

MCRL0100

MCRL0125

Thickness (D)

# Wirewound Resistors, Industrial Power, Tubular, Metal Case, MCRL



3.688 (93.675)

5.562 (141.275)

4.125 (104.775)

6 (152.4)

#### **FEATURES**

- High power to size ratio
- Flameproof inorganic compound
- All welded construction

2 7/16

4 1/8

2.44

4.12

0.032 (0.8128)

108

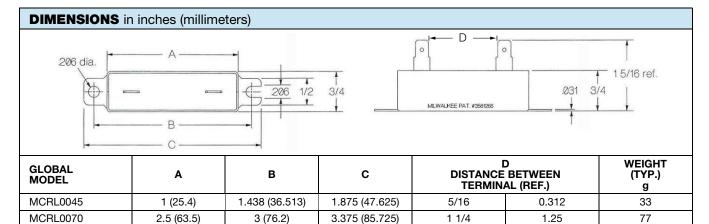
185



RoHS

- Heat sink mountable to steel panel at least 10" x 10" x 0.04" (254 mm x 254 mm x 1.02 mm)
- Heat transfer increased by use of thermally conductive grease or epoxy
- Wirewound
- Material categorization: For definitions of compliance please see <a href="https://www.vishay.com/doc?99912">www.vishay.com/doc?99912</a>

STANDARD ELECTRICAL SPECIFICATIONS							
GLOBAL MODEL	HISTORICAL MODEL	POWER RATING WITH HEAT SINK W	POWER RATING WITHOUT HEAT SINK W	RESISTANCE RANGE $\Omega$	TOLERANCE ± %	TERMINAL STYLE	
MCRL0045	12M16	45	20	1.1 to 2750	5, 10	Α	
MCRL0070	12M40	70	40	0.2 to 22K	5, 10	Н	
MCRL0100	12M59	100	50	0.2 to 66K	5, 10	Н	
MCRL0125	12M89	125	65	0.25 to 76K	5, 10	Н	



TERMINAL STYLE in inches (millimeters)					
	A → D A → C → O B Type H	→    ← D			
DIMENSIONS	A (3/16" LUG)	H (1/4" SQC)			
Width (A)	0.1875 (4.7625)	0.25 (6.35)			
Height (B)	0.375 (9.525)	0.625 (15.875)			
Diameter (C)	0.13 (3.302)	0.065 (1.651)			

4.563 (115.90)

6.438 (163.525)

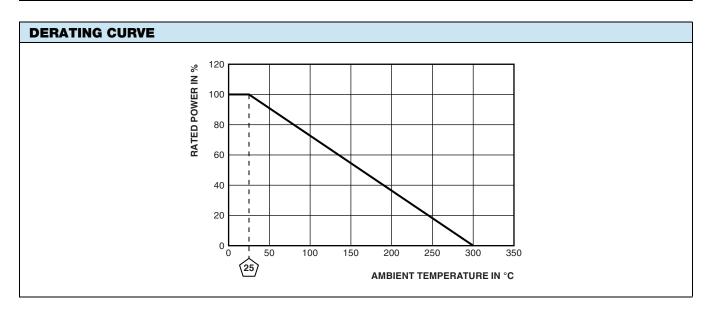
Revision: 17-Jun-14 1 Document Number: 31834

0.02 (0.508)



# Vishay Milwaukee

TECHNICAL SPECIFICATIONS				
PARAMETER	UNIT	RESISTOR CHARACTERISTICS		
Power rating	W	20 to 125		
Resistance range	Ω	0.2 to 76K		
Resistance tolerance	%	5 for above 1 $\Omega$ , 10 for below 1 $\Omega$		
TCR	ppm/°C	± 400, ± 180, ± 130, ± 20 (varies by wattage and resistance)		
Operating temperature	°C	-40 to +300		
Temperature rise	°C	275 above an ambient of 25 °C		
Maximum altitude	f.a.s.l. (m.a.s.l.)	derate above 4921 f.a.s.l. (1500 m.a.s.l.)		
Short-term overload (surge)		10 x rated power for 5 s		
Surge windings		available		
Maximum working voltage		$(P \times R)^{1/2}$		
Insulation resistance	Ω	1M		
Dielectric voltage	V <sub>RMS</sub>	up to 1500 (upon request)		
Creepage	inch (mm)	0.50 (12.7) typical		
Terminal sleeves		available for all sizes, increases creepage distance for 600 V applications		
Inductance	μΗ	0.2 to 800 (varies by wattage and resistance)		
Non-inductive winding		available		
Terminal strength	lb	n/a		
Electrical or mechanical customization		available: www.vishay.com/doc?31859		



MATERIAL SPECIFICATIONS			
Element copper-nickel, nickel-chrome, iron-chrome-aluminum			
Core	electrical porcelain		
Potting compound	electrical cement or special high temperature silicone		
Standard terminals	stainless steel		
Part marking	value, date code, MRC		





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# Vishay Milwaukee

GLOB	GLOBAL PART NUMBER INFORMATION						
Global Part Numbering example: MCRL007022K00JHB00 (MCRL0070 22K 5 % 1/4SQC B)							
M C R L 0 0 7 0 2 2 K 0 0 J H B 0 0							
MODEL (3 digits)	TYPE (1 digit)	SIZE (4 digits)	VALUE (5 digits)	TOLERANCE (1 digit)	TERMINAL (1 digit)	PACKAGING (1 digit)	SPECIAL (2 digits)
MCR	L = Cement	0045 = 45 W 0100 = 100 W Available sizes: 0045 0070 0100 0125	$\begin{aligned} \textbf{R} &= \text{Decimal} \\ \textbf{K} &= \text{Thousand} \\ \textbf{R1500} &= 0.15 \ \Omega \\ \textbf{1K500} &= 1.5 \ \text{k}\Omega \end{aligned}$ Check datasheet for available value range	<b>J</b> = ± 5.0 % <b>K</b> = ± 10 %	A = 3/16" lug (3/16L) B = A extended length (3/16XL) H = 1/4" single quick-connect (1/4SQC)	<b>B</b> = Bulk	00 = Standard NI = Non-inductive SW = Surge winding



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