

ABSTRACT

An embodiment has an object to provide an inverter control device and a drive system capable of enhancing accuracy of a rotary sensorless control of an electric motor, and the inverter control device 1 including a current command generator 10 that generates a current command value; a current detector 80 that detects a current value of an alternating current to be outputted from an inverter circuit INV to an electric motor M; a gate command generator 40 that generates a gate command to the inverter circuit INV such that the current command value and the current value detected by the current detector 80 match, and obtains an output voltage target vector of the inverter circuit INV based on the gate command; a rotary phase angle estimator 60 that obtains a rotary phase angle estimated value of the electric motor M based on the current value detected by the current detector and the output voltage target vector; and a polarity determination part 70 that, with supply of a current in synchronism with a rotor frequency of the electric motor M, performs determination of a magnet magnetic pole of the electric motor M using a generated magnetic flux or voltage in synchronism with the generated rotor frequency or both of the magnetic flux and the voltage, and outputs a correction value for the rotary phase angle estimated value based on a result of the determination.