

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2024/0213851 A1 **SIM**

Jun. 27, 2024 (43) **Pub. Date:**

(54) WIND POWER GENERATION SYSTEM INCLUDING SEMICONDUCTOR TRANSFORMER MODULE AND CONTROL METHOD THEREFOR

(71) Applicant: LS ELECTRIC CO., LTD., Anyang-si,

Gyeonggi-do (KR)

(72) Inventor: Jung Wook SIM, Anyang-si,

Gyeonggi-do (KR)

18/288,514 (21) Appl. No.:

(22)PCT Filed: Mar. 14, 2022

(86) PCT No.: PCT/KR2022/003543

§ 371 (c)(1),

(2) Date: Oct. 26, 2023

(30)Foreign Application Priority Data

(KR) 10-2021-0056215 Apr. 30, 2021

Publication Classification

(51) Int. Cl. H02K 7/18 (2006.01)H01F 27/24 (2006.01)H01F 27/28 (2006.01)F03D 9/25 (2016.01)

(52) U.S. Cl. CPC H02K 7/1838 (2013.01); H01F 27/24 (2013.01); H01F 27/2823 (2013.01); F03D 9/25 (2016.05)

(57)ABSTRACT

Disclosed are a wind power generation system including a semiconductor transformer module in which a power conversion device and a transformer are integrally formed, and a control method therefor, and more particularly, a wind power generation system including a semiconductor transformer module and a control method therefor, the system including a rotating unit that is rotatable by wind power and a nacelle coupled to one side of the rotating unit, wherein the nacelle includes a generator and a semiconductor transformer module for converting input power of the generator into power of a higher voltage.

