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(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2022/0360123 A1****Azar et al.**(43) **Pub. Date: Nov. 10, 2022**(54) **ELECTRICAL MACHINE, STATOR
EXTENSION ELEMENT AND WIND
TURBINE****Publication Classification**(51) **Int. Cl.****H02K 1/16** (2006.01)**H02K 7/18** (2006.01)**H02K 3/12** (2006.01)(52) **U.S. Cl.****CPC** **H02K 1/16** (2013.01); **H02K 7/183**
(2013.01); **H02K 3/12** (2013.01)(71) Applicant: **Siemens Gamesa Renewable Energy
A/S, Brande (DK)**(72) Inventors: **Ziad Azar, Sheffield (GB); Richard
Clark, Worrall (GB); Thomas Tøttrup
Jensen, Brande (DK); Subhra
Samanta, Ikast (DK); Arwyn Thomas,
Breaston (GB)**(21) Appl. No.: **17/735,174**(22) Filed: **May 3, 2022**(30) **Foreign Application Priority Data**

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(57) **ABSTRACT**

An electrical machine is provided including a stator with a stator core, a plurality of stator teeth protruding radially from the stator core, and a plurality of stator coils, wherein each stator coil is wound around at least one stator tooth of the stator and includes at least one coil head protruding in axial direction beyond the stator core, wherein the stator includes a stator extension structure with a plurality of magnetic flux-guiding extension segments each protruding axially from a stator tooth into an area surrounded by at least one of the coil heads.

