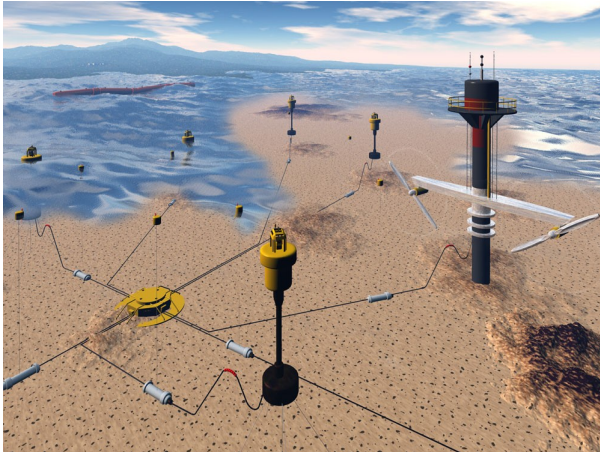


Hydro Renewable Connector (HRC)



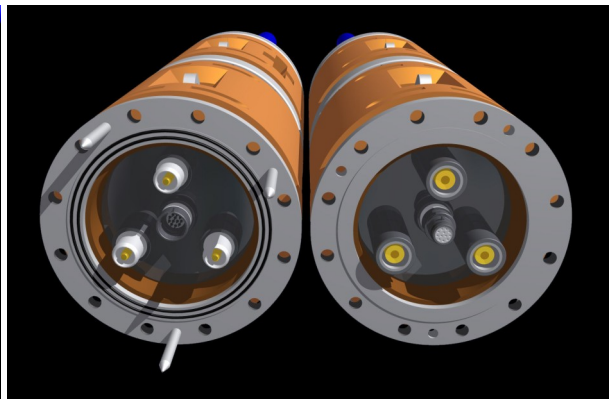
Typical Renewable Energy layout



HRC fitted to cables



Mated HRC



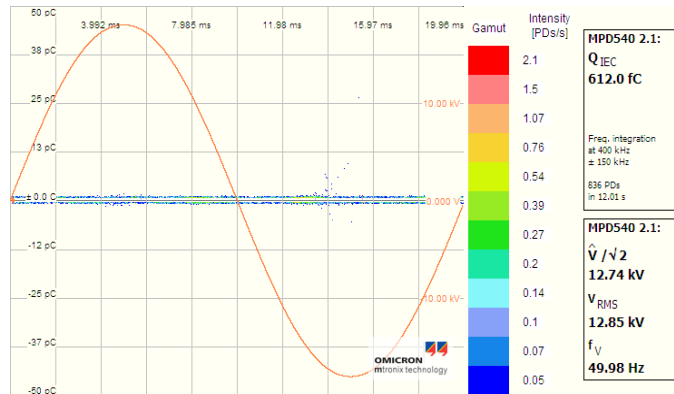
Mating surfaces

Hydro Group has overcome offshore hazardous sea conditions with the design and production of a deck-mate connector which evolved from our original junction box design, which allows installation times on the barge to be reduced from weeks to 12 hours!

web: www.hydrogroupplc.com
email: sales@hydrogroup.plc.uk
tel: +44 (0) 1224 822996



Testing



Partial Discharge curve

ELECTRICAL	
Voltage	6.35/11 (12) kV
Maximum Current	500 Amps
Partial Discharge	< 10 pc
Maximum Power	8.6 MWatt
Short Circuit Condition	25 kA for 1 sec
Impulse Test Voltage	75 kV peak
Minimum Breakdown Voltage	28.5 kV AC for 5 min
Insulation Resistance	200 GΩ @ 5 kV

OPTICAL	
Max no. of fibre optic cores	12 - 24
Typical Fibre type	Single mode Multi mode
Typical core diameter (mm)	9 / 125 μm Single Mode 50 / 125 μm Multi Mode 62.5 / 125 μm Multi Mode
Typical Insertion loss	< 0.5 dB per connection
Max insertion loss	< 1.0 dB per connection
Typical Back Reflection (Single mode systems)	> - 30 dB return loss

MECHANICAL	
Max Mating Cycles	100
Submerged design life	25 years
Connection method	Topside / Dry-mate
Cable Strain Termination	Design to suit customer cable
Cable Bend Stiffener	Supplied to suit customer cable
Weak Link	Design to suit customer cable
Stream Line Design	Protective Mouldings to allow easy deployment

ENVIRONMENTAL	
Operating Medium	Sea Water
Depth Rating	100 MSW (145 PSI/10 BAR)
Working Temperature Rating	-20 °C to + 60 °C
Reduced installation time	yes
Reduced offshore time	yes
Loop back integrity test	yes
Protective casing and fairings	yes
Reduced project risk	yes
Health and Safety compliant	yes
DNV certification (working to DNV-RP-A203 / DNV-OS-C401)	

Hydro Group also offers:
Multi disciplinary design facility
Splice boxes
Sub-sea cable
Bend stiffeners
Optic Solutions
Project management – On site support

**Also available in 12 kV, 24kV and 36 kV dry mate
 33 kV wet mate under development**

**web: www.hydrogroupplc.com
 email: sales@hydrogroup.plc.uk
 tel: +44 (0) 1224 822996**

12 kV

