

## Comparison of Fundamental Frequency Model and PWM Based Model for UPFC

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**Abstract :** Among all FACTS devices, the unified power flow controller (UPFC) is considered to be the most versatile device. This is due to its capability to control all the transmission system parameters (impedance, voltage magnitude, and phase angle). With the growing interest in UPFC, the attention to develop a mathematical model has increased. Several models were introduced for UPFC in literature for different type of studies in power systems. In this paper a novel comparison study between two dynamic models of UPFC with their proposed control strategies.

**Keywords :** FACTS, UPFC, dynamic modeling, PWM, fundamental frequency