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SHIGEMASA et al.(10) **Pub. No.: US 2024/0213775 A1**(43) **Pub. Date: Jun. 27, 2024**(54) **POWER CONVERSION DEVICE, CONTROL
DEVICE, AND DISTRIBUTED POWER
SOURCE SYSTEM****Publication Classification**(51) **Int. Cl.****H02J 3/01** (2006.01)**H02J 3/16** (2006.01)**H02J 3/38** (2006.01)(52) **U.S. Cl.****CPC H02J 3/01** (2013.01); **H02J 3/16** (2013.01);**H02J 3/38** (2013.01); **H02J 2300/24** (2020.01)(71) Applicant: **TOSHIBA MITSUBISHI-ELECTRIC
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ABSTRACT

A power conversion device includes a major circuit part converting a power of a distributed power source into AC power corresponding to a power system, and a controller controlling an operation of the major circuit part; the controller includes an estimated value calculation part and a reactive power calculation part; the estimated value calculation part calculates an estimated value of a resistance component of a system impedance of the power system, an estimated value of a reactance component of the system impedance, and an estimated value of a voltage value of the infinite bus power system based on an active power value of a connection point to the power system, a reactive power value of the connection point, and a voltage value of the connection point.

