

Power Type Resistors

Quick Guide

Products	Type	Features	Power Rating at 70 °C (W)	Resistance Range (Ω)	Resistance Tolerance (%)	T.C.R. $\times 10^{-3}/^{\circ}\text{C}$	Category Temperature Range (°C)	Reference Standards	For Automatic Placement	Mass (Weight) [g/pc.]	Standard Quantity	Page	
Metal Oxide Film Resistors Small Size	ERG12S	Non flammable coating Small size	0.5	10 to 47 k	±5	±350	-55 to +130	IEC 60115-2 IEC 60115-4 JIS C 5201-4	52 mm Taping 74 mm Taping	0.26	2000	50	
				10 to 22 k	±2					0.33	2000		
	ERG1S, 1F		1	10 to 100 k	±5		-55 to +200			±300	0.66		1000
				10 to 68 k	±2						1.47		1000
	ERG2S, 2F		2	10 to 100 k	±5		±200			±200	3.54		500
	ERG3S, 3F		3	10 to 100 k	±2						1.47		1000
ERG5S, 5F	5	10 to 100 k	±5	±2	±200	3.54	500						
Metal Film Resistors, Small Size	ERX12S	Non flammable coating Low resistance value	0.5	0.1 to 9.1	±5	±350	-55 to +130	IEC 60115-2 IEC 60115-4	Radial Taping	0.26	2000	50	
				0.1 to 9.1	±2					0.33	2000		
	ERX1S, 1F		1	0.1 to 9.1	±5		-55 to +200			±300	0.66		1000
				0.1 to 9.1	±2						1.47		1000
	ERX2S, 2F		2	0.1 to 9.1	±5		±200			±200	3.54		500
	ERX3S, 3F		3	0.1 to 9.1	±2						1.47		1000
ERX5S, 5F	5	0.33 to 9.1 1 to 9.1	±5 ±2	±200	±200	3.54	500						
Anti-Pulse Power Resistors	ERG12D	High resistance value	0.5	51 k to 240 k	±2 ±5	—	-55 to +130	—	52 mm Taping 74 mm Taping	0.26	2000	57	
	ERG1D		1	110 k to 330 k			0.33			2000			
	ERG2D		2	110 k to 510 k			0.66			1000			
	ERG3D		3	110 k to 750 k			1.47			1000			
Metal Film Resistors	ERX12L	Low resistance value	0.5	22 m to 82 m	±5	±500 ±1000	-55 to +130	—	Radial Taping	0.26	2000	59	
	ERX1L		1				0.33			2000			
	ERX2L		2				0.66			1000			
Wirewound Resistors Flameproof Bath-tub Type Discontinued	ERF2A	Axial leads type	2	0.1 to 8.2	±10	±260	-55 to +155	IEC 60115-4 EIAJ RC-2123A	—	2	1000	61	
				10 to 390	±5					4			
	ERF3A		3	0.18 to 8.2	±10					5			
				10 to 680	±5					8			
	ERF5A		5	0.18 to 8.2	±10					500			
				10 to 680	±5						12		
	ERF7A		7	0.22 to 8.2	±10					500			
				10 to 1.5 k	±5						3.9		
	ERF10A		10	0.33 to 8.2	±10					500			
	10 to 2.4 k		±5	5.5									
	ERF2TL		2	0.01 to 0.082	±10					500			
	ERF3TL		3								6.7		
	ERF5TL		5								8.8		
	ERF7TL		7	0.01 to 0.1	±10					500			
ERF10TL	10	10.7											
ERF2T	2	0.1 to 390	±10 (min. < 8.2 Ω)	500									
ERF3T	3	0.18 to 680			3.9								
ERF5T	5	0.18 to 680	±5 (10 Ω ≤)	5.5									
ERF7T	7	0.22 to 1.5 k	±5 (10 Ω ≤)	6.7									
ERF10T	10	0.33 to 2 k	±5 (10 Ω ≤)	8.8									
						10.7							

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Discontinued Wirewound Resistors Flameproof Bath-tub Type	ERF5ZX	Off PC board type	5	0.22 to 8.2	±10	±260	-55 to +155	IEC 60115-4 EIAJ RC-2123A	—	6	500	61
	ERF5ZY			7								
	ERF5Z			6.9								
	ERF7ZX		7	0.39 to 8.2	±10					7.6		
	ERF7ZY			10 to 1.5 k	±5					8.6		
	ERF7Z			8.5								
	ERF10ZX		10	0.39 to 8.2	±10					10		
	ERF10ZY			10 to 2.2 k	±5					10.8		
	ERF10Z			10.6								
	ERF15ZX		15	0.51 to 8.2	±10					17		
	ERF15ZY			10 to 2.2 k	±5					20		
	ERF15Z			19.2								
	ERF20ZX		20	0.51 to 8.2	±10					23.5		
	ERF20ZY			10 to 2.4 k	±5					26.5		
	ERF20Z			25.7								
Discontinued Wirewound Resistors Flameproof Bath-tub Type High power (with Aluminum case type)	ERF60W	Flameproof	60	1.2 to 450	±5 ±10	—	—	—	—	—	50	65
	ERF100W		100	8.2 to 910								
	ERF150W		150	11 to 1.2 k								
	ERF200W		200	15 to 1.6 k								

Electric Power Consumption vs. Resistance Value

ERX : Metal Film Resistors
 ERG : Metal Oxide Film Resistors
 ERF : Wirewound Resistors

