

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2022/0361367 A1 Dilberovic

(43) **Pub. Date:**

Nov. 10, 2022

(54) COLD PLATE ASSEMBLY

Applicant: Rimac Automobiles Ltd., Sveta

Nedelja (HR)

Inventor: Zlatko Dilberovic, Velika Gorica (HR)

Appl. No.: 17/736,736 (21)

Filed: (22)May 4, 2022

(30)Foreign Application Priority Data

May 4, 2021 (EP) 21171978.6

Publication Classification

(51) **Int. Cl.** H05K 7/20 (2006.01)H01M 10/6551 (2006.01)H01M 10/48 (2006.01)H01M 10/613 (2006.01)H01M 10/653 (2006.01)H05K 1/18 (2006.01)

(52) U.S. Cl.

CPC H05K 7/20254 (2013.01); H01M 10/6551 (2015.04); H01M 10/486 (2013.01); H01M 10/613 (2015.04); H01M 10/653 (2015.04); H05K 1/189 (2013.01)

(57)**ABSTRACT**

A cold plate assembly for a battery module comprising a plurality of battery cells, comprising: a first cold plate comprising a plurality of openings; a second cold plate comprising a plurality of openings and being arranged below the first cold plate such that the openings of the second cold plate are aligned at least in part with the openings of the first cold plate, wherein the second cold plate and the first cold plate are joined together and a plurality of channels for accommodating a cooling fluid are formed between the first cold plate and the second cold plate; and an interconnection layer comprising a plurality of interconnections for electrically connecting the plurality of battery cells and arranged below the second cold plate such that each interconnection is accessible at least in part via an opening of the first cold plate and the corresponding opening of the second cold plate.

