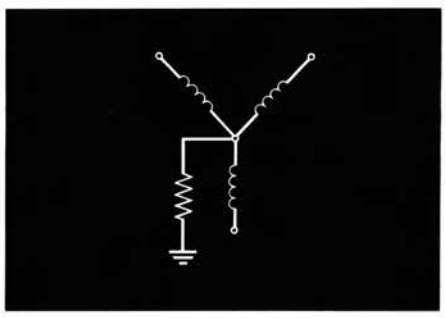
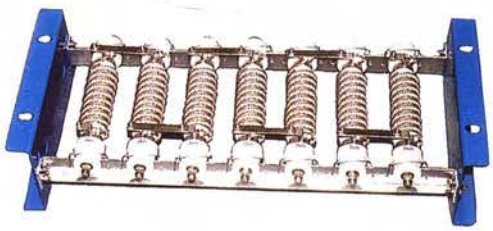
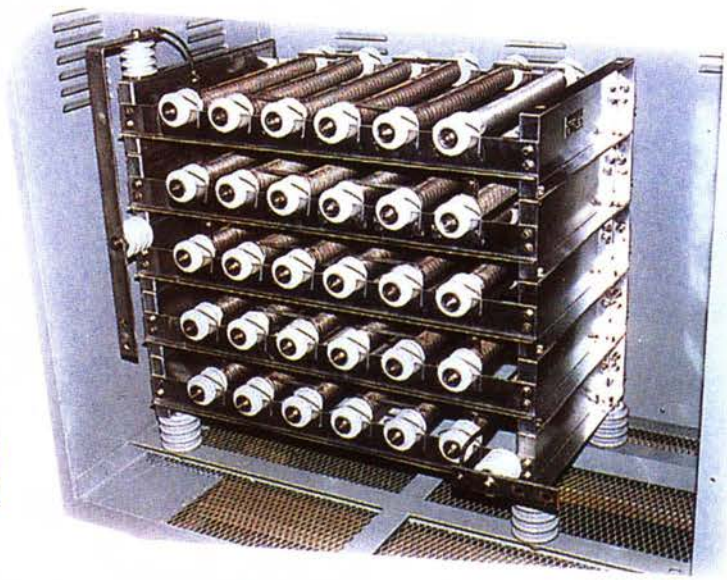
RITA Neutral Grounding Resistors







1.) LOW RESISTANCE GROUNDING

Edgewound type stainless-steel power resistors have proven superior for this application because of the rapid heating and very high temperature encountered (over 800°C). The element is mounted on porcelain supports which are not affected by the high temperatures or high voltages. The sturdy, helically coiled element is free to expand and does not deform when heated.

Some manufacturers offer stamped and cast alloy grid resistors for this application, but the mica paper insulation they incorporate limits the temperature at which they can operate. The mica paper insulation can also absorb moisture and fail while the flat grid stampings may severely warp when rapidly heated. Another drawback is that grids have hot spots which may burn when over-loaded by a fault. In very old systems, cast iron grids were used, but these were plagued with problems of rusting, cracking, and significant increases in resistance with temperature rise.

Because of the problems associated with using alloy grid resistors for low resistance neutral grounding, we strongly recommends edgewound resistors for this application.

The advantages offered by edgewound resistors include:

- Even heating
- Freedom from warpage during rapid heating
- Excellent self support
- Reliable high temperature/high voltage porcelain insulation
- Applying standard IEEE Standard 32-1972

It is essential that all terminals, interconnections, and terminal hardware should be made from stainless steel and welded to enhance the reliability of the connections. This will ensure that the resistance value remains stable and the resistor is reliably connected to the syste over many repeated heating/cooling cycles of fault currents.

The stainless steel element material should be made from a special grade of electrical alloy steel with a low temperature coefficient of resistance. This prevents the resistance value from increasing significantly as the resistor is heated beyond a bright, red hot glow, and also keeps the value of the fault current stable for proper metering and relaying.

2.) HIGH RESISTANCE GROUNDING

High resistance grounding resistors are usually continuously rated with an allowable element temperature rise of 385°C [375°C for CSA].

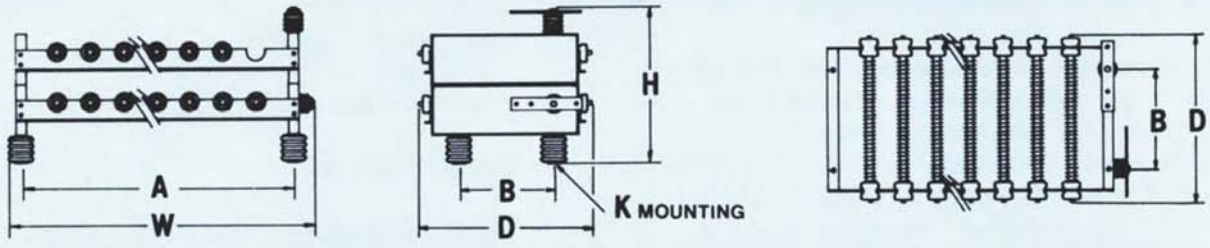
They feature banks of durable wirewound-type power resistors with suitable indoor or outdoor enclosures, and may also include terminal junction boxes for connection.

The wirewound power resistors feature nickel chromium wire, wound onto high quality porcelain cores. High temperatures and voltages are usually not a problem in these smaller wattage, low voltage assemblies.

3.) SPECIFICATIONS AND DIMENSIONS

DIMENSIONS ARE FOR REFERENCE ONLY
PLEASE CONTACT THE DISTRIBUTOR FOR DETAILED INFORMATION

Rated Voltage	Initial Current	Resistance [Ω]	On Time [sec.]	Temp. Rise [°C]	Dimensions [mm]				
					A	B	W	D	H
2KV [1.99KV]	50A	40	10	760	645	350	750	600	320
	100A	20	10	760	645	350	750	600	320
	200A	10	10	760	645	350	750	600	320
	400A	5	10	760	645	350	750	600	445
4KV [3.98KV] [3.8KV]	50A	80	10	760	645	350	750	600	320
	100A	40	10	760	645	350	750	600	445
	200A	20	10	760	645	350	750	600	575
	400A	10	10	760	645	350	750	600	575
2.4KV	50A	48	10	760	645	350	750	600	320
	100A	24	10	760	645	350	750	600	320
	200A	12	10	760	645	350	750	600	445
	400A	6	10	760	645	350	750	600	445
6.58KV	50A	131.6	10	760	645	350	750	600	790
	100A	65.8	10	760	645	350	750	600	790
	200A	32.9	10	760	645	350	750	600	1045
	400A	16.45	10	760	645	350	750	600	1550



MADE IN USA

普得企業股份有限公司

總　公　司: 台北市內湖區行愛路 68 號 6 樓
電　　話: (02)8791-8588 傳 真:(02)8791-9588
電 子 郵 件: toyotech@ms37.hinet.net
網　　址: www.toyotech.com.tw

台中辦事處: 台中市文心路四段 200 號 10 樓之2
電　　話: (04)2296-9388 傳 真:(04)2296-9386
高雄辦事處: 高雄市民生一路56號15樓之6
電　　話: (07)227-2133　傳 真:(07)227-2173