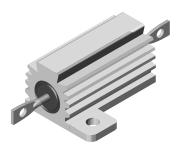


Wirewound Resistors, Military, MIL-PRF-18546 Qualified, Type RE, Aluminum Housed, Chassis Mount

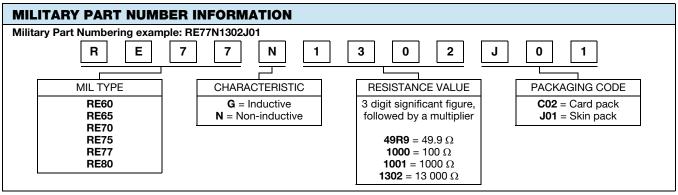


FEATURES

- Molded construction for total environmental protection
- Complete welded construction
- Qualified to MIL-PRF-18546
- Available in non-inductive styles (type N) with Aryton-Perry winding for lowest reactive components
- · Mounts on chassis to utilize heat-sink effect
- Excellent stability in operation (< 1 % change in resistance)

STANDARD ELECTRICAL SPECIFICATIONS								
MILITARY MODEL	VISHAY REFERENCE MODEL	POWER RATING P _{25 °C} W	RESISTANCE RANGE Ω	TOLERANCE ± %	WEIGHT (typical) g			
RE60G	RH005	5	0.10 to 3.32K	1	3			
RE60N	NH005	5	1.0 to 1.65K	1	3.3			
RE65G	RH010	10	0.10 to 5.62K	1	6			
RE65N	NH010	10	1.0 to 2.8K	1	8.8			
RE70G	RH025	20	0.10 to 12.1K	1	13			
RE70N	NH025	20	1.0 to 6.04K	1	16.5			
RE75G	RH050	30	0.10 to 39.2K	1	28			
RE75N	NH050	30	1.0 to 19.6K	1	35			
RE77G	RH100	75	0.05 to 29.4K	1	350			
RE77N	NH100	75	1.0 to 14.7K	1	385			
RE80G	RH250	120	0.10 to 35.7K	1	630			
RE80N	NH250	120	1.0 to 17.4K	1	690			

TECHNICAL SPECIFICATIONS						
PARAMETER U		RE RESISTOR CHARACTERISTICS				
Temperature Coefficient	ppm/°C	\pm 20 for 10 Ω and above; \pm 50 for 1 Ω to 9.9 Ω ; \pm 100 for 0.1 Ω to 0.99 Ω				
Maximum Working Voltage	V	$(P \times R)^{1/2}$				
Insulation Resistance	Ω	10 000 M Ω minimum dry, 1000 M Ω minimum after moisture test				
Solderability	-	MIL-PRF-18546 type - meets requirements of ANSI J-STD-002				
Operating Temperature Range °C		- 55 to + 250				

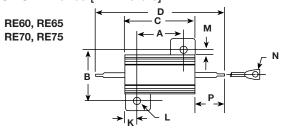


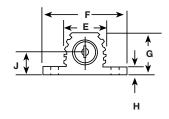
Note

Only tolerance available for RE type is ± 1 %



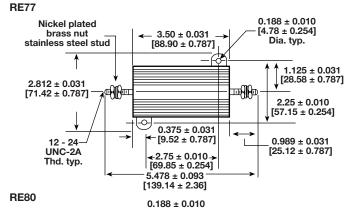
DIMENSIONS in inches [millimeters]

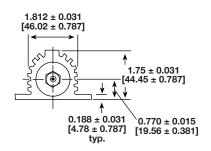


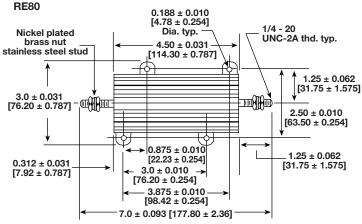


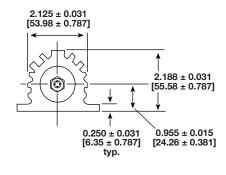
MILITARY	RY DIMENSIONS in inches [millimeters]													
MODEL	Α	В	С	D	E	F	G	Н	J	K	L	М	N	Р
RE60	0.444 ± 0.005 [11.28 ± 0.127]	0.490 ± 0.005 [12.45 ± 0.127]	0.600 ± 0.030 [15.24 ± 0.787]	1.125 ± 0.062 [28.58 ± 1.57]	0.334 ± 0.015 [8.48 ± 0.381]	0.646 ± 0.015 [16.41 ± 0.381]	0.320 ± 0.015 [8.13 ± 0.381]	0.065 ± 0.010 [1.65 ± 0.254]	0.133 ± 0.010 [3.38 ± 0.254]	[1.98	0.093 ± 0.005 [2.36 ± 0.127]	0.078 ± 0.015 [1.98 ± 0.381]	0.050 ± 0.005 [1.27 ± 0.127]	0.266 ± 0.062 [6.76 ± 1.57]
RE65	0.562 ± 0.005 [14.27 ± 0.127]	0.625 ± 0.005 [15.88 ± 0.127]	0.750 ± 0.031 [19.05 ± 0.787]	1.375 ± 0.062 [34.93 ± 1.57]	0.420 ± 0.015 [10.67 ± 0.381]	[20.32	0.390 ± 0.015 [9.91 ± 0.381]	0.075 ± 0.010 [1.91 ± 0.254]	0.165 ± 0.010 [4.19 ± 0.254]	[2.36	0.094 ± 0.005 [2.39 ± 0.127]	[2.59	[2.16	0.312 ± 0.062 [7.92 ± 1.57]
RE70	0.719 ± 0.005 [18.26 ± 0.127]	0.781 ± 0.005 [19.84 ± 0.127]	[26.97	1.938 ± 0.062 [49.23 ± 1.57]	[13.97	[27.43	[13.87		[5.87	0.172 ± 0.010 [4.37 ± 0.254]	0.125 ± 0.005 [3.18 ± 0.127]	[2.92	[2.16	0.438 ± 0.062 [11.13 ± 1.57]
RE75	1.562 ± 0.005 [39.67 ± 0.127]	0.844 ± 0.005 [21.44 ± 0.127]	1.968 ± 0.031 [49.99 ± 0.787]	2.781 ± 0.062 [70.64 ± 1.57]	[16.00	[28.96	[15.49	0.088 ± 0.010 [2.24 ± 0.254]	[6.60	0.196 ± 0.010 [4.98 ± 0.254]	[3.18	[2.72	[2.16	0.438 ± 0.062 [11.13 ± 1.57]

DIMENSIONS in inches [millimeters]













POWER RATING

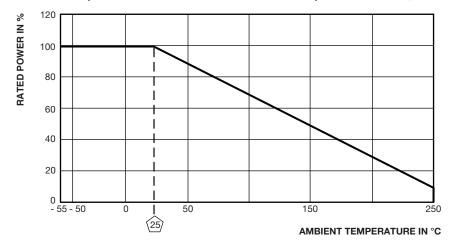
Vishay RE resistor wattage ratings are based on mounting to the following heat sink:

RE60 and RE65: $4" \times 6" \times 2" \times 0.040"$ thick aluminum chassis RE70 and RE75: $5" \times 7" \times 2" \times 0.040"$ thick aluminum chassis RE77 and RE80: $7" \times 9" \times 2" \times 0.060"$ thick aluminum chassis

FREE AIR POWER RATING								
MILITARY MODEL	RE60	RE65	RE70	RE75	RE77	RE80		
W at 25 °C	3	6	8	10	30	75		

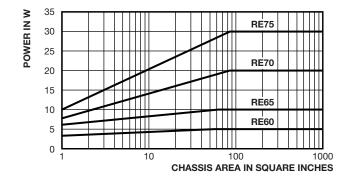
AMBIENT TEMPERATURE DERATING

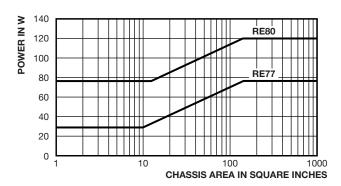
Derating is required for ambient temperatures above 25 °C when mounted to specified heat sink, see the following graph.



REDUCED HEAT SINK DERATING

Derating is also required when recommended heat sink area is reduced.







Vishay Dale

MATERIAL SPECIFICATIONS

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

Core: Ceramic, steatite or alumina, depending on physical

size

Encapsulant: Silicone molded construction **Housing:** Aluminum with hard anodic coating

End Caps: Stainless steel

Standard Terminals: For RE77 and RE80 terminals are threaded stainless steel. All others are 60/40 tin/lead (Sn/Pb) w/Nickel underplate on copper clad steel core terminal.

Part Marking: Dale, model, wattage, value, tolerance, date

code

NON-INDUCTIVE (TYPE N)

Models of equivalent physical and electrical specifications are available with non-inductive (Aryton-Perry) winding. They are identified by substituting the letter N for G in the model number (RE60N, for example).

PERFORMANCE						
TEST	CONDITIONS OF TEST	TEST LIMITS				
Thermal Shock	Rated power applied until thermally stable, then a minimum of 15 min at - 55 °C	± (0.5 % + 0.05 Ω) ΔR				
Short Time Overload	5 x rated power for 5 s	± (0.5 % + 0.05 Ω) ΔR				
Dielectric Withstanding Voltage	1000 V_{rms} for RE60, RE65 and RE70; 2000 V_{rms} for RE75; 4500 V_{rms} for RE77 and RE80; duration 1 min	± (0.2 % + 0.05 Ω) ΔR				
Temperature	250 °C for 2 h	\pm (0.5 % + 0.05 Ω) ΔR				
Moisture Resistance	MIL-STD-202 Method 106, 7b not applicable	± (1.0 % + 0.05 Ω) ΔR				
Shock, Specified Pulse	MIL-STD-202 Method 213, 100 g's for 6 ms, 10 shocks	± (0.2 % + 0.05 Ω) ΔR				
Vibration, High Frequency	Frequency varied 10 Hz to 2000 Hz, 20 g peak, 2 directions 6 h each	± (0.2 % + 0.05 Ω) ΔR				
Load Life	1000 h at rated power, + 25 °C, 1.5 h "ON", 0.5 h "OFF"	± (1.0 % + 0.05 Ω) ΔR				
Terminal Strength	30 s, 5 pound pull test for RE60 and RE65, 10 pound pull test for other sizes; torque test - 24 pound inch for RE77 and 32 pound inch for RE80	± (0.2 % + 0.05 Ω) ΔR				



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Vishay

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