



US 20240213855A1

(19) **United States**(12) **Patent Application Publication**
SUGITA et al.(10) **Pub. No.: US 2024/0213855 A1**(43) **Pub. Date: Jun. 27, 2024**(54) **DRIVE DEVICE AND DRIVE DEVICE UNIT****Publication Classification**(71) Applicant: **DENSO CORPORATION**, Kariya-city (JP)(72) Inventors: **Shun SUGITA**, Kariya-city (JP);
Masaharu SAKAI, Kariya-city (JP);
Kazutoshi NISHINAKAMURA,
Kariya-city (JP); **Jiro HAYASHI**,
Kariya-city (JP)(73) Assignee: **DENSO CORPORATION**, Kariya-city (JP)(21) Appl. No.: **18/599,557**(22) Filed: **Mar. 8, 2024****Related U.S. Application Data**(63) Continuation of application No. PCT/JP22/36950,
filed on Oct. 3, 2022.**Foreign Application Priority Data**Oct. 11, 2021 (JP) 2021-166881
Jul. 28, 2022 (JP) 2022-120697(51) **Int. Cl.****H02K 9/22** (2006.01)**B64C 29/00** (2006.01)**B64D 27/357** (2006.01)**H02K 5/04** (2006.01)**H02K 7/14** (2006.01)(52) **U.S. Cl.**CPC **H02K 9/22** (2013.01); **B64D 27/357**
(2024.01); **H02K 5/04** (2013.01); **H02K 7/14**
(2013.01); **B64C 29/0016** (2013.01)

(57)

ABSTRACT

An EDS includes a motor housing and an inverter housing. The inverter housing includes inverter fins. The motor housing includes motor fins and motor guide plates. The motor fins and the motor guide plates are provided on an outer peripheral surface. Each of the motor guide plates is aligned with the motor fins along the outer peripheral surface. The motor guide plate guides air sent by a blower fan in a circumferential direction to flow toward the motor fins and the inverter fins. The motor guide plate is bent in a convex shape to bulge toward an upstream side in an axial direction.

