PLANAR STATOR CONFIGURATIONS FOR AXIAL FLUX MACHINES

ABSTRACT

In some embodiments, two or more different types of stator structures may be disposed within a gap of an axial flux machine. Such arrangements may be advantageous, for example, for producing a machine optimized for multiple modes of operation, such as mechanical torque generation, conversion of mechanical torque to electrical power, and/or dissipation of mechanical power. Further, in some embodiments, an axial flux machine may include a planar stator having a winding arranged to be positioned within the machine's active region, and may further include at least one switch configured to be selectively closed to establish an electrical connection between respective ends of the winding at a time that the winding is not coupled to an external power source.

FIG. 12