US 20240178715A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2024/0178715 A1**

DAWSON et al. (43) **Pub. Date: May 30, 2024**

(54) **STATOR ASSEMBLY**

(71) Applicant: **Hamilton Sundstrand Corporation**, Charlotte, NC (US)

(72) Inventors: **Michael James DAWSON**, Bristol (GB); **Parminder SANGHA**, Dorridge (GB)

(21) Appl. No.: **18/523,313**

(22) Filed: **Nov. 29, 2023**

(30) **Foreign Application Priority Data**

Nov. 29, 2022 (EP) 22210371.5

Publication Classification

(51) **Int. Cl.**

H02K 3/48	(2006.01)
H02K 15/02	(2006.01)
H02K 15/06	(2006.01)

(52) **U.S. Cl.**

CPC ***H02K 3/48*** (2013.01); ***H02K 15/024*** (2013.01); ***H02K 15/062*** (2013.01)

(57) **ABSTRACT**

A stator assembly for an electrical machine extends azimuthally around an axis. The assembly includes: a plurality of stator teeth projecting radially from a circumference of the stator assembly, wherein the teeth are spaced azimuthally from each other and extend along a direction parallel to the axis of the stator assembly; a plurality of slots defined by azimuthal spacing of the stator teeth, wherein the plurality of slots extends along a direction parallel to the axis of the stator assembly, wherein the slots are arranged to receive a plurality of stator windings; and one or more dividers positioned within the plurality of slots, wherein the dividers define a plurality of cavities for receiving the plurality of stator windings.