

# 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 |   |    |    |    |
|-------------|------------------------|---------|---|----|----|----|
|             |                        | 3       | 5 | 10 | 15 | 20 |
| 0.01        | R01E                   | ✓       | ✓ |    |    |    |
| 0.02        | R02E                   | ✓       | ✓ |    |    |    |
| 0.03        | R03E                   | ✓       | ✓ |    |    |    |
| 0.04        | R04E                   | ✓       | ✓ | ✓  |    |    |
| 0.05        | R05E                   | ✓       | ✓ | ✓  |    |    |
| 0.10        | R10E                   | ✓       | ✓ | ✓  | ✓  |    |
| 0.15        | R15E                   | ✓       | ✓ | ✓  | ✓  |    |
| 0.20        | R20E                   | ✓       | ✓ | ✓  | ✓  |    |
| 0.27        | R27E                   | ✓       | ✓ | ✓  | ✓  |    |
| 0.30        | R30E                   | ✓       | ✓ | ✓  | ✓  |    |
| 0.33        | R33E                   | ✓       | ✓ | ✓  | ✓  |    |
| 0.39        | R39E                   | ✓       | ✓ | ✓  | ✓  |    |
| 0.43        | R43E                   | ✓       | ✓ | ✓  | ✓  |    |
| 0.47        | R47E                   | ✓       | ✓ | ✓  | ✓  |    |
| 0.56        | R56E                   | ✓       | ✓ | ✓  | ✓  |    |
| 0.68        | R68E                   | ✓       | ✓ | ✓  | ✓  |    |
| 0.75        | R75E                   | ✓       | ✓ | ✓  | ✓  |    |
| 0.82        | R82E                   | ✓       | ✓ | ✓  | ✓  |    |
| 1.0         | R10E                   | ✓       | ✓ | ✓  | ✓  |    |
| 1.5         | R15E                   | ✓       | ✓ | ✓  | ✓  |    |
| 2.0         | R20E                   | ✓       | ✓ | ✓  | ✓  |    |
| 2.7         | R27E                   | ✓       | ✓ | ✓  | ✓  |    |
| 3.0         | R30E                   | ✓       | ✓ | ✓  | ✓  |    |
| 3.3         | R33E                   | ✓       | ✓ | ✓  | ✓  |    |
| 3.9         | R39E                   | ✓       | ✓ | ✓  | ✓  |    |
| 4.3         | R43E                   | ✓       | ✓ | ✓  | ✓  |    |
| 4.7         | R47E                   | ✓       | ✓ | ✓  | ✓  |    |
| 5.6         | R56E                   | ✓       | ✓ | ✓  | ✓  |    |
| 6.8         | R68E                   | ✓       | ✓ | ✓  | ✓  |    |
| 7.5         | R75E                   | ✓       | ✓ | ✓  | ✓  |    |
| 8.2         | R82E                   | ✓       | ✓ | ✓  | ✓  |    |
| 10          | R10E                   | ✓       | ✓ | ✓  | ✓  |    |
| 15          | R15E                   | ✓       | ✓ | ✓  | ✓  |    |
| 20          | R20E                   | ✓       | ✓ | ✓  | ✓  |    |
| 22          | R22E                   | ✓       | ✓ | ✓  | ✓  |    |
| 27          | R27E                   | ✓       | ✓ | ✓  | ✓  |    |
| 30          | R30E                   | ✓       | ✓ | ✓  | ✓  |    |
| 33          | R33E                   | ✓       | ✓ | ✓  | ✓  |    |
| 39          | R39E                   | ✓       | ✓ | ✓  | ✓  |    |
| 43          | R43E                   | ✓       | ✓ | ✓  | ✓  |    |
| 47          | R47E                   | ✓       | ✓ | ✓  | ✓  |    |
| 51          | R51E                   | ✓       | ✓ | ✓  | ✓  |    |
| 56          | R56E                   | ✓       | ✓ | ✓  | ✓  |    |
| 68          | R68E                   | ✓       | ✓ | ✓  | ✓  |    |
| 75          | R75E                   | ✓       | ✓ | ✓  | ✓  |    |
| 82          | R82E                   | ✓       | ✓ | ✓  | ✓  |    |
| 100         | R100E                  | ✓       | ✓ | ✓  | ✓  |    |
| 150         | R150E                  | ✓       | ✓ | ✓  | ✓  |    |
| 200         | R200E                  | ✓       | ✓ | ✓  | ✓  |    |
| 270         | R270E                  | ✓       | ✓ | ✓  | ✓  |    |
| 300         | R300E                  | ✓       | ✓ | ✓  | ✓  |    |
| 330         | R330E                  | ✓       | ✓ | ✓  | ✓  |    |
| 390         | R390E                  | ✓       | ✓ | ✓  | ✓  |    |
| 430         | R430E                  | ✓       | ✓ | ✓  | ✓  |    |
| 470         | R470E                  | ✓       | ✓ | ✓  | ✓  |    |
| 500         | R500E                  | ✓       | ✓ | ✓  | ✓  |    |
| 560         | R560E                  | ✓       | ✓ | ✓  | ✓  |    |
| 680         | R680E                  | ✓       | ✓ | ✓  | ✓  |    |
| 750         | R750E                  | ✓       | ✓ | ✓  | ✓  |    |
| 820         | R820E                  | ✓       | ✓ | ✓  | ✓  |    |

#### Standard part numbers for TWM series

| Ohmic value | Part No. Prefix Suffix | Wattage |   |    |    |    |
|-------------|------------------------|---------|---|----|----|----|
|             |                        | 3       | 5 | 10 | 15 | 20 |
| 43          | R43E                   | ✓       | ✓ | ✓  | ✓  | ✓  |
| 47          | R47E                   | ✓       | ✓ | ✓  | ✓  | ✓  |
| 56          | R56E                   | ✓       | ✓ | ✓  | ✓  | ✓  |
| 68          | R68E                   | ✓       | ✓ | ✓  | ✓  | ✓  |
| 75          | R75E                   | ✓       | ✓ | ✓  | ✓  | ✓  |
| 82          | R82E                   | ✓       | ✓ | ✓  | ✓  | ✓  |
| 100         | R100E                  | ✓       | ✓ | ✓  | ✓  | ✓  |
| 150         | R150E                  | ✓       | ✓ | ✓  | ✓  | ✓  |
| 200         | R200E                  | ✓       | ✓ | ✓  | ✓  | ✓  |
| 270         | R270E                  | ✓       | ✓ | ✓  | ✓  | ✓  |
| 300         | R300E                  | ✓       | ✓ | ✓  | ✓  | ✓  |
| 330         | R330E                  | ✓       | ✓ | ✓  | ✓  | ✓  |
| 390         | R390E                  | ✓       | ✓ | ✓  | ✓  | ✓  |
| 430         | R430E                  | ✓       | ✓ | ✓  | ✓  | ✓  |
| 470         | R470E                  | ✓       | ✓ | ✓  | ✓  | ✓  |
| 560         | R560E                  | ✓       | ✓ | ✓  | ✓  | ✓  |
| 680         | R680E                  | ✓       | ✓ | ✓  | ✓  | ✓  |
| 750         | R750E                  | ✓       | ✓ | ✓  | ✓  | ✓  |
| 820         | R820E                  | ✓       | ✓ | ✓  | ✓  | ✓  |
| 1000        | R1K0                   | ✓       | ✓ | ✓  | ✓  | ✓  |
| 1500        | R1K5                   | ✓       | ✓ | ✓  | ✓  | ✓  |
| 2000        | R2K0                   | ✓       | ✓ | ✓  | ✓  | ✓  |
| 2700        | R2K7                   | ✓       | ✓ | ✓  | ✓  | ✓  |
| 3000        | R3K0                   | ✓       | ✓ | ✓  | ✓  | ✓  |
| 3300        | R3K3                   | ✓       | ✓ | ✓  | ✓  | ✓  |
| 3900        | R3K9                   | ✓       | ✓ | ✓  | ✓  | ✓  |
| 4300        | R4K3                   | ✓       | ✓ | ✓  | ✓  | ✓  |
| 4700        | R4K7                   | ✓       | ✓ | ✓  | ✓  | ✓  |
| 5600        | R5K6                   | ✓       | ✓ | ✓  | ✓  | ✓  |
| 5100        | R5K1                   | ✓       | ✓ | ✓  | ✓  | ✓  |
| 6800        | R6K8                   | ✓       | ✓ | ✓  | ✓  | ✓  |
| 7500        | R7K5                   | ✓       | ✓ | ✓  | ✓  | ✓  |
| 8200        | R8K2                   | ✓       | ✓ | ✓  | ✓  | ✓  |
| 10000       | R10K                   | ✓       | ✓ | ✓  | ✓  | ✓  |
| 27000       | R27K                   | ✓       | ✓ | ✓  | ✓  | ✓  |
| 47000       | R47K                   | ✓       | ✓ | ✓  | ✓  | ✓  |
| 51000       | R51K                   | ✓       | ✓ | ✓  | ✓  | ✓  |
| 75000       | R75K                   | ✓       | ✓ | ✓  | ✓  | ✓  |



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- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
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- 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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