US 20220368191A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2022/0368191 A1**

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

(54) **ROTARY ELECTRIC MOTOR**

(71) Applicants: **Sanyo Denki Co., Ltd.**, Toshima-ku, Tokyo (JP); **Japan Aviation Electronics Industry, Ltd.**, Shibuya-ku, Tokyo (JP)

(72) Inventors: **Yasushi MISAWA**, Toshima-ku, Tokyo (JP); **Manabu HORIUCHI**, Toshima-ku, Tokyo (JP); **Mai SHIMIZU**, Toshima-ku, Tokyo (JP); **Takashi MATSUSHITA**, Toshima-ku, Tokyo (JP); **Tomoyuki SUZUKI**, Shibuya-ku, Tokyo (JP)

(21) Appl. No.: **17/771,092**

(22) PCT Filed: **Dec. 10, 2020**

(86) PCT No.: **PCT/JP2020/046034**

§ 371 (c)(1),
(2) Date: **Apr. 22, 2022**

(30) **Foreign Application Priority Data**

Dec. 26, 2019 (JP) 2019-235738

Publication Classification

(51) **Int. Cl.**
H02K 5/22 (2006.01)

(52) **U.S. Cl.**
CPC ***H02K 5/225*** (2013.01)

(57) **ABSTRACT**

A stator sub-assembly with a connector includes a stator sub-assembly including a stator core and a rigid wiring board, and a connector fixed to a connector mounting part of the rigid wiring board in such a way that it is opposed to the stator core in the radial direction of the frame. A groove part that extends in the axial direction from an opening in the axial direction and accommodates the connector and the connector mounting part is formed in an inner peripheral surface of the frame. A window part for an opponent connector to mate with the connector accommodated in the groove part is formed in the frame. The window part opens in an outer surface of the frame and an inner surface of the groove part, and has an unbroken inner peripheral surface.