

# A Series



## PulsEater® Ceramic Composition Available in E12 Ohmic values

The “A” Series non-inductive, ceramic composite resistors are designed for a variety of applications where high energy handling capabilities are crucial. These resistors are ideal for any application which is subject to surges, high peak power, or impulse energy.

Their unique design allows uniform distribution of energy throughout their structure which results in low thermal stress. The high-temperature, solvent-resistant epoxy coating carries a UL94V0 flammability rating which is suitable for almost any environment.



\*AZ style is provided with dual terminal wires

### FEATURES

- High Surge Energy
- Non-Inductive
- Small Size

### APPLICATIONS

- Motor Drives
- Power Supplies, UPS
- Power Conversion
- In-Rush Current Limiting

## SERIES SPECIFICATIONS

Series	Resistance <sup>1</sup> (ohms)	P avg. <sup>2</sup> (watts)	Impulse Voltage <sup>3</sup> (volts)	Energy <sup>4</sup> (joule)
AV	3.3 to 10K	2.0	1000	250
AW	4.7 to 15K	2.5	1500	400
AX	1.0 to 3.3K	3.5	1000	700
AY	2.2 to 6.8K	4.5	2000	1400
AZ	1.5 to 4.7K	5.5	2500	2800

<sup>1</sup>E12 Standard Values ±10%; <sup>2</sup>Free Air 40°C Ambient; <sup>3</sup>In Air; <sup>4</sup>Single Impulse

## CHARACTERISTICS

<b>Resistance Element</b>	Bulk Ceramic
<b>Terminals</b>	Radial; 100% Sn solder coated radial (60/40 solder available upon request)
<b>Coating</b>	UL94V0, solvent resistant epoxy
<b>Tolerance</b>	±10% Standard
<b>Operating Temp. Range</b>	-55°C to 150°C
<b>Derating</b>	Derates linearly from 100% @ 50°C to 0% @ 150°C
<b>Temperature Rise</b>	100°C @ 100% rated power, 50°C ambient

Parameter	Max. ΔR	Test Method
<b>Life Test</b>	+5%	MIL-STD-202F, method 108A, except 50°C, 1000 hrs. @ rated power; 1.5 hrs. ON, 0.5 hrs. OFF
<b>Single Pulse Energy</b>	±1.5%	Single pulse, capacitor discharge at Rated Energy; 350VDC for AW and AX sizes; 650VDC for AY and AZ sizes.
<b>Repetitive HV Pulsing</b>	±2.0%	10 joules @ 5.0KV, 10,000 cycles
<b>Short-time Overload</b>	±1.5%	10x rated power. 5 sec. ON, 5 sec. OFF, 5 cycles
<b>Short-term High Temp</b>	±1.5%	250°C for 30 seconds
<b>Long-term High Temp</b>	±2.0%	1000 hours @ 150°C
<b>Thermal Shock Cycle</b>	±2.0%	MIL-STD-202F, method 107D. -55°C to +125°C, 5 cycles
<b>Moisture Resistance</b>	±1.0%	90% to 95% rh @ 40°C, 1000 hrs.

### Mounting clip



This saddle clip conforms to the configuration of Ohmite's A Series resistor to provide secure mounting. Made of a durable thermoplastic polyester, the saddle clip is designed to secure the A Series in place while safely withstanding its operating temperatures. Use (2) saddle clips per resistor for extra stability.

Part No.	Dim. (mm)			for Series	Color
	D	H	L		
5911E	20	23	13	AX and AY	White
5910E	25	26	15	AZ	Black

(continued)

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## DIMENSIONS



Series	P avg. 2 (watts)	L max. (mm)	D max. (mm)	H max. (mm)	S norm. (mm)	Term. wire gauge (AWG)	Weight (g)
AV	2.0	15	13	22	12.5	20	3.9
AW	2.5	20	13	22	17.5	20	5.4
AX	3.5	15	21	28	12.5	18	10
AY	4.5	25	21	28	22.5	18	19
AZ	5.5	30	26		27	18	33

## ORDERING INFORMATION



### Standard Values

Ohmic value	Part No. Prefix > Suffix <	Series	Ohmic value	Part No. Prefix > Suffix <	Series	Ohmic value	Part No. Prefix > Suffix <	Series	Ohmic value	Part No. Prefix > Suffix <	Series
1.0 — 10GK	AV	✓	5.6 — 56GK	AV	✓	33 — 330K	AV	✓	220 — 221K	AV	✓
1.2 — 12GK	AW		6.8 — 68GK	AW	✓	39 — 390K	AW	✓	270 — 271K	AW	✓
1.5 — 15GK	AX		8.2 — 82GK	AX	✓	47 — 470K	AX	✓	330 — 331K	AX	✓
1.8 — 18GK	AY	✓	10 — 100K	AY	✓	56 — 560K	AY	✓	470 — 471K	AY	✓
2.2 — 22GK	AZ	✓	12 — 120K	AZ	✓	68 — 680K	AZ	✓	560 — 561K	AZ	✓
2.7 — 27GK			15 — 150K		✓	82 — 820K		✓	680 — 681K		✓
3.3 — 33GK	AV	✓	18 — 180K	AV	✓	100 — 101K	AV	✓	820 — 821K	AV	✓
3.9 — 39GK	AW	✓	22 — 220K	AW	✓	120 — 121K	AW	✓	1000 — 102K	AW	✓
4.7 — 47GK	AX	✓	27 — 270K	AX	✓	150 — 151K	AX	✓		AX	✓
	AY	✓		AY	✓	180 — 181K	AY	✓		AY	✓
	AZ	✓		AZ	✓		AZ	✓		AZ	✓

Check product availability at [www.ohmite.com](http://www.ohmite.com)

✓ = Standard values      Non-standard values subject to a minimum handling charge per item.