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3-Phase shunt active power filter-A review of current harmonic reduction techniques

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Abstract:

Shunt Active Power Filters represent the most important and commonly used filters in industrial purpose and for the reduction of current harmonics and improvement of the power factor in power systems with nonlinear loads, such as diode rectifiers. A pulse width modulation (PWM) power converter constitutes the main component of the APF, this is due not only to the fact that they eliminate the harmonic current with a neglected amount of active fundamental current supplied to compensate system losses, but also they are suitable for a wide range of power ratings. Modern power electronic devices such as IGBT allowed configuring non harmonic generating shunt APF. The aim of this paper highlight on this type of configuration namely the voltage source inverter based three phase shunt active power filters to present an overview on the mater.

Keywords:

Inverter based shunt active power filter Power electronic devices, Pulse width Modulation