

4 Kw Technical Specifications

The 4 Kw Wave Energy Converter consists of a power conversion module or power take-off (PTO) assembly, float, subsea cable, subsea anchor and three point mooring system and is a scaled up version of the 2.5 Kw Wave Energy Converter.

Design Sea State

Wave Height: 6.0 Feet

Wave Period: 10 Seconds

Tide Variation: 6.0 feet

Total Range of Operation: 12 Feet

Operating Performance

Expected Maximum Instantaneous Output at Designed Sea State: 4,065.88 Watts

Expected Continuous Output a Designed Sea State: 2,643.25 Watts

Power Take-off Assembly

Cable Drum Diameter: 12 inches

Gear Box: 15:1 ratio

Generator: 4,000 watts 24 V Permanent Magnet Generator with rectifier.

Batteries: Four 12v 100 AH

Hydraulic Cylinder: 4" diameter X 36 inch stroke

Hydraulic System Operating Pressure: 705 psi

Tensioning System: four pulley (four line block and tackle)

PTO Weight: 6,676.61 Lbs

Float

Float Diameter: 12 feet

Float Height: 3.5 feet

Float Weight: 4,188.8 pounds

Draft: 32.41 inches

Sea Anchor

Weight: 5,000 Pounds (designed to lift off sea floor when buoy travel exceeds design range of operation)

Mooring System (not shown)

Three point mooring system using cable chain anchor

