Chapter 1 Power Connections

	NOTE 1	The 5000 A Reactor must be wired by licensed electricians or by Eaton-authorized technicians.
	NOTE 2	Installers should use Lock-Out/Tag-Out procedures and observe other precautions listed in the introductory Safety section.
	NOTE 3	Power wiring and grounding must comply with NEC and applicable local codes.
	NOTE 4	**Do not run cables through the Reactor!**

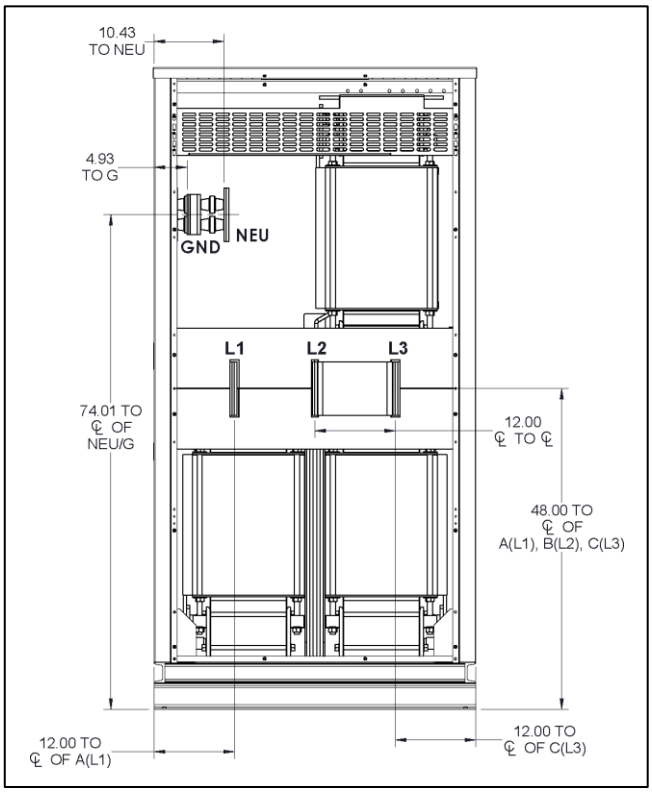
1.1 Reactor Connections to Adjacent Equipment

Adjacent switchboard and switchgear should be installed about the Reactor on its left and right sides. Power connections to the Reactor are made only at its sides. There are no top or bottom conduit panels.

Side panels must be removed on the Reactor and on adjacent equipment where they face each other in order to make power connections.

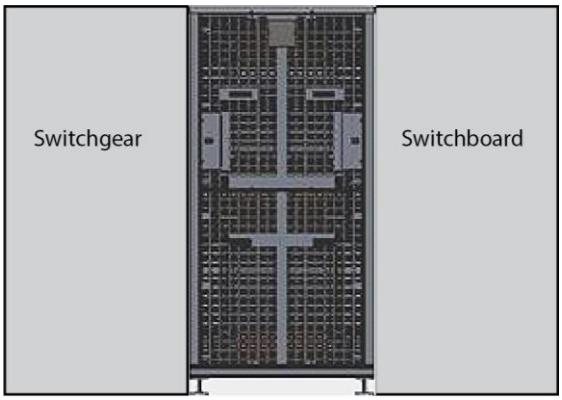
L1/L2/L3/N/G power connections are symmetrically placed on both the left and right sides of the unit.

Figure 1. Power Connection Locations



The Reactor does not have directional power flow. Switchboard and switchgear are installed on opposite sides of the Reactor, but their positions can be reversed (that is, switchgear left side, switchboard right side, OR, switchgear right side, switchboard left side) without requiring modification of the Reactor.

Figure 2. Reactor Position with Switchgear and Switchboard



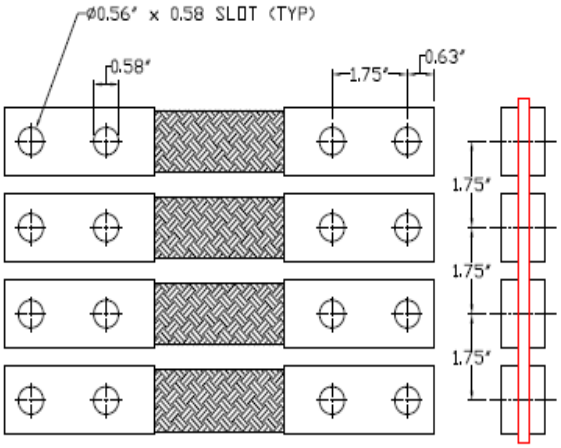
1.2 Flex Connectors

Power connections between the Reactor and adjacent switchboard and switchgear busbars are made with flexible busbar connectors (or "flex connectors").

Flex connectors each have a NEMA 2 1.75-inch [44.5 mm] 2-hole bolt pattern on each end for attachment to busbars. Flex connectors are provided by others. Contractor or installer should provide sufficient flex connectors for the Reactor's 5000 A ampacity.

Eaton's flex connectors, which are used for Reactor testing, are rated such that Qty (8) (or Qty (4) per busbar side) are required for each busbar-to-busbar connection between the Reactor and the adjacent equipment, except for ground, which requires Qty (6) (see Detail B).

Figure 3. Flex Connectors



Flex connectors with NEMA 2 1.75 -in 2 -hole bolt pattern

Flex connectors

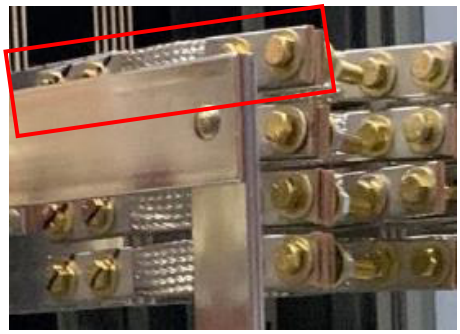


Figure 4. Neutral and Ground with Flex Connectors

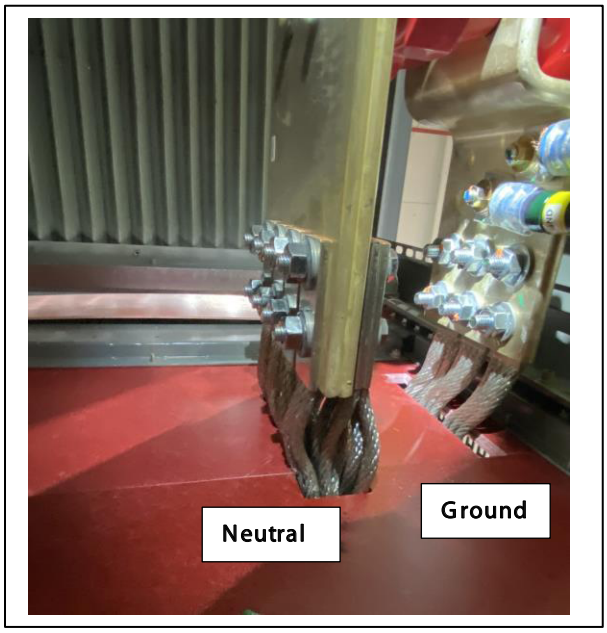
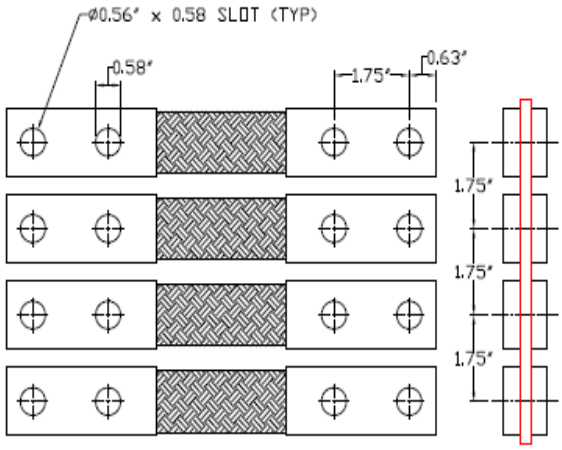


Figure 5. Phases L1/L2/L3 with Flex Connectors



Flex connectors with NEMA 2 1.75 -in 2 -hole bolt pattern

Flex connectors