

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2022/0360152 A1 Watanabe et al.

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

(54) MOTOR AND METHOD OF MANUFACTURING STATOR

(71) Applicant: SINFONIA TECHNOLOGY CO.,

LTD., Tokyo (JP)

(72) Inventors: Shunya Watanabe, Tokyo (JP); Nobuo

Aruga, Tokyo (JP); Mamoru Kosaki, Tokyo (JP); Masayasu Kayukawa,

Tokyo (JP)

(73) Assignee: SINFONIA TECHNOLOGY CO.,

LTD., Tokyo (JP)

17/623,514 (21) Appl. No.:

(22) PCT Filed: Jun. 26, 2020

PCT/JP2020/025194 (86) PCT No.:

§ 371 (c)(1),

(2) Date: Dec. 28, 2021

(30)Foreign Application Priority Data

Jul. 4, 2019 (JP) 2019-125091

Publication Classification

(51)	Int. Cl.	
	H02K 15/12	(2006.01)
	H02K 9/19	(2006.01)
	H02K 3/28	(2006.01)
	H02K 3/12	(2006.01)
	H02K 3/24	(2006.01)

(52) U.S. Cl. CPC H02K 15/12 (2013.01); H02K 9/19 (2013.01); H02K 3/28 (2013.01); H02K 3/12 (2013.01); H02K 3/24 (2013.01)

(57)ABSTRACT

It is possible to reduce a rise in temperature of a rotor by reducing the temperature of a stator. The motor 1 includes a stator 5, and a rotor 4, which is disposed with a gap from the stator 5, being arranged in a housing 2, in which the stator 5 is provided with an annular yoke and a plurality of teeth protruding from an inner peripheral portion of the yoke toward the rotor 4; slots in which coils 6 wound around the teeth are arranged are respectively formed between the teeth that are adjacent to each other; a mold resin portion 30 in which the stator 5 and the coils 6 are molded is provided; the mold resin portion 30 includes a flow path 32 formed within at least one slot among a plurality of slots; and the flow path 32 is supplied with a cooling medium.

