

Power quality of AC voltage converters are estimated by total harmonic distortion parameter, which is set by the parameters of the modulated voltage. Depending on the parameter of the modulated carrier functions modulated methods are divided into amplitude, frequency, pulse methods. All the mentioned methods have simple hardware implementation, which resulted to their prevalence. These modulation techniques introduce some distortion in the spectrum modulated signal, the effect of which can be removed only if the increase in multiplicity period modulated signal relative to the modulation period, which increases energy loss in the converter, impairs its electromagnetic compatibility. Therefore, the urgent task is to develop modulation algorithms with optimal parameters based on the mathematical description of the processes in the converter.