Wattage |   |    |    |    | Ohmic value | Part No. Prefix Suffix | Wattage |   |    |    |    |
|-------------|------------------------|---------|---|----|----|----|-------------|------------------------|---------|---|----|----|----|
|             |                        | 3       | 5 | 10 | 15 | 20 |             |                        | 3       | 5 | 10 | 15 | 20 |
| 43          | R3E                    | ✓       |   |    |    |    | 1000        | R0E                    | ✓       | ✓ | ✓  | ✓  | ✓  |
| 47          | R7E                    | ✓       |   |    |    |    | 1500        | R5E                    | ✓       | ✓ | ✓  | ✓  | ✓  |
| 56          | R6E                    | ✓       | ✓ |    |    |    | 2000        | R0E                    | ✓       | ✓ | ✓  | ✓  | ✓  |
| 68          | R8E                    | ✓       | ✓ | ✓  |    |    | 2700        | R7E                    | ✓       | ✓ | ✓  | ✓  | ✓  |
| 75          | R5E                    | ✓       | ✓ | ✓  |    |    | 3000        | R0E                    | ✓       | ✓ | ✓  | ✓  | ✓  |
| 82          | R2E                    | ✓       | ✓ | ✓  |    |    | 3300        | R3E                    | ✓       | ✓ | ✓  | ✓  | ✓  |
| 100         | R0E                    | ✓       | ✓ | ✓  | ✓  |    | 3900        | R9E                    | ✓       | ✓ | ✓  | ✓  | ✓  |
| 150         | R5E                    | ✓       | ✓ | ✓  | ✓  |    | 4300        | R3E                    | ✓       | ✓ | ✓  | ✓  | ✓  |
| 200         | R0E                    | ✓       | ✓ | ✓  | ✓  |    | 4700        | R7E                    | ✓       | ✓ | ✓  | ✓  | ✓  |
| 270         | R7E                    | ✓       | ✓ | ✓  | ✓  |    | 5600        | R6E                    | ✓       | ✓ | ✓  | ✓  | ✓  |
| 300         | R0E                    | ✓       | ✓ | ✓  | ✓  |    | 5100        | R1E                    | ✓       | ✓ | ✓  | ✓  | ✓  |
| 330         | R3E                    | ✓       | ✓ | ✓  | ✓  |    | 6800        | R8E                    | ✓       | ✓ | ✓  | ✓  | ✓  |
| 390         | R9E                    | ✓       | ✓ | ✓  | ✓  |    | 7500        | R5E                    | ✓       | ✓ | ✓  | ✓  | ✓  |
| 430         | R3E                    | ✓       | ✓ | ✓  | ✓  |    | 8200        | R2E                    | ✓       | ✓ | ✓  | ✓  | ✓  |
| 470         | R7E                    | ✓       | ✓ | ✓  | ✓  |    | 10000       | R0E                    | ✓       | ✓ | ✓  | ✓  | ✓  |
| 560         | R6E                    | ✓       | ✓ | ✓  | ✓  |    | 27000       | R7E                    | ✓       | ✓ | ✓  | ✓  | ✓  |
| 680         | R8E                    | ✓       | ✓ | ✓  | ✓  |    | 47000       | R7E                    | ✓       | ✓ | ✓  | ✓  | ✓  |
| 750         | R5E                    | ✓       | ✓ | ✓  | ✓  |    | 51000       | R1E                    | ✓       | ✓ | ✓  | ✓  | ✓  |
| 820         | R2E                    | ✓       | ✓ | ✓  | ✓  |    | 75000       | R5E                    | ✓       | ✓ | ✓  | ✓  | ✓  |

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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