

ABSTRACT

A method for determining the characteristic feature quantity of a three-phase induction motor which is required to calculate a deterioration parameter used when diagnosing a rotary mechanical system using the three-phase induction motor as a drive source includes a first process of performing frequency analysis of a current signal in operation from a three-phase induction motor (12), a second process of detecting, by frequency analysis, sideband waves S_A and S_B of a power supply frequency spectrum S_L as the center which respectively exist in a frequency domain A on the low frequency side and a frequency domain B on the high frequency side, and a third process of setting, as an actual rotation frequency f_r of the three-phase induction motor (12), the absolute value of the difference between a power supply frequency f_{line} and the peak position frequency of one of the sideband waves S_A and S_B , thereby setting the actual rotation frequency f_r as the first characteristic feature quantity.