

Abstract

The sine filter design procedure of the inverter output filter is described. Our purpose of the sine filter is to filter the PWM pulses to approximately sinusoidal waveforms. So, there are no over voltage at the motor terminal even when the motor cable are very long. We use sine filter for the particular application. We use a sine filter output of the drive. The drive VT230S is digital PWM ac drive. Here the capacitor value can be calculated with the given system time constant and vice versa. It is more practical for the implementation of power and control circuit of inverter. And as the effect of the load current to the voltage distortion can be calculated from the closed room, it is possible to analyze the system how much the voltage waveform is distorted in case of the nonlinear load. All the proposed design procedure is verified with the simulation and experimental results.