

## (19) United States

# (12) Patent Application Publication (10) Pub. No.: US 2024/0213825 A1

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

### (54) STATOR FOR AN ELECTRIC MACHINE

(71) Applicant: Rolls-Royce Deutschland Ltd & Co KG, Blankenfelde-Mahlow (DE)

Inventor: Wolfram Siegfried BIRKMAYER,

Hirschaid (DE)

Appl. No.: 18/556,259 (21)

(22) PCT Filed: Apr. 27, 2022

(86) PCT No.: PCT/EP2022/061229

§ 371 (c)(1),

(2) Date: Nov. 21, 2023

#### (30)Foreign Application Priority Data

(DE) ...... 10 2021 204 292.9 Apr. 29, 2021

#### **Publication Classification**

(51) **Int. Cl.** (2006.01)H02K 1/14 B64D 27/30 (2006.01)H02K 21/20 (2006.01)

(52) U.S. Cl.

CPC ...... H02K 1/148 (2013.01); B64D 27/30 (2024.01); H02K 21/20 (2013.01)

(57)ABSTRACT

A stator for an electric machine comprises: —a body; —a plurality of stator teeth fixed on the body; and—a plurality of tooth windings, which each have a first electrical conductor, which runs from one end portion, via at least one winding portion around at least one stator tooth, to another end portion, and a second electrical conductor, which is electrically insulated from the first electrical conductor and which runs from one end portion, via the at least one winding portion around the same at least one stator tooth, to another end portion; wherein one end portion of each of the first and second electrical conductors of the tooth windings can be or is electrically connected to an inverter, and the other end portions of the first electrical conductors of the tooth windings are electrically interconnected at a star point.

