

1.7 Parallel connections of 6-pulse and 12-pulse chassis infeeds

Description

With Basic Line Modules and chassis units, in addition to 6-pulse parallel infeed (infeed via two-winding transformer), it is also possible to use a 12-pulse parallel infeed (infeed via three-winding transformer).

6-pulse parallel infeeds (two-winding transformer)

For the parallel operation of 6-pulse infeeds, a common Control Unit should always be used for Basic Line Modules and Smart Line Modules.

For Basic Line Modules, a second, separate Control Unit may be used if redundancy is desired.

12-pulse parallel infeeds (three-winding transformer)

For 12-pulse parallel infeeds via Smart Line Modules, separate Control Units must be provided for each infeed due to the 30° phase offset between the two converter systems.

Parallel operation of two 12-pulse infeeds, controlled by a single Control Unit, is possible with Basic Line Modules. If redundancy is desired, a second, separate Control Unit can be used.

When separate Control Units are used, pre-charging may not be synchronized accurately enough, i.e. a converter system must be able to pre-charge the total capacity of the drive line-up. Pre-charging power for the DC link in parallel operation must be dimensioned so that the capacity of the DC link can be fully charged by a single converter system. Otherwise a separate pre-charging device must be provided.

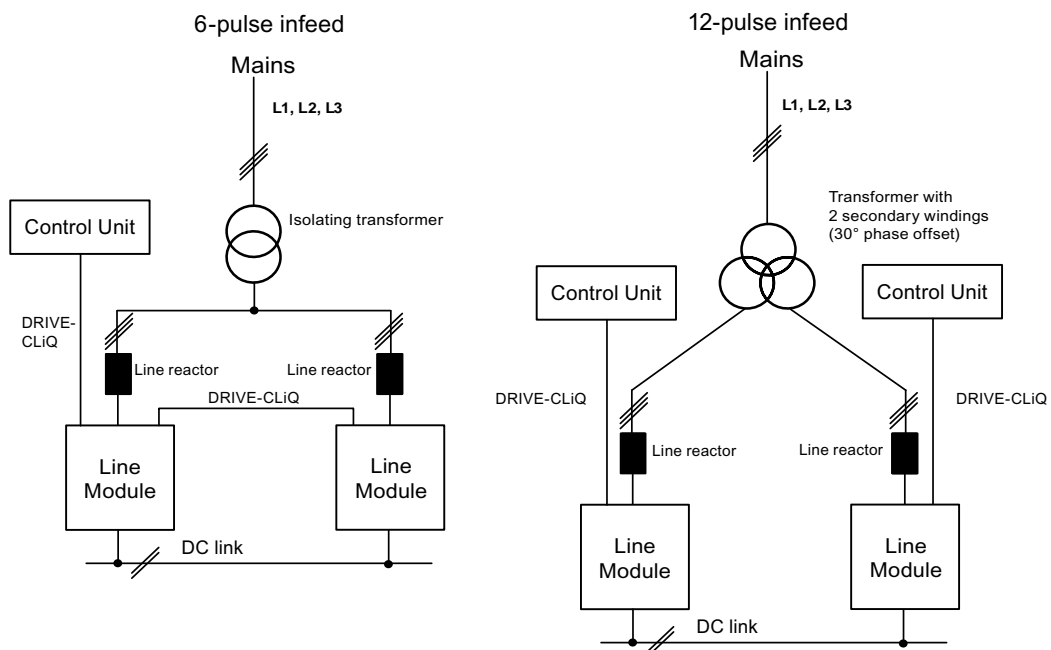


Figure 1-11 Parallel infeeds for 6-pulse and 12-pulse operation