

Grounding Reactors



1.LTEC Neutral Grounding Reactors

LTEC's Neutral Grounding Reactor is a Single-phase reactor generally connected between ground and neutral transformers or generators in order to control single-line-to-ground faults at a desired level. They achieve this by resisting current flow through inductive elements. This unit is used in order to limit line-to-ground fault current to a value which will not damage the equipment in the power system, yet allow sufficient flow of fault current to operate protective relays to clear

the fault. If the circuit is balanced, current flow through the reactor will be zero, thus, there will be no losses.



Features: The NGR-AC-13.8KV-400A-AN-CU-M1 is a single phase reactor with a 400 A capacity rating. This reactor is configured with a rated voltage of 13800Y/8000 VAC. Featuring robust construction, this unit's cores are manufactured with non-aging, cold-rolled silicon steel lamination using state of the art technology.

This unit boasts a low cost of ownership and is highly energy efficient. Lower heat emissions mean less cooling is needed as well. The standard NEMA Type 3R enclosure makes the unit suitable for both indoor and outdoor applications and is designed to be floor mounted. Wall mount brackets or additional mounting accessories can be

purchased separately. This reactor features 155°C insulation with a 80°C temperature rise.



Benefits: The NGR-AC-13.8KV-400A-AN-CU-M1 has a perfect mechanical strength to withstand high short-circuit forces, limited temperature rise enables longer lifetime, special surface protection against UV and pollution Class IV areas, maintenance-free design, low noise levels.

Applications: Reducing single phase to earth fault currents which occur in electrical networks to prevent damages on transformers and generators, reducing temporary over voltages formed by braking instantaneous fault currents providing long-life for switchgears, and reducing step voltages to a harmless level for personnel.

2.The advantage of a NGR:

- Reduced over-voltages.
- Reduced equipment damage.
- Isolation of faulted circuit and quicker location identification.
- Increased protection of transformers, generators and auxiliary equipment.
- Reduced operation/maintenance expense.
- Increase safety.
- Improved reliability.
- Reduced frequency of faults.



3.Which to choose – Reactor or Resistor?

LTEC makes systems using both reactors and resistors. In general, if the customer is looking to significantly restrict the fault current using actual resistance, then a resistor is the way to go. However, if the system has a high tolerance to large fault currents of 500A or more then a reactor is more appropriate. Normally, in the end a reactor is more cost efficient.

Standard Features	Optional Feature
● Single Phase / Three Phase	● Custom Current Ratings
● Standard Medium Voltage Units	● Custom Fault Duration Ratings
● 200°C Insulation System	● Integrated Ground Fault Relays
● Vacuum Pressure Impregnation	● Epoxy End Capped Coils
● Copper Conductors	● 220°C Insulation System
● NEMA 3R Enclosure	● Disconnect Switches
● Temperature Control Features	● Current Transformer
	● NEMA 1, 4X or 12 Enclosures