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HAKUSHIMA et al.(10) **Pub. No.: US 2022/0368153 A1**(43) **Pub. Date: Nov. 17, 2022**(54) **POWER SUPPLY CONTROL DEVICE AND
POWER SUPPLY CONTROL METHOD**(52) **U.S. Cl.**CPC *H02J 9/061* (2013.01); *H02J 7/0031*
(2013.01); *B60R 16/033* (2013.01)(71) Applicant: **DENSO TEN Limited**, Kobe-shi (JP)(72) Inventors: **Daiki HAKUSHIMA**, Kobe-shi (JP);
Takeshi MATSUMOTO, Kobe-shi (JP)(73) Assignee: **DENSO TEN Limited**, Kobe-shi (JP)(21) Appl. No.: **17/479,134**(22) Filed: **Sep. 20, 2021**(30) **Foreign Application Priority Data**

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A power supply control device includes a first system, a second system, an inter-system switch, a battery switch and a controller. The controller turns off an inter-system switch that connects and disconnects the systems and turns on a battery switch that connects and disconnects a second power supply to and from the second system in response to an abnormality of a first power supply or the second power supply being detected and thereafter turn on the inter-system switch and turns off the battery switch in response to determination that there is no abnormality in the power supplies. Before turning on the inter-system switch, when voltage difference between the power supplies is equal to or larger than a threshold, the controller performs convergence control, and after determining that there is no abnormality in the power supplies, the controller keeps the battery switch turned off while performing the convergence control.

