

# 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

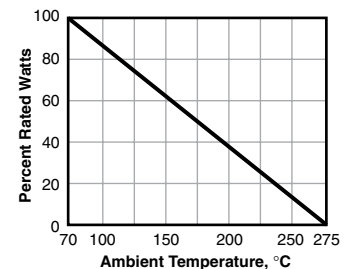
### SERIES SPECIFICATIONS

| 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        |
| TWM3   | 3       | 43-50KΩ    | 250     | Metal oxide |
| TWM5   | 5       | 51-50KΩ    | 350     | Metal oxide |
| TWM10  | 10      | 1000-50KΩ  | 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. |
| <b>Operating Temperature</b>           | -55°C to 275°C   |
| <b>Storage Temperature</b>             | 15°C-35°C, humidity: 25%-75%                                       |

### Derating

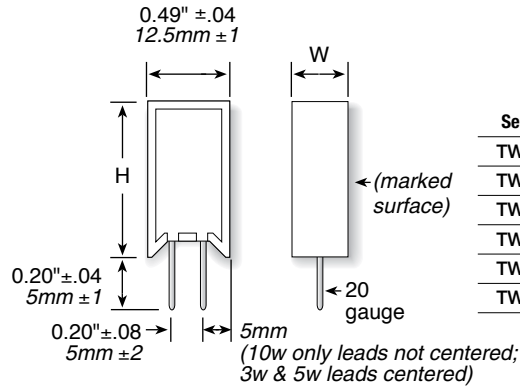


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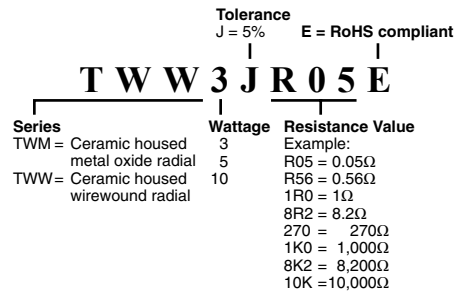
## Ceramic Housed Radial Terminal Power

### DIMENSIONS



| Series | Height<br>(in./mm) ±1mm | Width      |
|--------|-------------------------|------------|
| TWW3   | 0.98 / 25               | 0.33 / 8.5 |
| TWW5   | 0.98 / 25               | 0.35 / 9   |
| TWW10  | 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 | Wattage                |       |       | Ohmic value | Wattage |                        |       | Ohmic value | Wattage |        |                        |       |
|-------------|------------------------|-------|-------|-------------|---------|------------------------|-------|-------------|---------|--------|------------------------|-------|
|             | Part No. Prefix Suffix | TWW3J | TWW5J |             | TWW10J  | Part No. Prefix Suffix | TWW3J |             | TWW5J   | TWW10J | Part No. Prefix Suffix | TWW3J |
| 0.01        | R01E                   | ✓     | ✓     | 1.5         | R15E    | ✓                      | ✓     | 39          | R39E    | ✓      | ✓                      | ✓     |
| 0.02        | R02E                   | ✓     | ✓     | 2.0         | R20E    | ✓                      | ✓     | 43          | R43E    | ✓      | ✓                      | ✓     |
| 0.03        | R03E                   | ✓     | ✓     | 2.7         | R27E    | ✓                      | ✓     | 47          | R47E    | ✓      | ✓                      | ✓     |
| 0.04        | R04E                   | ✓     | ✓     | 3.0         | R30E    | ✓                      | ✓     | 56          | R56E    | ✓      | ✓                      | ✓     |
| 0.05        | R05E                   | ✓     | ✓     | 3.3         | R33E    | ✓                      | ✓     | 68          | R68E    | ✓      | ✓                      | ✓     |
| 0.10        | R10E                   | ✓     | ✓     | 3.9         | R39E    | ✓                      | ✓     | 75          | R75E    | ✓      | ✓                      | ✓     |
| 0.15        | R15E                   | ✓     | ✓     | 4.3         | R43E    | ✓                      | ✓     | 82          | R82E    | ✓      | ✓                      | ✓     |
| 0.20        | R20E                   | ✓     | ✓     | 4.7         | R47E    | ✓                      | ✓     | 100         | R100E   | ✓      | ✓                      | ✓     |
| 0.27        | R27E                   | ✓     | ✓     | 5.6         | R56E    | ✓                      | ✓     | 150         | R150E   | ✓      | ✓                      | ✓     |
| 0.30        | R30E                   | ✓     | ✓     | 6.8         | R68E    | ✓                      | ✓     | 200         | R200E   | ✓      | ✓                      | ✓     |
| 0.33        | R33E                   | ✓     | ✓     | 7.5         | R75E    | ✓                      | ✓     | 270         | R270E   | ✓      | ✓                      | ✓     |
| 0.39        | R39E                   | ✓     | ✓     | 8.2         | R82E    | ✓                      | ✓     | 300         | R300E   | ✓      | ✓                      | ✓     |
| 0.43        | R43E                   | ✓     | ✓     | 10          | R10RE   | ✓                      | ✓     | 330         | R330E   | ✓      | ✓                      | ✓     |
| 0.47        | R47E                   | ✓     | ✓     | 15          | R15RE   | ✓                      | ✓     | 390         | R390E   | ✓      | ✓                      | ✓     |
| 0.56        | R56E                   | ✓     | ✓     | 20          | R20RE   | ✓                      | ✓     | 430         | R430E   | ✓      | ✓                      | ✓     |
| 0.68        | R68E                   | ✓     | ✓     | 22          | R22RE   | ✓                      | ✓     | 470         | R470E   | ✓      | ✓                      | ✓     |
| 0.75        | R75E                   | ✓     | ✓     | 27          | R27RE   | ✓                      | ✓     | 560         | R560E   | ✓      | ✓                      | ✓     |
| 0.82        | R82E                   | ✓     | ✓     | 30          | R30RE   | ✓                      | ✓     | 680         | R680E   | ✓      | ✓                      | ✓     |
| 1.0         | R10RE                  | ✓     | ✓     | 33          | R33RE   | ✓                      | ✓     | 750         | R750E   | ✓      | ✓                      | ✓     |
|             |                        |       |       |             |         |                        |       | 820         | R820E   | ✓      | ✓                      | ✓     |

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| Ohmic value | Wattage                |       |       | Ohmic value | Wattage |                        |       |
|-------------|------------------------|-------|-------|-------------|---------|------------------------|-------|
|             | Part No. Prefix Suffix | TWM3J | TWM5J |             | TWM10J  | Part No. Prefix Suffix | TWM3J |
| 43          | R43RE                  | ✓     |       | 750         | R750E   | ✓                      | ✓     |
| 47          | R47RE                  | ✓     |       | 820         | R820E   | ✓                      | ✓     |
| 56          | R56RE                  | ✓     | ✓     | 1000        | R1K0    | ✓                      | ✓     |
| 68          | R68RE                  | ✓     | ✓     | 1500        | R1K5    | ✓                      | ✓     |
| 75          | R75RE                  | ✓     | ✓     | 2000        | R2K0    | ✓                      | ✓     |
| 82          | R82RE                  | ✓     | ✓     | 2700        | R2K7    | ✓                      | ✓     |
| 100         | R100E                  | ✓     | ✓     | 3000        | R3K0    | ✓                      | ✓     |
| 150         | R150E                  | ✓     | ✓     | 3300        | R3K3    | ✓                      | ✓     |
| 200         | R200E                  | ✓     | ✓     | 3900        | R3K9    | ✓                      | ✓     |
| 270         | R270E                  | ✓     | ✓     | 4300        | R4K3    | ✓                      | ✓     |
| 300         | R300E                  | ✓     | ✓     | 4700        | R4K7    | ✓                      | ✓     |
| 330         | R330E                  | ✓     | ✓     | 5600        | R5K6    | ✓                      | ✓     |
| 390         | R390E                  | ✓     | ✓     | 6800        | R6K8    | ✓                      | ✓     |
| 430         | R430E                  | ✓     | ✓     | 7500        | R7K5    | ✓                      | ✓     |
| 470         | R470E                  | ✓     | ✓     | 8200        | R8K2    | ✓                      | ✓     |
| 560         | R560E                  | ✓     | ✓     | 10000       | R10K    | ✓                      | ✓     |
| 680         | R680E                  | ✓     | ✓     |             |         |                        |       |