POWER
■MAX. 10W
■TOL. 0.5%
■TC. 30ppm/°C

05.2023

PCN RESISTORS

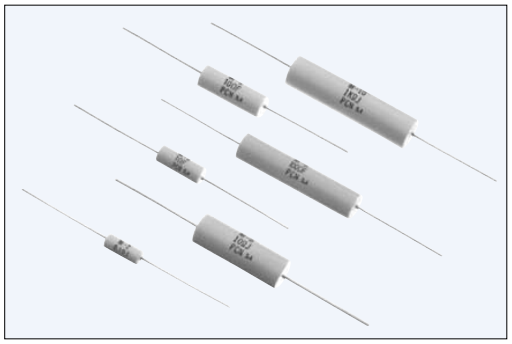
RoHS Compliance

POWER TYPE CEMENT WIRE-WOUND RESISTORS

M / RFM

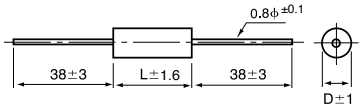
Features :

- Wire-wound resistors with a built-in wire-wound ceramic tube sealed with heat-resistant silicone cement
- Superior Surge resistance characteristics than other wire-wound resistors
- High precision resistors of power type available on request
  (Example of custom-made product: M-2 100Ω ± 0.1%)
- Non-inductive wire-widing (RFM) type available for improved frequency characteristics



Type	Wattage Rating (W)	Resistance Range (Ω)		Resistance Tolerance (%)	Temp. Coefficient (ppm/°C) −30~25~200°C	Operating Temp. (°C)	Weight (g)
		Inductive (M)	Non Inductive (RFM)				
M- 2	2	0.1~ 3K	0.1~ 1K	±0.5 (D) R ≧10Ω	±150	−30 ~+200	2
M- 3	3	0.1~ 5K	0.1~1.5K				3
M- 5	5	0.1~10K	0.1~ 3K	±1 (F) ±2 (G) ±5 (J) ±10 (K)	Customized product on request ±30 R≧1Ω		5
M- 6	6	0.1~25K	0.1~ 6K				9
M- 8	8	0.1~30K	0.1~ 7K				9
M-10	10	0.1~50K	0.1~ 13K				12

Dimensions (mm)



■ Perfomance

Parameters	Test Condition	Specification
Dielectric Strength	AC1000V 1 min.	±(0.2%+0.05Ω)
Insulation Resistance	DC500V	1000MΩ
Heat Resistance	275°C 2Hr	No Damage
Temperature Shock	Wattage Rating 30 min → −30°C 15 min	±(2%+0.05Ω)
Moisture Resistance	Temp. 40°C Moisture 95% 1/10×Wattage Rating (1.5Hr ON, 0.5Hr OFF) Repeat 500Hr	±(3%+0.05Ω) 2.5MΩ MIN
Short Time Over Load	10×Wattage Rating 5sec	±(2%+0.05Ω)
Load Life	Wattage Rating 1.5Hr ON, 0.5Hr OFF 500Hr	±(5%+0.05Ω)

Type	Dimensions (mm)	
	L	D
M- 2, RFM- 2	13	6
M- 3, RFM- 3	18	7
M- 5, RFM- 5	26	9
M- 6, RFM- 6	35	12
M- 8, RFM- 8	48	10
M-10, RFM-10	51	12

PCN Corporation

Sagamihara Business Office

4-3-17 Sagamihara, Chuo-ku, Sagamihara-shi, Kanagawa-Pref., JAPAN 252-0231
Phone : 81-42-776-0931 Fax : 81-42-776-0940 E-mail : sales@pcn.co.jp

POWER TYPE CEMENT WIRE-WOUND RESISTORS M / RFM

■ Maximum working voltage

Type	Maximum working voltage
M- 2, RFM- 2	150
M- 3, RFM- 3	240
M- 5, RFM- 5	440
M- 6, RFM- 6	770
M- 8, RFM- 8	980
M-10, RFM-10	1400

1. Continuous load
Rated voltage =√(Rated Power x Resistance Value)
However, this must not exceed the maximum working voltage specified in the table above.

2. Short-time overload (less than five seconds)
Maximum working voltage=√(K x Rated Power x Resistance Value)
*This must not exceed the maximum working voltage specified in the table above.
*"K" is a multiplying factor of short-time overload specified by product type.
In case of M/RFM series, K value is one(1).

3. Transient load(Discharge current, inrush current, pulse, etc.)
Regardless the resistance values, it must be below the maximum working voltage specified in the table above.

Derating due to Ambient Temperature
In case that the ambient temperature exceeds 25℃, refer to the "Ambient Temp. Derating Curve" on the 1st page and derate the load power linearly down to 200℃.

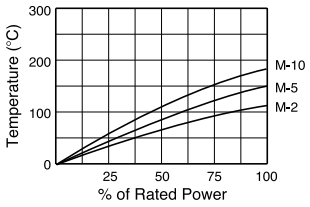
About Pulsed Load Power
Please refer to "How to select a wire-wound resistor at a short time overload"(Document #PDB101-2-1f).
It is available by sending us a request form on our website.

How to order

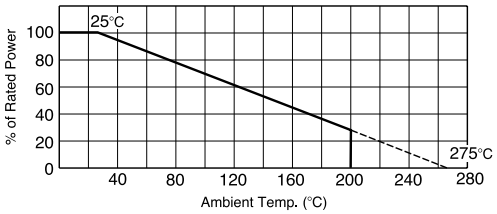
M-2 (Type) 4.7Ω (Resistance) F (Tolerance)

- Type: RFM for non-inductive wire-winding
- Standard Resistance E-24 Series J (±5%)
- Order for a single piece accepted for any resistance value within the standard resistance range

Surface Temp. Versus Power Load



Ambient Temp. Derating Curve



⚠Precautions

Not suitable for cleaning with organic solvents.
If you need a wash-resistant product, please contact our sales department.

PCN Corporation
Sagamihara Business Office
4-3-17 Sagamihara, Chuo-ku, Sagamihara-shi, Kanagawa-Pref., JAPAN 252-0231
Phone : 81-42-776-0931 Fax : 81-42-776-0940 E-mail : sales@pcn.co.jp