



US 20230231499A1

(19) **United States**(12) **Patent Application Publication**
IKEDA(10) **Pub. No.: US 2023/0231499 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **MOTOR CONTROL DEVICE AND MOTOR CONTROL METHOD**(52) **U.S. Cl.**CPC **H02P 6/16** (2013.01)(71) Applicant: **MITSUBA Corporation**, Gunma (JP)

(57)

ABSTRACT(72) Inventor: **TAKESHI IKEDA**, Gunma (JP)(73) Assignee: **MITSUBA Corporation**, Gunma (JP)(21) Appl. No.: **17/978,977**(22) Filed: **Nov. 2, 2022**(30) **Foreign Application Priority Data**

Jan. 18, 2022 (JP) 2022-005670

Publication Classification(51) **Int. Cl.****H02P 6/16**

(2006.01)

Provided is a motor control device in which, with a position detection signal corresponding to a phase with a first reference Hall edge forming a first Hall stage, which is a minimum counter value, defined as a first reference position detection signal, and with a position detection signal corresponding to a phase with a second reference Hall edge forming a second Hall stage, which is an intermediate value, defined as a second reference position detection signal, for a first detection error with the first reference position detection signal used as a reference and a second detection error with the second reference position detection signal used as a reference, a correction coefficient calculated from one of the first and second detection errors is selected and set based on whether the first and second detection errors include a negative value.

