

**DISK-SHAPED COAXIAL INVERSION GENERATOR AND WIND DRIVEN GENERATING
EQUIPMENT INCLUDING THE SAME**

ABSTRACT

The present invention provides a disk-shaped coaxial inversion generator capable of ensuring a large generated power output and capable of attaining the reduction of mechanical loss, the realization of a low-noise structure and the facilitation of maintenance.

The disk-shaped coaxial inversion generator 1 of the present invention comprises a stationary annular shaft 2 provided at its central area with a support strut and fixed with the support strut; a disk-shaped housing main body 11 composed of an integral structure of a disk-shaped upper housing 12 and a disk-shaped lower housing 13, rotatably supported by the stationary annular shaft 2, and configured to be rotated by, for example, a wind turbine; a disk-shaped first flux linkage magnet 21 attached to an internal surface of the upper housing 12; a disk-shaped second flux linkage magnet 22 attached to an internal surface of the lower housing; a disk-shaped coil body 31 whose coil portion 32 faces a field between the first flux linkage magnet 21 and the second flux linkage magnet 22 in noncontact relationship within the upper housing 12 and lower housing 13, the disk-shaped coil body 31 having its central area rotatably mounted to the stationary annular shaft 2; inversion magnets 41 protruding from an outer circumference of the stationary annular shaft 2; a disk-shaped driving magnet 51 attached to the internal surface of the lower housing in an arrangement facing the inversion magnets 41 in noncontact relationship; a disk-shaped driven magnet 61 attached to the coil body 31 in an arrangement facing the inversion magnets 41 in noncontact relationship; and a generated power output extraction portion 71 disposed across an inner circumference portion of the coil body 31 and the stationary annular shaft 2.

[FIG. 1]