

I_S -limiter

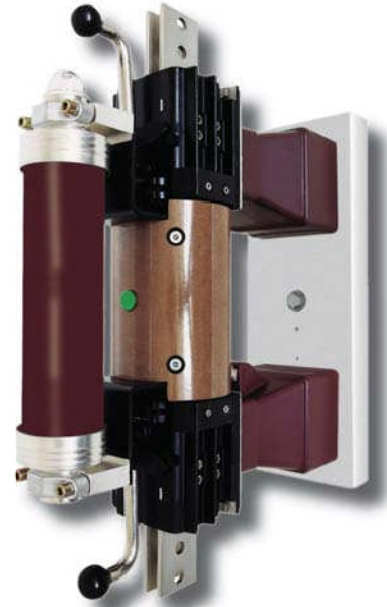
The world's fastest interrupting device



Increased Safety and Reliability

The rising demand for energy worldwide requires more powerful or additional transformers and generators, and an increasing interconnection of the individual supply networks. This can lead to the permissible short circuit currents for the equipment being exceeded, which may cause parts of the equipment being dynamically or thermally destroyed.

The replacement of existing switchgear and cable connections by new equipment with higher short circuit strength is often technically impossible or uneconomical for the user. The use of I_S -limiters reduces the short circuit current in new systems and expansions to existing systems, saving money.



The I_S -limiter is a current interrupter which limits the rise of a short circuit current.

Circuit-breakers are too slow to provide any protection against unduly high peak short circuit currents. Only the I_S -limiter is capable of detecting and limiting a short circuit current at the first rise, i.e. in less than 1 ms. The maximum instantaneous current occurring remains well below the level of the peak short circuit current.

In comparison with complex conventional solutions, the I_S -limiter has both technical and economic advantages when used in transformer or generator feeders, in switchgear sectionalizing, and connected in parallel with reactors.

The I_S -limiter is the ideal interrupting device to solve the short circuit problems for switchgear in power stations, heavy industry and at utilities.



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FEATURES

- Protects existing underrated equipment against short circuit current effects
 - No need to replace existing switchgear
 - Reduced downtime
 - No need to replace existing cables
- In new installations, decreasing the short circuit level can reduce dollars invested in
 - Switchgear
 - Distribution transformers
 - Feeder cables
 - Motors
 - Harmonic filters
- High speed interruption so that peak short circuit is never reached
- Thousands of successful installations worldwide
- Available up to ...40.5 kV, ...5,000 A, ...210 kA
- The I_s-limiter is a fast operating interrupting device that limits the short circuit current to a level that breakers and buses can withstand therefore protecting them from damage
 - 0.6 ms operating time (0.036 cycles) at first current rise
- I_s-limiter solves virtually all short circuit problems

RATINGS

| Rated Voltage | Rated Current* | Interrupting Capability (RMS) |
|---------------|----------------|-------------------------------|
| 0.75 kV | ... 5000 A | ... 140 kA |
| 12.00 kV | ... 4000 A | ... 210 kA |
| 17.50 kV | ... 4000 A | ... 210 kA |
| 24.00 kV | ... 3000 A | ... 140 kA |
| 36.00 kV | ... 2500 A | ... 140 kA |
| 40.50 kV | ... 2500 A | ... 140 kA |

* For higher rated currents, I_s-limiters can be connected in parallel



As the pioneer and most experienced manufacturer of arc-resistant switchgear in the USA, only ABB can combine safety and performance that translate into peace of mind for those who specify, recommend, and operate electrical equipment.

Call your ABB representative for more details or for a complete presentation on I_s-limiter.