

Wirewound Resistors, Industrial Power, Vitreous Coated, Adjustable Edgewound Tubular



FEATURES

- High temperature vitreous coating
- Complete welded construction
- Tight tolerance of 5 % for values above 1 Ω
- Excellent stability in operation (< 3 % change in resistance)
- Material categorization:

For definitions of compliance please see www.vishay.com/doc?99912



RoHS
COMPLIANT
HALOGEN
FREE
GREEN
(5-2008)

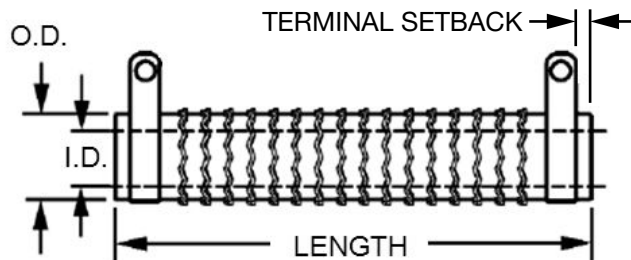
STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	HISTORICAL MODEL	POWER RATING $P_{25^{\circ}\text{C}}$ W	RESISTANCE RANGE Ω $\pm 5\%$	RESISTANCE RANGE Ω $\pm 10\%$	WEIGHT (typical) g
AVE0050	AVE-50	50	1.0 to 3.8	1.0 to 3.8	18
AVE0100	AVE-100	100	1.0 to 6.1	0.15 to 6.1	41
AVE0110	AVE-110	110	1.0 to 7.4	0.20 to 7.4	49
AVE0120	AVE-120	120	1.0 to 8.6	0.1 to 8.6	54
AVE0155	AVE-155	155	1.0 to 12.5	0.1 to 12.5	129
AVE0240	AVE-240	240	1.0 to 18	0.1 to 18	186
AVE0300	AVE-300	300	1.0 to 25	0.15 to 25	236
AVE0375	AVE-375	375	1.0 to 32	0.20 to 32	286
AVE0420	AVE-420	420	1.0 to 35.8	0.25 to 35.8	320

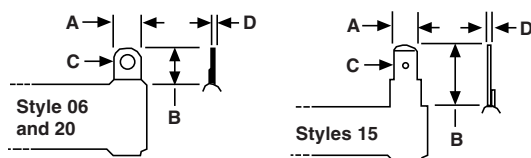
GLOBAL PART NUMBER INFORMATION

Global Part Numbering example: AVE030020E15R0KE92 (visit www.vishay.net SAP parts manual for all options)

A	V	E	0	3	0	0	2	0	E	1	5	R	0	K	E	9	2
GLOBAL MODEL (7 digits)	TERMINAL DESIGNATION (2 digits)		TERMINAL FINISH (1 digit)	VALUE (4 digits)		TOLERANCE (1 digit)		PACKAGING CODE (1 digit)		SPECIAL (up to 2 digits)							
(See Standard Electrical Specifications Global Model column for options)	06 15 20		E = Lead (Pb)-free	R = Decimal K = Thousand 1R50 = 1.5 Ω 1K50 = 1.5 kΩ		J = ± 5 % K = ± 10 %		E = E01 = Lead (Pb)-free skin pack		(Dash number) From 1 to 99 as applicable 91 = 100 style horizontal thru-bolt bracket 92 = 200 style push-in bracket 93 = 300 style vertical thru-bolt bracket							
Historical Part Number example: AVE-300-15-10%-BKTS																	
AVE-300				15 Ω				10 %				BKTS					
HISTORICAL MODEL				RESISTANCE VALUE				TOLERANCE				SPECIAL					

DIMENSIONS in inches [millimeters]


MODEL	DIMENSIONS in inches [millimeters]							
	CORE DIMENSIONS			TERMINAL SETBACK	DISTANCE BETWEEN TERMINALS (REF.)	TERMINAL DESIGNATION		BRACKET TYPES
	LENGTH	O.D.	I.D.			STANDARD	OPTIONAL (QUICK CONNECT)	
AVE0050	2.000 [50.8]	0.750 [19.05]	0.500 [12.70]	0.086 [2.18]	1.328 [33.73]	06	15	101, 203, 301
AVE0100	3.500 [88.90]	0.750 [19.05]	0.500 [12.70]	0.079 [2.39]	2.842 [72.19]	06	15	102, 206, 303
AVE0110	4.000 [101.6]	0.750 [19.05]	0.500 [12.70]	0.125 [3.18]	3.250 [82.55]	06	15	102, 206, 303
AVE0120	4.500 [114.3]	0.750 [19.05]	0.547 [13.89]	0.125 [3.18]	3.750 [95.25]	06	15	102, 206, 303
AVE0155	4.500 [114.3]	1.125 [28.58]	0.750 [19.05]	0.282 [7.16]	3.436 [87.27]	20	15	103, 205, 303
AVE0240	6.500 [165.1]	1.125 [28.58]	0.750 [19.05]	0.250 [6.35]	5.376 [136.6]	20	15	103, 205, 303
AVE0300	8.500 [215.9]	1.125 [28.58]	0.750 [19.05]	0.267 [6.78]	7.342 [186.5]	20	15	103, 205, 303
AVE0375	10.500 [266.7]	1.125 [28.58]	0.750 [19.05]	0.266 [6.76]	9.344 [237.3]	20	15	103, 205, 303
AVE0420	11.375 [288.9]	1.125 [28.58]	0.750 [19.05]	0.266 [6.76]	10.219 [259.6]	20	15	103, 205, 303

TERMINAL DIMENSIONS


DIMENSIONS	TERMINAL STYLE		
	06	15	20
A	0.250 [6.35]	0.250 [6.35]	0.375 [9.53]
B	0.563 [14.29]	0.594 [15.08]	0.625 [15.88]
C (HOLE DIAMETER)	0.166 [4.22]	0.065 [1.65]	0.196 [4.98]
D	0.020 [0.51]	0.031 [0.79]	0.020 [0.51]

TECHNICAL SPECIFICATIONS		
PARAMETER	UNIT	AVE RESISTOR CHARACTERISTICS
Temperature Coefficient	ppm/°C	± 260 for 20 Ω and above, ± 400 for 1 Ω to 19.99 Ω, special TC's available please contact factory
Short Time Overload	-	10 x rated power for 5 s
Dielectric Withstanding Voltage	V _{AC}	1000, from terminal to mounting hardware
Maximum Working Voltage	V	(P × R) ^{1/2}
Operating Temperature Range	°C	- 55 to + 350



MATERIAL SPECIFICATIONS

Element: Copper-nickel alloy or nickel-chrome alloy, depending on resistance value

Core: Ceramic, steatite or cordierite

Coating: Special high temperature vitreous

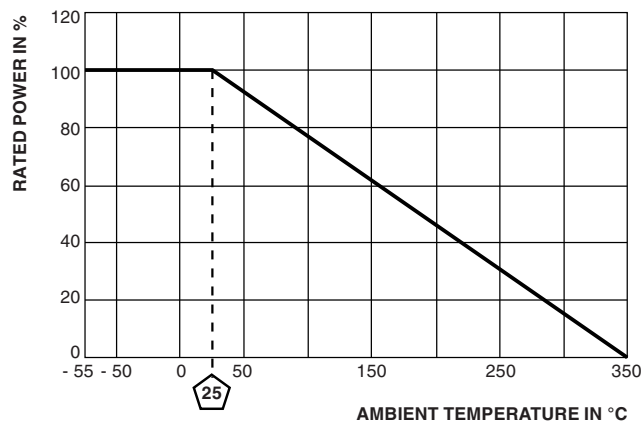
Standard Terminals: Tinned alloy 42

Optional Terminals (Quick Connect): Alloy 42

Terminal Bands: Alloy 42

Part Marking: HEI, model, wattage, value, tolerance, date code

DERATING





Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and/or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.

Material Category Policy

Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as RoHS-Compliant fulfill the definitions and restrictions defined under Directive 2011/65/EU of The European Parliament and of the Council of June 8, 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (EEE) - recast, unless otherwise specified as non-compliant.

Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.

Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as Halogen-Free follow Halogen-Free requirements as per JEDEC JS709A standards. Please note that some Vishay documentation may still make reference to the IEC 61249-2-21 definition. We confirm that all the products identified as being compliant to IEC 61249-2-21 conform to JEDEC JS709A standards.