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YAO et al.(10) **Pub. No.: US 2023/0230789 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **RELAY**(52) **U.S. Cl.**(71) Applicant: **BYD COMPANY LIMITED,**
Shenzhen, Guangdong (CN)CPC **H01H 50/546** (2013.01); **H01H 50/02**
(2013.01); **H01H 9/30** (2013.01)(72) Inventors: **Baotong YAO,** Shenzhen (CN); **Lujian**
WANG, Shenzhen (CN); **Siyuan LIU,**
Shenzhen (CN)(57) **ABSTRACT**(21) Appl. No.: **18/009,262**(22) PCT Filed: **Apr. 28, 2021**(86) PCT No.: **PCT/CN2021/090547**

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A relay includes a housing, a contact assembly and an auxiliary contact assembly. The contact assembly includes the movable contacts adapted to move towards or away from the stationary contacts under the driving of the movable contact bridge. The auxiliary contact assembly includes an auxiliary contact bridge and auxiliary contacts. At least portion of each of the auxiliary contacts extends into the housing. The auxiliary contact bridge moves synchronously with the movable contact bridge to be selectively and electrically connected to the auxiliary contacts. The housing includes a top surface spaced apart from the stepped portion in the movement direction of the movable contact bridge or the auxiliary contact bridge. The stationary contacts are arranged on the top surface of the housing. The portion of each of the auxiliary contacts arranged outside the housing is arranged on each of the stepped portions.

