

## **Floating Power Plant - Poseidon**

## **General:**

Poseidon is a concept for a floating power plant invented by the Danish clean-techcompany Poseidon Floating Power. The plant is a hybrid design consisting of a wave energy converter that also acts as a floating foundation for three wind turbines. A demonstration and test plant "P37" in scale 1:4 was launched in the autumn of 2008 and is moored within an existing wind turbine farm in Denmark. The plant transforms wave energy into electricity through hinged floats, piston pumps and a water turbine. In addition, a system where generators are driven directly by the floats through a mechanical system is tested.

Main Particulars: Length o.a. 25.00 m

Breadth 37.00 m Weight 350 t

Capacity: Number of floats 10

Wind turbines 3 x 11 kW

Scope of Work: Lightweight calculation

Stability calculation

Design of turret mooring system and detachable buoy

Modification of storm securing devices

Modification of pump system

Vibration calculations and modification of body structure

Design of set-up for model testing of floats and direct energy conversion system

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