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SHIBATA et al.(10) **Pub. No.: US 2023/0231498 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **MOTOR CONTROL DEVICE****Publication Classification**(71) Applicant: **DENSO CORPORATION**, Kariya-city (JP)(72) Inventors: **YUSUKE SHIBATA**, Kariya-city (JP);
TAKASHI SUZUKI, Kariya-city (JP)(51) **Int. Cl.****H02P 5/68** (2006.01)**B60L 50/51** (2006.01)**H02M 7/5395** (2006.01)(52) **U.S. Cl.**CPC **H02P 5/68** (2013.01); **B60L 50/51**
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A motor control device drives first and second motors for outputting torque in braking or non-braking direction in a vehicle brake device, includes: an electric power converter that includes first to third legs having positive and negative switch elements; and a control unit. When the control unit energizes from the positive switch element of the first or third leg to the negative switch element of the second leg, the first and second motors output the torque in a same direction. When an absolute value of current flowing or estimated to flow in at least one of the first motor and the second motor exceeds a current threshold, the control unit drives the positive and negative switch elements of the second leg.

