

Reference: **754**

---



Type:

**Technical Brochures**

Title:

**AC side harmonics and appropriate harmonic limits for VSC HVDC**

## Abstracts

This Technical Brochure examines the harmonic aspects of voltage source converters used for HVDC transmission. The harmonic profile of such converters differs greatly from that of the more established line commutated converters. The low magnitude of harmonic generation may imply that AC filters are not needed, or may be very small. The control system factors affecting both harmonic generation and the active internal impedance are examined. Possible deleterious effects of higher frequencies, interharmonics and even order harmonics are discussed, and recommendations given regarding statutory limitations. Mitigation of harmonics by means of either passive filtering or active filtering by converter control action is described. The Brochure explains various techniques for modelling the harmonic behaviour of VSC HVDC, and concludes with a review of harmonic stability issues and various techniques used to identify the risk of its occurrence and to indicate means of mitigation.

---

More Informations :**File Size:**5,6 MB **Pages NB:**132 **Study Committee :** B4 **WG (TF):**WG B4.67 **Year:**2019

---