



US 20240178765A1

(19) **United States**(12) **Patent Application Publication**
CHIU et al.(10) **Pub. No.: US 2024/0178765 A1**(43) **Pub. Date: May 30, 2024**(54) **VOLTAGE CONVERSION DEVICE AND
VOLTAGE CONVERSION METHOD
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(TW)(21) Appl. No.: **18/089,110**(22) Filed: **Dec. 27, 2022**(30) **Foreign Application Priority Data**

Nov. 21, 2022 (TW) 111144396

Publication Classification(51) **Int. Cl.**
H02M 7/5395 (2006.01)
H02M 1/00 (2006.01)
(52) **U.S. Cl.**
CPC **H02M 7/5395** (2013.01); **H02M 1/0095**
(2021.05)(57) **ABSTRACT**

A voltage conversion device includes a filter circuit, a first inductor, a second inductor, a first conversion module, a second conversion module, and a control circuit. The filter circuit is electrically connected to a first AC terminal and a second AC terminal. The first inductor is electrically connected to the first AC terminal and a first conversion terminal. The second inductor is electrically connected to the second AC terminal and a second conversion terminal. The first conversion module is electrically connected to a first DC voltage terminal, a second DC voltage terminal, and the first conversion terminal. The second conversion module is electrically connected to the first DC voltage terminal, the second DC voltage terminal, and the second conversion terminal. The control circuit transmits switch-control signals to the first conversion module and the second conversion module. A voltage conversion method is used with the voltage conversion device.

