Eaton Line Current Limiting Reactor

Safe and advanced short circuit current protection

Protect people and equipment

Eaton's Line Current Limiting Reactor (LCLR) reduces available fault currents in electrical systems. This reduction improves electrical safety throughout the system while also protecting valuable investments in downstream electrical and computer equipment.

An LCLR is an inductor connected between a power source and a load. In addition to the primary purpose of limiting fault current, the device also filters out current spikes and mitigates harmonics from non-linear loads. It can also be used to reduce motor inrush currents and protect variable frequency drives.

Every Eaton LCLR goes through the toughest testing in the industry. Eaton's comprehensive quality assurance program, with 100% unit inspection and testing, is just one way Eaton ensures each unit will perform flawlessly day after day. Let our experienced engineers work with you to configurate the optimal power system for your facility.

Win the race for space

The LCLR cabinet has the smallest footprint in the industry, providing maximum power in minimal floor space. Designed for optimized connections directly as part of a switchboard system, the LCLR can also be used with one or two side cabinets to provide space for input and output distribution cabling and circuit protection.

Modular design

The Eaton LCLR premium-quality design includes standardized pretesting of the reactor single-phase assemblies, ensuring compliance with safety and quality standards, as well as product specifications.

Eaton service and support

After your equipment has been installed, the Eaton service team is available for 24/7 support.

We will continue to guide and support you, from the design of your system through the life of your data center.

Powering Business Worldwide

Line current limiting reactor specification

Ratings

Amperage: 600 – 6300A

Input specs: 3-phase, 3 – 4 wires + ground

Input & output voltage:

- @ 50 Hz: 415, 400, 380VAC
- @ 60 Hz: 480, 415, 400VAC

Features

- Copper wound construction
- Single-phase reactor
- Prospective short circuit current
  standard 65kAIC up to 200kAIC
- Let-through current
  standard 14kAIC, down to 10kAIC
- Routine test:
  - Hi-pot test at 10kV, 3-phase
  - Phase-to-phase and phase-to-GND
  - Measure inductance test
  - Load test (3-phase)
  - Insulation resistance test
- Special test:
  - Short circuit test
  - Hi-pot test
  - 10kV phases and ground
  - Heat run test
  - UL witness test
  - Audible noise test
- Solid neutral busbar
- Frame ground
- Listed UL/CSA, CE mark, UL1561, UL891,
  IEEE C57.16, IEC60076-6
- Compliance: NFPA-70E, NFPA-75
  safety and ISO standard.

Enclosure

- NEMA 1
- Frame ground
- Enclosure front infrared door
  (input and output terminal)
  smallest footprint in the industry

Optional side cabinet

Provides space for a cable distribution with bracket.

- 24"W x 36"D
- 30"W x 36"D
- 24"W x 48"D
- 30"W x 48"D

Temperature monitor

Temperature: thermocouples, normally open and normally close on each single-phase reactor with terminal block at the top of the units for fast installation.

Optional PT100 sensor

Input specs: 3-phase, 3 – 4 wires + ground

Operating conditions

- Operating temperature: ambient 0°C to 40°C
- Storage temperature: ambient -10°C to +40°C
- 50 Hz operating range: 47-53 Hz
- 60 Hz operating range: 57-63 Hz

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