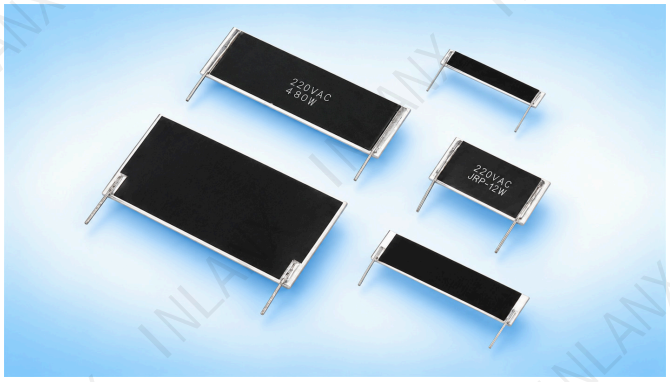
MCP Series Chip High Voltage Resistors

MCP05 / MCP07 / MCP12 / MCP16 / MCP30 / MCP40 / MCP50

Technical Features

- Non-inductive design
- Complies with ROHS requirements
- High operating voltage
- Good stability
- For high-DC and high-voltage equipment and instrument circuits



Applications

• Widely used in the instrument transformer industry
• Motor drive and control circuits
• Medical equipment (X-ray, etc.)
• High-voltage power supplies and new energy applications

Ordering Guide

Model: MCP05

Resistance: 20M

Tolerance: 1%

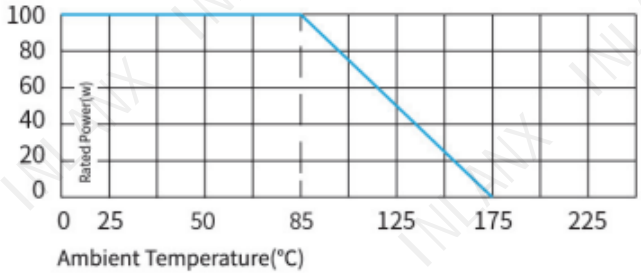
Temperature coefficient: 100PPM

Special specifications can be customized by agreement.

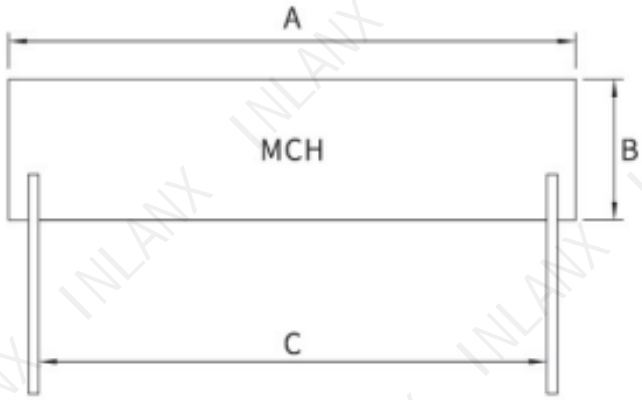
Applicable Standards

IEC60115-1:2001(GB/T5729-2003)MIL-STD-202

Power Derating Curve



Outline Drawing



Specifications

Model	Power (W)	Max. continuous operating voltage (kV)	Dimensions (unit: mm / inch)		
			A(±0.50/±0.02)	B(±0.50/±0.02)	C(±0.50/±0.02)
MCP05	0.50	4,000	12.90/0.51	3.40/0.13	10.20/0.40
MCP07	0.65	6,000	17.15/0.68	3.40/0.13	15.20/0.60
MCP12	1.20	3,500	20.00/0.784	5.08/0.20	17.70/0.70
MCP16	1.60	8,000	25.60/1.01	5.30/0.21	22.90/0.90
MCP30	3.00	12,000	38.30/1.51	6.60/0.26	35.50/1.40
MCP40	4.00	15,000	51.00/2.01	6.60/0.26	48.20/1.90
MCP50	5.00	22,000	51.00/2.01	12.90/0.51	48.20/1.90

Main Technical Parameters

Item	Specification
Resistance range	200Ω~1GΩ
Resistance tolerance	±0.5% ~ ±10%
Temperature coefficient range	±25PPM/℃ ~ ±80PPM/℃ (25℃ ~ 105℃); other requirements available by agreement.
Operating temperature	-40℃ ~ 175℃
Lead material	Oxidation-resistant tinned copper wire
Dielectric withstand voltage	1000VDC (20%~75% relative humidity)
Insulation resistance	Minimum 10GΩ
MCP series	Special customization is required for low-temperature operation.

The blue-painted version is the MCPS series. Other performance characteristics are the same as the MCP series. Depending on the customer’s operating environment, the withstand voltage can be increased by 30%~50%.