

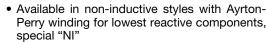
Vishay Huntington

Wirewound Resistors, Commercial Power, Silicone Coated, Axial Lead



FEATURES

- High temperature coating (> 350 °C)
- All welded construction
- Available with "vitreous like appearance" coating as ALVR



Compliant to RoHS Directive 2011/65/EU





RoHS COMPLIANT

GREEN (5-2008)**

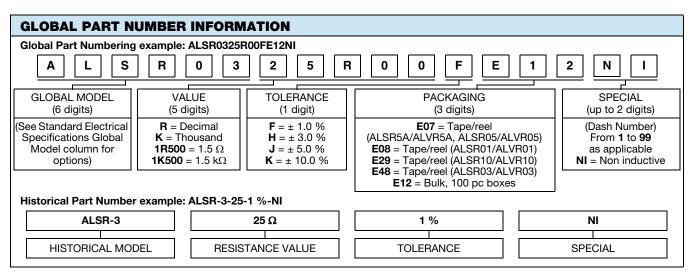
Note

** Please see document "Vishay Material Category Policy": www.vishay.com/doc?99902

STAND	STANDARD ELECTRICAL SPECIFICATIONS										
GLOBAL MODEL	HISTORICAL MODEL	POWER RATING $^{(1)}$ $P_{25~{\rm ^{\circ}C}}$ W CHARACTERISTIC U + 250 $^{\circ}$ C	POWER RATING ⁽¹⁾ P _{25 °C} W CHARACTERISTIC V + 350 °C	RESISTANCE RANGE Ω	TOLERANCE (2)	WEIGHT (typical) g					
ALSR01	ALSR-1	1	-	0.10 to 6.37K	1, 3, 5, 10	0.27					
ALVR01	ALVR-1	1	-	0.10 to 6.37K	1, 3, 5, 10	0.27					
ALSR03	ALSR-3	3	-	0.10 to 12K	1, 3, 5, 10	0.68					
ALVR03	ALVR-3	3	-	0.10 to 12K	1, 3, 5, 10	0.68					
ALSR5A	ALSR-5A	4	5	0.10 to 40.3K	1, 3, 5, 10	2.1					
ALVR5A	ALVR-5A	4	5	0.10 to 40.3K	1, 3, 5, 10	2.1					
ALSR05	ALSR-5	5	7	0.10 to 58.5K	1, 3, 5, 10	3.2					
ALVR05	ALVR-5	5	7	0.10 to 58.5K	1, 3, 5, 10	3.2					
ALSR10	ALSR-10	7	10	0.10 to 92K	1, 3, 5, 10	4.9					
ALVR10	ALVR-10	7	10	0.10 to 92K	1, 3, 5, 10	4.9					

Notes

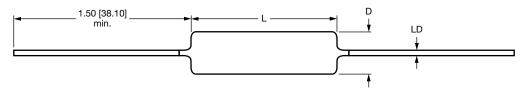
⁽²⁾ Other tolerances may be available, contact factory



⁽¹⁾ Vishay Huntington ALSR/ALVR models have two power ratings depending on operation temperature and stability requirements. Models not available for characteristic V are: ALSR01, ALVR01, ALSR03, and ALVR03

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DIMENSIONS in inches [millimeters]



	DIMENSIONS in inches [millimeters]				
GLOBAL MODEL	L ± 0.032 [0.813]	D ± 0.032 [0.813]	LD ± 0.002 [0.051]		
ALSR01	0.385 [9.8]	0.110 [2.8]	0.020 [0.5]		
ALVR01	0.437 [11.1]	0.125 [3.2]	0.020 [0.5]		
ALSR03	0.530 [13.5]	0.200 [5.1]	0.032 [0.8]		
ALVR03	0.563 [14.3]	0.218 [5.5]	0.032 [0.8]		
ALSR5A	0.937 [23.8]	0.200 [5.1]	0.032 [0.8]		
ALVR5A	1.031 [26.2]	0.218 [5.5]	0.032 [0.8]		
ALSR05	0.937 [23.8]	0.312 [7.9]	0.032 [0.8]		
ALVR05	1.031 [26.2]	0.343 [8.7]	0.032 [0.8]		
ALSR10	1.800 [45.7]	0.312 [7.9]	0.032 [0.8]		
ALVR10	1.843 [46.8]	0.343 [8.7]	0.032 [0.8]		

MATERIAL SPECIFICATIONS

Element: Copper-nickel alloy or nickel-chrome alloy,

depending on resistance value

Core: Ceramic: Steatite or alumina, depending on physical

size

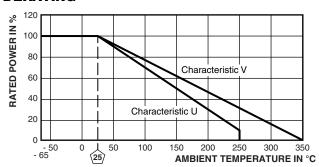
End Caps: Stainless steel

Coating: Special high temperature silicone or special formula of "vitreous like appearance" coating on ALVR

Terminals: Tinned Copper clad steel

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

DERATING



TECHNICAL SPECIFICATIONS						
PARAMETER	UNIT	RESISTOR CHARACTERISTICS				
Temperature Coefficient	ppm/°C	\pm 30 for 10 Ω and above; \pm 50 for 1 Ω to 9.9 Ω ; \pm 90 for 0.5 Ω to 0.99 Ω				
Terminal Strength	lb	10 minimum				
Dielectric Withstanding Voltage	V_{AC}	500 for 1 W and 1000 for 3 W and above				
Operating Temperature Range	°C	Characteristic U = - 65 to + 250, characteristic V = - 65 to + 350				
Maximum Working Voltage	V	$(P \times R)^{1/2}$				

PERFORMANCE						
TEST	CONDITIONS OF TEST	TEST LIMITS (CHARACTERISTIC V)				
Thermal Shock	Rated power applied until thermally stable, then a minimum of 15 min at - 55 °C	$\pm (2.0 \% + 0.05 \Omega) > \Delta R$				
Short Time Overload	5 x rated power (3 W and smaller), 10 x rated power (4 W and larger) for 5 s	$\pm (2.0 \% + 0.05 \Omega) > \Delta R$				
Dielectric Withstanding Voltage	500 V _{RMS} , 1 min for 1 W and 1000 V _{RMS} , 1 min for 3 W and above	$\pm (0.1 \% + 0.05 \Omega) > \Delta R$				
Low Temperature Storage	- 65 °C for 24 h	$\pm (2.0 \% + 0.05 \Omega) > \Delta R$				
High Temperature Exposure	250 h at U = + 250 °C, V = + 350 °C	$\pm (4.0 \% + 0.05 \Omega) > \Delta R$				
Mechanical Shock	MIL-STD-202 method 213, 100 g's for 6 ms, 10 shocks	$\pm (0.2 \% + 0.05 \Omega) > \Delta R$				
Vibration	Frequency varied 10 Hz to 2000 Hz, 20 g peak, 2 directions 6 h each	$\pm (0.2 \% + 0.05 \Omega) > \Delta R$				
Load Life	2000 h at rated power, + 25 °C, 1.5 h "ON", 0.5 h "OFF"	$\pm (3.0 \% + 0.05 \Omega) > \Delta R$				
Moisture Resistance	MIL-STD-202 method 106, 7b not applicable	$\pm (2.0 \% + 0.05 \Omega) > \Delta R$				





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