

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

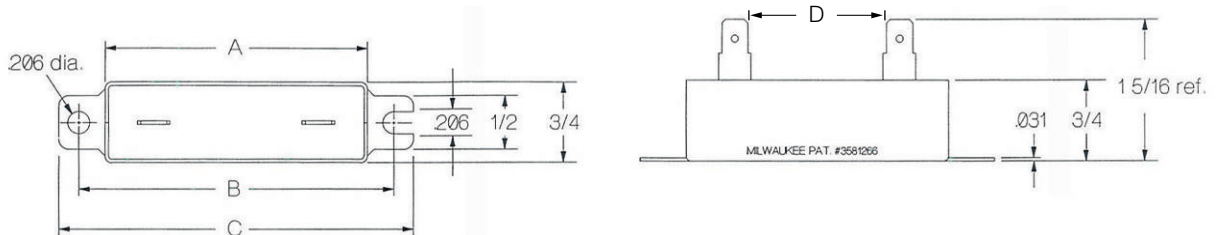

FEATURES

- High power to size ratio
- Flameproof inorganic compound
- All welded construction
- 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 www.vishay.com/doc?99912

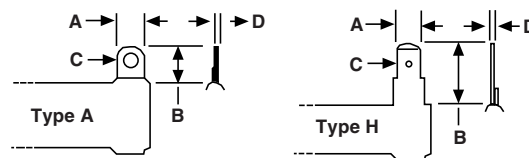

RoHS
COMPLIANT

STANDARD ELECTRICAL SPECIFICATIONS

| GLOBAL MODEL | HISTORICAL MODEL | POWER RATING WITH HEAT SINK W | POWER RATING WITHOUT HEAT SINK W | RESISTANCE RANGE Ω | TOLERANCE \pm % | TERMINAL STYLE |
|--------------|------------------|-------------------------------|----------------------------------|---------------------------|-------------------|----------------|
| MCRL0045 | 12M16 | 45 | 20 | 1.1 to 2750 | 5, 10 | A |
| MCRL0070 | 12M40 | 70 | 40 | 0.2 to 22K | 5, 10 | H |
| MCRL0100 | 12M59 | 100 | 50 | 0.2 to 66K | 5, 10 | H |
| MCRL0125 | 12M89 | 125 | 65 | 0.25 to 76K | 5, 10 | H |

DIMENSIONS in inches (millimeters)


| GLOBAL MODEL | A | B | C | D DISTANCE BETWEEN TERMINAL (REF.) | | WEIGHT (TYP.) g |
|--------------|-----------------|-----------------|-----------------|--|-------|-----------------------|
| MCRL0045 | 1 (25.4) | 1.438 (36.513) | 1.875 (47.625) | 5/16 | 0.312 | 33 |
| MCRL0070 | 2.5 (63.5) | 3 (76.2) | 3.375 (85.725) | 1 1/4 | 1.25 | 77 |
| MCRL0100 | 3.688 (93.675) | 4.125 (104.775) | 4.563 (115.90) | 2 7/16 | 2.44 | 108 |
| MCRL0125 | 5.562 (141.275) | 6 (152.4) | 6.438 (163.525) | 4 1/8 | 4.12 | 185 |

TERMINAL STYLE in inches (millimeters)


| 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) |
| Thickness (D) | 0.02 (0.508) | 0.032 (0.8128) |



| 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 Ω , 10 for below 1 Ω |
| TCR | ppm/ $^{\circ}$ C | $\pm 400, \pm 180, \pm 130, \pm 20$ (varies by wattage and resistance) |
| Operating temperature | $^{\circ}$ C | -40 to +300 |
| Temperature rise | $^{\circ}$ C | 275 above an ambient of 25 $^{\circ}$ 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 _{RMS} | 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 | μ H | 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 |



| 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 | R = Decimal K = Thousand R1500 = 0.15 Ω 1K500 = 1.5 kΩ Check datasheet for available value range | J = ± 5.0 % K = ± 10 % | A = 3/16" lug (3/16L) B = A extended length (3/16XL) H = 1/4" single quick-connect (1/4SQC) | B = Bulk | 00 = Standard NI = Non-inductive SW = Surge winding | | | | | | | | | | |



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- Защита от снятия компонента с производства.



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