RESISTOR WIREWOUND CHASSIS MOUNT MAS **RWC SERIES**



KEY FEATURES

- Resistances from 0.005 to 250kOhms
- Tolerance to ± 0.01%
- High Temperature: -55°C to +275°C
- Low TCR: ± 20ppm/ °C
- Power Rating 5 to 300 Watts
- Excellent Pulse Handling
- Non-Inductive windings available
- Four Terminal Versions Available (Call Factory)

APPLICATIONS

- Motor Control
- Braking Systems
- Welding X-Ray

PRODUCT SUMMARY

		POWER RATING (W @ 25°C)					
PRODUCT SERIES (RWC)	RESISTANCE RANGE (Ω) ¹	FREE AIR	COMMERCIAL	MIL	DIELECTRIC STRENGTH	TEMPERATURE COEFFICIENT	TEMPERATURE RANGE
G1	0.01 to 22K	4.5	7.5 ª	5 a	1500 VAC	 ◆ >10Ω: ± 20ppm/°C 	
G2	0.01 to 47K	7.5	12.5 ª	10 a	1500 VAC	• 1 Ω to 10 Ω : ± 50ppm/°C	- 55°C to + 275°C
G3	0.01 to 90K	12	25 b	20 ь	2500 VAC	• $<1\Omega$: Call Factory	- 55-0 10 + 275-0
G4	0.01 to 250K	20	50 ℃	30 ¢	3500 VAC	▼ < 152. Gail Factory	

TOLERANCE: \pm 0.01 to \pm 10% (1% Standard)

AVAILABLE OPTIONS (Consult Factory)

- **Special Testing Requirements**
- **Special Pulse Requirements**

¹ For non-inductive windings, divide maximum resistance by 2

^a Heatsink required: 0.040 [1.0] Aluminum Plate, 129 in² [832 cm²] or equiv.

^b Heatsink required: 0.040 [1.0] Aluminum Plate, 167 in² [1077 cm²] or equiv.

C Heatsink required: 0.059 [1.5] Aluminum Plate, 291 in² [1877 cm²] or equiv.

^d Heatsink required: 0.125 [3.2] Aluminum Plate, 294in² [1896cm²] or equiv.

e Heatsink required: 0.125 [3.2] Aluminum Plate, 895 in² [5780 cm²] or

Ho	W TO	Order

How to Orde	R	e	equiv.		-	-
RWC	Ν	G1	U	003K8	F	S
RESISTOR WIRE- WOUND CHASSIS MOUNT	WINDINGS	PACKAGE CODE, WATTS (COMMERCIAL), RESISTANCE	TEMPERATURE COEFFICIENT OF RESISTANCE (TCR)	RESISTANCE	TOLERANCE	PACKING
	S = Standard N = Non-Inductive	G1, 7.5W, [0.01 to 22k] Ω G2, 12.5W, [0.01 to 47k] Ω G3, 25.0W, [0.01 to 90k] Ω G4, 50.0W, [0.01 to 250k] Ω	U = ± 20ppm/°C Q = ± 50ppm/°C Z = Special	$\begin{array}{c} 038R0 = 38\Omega \\ 003K8 = 3.8K\Omega \\ 038K0 = 38.0K\Omega \\ 380K0 = 380.0K\Omega \\ 003M8 = 3.8M\Omega \\ Letter denotes \\ decimal place. \\ R = decimal., "K" 10^3, "M" 10^6 \\ Remaining 4 digits are \\ significant or placeholders. \end{array}$	$\begin{array}{l} T=\pm 0.01\%\\ Q=\pm 0.02\%\\ A=\pm 0.05\%\\ B=\pm 0.1\%\\ F=\pm 1.0\%\\ J=\pm 5.0\%\\ K=\pm 10.0\% \end{array}$	S = Bulk

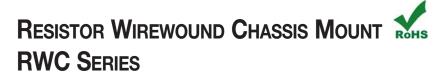
For Tin/Lead coated leads, add "- Pb" to part number.

Standard Termination Finish: Matte Tin (Sn)

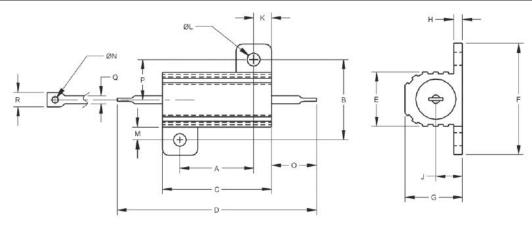
Example P/N: RWCNG1U003K8FS is Resistor Wirewound Chassis Mount, Non-Inductive, 7.5W, ±20ppm/°C, 3.8KΩ, ±1.0%, bulk



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MECHANICAL CHARACTERISTICS



Package Code		G1	G2	G3	G4	
	A (Tolerances) ±0.005 [±0.13 mm]	0.444 [11.28]	0.562 [14.27]	0.719 [18.26]	1.563 [39.70]	
	B (Tolerances) ±0.005 [±0.13 mm]	0.490 [12.45]	0.625 [15.88]	0.781 [19.84]	0.844 [21.44]	
	C (Tolerances) ±0.031 [±0.79 mm]	0.600 [15.24]	0.750 [19.05]	1.062 [26.97]	1.968 [49.99]	
	D (Tolerances) ±0.062 [±1.57 mm]	1.125 [28.58]	1.320 [33.53]	1.870 [47.50]	2.760 [70.10]	
	E (Tolerances) ±0.015 [±0.38 mm]	0.334 [8.48]	0.430 [10.92]	0.530 [13.46]	0.615 [15.62]	
	F (Tolerances) ±0.015 [±0.38 mm]	0.646 [16.41]	0.800 [20.32]	1.080 [27.43]	1.140 [28.96]	
	G (Tolerances) ±0.015 [±0.38 mm]	0.320 [8.13]	0.400 [10.16]	0.560 [14.22]	0.615 [15.62]	
	H (Tolerances) ±0.010 [±0.25 mm]	0.065 [1.65]	0.075 [1.91]	0.085 [2.16]	0.085 [2.16]	
Dimensions Inches [mm]	J (Tolerances) ±0.010 [±0.25 mm]	0.140 [3.56]	0.190 [4.83]	0.260 [6.60]	0.300 [7.62]	
	K (Tolerances) ±0.010 [±0.25 mm]	0.078 [1.98]	0.093 [2.36]	0.172 [4.37]	0.196 [4.98]	
	L (Tolerances) ±0.005 [±0.13 mm]	0.093 [2.36]	0.093 [2.36]	0.125 [3.18]	0.125 [3.18]	
	M (Tolerances) ±0.015 [±0.38 mm]	0.078 [1.98]	0.102 [2.60]	0.125 [3.18]	0.125 [3.18]	
	N (Tolerances) ±0.006 [±0.15 mm]	0.050 [1.27]	0.080 [2.03]	0.080 [2.03]	0.080 [2.03]	
	O (Tolerances) ±0.062 [±1.57 mm]	0.266 [6.76]	0.312 [7.93]	0.438 [11.13]	0.438 [11.13]	
	P (Tolerances) ±0.031 [±0.79 mm]	0.245 [6.22]	0.312 [7.92]	0.391 [9.93]	0.422 [10.72]	
	Q (Tolerances) ±0.002 [±0.05 mm]	0.051 [1.30]	0.098 [2.49]	0.098 [2.49]	0.098 [2.49]	
	R (Tolerances) ±0.031 [±0.79 mm]	0.085 [2.16]	0.160 [4.06]	0.185 [4.70]	0.185 [4.70]	
MIL-R-39009 /		RER-60 / RE-60	RER-65 / RE-65	RER-70 / RE-70	RER-75 / RE-75	



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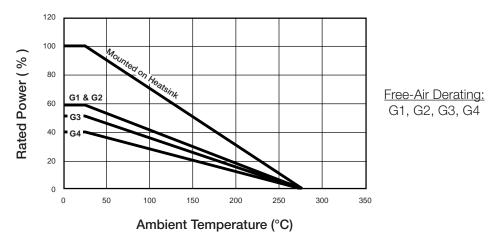
ENVIRONMENTAL PERFORMANCE

Environmental Performance (MIL-STD 202)	ΔR
Vibration	\pm 0.1 % + 0.05 Ω
Load Life	± 1% + 0.05 Ω
Moisture Resistance	\pm 0.2 % + 0.05 Ω
Dielectric	\pm 0.2 % + 0.05 Ω
Storage	\pm 0.2 % + 0.05 Ω
Shock	\pm 0.1 % + 0.05 Ω
Thermal Shock	\pm 0.2 % + 0.05 Ω
5X Overload (5s)	\pm 0.2 % + 0.05 Ω

CONSTRUCTION NOTES:

- Centerless ground ceramic core ٠
- Tinned copper or copperweld leads ٠
- All welded terminations
- High Temperature epoxy molding compound ٠
- Anodized aluminum housing ٠

Moisture Sensitivity Level: MSL-1



Power Derating Curve

This datasheet is subject to change without notice.



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 RDSF010015R00JDBNI
 RER60F34R8RC02
 RER60F51R1MC0230
 RER65F1R50PC02
 RER70F62R5PC02
 VK100NA-200
 VK100NA-50

 VK100NA-750
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 VPR10F-7.5K
 VPR20H150
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 L75J1K0E
 VRH320
 3K3 K
 RER65F2940PC02
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 RER70F27R4P
 VPR5F-600
 VPR5F250
 VPR10F-8K
 VPR10F-6K
 VPR10F-1.75K
 VPR10F-1.25K
 VPR10F10

 VP50KA-12K
 VP50KA-100K
 VP25KA-5000
 VK100NA250
 VK100NA-15
 620-5R00-FBW
 850J5R0E-B
 L100J150E-MT1
 L50J500E

 MT1

 620-5R00-FBW
 850J5R0E-B
 L100J150E-MT1
 L50J500E