ABSTRACT

Electricity generation system (100), comprising:
at least one electricity generation device (20, 20´) being removably fixed to a mounting device (10) formed as a floating body or as a fixed infrastructure by means of a retaining device (14, 14´, 15, 15´), wherein the electricity generation device (20, 20´) is bidirectionally symmetric and comprises a water turbine being functionally connected to a generator (24), wherein the generator (24) comprises a helical gearbox, wherein the generator (24) is a permanent magnet synchronous motor, wherein the generator (24) comprises an incremental encoder, wherein a rotation of the generator (24) is monitorable by a signal generated from the incremental encoder, wherein electrical energy is conductible via a power line (15, 15´) being guided from the generator (24) via an outside of the mounting device (10), wherein the electrical energy is conductible from the mounting device (10) to a power station (50), wherein the nose and tail cones (20a, 20b, 20a´, 20b´) is coated by at least two layered bio fouling coatings, wherein blades (21a…21n, 21a´…21n´) of the turbine are sensitive to a bi-directional water flow (A, B), wherein a power line entry point (27, 27´) is arranged at a top of an enclosure (25, 25´), wherein the electricity generation device (20, 20´) comprises a control panel (30), wherein the electricity generation system (100) is functionally connectable to the web (40).

[Fig. 1]