

Standard E-Series Resistance Values

Explanation:

Thin Film Technology, as well as most other resistor manufacturers, offers resistance values that follow the IEC 60063 standard values. These tables were created by the industry in order to standardize the resistance values offerings in what would otherwise be an infinite number of resistance possibilities, while still allowing a broad range of resistances which can cover almost all needs.

Usage:

The significant figure values which are shown in the tables below can be multiplied by 1, 10, 100, 1,000, 10,000, 100,000 and 1,000,000 times in order to derive the desired resistance value. For example, the 1.47 value shown in the E-96 table can be used to derive final resistances of 1.47Ω, 14.7Ω, 147Ω, 1,470Ω, 14,700Ω, 147,000Ω and 1,470,000Ω. However, it is important to review the individual product datasheet information as certain product families may not allow for the usage of all of the multipliers. Even though a product family states that it offers E-96 values, pay attention to the minimum and maximum resistances allowed for each family and/or product size. Other values, other than those listed in the tables below may also be offered for some products and are detailed in the individual product datasheet. Custom resistance values not found in the tables below may also be available for some products by calling the factory.

Series

Significant Figures

E-6	1.00		1.50		2.20		3.30		4.70		6.80	
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E-12	1.00	1.20	1.50	1.80	2.20	2.70	3.30	3.90	4.70	5.60	6.80	8.20	
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E-24	1.00	1.10	1.20	1.30	1.50	1.60	1.80	2.00	2.20	2.40	2.70	3.00	3.30	3.60	3.90
	4.30	4.70	5.10	5.60	6.20	6.80	7.50	8.20	9.10						

E-96	1.00	1.02	1.05	1.07	1.10	1.13	1.15	1.18	1.21	1.24	1.27	1.30	1.33	1.37	1.40
	1.43	1.47	1.50	1.54	1.58	1.62	1.65	1.69	1.74	1.78	1.82	1.87	1.91	1.96	2.00
	2.05	2.10	2.15	2.21	2.26	2.32	2.37	2.43	2.49	2.55	2.61	2.67	2.74	2.80	2.87
	2.94	3.01	3.09	3.16	3.24	3.32	3.40	3.48	3.57	3.65	3.74	3.83	3.92	4.02	4.12
	4.22	4.32	4.42	4.53	4.64	4.75	4.87	4.99	5.11	5.23	5.36	5.49	5.62	5.76	5.90
	6.04	6.19	6.34	6.49	6.65	6.81	6.98	7.15	7.32	7.50	7.68	7.87	8.06	8.25	8.45
	8.66	8.87	9.09	9.31	9.53	9.76									

Multipliers = x1, x10, x100, x1,000, x10,000, x100,000, x1,000,000

Notes:

1. All of the E-6 values are also contained in the E-12 and E-24 Series tables, but not all of the E-6 values are contained in the E-96 Series table.
2. All of the E-12 values are also contained in the E-24 Series table, but not all of the E-12 values are contained in the E-96 Series table.
3. Some, but not all of the E-24 values are contained in the E-96 Series table.