

# 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; >20-10Ω ±350ppm/°C
<b>Dielectric withstanding voltage</b>	1,000VAC
<b>Short time overload</b>	TWW: 10x rated power for 5 sec.; TWM: 5x rated power for 5 sec. 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	R03E	✓	✓	✓		
0.05	R05E	✓	✓	✓			3.9	R09E	✓	✓	✓		
0.10	R10E	✓	✓	✓	✓		4.3	R03E	✓	✓	✓		
0.15	R15E	✓	✓	✓	✓		4.7	R07E	✓	✓	✓		
0.20	R20E	✓	✓	✓	✓		5.6	R06E	✓	✓	✓		
0.27	R27E	✓	✓	✓	✓		6.8	R08E	✓	✓	✓		
0.30	R30E	✓	✓	✓	✓		7.5	R05E	✓	✓	✓		
0.33	R33E	✓	✓	✓	✓		8.2	R02E	✓	✓	✓		
0.39	R39E	✓	✓	✓	✓		10	R0E	✓	✓	✓	✓	
0.43	R43E	✓	✓	✓	✓		15	R05E	✓	✓	✓	✓	
0.47	R47E	✓	✓	✓	✓		20	R0E	✓	✓	✓	✓	
0.56	R56E	✓	✓	✓	✓		22	R02E	✓	✓	✓		
0.68	R68E	✓	✓	✓	✓		27	R07E	✓	✓	✓	✓	
0.75	R75E	✓	✓	✓	✓		30	R0E	✓	✓	✓	✓	
0.82	R82E	✓	✓	✓	✓		33	R03E	✓	✓	✓	✓	
1.0	R0E	✓	✓	✓	✓	✓	39	R09E	✓	✓	✓	✓	
1.5	R05E	✓	✓	✓	✓	✓	43	R03E	✓	✓	✓	✓	
							47	R07E	✓	✓	✓	✓	
							51	R01E	✓	✓	✓	✓	
							56	R0E	✓	✓	✓	✓	
							68	R0E	✓	✓	✓	✓	
							75	R05E	✓	✓	✓	✓	
							82	R0E	✓	✓	✓	✓	
							100	R0E	✓	✓	✓	✓	
							150	R05E	✓	✓	✓	✓	
							200	R0E	✓	✓	✓	✓	
							270	R0E	✓	✓	✓	✓	
							300	R0E	✓	✓	✓	✓	
							330	R0E	✓	✓	✓	✓	
							390	R09E	✓	✓	✓	✓	
							430	R03E	✓	✓	✓	✓	
							470	R07E	✓	✓	✓	✓	
							500	R0E	✓	✓	✓	✓	
							560	R0E	✓	✓	✓	✓	
							680	R0E	✓	✓	✓	✓	
							750	R05E	✓	✓	✓	✓	
							820	R0E	✓	✓	✓	✓	

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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	R43E	✓					1000	R1K0	✓	✓	✓	✓	✓
47	R47E	✓					1500	R1K5	✓	✓	✓	✓	✓
56	R56E	✓	✓				2000	R2K0	✓	✓	✓	✓	✓
68	R68E	✓	✓	✓			2700	R2K7	✓	✓	✓	✓	✓
75	R75E	✓	✓	✓			3000	R3K0	✓	✓	✓	✓	✓
82	R82E	✓	✓	✓			3300	R3K3	✓	✓	✓	✓	✓
100	R100E	✓	✓	✓			3900	R3K9	✓	✓	✓	✓	✓
150	R150E	✓	✓	✓			4300	R4K3	✓	✓	✓	✓	✓
200	R200E	✓	✓	✓			4700	R4K7	✓	✓	✓	✓	✓
270	R270E	✓	✓	✓			5600	R5K6	✓	✓	✓	✓	✓
300	R300E	✓	✓	✓			5100	R5K1	✓	✓	✓	✓	✓
330	R330E	✓	✓	✓			6800	R6K8	✓	✓	✓	✓	✓
390	R390E	✓	✓	✓			7500	R7K5	✓	✓	✓	✓	✓
430	R430E	✓	✓	✓			8200	R8K2	✓	✓	✓	✓	✓
470	R470E	✓	✓	✓			10000	R10K	✓	✓	✓	✓	✓
560	R560E	✓	✓	✓			27000	R27K	✓	✓	✓	✓	✓
680	R680E	✓	✓	✓			47000	R47K	✓	✓	✓	✓	✓
750	R750E	✓	✓	✓			51000	R51K	✓	✓	✓	✓	✓
820	R820E	✓	✓	✓			75000	R75K	✓	✓	✓	✓	✓