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**Czarnik et al.**(10) **Pub. No.: US 2024/0178721 A1**(43) **Pub. Date: May 30, 2024**(54) **ELECTRICAL MACHINES FOR  
INTEGRATION INTO A PROPULSION  
ENGINE****Related U.S. Application Data**(63) Continuation of application No. 17/170,221, filed on  
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(22) Filed: **Dec. 28, 2023****ABSTRACT**

An electrical machine includes a stator assembly coupled to an engine stator component of a propulsion engine. The stator assembly includes a stator support assembly fixedly attached to the engine stator component and a stator disposed on a supporting surface of the stator support structure. The electrical machine also includes a rotor assembly including a rotor support structure connected to a shaft of the propulsion engine and a rotor attached to the rotor support structure such that the rotor is disposed radially inward of the stator. The rotor exchanges rotational energy with the shaft to operate as either an electrical motor or an electrical generator.

