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(19) **United States**(12) **Patent Application Publication**
LEE et al.(10) **Pub. No.: US 2023/0231217 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **BATTERY MODULE**(71) Applicant: **SAMSUNG SDI CO., LTD.**, Yongin-si (KR)(72) Inventors: **Junhyung LEE**, Yongin-si (KR); **Sungyong KIM**, Yongin-si (KR); **Jaeho KIM**, Yongin-si (KR); **Soodeok MOON**, Yongin-si (KR); **Daeyeop PARK**, Yongin-si (KR); **Jangwoong BAE**, Yongin-si (KR); **Dooyong LIM**, Yongin-si (KR); **Jisoon LIM**, Yongin-si (KR); **Eungi HEO**, Yongin-si (KR)**H01M 50/20** (2006.01)**H01M 50/242** (2006.01)**H01M 50/289** (2006.01)**H01M 50/262** (2006.01)**H01M 50/209** (2006.01)(52) **U.S. Cl.**CPC **H01M 10/613** (2015.04); **H01M 10/647** (2015.04); **H01M 50/20** (2021.01); **H01M 50/242** (2021.01); **H01M 50/289** (2021.01); **H01M 50/262** (2021.01); **H01M 50/209** (2021.01); **H01M 10/625** (2015.04)(21) Appl. No.: **18/186,797**(22) Filed: **Mar. 20, 2023****Related U.S. Application Data**

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A battery module includes: a cell stack including a plurality of unit cells arranged in a first direction; and an insulating member around the plurality of unit cells; a plurality of module housings, each of the module housings including a plurality of receiving parts and receiving the cell stack; and a coupling part, and each of the receiving parts includes a fixing wall around the cell stack and having at least a portion which is in contact with the cell stack, and the fixing wall includes end walls at respective sides of each of the receiving parts in the first direction to engage end surfaces of respective sides of the cell stack in the first direction, and the coupling part is configured to be coupled to the coupling part of an adjacent battery module.

