

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2022/0352788 A1 Barkow et al.

(43) **Pub. Date:**

Nov. 3, 2022

(54) DRIVE SYSTEM FOR AN ELECTRIC VEHICLE AND ELECTRIC VEHICLE

(71) Applicant: Dr. Ing. h.c. F. Porsche

Aktiengesellschaft, Stuttgart (DE)

(72) Inventors: **Maximilian Barkow**, Stuttgart (DE); Patrick Fuchs, Leonberg (DE);

Sebastian Wachter, Pressig (DE); Daniel Knoblauch, Leonberg (DE)

(21) Appl. No.: 17/727,859

(22) Filed: Apr. 25, 2022

Foreign Application Priority Data (30)

Apr. 29, 2021 (DE) 10 2021 111 088.2

Publication Classification

(51) Int. Cl. H02K 9/19 (2006.01)H02K 11/33 (2006.01)

(52) U.S. Cl. CPC H02K 9/19 (2013.01); H02K 11/33 (2016.01); B60W 10/08 (2013.01)

(57)ABSTRACT

A drive system for an electric vehicle includes: drive components, including: a traction battery; an inverter; and an electric machine. The traction battery is electrically connected to the electric machine by the inverter. The traction battery is electrically connected to the inverter and the inverter is electrically connected to the electric machine in each case by high-voltage connecting elements. The drive system has a cooling circuit cools the drive components by a cooling medium. The drive components and the highvoltage connecting elements are each formed so as to convey cooling medium and form a part of the cooling

