

# (19) United States

## (12) Patent Application Publication (10) Pub. No.: US 2022/0368183 A1 REFFO et al.

Nov. 17, 2022 (43) **Pub. Date:** 

### (54) ROTOR FOR A SYNCHRONOUS MACHINE

(71) Applicant: XYLEM EUROPE GMBH, SCHAFFHAUSEN (CH)

(72) Inventors: Fabio REFFO, Altavilla Vic.na (IT);

Riccardo BICEGO, Castelgomberto

(IT)

(21) Appl. No.: 17/764,268

(22) PCT Filed: Nov. 17, 2020

(86) PCT No.: PCT/EP2020/082407

§ 371 (c)(1),

(2) Date: Mar. 28, 2022

(30)Foreign Application Priority Data

Nov. 18, 2019 (EP) ...... 19209788.9

#### **Publication Classification**

(51) Int. Cl.

H02K 1/279 (2006.01)H02K 1/24 (2006.01)

U.S. Cl.

CPC ...... H02K 1/279 (2022.01); H02K 1/246

(2013.01)

#### (57)ABSTRACT

A rotor for a synchronous machine is described. The rotor includes a central axis; a bore being centrally positioned and extending axially relative to the central axis. Poles are arranged around the bore and poles extend axially in a direction parallel to the central axis. An air gap surface is configured to face an air gap and slots mutually angularly spaced relative to the central axis wherein each slot extends axially in a direction parallel to the central axis and wherein each slot is adjacent the air gap surface.

