POWER
■MAX. 5W
■TOL. 0.5%
■TC. 30ppm/°C

05.2023

PCN RESISTORS

RoHS Compliance

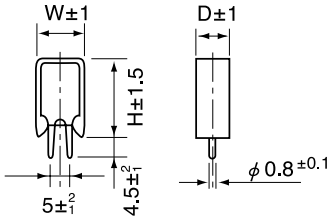
POWER TYPE CEMENT WIRE-WOUND RESISTORS

ML /MLN

The ML/MLN series are wire-wound resistors made by winding a precision resistance wire around a ceramic core, spot-welding the cap terminal, inserting it into a ceramic box, and sealing with silicone cement.

ML Series

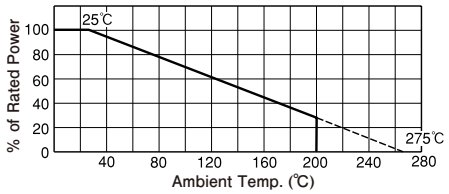
Type	Wattage Rating (W)	Resistance Range (Ω)		Dimentions(mm)			Resistance Tolerance (%)	Temp. Coefficient
		Inductive (ML)	Non Inductive (MLN)	H	D	W		
ML-2 / MLN2	2	0.05～5K	0.05～1.8K	20.5	7	11	±0.5 (D) R≧10Ω ±1 (F) R≧0.1Ω ±3 (H) ±5 (J) ±10 (K)	±150ppm/℃ *Note ±30ppm/℃ R≧1Ω
ML-3 / MLN3	3	0.05～8K	0.05～2K	25	8	12		
ML-5 / MLN5	5	0.05～9K	0.05～2.3K	25.5	9	13		



Type : MLN for non-inductive type

*Note: Customized product on request

Ambient Temp. Derating Curve



■Maximum Working Voltage

Type	Maximum Working Voltage(V)
ML-2 / MLN2	315
ML-3 / MLN3	500
ML-5 / MLN5	670

1. Continuous load
   Rated voltage =√(Rated Power x Resistance Value
   However, this must not exceed the maximum working voltage specified in the table on the left.
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 on the left.
   *"K" is a multiplying factor of short-time overload specified by product type.
   In case of ML/MLN 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 on the left.

Ambient temperature & Power Derating

In case that the ambient temperature exceeds 25℃, refer to the "Ambient Temp. Derating Curve" above and derate the load power.

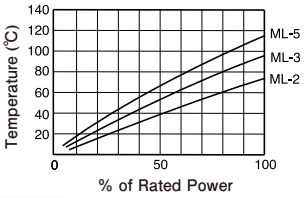
About Pulsed Load Power

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.

■Performance

Parameters	Test Condition	Specification
Dielectric Strength	AC1000V 1 min.	±(0.2%+0.05Ω)
Insulation Resistance	DC500V	1000MΩ
Heat Resistance	270°C 2Hr	No Damage
Thermal Shock	Wattage Rating 30 min →In 8 to 12 seconds, -30°C 15 minr	±(2%+0.05Ω)
Moiture Resistance	Temp. 40°C Moiture 95% 1/10×Wattage Rating (1.5Hr ON, 0.5Hr OFF) Repeat 500Hr	±(3%+0.05Ω) 2.5MΩ MN
Short Time Overload	10×Wattage Rating 5sec	±(2%+0.05Ω)
Load life	Wattage Rating 1.5Hr ON, 0.5Hr OFF 500Hr	±(5%+0.05Ω)

Surface Temp. Versus Power Load



⚠Precautions

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

How to order

ML-5	5.6Ω	J
Type	Resistance	Tolerance

Type : MLN for non-inductive type
Standard Resistance E24 Series J(±5%)
Order for a single piece accepted for any resistance value within the standard resistance range

PCN Corporation

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