

# Fault Current Limiting Interrupter for capacity increase and generation connection in medium voltage networks

GridON, a world leader in fault current limiting technology, is offering a new cost-effective compact electronic Fault Current Limiting Interrupter (FCLi) - for connection of distributed generation and increased capacity in industrial plants.

Following years of field proven fault current limiter operation in service, GridON is introducing a new product family for low-to-medium voltage networks, based on a novel architecture, using standard power-electronics devices.



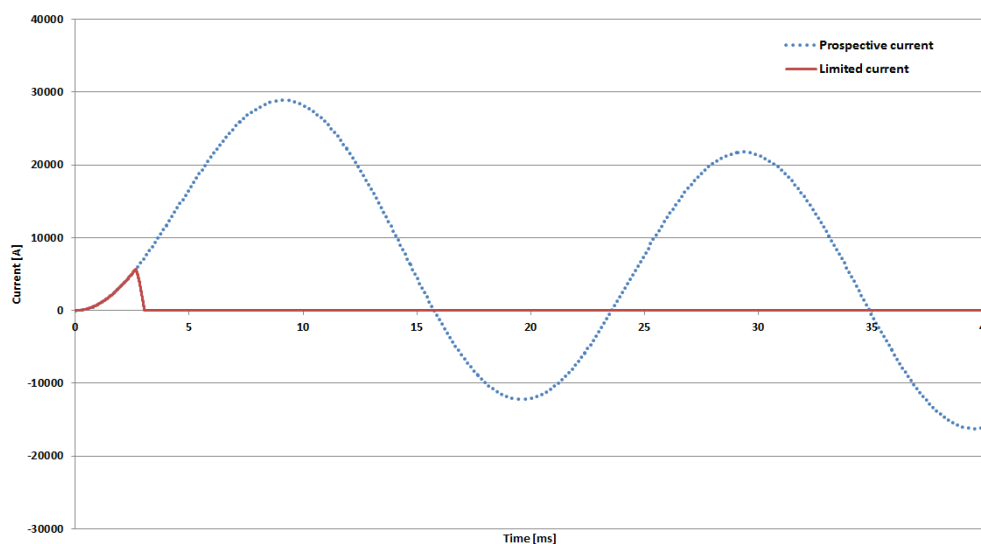
The FCLi is a series-connected solid-state based device which conducts the network current and is nearly transparent during normal operation, and interrupts the AC current during fault conditions upon detection of short circuit conditions. The FCLi limits fault currents in the network before they rise to high levels, and acts to interrupt and block the fault current contribution, before the first current peak.

The FCLi controls the overall fault level in the network, allowing connection of new distributed generation and renewable energy sources. The FCLi enables increased power capacity while reducing arc-flash energy in industrial plants.

Following is an example of a 3-phase MV FCLi device. FCLi for higher voltage or power ratings is available upon request.

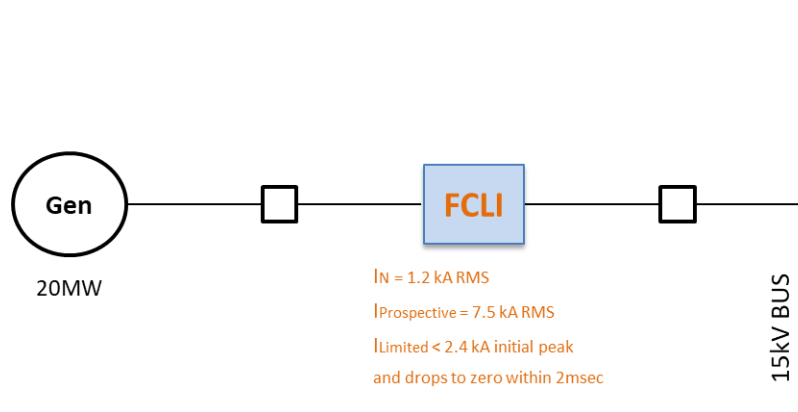
## Main Features

- Fast electronic fault current limiter
- Limiting the fault current before the first peak
- Line voltage: 6.6kV-15kV RMS, 3-phase, 50-60Hz
- Nominal current: 500-2000A RMS
- Rapid recovery time: flexible recovery modes after fault clearance without any part replacement
- Up to 100% fault current reduction
- Compact footprint - 3 cabinets, each (WxDxH): 1500x1000x2300 mm



### Application example 1: Generation connection

The following single line diagram shows a connection of a new generator to an existing 15kV network in a steel manufacturing plant. The fault level on the 15kV prior to adding the new generator is only marginally below the breaking capacity. Installing the new generator adds 7.5kA of fault current and must be reduced to near zero. By installing an FCLi at the output of the generator, the fault current contribution from the generator is eliminated.



### Application example 2: Paralleling bus sections

The following single line diagram shows an industrial plant's substation with two feeding transformers and multiple outgoing feeders. The switchgear is rated for 65kA RMS breaking current. In the absence of a current limiting device, the available fault current from two transformers (35kA RMS each) would exceed the switchgear ratings. The operator wishes to reduce fault levels in the plant in order to avoid switchgear replacement and also to reduce arc-flash risk in the plant. By installing an FCLi in the bus-section, the two transformers can be operated in parallel, and the available arc-flash energy is reduced significantly, which enables lowering the hazard risk category.

