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L'impact d'une Charge Fortement Capacitive Sur la Qualitédu Filtrage d'un FAP Contrôlé Par un Filtre Multi-VariableHautement Sélectif

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Abstract: This article is devoted to the depollution of the electrical supply networks by shunt active power filter (SAPF). We start by studying a self tuning filter (STF) based on Concordia transformation. This transformation is based on the extraction of the references of harmonic currents in the Concordia axis to compensate network harmonic and by consequence, improve the quality of power system. Next, we present the influence of a strongly capacitive load on the quality of the filtering of a SAPF controlled by a STF approach. This influence is validated by numerical simulations under Matlab-Simulink environment of a system of power PD3 a diode debited in a strongly capacitive load this results prove the major influence of this types of load in filtering quality.

Keywords : SAPF, harmonic, STF, System of Power PD3, Quality of Energy, Strongly Capacitive Load, Concordia transformation