US012074548B2

(12) **United States Patent**
**Kim et al.**

(10) **Patent No.: US 12,074,548 B2**
(45) **Date of Patent: Aug. 27, 2024**

(54) **ELECTRIFIED VEHICLE AND METHOD OF CONTROLLING SAME**

(71) Applicants: **Hyundai Motor Company**, Seoul (KR); **Kia Corporation**, Seoul (KR)

(72) Inventors: **Myung Ho Kim**, Incheon (KR); **Young Seul Lim**, Seoul (KR); **Sang Cheol Shin**, Suwon-si (KR); **Kang Ho Jeong**, Siheung-si (KR)

(73) Assignees: **HYUNDAI MOTOR COMPANY**, Seoul (KR); **KIA CORPORATION**, Seoul (KR)

( * ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **18/117,686**

(22) Filed: **Mar. 6, 2023**

(65) **Prior Publication Data**

US 2024/0039448 A1 Feb. 1, 2024

(30) **Foreign Application Priority Data**

Jul. 26, 2022 (KR) ..... 10-2022-0092535

(51) **Int. Cl.**
***H02P 27/06*** (2006.01)
***B60L 3/00*** (2019.01)
(Continued)

(52) **U.S. Cl.**
CPC ..... ***H02P 27/06*** (2013.01); ***B60L 3/003*** (2013.01); ***B60L 53/22*** (2019.02); ***H02J 7/00308*** (2020.01); ***H02J 7/007*** (2013.01); ***H02M 1/0054*** (2021.05); ***H02M 1/348*** (2021.05); ***H02M 7/539*** (2013.01); ***H02P 29/0241*** (2016.02)

(58) **Field of Classification Search**
CPC ..... H02P 27/06; H02P 29/0241; B60L 53/22; B60L 3/003; H02J 7/00308; H02J 7/007; H02M 1/0054; H02M 1/348; H02M 7/539
USPC ..... 307/9.1, 10.1
See application file for complete search history.

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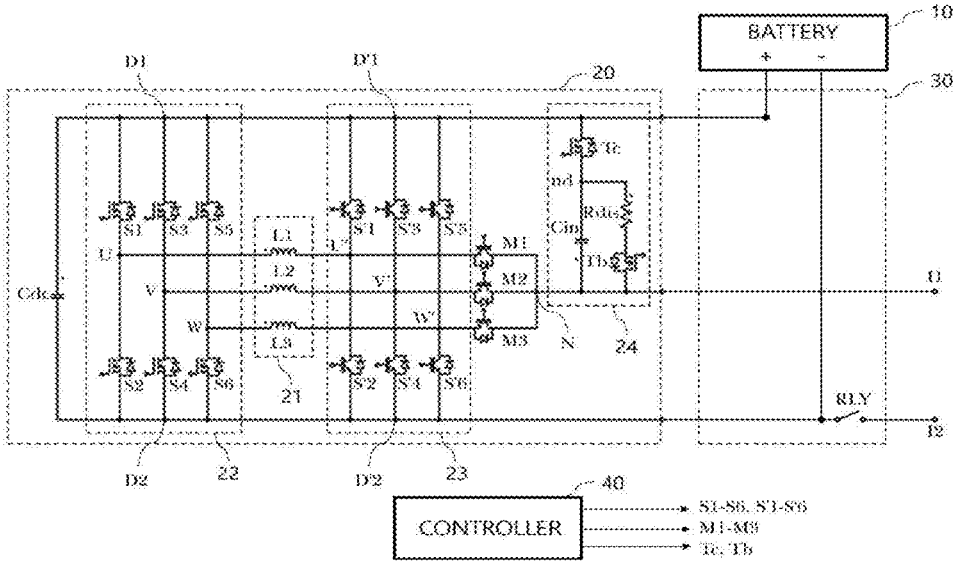
*Primary Examiner* — Hal Kaplan
(74) *Attorney, Agent, or Firm* — Morgan, Lewis & Bockius LLP

(57) **ABSTRACT**

An electrified vehicle having a first inverter having a DC terminal and a plurality of legs respectively connected to one end of each of a plurality of coils of a motor, a second inverter connected to the DC terminal, and including a plurality of legs connected to the other ends of the plurality of coils, respectively, a plurality of transfer switches respectively having one end connected to a neutral terminal for the plurality of coils and the other end connected to the other end of each coil, an overvoltage protection circuit including a clamping switch, a resistor, and a capacitor, and connected to the neutral terminal and the DC terminal, and a controller controlling a turned-on state of the plurality of transfer switches according to the motor driving mode. When the motor is driven, the controller controls a turned-on state of the clamping switch.

**20 Claims, 8 Drawing Sheets**



(51) **Int. Cl.**

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| ***B60L 53/22*** | (2019.01) |
| ***H02J 7/00*** | (2006.01) |
| ***H02M 1/00*** | (2007.01) |
| ***H02M 1/34*** | (2007.01) |
| ***H02M 7/539*** | (2006.01) |
| ***H02P 29/024*** | (2016.01) |

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