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**Giuntini**(10) **Pub. No.: US 2022/0360176 A1**(43) **Pub. Date: Nov. 10, 2022**(54) **DOUBLE-BOOST DC/DC CONVERTER**(71) Applicant: **ABB Schweiz AG**, Baden (CH)(72) Inventor: **Lorenzo Giuntini**, Locarno (CH)(73) Assignee: **ABB Schweiz AG**, Baden (CH)(21) Appl. No.: **17/737,158**(22) Filed: **May 5, 2022**(30) **Foreign Application Priority Data**

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(2013.01)(57) **ABSTRACT**

A voltage balancing circuit for a double-boost DC/DC converter includes a split DC-link having a first midpoint, outer directional devices and inner switches parallel-connected to the DC-link, wherein the outer directional devices are connected to capacitors of the split DC-link and to the inner switches. The inner switches are connected to each other at a second midpoint. A DC source terminal, to which a DC source is connectable in parallel over inductances to the inner switches, is included. An inductance is connected to the midpoint of the DC link and to the midpoint of the inner switches.

