

210 Series

Dividohm® Vitreous Enamel Adjustable Power



FEATURES

- Terminals suitable for soldering or bolt connection.
- Adjustable lug supplied
- High wattage applications
- All-welded construction
- Rugged lead free vitreous enamel coating.
- Flame resistant coating
- Additional adjustable lugs available
- RoHS compliant product available. Add "E" suffix to part number to specify

Choose Ohmite's 210 Type adjustable resistors for applications requiring settings at different resistance values. These wirewound resistors are equipped with an adjustable lug, making them ideal for adjusting circuits, obtaining odd resistance values and setting equipment to meet various line voltages. 210 Type resistors feature a hollow core to permit secure fastening with spring-type clips or thru bolts with washers. They also offer the durability of lead free vitreous enamel coating and all-welded construction. Mounting brackets not included with resistors.

SERIES SPECIFICATIONS

Series	Wattage	Ohms	Core Code	Voltage	Standard Terminal
D12	12	1.0-10K	D	565	57
D25	25	1.0-25K	K	625	40
D50	50	1.0-100K	K	1625	40
D75	75	1.0-100K	K	2625	40
D100	100	1.0-100K	M	2845	40
D175	175	1.0-100K	P	3595	46
D225	225	1.0-100K	P	4595	46
D500	500	1.5-15K	S	4970	45
D1000	1000	3.0-27.7K	S	8900	45

Other sizes available; contact Ohmite. Also available in low cost Centohm or Silicone coating; contact Ohmite.

CHARACTERISTICS

Adjustability	10% to 90% of full value. Wattage is proportional to this adjusted resistance value.
Coating	Lead free vitreous enamel. Large models (500 watts and up) are supplied in Silicone Ceramic. Also available in low-cost Centohm coating; Consult factory.
Core	Tubular ceramic.
Terminals	Solder coated radial lug. RoHS solder composition is 96% Sn, 3.5% Ag, 0.5% Cu
Adjustable terminal	Nickel plated steel. (Screwdriver type adjustable lug supplied standard. Other types, including silver contact units, available.)
Derating	Linearly from 100% @ +25°C to 0% @ +350°C.
Tolerance	±10% (K)
Power rating	Based on 25°C free air rating. The stated wattage rating applies only when the entire resistance is in the circuit. Setting the lug at an intermediate point reduces the wattage rating by approximately the same proportion. Example: If the lug is set at half resistance, the wattage is reduced by approx. one-half.
Overload	10 times rated wattage for 5 seconds.
Temperature coefficient	±260 ppm/°C
Dielectric withstanding voltage	1000 VAC: 12 to 100 watt rating. 3000 VAC: 175 and 225 watt rating (measured from terminal to mounting bracket)
Max. amps	To calculate, use the formula $\sqrt{P/R}$.

Power limitations for high resistance values: When resistance exceeds the resistance values listed below, derate the Power Rating by 25% to improve reliability:

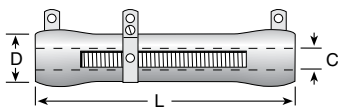
Power rating	Resistance value	No power derating necessary for ratings higher than
12W	4,500Ω	100W.
25W	9,000Ω	
50W	20,000Ω	
75W	35,000Ω	
100W	50,000Ω	

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DIMENSIONS

(in. / mm)



Series	Wattage	L	D	C	Core Code	Standard Terminal
D12	12	1.75 / 44.4	0.313 / 7.94	0.188 / 4.76	D	57
D25	25	2.0 / 50.8	0.562 / 14.3	0.313 / 7.94	K	40
D50	50	4.0 / 101.6	0.562 / 14.3	0.313 / 7.94	K	40
D75	75	6.0 / 152.4	0.562 / 14.3	0.313 / 7.94	K	40
D100	100	6.5 / 165.1	0.750 / 19.1	0.50 / 12.7	M	40
D175	175	8.5 / 215.9	1.125 / 28.6	0.75 / 19.1	P	46
D225	225	10.5 / 266.7	1.125 / 28.6	0.75 / 19.1	P	46
D500	500	12.0 / 304.8	2.50 / 63.5	1.75 / 44.5	S	45
D1000	1000	20.0 / 508.0	2.50 / 63.5	1.75 / 44.5	S	45

ORDERING INFORMATION

Coating
Blank = Vitreous
C = Centohm
S = Silicone

RoHS Compliant

D 2 5 K 1 0 0 E

Series Wattage Tolerance Ohms
J = 5% 1R0 = 1Ω
K = 10% 250 = 250Ω
1K0 = 1,000Ω
25K = 25,000Ω
25K5 = 25,500Ω

Made-to-order Parts

Core Diameter
See "Core and Terminal Selection"

Terminal Type
See "Resistor Terminals for Tubular Cores"

RoHS Compliant

2 1 0 5 0 K 4 0 5 R 0 0 J E

Coating
210 = Vitreous
410 = Silicone Ceramic
610 = Centohm

Wattage

Ohms
R500 = 0.500Ω
1R00 = 1Ω
250R = 250Ω
1K00 = 1,000Ω
25K0 = 25,000Ω
25K5 = 25,500Ω

Tolerance
J = 5%
K = 10%

See 270 series custom core and terminal info

Standard Values

Ohmic value	Part No. Prefix ▶ Suffix ▼	Wattage	Ohmic value	Part No. Prefix ▶ Suffix ▼	Wattage	Ohmic value	Part No. Prefix ▶ Suffix ▼	Wattage
1.0 — 1R0E	D12K	12	150 — 150E	D25K	25	3,000 — 3K0E	D12K	12
2 — 2R0E	D25K	25	200 — 200E	D50K	50	4,000 — 4K0E	D25K	25
3 — 3R0E	D50K	50	250 — 250E	D75K	75	5,000 — 5K0E	D50K	50
4 — 4R0E	D75K	75	300 — 300E	D100K	100	6,000 — 6K0E	D75K	75
5 — 5R0E	D100K	100	400 — 400E	D175K	175	7,000 — 7K0E	D100K	100
7.5 — 7R5E	D225K	225	500 — 500E	D500K	500	7,500 — 7K5E	D175K	175
10 — 10RE	D500K	500	750 — 750E	D1000K	1000	10,000 — 10KE	D225K	225
15 — 15RE			800 — 800E			12,000 — 12KE		
20 — 20RE			1,000 — 1K0E			15,000 — 15KE		
25 — 25RE			1,250 — 1K25E			20,000 — 20KE		
50 — 50RE			1,500 — 1K5E			25,000 — 25KE		
75 — 75RE			2,000 — 2K0E			50,000 — 50KE		
100 — 100E			2,500 — 2K5E			100,000 — 100KE		

✓ = Standard values; check availability at www.ohmite.com

50KΩ and 100KΩ resistance values involve very fine resistance wire and should not be used in critical applications without burn-in and/or thermal cycling.