

**POWER CAPACITOR
FOR
HARMONIC FILTER
1992-1999**

Doc Type: IEEE Transactions on Industry Applications
Title: **Designing Harmonic Filters for Adjustable-Speed Drives to Comply with IEEE-519 Harmonic limits**
Authors: F. McGranaghan and David Mueller
Ref: IEEE Transactions on Industry Applications
VOL. 15, no 2, March/April 1999, p. 312
Language: English

Abstract: This paper discusses the application of the revised IEEE 519 harmonics standard to typical industrial facilities employing adjustable-speed drives (ASD's)

Doc Type: IEEE Transactions on Power Systems
Title: **Passive Shunt Harmonic Filters for Low and Medium Voltage: A cost Comparison**
Authors: C. Kawann, A.E. Emanuel
Ref: IEEE Transactions on Power Systems
VOL. 11, no 4, November 1996, p. 1825
Language: English

Abstract: The main conclusion of this paper is that for nonlinear loads in excess of 1MVA it is more economical to use filter centers connected on the 13.8 kV side.

Doc Type: IEEE Transactions on Power Delivery
Title: **AC Filter Arrester Application**
Authors: J. Harder
Ref: IEEE Transactions on Power Delivery
VOL. 11, no 1, July 1996, p. 1355
Language: English

Abstract: This investigation considers both the continuous arrester heating caused by a mixture of harmonic voltages and the effect of temporary overvoltages in order to provide guidelines for the appropriate selection of an arrester voltage rating for this type of application.

Doc Type: IEEE 94 Summer Meeting presentation (San Fransisco, CA)
Title: **Selecting Ratings for Capacitors and Reactors in Applications
Involving Multiple Single-Tuned Filters**
Authors: J.A. Bonner, W.M. Hurst, R.G. Rocamora from Cooper Power Systems
M.R.Sharp from Trench Electric
R.F.Dudley, J.A. Twiss
Ref: IEEE 94 SM 457-2 PWRD
Language: English

Abstract: This paper focuses on the selection of ratings for capacitors and air-core reactors used in multiple single-tuned harmonic filter configurations. Digital transient simulations of an example power system demonstrate the exceptionally high voltage and current stresses placed upon filter components in these configurations. Design guidelines for increasing the component ratings to account for the extra stresses are described. A comparison between traditional rating methods and the proposed methods are presented for the example system.