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LEEDHAM(10) **Pub. No.: US 2023/0231495 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **CELL ASSEMBLY AND CONVERTER
COMPRISING A PLURALITY OF ARMS,
EACH HAVING SUCH A CELL ASSEMBLY****Publication Classification**

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ABSTRACT

Each cell of a cell assembly for a converter may include: first and second terminals, switching elements, and a capacitor. The cells are connected in series such that, for each pair of neighbouring cells, the first terminal of a first cell is connected to the second terminal of a second cell. Each cell includes a bypass connected to the first and second terminals that bypasses switching elements in a short circuit configuration and does not bypass the switching elements in an open circuit configuration. Each cell has a cell controller providing control signals to the switching elements to connect the capacitor to the first and second terminals or to bypass the capacitor. The cell controller provides a control signal to the bypass unit of neighbouring cells to change its configuration between the short circuit and open circuit configurations.

