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(19) **United States**(12) **Patent Application Publication**
Xue(10) **Pub. No.: US 2023/0231489 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **SYSTEM FOR BULK CAPACITANCE
REDUCTION****Publication Classification**(71) Applicant: **UT-Battelle, LLC**, Oak Ridge, TN
(US)(51) **Int. Cl.**
H02M 7/155 (2006.01)(72) Inventor: **Lingxiao Xue**, Oak Ridge, TN (US)(52) **U.S. Cl.**
CPC **H02M 7/1555** (2013.01)(21) Appl. No.: **18/095,780**(22) Filed: **Jan. 11, 2023**(57) **ABSTRACT****Related U.S. Application Data**(60) Provisional application No. 63/299,517, filed on Jan.
14, 2022, provisional application No. 63/299,511,
filed on Jan. 14, 2022.A rectifier for use in a power supply is provided, including
a capacitor charge control circuit operable to enable reduction
in bulk capacitance.