

Neutral Earthing Resistor (NER)

Ampcontrol's neutral earthing resistors (NERs) protect vital equipment such as switchgear, generators and transformers from damage in the event of faults in AC distribution systems.

The NERs limit the current that flows through the neutral point of a transformer or generator to a safe value which is sufficient enough to operate protective relays, yet prevent unwanted fault damage. An over-current flowing in this neutral path is usually the result of a phase-to-phase, phase-to-neutral or phase-to-earth fault.

The unit's fast response time allows protection relays and current transformers to operate and quickly identify, isolate and clear the fault. Subsequent faults are also avoided. Damage to equipment is therefore minimised and the risk of hazardous arc flash is reduced or eliminated.

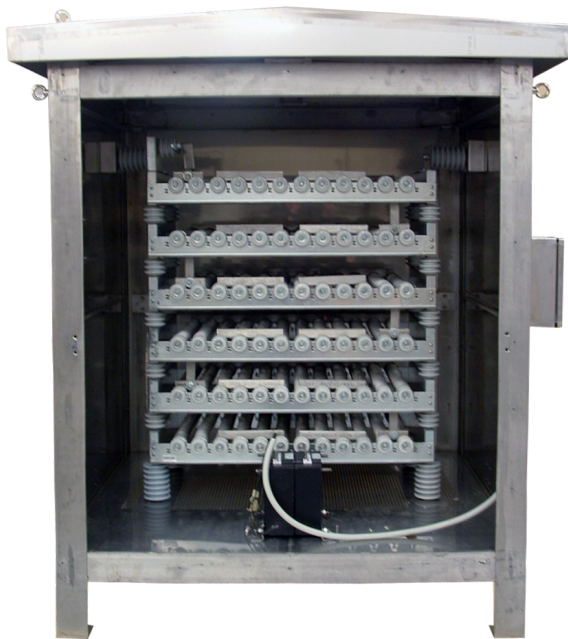
For continuous process industries or sites where loads are connected directly to the distribution system, NERs eliminate the need to trip from the first fault and can avoid unscheduled shutdowns and interruption to service.

Available as a standard or customised unit, Ampcontrol neutral earthing resistors can be supplied as individual units, packaged with a transformer or integrated into a substation.

NERs are available with roof mounted or side mounted HV bushings. Lower voltage units may have the connection point underneath.

Features

- + Fast response fault protection
- + Improved safety for personnel through reduced electrical shock and arc flash hazards
- + Damage to electrical system and connected equipment minimised
- + Locate and clear faults quickly
- + Reduced unscheduled shutdowns due to electrical faults and equipment damage
- + High protection schemes
- + High quality, high reliability resistors
- + Seismic structural options available such as enclosure reinforcement



Neutral Earthing Resistor (NER)

Product Details

Current ratings	Up to 2500A
Voltage ratings	Up to 33kV
Resistance	Pre-determined to customer requirements
Time rating	5 seconds, 10 seconds or continuous (other times available)
Protection available	Back up earth leakage, neutral earthing resistor monitors, current transformers
Permissible temperature rise	As per IEC, typically 760°C
Enclosure options	Stainless steel or powder coated mild steel, open frame, vented, louvered, indoor or outdoor enclosures rated from IP23 to IP66 depending on application, stainless eyebolts for hoisting and transportation, removable panels

Standard Drawing

