CLAIMS

1. A flux machine comprising:

a rotor having a plurality of electrical core-coil assemblies, each of the plurality of electrical core-coil assemblies including a core and a corresponding coil, each core being separate and distinct from the cores of all of the other ones of the plurality of electrical core-coil assemblies; and

a stator having a plurality of sets of magnets, each of the plurality of sets of magnets including a first magnet, a second magnet, and a third magnet, wherein a first one of the plurality of sets of magnets is positioned adjacent a first one of the plurality of electrical core-coil assemblies;

wherein in the first one of the plurality of sets of magnets:

pole faces of the same polarity of the first magnet, the second magnet, and the third magnet face toward the first one of the plurality of electrical core-coil assemblies;

the pole faces of the same polarity of the first magnet and the second magnet face toward each other; and

the pole face of the same polarity of the third magnet is perpendicular to the pole faces of the same polarity of the first magnet and the second magnet, such that the third magnet is configured to direct magnetic flux transversely relative to magnetic flux of the first magnet and the second magnet.

2. The flux machine of claim 1 wherein each of the plurality of electrical core-coil assemblies comprise permeable cores with a laminated structure having first laminations oriented perpendicular to the mutually facing pole faces, and second laminations oriented perpendicular to the pole face of the third one of the magnets.