



(19) **United States**

(12) **Patent Application Publication**  
**MATSCHAS et al.**

(10) **Pub. No.: US 2022/0360146 A1**

(43) **Pub. Date:** **Nov. 10, 2022**

(54) ROTOR CARRIER FOR AN ELECTRIC MACHINE AND ELECTRIC MACHINE HAVING THE SAME

H02K 1/32 (2006.01)

H02K 9/19 (2006.01)

**B60K 6/26** (2006.01)

(71) Applicant: **ZF FRIEDRICHSHAFEN AG**,  
Friedrichshafen (DE)

(52) U.S. Cl.

CPC ..... **H02K 11/21** (2016.01); **H02K 7/003**

(2013.01); **H02K 1/32** (2013.01); **H02K 9/19**

(2013.01); **B60K 6/26** (2013.01)

(72) Inventors: **Steffen MATSCHAS**, Bad Bocklet  
(DE); **Steffen EINENKEL**, Priesendorf  
(DE); **Thomas WALTER**, Kolitzheim  
(DE); **Gerald VIERNEKES**, Hassfurt  
(DE); **Günter FAHL**, Sulzfeld (DE)

(57) **ABSTRACT**

(21) Appl. No.: 17/735,620

(22) Filed: **May 3, 2022**

(30) **Foreign Application Priority Data**

May 6, 2021 (DE) ..... 10 2021 204 589.8

## Publication Classification

(51) Int. Cl.

H02K 11/21 (2006.01)

**H02K 7/00** (2006.01)

A rotor carrier for an electric machine having a sleeve-shaped receiving region and at least one flange-like carrier region connected to a hub or shaft. The receiving region has on its outer circumferential surface at least one driving groove extending in axial direction, and a plurality of radial oil bore holes are provided in the receiving region so as to be distributed over the circumference. An encoder wheel having a nonmagnetic material is provided at an axial end of the rotor carrier, and in that the encoder wheel protrudes over the receiving region in radial direction to serve as an axial limit for a rotor lamination stack.

